Министерство обороны Российской Федерации
ВОЕННЫЙ УНИВЕРСИТЕТ

# ПРАКТИЧЕСКИЙ КУРС ВОЕННОГО ПЕРЕВОДА ВТОРОГО ИНОСТРАННОГО ЯЗЫКА

(издание второе, исправленное и дополненное)

*Английский язык*

Учебник

Для 3 – 5-го курсов

Под редакцией
кандидата филологических наук,
доцента С.А.Степанова

**Москва – 2008**

УДК 420(075.8)
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П69

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П69 **Практический курс военного перевода второго иностранного языка. Английский язык**: Учебник / С.А.Степанов и др. – М.: Изд-во ВУ, 2008. – 200 с.

Учебник предназначен для курсантов 3-го – 5-го курсов факультетов иностранных языков и зарубежной военной информации, а также специального факультета Военного университета, изучающих английский язык в качестве второго иностранного языка. Учебник может быть использован для обучения военному переводу курсантов, изучающих английский язык как первый, а также в целях изучения военной терминологии английского языка курсантами неязыковых высших военно-учебных заведений.

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## ПРЕДИСЛОВИЕ

Настоящий учебник «Практический курс военного перевода второго иностранного языка. Английский язык» создан на кафедре английского языка (второго) Военного университета творческим коллективом под руководством начальника кафедры, кандидата филологических наук, доцента, полковника Степанова Сергея Анатольевича. Глава «Оружие массового поражения и радиационная, химическая и биологическая защита» написана Степановым С.А.; глава «Миротворческие силы ООН» – кандидатом филологических наук, заместителем начальника кафедры, полковником Ковалёвым Леонидом Николаевичем; глава «Военно-морские силы» – старшим преподавателем, полковником Курбаковым Александром Викторовичем; глава «Военно-политические договоры» – доцентом, доцентом кафедры, полковником Полубояровой Мариной Владимировной; вступительная статья «Военный перевод и его специфика» – кандидатом филологических наук, преподавателем Степановым Максимом Сергеевичем; глава «Военно-политические союзы» – кандидатом филологических наук, доцентом кафедры, подполковником Стёпкиным Игорем Радиевичем; глава «Боевые действия войск» – преподавателем, майором Тёлушкиным Юрием Александровичем; глава «Военно-воздушные силы» – старшим преподавателем, полковником Фоменко Яковом Владимировичем. Глава «Сухопутные войска» написана Степановым С.А. и Фоменко Я.В., а глава «Противовоздушная и противоракетная оборона» – Курбаковым А.В., Степановым С.А. и Тёлушкиным Ю.А. Следует отметить, что каждый из авторов внёс свой весомый вклад в создание каждого раздела данного учебного издания, поэтому учебник «Практический курс военного перевода второго иностранного языка. Английский язык» является результатом коллективного, плодотворного труда вышеупомянутых единомышленников.

Разрабатывая структуру учебника и его отдельных уроков, авторы постарались учесть и развить богатейший опыт своих предшественников. Методической основой для работы авторского коллектива послужили проверенные временем «Учебник военного перевода английского языка», написанный в 1979 году на кафедре английского языка (вторых языков) под общей редакцией Александра Алексеевича Васильченко, воглавлявшего в то время кафедру; и «Учебник военного перевода английского языка», созданный им в 1984 году в соавторстве с Алексеем Анатольевичем Дормидонтовым, при участии Владимира Николаевича Гридина и Вадима Борисовича Апухтина, под общей редакцией доктора филологических наук, профессора, начальника кафедры английского

языка (основного) Льва Львовича Нелюбина. Создатели настоящего учебника также опирались на опыт, накопленный коллективом авторов под руководством доктора филологических наук, профессора Шевчука Валентина Никитовича при работе в 80-е годы над учебником военного перевода на возглавляемой им тогда кафедре английского языка (основного); а также на достижения авторского коллектива под руководством профессора, кандидата педагогических наук, начальника кафедры английского языка (второго) Геннадия Ивановича Гладкова, создавшего в 90-е годы ряд учебных пособий по военному переводу английского языка. В частности в 1998 году Г.И. Гладковым был написан первый и пока единственный учебник по военно-юридическому переводу.

Учебник разработан и создан на базе современных материалов, при отборе которых авторы опирались на свою продолжительную практику преподавания в военном языковом вузе, а также опыт работы в качестве военных переводчиков, приобретенный ими на международных конференциях и семинарах по военной тематике, на штабных переговорах различного ранга, при работе с иностранными военными делегациями, на тактических учениях с участием иностранных военнослужащих, учебных курсах в США и Великобритании; в ходе зарубежных визитов российских военачальников; во время инспекторских проверок по выполнению договоров между США и РФ (СССР) о контроле над вооружениями; за годы работы переводчиками в штабах НАТО, в советнических аппаратах англоязычных стран (Индия, Эфиопия) и участия в международных миротворческих операциях в зонах конфликтов в качестве наблюдателей ООН.. Хотелось бы отметить помощь, оказанную американскими коллегами по работе в штабах НАТО – Стива Кавингтона, Тома Петцольда, Кена Ченса и ряда других, при отборе текстового материала по американским вооруженным силам.

Эффективность развиваемого методического подхода авторов была доказана в ходе апробации в Военном университете более ранних учебных пособий, в создании которых участововали некоторые из авторов настоящего учебника. К таким работам относятся учебные пособия по военному переводу английского языка (части 1 и 2) Курбакова А.В., Степанова С.А., Фоменко Я.В.; учебное пособие по военному переводу английского языка «Россия – НАТО: диалог и сотрудничество» Степанова С.А. и Степкина И.Р. в соавторстве с профессором, кандидатом филологических наук, профессором кафедры германских языков Бойко Борисом Леонидовичем; учебное пособие по военному переводу английского языка «Военно-политические договоры» М.В. Полубояровой и С.А.Степанова в соавторстве с начальником одного из отделов Нацио-

нального центра по уменьшению ядерной опасности (НЦУЯО) полковником Харченко Владимиром Анатольевичем. Именно апробация данных пособий, выявление в них определенных недостатков, связанных с их узкотематической направленностью, привели участников авторского коллектива к идее создания комплексного учебника военного перевода, в котором нашли бы своё отражение большинство лексических тем, связанных с работой военного переводчика.

В работе по уточнению военных понятий и переводу терминологических единиц авторы широко использовали российскую и мировую справочную литературу. В частности, они не раз прибегали к помощи до сих пор не превзойдённого труда преподавателя Военного института иностранных языков (ВИИЯ) Георгия Александровича Судзиловского – «Англо-русского военного словаря», последнее двухтомное издание которого вышло в 1987 году в соавторстве и под общей редакцией В.Н.Шевчука. В ходе работы над настоящим учебником применялся «Словарь по военному и военно-политическому сотрудничеству между Россией и НАТО», в создании которого, помимо С.А.Степанова, И.Р. Стёпкина и Ю.А. Тёлушкина, принимают постоянное участие доктор филологических наук, профессор, начальник кафедры английского языка (основного) полковник Князева Елена Георгиевна; кандидат философских наук, начальник отдела загранкадров Главного управления кадров, полковник Нырков Вячеслав Николаевич; руководитель секции русского языка лингвистической службы НАТО профессор Дэвид Баджен (Великобритания), сотрудник секции русского языка лингвистической службы НАТО Николас Браун (Великобритания).

Настоящий учебник создавался в творческой атмосфере профессиональной заинтересованности в конечном результате, сформированной руководителями тех коллективов, в которых работали авторы. В этой связи, слова благодарности авторский коллектив адресует доктору педагогических наук, профессору, начальнику Военного университета, генерал-полковнику Марченкову Валерию Ивановичу, заместителю Верховного главнокомандующего НАТО в Европе по Российскому контингенту войск в Боснии и Герцеговине в 1995 – 1997 годах, генерал-полковнику Шевцову Леонтию Павловичу, его помощнику полковнику Волкову Евгению Васильевичу, а также главному военному представителю Российской Федерации при НАТО, вице-адмиралу Кузнецову Валентину Сергеевичу.

Особо тёплых слов заслуживает научный консультант, кандидат военных наук, доцент, полковник Щукин Вадим Тимофеевич, который помог авторам разрубить не один гордиев узел военной терминологии.

Авторы выражают благодарность доктору филологических наук, профессору, заведующему кафедрой лингвистики и межкультурной коммуникации факультета иностранных языков Московского государственного социального университета Сидорову Евгению Владимировичу; доктору филологических наук, начальнику кафедры романских языков, полковнику Иванову Николаю Викторовичу; кандидату филологических наук, доценту, профессору кафедры английского языка (второго) Военного университета Лысенко Сергею Владимировичу за ценные советы и замечания, сделанные ими в ходе работы над учебником.

Огромное спасибо нашим родителям за то, что они есть, за их доброту и любовь к нам, а тем из них, кто ушёл, – светлая память, они бы искренне порадовались за нас. Спасибо всем нашим семьям, родным и близким за их понимание и терпение, проявленное при работе над настоящим учебным изданием.

Авторы благодарят руководство и сотрудников редакционно-издательского отдела: полковника Вищика Юрия Леонидовича, подполковника Чернышёва Андрея Валерьевича, редактора Бодрягину Марию Петровну, а также курсантов факультета иностранных языков Кузнецова Александра Алексеевича и Словесного Владимира Александровича за техническую поддержку при создании учебника.

Коллектив авторов

## МЕТОДИЧЕСКАЯ ЗАПИСКА

Учебник военного перевода английского языка предназначен для подготовки военных переводчиков, а также специалистов в сфере профессиональной военной коммуникации. Учебник может быть использован для самостоятельного изучения военного перевода лицами, владеющими английским языком в объеме стандартной программы английского языка для вузов.

Основной целью данного учебника является формирование, развитие и совершенствование навыков письменного и устного перевода (перевода с листа, на слух, двусторонней беседы и т.д.), обязательных для решения задач, с которыми сталкивается военный переводчик в своей профессиональной деятельности.

Структура учебника обеспечивает накопление знаний в области английской военной, военно-политической и универсальной технической терминологии, обучение основам перевода военных и военно-технических материалов с английского языка на русский и с русского на английский, с учётом всех видов и уровней переводческих трансформаций, а также развитие навыков устной речи в пределах заданной профессиональной тематики.

Учебник состоит из вступительной статьи, девяти тематических разделов («Сухопутные войска», «Боевые действия войск», «Оружие массового поражения и радиационная, химическая и биологическая защита», «Военно-воздушные силы», «Противовоздушная и противоракетная оборона», «Военно-морские силы», «Военно-политические договоры», «Военно-политические союзы» и «Миротворческие силы ООН») и словаря.

Во вступительной статье затрагиваются некоторые общие и специальные вопросы теории перевода применительно к области военного перевода.

Тематическая часть предлагаемого читателю учебника включает тридцать семь уроков (Lessons). Рекомендуется проходить каждый урок за 4 – 6 часов аудиторных занятий с преподавателем и 2 – 3 часа самостоятельной подготовки.

Урок включает в себя:

1) вводно-подготовительные упражнения и словарь по теме;

2) основной текст;

3) переводческие упражнения на базе лексики урока.

**Вводно-подготовительные упражнения и словарь по теме**. Вводно-подготовительные упражнения предназначены для самостоятельной предварительной устной работы учащихся. Упражнения направлены на

подготовку учащегося к пониманию основного текста урока. К таким упражнениям, прежде всего, относятся упражнения по развитию лексических и терминологических навыков на основе текстов аналогичных жанрово-тематической направленности.

Поурочные словари предназначены для ознакомления учащихся с необходимым минимумом военных терминологических единиц. Как и упражнения, словари являются подготовительным этапом к работе с основным текстом. Каждый словарь содержит лексику, коррелирующую с основной частью урока.

**Основной текст**. Основной текст урока предназначен для первичного закрепления новой военной терминологии, для ознакомления учащихся с фактическим материалом по различным видам ВС и родам войск США, Великобритании и Российской Федерации, а также с некоторыми образцами вооружения и военной техники. Тексты направлены, в основном, на отработку навыков чтения, письменного и зрительно-устного перевода с предварительной подготовкой. Тексты уроков составляют неадаптированные открытые материалы военной печати. Выбор текстов по образцам российской техники обусловлен текущими экспортными приоритетами.

**Переводческие упражнения.** Переводческие упражнения предназначены для формирования и развития устойчивых переводческих навыков в рамках лексической темы урока. Переводческие упражнения направлены на дальнейшее освоение и отработку военной терминологии основного текста. Переводческие упражнения базируются на лексике и методах перевода, адекватных основной части урока.

Переводческие упражнения – важнейшая содержательная часть урока. Переводческие упражнения располагаются в порядке возрастающей сложности и включают:

а) переводческие упражнения по развитию памяти у учащихся;

б) переводческие упражнения по формированию и развитию у обучаемых навыков зрительно-устного перевода;

в) переводческие упражнения по формированию и развитию навыков последовательного перевода;

г) переводческие упражнения по формированию и развитию у обучаемых навыков письменного перевода с русского языка на английский и с английского языка на русский;

д) переводческие упражнения по формированию и развитию у обучаемых навыков двустороннего перевода.

Англо-руский словарь содержит более 4000 военных и военно-политических единиц по затронутым в учебнике темам.

# ВОЕННЫЙ ПЕРЕВОД И ЕГО СПЕЦИФИКА

Военный перевод является профилирующей специальной дисциплиной в системе подготовки военного переводчика. Сказанное кажется очевидным. Однако, зачастую, понятия «перевод», «военный перевод», «военный переводчик» остаются непонятыми в полной мере обучающимися. Из-за этого может возникать недопонимание целей и задач курса, отсутствие осознанного отношения к процессу обучения, недостаточно точная оценка значения теории и практики в обучении переводу. В этой связи следует сказать несколько слов о том, что такое «перевод», как его понимали в науке, какие требования принято предъявлять к переводчику, а также о специфике военного перевода.

Несмотря на то, что переводческая деятельность осуществляется с глубокой древности, изначально переводческие знания не были систематизированы. Подобной задачи даже не ставилось. Тем более, не существовало единой специальной программы подготовки переводчиков, и даже самой подготовки.

Вплоть до Нового времени перевод как вид деятельности не был достаточно востребован. Государства развивались во многом обособленно, изолированно друг от друга. Заграница, даже другой город, был для человека «другим миром». Априорные мнения о «другом мире» были фантастичны – большое место занимал вымысел, в соответствии с которым жителям других земель приписывались невероятные свойства, а сами земли были населены фантастическими существами. В частности, подтверждение этому можно найти еще в трудах Геродота и, в последствии, во многих Средневековых трактатах. Для людей Античности и Средневековья контакты с «другим миром» были большим событием. Впечатления оказывались, зачастую, настолько сильными, что определяли всю жизнь человека. В качестве примера можно привести путешествие Марко Поло в Китай в 1275 году, ставшее одной из первых встреч Востока и Запада. Оно не только определило судьбу самого Марко Поло (он сделал хорошую карьеру и разбогател), но и парадигму отношения Запада с Востоком. На Западе заинтересовались Востоком и стали интенсивнее развивать с ним торговые отношения.

В то время недостаточное знание других культур и отсутствие экономической заинтересованности государств в сотрудничестве делало перевод редким явлением, занятием избранных людей, единиц, для которых специальные знания были не нужны: переводчики были, как правило, людьми книжной культуры, филологами. А человеку, знакомому с филологическим знанием, не представляло труда овладеть другим языком. В

качестве примера можно привести русского святого, преподобного Максима Грека, приехавшего в 1518 году в Россию со Святой горы Афон для перевода богослужебных книг. Максим Грек вовсе не знал русского языка – учил его в процессе работы, но он был европейски образованный ученый-гуманитарий, и поэтому выучить русский язык для своих практических целей ему не составило труда. При этом его труд казался русским «заказчикам» предпочтительным и важным, так как в России того времени вообще не было ни одного переводчика со знанием греческого языка. Подобные проблемы нехватки, отсутствия специалистов-переводчиков существовали, естественно, тогда не только в России, но и в Европе.

Ситуация изменилась с наступлением Нового времени, т.е. в последние несколько столетий. С одной стороны, изменениям способствовало обострение национального самосознания, и, следовательно, внимания к национальным языкам как к способу выражения национальной самоидентичности. С другой стороны, технический и экономический прогресс, великие географические открытия постепенно сделали мир «глобальным», т.е. таким, в котором все страны и народы связаны между собой в едином процессе сотрудничества и конкуренции. Политические, экономические, военные, культурные контакты между странами стали значительно интенсивнее. Объективно потребовалось большое количество людей, которые могли бы способствовать осуществлению таких контактов. Если, например, во времена древнего Египта проблема межгосударственных отношений была проблемой нескольких близких друг другу по культуре и языку государств, ведших сношения, в основном, на одном языке (аккадском), то теперь весь мир – многополярный, многокультурный вступал в процесс глобального взаимодействия. Естественным образом, встал вопрос о «профессиональной» подготовке переводчиков, т.е. таких специалистов, которые могли бы помогать осуществлению контактов в условиях различия языков и культур.

Объективные социальные, культурные и экономические потребности в подготовке переводчиков совпали по времени со стремительным развитием лингвистики в XIX в. – первой половине XX в. В результате этого бурного развития лингвистики стало возможным взглянуть на процесс перевода «объективно», рассмотреть его как самостоятельный объект изучения, т.е. создать ***науку*** о переводе. Данная научная дисциплина насчитывает уже более 80 лет. С момента её создания в процесс перевода был внесен элемент ***системности***. Процесс перевода стал рассматриваться как система обработки и передачи информации. Данный подход сегодня определяет облик не только теории, но и практики; как самого

процесса перевода, так и процесса подготовки специалистов в области перевода.

Принципиально важным шагом на пути создания системы подготовки переводчиков стало создание ***«лингвистической» теории перевода***, делающей акцент на объективном, коммуникативно-деятельностном рассмотрении языка. Само название «лингвистическая» теория перевода свидетельствует о том, что именно язык, его лексика, грамматика, стилистика, а не ***экстралингвистические факторы*** (абстрактный дух языка, эстетика и пр.), становятся объектом рассмотрения при анализе процесса перевода. При этом подразумевается, что язык имеет функциональное значение по передаче информации, т. е. реализует свою ***прагматику***. В соответствии с лингвистической теорией перевода, переводчик работает с прагматическим аспектом языка в коммуникации между носителями разных языков, помогает коммуникации состояться.

В рамках данной теории, созданной в нашей стране А.В. Федоровым, и получившей дальнейшее развитие в трудах таких известных отечественных ученых, как Л.С. Бархударов, В.Н. Комиссаров, М.К. Миньяр-Белоручев, Л.Л. Нелюбин, Я.И. Рецкер, А.Д. Швейцер (приведены в алфавитном порядке), стало возможным объективно описать процесс перевода и выделить критерии оценки работы переводчика с текстом, а также заложить основы машинного перевода. Особая роль в разработке теории перевода последних десятилетий принадлежит лингвистической школе Военного университета (в прошлом Военного института иностранных языков), делавшей в своих исследованиях акцент как, собственно, на исследовании в области теории перевода, так и на развитии психолингвистики в её коммуникативном аспекте. Военный университет встал в середине прошлого века перед необходимостью подготовки переводчиков, зачастую, по ускоренной программе, для работы во многих странах мира. Усиливалось военное противостояние между НАТО и странами Варшавского договора, образовывались новые государства. Практическая необходимость обусловила качество и высокую эффективность теоретических разработок, и их внедрения в учебный процесс. Естественным образом, в рамках лингвистической школы Военного университета большое внимание всегда уделялось лексикографической работе: разработке словарей и учебных пособий, соединявших в себе последние достижения теории с возможностью их применения на практике. В частности, нельзя не упомянуть работу выдающегося лингвиста, лексикографа, терминолога Г.А. Судзиловского, автора нескольких словарей военной тематики. Среди его работ такие словари, как «Англо-русский словарь военного сленга», «Англо-русский словарь по ПВО и ПРО», «Англо-русский сло-

варь терминов по тылу и снабжению». Широкую известность приобрели теоретические работы по военной терминологии доктора филологических наук, профессора В.Н. Шевчука, а созданный им в 1987 году в соавторстве с Г.А.Судзиловским Англо-русский словарь до сих пор считается непревзойденным образцом справочной военно-терминологической литературы. Большой вклад в развитие теории и практики перевода внесли доктор филологических наук, профессор Л.Л. Нелюбин; доктор филологических наук, профессор А.Ф. Ширяев; доктор филологических наук, доцент А.Н. Крюков, доктор филологических наук, профессор Л.К.Латышев, доктор филологических наук, профессор В.А.Иовенко, профессор И.Д.Кленин, профессор И.Ф.Мельцев. Благодаря этим и многим другим исследователям развивалась лингвистическая теория перевода, служащая процессу подготовки переводчика-практика.

В рамках лингвистической теории перевода как основной критерий качества перевода рассматривается понятие ***адекватности***. ***Адекватность*** перевода, по определению А.В. Федорова, есть «исчерпывающая точность в передаче смыслового содержания подлинника и полноценное функционально-стилистическое соответствие ему». Данное соответствие устанавливается между двумя языками, один из которых условно принято называть ***ИЯ (исходным языком***), а другой – ***ПЯ (переводным языком)***. Достижение адекватности связывается с понятием ***эквивалентности***. Для того, чтобы переводной текст (ПТ) был адекватен исходному тексту (ИТ), перевод должен опираться на правильный подбор ***эквивалентов*** его лексической, грамматической и других структур. Под эквивалентом здесь понимается наиболее точное устойчивое, т.е. проявляющееся в максимально возможном числе ситуативных контекстов, соответствие между единицами ИЯ и ПЯ.

На основании данной теоретической базы строится учебный процесс по подготовке переводчика в различных предметных областях. Учебный процесс по подготовке переводчика имеет своей основной задачей подготовить специалиста, выполняющего адекватный перевод. Данные навыки развиваются через отработку методики работы с эквивалентами (их запоминания, работа со словарем), и развитие навыков по их использованию в различных ситуациях. В зависимости от специфики профессиональной направленности переводчика разными оказываются и принципы его подготовки.

Принято выделять три вида перевода: ***художественный***, ***общественно-политический*** и ***специальный,*** т.е. перевод в какой-либо профессиональной сфере. ***Военный перевод*** представляет собой вид специального перевода. При этом зачастую, особенно в современных условиях

всестороннего международного военно-политического сотрудничества, военный перевод может сближаться с общественно-политическим переводом.

Формально, как и для большинства других видов специального перевода, отличительной чертой военного перевода является его высокая ***терминологичность***. Военный перевод насыщен ***терминами***, т.е. такими словами, которые имеют однозначную трактовку в той или иной ситуации. В настоящее время идут дискуссии о том, как точнее определить термин с функциональной точки зрения. Однако, несмотря на расхождения в частных определениях, все исследователи сходятся в том мнении, что, фактически, ***термин – есть такое понятие, которое может использоваться только в одном, заранее заданном контексте, и в ситуации своего употребления может соотноситься только с одним реальным объектом***.

С точки зрения стилистической специфики между текстами военной тематики, как правило, нет существенных стилистических расхождений. В основном, это – тексты научно-технической или официально-деловой напрвленности с преобладанием военного тематического компонента. Кроме того, в них используется мало образно-эмоциональных выразительных средств. Основная задача военного текста – донести до адресата конкретную информацию. С одной стороны, это облегчает задачу переводчика в том смысле, что сам по себе термин, как правило, однозначен для используемого контекста. С другой стороны – усложняет, поскольку не допускает приблизительного толкования, приблизительного знания предмета обсуждения.

Текст военной тематики, который почти всегда узуален, т.е. имеет конкретное значение «здесь и сейчас», как правило, изобилует конкретными понятиями. Большое значение для военного переводчика имеет как знакомство с ними, так и с теми объектами предметной реальности, которые они обозначают. Дополнительная сложность работы с терминами заключается в том, что, будучи, однозначным в одной прикладной области, тот же термин также однозначен в другой. Однако при этом имеет другое значение. В частности, военная терминология подразделяется на тактическую, военно-организационную, военно-техническую, терминологию по родам войск и видам вооруженных сил. В каждой из них тот или иной термин может получать специфическую трактовку. В этой связи, в процессе подготовки военного переводчика делается акцент на то, что указанная однозначность в соотношении «терминологическое понятие – предмет» должна быть четко связана с реалиями той или иной области.

Важное место в военном переводе занимает не только проблема термина и военной терминологии, но также расшифровка и перевод военных сокращений. Сокращения занимают большое место, прежде всего, в американских и английских текстах военной тематики. Они могут обозначать, как рода войск, так и военнослужащих, принадлежащих к родам войск, географические названия, образцы вооружений. В последнем случае, речь идет о так называемых условных индексных обозначениях. Для работы с аббревиатурами используются соответствующие словари и специальная литература. Однако многие аббревиатуры могут иметь несколько вариантов значений, зависящих от контекста. Например, сокращение «А» – может иметь в английском языке около 60 вариантов значений. Соответственно, работа с аббревиатурами и сокращениями требует, прежде всего, вдумчивого анализа реального контекста их употребления.

Кроме того, в аспекте рассмотрения англо-русского военного перевода, необходимо обратить внимание на такой важный частный аспект, как перевод англо-американских единиц измерения в метрические. Если в тексте встречаются английские единицы длины, веса, площади, объема, калибра, их обязательно следует переводить в метрические. При этом в письменном переводе единицы измерений передаются точно, а в устном – приблизительно, с добавлением слов «около», «более», «менее». При переводе с русского языка на английский метрические единицы, как правило, не переводятся. Для быстрого перевода единиц измерения и калибров переводчику необходимо знать следующие соответствия:

Представляется следующая таблица соотношения основных англо-американских единиц измерений и метрических мер:

**Меры массы (веса)**

1 тонна длинная американская (long ton) = 1016,047 кг

1 тонна короткая американская (short ton) = 907,185 кг

1 фунт (pound, lb) = 453,593 г

1 унция (ounce, oz) = 28, 349 г

**Меры объема**

1 куб. фут (cubic foot) = 0,028 $м^3$

1 куб. дюйм (cubic inch) = 16, 387 $см^3$

**Меры вместимости**

1 пинта (US pint) = 0, 473 л

1 галлон (US gallon) = 3,785 л

1 бушель (US bushel) = 35,236 л

**Меры длины**

1 миля морская (nautical mile) = 1853, 2м

1 миля сухопутная статутная (statute mile) = 1609,2 м

1 ярд (yard) = 0,914 м
1 фут (foot) = 0, 305 м
1 дюйм (inch) = 2,54 см

**Меры площади**

1 английская квадратная миля (square mile) = 2,589 км$^2$
1 акр (acre) = 0,405 га
1 кв. фут (square foot) = 0,093 м$^2$
1 кв. дюйм (square inch) = 6,452 см$^2$

**Таблица пересчет калибров**

.30 in = 7,62 мм
.303 in = 7,69 мм
.45 in = 11,43 мм
.50 in = 12,7 мм
2.36 in = 60,0 мм
3.5 in = 88,9 мм
4.2 in = 106,7 мм
8 in = 203,2 мм

Для перевода температуры из шкалы Фаренгейта в шкалу Цельсия нужно от исходного числа отнять 32 и умножить результат на 5/9. Для перевода температуры из шкалы Цельсия в шкалу Фаренгейта нужно умножить исходное число на 9/5 и прибавить 32.

В связи с большой терминологической насыщенностью военного перевода необходимо также отметить, что его важной отличительной чертой по сравнению с другими видами специального перевода является то, что он крайне динамичен как учебная дисциплина и как сфера практической деятельности. Быстро изменяются военные наука и техника. Соответственно, военному переводчику постоянно надо находиться в курсе всех последних изменений военных науки и техники. Появляются новые образцы вооружений, новые военно-политические реалии. Естественно, изменяется и терминологическая база военного перевода. Развитие терминологической базы требует унификации терминологии и регламентируется уставами, наставлениями и боевыми документами. В этом направлении проводится специальная работа, как в рамках одного государства, так и на межгосударственном уровне. Однако, зачастую, работа по кодификации терминологических изменений отстает от практики, и переводчику приходится черпать свои знания непосредственно из практической работы, а не из систематизированных источников информации.

С практической точки зрения работа военного переводчика может быть крайне разнообразна. Она может включать в себя как работу с текстом – письменный перевод, так и устный перевод: двусторонний, по-

следовательный, синхронный; так же, зачастую – аннотирование и реферирование военных, военно-технических и военно-политических текстов. В сферу профессионального интереса военного переводчика попадают как собственно «профессиональные» военные тексты, так и не входящие в его непосредственную компетенцию примыкающие к ним художественные, публицистические и общественно-политические тексты военной тематики. Необходимо отметить, что особую роль в сегодняшней внешне-политической ситуации играет военный перевод английского языка. Так же как вообще растет роль английского языка во всех сферах, растет она и в военной области. Роль специалиста, военного переводчика со знанием английского языка, трудно переоценить, и подготовка именно таких специалистов является сегодня одной из приоритетных задач.

Исходя из всего вышесказанного, строится подготовка военного переводчика в рамках дисциплины «Практический курс военного перевода». Основной её целью является подготовка военного переводчика, готового к выполнению своей задачи в любых условиях. Вместе с общими навыками перевода и обязательным владением иностранным языком, военный переводчик должен обладать знаниями в области военной службы, владеть информацией по военно-политической ситуации в мире и уметь её анализировать. Помимо этого, крайне важным представляется отработка навыков, необходимых для ведения военного перевода в боевых условиях.

Однако за этими частностями нельзя забывать и об общей направленности работы переводчика – направленности на достижение успешной ***межкультурной*** коммуникации. Данная задача становится особенно актуальной в современных условиях, когда, с одной стороны, развиваются идеи демократии и политической корректности, а с другой стороны, во многих информационных сообщениях, и даже политических доктринах, боевые действия в некоторых регионах мира представляются не только непосредственно боевыми действиями, но более того, – цивилизационными конфликтами. Как следствие, из представлений о цивилизационных конфликтах делаются далеко идущие пропагандистские выводы, резко контрастирующие с реальным положением дел. Данное обстоятельство накладывает на военного переводчика дополнительную ответственность. Он должен не только владеть военным переводом как видом специального перевода и уметь осуществлять его в любой обстановке, но также владеть знаниями, обязательными для специалиста в области межкультурной коммуникации, и на основании всей полноты своих знаний проводить анализ военно-политической обстановки, сопутствующей военному переводу.

# ГЛАВА 1
# СУХОПУТНЫЕ ВОЙСКА

# CHAPTER 1
# THE ARMY

## УРОК 1
## СИСТЕМА НАЦИОНАЛЬНОЙ БЕЗОПАСНОСТИ

## LESSON 1
## NATIONAL SECURITY STRUCTURE

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Army | Armed Forces |
| Commander-in-Chief | Secretary of Defense |
| Navy | preparedness |
| Command | interoperability |

**Exercise 2. Read and translate the following words and word combinations of the lesson:**

Department of Defense, National Security Act, specified command, chief of staff, Chief of Naval Operations, Commandant of Marine Corps, military education and training, manpower, operations short of war, to garrison, emergency, to recruit, to serve as the spokesman for;

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| Army | Сухопутные войска |
| Armed Forces | Вооруженные Силы |
| armed services | виды вооруженных сил |
| Commander-in-Chief (CINC) | главнокомандующий |
| Navy | военно-морские силы (ВМС) |
| the Department of Defense (DOD) | министерство обороны |
| National Security Act | закон о национальной безопасности |
| Secretary of Defense (SECDEF) | министр обороны |

| | |
|---|---|
| Office of the Secretary of Defense (OSD) | аппарат министра обороны |
| Joint Chiefs of Staff (JCS) | комитет начальников штабов |
| unified command | объединенное командование |
| specified command | специальное командование |
| Secretary of the Army | министр сухопутных войск |
| Secretary of the Navy | министр военно-морских сил |
| Secretary of the Air Force | министр военно-воздушных сил |
| chief of staff (COS) | начальник штаба |
| Chief of Staff of the Army (CSA) | начальник штаба сухопутных войск |
| Chief of Naval Operations (CNO) | начальник штаба военно-морских сил |
| Chief of Staff of the Air Force (CSAF) | начальник штаба военно-воздушных сил |
| Chairman Joint Chiefs of Staff (CJCS | председатель комитета начальников штабов |
| Commandant of Marine Corps (CMC) | командующий корпуса морской пехоты |
| provisions | положения документа |
| assessment | оценка |
| strategic direction | стратегическое руководство |
| priorities of requirements | очередность выполнения требований |
| U.S. Pacific Command (USPACOM) | командование ВС США в зоне Тихого океана |
| U.S. Atlantic Command (USACOM) | командование ВС США в зоне Атлантического океана |
| U.S. European Command (USEUCOM) | командование ВС США в Европейской зоне |
| U.S. Southern Command (US SOUTHCOM) | командование ВС США в зоне Южной и Центральной Америки |
| U.S. Central Command | центральное командование ВС |

| | |
|---|---|
| (US CENTCOM) | США |
| U.S. Space Command (US SPACECOM) | космическое командование ВС США |
| U.S. Strategic Command (US STRATCOM) | стратегическое командование |
| U.S. Transportation Command (US TRANSCOM) | транспортное командование |
| U.S. Special Operations Command (US SOCOM) | командование специальных операций |
| to develop doctrine | разрабатывать доктрину |
| combatant commands | боевые командования |
| to formulate policies | формулировать политику |
| military education and training | военная подготовка и обучение |
| assigned and attached forces | подчиненные и приданные войска (силы) |
| operational control (OPCON) | оперативное управление |
| to be responsible to | отвечать перед кем-то |
| to be responsible for | отвечать за что-то |
| to issue orders | издавать приказы |
| National Command Authorities (NCA) | национальные органы командования |
| communications | связь |
| contingency planning | планирование действий при различных вариантах обстановки |
| strategic planning | стратегическое планирование |
| command authority | командная инстанция |
| preparedness | (бое)готовность |
| oversight of the activities | наблюдение за действиями |
| to serve as the spokesman for | быть представителем кого-либо |
| logistics | материально-техническое обеспечение (МТО) |
| responsibility is vested in… | ответственность лежит на… |

| | |
|---|---|
| to prepare forces | подготовить войска |
| to establish reserve | создавать резервы |
| manpower | 1. людские ресурсы<br>2. живая сила<br>3. личный состав |
| equipment | (боевая) техника (и вооружение) |
| supplies | 1. предметы снабжения<br>2. поставки |
| syn. supply items | предметы снабжения |
| to maintain in readiness | поддерживать готовность |
| installation<br>*syn*. facility | объект, сооружение |
| operations short of war | все операции, кроме непосредственного участия в боевых действиях |
| to recruit | 1. набирать на военную службу<br>2. вербовать |
| emergency | чрезвычайная ситуация |
| state of emergency | чрезвычайное положение |
| to organize forces | организовывать |
| to train forces | обучать войска |
| to equip forces | снаряжать (оснащать) войска |
| interoperable forces | четко взаимодействующие войска, интероперабильные войска; оперативносовместимые войска (силы) |
| to garrison | размещать войска |
| to supply | снабжать |
| logistic support | тыловое обеспечение |
| directorate | Главное управление ГШ ВС РФ |
| one-man-command principle | принцип единоначалия |
| unity of command | единоначалие |
| integrity | целостность |
| Inviolability | неприкосновенность |
| to relieve from the post | освободить от должности |

**Exercise 4. Read and translate the following text:**

## NATIONAL SECURITY STRUCTURE

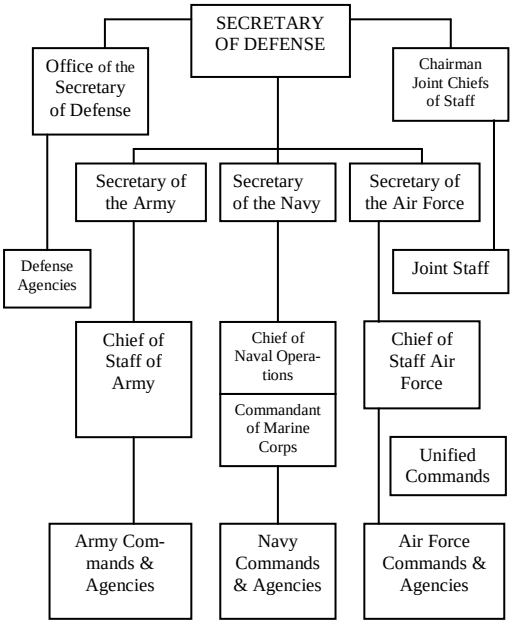
## THE ARMY AND THE CONSTITUTION

The Constitution of the United States designates specific responsibilities to the President and Congress concerning the armed forces.

Article 1, Section 8. "The Congress shall have the power to ... provide for the common defense; to declare war ... to raise and support armies ... to make rules for the government and regulation of the land and naval forces."

Article 11, Section 2. "The President shall be the Commander-in-chief of the Army and Navy of the United States; and of the militia of the several states, when called into the actual service of the United States."

## NATIONAL SECURITY STRUCTURE



## THE DEPARTMENT OF DEFENSE

The Department of Defense was established as an executive department of the United States by the National Security Act of 1947 (50 U.S.C. 401).

The major elements within the Department of Defense are: the Office of the Secretary of Defense, the Joint Chiefs of Staff, the three military departments, the unified and specified commands and such other agencies as the Secretary establishes to meet specific requirements.

## THE SECRETARY OF DEFENSE

"The Secretary of Defense is the principal assistant to the President in all matters relating to the Department of Defense, and, subject to the direction of the President and the provisions of the statute ... has direction, authority, and control over the Department of Defense." (Section 113, Title 10 U.S.C.)

## THE JOINT CHIEFS OF STAFF

The Joint Chiefs of Staff (JCS) consist of the Chairman (who outranks all other officers of the armed forces while holding office); the Vice Chairman; the Chief of Staff of the Army; the Chief of Naval Operations; the Chief of Staff of the Air Force; and the Commandant of the Marine Corps. The

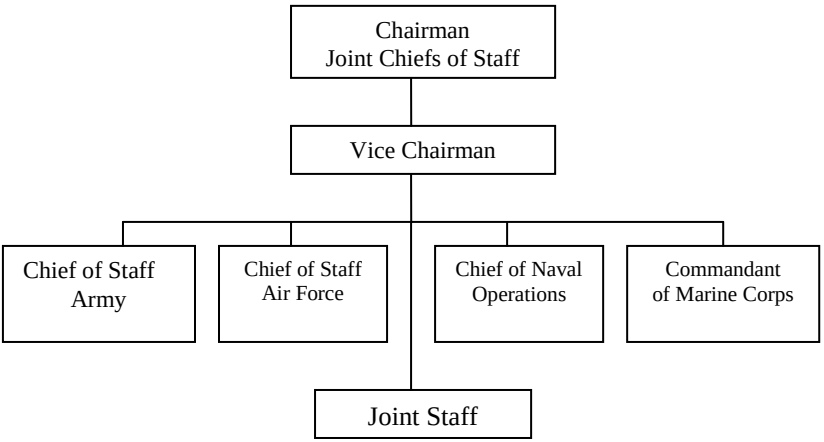



**Figure 2.**

Chairman is appointed by the President, with the advice and consent of the Senate, for a ten-n of two years. He may be reappointed for two additional terms. By law, the Chairman of the Joint Chiefs of Staff is the principal military advisor to the President, the National Security Council, and the Secretary of Defense. The Vice Chairman is appointed under the same conditions as the Chairman. He acts for the Chairman in his absence. The Chairman and Vice Chairman may not be members of the same service.

The Chairman of the Joint Chiefs of Staff, subject to the authority and direction of the President and the Secretary of Defense, is assigned (among others) the functions of:

– providing for strategic direction of the armed forces and preparing strategic plans;

– performing net assessments of the capabilities of the armed forces;

– advising on priorities of requirements, program recommendations and budget proposals;

– developing doctrine for joint employment and formulating policies for coordinating military education and training;

– advising and assisting the President and the Secretary of Defense on the establishment of combatant commands.

## UNIFIED AND SPECIFIED COMMANDS

The armed forces of the United States are organized for the performance of military missions into combatant commands made up of forces from the various military departments under the operational command of unified or specified commanders.

A unified command is a command assigned a broad continuing mission under a single commander and composed of significant components of two or more services. A specified command is normally composed of one service. Unified and specified commanders have full operational control of all forces assigned.

Unified and specified commands provide for the integrated effectiveness of U.S. military forces in combat operations and for the projection of U.S. military power in support of U.S. national policies. They are established by the President through the Secretary of Defense with the advice and assistance of the Chairman, Joint Chiefs of Staff.

## NATIONAL COMMAND STRUCTURE

The commanders of unified and specified commands are responsible to the President and the Secretary of Defense. Hence, the chain of command runs

from the President to the Secretary of Defense and to these commanders. The Chairman, Joint Chiefs of Staff may issue orders to these commanders by authority and direction of the Secretary of Defense.

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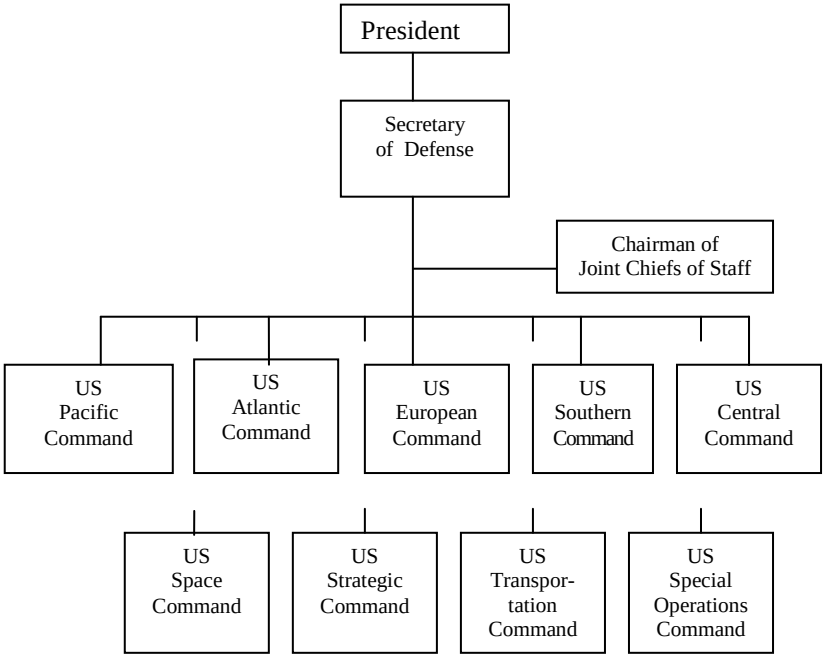


Figure 3

The role of the Chairman of the Joint Chiefs of Staff in the chain of command from the National Command Authorities to the commanders of the combatant commands involves the following:

– communications between the National Command Authorities and the combatant commanders. With this communications responsibility come the myriad duties associated with assisting the President and Secretary of Defense in the direction and control of the combatant commanders: strategic direction, strategic planning, contingency planning and preparedness.

– oversight of the activities of combatant commands in matters dealing with the statutory responsibility of the Secretary of Defense. This includes

recommending changes in assignment of functions, roles and missions to achieve maximum effectiveness of the armed forces.

– serving as the spokesman for the combatant commanders, to include providing summaries and analyses of military requirements, programs and budgets.

**COMMENTARY:**

**1. Terms and Definitions:**

а) Термин **security** в данном контексте используется в своем основном значении – **безопасность**). Например, National Security Agency; National Security Council (Агентство национальной безопасности; Совет национальной безопастности). В сочетании National Security Act данный термин принимает несколько другое значение – **оборона** (закон о национальной обороне). В уставных документах термин security приобретает более частное значение – **боевое обеспечение, охранение**.

**Exercise 5. Answer the following questions:**

1. What are the main elements within the Department of Defense?
2. What are the principal responsibilities of the SECDEF?
3. Who is in charge of the JCS?
4. What are the functions of the JCS?
5. What does a unified command consist of?
6. What is the major difference between unified and specified commands?

**Exercise 6. Decipher and translate the following abbreviations:**

CINC, DOD, JCS, SECDEF, OSD, COFS, CSA, CNO, CSAF, CJCS, CMC, OPCON, USPACOM, USACOM, USEUCOM, COS, STRATCOM, SOCOM.

ГШ; ВС; МО; КНШ; НГШ; ГШ ВС РФ.

**Exercise 7. Translate the following words and word combinations by ear:**

Armed Forces;; Commandant of Marine Corps; assigned and attached forces; interoperability; U.S. Special Operations Command; responsibility is vested in; interoperable forces; duties associated with; roles and missions to achieve maximum effectiveness; the chain of command runs…; contingency planning; to meet specific requirements; he has direction; authority and control

over; ; he outranks all other officers; ; he acts for the chairman in his absence; by law; emergency; with the advice and consent of the Senate; to develop doctrine for joint employment; military education and training; to garrison; Commander-in-Chief; to recruit; assignment of functions.

Сухопутные войска; начальник штаба Сухопутных войск помимо других задач; очередность выполнения требований; виды вооруженных сил; командование ВС США в Европейской зоне; планирование действий при различных вариантах обстановки; главнокомандующий; аппарат министра обороны; тыловое обеспечение; Начальник Генштаба (НГШ); поддерживать готовность; председатель комитета начальников штабов; положения документа; военная подготовка и обучение; оперативное управление связьбоеготовность; призывать на военную службу; обучать войска; снабжать; тыловое обеспечение; объекты; manpower; отвечать перед кем-либо; чрезвычайное положение; разрабатывать доктрину.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Главнокомандующие объединенными и специальными командованиями подчиняются президенту и министру обороны. | Hence, the chain of command runs from the President to the Secretary of Defense to these commanders. The Chairman, Joint Chiefs of Staff may issue orders to these commanders by authority and direction of the Secretary of Defense. |
| Председатель КНШ оказывает помощь президенту и министру обороны в руководстве и управлении боевыми командованиями, в частности, планировании действий при различных вариантах обстановки и поддержании боеготовности войск. | His functions also comprise oversight of the activities of combatant commands in matters dealing with the statutory responsibility of the Secretary of Defense. This includes recommending changes in assignment of functions, roles and missions to achieve maximum effectiveness of the armed forces. |
| Председатель КНШ представляет интересы боевых командиров, анализирует готовящиеся военные программы и бюджеты. | Operational Control of the U.S. combat forces is assigned to the nation's Unified Combatant Commands. The chain of command runs from the President to the Secretary of Defense to the Unified Commanders. Orders and other communications from the President or Secretary are transmitted through the |

Chairman of the Joint Chiefs of Staff. A Unified Combatant Command is composed of forces from two or more services, has a broad and continuing mission and is normally organized on a geographical basis. The number of unified combatant commands is not fixed by law or regulation and may vary from time to time.

**Exercise 9. Translate the following text at sight: Comment on the changes in the US Command structure:**

**U.S. MILITARY COMMANDS**

The United States is the only state which divides the entire globe into military commands with a general or admiral in command of each region and designated forces. This practice began during World War II when global warfare forced the U.S. armed services to change from small, separate branches into an integrated armed force that deployed vast land, sea, and air forces around the globe. This practice of assigning U.S. military forces responsibility for specific regions worldwide is known as the Unified Command Plan (UCP).

The Goldwater-Nichols Department of Defense Reorganization Act of 1986 requires the Chairman of the Joint Chiefs of Staff to conduct a biennial review of the UCP to examine the force structure, missions, and responsibilities, including geographic boundaries of each unified command.

From Oct.1, 2002, The Unified Command Plan creates a new combatant command, U.S. Northern Command, and assigns it the mission of defending the United States and supporting the full range of military assistance to civil authorities;shifts U.S. Joint Forces Command's geographic area of responsibility to the U.S. Northern Command and U.S. European Command. This enables U.S. Joint Forces Command to focus on transforming U.S. military forces and conducting joint force integration, training, experimentation, doctrine development and testing activities.

The Commander-in-Chief of Joint Forces Command will no longer serve as NATO's Supreme Allied Commander Atlantic.

The continental United States, Canada, Mexico, and portions of the Caribbean region (transferred from Southern Command) will be designated as U.S. Northern Command's area of responsibility. While Alaska will be included in this assignment, Alaskan Command forces will remain assigned to U.S. Pacif-

ic Command. The commander U.S. Northern Command will also be responsible for security cooperation and military coordination with Canada and Mexico.

Russia and the Caspian Sea will be included in the area of responsibility assigned to U.S. European Command, however U.S. Pacific Command will retain responsibilities for certain activities in Eastern Russia. Antarctica will be included in the area of responsibility assigned to U.S. Pacific Command.

This means that from Oct. 1, 2002, there are ten Unified Commands (composed of units from two or more military services).

**Geographical Responsibilities:**

- Northern Command (USNORTHCOM)
- Pacific Command (USPACOM)
- Central Command (USCENTCOM)
- European Command (USEUCOM)
- Southern Command (USSOUTHCOM)

**Functional Responsibilities:**

- Space Command (USSPACECOM)
- Special Operations Command (USSOCOM)
- Transportation Command (USTRANSCOM)
- Strategic Command (USSTRATCOM)
- Joint Forces Command (USJFCOM)

*Source: US Department of Defense*

**Exercise 10. Translate the following text at sight:**

**МИНИСТЕРСТВО ОБОРОНЫ**

Министерство обороны является центральным органом военного управления и состоит из главных и центральных управлений, управлений и иных органов, входящих в его структуру. Президент Российской Федерации руководит деятельностью Министерства обороны, являясь при этом Верховным главнокомандующим ВС РФ. Основными задачами Министерства обороны являются: разработка и принятие мер по подготовке к вооруженной защите Российской Федерации, целостности и

неприкосновенности ее территории. Министерство обороны возглавляет Министр обороны Российской Федерации, назначаемый на должность и освобождаемый от должности Президентом Российской Федерации. Министр обороны осуществляет свои функции на основе единоначалия и несет персональную ответственность за выполнение задач, возложенных на Министерство обороны и Вооруженные Силы. Министр обороны непосредственно подчиняется Президенту Российской Федерации. В современных условиях угроза прямой военной агрессии в традиционных формах против Российской Федерации и ее союзников снижена благодаря позитивным изменениям международной обстановки, проведению нашей страной активного миролюбивого внешнеполитического курса, поддержанию на достаточном уровне российского военного потенциала. Вместе с тем сохраняются, а на отдельных направлениях усиливаются потенциальные внешние и внутренние угрозы военной безопасности Российской Федерации и ее союзников.

**Exercise 11. Translate the following text in writing.**

## DEPARTMENT OF DEFENSE (DOD)

World War II and its aftermath furnished the impetus for unification of the Military Departments under a single cabinet-level secretary. Anticipating the needs of a peacetime military organization, an in-depth review by congressional, executive, and mili tary groups began even before the end of the war. The studies were influenced by Service interests that reflected the opinions of experienced wartime military and civilian leaders with vastly different views of the postwar future. Issues that dominated the search for a consensus included retention of air power in the Navy, maintenance of a separate Marine Corps, and the form and responsibilities of the new Department of the Air Force.

The National Security Act of 1947 was monumental legislation. After almost 50 years that included overseas wartime experience beginning with the Spanish-American War, a modern military organization came into existence. Unification of the Services und er a single department was law and the powers of the Secretary of National Defense were identified but subject to broad interpretation. The roles and missions of the military Services were defined by Executive Order but would not be statutorily defined u ntil 1958. The act created the NME under the leadership of a civilian secretary and created secretaries for the new Departments of the Army, Navy, and Air Force.

In 1949, the National Security Act was amended to change the name of the NME to the Department of Defense and to recognize it as an executive department. Further, it changed the role of the Services to Military Departments

within DOD. The DOD Reorganization Act of 1958 strengthened the Secretary of Defense's direction, authority, and control over the department and clarified the operational chain of command from the President and Secretary of Defense to the combatant commanders.

**Exercise 12. Translate the following text in writing.**

**ГЕНЕРАЛЬНЫЙ ШТАБ ВООРУЖЕННЫХ СИЛ РОССИЙСКОЙ ФЕДЕРАЦИИ**

Генеральный штаб Вооруженных Сил Российской Федерации является центральным органом военного управления и основным органом оперативного управления Вооруженными Силами Российской Федерации (далее – Вооруженные Силы), осуществляющим координацию деятельности органов и войск Федеральной пограничной службы ФСБ Российской Федерации, внутренних войск Министерства внутренних дел Российской Федерации, Железнодорожных войск Российской Федерации, войск гражданской обороны МЧС, инженерно-технических и дорожно-строительных воинских формирований Российской Федерации, Службы внешней разведки Российской Федерации, органов федеральной службы безопасности, федеральных органов государственной охраны, федерального органа обеспечения мобилизационной подготовки органов государственной власти Российской Федерации (далее – другие войска, воинские формирования и органы) по выполнению задач в области обороны. Генеральный штаб состоит из главных управлений управлений и иных структурных подразделений. Генеральный штаб в своей деятельности руководствуется Конституцией Российской Федерации, общепризнанными принципами и нормами международного права и международными договорами Российской Федерации, федеральными конституционными законами, федеральными законами, указами и распоряжениями Президента Российской Федерации, приказами и директивами Верховного Главнокомандующего Вооруженными Силами Российской Федерации, постановлениями и распоряжениями Правительства Российской Федерации, приказами и директивами Министра обороны Российской Федерации, а также настоящим Положением.

**ARMY HUMOR**

**Giving sad news to a troop**

The Captain called the Sergeant in. "Sarge, I just got a telegram that Private Jones' mother died yesterday.

So the Sergeant calls for his morning formation and lines up all the troops. "Listen up, men," says the Sergeant. "Johnson, report to the mess hall for KP. Smith, report to Personnel to sign some papers. The rest of you men report to the Motor Pool for maintenance. Oh by the way, Jones, your mother died, report to the commander."

Later that day the Captain called the Sergeant into his office. "Hey, Sarge, that was a pretty cold way to inform Jones his mother died. Couldn't you be a bit more tactful, next time?"

"Yes, sir," answered the Sarge.

A few months later, the Captain called the Sergeant in again with, "Sarge, I just got a telegram that Private McGrath's mother died. You'd better go tell him and send him in to see me. This time be more tactful."

So the Sergeant calls for his morning formation. "Ok, men, fall in and listen up." "Everybody with a mother, take two steps forward." "Not so fast, McGrath!"

## УРОК 2
## МИНИСТЕРСТВО СУХОПУТНЫХ ВОЙСК США

## LESSON 2
## THE DEPARTMENT OF THE ARMY

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| recruiting | soldier |
| combatant | surgeon |
| contingency | sergeant |
| civilian employee | vigilance |

**Exercise 2. Read and translate the following words and word combinations of the previous lesson:**

Interoperability; U.S. Special Operations Command; responsibility is vested in; interoperable forces; duties associated with; roles and missions to achieve maximum effectiveness; the chain of command runs…; contingency planning.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| preserve the peace and security | находиться на страже мира и безопасности |
| combat forces | боевые войска |
| service forces | силы обслуживания войск |
| organic | штатный |
| to organize | организовывать |
| to train | готовить (обучать) |
| to equip | снаряжать (оснащать) |
| Regular Army | регулярная армия |
| Army National Guard of the United States (USARNG) | национальная гвардия Сухопутных войск США |

| | |
|---|---|
| U.S. Army Reserve (USAR) | резерв Сухопутных войск США |
| to enlist | поступать на службу |
| to conscript | призывать на военную службу |
| a conscript | призывник |
| to recruit | набирать на военную службу |
| to supply | снабжать |
| unit | часть, подразделение |
| to mobilize | проводить мобилизацию |
| to exercise supervision | осуществлять наблюдение (контроль) |
| to perform the duties | выполнять обязанности |
| forward presence | передовое присутствие;<br>войска прикрытия |
| rapid deployment | быстрое развертывание |
| emergency | чрезвычайное положение |
| combat unit | боевая часть |
| heavy helicopter unit | часть тяжелых вертолетов |
| combat support (cs) unit | часть боевого обеспечения |
| combat service support (css) unit | тыловая часть (тылового обеспечения) |
| chemical brigade | химическая бригада |
| water supply battalion | батальон водоснабжения |
| rail battalion | железнодорожный батальон |
| civil affairs (ca) unit | подразделение по связям с гражданской администрацией и населением |
| activation | 1. введение в строй/действие<br>2. приведение в готовность к действию |
| (Individual) Ready Reserve (IRR) | резерв первой очереди (боеготовый резерв) |
| Standby Reserve | резерв второй очереди |
| Retired Reserve | резерв третьей очереди (резерв отставников) |

| | |
|---|---|
| redeployment | 1. переброска<br>2. передислокация<br>3. вывод |
| augmentee | резервист, призванный из резерва |
| strength | численность |
| casualties | потери личного состава |
| retirement | выход в отставку |
| maintenance | обслуживание техники;<br>техническое обслуживание (ТО) |
| active duty (AD) | действительная служба |
| forward deployed force | силы передового базирования |
| research and development (R&D) | научно-исследовательские и опытно-конструкторские работы (НИОКР) |
| engineering | строительство; разработка; проектирование; конструирование |
| base support (operations) (BASOPS) | обеспечение, осуществляемое базой |
| enlistment | зачисление (поступление) на военную службу |
| force projection | проецирование силы |
| civilian employees | гражданский персонал (служащие) |
| soldier | солдат; военнослужащий |
| sailor | моряк |
| airman | авиатор; летчик |
| airmen | лётный состав |
| marine | морской пехотинец |
| to serve | служить |
| vigilance | бдительность |
| contingency | один из возможных вариантов развития обстановки |
| contingency planning | многовариантное планирование |

| | |
|---|---|
| joint operation | совместная операция (операция, проводимая различными видами ВС) |
| joint commander | командир общевойскового соединения; командующий объединённым командованием |
| combat operation | боевая операция |
| under-secretary (US) | заместитель министра (США) |
| assistant secretary (US) | помощник министра (США) |
| Assistant Secretary of the Army, Financial Management | помощник министра СВ по финансовым вопросам |
| Assistant Secretary of the Army, Research, Development and Acquisition | помощник министра СВ по НИОКР и закупкам вооружения и техники |
| Auditor General | генеральный финансовый инспектор |
| Director, Information Systems | начальник управления информационных систем |

**Exercise 4. Read and translate the following text:**

**PURPOSE AND COMPOSITION OF THE ARMY**

"It is the intent of Congress to provide an Army that is capable, in conjunction with the other armed forces, of
- preserving the peace and security, and providing for the defense of the United States, the Territories, Commonwealths, and possessions, and any areas occupied by the United States;
- supporting the national policies;
- implementing the national objectives; and
- overcoming any nations responsible for aggressive acts that imperil the peace and security of the United States.

"In general, the Army, within the Department of the Army, includes land combat and service forces and such aviation and water transport as may be organic therein. It shall be organized, trained and equipped primarily for prompt and sustained combat incident to operations on land. It is responsible for the preparation of land forces necessary for the effective prosecution of war, except as otherwise assigned and, in accordance with integrated mobiliza-

tion plans, for the expansion of the peacetime components of the Army to meet the needs of war.

"The Army consists of the Regular Army, the Army National Guard of the United States, the Army National Guard, while in the service of the United States, and the Army Reserve; and all persons appointed or enlisted in, or conscripted into, the Army without component." (Section 3062, Title 10 U.S.C.)

## THE SECRETARY OF THE ARMY

"The Department of the Army is separately organized under the Secretary of the Army. It operates under the authority, direction, and control of the Secretary of Defense. The Secretary of the Army is the head of the Department of the Army." (Sections 3011 and 3013, Title 10 U.S.C.)

The Secretary of the Army is responsible for and has the necessary authority to conduct all affairs of the Department of the Army, including recruiting, organizing, supplying, equipping, training and mobilizing.

## THE ARMY STAFF

The Army Staff is headed by the Chief of Staff of the Army, who is appointed by the President for a period of four years. In time of war or other national emergency, he may be reappointed for an additional four years. Subject to the authority, direction, and control of the Secretary of the Army, the Chief of Staff shall:

- transmit and provide advice on the plans and recommendations of the Army Staff to the Secretary;
- act as the agent of the Secretary in the execution of approved plans and recommendations;
- exercise supervision over members and organizations of the Army as directed by the Secretary; – perform the duties prescribed as a member of the Joint Chiefs of Staff.

## THE TOTAL ARMY

The Army is an integrated, cohesive organization of the active component (Regular Army), reserve components (Army National Guard and Army Reserve) and civilian employees of the Army.

The Regular Army provides the forces to support forward presence and provides forces for rapid deployments worldwide.

The Army National Guard and Army Reserve provide trained units and individuals for active duty in time of war or other emergency. Missions are

being transferred from the Regular Army to the Army National Guard and Army Reserve, resulting in a more closely integrated Army. This increasing reliance on the Army National Guard and Army Reserve for early-deploying combat and support forces means that a presidential decision to federalize selected Army National Guard units and call Army Reserve units to active duty must be made early in the crisis development stage.

A significant part of the Army's support structure resides in the reserve components. In fact, the Army Reserve provides most of the critical combat service support units for its contingency force package. All of the Army's heavy helicopter units, chemical brigades, water supply battalions and rail battalions are in the Army National Guard or Army Reserve. Thirty-six of thirty-seven civil affairs units are in the Army Reserve; more than three-fourths of the Army's hospital units, medical groups, chemical battalions and petroleum support battalions are in the reserve components.

The activation of Army National Guard and Army Reserve units during the Gulf War is an excellent example of the importance of the reserve components to the Total Army. Approximately 650 Army Reserve and 400 Army National Guard units and elements were activated for Operations Desert Shield and Desert Storm.

## RESERVE CATEGORIES

There are three Reserve categories e- the Ready R
serve and the Retired Reserve.

The Ready Reserve is comprised of the members of Army National Guard and Army Reserve units, Individual Mobilization Augmentees, Active Guard/Reservists, Individual Ready Reservists, and members of the Inactive Army National Guard. The total strength of the Ready Reserve in September 1993 was approximately 1.13 million personnel.

The Standby Reserve consists of individuals who have completed their active duty and reserve training requirements, or who are unable to maintain membership in units. The Retired Reserve is composed of individuals who have completed 20 years of qualifying service for retirement.

## ARMY ORGANIZATION

The Army is generally organized into combat, combat support and combat service support units. The combat units of the Army include the 20 active and reserve component divisions, special operations units and various types of separate combat and combat support units assigned to echelons above divi-

sion. Additional combat service support units provide logistical, communications, medical, transportation, supply, maintenance and other types of support essential to the conduct of combat operations.

In addition to combat, support and service units, there is a supporting structure that performs a wide range of Army activities. This supporting structure, manned by both military and civilian personnel, provides the following functional services for the Army:

- command and control;
- training and military education;
- medical, transportation, supply and maintenance;
- recruiting;
- research and development; and
- engineering and base support.

**COMMENTARY:**

**1. Terms and Definitions:**

а) Термин **army** может обозначать как сухопутные войска (один из видов вооруженных сил), так и армию – оперативное объединение сухопутных войск. При обозначении вида вооруженных сил термин **army** пишется с прописной буквы **– Army,** а – оперативного объединения – со строчной **army.**

**2. Grammar:**

а**)** Следует обратить внимание на то, что в русском языке термин «сухопутные войска» употребляется во множественном числе, а термин **Army** – в английском – в единственном числе (The Army is an integrated, cohesive organization).

**Exercise 5. Translate the following questions at sight and answer them:**

1. Кто возглавляет штаб Сухопутных войск?
2. Кем назначается начальник штаба Сухопутных войск?
3. За решение каких задач несет ответственность начальник штаба Сухопутных войск?
4. Является ли начальник штаба Сухопутных войск членом КНШ?
5. Какова организация штаба Сухопутных войск?
6. Министерство Сухопутных войск возглавляет гражданский министр, не так ли?

7. Какие виды Вооруженных сил США вы знаете, кроме Сухопутных войск?

**Exercise 6. Decipher and translate the following abbreviations:**

CINC, DOD, JCS, SECDEF, OSD, COFS, NCA, OPCON, R&D, CS, CSS, CA, IRR, USAR, AD, BASOPS, CNO, CJCS, , CMC, CSAF.

НГШ, ВМФ, НИОКР, КНШ, ВС РФ, МО РФ.

**Exercise 7. Translate the following words and word combinations by ear:**

Casualties; joint commander; regular forces; contingency; to defend; it is headed by; acquisition; airman; forward deployed force; enlistment; in conjunction with; to meet the needs of war; to implement national objectives; sustained combat operations; the Army consists of; it operates under the authority of; in time of war; the execution of approved plans; for rapid deployments worldwide; retirement; manned by both military and civilian personnel; research and development; to provide medical support; transportation; supply and maintenance services.

Боевая операция; проецирование силы; бдительность; служить; потери личного состава; морской пехотинец; моряк; главнокомандующий; служащий РА; помощник министразакупка техники и вооружения; начальник отдела по связям с общественностьюих функциями являются; органы и соединения от дивизии и выше; уход в отставку; приводить в боевую готовность; части боевого и тылового обеспечения; на ранней стадии кризиса; обеспечивать передовое присутствие; сплоченная организация.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| The Army shall be organized, trained and equipped primarily for prompt and sustained combat incident to operations on land. | Сухопутные войска отвечают за подготовку наземных сил, необходимых для эффективного ведения боевых действий, либо для выполнения других возможных задач. |
| The Army consists of the Regular Army, the Army National Guard of the United States, the Army National Guard, while in the service | Министерство Сухопутных войск представляет собой отдельную организацию. Министерство выполняет свои функции под руководст- |

of the United States, and the Army Reserve; and all persons appointed or enlisted in, or conscripted into, the Army without component.

The Secretary of the Army is responsible for and has the necessary authority to conduct all affairs of the Department of the Army, including recruiting, organizing, supplying, equipping, training and mobilizing.

вом и управлением министра обороны. Возглавляет министерство Сухопутных войск гражданский министр.

Начальник Генштаба вносит в установленном порядке предложения о заключении международных договоров Российской Федерации по военным вопросам.

**Exercise 9. Translate the following text at sight:**

**THE ARMY NATIONAL GUARD'S WAR-READINESS**

Pursuant to a congressional request, General Accounting Office (GAO) reviewed the Army National Guard's combat brigades' war-readiness, focusing on whether: (1) the Bold Shift training strategy has enabled combat brigades to meet peacetime training goals; (2) the brigades' advisers are working effectively to improve training readiness; and (3) prospects of having the brigades ready for war within 90 days are likely.

GAO found that:

- in general, none of the 7 enhanced brigades achieved the training proficiency required during the first 3 years of the Bold Shift training strategy;
- in 1993, combat platoons mastered only 14 percent of their mission-essential tasks and less than one-third of the battalions met their gunnery goals;
- the brigades could not meet staffing and personnel goals, since many personnel were not sufficiently trained in their individual job and leadership skills;
- the brigades' training problems are long-standing and will be difficult to improve;
- although training strategy revisions are underway, the improvements will take years to be effective;
- the Army advisers' efforts to improve the Guard's training readiness have been limited by an ambiguous definition of the advisers' role, poor communications between the Army, advisers, brigades, and other Guard officials, particularly regarding training goals, and difficult working relationships between the Army and the state-run Guard;

- it is highly uncertain whether the brigades could be ready to deploy 90 days after mobilization, since the Guard's peacetime training is inadequate;
- the postmobilization model estimated that the brigades would need 68 to 154 days of postmobilization training before deployment, while another model estimated that the best trained brigades would need 102 days to deploy;
- brigade proficiency reports have generally overstated brigade readiness levels.

**Exercise 10. Translate the following text at sight:**

Вооруженные силы любого государства обычно состоят из видов вооруженных сил. В Вооруженных силах США насчитывается три вида: Сухопутные войска, Военно-морские силы и Военно-воздушные силы. В свою очередь, виды Вооруженных сил включают в себя рода и службы. Все военнослужащие, проходящие службу в Сухопутных войсках США, приписаны одному из родов или одной из служб Сухопутных войск.

В зависимости от поставленных или выполняемых задач, все рода и службы Сухопутных войск можно свести в три большие группы: войска, непосредственно участвующие в боевых действиях; войска, оказывающие боевую поддержку первой группе; и войска, занятые тыловым обеспечением проведения операции.

В первую и вторую группу войск входят такие рода войск, как, например, пехота, бронетанковые войска, артиллерия, войска ПВО, военная разведка, инженерные войска, военная полиция, армейская авиация.

Тыловое обеспечение боевых действий осуществляется службами, такими как транспортной, медицинской, финансовой, службой военных капелланов и рядом других.

В бою все рода и службы Сухопутных войск должны действовать как единый механизм в целях достижения решительной победы над противником.

**Exercise 11. Translate the following text in writing:**

**THE UNITED STATES ARMY**

The Army has served the nation more than 220 years. The Army is the oldest of the armed forces and is, in fact, older than the United States. On June 14, 1775, the Second Continental Congress authorized the enlistment of ten companies of riflemen in Maryland, Pennsylvania and Virginia. The Continen-

tal Congress also set pay scales and adopted articles of war to govern the new Continental Army. On June 15, George Washington was appointed commander in chief. General Washington formally took command of the Continental Army on July 3, 1775, when he joined the forces at Long Island, New York.

Since those early beginnings, the Army has often been called upon to protect the nation's interests - in the War of 1812 ... the Mexican War ... the Civil War ... the Indian Wars ... the Spanish-American War ... the Mexican Punitive Expedition World War I ... World War II ... the Korean War ... the Vietnam War. Grenada Panama the Gulf War most recently as part of the United Nations operation in Somalia and NATO-led operations in Bosnia.

Since the end of World War 11, the Army has been a forward deployed force, focused primarily on the defense of Western Europe. However, America's Army of the future is a force projection Army, capable of rapidly deploying a variety of forces to all comers of the globe. It is a Total Army, consisting of National Guard, Reserve and Regular forces, as well as civilian employees.

During the Cold War over three million U.S. soldiers have served in Europe since the end of World War 11.

America's Army of the 21st century will be significantly different from the Cold War Army. It will be a smaller, contingency oriented, power projection Army. It must be organized, trained and equipped to provide forces for employment by joint commanders in support of our national objectives and interests.

Combat operations will almost always be joint operations with the other services and may be part of multinational operations. The Army may also be called upon to operate in either combat or non-combat operations under the auspices of the United Nations.

The fundamental mission of the Army remains the same: to deter war and, failing that, to fight and win wars quickly and with minimum casualties.

**Exercise 12. Translate the following text in writing:**

**ТАКТИЧЕСКИЕ УСЛОВНЫЕ ЗНАКИ СУХОПУТНЫХ ВОЙСК США**

В оперативной и боевой подготовке сухопутных войск американское командование важное значение придает разработке уставов и наставлений для обеспечения деятельности командиров и штабов всех уровней. К их числу относится устав FM100-5-1 «Оперативные термины и

условные знаки», применяемый в сухопутных войсках США и других стран НАТО.

Согласно принятым в сухопутных войсках США правилам на многоцветных картах и схемах боевой состав, принадлежность, положение, вооружение, боевые задачи и действия своих войск наносятся синим (черным) цветом, войска противника – красным. На одноцветных свои войска изображаются одной линией, противника – двумя, в также используется сокращение EN (противник). Номер соединения, части и подразделения пишется слева от знака, принадлежность к вышестоящим штабам – справа. Внутри дается условное обозначение рода войск или службы, либо сокращенное наименование части, сверху – вид формирования. Под знаком помещаются различные дополнительные сведения (тип оружия, техники и т. п.).

Для характеристики некоторых пунктов снабжения предусмотрено написание под соответствующим условным знаком цифр, которые имеют следующие значения: I – все виды продовольствия; II – предметы обмундирования, индивидуальной экипировки, личного снаряжения, другое вещевое имущество; III – все виды жидкого горючего (за исключением ракетного топлива); IV – строительные материалы; V – все виды боеприпасов, ракеты и ракетное топливо; VI – предметы личного обихода; VII – системы оружия и военной техники (ракетные ПУ, танки, транспортные и другие машины); VIII – медикаменты, медицинское оборудование и запасные части к нему, медицинское имущество; IX – запасные части (сюда не входят запасные части для медицинской техники и оборудования); X – материалы невоенного назначения.

Знаки, обозначающие разрушения, завалы, инженерные заграждения как своих войск, так и войск противника, наносятся зеленым цветом. Участки заражения химическим (биологическим) оружием обозначаются желтым цветом и буквами С или В, написанными в центре. Фактические действия войск и их расположение наносятся установленными условными знаками сплошной линией, а предполагаемые – прерывистой (пунктиром). В условных обозначениях ядерных взрывов над знаком показывается величина мощности взрыва в килотоннах (мегатоннах), слева от знака указывается дата время взрыва, справа – высота взрыва над уровнем земли или его вид. Знаками + и – (плюс и минус) показываются соответственно части (подразделения) усиленные либо неполного состава. Сведения, требующие проверки, отмечаются знаком вопроса.

## ARMY HUMOR
### Giving very odd excuses

The General went out to find that none of his G.I.s were there. One finally ran up, panting heavily.

"Sorry, sir! I can explain, you see I had a date and it ran a little late. I ran to the bus but missed it, I hailed a cab but it broke down, found a farm, bought a horse but it dropped dead, ran 10 miles, and now I'm here."

The General was very skeptical about this explanation but at least he was here so he let the G.I. go. Moments later, eight more G.I.s came up to the general panting, he asked them why they were late.

"Sorry, sir! I had a date and it ran a little late, I ran to the bus but missed it, I hailed a cab but it broke down, found a farm, bought a horse but it dropped dead, ran 10 miles, and now I'm here."

The General eyed them, feeling very skeptical but since he let the first guy go, he let them go, too. A ninth G.I. jogged up to the General, panting heavily.

"Sorry, sir! I had a date and it ran a little late, I ran to the bus but missed it, I hailed a cab but..."

"Let me guess," the General interrupted, "it broke down."

"No," said the G.I., "there were so many dead horses in the road, it took forever to get around them."

## УРОК 3
## ДИВИЗИЯ СУХОПУТНЫХ ВОЙСК США

## LESSON 3
## THE US ARMY DIVISION

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| corps | headquarters |
| vehicle | amphibious |
| mechanized | seize |
| chemical | tracked |
| augment | insertion |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Sustained combat operations; the Army consists of; it operates under the authority of; in time of war; the execution of approved plans; for rapid deployments worldwide; retirement; manned by both military and civilian personnel; research and development; to provide medical support.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| enemy (en) | противник |
| infantry (inf) | пехота |
| division base | дивизионная основа |
| division headquarters (div HQ) | штаб дивизии |
| headquarters company (HQ co) | штабная рота |
| division artillery (div arty) | дивизионная артиллерия |
| division support command (DISCOM) | командование тыла (поддержки) дивизии |
| cavalry squadron (cav sqdn) | разведывательный батальон |
| air defense artillery battalion (ADA bn) | зенитный дивизион |
| engineer battalion (engr bn) | инженерный батальон |
| signal battalion (sig bn) | батальон связи |
| military police company (MP coy) | рота военной полиции |

| | |
|---|---|
| chemical company (cml co) | химическая рота |
| maneuver battalion | линейный (боевой) батальон |
| aviation brigade (avn bde) | бригада армейской авиации |
| military intelligence battalion (MI bn) | батальон военной разведки |
| anticipated operational environment | предполагаемая оперативная обстановка |
| command and control ($C^2$) | оперативное управление; боевое управление |
| organic, attached, or supporting units | штатные, приданные или поддерживающие части |
| main command post | основной командный пункт |
| operation control (OPCON) | оперативное управление |
| heavy division | тяжелая дивизия |
| light division | легкая дивизия |
| armored division | бронетанковая дивизия |
| mechanized division | механизированная дивизия |
| motorized division | моторизованная дивизия |
| infantry division | пехотная дивизия |
| airmobile division | аэромобильная дивизия |
| air-assault division | воздушно-штурмовая дивизия |
| airborne division | воздушно-десантная дивизия |
| motorized infantry division | мотострелковая дивизия |
| to close with and destroy the enemy by firepower, mobility, and shock effect | сблизиться и уничтожить противника при помощи огневых средств, маневра и удара |
| to defeat the enemy in close combat | нанести поражение противнику в ближнем бою |
| combined arms team | общевойсковое подразделение |
| defeat | поражение |
| direct firepower | средства ведения огня прямой наводкой |

| | |
|---|---|
| cavalry forces | разведывательные части и подразделения |
| to apply one’s combat power | применять боевую мощь |
| firepower | огневая мощь |
| close quarter combat | ближний бой |
| hand-to-hand fight | рукопашный бой |
| through the depth of the battlefield | на всю глубину поля боя |
| to disperse forces over | рассредоточивать войска |
| to concentrate combat power at the decisive place and time to win | сосредоточивать боевые силы и средства в решающем месте и в решающее время для достижения победы |
| to gain and sustain the initiative | захватывать и удерживать инициативу |
| intent of the commander | намерение командира |
| concept of operation | замысел операции |
| to exploit success | развивать успех |
| to capitalize on the agility of the force | извлекать выгоду из маневренности войск |
| tracked vehicle | гусеничная машина |
| wheeled vehicle | колесная машина |
| standard operating procedure (SOP) | постоянно действующая инструкция |
| reaction time | время реагирования |
| to synchronize | синхронизировать |
| mechanized infantry (mech inf) | мотопехота (пехота механизированной части) |
| helicopter (hel) | вертолет |
| engineers (engr) | саперные части и подразделения |
| fire support unit | подразделение (часть) огневой поддержки |

| | |
|---|---|
| air defense (AD) | противовоздушная оборона (ПВО) |
| combat service support (CSS) assets | средства боевого и тылового обеспечения |
| cross attachment | взаимное переподчинение |
| task organization | распределение сил и средств для выполнения задачи |
| pursuit | преследование |
| to conduct nuclear and chemical operations | проводить операции с применением ядерного и химического оружия |
| in conventional, chemical, or nuclear environments | при применении обычного, химического или ядерного оружия |
| delaying action | сдерживающее действие |
| rugged terrain | сильнопересеченная местность |
| cross-country terrain | пересеченная местность |
| built-up area | населенный пункт; застроенная местность |
| water obstacle | водное препятствие |
| deployment | переброска войск |
| redeployment | обратная переброска войск |
| combat support (CS) unit | часть боевого обеспечения |
| combat service support (CSS) unit | часть тылового обеспечения |
| combat unit | боевая часть |
| low-intensity conflict | конфликт малой интенсивности |
| to augment | усиливать; наращивать силы |
| joint task force (JTF) | объединенная оперативная группа |
| corps | корпус |
| urban areas | район городской застройки |
| airlanded operation | воздушно-десантная операция с высадкой; вертолетно-десантная |

| | |
|---|---|
| | операция |
| dismounted operations | боевые действия мотопехоты в пешем порядке |
| logistic support | тыловое обеспечение |
| maintenance | техническое обслуживание |
| amphibious operations | морская десантная операция |
| to reposition | перегруппировать; менять позицию |
| to set up | развертывать |
| agility | маневренность; подвижность |
| responsiveness | 1. быстрота реагирования 2. гибкость управления 3. способность нанесения ответного удара |
| helicopter lift | транспортировка на вертолетах |
| esprit de corps | боевой дух; честь мундира |
| corps support command (COSCOM) | командование поддержки корпуса (тыла) |
| to seize and secure terrain | захватить участок местности и закрепиться на нем |
| to reinforce | усиливать |
| forward-deployed forces | силы передового базирования |
| air assault operation | воздушно-штурмовая операция |
| air superiority | превосходство в воздухе |
| a link-up | соединение десанта с наземными войсками |
| staging area | промежуточный район сосредоточения |
| to interdict routes | воспрепятствовать противнику передвигаться по дорогам |
| follow-on force | войска второго эшелона |
| objective area | район десантирования |
| insertion | десантирование |

| | |
|---|---|
| combat power | боевая мощь; боевые силы и средства |
| table of organization and equipment (TOE) | организационно-штатное расписание и табель имущества |
| rescue operation | поисково-спасательная операция |
| objective (obj) | цель; задача; объект наступления; рубеж |
| to consolidate the objective | закрепляться на захваченном рубеже |
| airdrop operation | воздушно-десантная операция с выброской войск на парашютах |
| air-land battle | воздушно-наземное сражение |
| air-land operation | воздушно-наземная операция |
| preconfigured unit load | заранее укомплектованный груз |
| single stock | предметы снабжения одного вида |
| lessons learnt | полученные уроки |
| echelons above corps (EAC) | формирования выше корпуса |
| commander's intent | намерение командира; решение на операцию |
| commander’s concept | замысел боя (операции) |
| commander’s decision | решение командира |

**Exercise 4. Read and translate the following text:**

## DIVISION
## Divisional Organization

All divisions are organized with the same base: a division headquarters and headquarters company; three brigade headquarters and headquarters companies; an aviation brigade headquarters and headquarters company; a division artillery; a support command, a cavalry squadron; an air defense artillery battalion, an engineer battalion, a signal battalion, a military intelligence battalion, a military police company, and, in most cases, a chemical company.

Maneuver battalions and additional units are placed in a command relationship to this base to provide the division with the ability to accomplish its mission in an anticipated operational environment. The capability of the division support command is modified as necessary to meet the varying supply and maintenance requirements of the different types of divisions. The quantity and types of equipment, as well as the number and types of units, vary as the mission and operational environment of the division change.

The division headquarters provides command, control, and supervision of the tactical operations of the division and its organic, attached, or supporting units. It also furnishes command, control, and supervision of the administration of organic and attached units. The headquarters company provides logistic support and personnel for the division headquarters and staff sections. The headquarters company is normally located close to the division main command post.

The maneuver brigade headquarters provides the command and control facilities necessary to employ attached and supporting units. The only unit permanently assigned to the brigade is the brigade headquarters and headquarters company. The necessary combat, CS, and CSS units to accomplish the brigade mission are attached, OPCON, or placed in support of the brigade. Normally, the division will command and control from two to five ground maneuver brigades. The headquarters company furnishes logistic support, to include ground command vehicle support personnel for the brigade headquarters staff sections and security. The brigade normally controls from two to five attached maneuver battalions. It can be employed in independent or semi-independent operations when properly organized for combat.

## HEAVY DIVISION

The mission of armored and mechanized divisions is to close with and destroy the enemy by firepower, mobility, and shock effect. Armored units and armor-heavy teams and mechanized units and teams move, attack, and defend to defeat the enemy in close combat. Armored and mechanized forces fight as a combined arms team. Their mobility, armor protection, and lethal long-range, direct firepower contribute to the shock action required to defeat threat forces. These characteristics also enable armored, mechanized, and cavalry forces to apply their combat power through the depth of the battlefield, to disperse forces over wide areas, and to concentrate combat power at the decisive place and time to win.

## ARMORED AND MECHANIZED INFANTRY DIVISIONS

The operational concept of the armored and mechanized divisions is – to gain and sustain the initiative. Through the use of clear, expressive, mission-type orders that clearly articulate the intent of the commander, armored, mechanized, and cavalry forces understand their role in battle and are alert to the development of unexpected situations that provide opportunity for action outside the planned concept of operation, but suitable to the accomplishment of the commander's intent. The use of standardized procedures and simplified control measures allows armored and mechanized forces to capitalize on such opportunities. Organizations that are flexible and robust allow the commander to exploit success, thereby sustaining the initiative.

- to capitalize on the agility of the force. Commanders command from aircraft, tracked, and wheeled vehicles well forward in the battle, enabling them to recognize opportunity and to act faster than the enemy to exploit the opportunity. Staff unit battle drills and the reliance on SOPs shorten reaction time. Scout platoons and cavalry forces are specifically sited on the battlefield to look for critical events as defined in the IPB. The precise and accurate reports of these units allow the commander to disperse, concentrate, and again disperse his forces as required.
- to apply combat power through the depth of the battlefield. The mobility of the mechanized, armored, aviation, and cavalry forces allow them to rapidly reach and fight anywhere on the battlefield, close, deep, or rear.
- to synchronize the combined arms element of combat power for synergistic effect. Armored, mechanized, aviation, and cavalry forces normally fight as members of the combined arms team composed of tanks, mechanized infantry, helicopters, engineers, fire support, air defense, and CSS assets. They have staffs capable of integrating these assets into effective, synchronized combat power. Organizational structure allows for rapid and efficient cross attachment and task organization. Commanders, leaders, and staffs are trained to understand and employ com¬bined arms organizations.

Significant capabilities of heavy divisions include their ability

- to conduct nuclear and chemical operations with organic delivery systems.
- to conduct sustained, mobile, combat operations against enemy heavy forces in conventional, chemical, or nuclear environments.
- to operate as an attack or counterattack force and accomplish rapid movement in exploitation and pursuit.
- to conduct defensive operations, dispersing over great distances and concentrating rapidly from widely separated areas.

- to rapidly exploit success in the offense or defense, to include the effects of nuclear, chemical, and conventional fires, or defending in place.
- to conduct delaying actions against larger enemy heavy forces.
- to conduct security operations for a corps or provide their own security force.
- to provide organic air defense against low-altitude hostile aircraft.
- to conduct limited air assault operations with subordinate elements to quickly seize critical objectives.
- to control up to 15 maneuver battalions through the command and staff elements of division and brigade headquarters and headquarters companies.
- to conduct a battle in depth with organic and supporting systems against enemy forces in friendly rear areas and by attack of enemy follow-on echelons or reserves with air, other supporting fires, and maneuver forces.

Considerations for staff planning are:
- limited strategic deployability by air because of substantial quantities of heavy equipment.
- primary dependence on radio communications.
- restricted mobility in jungles, dense forests, steep and rugged terrain, built-up areas, and water obstacles.
- significant logistic support required for long administrative ground moves of tracked vehicles, often using railroad and highway transport.
- high consumption rate of supply items.

## LIGHT INFANTRY DIVISION

The light infantry division is a light combined arms force of maneuver, CS, and CSS units. Light infantry brigades and battalions are primarily organized, equipped, and trained to conduct combat operations against light enemy forces. Light infantry has as its primary focus low-intensity conflict, but can be used throughout all intensity levels. In the right terrain and with the right mission and when appropriately augmented with additional forces and support, the division is capable of fighting heavier forces. By maximizing the capabilities of their antiarmor systems and effectively using the terrain and weather to protect their forces, light infantry division commanders greatly increase their effectiveness on the battlefield.

The light division operates as a part of a corps or joint task force. It can be airlanded into secured operational areas or can gain entry from the sea. The light infantry division does not have the mechanized assets to close with the enemy's heavy forces in terrain suitable for mechanized operations without augmentation; rather, it is more effectively employed in terrain favoring dismounted operations, such as large urban areas, mountains, and jungles.

Significant features of the light infantry division are:
- when engaged in combat, the light infantry division is predominantly dismounted.
- the light infantry division requires less logistic support than equivalent mecha¬nized or armored units. The light infantry division's characteristically light equipment and less complex weapon systems require less maintenance support and less favorable conditions in which to operate.

Light infantry enters a battle using varied modes of strategic or tactical trans¬port. The limited amount of organic heavy equipment allows the light infantry division to be more easily transported by land, air, and naval vessels (amphibious operations). Available transport can be devoted to moving combat troops without necessitating the movement of large amounts of heavy equipment and maintenance units. Once employed, the light infantry division is relatively easy to resupply and sustain, and it can be readily repositioned for subsequent employment in critical areas. Divisional artillery is light, easily set up and employed, less complex, and matches the mobility and fighting characteristics of the supported infantry. Although some limitations in tracked mobility and sophis¬ticated weaponry are apparent when compared with the mechanized or armored division, the light infantry division achieves a commensurate gain in agility and responsiveness.

The lack of mobility of the division increases reaction time, thereby limiting battlefield maneuverability. Enemy mechanized forces may be able to apply decisive combat power before the light infantry division can concentrate its forces to alter unfavorable combat ratios. When required to operate alongside the more mobile armored or mechanized divisions, care must be taken to ensure that the more mobile divisions do not unnecessarily expose the light infantry division's flank(s).

Since the light infantry division's battlefield maneuverability is limited, timely and accurate intelligence of the enemy’s capabilities and intentions becomes critical to the division's disposition for combat. The mobility differential between dismounted infantry and opposing motorized or mechanized forces requires the infantry commander to exercise extreme caution in his efforts to concentrate forces on the battlefield. The light infantry division commander must deploy his division on terrain that will lessen the mobility differential. Most infantry concentrations of maneuver combat power will occur prior to the start of the battle, although movement in rugged terrain is possible during conditions of reduced visibility after the battle begins.

The light infantry division has less organic firepower - both direct and indirect-than armored and mechanized divisions. Light infantry units must be provided helicopter lift or ground transportation assets, when necessary, to in-

crease their tactical mobility. Ground maneuver elements employ tactical air, artillery, mortars, and reconnaissance assets in support of the scheme of maneuver. The division capitalizes on the initiative and capabilities of the individual soldier. Leaders instill high standards of discipline, physical conditioning, and esprit de corps. Soldiers train extensively with emphasis on basic combat skills. To enhance unit flexibility, cross-training and the attainment of individual proficiency on multiple weapon systems is emphasized. Agility and flexibility is ensured by a clear sense of offensive spirit, aggressiveness, and initiative.

The maintenance concept is different from that of the heavy division in that minimal intermediate (direct support) maintenance is performed in the forward areas. No significant missile repair is performed in the division.

Supply depends heavily on throughput and aerial resupply since the DISCOM transportation assets are very limited. Preconfigured unit loads (PULS) are configured in the wholesale base and stored in the COSCOM area. PULs consist of multiple items required for a single purpose which can be requisitioned with a single stock number.

**COMMENTARY:**

**1. Terms and Definitions:**

а) В тексте этого урока встречаются во многом схожие по своему значению термины **command, control, supervision**. Для передачи понятия «контроль» используется термин **supervision**, а не **control**, который в данном случае выступает «ложным другом» переводчика. Термин **control** переводится на русский язык как «управление», а терминологическое сочетание **tactical control** – «тактическое управление». В военных докуметах по сотрудничеству между Россией и НАТО в бывшей Югославии **tactical control** означает «тактическое взаимодействие». Термин **command** переводится как «командование», «управление», а терминологическое сочетание **command and control** – «командование и управление». Одним из исключений является фраза «Situation is under control», которая обычно переводится как «Ситуация под контролем».

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Что является основой любой американской дивизии?
2. Чем отличается организация тяжелой дивизии от организации легкой?

3. Сколько танковых батальонов находится в составе воздушно-десантной дивизии?
4. Как вы думаете, каково основное предназначение воздушно-штурмовой дивизии?
5. При какой обстановке согласно американским уставам должна применяться тяжелая дивизия?
6. Дивизия является основным тактическим соединением, не так ли?
7. За что отвечает командир дивизии?

**Exercise 6. Decipher and translate the following abbreviations:**

En; inf; div HQ; HQ co; div arty; DISCOM; cav sqdn; ADA bn; engr bn; sig bn; MI bn; MP co; cml co; avn bde; AD; SOP; mech inf; hel; engr; FISU; CS; CSS; JTF; COSCOM; TOE; EAC; obj; JCS; SACEUR; OOTW; OSD; CENTCOM; NDU; OPCON; CONUS; CINC; AFSC; PSYOPS; UW.

**Exercise 7. Translate the following words and word combinations by ear:**

Organic, attached, or supporting units; light division; to defeat the enemy in close combat; concept of operation;, task organization; low-intensity conflict; dismounted operations; responsiveness; follow-on force; in conjunction with; to meet the needs of war; to implement national objectives; sustained combat operations; the Army consists of; it operates under the authority of; in time of war; the execution of approved plans. Сблизиться и уничтожить противника при помощи огневых средств, маневра и удара, тяжелая дивизия, рукопашный бой, постоянно действующая инструкция взаимное переподчинение, объединенная оперативная группа, морская десантная операция, превосходство в воздухе, соединение десанта с наземными войсками.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Significant capabilities of the light division enable it:<br>to attack to defeat light enemy forces or seize terrain. If properly task organized and augmented, it can attack to defeat heavy enemy forces on close terrain; | вести боевые действия против легких частей противника в одном из запланированных для этого районах, в любое время суток, во всех климатических условиях, на любой местности. Дивизия может действовать |

| | |
|---|---|
| | самостоятельно или как часть объединения; |
| to reinforce forward deployed forces by full integration into their operating and support structure, particularly as an economy of force unit on close terrain, to allow deployed mechanized or armored units the freedom for decisive employment elsewhere on the battlefield; | вести боевые действия в течение 48 часов без поддержки извне, используя штатные средства передвижения. Обеспечить командование и управление штатными силами и приданными для усиления войсками; |
| to participate in amphibious operations. To conduct air assault operations within the limits of organic aviation assets. To reinforce or be reinforced by combat, CS, and CSS units. To operate as a combined arms force with organic infantry, engineers, artillery, aviation, and air defense. | Легкая пехотная дивизия обладает и рядом недостатков: тактическая мобильность дивизии ограничена количеством штатных транспортных средств, включая авиацию, средств ведения радиационной и биологической разведки; |
| external CSS support is required after 48 hours. The division operates without redundant systems. Deployment into a hostile area normally requires local air superiority and possibly naval support; | полевая артиллерия дивизии имеет ограниченную дальность стрельбы. Отсутствие достаточного количества бронетехники не позволяет применять дивизию данного типа на направлении главного удара |

**Exercise 9. Translate the following text at sight:**

**THE DIVISION**

The division is the largest Army fixed organization that trains and fights as a tactical team. It is organized with varying numbers and types of combat, combat support (CS), and combat service support (CSS) units. A division may be armored, mechanized, motorized, infantry, light infantry, airborne, or air assault. It is a self-sustaining force capable of independent operations, even for long periods of time, when properly reinforced. Each type of division conducts

tactical operations in a low-, mid-, or high-intensity combat environment. Divisions are the basic units of maneuver at the tactical level. The AirLand Battle is won or lost by the division integrated fight.

Divisions plan future operations based on the echelons above corps (EAC) and corps commanders' intent and allocate resources based on battalions and brigades. Divisions defend against three or more assaulting enemy divisions. The defending division commander directs, coordinates, and supports operations of his brigades against assaulting regiments. The division interdicts follow-on regiments to disrupt and delay those forces as they attempt to join the battle. When attacking, the division commander directs, coordinates, and supports his brigades' operations against enemy battalions and regiments. The division interdicts deeper enemy echelons, reserves, and combat support forces-those that can affect brigade operations.

**Exercise 10. Translate the following text at sight:**

## ДИВИЗИЯ МИРОТВОРЧЕСКИХ СИЛ

Дивизия миротворческих сил Российской Федерации была сформирована на базе 27-й мотострелковой дивизии Приволжского военного округа.

По мнению специалистов ГШ, дивизия миротворческих сил может входить в состав мобильных сил Российской Федерации – сил быстрого реагирования. Соединение такого рода должно быть бригадного состава, так как это наиболее оптимальная форма организации.

Изначально предполагалась следующая структура дивизии: 12 мотострелковых батальонов, из которых 4 – гусеничные (heavy), т.е. имеющие на вооружение танки и БМП, остальные – на колесной бронетехнике и БТР. Обязательно 3 – 4 управления бригад с подразделениями обеспечения. В таком случае командование получает возможность более гибко решать задачи, составлять и направлять в назначенный регион оптимальную группировку сил и средств.

Предполагается для конфликтов "малой интенсивности" использовать два легковооруженных (light) батальона с батареей артиллерийской поддержки и звено вертолетов, для более серьезных конфликтов – 5 батальонов (из них 2 гусеничных), 2 отдельных самоходных дивизиона общей огневой поддержки и 1 – 2 эскадрильи вертолетов смешанного состава (транспортные и огневой поддержки).

Таким образом, в составе дивизии целесообразно иметь 4 – 5 отдельных самоходных артиллерийских дивизиона, подразделения армейской

авиации, а так же отдельные части всех видов тылового и боевого обеспечения.

**Exercise 11. Translate the following text in writing:**

**AIRBORNE DIVISION**

The airborne division is organized to be rapidly deployed anywhere in the world:
- to conduct combined arms combat parachute assault to seize and secure vital objectives behind enemy lines until linking up with other supporting forces;
- to exploit the effects of nuclear or chemical weapons;.
- to rescue US nationals besieged overseas;
- to reinforce forward-deployed forces (if augmented with transportation);
- to serve as a strategic or theater reserve;
- to conduct large-scale tactical raids;
- to occupy areas or reinforce friendly or allied units beyond the immediate reach of ground forces;
- to capture one or more intermediate staging bases or forward operating bases for ground and air operations.

The airborne division conducts airborne assaults in the enemy's rear to secure terrain or to interdict routes of resupply or enemy withdrawal. It is ideally suited to seize, secure, and repair airfields to provide a forward operating base for follow-on airlanded forces. It can conduct air assault operations as well as other missions normally assigned to infantry divisions.

The airborne division achieves surprise by its timely arrival on or near the battlefield. The range of aircraft and instrumentation capability provide the Air Force with a capability to accurately deliver the airborne division into virtually any objective area under almost any weather condition.

Because the airborne division is tailored for airdrop operations, it can be employed more rapidly than other US divisions. All equipment is air transportable and, except for aircraft, must be air-droppable. All personnel are trained for airborne operations.

Special staff considerations must be given to attack by enemy armor or motorized formations. The division does not have sufficient armor protection to defeat heavier armored formations at close range. Substantial numbers of antitank weapons in the division compensate, but do not completely offset.

**Exercise 12. Translate the following text in writing:**

**ПОДГОТОВКА РЕЙНДЖЕРОВ**

Подготовка рейнджеров ведется на специальных курсах. Кандидаты в эти элитные подразделения отбираются из числа рядовых-контрактников, поступивших на военную службу и достигших высоких результатов в ходе первоначальной подготовки в своих частях. Кандидаты проходят сложные тесты. В испытания на физическую пригодность, например, входят: скольжение по канату на заданное расстояние, отжимание в упоре лежа, бег с препятствиями, кросс на 2 мили с полной выкладкой, плавание в обмундировании и обуви со снаряжением.

Весь процесс подготовки курсантов делится на три этапа: начальная подготовка в Форт-Беннинг (штат Джорджия, 388 ч), горная подготовка в местечке Дахлонега (Джорджия, 309 ч), третий – обучение действиям в болотистой местности и джунглях (Флорида, 376 ч). Проводятся также занятия по минно-взрывному делу, допросу военнопленных, ориентированию на местности. В ходе обучения военнослужащие разбиваются на пары, что способствует формированию у них духа взаимовыручки, соревновательности и навыков, необходимых для совместного преодоления трудностей.

Исходя из опыта боевых действий рейнджеров в настоящее время гораздо большее внимание уделяется психологической подготовке курсантов. Признавая необходимость поддержания высокого морального духа для достижения успеха в бою, американские военные специалисты разрабатывают систему специальных психологических упражнений, позволяющих рейнджеру в боевых условиях максимально сконцентрироваться на выполнении своей задачи, преодолевая чувства неуверенности, страха и т. д. При этом у солдата вырабатываются такие качества, как инициативность, исполнительность и уверенность в благополучном исходе любой операции.

Военнослужащие, успешно прошедшие полный курс обучения, в торжественной обстановке принимают клятву рейнджера, после чего получают соответствующее свидетельство и направляются на службу в батальоны рейнджеров или роты глубинной разведки. Они носят обычную армейскую форму одежды, причем военнослужащие батальонов имеют свои знаки отличия: на верхней части рукавов черно-золотые нашивки с надписью, на беретах кокарды в виде гербового орла (зеленые – для 1-го и 2-го батальонов и черные – для 3-го), а солдаты и офицеры рот глубинной разведки – свои: на рукавах нашивки с надписью, литерой роты и

номером полка (75-й). Они носят черные береты и особые нагрудные значки.

## ARMY HUMOR
## My men are very brave

General McKenzie was in charge of the Navy, and he was visiting his colleague General Marshall, who was in charge of the Army. McKenzie arrives at the military camp and is greeted by Marshall. They both walk around the place, and McKensie asks: "So how are your men?"

"Very well trained, Gral. McKenzie."

"I hope so. You see, my men over at the Navy are so well trained, you could see they're the bravest men all over the country." "Well, my men are very brave, too."

"I'd like to see that."

So Marshall calls private Cooper and says: "Private Johnson! I want you to stop that tank coming here with your body!"

"Are you crazy? It'd kill me, you idiot! I'm out of here!" As private Johnson ran away, Marshall turned to a bewildered McKenzie and said:

"You see? You have to be pretty brave to talk like that to a general."

## УРОК 4
## СТРЕЛКОВОЕ ОРУЖИЕ

## LESSON 4
## SMALL ARMS

**Exercise** 1. **Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| recoilless | gases |
| powder | carbine |
| jacketed | traumatic |
| lead bullet | inhumane warfare |
| primarily | compactness |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Dismounted operations; responsiveness; follow-on force; in conjunction with; to meet the needs of war; to implement national objectives; sustained combat operations; the Army consists of; it operates under the authority of; in time of war; the execution of approved plans.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| firearms | огнестрельное оружие |
| rifle | винтовка, нарезное оружие |
| repeating rifle | автоматическая винтовка |
| assault rifle | автомат |
| recoilless rifle | безоткатное орудие |
| handgun | ручное огнестрельное оружие |
| shotgun | ружье |
| submachine gun | пистолет-пулемет; автомат |
| machine gun | пулемет |
| muzzle velocity | начальная скорость полёта (пули) |

| | |
|---|---|
| smokeless powder | бездымный порох |
| grenade launcher | гранатомет |
| crew-served weapons | групповое оружие |
| coating | покрытие |
| jacket | оболочка пули |
| wire guided missiles | управляемая по проводам ракета |
| homing missile | самонаводящаяся ракета |
| mortar | миномет |
| stock | приклад |
| sights | прицел; прицельные приспособления |
| trigger | спусковой крючок |
| bipod | сошка |
| ammunition | боеприпасы |
| rounds | патроны |
| shoulder gun | индивидуальное огнестрельное оружие с прикладом |
| full-automatic fire | автоматический огонь |
| semi-automatic fire | полуавтоматический огонь |
| fire in bursts | огонь очередями |
| fire by single shots | огонь одиночными выстрелами |
| cartridge | патрон |
| squad automatic weapon (SAW) | автоматическое оружие отделения, пулемет отделения |
| close quarters combat | ближний бой |
| prone position | положение для стрельбы лежа |
| rifled barrel | нарезной ствол |
| smoothbore | гладкоствольный |
| buttstock | приклад |
| receiver | ствольная коробка |
| fore grip | цевьё |

| | |
|---|---|
| rod | шомпол |
| rifle groovs | нарезы канала ствола |
| flame supressor | пламегаситель |
| noise supressor | глушитель |
| bolt carrier | затворная рама |
| bolt | затвор |
| gas piston | газовый поршень |
| bullet's jacket | оболочка пули |
| copper | медь |
| selector | предохранитель |
| heavy machine gun | тяжелый (единый, станковый) пулемет; крупнокалиберный пулемет |
| light machine gun | лёгкий (ручной) пулемет |

**Exercise 4. Read and translate the text at sight:**

**SMALL ARMS**

Small arms (SA) are firearms that may be both carried and discharged by one person, as opposed to artillery weapons. The automatic weapons developed from such firearms are also called small arms. Machine guns using the same ammunition as military rifles, as well as the larger caliber machine guns, are so classified.

Because the dividing line between small arms and artillery weapons is so vague, the various national military services have set arbitrary maximums on the caliber of the weapons regarded as small arms. These limits have been changed from time to time. Small arms are not subject to precise definition, but the term usually includes rifles, handguns (pistols and revolvers), shotguns, submachine guns, and machine guns.

In the 19th century, the design of small arms was revolutionized by the development of successful repeating rifles and the invention of smokeless rifle powder. It allowed the development of increased muzzle velocities and improved ballistic qualities. High muzzle velocities would often strip a lead bullet as it passed through the rifled barrel. Coating the bullet with a jacket of harder metal, such as copper or steel, prevented stripping. A jacketed bullet also produces a cleaner wound, whereas a non-jacketed or partially jacketed bullet (also called a dumdum bullet) expands and deforms upon impact, pro-

ducing more traumatic injuries. Two international agreements, the 1899 and 1907 Hague Conferences, restricted certain types of inhumane warfare, and jacketed bullets became standard in all rifled military small arms.

US infantry units may be armed with SA, grenade launchers, recoilless rifles, wire guided and homing missiles, and mortars. Infantry weapons are further classified as individual and crew-served while SA i.e. firearms with caliber below .60in are divided into handguns and shoulder guns.

Handguns are arms intended to be fired with one hand. These include automatic pistols and revolvers. The principal handgun used in the US Army is the M-9 Beretta pistol. It is carried by service members who do not carry rifles, such as tankers and aviators. It can be fired effectively by right-handed or left-handed shooters.

Shoulder guns are arms intended to be fired primarily from the shoulder. These include rifles, carbines, submachine guns, and machine guns.

A rifle is a firearm which has a barrel cut with spiral grooves; these make the bullet spin and so travel more accurately. Modern rifles are capable of delivering full-automatic fire in short or long bursts or semiautomatic fire by single shots.

A carbine is an arm with all the basic characteristics of the rifle except that the barrel is shorter and the stock and sights are altered accordingly to reduce the weight and make up for a more compact weapon.

A submachine gun is a lightweight weapon designed to use pistol ammunition (ammo). It can fire cartridges full automatically as long as the trigger is held back. It may incorporate a selector to permit a semiautomatic type of action.

The US Army uses the M4/M4A1 carbine, the M16A2 rifle, and the M249 Squad Automatic Weapon (SAW). All three fire 5.56 mm rounds.

The M16A2 is the standard issue rifle for the United States Army. Lightweight and durable, the M16A2 is capable of firing in either semi-automatic mode or three-round bursts.

The M4 is a shortened variant of the M16A2 rifle, yet wielding the same firepower. Ideal for close quarters combat, the M4 is the perfect combination of firepower and compactness.

The M203 is grenade launcher mounted under the M16A2 or M4. The single-shot M203 attachment fires 40mm grenades with a devastating effect. Because the grenades only activate mid-flight, the M203 is most effective at engaging medium to long-range targets. Activation range for the 40mm grenade is 15-40 meters.

The M249 Squad Automatic Weapon (SAW) forms the basis of firepower for the fire team. The M249 is an accurate and durable battlefield weapon, best used prone or supported.

**COMMENTARY:**

**1. Terms and Definitions:**

а) В текстах по стрелковому оружию переводчику часто приходится сталкиваться со своим «ложным другом» – термином **effective range of fire**. Данное терминологическое сочетание не следует переводить не существующим в военном подъязыке русского языка термином «эффективная дальность огня». Правильно – использовать термин «дальность действительного огня».

**Exercise 5. Translate the following questions by ear and answer them in English in English:**

1. Who carries the M-9 Beretta pistol in the US Army?
2. Are machineguns regarded as shoulder guns?
3. Can the rifle fire in long bursts?
4. Why does a bullet fired by a rifle travel more accurately?
5. Can you name the current rifles and carbines operational with the US Army?
6. What is the effective range of the M203 grenade launcher?

**Exercise 6. Decipher and translate the following abbreviations:**

SAW, PT, CSS, SA, BDU; SOP, ammo, CONUS, MP co, JCS, SACEUR, rfl, NCO, SGT, hel, RPG, ToD, KP; CinC, OOTW, AD, JTF, CENTCOM, arty, cal, avn bde, cav sqdn, prvt, PSYOPS, mm, engr, TOE, obj, sig bn, LTC, obj.

**Exercise 7. Translate the following words and word combinations by ear:**

The M16A2 is the standard issue rifle for the United States Army; its stock and sights are altered to reduce the weight; as long as the trigger is held back; homing missiles; muzzle velocity; to fire in bursts; mortar; coating; crew-served weapons; wire guided missiles; rounds; the term usually in-

cludes; shotgun; the basic characteristics of the rifle; wielding the same firepower; as long as the trigger is held back; three-round bursts.

В отличие от; как и пулеметы большего калибра; произвольные пределы; также входить в эту категорию; не поддаваться точному определению; различные виды вооруженных сил; многозарядные винтовки; изобретение бездымного пороха; укороченный вариант; деформироваться при ударе; иметь на вооружении гранатометы и безоткатные орудия; основной пистолет; им вооружены танкисты; однозарядный подствольный гранатомет; вести огонь с упором в плечо.

**Exercise 8. Translate the following words and word combinations by ear:**

| | |
|---|---|
| Какое вооружение относится к стрелковому оружию? | Small arms (SA) are firearms that may be both carried and discharged by one person, as opposed to artillery weapons. |
| Каковы преимущества автоматической винтовки? | It allowed the development of increased muzzle velocities and improved ballistic qualities. |
| Какие ограничения были введены Гаагской конференцией относительно применения стрелкового оружия? | Two international agreements, the 1899 and 1907 Hague Conferences, restricted certain types of inhumane warfare, and jacketed bullets became standard in all rifled military small arms. |
| Что представляет собой винтовка? | A rifle is a firearm which has a barrel cut with spiral grooves; these make the bullet spin and so travel more accurately. Modern rifles are capable of delivering full-automatic fire in short or long bursts or semiautomatic fire by single shots. |
| Что легче: карабин или винтовка? | A carbine is an arm with all the basic characteristics of the rifle except that the barrel is shorter |

and the stock and sights are altered accordingly to reduce the weight and make up for a more compact weapon.

**Exercise 9. Translate the following text at sight:**

**Text 1.**

John Moses Browning developed the world's first practical gas-operated machine gun in 1895. The gun was air cooled, had a simplified belt feed, and was lighter and had fewer parts than the Maxim gun. Browning's brilliant designs were used to create several types of automatic rifles, heavy machine guns, and aircraft guns. Several guns designed by Browning in the early 20th century were used during World War II and the Korean War (1950-1953). The M2 Browning heavy machine gun, designed during World War I, is still in use today.

**Text 2.**

Automatic rifles were used to arm a limited number of automatic riflemen in each infantry company during World War I. Between the two World Wars, the United States adopted the Garand, or M1, semiautomatic rifle as standard equipment for all troops. Later, such troops as artillerymen, engineers, and signalmen were armed with the M1 carbine, of considerably less weight and range, but more suited to occasional use for defense.

Late in World War II the carbine was modified to permit full automatic as well as semiautomatic fire. The M1 rifle operates by means of gas, loading a fresh round from an 8-shot magazine. In 1957 the M14 rifle, with a 20-round magazine, was adopted by the U.S. Army to replace the M1. The M16 rifle, which permits full- or semi-automatic fire, was introduced in 1966, during the Vietnam War.

**Exercise 10. Translate the following text at sight:**

В Венесуэлу прибыла партия российского оружия, состоящая из нескольких тысяч автоматов Калашникова. Автоматы были закуплены Венесуэлой для модернизации своих вооруженных сил, которую проводит президент страны. Всего из России будет доставлено 100 тысяч единиц оружия.

Венесуэльские власти также проводят переговоры с российскими оружейниками о строительстве завода в Венесуэле для сборки и экспорта

"калашниковых". "Русские намерены построить завод по производству автоматов Калашникова и боеприпасов, так что мы сможем защитить каждую улицу, каждый холм, каждый угол", – заявил ранее президент латиноамериканской страны.

В мае Соединенные Штаты ввели санкции на поставки вооружений в Венесуэлу, обвиняя Каракас в отказе сотрудничать в глобальной войне США с террором.

По словам корреспондента британской BBC в Каракасе, в соседней Колумбии также с беспокойством воспринимают эти поставки российского оружия.

Россия и Венесуэла также подписали первый контракт о продаже Каракасу 10 военных вертолетов российского производства. Чавес намерен потратить 2,7 миллиарда долларов на модернизацию вооруженных сил Венесуэлы.

**Exercise 11. Translate the following text in writing:**

**HEAVY MACHINE GUNS**

Heavy machine guns fire .50-caliber (12.7-mm) or larger ammunition and generally require a crew. Heavy machine guns can deliver concentrated and devastating firepower. They often serve as the main armament on land combat vehicles and on some aircraft. The M2 heavy machine gun, designed by American inventor John Moses Browning, was first built at the end of World War I (1914 – 1918). With some modifications, it still serves in the U.S. military and in other armies of the world. Another type of heavy machine gun is the U.S. Mark 19 machine gun, which fires 40-mm grenades. The grenades explode upon impact, making the weapon useful against both armored targets and enemy soldiers.

**BAZOOKA**

The bazooka was a small, portable rocket launcher introduced in the 1940s. It was typically operated by two soldiers, one to load the rocket into the launcher and another to hold, aim, and fire it. Its introduction revolutionized antitank warfare. A 3.5-in. rocket launcher superseded the bazooka in the Korean War. The rocket launcher fired an 8.9-lb rocket a distance of 800 yd; the rocket could penetrate 11 in. of armor plate. The modern equivalent of the bazooka, the 66-mm caliber rocket launcher, consists of a rocket preloaded into a disposable launcher that can be operated by one person.

**Exercise 12. Translate the following text in writing:**

**ПИСТОЛЕТ БУДУЩЕГО**

Если в ближайшем будущем на вооружении Российской армии появится новый пистолет, то это, скорее всего, будет пистолет Ижевского механического завода. Созданный специально для производства короткоствольного оружия в 1942 г., имеющий 50-летний опыт производства ПМ, уникальную технологию производства пистолетов и самое большое производство в мире этого оружия, завод просто "обречен" реализовать талант своих конструкторов и инженеров, создав действительно надежный армейский пистолет завтрашнего дня. Для того чтобы сегодня представить положение дел и перспективы Ижмеха, публикуем статью ведущего конструктора Михаила Драгунова:

– До конца 80-х годов положение дел с пистолетами в нашем государстве можно было охарактеризовать модным в ту пору словом "застой". Почти четыре десятилетия армию вполне удовлетворял пистолет Макарова – конструкция, вобравшая в себя на момент принятия на вооружение наиболее передовые для того времени конструктивные идеи и к тому же отработанная за время серийного производства до высочайшего уровня надежности. Но уже к этому времени перед российскими оружейниками встала задача поиска замены испытанной и отработанной в производстве модели. Во-первых, в связи с появлением средств индивидуальной бронезащиты возникла необходимость в более мощном пистолетном патроне. Во-вторых, в это время на вооружение ряда армий принимаются пистолеты с магазинами увеличенной вместимости – на 13 – 15 патронов: Glock 17, Beretta 92F, Heckler&Koch P7M13. В этих условиях "Макаров" с его 8-зарядным магазином и патроном, значительно уступающим (inferior) по мощности 9-мм патрону "Luger", устарел морально.

**ARMY HUMOR**
**Bring some more ammo**

The company commander saw the results of Private Gibbson's Firing exercise and his face fell. The private exclaimed plaintively: "Sir, I think I am going to commit suicide by shooting myself."

"By shooting?" reasked the company commander, "Not a bad idea! But take as many cartridges as possible."

## УРОК 5
## АРТИЛЛЕРИЯ

## LESSON 5
## ARTILLERY

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| integral | liaison |
| howitzer | caliber |
| diameter | towed |
| data | Achilles heel |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Its stock and sights are altered to reduce the weight; as long as the trigger is held back; homing missiles; muzzle velocity;; to fire in bursts; mortar; coating; crew-served weapons; wire guided missiles; rounds.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| artillery battalion | артиллерийский дивизион (адн) |
| carriage | лафет, орудийный станок; ходовая часть |
| piece | орудие, ствол |
| direct fire | огонь прямой наводкой |
| indirect fire | огонь с закрытых огневых позиций |
| rocket launcher | ракетная пусковая установка; реактивная установка, направляющая ракеты |
| fire direction section | секция (взвод) управления огнём |
| projectile | снаряд; (минометная) мина; пуля |

| | |
|---|---|
| towed | буксируемый; прицепной |
| self-propelled (SP) | самоходный |
| prime mover | тягач |
| flat trajectory | настильная траектория |
| lofted trajectory | навесная траектория |
| to concentrate fire | сосредоточивать огонь |
| to furnish fire | вести огонь |
| close supporting fire | огневое сопровождение |
| assembly area | район сосредоточения |
| survey section | топогеодезическая секция |
| to interdict supply lines | воспрещать подвоз материальных средств |
| counterfire | 1. контрбатарейный огонь<br>2. ответный огонь |
| firing data | данные для стрельбы |
| liaison section | секция связи (взаимодействия) |
| ammunition section | секция боепитания |
| bore | канал ствола |
| quadrant | квадрант |
| to pierce armor | пробивать броню |
| fire support coordination center (FSCC) | центр координации огневой поддержки |
| howitzer | гаубица |
| Multiple Launch Rocket System (MLRS) | реактивная система залпового огня (РСЗО) |
| combat readiness time | время приведения в боевую готовность |
| combined arms | общевойсковой |
| cannon | пушка |
| cannons | 1. ствольная артиллерия |

| | |
|---|---|
| | 2. ствольные артиллерийские орудия |
| tube artillery | ствольная артиллерия |
| missiles | реактивная артиллерия |
| large gun | пушка |
| chamber pressure | давление в зарядной камере |
| flick ramming | импульсная подача и досылание снаряда |
| primer cartridge | гильза (после выстрела) |
| fuse | взрыватель |
| primer charge | пороховой заряд, метательный заряд |
| ammunition flow | подача боеприпасов |
| accuracy | точность |
| smarter munition | «умный», высокоточный боеприпас |
| fixed ammunition | унитарный артиллерийский выстрел |
| muzzle | дульная часть (дуло) |
| muzzle velocity | начальная скорость |
| muzzle brake | дульный тормоз |
| recoil | отдача |
| recoil system | противооткатное устройство |
| recoil rod | шток противооткатного устройства |
| close and continious fire support | непрерывная непосредственная огневая поддержка |
| to give depth to the battlefield | сообщать глубину боевому пространству |
| assembly area | район сосредоточения |
| supply lines | пути подвоза материальных средств |

| | |
|---|---|
| land | поле нареза |
| fire superiority | огневое превосходство |
| suppresive counterbattery fire | огонь на подавление артиллерии противника |
| volume of fire | плотность огня |
| to mass fires on one target | сосредоточивать огонь по одной цели |
| artillery battaloin | артиллерийский дивизион |
| headquarters battery | штабная батарея |
| firing battery | огневая батарея |
| fire direction centre (FDC) | центр управления огнем |
| fire observer (FO) | передовой артиллерийский наблюдатель (ПАН) |
| liason officer | офицер связи взаимодействия |
| fire support coordinator (FSC) | офицер по координации огневой поддержки |
| fire direction officer (FDO) | офицер по управлению огнем |
| Standard Unit Set of Ammunition | штатный боекомплект |
| basic load | штатный боекомплект |
| artillery-delivered high precision munition (ADHPM) | артиллерийский высокоточный снаряд |
| scatterable mine | дистанционно устаналиваемая мина (кассетная) |
| illumination ammunition | осветительный боеприпас |
| smoke (WP) ammunition | дымовой боеприпас (снаряженный белым фосфором) |
| white phosphorus | белый фосфор |
| high explsive fragmentation ammunition (He-Frag) | осколочно-фугасный боеприпас |

| | |
|---|---|
| improved conventional munition (IMC) | снаряд повышенного могущества |
| Flechette ammunition | игольчатый боеприпас, снаряд со стреловидными поражающими элементами |
| high explsive antitank fin stabilised (HEAT-FS) | кумулятивный снаряд, стабилизированный оперением |
| precision-guide munition | высокоточный управляемый боеприпас |
| haul capacity | количество снарядов в подразделении |
| unit of fire | боекомплект подразделения |
| pinpoint target | точечная цель |
| infantry fighting vehicle (IFV) | боевая машина пехоты (БМП) |
| first round kill (hit) | поражение первым выстрелом |

**Exercise 4. Read and translate the text:**

## ARTILLERY

Generating combat power at the decisive time and place achieves victory on the battlefield, artillery is an integral part of a modern combined arms force. Artillery is a general military term for large weapons such as cannons and rocket launchers. Artillery also describes the section or branch of an army that employs these weapons.

The large weapons known as artillery are used by ground forces or mounted on aircraft and ships. They include four main types of weapons: large guns, mortars, howitzers, and rocket launchers. Large guns, mortars, and howitzers are types of cannons.

A gun is a cannon that fires projectiles from a long tube (known as the barrel) at high velocity in a low, flat trajectory. The projectile usually carries a charge that explodes when it hits its target. The barrel of a gun may have spiraled grooves in its bore; the process of adding these grooves is called rifling. Rifling improves the stability of a projectile in flight, making its trajectory more accurate. Some guns use ammunition that can pierce armor. Guns are widely used on warships, armored combat vehicles, and tanks.

Modern advances in armament and technology continue to drive the development and application of combined arms doctrine. The integration of artillery assets into a unified fire support plan is a major task for the combined arms commander. Integration is also fundamental to the success of any operation. The artillery forces call for maximal range and rate of fire. Increasing rate of fire and chamber pressure lead to higher strains on gun, projectiles, primer charges, fuses and ammunition flow. Burst firing requires a very high reliability of all components: flick ramming must not impair fuse function, primer cartridges must be extracted reliably at all chamber pressures, shock and vibration effects on components must be tolerable. Short combat readiness time, quick ammunition change and energy management are additional requirements.

The future thrust in gun systems is with higher accuracy guns, longer range, and smarter munitions. By using smaller magazine loads, ammunition can be mixed to better encounter a diversity of targets. Increasing the speed of the loading, ramming and firing operation is a goal of many organizations. For example, fixed ammunition would require only one ramming action, although it would introduce higher g forces. Large calibre weapons, 155 mm howitzers for instance, are usually equipped with muzzle brakes. The purpose of these brakes is to reduce the recoil impulse on the weapons. Muzzle brakes unfortunately have negative side effects on the recoil system. The effect is that a force resulting from the gas pressure on the blades in the muzzle brake acts on the barrel, initiating oscillations. These oscillations are transferred from the barrel to the recoil system. The force acting on the recoil rod assemble therefore is oscillatory.

The mission of artillery is to furnish close and continuous fire support by neutralizing, destroying and suppressing targets which threaten the success of the supported unit. Artillery conducts three key tasks to accomplish their mission:

- the primary task of artillery is to provide close and continuous fire support to the maneuver units. The key words are "close and continuous": fire support is provided day or night and in all weather conditions.
- artillery gives depth to the battlefield. Weapons with ranges of twenty-plus kilometers have the ability to attack reserves and assembly areas, interdict supply lines, and disrupt the enemy's command and control facilities.
- deliver counterfire within the range of our weapon systems to ensure freedom of movement for ground forces.

Cannons are also classified according to caliber. Caliber is the diameter of the bore measured at the muzzle from land to land.

- Light □smaller than 120mm

- Medium □greater than 120mm but less than 160mm
- Heavy □greater than 160mm

Artillery can further be classified according to type of transport used to move the piece.

- towed □The cannon is mounted on a carriage designed to be pulled by a separate prime mover (M923 5-ton truck for the M198 howitzer).
- self propelled (SP) □The cannon is permanently installed on a vehicle for transport.

Integrated fire support is a decisive element on the modern battlefield. In the offense, it is the principal means of achieving an advantageous correlation of forces over the enemy. It can blast gaps in defenses; disrupt, immobilize, or destroy enemy groupings in his tactical depth; and repel counterattacks. In the defense, it disrupts enemy preparations for the attack, causes attrition as he approaches the forward edge, and repels forces that reach or penetrate the forward edge. Fire superiority is a precondition for the success of any attack. The attacker must be able to execute his fire missions while suppressing counterbattery fire. Fire superiority is also the cornerstone of any defense, although often achieved only for a limited time, at the crucial point in the battle.

Battalion fires are the preferred method of fire for the OPFOR, although there are situations in which battery fire is appropriate. Fire superiority often results from using battalion-size fires, and from artillery groups formed from "top-down" provided assets. The main benefits of battalion versus battery fires result from two major factors: increased volume of fires and decreased firing times. Increased volume of fires allows delivering up to three times the number of rounds fired against the target/target area during a specific period of time. These fires reduce the time to fire the specific number of rounds to achieve the desired damage criteria by about two-thirds. The shorter firing time(s) could also improve/enhance survivability by reducing their exposure to counterfire assets.

The artillery battalion is the basic tactical unit for the artillery. Its firing units can effectively mass their fires on one target for maximum effect or can engage several targets simultaneously. Each battalion contains a headquarters battery and three firing batteries (8 howitzers in each battery, 24 howitzers in the battalion). Each battalion is currently equipped with M198 howitzers.Here are three firing batteries in each artillery battalion.The battery is commanded by a captain. Each battery has six howitzer sections (with one howitzer in each section) and two fire direction centers. The battery headquarters element contains communication, motor transport, medical, liaison, and ammunition sections.The battery fire direction center (FDC) exercises tech-

nical fire control for the battery and communicates with higher headquarters and the supported unit.The battery provides a liaison section to the supported infantry battalion. The section provides artillery liaison personnel, to operate with the fire support coordination center (FSCC) and FO teams, with equipment, to operate with the company fire support teams of the supported battalion. The Firing Battery Team. Regardless of the organization and equipment, the mission of the firing battery remains the same: "to put steel on target as quickly as possible."

Accomplishing this goal requires a three part team:

a. The observer □"The Eyes". The FO teams and the liaison section provide the link between the maneuver unit and the supporting artillery. The FO will locate and identify targets for the battery or battalion to engage. The liaison officer will assist the infantry battalion fire support coordinator (FSC) in coordination and planning of artillery support. The FOs "see" the battlefield and feed information to the FDC.

b. The FDC □"The Brain". The FDC is the brain of the battery. The information gained by the "eyes" is fed here. The fire direction officer (FDO) is responsible for the FDC. Upon hearing the call for fire, he issues a fire order to the FDC. Using the lightweight computer system (LCS), backup computer system (BUCS), or manual computation, the FDC takes the rough information obtained from the "eyes" and calculates firing data for the howitzer. Data is sent to the guns digitally or by voice on a communication wire line.

c. The howitzer section □"The Muscle". The howitzer section applies the data to the gun and delivers "steel" to the target. The section chief (staff sergeant) is responsible for the howitzer section. He ensures that the correct fuze, fuze setting, round, charge, deflection, and quadrant are fired.

An artillery unit has its Standard Unit Set of Ammunition (Basic Load), which describes the ammunition carried by the organic transport of an artillery unit. Artillery units begin battle with a full complement of ammunition, to include specialized ammunition such as artillery-delivered high precision munitions (ADHPM), scatterable mines, illumination, and smoke. Under normal conditions specialized munitions are present in limited numbers. This allows a commander to respond to unforeseen situations. The makeup of these ‘basic loads" varies between systems, based on unit missions, ammunition available and haul capacity. The following is a possible breakout of ammunition that would be available to an artillery unit: He-Frag ; ICM; Flechette; HEAT-FS; Smoke (WP) ; Illumination; ADHPM (includes all munitions referred to as precision-guided munitions (PGM)); Scatt Mines.

Haul capacity includes the weapons on-board storage and the carrying capacity of trucks organic to the unit. Units could also receive additional trans-

portation support from division and army-level assets if required by the situation. For all systems, additional ammunition above these "basic loads" would be predominately HE-Frag with a limited number of ICM. Other types of ammunition are allocated to meet specific mission requirements.

A unit of fire is a logistical calculation for resupply of ammunition and does not imply any specific types of ammunition. At battalion level, a unit of fire only applies to high volume ammunition such as HE-Frag, ICM, and the extended range version of these rounds. Other ammunition types, such as PGMs, scatterable mines, chemical, illumination, and smoke are handled on a special basis. These munitions are issued only as needed to fulfill specific missions or resupply expended stocks. Thus, there are "standard" and "special" units of fire. A "standard" unit of fire has only one type of ammunition, normally a "killing" round (HE-Frag or ICM). A "special" unit of fire will have "killing" rounds but will also include specialized ammunition. Ammunition distribution can be used to influence the battle. This not only means the amount but also the types of ammunition supplied. The main effort may not only receive more ammunition than the supporting effort, but it may also receive a higher percentage of improved munitions than the supporting effort. Conversely, the supporting effort will likely have a higher percentage of HE-Frag ammunition.

Modern conventional fire support means, especially precision weapons, approach the destructive effect of low-yield nuclear weapons. Technologies now being pursued include a course-correcting fuse for artillery projectiles and a new precision-guided 10-pound bomblet called “common smart submunition.” The common smart submunition, if successful, would replace the now defunct “search and destroy armor,” or SADARM. A precision weapon is one capable of delivering guided conventional munitions with a 50- to 60-percent probability of destroying enemy targets with a first-round hit (within range of the weapon delivery system).

This capability is possible only by employing precision munitions that have a guidance or homing element. The presence of the precision munition transforms a weapon into a precision weapon. However, a precision weapon system must also incorporate a target acquisition and tracking subsystem and a missile or projectile guidance subsystem.

The fielding of precision munitions provides distinct advantages for a tube artillery unit. First, tube artillery units are capable of firing at individual targets (to include pinpoint targets such as tanks, infantry fighting vehicles (IFVs), or field fortifications) with a high probability of a first-round kill. For example, a unit firing 155-mm laser-guided projectiles (LGPs) can reduce its ammunition expenditure by 40 to 50 times, compared to using 155-mm con-

ventional munitions, and also destroy the target three to five times faster. This eliminates the traditional requirement for an area fire or artillery barrage. Second, a tube artillery unit can fire at group targets using the same gun settings computed relative to the center of mass of the group target.

**COMMENTARY:**

**1. Terms and Definitions:**

a) Термин **cannon** может быть использован для обозначения любого артиллерийского орудия. Он имеет две формы множественного числа: cannon и cannons (Am). В собирательном значении cannons означает ствольная артиллерия в отличие от missiles □ реактивной артиллерии. Таким образом, сочетание cannons and missiles следует переводить как ствольная и реактивная артиллерия.

b) Термин **piece** может означать любое огневое средство: артиллерийское орудие, миномет, пулемет, винтовка, пистолет и т.п. Часто переводится как «ствол», «орудие».

c) Слово **gun** имеет весьма широкую семантику. В разговорной речи gun может означать любое огнестрельное оружие. Однако для артиллериста gun означает «пушку» в отличие от гаубицы.

d) Термин ICM в данном случае означает снаряд повышенного могущества, снаряженный взрывчатым веществом более мощным, чем тратил.

**Exercise 5. Translate the following questions from English into Russian and from Russian into English; answer them in English:**

1. What is the definition of artillery?
2. What are the main types of modern artillery?
3. What is the difference between a howitzer and a mortar?
4. Что такое калибр?
5. What is the main mission of artillery? What is it capable of?
6. Какова классификация артиллерии по калибру и способу транспортировки?
7. How is artillery classified by caliber and according to the type of transport?
8. Сколько гаубиц в артиллерийской батареи?

**Exercise 6. Decipher and translate the following abbreviations:**

FDC; FSCC; LTC; cal; PGM; MLRS; FO; CSS; LCS; SOP; obj; ammo; FDO; PSYOPS; mm; IFV; CinC; JCS; HE-Frag; rfl; NCO; HEAT-FS; hel; RPG; ToD; ICM; AD; JTF; BUCS; MP; CENTCOM; rpm; arty; lbs; PT;

ADHPM; prvt; Col, BDU; engr; TOE; DS; GS; GS-R, SP howitzer, ПТУР, РСЗО; БМП.

**Exercise 7. Translate the following words and word combinations by ear:**

To engage several targets simultaneously; to accomplish a goal; combined arms force; at high velocity; to suppress targets; to conduct three key tasks; supply lines; units with limited assets; to mass fires on a target; to locate and identify targets; fire support coordination center; to feed information; a call for fire; to issue a fire order; a backup system; at the muzzle from land to land; to calculate firing data for; to provide close and continuous fire support to…; to put steel on target; to interdict supply lines; to attack an assembly area; enemy's command and control facilities; pulled by a prime mover; the battery is commanded by a captain; an ammunition section; a supported battalion; the blades in the muzzle brake; locate and identify targets; he ensures that the correct round is fired.

Ракетная пусковая установка; наземные войска; минометы и гаубицы; вести огонь снарядами; при попадании в цель; пробивать броню; вести непрерывное огневое сопровождение; подавлять и уничтожать объекты противника; выполнять задачу; взвод связи, огневой расчет, батарея обслуживания; ремонтный взвод; нанесение огневых ударов; непрерывность огневой поддержки; при переносе огня с одной цели на другую; офицер связи взаимодействия; рассчитывать данные для стрельбы; род войск; ввести настильный огонь, пробивать броню; неотъемлемая часть современной общевойсковой группировки; артиллерийский дивизион; штабное подразделение; центр координации огневой поддержки, перегородки в дульном тормозе; в дульной части между противоположными полями нарезов.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| В чем заключается тактическая задача артиллерийской части? | A tactical mission defines the fire support responsibility of an artillery unit, normally a battalion, to a supported unit or to another artillery unit. |
| Что представляет собой непосред- | Direct support (DS) mission requires |

| | |
|---|---|
| ственная поддержка? | a unit to furnish close and continuous fires to a single supported unit, normally a regiment or separate maneuver battalion. |
| В чем заключаются особенности общей поддержки**?** | General support (GS) mission requires a unit to support the force as a whole and be prepared to support any subordinate element. The fires of a unit in GS are controlled by the higher artillery headquarters. The zone of fire may be either the zone of action/sector of the force as a whole or a specific portion thereof |
| Какая часть обычно получает усиление: осуществляющая непосредственную или общую поддержку? | A reinforcing (R) mission requires a unit to respond directly to requests for fire from another artillery unit. This mission used to reinforce the fires of a unit with a DS mission. |
| Может ли артиллерийская часть получить задачу по оказанию общей поддержки и усилению**?** | Yes, it may. An artillery unit with the mission of General support-reinforcing (GS-R). will support the force as a whole and answer calls for reinforcing fires from a designated artillery unit in DS. |

**Exercise 9. Translate the following text at sight:**

**THE U.S. ARMY FIELD ARTILLERY**

The term Field Artillery is to distinguish from the modern Air Defense Artillery, and historically, from the Coast Artillery (or Coastal Defense Artillery), a branch which existed from 1901-1950. In 1950, the two branches were unified and called simply Artillery, until air defense was made into a separate branch in 1968. The insignia of the Field Artillery branch is a pair of crossed field guns (19th century style cannons) in gold, and dates back to 1834.
The officially stated mission of the Field Artillery is to destroy, neutralize, or suppress the enemy by cannon, rocket, and missile fire and to help integrate all fire support assets into combined arms operations.The "home" of the U.S. Ar-

my Field Artillery and the Field Artillery School are at Fort Sill, Oklahoma, which also publishes the Field Artillery Magazine, a bimonthly magazine published for Army and Marine Field Artillerymen stationed around the world.

Field artillery is called the "King of Battle". Conflicts in the 20th century saw artillery become exponentially more effective as indirect fire methods were introduced immediately prior to WWI. During "World War I" and World War II, field artillery was the single highest casualty-producing weapons system on any battlefield.Members of the Field Artillery are referred to as "Red Legs" because during the American Civil War (and perhaps previously) they were distinguished by red stripes down the pant legs of their uniforms.

The US Army currently employs three main types of Field Artillery weapons systems: towed howitzer weapon systems; self-propelled howitzers and Multiple Launch Rocket Systems (MLRS).

**Exercise 10. Translate the following text at sight**:

**ВОЙСКОВАЯ АРТИЛЛЕРИЯ**

По организационно-штатной принадлежности подразделяется на батальонную, полковую, дивизионную, корпусную и армейскую.

Батальонная артиллерия – штатные артиллерийские подразделения, непосредственно подчиненные командиру батальона. На вооружении состоят противотанковые орудия, минометы и ПТУР, обладающие небольшими массой и габаритами, высокой подвижностью и скорострельностью. Предназначена для непосредственного сопровождения мотострелковых (мотопехотных) подразделений. Термин «мотопехота» («моторизированная пехота») используется, в основном, в западной военной литературе.

Полковая артиллерия – артиллерийские подразделения, непосредственно подчиненные командиру полка. На вооружении состоят буксируемые и самоходные орудия (минометы) и ПТУР. Предназначена для решения огневых задач в интересах полка в целом, а также для усиления батальонов, действующих на главных направлениях.

Дивизионная артиллерия – штатные артиллерийские части и подразделения, непосредственно подчиненные командиру дивизии. На вооружении состоят самоходные и буксируемые орудия (минометы) калибра 75–155 мм, боевые машины реактивной артиллерии и ПТУР. Предназначена для решения огневых задач в интересах главной группировки дивизии и усиления мотострелковых (мотопехотных), танковых полков (бригад) на главном направлении.

**Exercise 11. Translate the following text in writing:**

## TARGET DAMAGE CRITERIA

Target damage is the effect of fires on a given military target. It results in total, partial, or temporary loss of the target's combat effectiveness. The categories of target damage are annihilation, demolition, neutralization, and harassment.

- annihilation fires make unobserved targets combat-ineffective, needing major construction to be usable. For a point target such as an ATGM launcher, the OPFOR must expend enough rounds to ensure a 70 to 90 percent probability of kill. For area targets such as platoon strongpoints or nuclear artillery assets, they must fire enough rounds to destroy from 50 to 60 percent of the targets within the group. These fires result in the group ceasing to exist as a fighting force.
- demolition refers to the destruction of buildings and engineer works (bridges, fortifications, roads). Demolition requires enough rounds to make such material objects unfit for further use. It is a subset of annihilation.
- neutralization fire inflicts enough losses on a target to-- Cause it to temporarily lose its combat effectiveness; Restrict or prohibit its maneuver; Disrupt its C2 capability. To achieve neutralization, artillery must deliver enough rounds to destroy 30 percent of a group of unobserved targets.
- harassment uses a limited number of artillery pieces and ammunition within a prescribed time to deliver harassment fires. The goal of these fires is to put psychological pressure on enemy personnel in concentrated defensive areas, command posts, and rear installations. Successful harassment fire inhibits maneuver, lowers morale, interrupts rest, and weakens enemy combat readiness.

Counterbattery Fire accomplishes the neutralization or annihilation of enemy artillery batteries. Combat with enemy artillery is one of the artillery's most important missions. It enables ground forces to achieve fire superiority on the battlefield. Combat with enemy artillery requires more than counterbattery fire. It requires the destruction of C2 centers as well as artillery. It also requires the cooperation of other ground combat arms and aviation.

Maneuver by Fire occurs when a unit shifts fire from one target, or group of targets, to another without changing firing positions. This is a combined arms concept in which the artillery plays a critical role. Maneuver by fire masses fires on the most important enemy installations or force groupings. Its intention is to destroy them in a short period of time or to redistribute fires to destroy several targets simultaneously. Another purpose may be to shift the OPFOR’s main combat effort from one axis to another.

For annihilation or neutralization missions against fires as many (or as few) rounds as necessary for the observer to indicate that the target has sustained the required amount of damage. For unobserved fire, a general table of ammunition expenditure norms is used as the basis for artillery fire planning. The following table is an example of such a table for fragmentation high-explosive (frag-HE) rounds required to annihilate or neutralize various targets. This table does not consider time.

**Exercise 12. Translate the following text in writing:**

**КЛАССИФИКАЦИЯ АРТИЛЛЕРИИ**
**(отрывок)**

Различают артиллерию сухопутных войск и морскую артиллерию.

Артиллерия сухопутных войск – артиллерия, состоящая на вооружении формирований сухопутных войск. Делится на войсковую (полевую) артиллерию и артиллерию Резерва Верховного Главнокомандования.

По назначению артиллерия сухопутных войск делится на наземную артиллерию (для поражения наземных целей) и зенитную (для поражения воздушных целей). Зенитная артиллерия также может использоваться для стрельбы по наземным (надводным) целям.

Войсковая (полевая) артиллерия – артиллерия, входящая в состав общевойсковых подразделений, частей, соединений и объединений. По организационно-штатной принадлежности подразделяется на батальонную, полковую, дивизионную, корпусную и армейскую. Термин «полевая артиллерия» используется, в основном, в западной военной литературе.

По способам передвижения артиллерия подразделяется на самоходную, буксируемую, самодвижущуюся, возимую и стационарную артиллерию.

По особенностям конструкций артиллерийских систем выделяют ствольную, безоткатную, реактивную, казематную, универсальную артиллерию.

По боевым свойствам артиллерия подразделяется на пушечную, гаубичную, реактивную, противотанковую, горную артиллерию и минометы.

Пушечная артиллерия – артиллерия, вооруженная пушками и предназначенная для поражения наземных, надводных и воздушных целей. Пушечная артиллерия составляет основу зенитной, танковой, морской артиллерии, а также стрелково-пушечного авиационного вооружения. Гаубичная артиллерия – артиллерия, вооруженная гаубицами и предназначенная для поражения открытых и укрытых целей, а также для раз-

рушения полевых оборонительных сооружений. Наличие артиллерийских выстрелов раздельного заряжания обеспечивает возможность широкого маневра траекториями.

Реактивная артиллерия – вид артиллерии, в которой для метания снарядов используется реактивный двигатель, устанавливаемый на самом снаряде. Входит в состав сухопутных войск, военно-воздушных сил и военно-морского флота (военно-морских сил). На вооружении подразделений и частей реактивной артиллерии состоят реактивные системы залпового огня (РСЗО).

Противотанковая артиллерия – вид артиллерии, предназначенный для поражения танков и другой бронированной техники. На вооружении противотанковой артиллерии состоят противотанковые пушки, безоткатные орудия и ПТУР. Поражение танков и другой бронированной техники противотанковая артиллерия осуществляет огнем прямой наводкой бронебойными (калиберными, подкалиберными и кумулятивными) снарядами.

Горная артиллерия – вид наземной артиллерии, предназначенный для действий в горах. На вооружении горной артиллерии состоят горные артиллерийские орудия (легкие пушки, гаубицы, минометы) и пусковые установки реактивной артиллерии.

## ARMY HUMOR
## Speaking with the general

It was a dark, stormy, night. The Marine was on his first assignment, and it was guard duty.

A General stepped out taking his dog for a walk. The nervous young Private snapped to attention, made a perfect salute, and snapped out "Sir, Good Evening, Sir!"

The General, out for some relaxation, returned the salute and said "Good evening soldier, nice night, isn't it?" Well it wasn't a nice night, but the Private wasn't going to disagree with the General, so the he saluted again and replied "Sir, Yes Sir!".

The General continued, "You know there's something about a stormy night that I find soothing, it's really relaxing. Don't you agree?" The Private didn't agree, but them the private was just a private, and responded "Sir, Yes Sir!"

The General, pointing at the dog, "This is a Golden Retriever, the best type of dog to train." The Private glanced at the dog, saluted yet again and said "Sir, Yes Sir!"

The General continued "I got this dog for my wife." The Private simply said "Good trade Sir!"

## УРОК 6
## ТАНКИ

## LESSON 6
## TANKS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| multi-dimensional | silhouette |
| composite | gas turbine |
| lever | survivability |
| inter-vehicular | armoured |
| coaxial | bulkhead |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Combined arms force; at high velocity; to suppress targets; to conduct three key tasks; supply lines; units with limited assets; to mass fires on a target; to locate and identify targets; fire support coordination center.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| main battle tank (MBT) | основной боевой танк (ОБТ) |
| track-laying vehicle | гусеничная машина |
| road speed | максимальная скорость |
| armoured | бронированный |
| cross-country mobility | подвижность на пересеченной местности |
| armor plate | броневой лист |
| low silhouette | низкий силуэт |
| gas turbine engine | газотурбинный двигатель |

| | |
|---|---|
| | (ГТД) |
| hull | корпус |
| turret | башня |
| composite armour | многослойная броня; композитная броня |
| ceramic blocks | керамические блоки |
| resin | смола |
| multi-dimensional | многомерный |
| reclining position | положение полулёжа |
| steering lever | рычаг управления |
| transmission | трансмиссия |
| image intensification periscope | перископический прибор с усилителем яркости изображения |
| T-bar | Т-образный штурвал |
| loader | заряжающий |
| gunner | наводчик; наводчик башенной установки; наводчик-оператор |
| gun stabilization | стабилизация пушки |
| laser range finder | лазеный дальномер |
| thermal-imaging night sight | тепловизионный (ночной) прицел |
| crew | экипаж |
| bulkhead | перегородка |
| firepower | огневая мощь |
| ammunition load | боекомплект |
| optronic supression system | комплекс оптикоэлектронного подавления |
| fire control system | система управления огнём |

| | |
|---|---|
| tank ballistic computer | танковый баллистический вычислитель |
| automatic loader | автомат заряжания |
| antiaircraft machine-gun | зенитный пулемёт |
| combat rate of fire | боевая скорострельность |
| first-shot kill probability | вероятность поражения цели первым выстрелом |
| guided missile system | комплекс управляемого вооружения (КУВ) |
| shock effect | ударная сила |
| main gun | основное орудие |
| shooting on the move | стрельба с ходу |
| sliding doors | раздвижные двери, шторки |
| NBC system | система коллективной защиты от ОМП |
| survivability | живучесть |
| depleted uranium | обедненный уран |
| commander’s weapon station | командирский пульт управления огнём |
| inter-vehicular information system (IVIS) | внутренняя информационная система |
| power distribution | распределение мощности |
| recovery vehicle | ремонтно-эвакуационная машина |
| ground pressure | удельное давление на грунт |
| coaxial machine gun | спаренный пулемёт |
| commander’s cupola | командирская башенка |
| ground clearance | клиренс, (дорожный просвет) |
| fuel tank | топливный бак |

| | |
|---|---|
| armored vehicle launched bridge (AVLB) | танковый мостоукладчик |
| coaxiial machine gun (MG) | спаренный пелемет |
| smoothbore | гладкоствольное (орудие) |
| high explosive projectile (HE) | фугасный снаряд |
| high explosive fragmentation projectile (HEF) | осколочно-фугасный снаряд |
| shaped-charge projectile | кумулятивный снаряд |
| antitank guided missile (ATGM) | противотанковая управляемая ракета (ПТУР) |
| commander’s cupola | командирская башенка |
| reactive armor | динамическая защита (реактивная броня) |
| active armor | активная защита |

**Exercise 4. Read and translate the text:**

**TANK**

Tank is a heavily armored track-laying vehicle, with cross-country mobility and road speeds up to 97 km/h (60 mph).

Tanks are classified as light, medium, and heavy. They range in weight from approximately 14 to 63 metric tons, have at least 15 cm (6 in) of armor plate, and mount cannons ranging from 75 mm to 125 mm in the tank's turret. The turret is a structure on top of the tank that can rotate 360 degrees, enabling the tank to fire in any direction. In addition, tanks often have both light and heavy machine guns. Light tanks are used for reconnaissance; heavier tanks are used primarily to penetrate or flank enemy defenses.

**M1 ABRAMS MAIN BATTLE TANK (USA)**

The M1 enjoys a low silhouette and a very high speed, thanks to an unfortunately voracious gas turbine engine.

The M1 Abrams Main Battle Tank (MBT) is the namesake of the late General Creighton W. Abrams, former Army Chief of Staff. It is the backbone of the armored forces of the United States military, and several of US allies as well. It is capable of engaging the enemy in any weather, day or night on the multi-dimensional, non-linear battlefield using its firepower, maneuver, and shock effect.

The hull and turret of the M1 Abrams is made of advanced composite armor, (ceramic blocks set in resin between layers of conventional armor).

The driver sits in the front in a reclining position and steers by rotating a motorcycle-type T-bar, which actuates the steering lever on the transmission. The driver also has three day periscopes, the centre of which can be replaced by an image intensification periscope for night work. The commander and gunner are seated on the right of the turret and the loader on the left. The commander has six periscopes that cover 360 degrees, a day sight (x3 magnification) for the 0.5in M2 machine gun.

A sophisticated fire control system provides main gun stabilization for shooting on the move and a precise laser range finder, thermal-imaging night sights, and a ballistic computer.

The turret was designed to accept either the 105mm M68E1 rifled gun or the German 120mm smoothbore cannon.

The crew is protected from the fuel tanks by an armored bulkhead, and from the main gun ammunition by sliding doors and armor-protected boxes.

The M1 is powered by a gas turbine (1,500hp) which delivers more horsepower than a diesel due to its lower cooling requirement.

The M1A1 has an integrated NBC system.

A version of the M1A1 with depleted uranium armor was developed to improve survivability well into the 1990s and beyond. The M1A2 has many improvements, including an Improved Commander's Weapon Station (ICWS), Commander's Independent Thermal Viewer (CITV), Inter-Vehicular Information System (IVIS), Position/Navigation System (POS/NAV) and a number of survivability initiatives. There is an additional program, which seeks to introduce new tactical displays, communications equipment, improved reliability and power distribution.

There are a number of specialized vehicles, including the M1 Armored Vehicle Launched Bridge (AVLB), Grizzly Armored Vehicle and Abrams Recovery Vehicle.

Specifications:

(M1A1) Hull length: 7.92m. Hull width: 3.66m. Height: 2.89m. Crew: 4. Ground Clearance: 0.48m. Weight: 57,150kg (combat). Ground pressure: 0.96kg/sq.cm. Max speed: 67km/h. Max range (internal fuel): up to 465km on

road. Armament: 120mm smoothbore main gun, 1 x 7.62mm coaxial MG, 1 x 0.5in MG on commander's cupola, 1 x 7.62mm machine gun for loader.

**COMMENTARY:**

**1. Terms and definitions:**

a) Термин **armored** употребляется как в своем первоначальном значении – «бронированный» (armored fighting vehicle), так и в более широком значении – «бронетанковый, танковый» (armored division – «бронетанковая дивизия», armored battalion – «танковый батальон»)

b) **ACTIVE ARMOR** – Armor designed to dynamically thwart damage to a vehicle. It is comprised of explosive cassettes containing embedded sensors to detect an impacting projectile and to decrease it's damaging effect on the vehicle. Active armor includes ELECTROMAGNETIC ARMOR, REACTIVE ARMOR and SMART ARMOR.

c) **REACTIVE ARMOR (RA)** – A form of ACTIVE ARMOR which depends upon "energetic" elements that rapidly release energy to react against the impact of a shaped charge (SC). An explosion is created in a direction opposite to that of the incoming metallic plasma (jet). An exchange of momentum occurs between the materials of the explosion and the SC jet, deflecting and partially dispersing the jet. This effect can be achieved by sandwiching a layer of high explosives between two metal plates. On a tank equipped with reactive armor, for example, the impact of antitank munitions causes the outer plate to be blown off, decreasing the penetration of the target by the jet. Such a design is about 20 times more effective than armor steel. Synonymous with ENERGETIC ARMOR

d) **ELECTROMAGNETIC ARMOR** – A form of ACTIVE ARMOR that is an application of SMART ARMOR which offers protection as follows: (1) The penetrating jet of a shaped charge (SC) is detected; (2) an intense electrical discharge is created between electrically conductive plates, creating a powerful magnetic field; (3) the magnetic field interacts with the charged particles of the penetrating jet; and (4) magnetohydrodynamic instabilities occur, disrupting the jet

e) **SMART ARMOR** – A form of ACTIVE ARMOR which uses sensors to detect a round as it hits and then determine its critical parameters. Embedded microprocessors then initiate the appropriate charge-momentum transfer to blunt the effectiveness of the incoming penetrator round or raises bars to break up the penetrator.

f) В настоящее время танки классифицируются на основные боевые и лёгкие специальные.

**2. Grammar:**

Следует обратить внимание на то, что термин «бронетанковые войска» множественного числа переводится на английский язык термином единственного числа **Armor** (Armor has great firepower and shock effect).

**Exercise 5. Translate the following questions from English into Russian and from Russian into English by ear; answer them in English:**

1. What are the main parts of tank?
2. What does the tank fire power depend upon?
3. Какой минимальной толщины может быть броня у танка?
4. Whom is the US M1 MBT named after?
5. Why did the M1 tank designers prefer to install the gas turbine engine on the tank?
6. Где применяется обеднённый уран в танке?
7. Can the M1 Abrams shoot on the move and still hit a target?
8. What advantages does the gas turbine engine powered tank enjoy during operations in the desert?
9. How do the crew members of the tank communicate between themselves?

**Exercise 6. Decipher and translate the following abbreviations:**

NBC; MBT; LTC; sig bn; FO; CSS; LCS; obj; ammo; FDO; HP; JCS; SACEUR; rfl; NCO; SGT; hel; RPG; KP; JTF; BUCS; CENTCOM; rpm; arty; lbs; PT; cav sqdn; prvt; Col; MG; BDU; engr; TOE; FDC; avn bde; SOP; cal; PSYOPS; CinC; MP; AD; MoD; CITV; POS/NAV; ICWS; IVIS; AVLB; ТЗ; ЯХБ оружие; ГТД; ОБТ.

**Exercise 7. Translate the following words and word combinations by ear:**

Ground clearance; coaxial machine gun; thermal-imaging night sights; tank crew; laser range finder; ceramic blocks; gas turbine engine; cross-country mobility; armor plate; multi-dimensional; steering lever; armored bulkhead; track-laying vehicle; used for reconnaissance; to penetrate or flank enemy defenses; to engage the enemy in any weather; day or nigh; tanks are classified as; the tank enjoys a low silhouette; shooting on the move; an integrated NBC system; the T-bar actuates the steering lever; ceramic blocks set in resin; fuel tanks; it is the namesake of; seated on the right of the turret; the M1 is powered by; armor-protected boxes.

Распределение мощности; боевая машина с низким силуэтом; отделённый перегородкой; проходимость по пересечённой местности; механик водитель управляет танком полулежа; топливные баки в бронированных отсеках; усиленная бронезащита башни; улучшенный двигатель; система коллективной защиты от ОМП; тепловизионные приборы; машины специального назначения; высокоточный лазерный дальномер; повысить живучесть; предоставлять возможность кругового обзора; приводить в действие рычаг управления; ремонтно-эвакуационная машина; корпус и башня выполнены из многослойной брони; поражать противника днём и ночью.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Наводчик и командир танка располагаются в боевом отделении справа от пушки, заряжающий – слева. | Tankers had trained with the Abrams long enough to have confidence in it. In fact, many believed it was the first American tank since World War II that was qualitatively superior to Soviet models. |
| Орудие танка стабилизировано в двух плоскостях (dual axis stabilization). | Production of M1A1 tanks for the US Army is complete. Over 8,800 M1 and M1A1 tanks have been produced for the US Army and Marine Corps, and the armies of Egypt, Saudi Arabia and Kuwait. |
| Скорость танка на пересеченной местности достигает 55 км/ч. | The US Army is upgrading approximately 1,000 older M1 tanks to the M1A2 configuration. |
| С 1988 г. Броневая защита лобовых частей корпуса и башни танка M1A1 были усилены броневыми плитами из обедненного урана, | The crew is protected from the fuel tanks by an armored bulkhead, and from the main gun ammunition by sliding doors and armor-protected boxes. |

что повысило ее снарядостойкость, но в то же время увеличило боевую массу танка на 1.5 т.

**Exercise 9. Translate the following text at sight:**

During World War I (1914-1918) the British developed and used the first armored track-laying vehicles. To maintain secrecy, the vehicles were shipped to the battle zone in crates marked “tanks,” hence the origin of the name. The first battle in which these tanks were employed was the Battle of the Somme, on September 15, 1916, when the British used forty-nine tanks with disappointing results. Little more than a year later, however, in November 1917, 400 British tanks penetrated German lines near Cambrai, capturing 8000 of the enemy and 100 guns.

Tanks played an even greater role in warfare during World War II (1939-1945). Early in the war Germany organized tanks, infantry, artillery, and support troops into fast, mobile attack units; these units were responsible for many of Germany’s early victories in the war. As a result the nations opposing Germany in the war quickly incorporated tanks into their military forces. By the middle of the war, tanks were a central part of most infantry units, and played a prominent role in battles in the Union of Soviet Socialist Republics (USSR), in the deserts of northern Africa, and in Europe.

**Exercise 10. Translate the following at sight:**

1. С такого расстояния мне не видно, что у этого танка написано на башне. 2. Эти боевые машины получили своё название из-за того, что когда они прибыли на фронт в годы Первой мировой войны, они были упакованы в деревянные контейнеры, на которых было написано “TANKS”, т.е. ёмкости с водой или топливом. 3. Корпус танка состоит из броневых плит. 4. Командир ведет наблюдение через панорамный перископ. 5. Т-55 – это был хороший танк, но броня у него в наше время только от автоматов и спасает. 6. У газотурбинного двигателя есть ряд неприятных особенностей. Первая – это то, что работает ГТД на высокооктановом (high-octane) топливе. А оно дорогое и обладает мерзким свойством гореть и взрываться.

**Exercise 11. Translate the following text in writing:**

**THE MERKAVA MAIN BATTLE TANK**
**(Israel)**

The Merkava is the main battle tank in service with the Israeli Defence Forces.

Turret. Hydraulic systems can be susceptible to impact damage and cause a fire hazard so the electro-hydraulic turret control system installed on the Mark-1 and -2 has been replaced by a totally electrical and electronic system in the Merkava Mark-3 for increased survivability and safety. Either the gunner or the commander operates the turret control system. The crew is protected against nuclear, chemical and biological warfare by a high positive pressure system with air conditioning and filtration.

Protection. The tank's is fitted with the Amcoram LWS-2 laser warning system, with threat warning display installed at the commander's station. The turret and the hull are fitted with a modular armour system which can be changed in the field.

The forward section of the turret is fitted with additional blocks of armour which provide extra protection against the latest generation of top attack anti-tank missiles.

A skirt of chains with ball weights is installed on the lower half of the turret. Incoming HEAT projectiles detonate on impact with the chains instead of penetrating the turret. Sprung armour side skirts protect the wheels and tracks.

**Exercise 12. Translate the following text in writing:**

**ОСНОВНОЙ БОЕВОЙ ТАНК Т-84**
**(Украина)**

Танк Т-84 был разработан с использованием широкого опыта, полученного в течение многих лет проектирования, испытания и производства военных гусеничных машин. Харьковское конструкторское бюро им. Морозова (ХКБМ) проектирует танки начиная с 1927 года, в котором началось их производство на Государственном предприятии «Завод им.Малышева». В указанный период в ХКБМ разработали и выпустили большое количество военных гусеничных машин, которые доказали свою надежность и высокую эффективность. Гусеничные машины ХКБМ успешно использовались в течение долгого времени, во всех климатических зонах и принимали участие в боевых действиях. Танки БТ,

наиболее известный танк Второй Мировой войны Т-34, послевоенные Т-64 и Т-80УД заняли особое место в мировом танкостроении.

Основной боевой танк Т-84 – продолжение этого великолепного семейства боевых машин. Конструкция и компоновка танка гармонично сочетает основные принципы танкостроения и передовые технические решения в области машиностроения, металлургии, артиллерии, радио и электроники. Разработчикам Т-84 были даны следующие основные требования: простота сборки, высокая надежность, легкость в изучении и эксплуатации.

Танк оборудован мощным вооружением; броня обеспечивает надежную защиту против современных поражающих средств; система управления огнем позволяет экипажу выполнять боевую задачу днем и ночью, в любых погодных условиях; силовая установка способна работать в широком температурном диапазоне, в различных условиях местности, в том числе на высокогорных участках с высотой над уровнем моря выше 3000 м. На танк можно устанавливать различное дополнительное оборудование. Вооружение танка позволяет экипажу уничтожать танки и другие боевые машины, пехоту и воздушные цели противника на различных дальностях ведения огня. Большое число типов боеприпасов и достаточное количество выстрелов гарантирует эффективное ведение боевых действий в течение длительного периода времени.

## ARMY HUMOR
## Strange new battles

Seems there was a young soldier, who, just before battle, told his sergeant that he didn't have a rifle. "That's no problem, son," said the sergeant. "Here, take this broom. Just point it at the Germans, and go 'Bangety Bang Bang'."

"But what about a bayonet, Sarge?" asked the young (and gullible) recruit. The sergeant pulls a piece of straw from the end of the broom, and attaches it to the handle end. "Here, use this... just go, 'Stabity Stab Stab'."

The recruit ends up alone on the battlefield, holding just his broom. Suddenly, a German soldier charges at him. The recruit points the broom, "Bangety Bang Bang!" The German falls dead. More Germans appear. The recruit, amazed at his good luck, goes "Bangety Bang Bang! Stabity Stab Stab!" He mows down the enemy by the dozens.

Finally, the battlefield is clear, except for one German soldier walking slowly toward him. "Bangety Bang Bang! shouts the recruit. The German keeps coming. "Bangety Bang Bang!" repeats the recruit, to no avail. He gets desperate. "Bangety Bang Bang! Stabity Stab Stab!" It's no use.

The German keeps coming. He stomps the recruit into the ground, and says, "Tankety Tank Tank."

## УРОК 7
## НЕКОТОРЫЕ ОБРАЗЦЫ ВВТ СУХОПУТНЫХ ВОЙСК

## LESSON 7
## SELECTED ARMY WEAPON SYSTEMS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| compartmentalization | mortar |
| Apache | missile |
| to be housed | thermal |
| ammunition allowance | accuracy |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Cross-country mobility; armor plate; multi-dimensional; steering lever; armored bulkhead; track-laying vehicle; used for reconnaissance; to penetrate or flank enemy defenses; to engage the enemy in any weather, day or nigh; tanks are classified as; the tank enjoys a low silhouette.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| fighting vehicle | боевая машина |
| mounted combat | бой на машинах |
| to consolidate gains | закреплять успех |
| armament | вооружение |
| chain gun | автоматическая скорострельная пушка (с цепным электроприводом) |
| TOW antitank missile | ПТУР ТОУ |
| launcher | пусковая установка |
| reactive armor | |

| | |
|---|---|
| active reactive armor | |
| to be housed | размещаться |
| integrated day/night sight | встроенный дневной/ночной прицел |
| thermal-imaging infrared device | тепловизионный инфракрасный прибор ночного видения |
| road speed | скорость по шоссе |
| cruising range | запас хода |
| spall liner | подбой для защиты от осколков брони |
| six-cylinder diesel engine | 6-цилиндровый дизель |
| armored personnel carrier (APC) | бронетранспортер (БТР) |
| armored cavalry scout vehicle | бронированная разведывательная машина (БРМ) |
| a 175-horsepower gasoline engine | бензиновый двигатель мощностью 175 лошадиных сил |
| command (post) vehicle | 1. машина управления |
| | 2. подвижный командный пункт (КП) |
| two-men crew | расчет (экипаж), состоящий из двух человек |
| to close with and destroy an enemy | сблизиться с противником и уничтожить его |
| compartmentalization | изоляция отсеков |
| ammunition allowance | боекомплект |
| ammunition storage | боеукладка |
| automatic fire detection and suppression system | автоматическая система противопожарного оборудования |
| mobility | мобильность; подвижность |
| cooling system | система охлаждения |
| turbine engine | газотурбинный двигатель |
| to track a beacon | следить за маяком |
| tail | хвостовая часть ракеты |
| to keep crosshairs on the target | удерживать перекрестье прицела на цели |

| | |
|---|---|
| missile | ракета |
| thermal night sight | тепловизионный ночной прицел |
| warhead | боевая часть |
| reactive armor | активная броня |
| lethality | поражающее действие; убойная сила |
| reliability | надежность |
| rocket-assisted projectile | активно-реактивный снаряд (АРС) |
| rate of fire | темп стрельбы; боевая скорострельность |
| accuracy | точность |
| cross-country (terrain) | пересеченная местность |
| to upgrade | усовершенствовать; модернизировать |
| safety | техника безопасности |
| ease of operation | легкость в управлении |
| air transportable field artillery weapon system | транспортируемая по воздуху орудийная система полевой артиллерии |
| direct support | поддержка огнем прямой наводкой |
| ripple | залповый пуск |
| salvo | залп |
| suppression of enemy air defense | подавление ПВО противника |
| to limit vulnerability | повысить живучесть |
| scatterable mine warhead | миноразбрасывающая кассетная боевая часть |
| counterbattery fire | контрбатарейный огонь |
| to operate in a electronic counter measure environment | действовать в режиме постановки помех |
| radar set | радиолокационная станция |
| engagement control station | станция управления огнём |
| power plant | силовая установка |
| phased array | фазированная антенная решетка |

| | |
|---|---|
| utility *a* | универсальный; общего назначения |
| target detection | обнаружение целей |
| target tracking | сопровождение целей |
| missile guidance | наведение ракеты |
| multiple target | групповая цель |
| man portable antiaircraft missile system | переносной зенитно-ракетный комплекс (ПЗРК) |
| syn. man portable antiaircraft defense system (MANPADS) | ПЗРК |
| low-level target | низколетящая цель |
| high-altitude target | высотная цель |
| fixed-wing aircraft | самолет |
| rotary-wing aircraft | вертолет |
| target acquisition | обнаружение и сопровождение целей |
| to be fielded | поступать на вооружение |
| rocket-assisted projectile (RAP) | активно-реактивный снаряд (АРС) |
| high mobility multipurupose wheelled vehicle (HMMWV) | высокомобильная колесная машина общего назначения; многоцелевой автомобиль повышенной проходимости «Хаммер» |
| army tactical missile system (ATACMS) | армейская тактическая ракетная система «АТАКМС» |
| shoot-and-scoot tactics | кратковременный огонь со сменой огневых позиций; концепция «выстрелил и ушел» |
| shipping container | грузовой контейнер |
| transporter-launcher | транспортно-пусковой контейнер (ТПК) |
| launch tube | направляющая |
| armored combat earthmover (ACE) | универсальная инженерная машина |
| fuel endurance | запас хода по топливу |

**Exercise 4. Read and translate the text:**

## SELECTED ARMY WEAPON SYSTEMS

**M2/M3 SERIES BRADLEY FIGHTING VEHICLES SYSTEM (FVS)** The M2 allows for mounted combat and means for infantry to protect tanks and consolidate gains in the offensive. Designed for a nine-man infantry squad, it includes a two-man turret for the commander and gunner. Armament includes the 25mm "chain gun," a 7.62mm coaxial machine gun, and a TOW antitank missile launcher housed in an armored rectangular box. Fire control includes an integrated day/night sight with a thermal-imaging infrared device. Top road speed is 38 mph; cruising range is 300 miles. The M2Al incorporates the more lethal TOW 2. The M2A2 adds spall liners, enhanced armor and provisions for armor tile. The M3 series armored cavalry scout version accommodates the five-man cavalry squad.

## TOW MISSILE SYSTEM

The TOW (Tube-Launched, Optically Tracked, Wire Command-Link Guided) antitank missile system is mounted on the FVS, the Improved TOW Vehicle, the High Mobility Multipurpose Wheeled Vehicle (HMMWV) and the AH-LS Cobra Helicopter. When the system is fired, a sensor in the launcher tracks a beacon in the tail of the missile; the gunner keeps the cross-hairs on the target and a computer in the launcher sends corrections to the missile via two extremely thin wires that deploy in flight. The ground launcher version weighs 240 lbs; the missile weighs 62.4 lbs; its range is 3,750 meters. There is a three-man crew. Basic TOW is being converted to TOW 2 to incorporate a thermal night sight and improved warhead. The TOW 2A missile is design to defeat reactive armor.

## 198 SERIES 155MM TOWED HOWITZER

The M198 provides significant improvements in lethality, range, reliability, availability, emplacement and movement. The cannon will fire a 96-lb rocket-assisted projectile to a range of 30 kilometers. The maximum rate of fire is four rounds per minute, and two rounds per minute sustained. The accuracy of the Ml98 is enhanced by its highly stable firing platform. Less than five minutes are needed to set up the howitzer for firing or to displace. The Ml98 weighs 15,750 lbs, but is still light enough to be lifted by the CH-47medium helicopter. It can also be towed cross-country by a five-ton truck. The M198 is replacing the Ml 14Al/A2 howitzers. A program to upgrade reliability, safety and ease of operation is underway.

## M109 SERIES 155MM SELF-PROPELLED HOWITZER

The M109 was designed to provide a medium-weight carriage with adequate mobility to support armor and mechanized infantry units. The M109 is an aluminum-armored, self-propelled, air-transportable field artillery weapon system. Most fielded Army howitzers are M109A2 or M109A3. The M109A2/A3 is capable of firing both conventional and nuclear munitions. Maximum range is 18,000 meters and 23,500 meters for rocket-assisted projectiles; weight is 56,000 lbs. Secondary armament includes a .50 cal machine gun. The crew consists of six personnel. Cruising range of the vehicle is 220 miles. A program to improve the Ml 09 has resulted in the Ml 09A4 (NBC protection), M109A5 (armament improvements) and M109A6 Paladin, which is capable of semi-autonomous operation.

## MULTIPLE-LAUNCH ROCKET SYSTEM (MLRS)

MLRS is a free-flight artillery rocket system that consists of a 12-round launcher capable of firing rockets one at a time or in rapid ripples to ranges beyond 40 kilometers. The primary missions of MLRS are counterfire and suppression of enemy air defenses. It supplements cannon artillery fire by delivering large volumes of firepower in a short time against critical, time-sensitive targets. MLRS employs shoot-and-scoot tactics to limit vulnerability to counterbattery fire. In addition to the dual-purpose conventional submunition, the system can deliver scatterable mine warheads, each of which dispenses 28 antitank mines. The MLRS launcher has been updated to employ the Army Tactical Missile system (ATACMS) against tactical surface-to-surface missile sites and other priority targets.

## PATRIOT

The Patriot missile system is the centerpiece of theater air and tactical ballistic missile defense. The system's fast reaction capability, high firepower and ability to operate in a severe electronic countermeasure environment are features not previously available in air defense systems. The combat element of the system is the fire unit, which consists of a radar set, an engagement control station, a power plant, an antenna mast group and eight remotely located launchers. The system is highly automated, combining high-speed digital processing with various software routines to effectively control the battlespace. The single radar, using phased array technology, provides for all tactical functions of airspace surveillance, target detection and tracking and support of missile guidance. The only manned element of the fire unit during air battle, the engagement control station provides the human interface for control of automated operations. Each launcher contains four ready-to-fire missiles,

sealed in canisters which serve a dual purpose as shipping containers and launch tubes. Multiple targets can be engaged simultaneously. U.S. missile production deliveries include PAC-2 modifications. PAC-2 missiles and Post Deployment Build 3 software provide Patriot a limited asset defense against the theater ballistic missile threat.

### STINGER MAN-PORTABLE ANTIAIRCRAFT MISSILE

The shoulder-fired Stinger provides effective short-range air defense capabilities for ground personnel against low-level fixed-wing aircraft and helicopters. The 35-lb supersonic fire-and-forget Stinger, which has replaced the Redeye, features quick-reaction acquisition and tracking and the ability to engage aircraft approaching from any direction, including head-on. Three variants, Basic Stinger, Stinger-POST (passive optical seeker technique) and Stinger-RMP (reprogrammable microprocessor), are in the Army inventory. The Basic Stinger is an infrared (IR) system. The Stinger-POST employs a dual-detector (IR and ultraviolet). The Stinger-RMP improves microprocessor power and is highly resistant to countermeasures. New software reprogrammability allows upgrades without costly retrofit.

### M9 ARMORED COMBAT EARTHMOVER (ACE)

The M9 ACE is a highly mobile (tracked), amphibious armored earthmoving vehicle that can move, survive, and work with the flow of battle, responding immediately to the need for elimination of enemy obstacles, creation of obstacles to enemy maneuver, preparation of fighting positions for the fighting forces, expedient antitank ditching, and maintenance of roads and supply routes. The M9 ACE weighs 18 tons empty and 26 tons loaded, with a road speed of 30 mph. It is transportable by C-30 and larger aircraft. Vehicle armor protects the crew from small arms, artillery fragmentation, and NBC threats. The 7$^{th}$ Infantry Division (Light) was the first unit equipped. Deliveries of the full production vehicles to the field began in the June-October 1989 time frame. Due to Operation DESERT STORM, the M9 ACE was fielded to SWA units in November-December 1990.

### AH-64 SERIES APACHE ATTACK HELICOPTER

The AH-64A is an advanced attack helicopter able to locate, engage and destroy enemy armor forces and a variety of other targets during day, night and bad weather. The Apache is operated by a crew of two. Maximum level flight speed is 158 knots, and the ceiling is 20,000 feet. Mission endurance is

2.5 hours carrying eight Hellfire antitank missiles, 38 2.75-inch rockets and 1,200 rounds of 30mm cannon ammunition at a speed of 146 knots. The crew station is protected by armor plating and a blast fragment shield.

**COMMENTARY:**

**Terms and Definitions:**

**Техническое задание** является важнейшей частью любого проекта. Техническое задание определяет для конструкторов, какими именно характеристиками и функциями должен обладать конечный продукт. На его основе конструкторы (designers) разрабатывают проект (design).

От незнания термина техническое задание пострадали многие переводчики. Попытки перевести его пословно (техническое – technical, задание – task) моментально вызывают полнейшее недоумение у англоязычной стороны, и последующее раздражение российских технических экспертов, так как для них понятие техническое задание – ТЗ – является азбучным, ежедневно употребляемым, и тот факт, что некоторые гуманитарии не знают, что такое ТЗ, вызывает у них массу эмоций, из которых жалость – самое гуманное.

Словарь определяет техническое задание как specification, performance specification, requirements specification , или design specification, work specification, conceptual study , причем, обратите внимание, слова technical, как и task, нет ни в одном таких терминов. На практике наиболее частым вариантом перевода термина техническое задание является the statement of work, SOW, хотя все приведенные выше варианты перевода также являются правильными. Некоторые иностранные специалисты, тесно общающиеся с российскими коллегами, на пример летчики республики Индия, используют в разговорной речи сокращение TZ [ti:'zi:].

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. На смену какому компдексу пришёл ПЗРК “Стингер» в ВС США?
2. The Apache heli is operated by a single crew member, isn’t it?
3. Due to what Operation was the M9 ACE fielded to SWA units back in 1990?
4. What is the composition of the Patriot fire unit?

5. Сколько противотанковых мин содержит каждая кассетная часть снаряда MLRS?
6. Может ли самоходная гаубица М-109 транспортироваться по воздуху?

**Exercise 6. Decipher and translate the following abbreviations:**

ATAS; NBC; FVS**;** MBT; TOW; HMMWV; RAP; SP; FO; CSS; LCS; MLRS; ATACMS; FDO; HP; JCS; SACEUR; PAC; NCO; SGT; hel; RPG; KP; JTF; ACE; lbs; CENTCOM; rpm; arty; IR; PT; cav sqdn; prvt; Col; BDU; engr; TOE; FDC; avn bde; SOP; UH; cal; CinC; MP; AD; MoD; CITV; POS/NAV; PSYOPS.

**Exercise 7. Translate the following words and word combinations by ear:**

Mounted combat; thermal-imaging infrared device; gunner; armament; to be powered; crew; compartmentalization; smoothbore cannon; to keep cross-hairs on the target; target acquisition.

Закреплять успех; механик-водитель; спаренный пулемет; бронированная разведывательная машина; дизельный двигатель; сблизиться с противником и уничтожить его; иметь на вооружении; лазерный дальномер; активно-реактивный снаряд; высотная цель.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Боевая машина “Брэдли” предназначена для ведения боя на машинах, защиты танков и закрепления успеха в ходе наступления. Машина рассчитана на отделение из девяти человек. | Armament includes the 25mm “chain gun,” a 7.62mm coaxial machine gun, and a TOW antitank missile launcher housed in an armored rectangular box. Fire control includes an integrated day/night sight with a thermal-imaging infrared device. |
| В отличие от танка М1, на во- | Other armament includes one .50 cal |

| | |
|---|---|
| ооружении которого состоит 105 мм орудие, основной боевой танк M1A1 оснащен 120 мм гладкоствольной пушкой, что привело к значительному увеличению его боевой мощи. | machine gun and two 7.62mm machine guns. The MlAl weighs 67 tons (combat loaded), is powered by a 1500-horsepower turbine engine, and has a top speed of 41 mph, a cruising range of 275 miles and a crew of four. |
| 155 мм гаубица на механической тяге M198 имеет значительные усовершенствования по сравнению со своими предшественницами в убойной силе, надежности, дальности стрельбы, в скорости развертывания на позиции и в мобильности. | The cannon will fire a 96-lb rocket-assisted projectile to a range of 30 kilometers. The maximum rate of fire is four rounds per minute, and two rounds per minute sustained. The accuracy of the Ml 98 is enhanced by its highly stable firing platform |
| Основная задача реактивной системы залпового огня заключается в подавлении ПВО противника. РСЗО дополняет ствольную артиллерию, нанося массированные удары по важным целям, которые требуется уничтожить в кратчайшие сроки. | MLRS employs shoot-and-scoot tactics to limit vulnerability to counter-battery fire. In addition to the dual-purpose conventional submunition, the system can deliver scatterable mine warheads, each of which dispenses 28 antitank mines. |

**Exercise 9. Translate the following text at sight:**

**Ml 19 SERIES 105MM TOWED HOWITZER**

The Ml 19, originally developed by the United Kingdom, is a lightweight towed 105mm artillery system. It is intended for use in direct support field artillery battalions in the light infantry, airborne and air assault divisions. It

weighs 4,000 lbs and is transportable by the UH-60-series helicopter. Its prime mover is the HMMWV.

Using standard ammunition, the Ml 19's range is 14,300 meters; rocket-assisted projectiles (RAP) and improved conventional ammunition now in development are expected to increase the range to 19,500 meters and improve lethality. The Ml 19Al, with U.S. fire control (pictured), replaces the M102 howitzer (maximum range 11,500 meters; 15,000 meters with RAP) which in turn replaces the MlOlAl (maximum range 11,270 meters; 14,500 meters with RAP).

AVENGER SURFACE-TO-AIR MISSILE/GUN SYSTEM. The Avenger is a lightweight, highly mobile/transportable surface-to-air missile/gun system mounted on a High Mobility Multipurpose Wheeled Vehicle (HMMWV). The armament consists of eight ready Stinger missiles and a .50 caliber machine gun. It is operated by a two man crew and has a day/night capability. Avenger provides a forward air defense capability in the division tactical area.

**Exercise 10. Translate the following text at sight:**

Сухопутные войска являются одним из наиболее многочисленных, разнообразных по вооружению и способам ведения боевых действий видов Вооружённых Сил Российской Федерации. По состоянию на сегодняшний день они оснащены самым различным по видам и назначению, сложным по конструкции вооружением и военной техникой.

Вооружение и военная техника составляют материальную основу подразделений, частей и соединений Сухопутных войск и подразделяются на следующие виды:

– ракетно-артиллерийское вооружение;
– бронетанковое вооружение и техника;
– военная автомобильная техника;
– средства инженерного вооружения;
– вооружение и средства радиационной, химической и биологической защиты;
– военная техника связи и
– технические средства тылового обеспечения.

**Exercise 11. Translate the following text in writing:**

**M l13 SERIES ARMORED PERSONNEL CARRIER**

The first Ml13 was powered by a 175-horsepower gasoline engine. The Ml13Al, with a 212-horsepower six-cylinder diesel engine, has a loaded

weight, with a two-man crew and an 11-man infantry squad, of 12.3 tons; maximum road speed is 40 mph and cruising range is 300 miles.

Armament includes a .50-caliber machine gun. Other variants of the Ml13 are Ml 06A2 carrier for the 4.2-inch mortar; Ml 25A2 carrier for the 81 mm mortar; M577A2 command post vehicle; M741 chassis for the Ml 63 Vulcan air defense gun; M730 for the Chaparral air defense missile system; and M901 improved TOW vehicle. The Ml13A2 has a turbocharged engine rated at 275 horsepower. The Ml13A3 version has incorporated interior spall liners, armored external fuel tanks, upgraded engine and transmission, and mounting points for bolt-on armor.

### CH-47 SERIES CHINOOK MEDIUM-LIFT TRANSPORT HELICOPTER

The CH47D is a medium lift transport helicopter used primarily to transport personnel, weapons, ammunition, equipment and other cargo in general support of combat units. It has a payload of 24,000 lbs. The Chinook has a maximum level flight peed of 158 knots, single-engine service ceiling of 13,1 00 feet, the ability to hover out-of-ground effect up to 17,250 feet, and maximum rate of climb of 3,450 feet per minute. The Army continues to modernize CH-47A, B and C models to the “D” configuration for one-to-one replacement in the field.

**Exercise 12. Translate the following text in writing:**

На вооружении сухопутных войск США с учетом резервных запасов военного времени состоят: 14 500 танков (из них более 7500 М1 ”Абрамс” различных модификаций, 6000 М60 и до 1000М48, 120 легких плавающих танков “Шеридан”), 6600 БМП и БРМ “Брэдли”, 28.000 БТР, 830 203,2-мм и 2500 155-мм самоходных гаубиц, свыше 2000 буксируемых орудий полевой артиллерии, 540 реактивных систем залпового огня, 2500 107-мм минометов (в том числе 1900 самоходных), 16 300 ПТРК ТОУ и 5700 ПТРК “Дракон”, 472 ПУ ЗРК “Пэтриот”, 96 ПУ ЗРК “Усовершенствованный Хок”, 144 ПУ ЗРК “Чапарэл”, свыше 7400 вертолетов армейской авиации, включая 1400 передовых. Оперативно-тактические и тактические ракетные комплексы “Першинг” и “Ланс”, а также ядерные боеприпасы к артиллерийским системам, состоящим на вооружении американских войск в Европе, передислоцированы на территорию США и заскладированы.

Повышение боевых возможностей соединений и частей в ближайшие годы будет осуществляться в основном путем модернизации танков се-

рии М1 Абрамс”, БМП и БРМ “Брэдли”, 155-мм самоходных гаубиц М109А6 (вариант “Палладин”), оснащения войск ракетами “Атакс” (для РСЗО), новыми ЗРК “Авенджер” и другими высокоточными средствами поражения, а также новейшими системами управления войсками и оружием.

## ARMY HUMOR

### Reward these soldiers for their work

A British General had sent some of his men off to fight for their country in the Falkland Island Crisis.Upon returning to England from the South American island, three soldiers that had distinguished themselves in battle were summoned to the General's office. "Since we weren't actually at war," the General began, "I can't give out any medals. We did, however, want to let each of you know your efforts were appreciated. What we've decided to do is to let each of you choose two points on your body. You will be given two pounds sterling for each inch of distance between those parts. We'll start on the left, boys, so what'll it be?"

Soldier 1. "The tip of me head to me toes, sahr!" General: "Very good son, that's 70 inches which comes to 140 pounds"

Soldier 2. "The tip of the finger on one outstretched hand to the tip of the other, sir!"General: "Even better son, that's 72 inches which comes to 144 pounds"

Soldier 3. "The palm of me hand to the tip of me left pinky, sahr!"General: "That's a strange but fair request, son!As the general begins the measurement: "What! Son, where is your left pinky?"

Soldier 3. "Falkland Island, sahr!"

## УРОК 8
## ВНУТРЕННИЙ РАСПОРЯДОК

## LESSON 8
## DAILY ROUTINE

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| reveille | bayonet |
| routine | sergeant |
| hygiene | sentinels |
| column | rucksack |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons**:

Mounted combat; thermal-imaging infrared device; gunner; armament; to be powered; crew; compartmentalization; smoothbore cannon; Department of Defense, National Security Act, specified command, chief of staff, Chief of Naval Operations, Commandant of Marine Corps.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| to induct | зачислять на действительную военную службу |
| daily routine | распорядок дня |
| reveille | подъем |
| lights out / “taps” | отбой |
| policing of the area | уборка территории |
| regulations (regs) | наставление, устав |
| formation | построение |
| push ups | отжимания |
| inspection | утренний осмотр |
| mess | столовая |

| | |
|---|---|
| field manual (FM) | полевой устав, наставление |
| drill (training) | строевая подготовка |
| drill and ceremonies | строевая подготовка и торжественные марши |
| range | полигон; стрельбище |
| reading hours | самоподготовка |
| to be detailed for duty | быть назначенным в наряд |
| duty roster | график нарядов |
| detail | наряд; команда |
| officer of the day | дежурный по части |
| physical training (PT) | физическая подготовка |
| kitchen police (KP) | наряд по кухне |
| unexcused absent | незаконно отсутствующий |
| sergeant of the guard | разводящий |
| commander of the guard | начальник караула |
| relief | смена |
| guard mounting | развод (караулов) |
| tour [of duty] (TOD) | дежурство, наряд |
| guardhouse | караульное помещение |
| sentinel; sentry | часовой |
| to check soldiers' appearance | проверка внешнего вида |
| roll-call | поверка |
| to call the roll | проводить поверку |
| fitness for duty | готовность к службе |
| preparatory command | предварительная команда |
| to execute a command | выполнять команду |
| command of execution | исполнительная команда |
| element | подразделение |

| | |
|---|---|
| rank | шеренга |
| file | ряд |
| About, FACE! | Кру-ГОМ! |
| to align | выравниваться |
| stay out of step | идти не в ногу |
| infirmary | санчасть |
| AT MY COMMAND! | Слушай мою команду! |
| FALL IN! | СТАНОВИСЬ! |
| AS YOU WERE! | ОТСТАВИТЬ! |
| At EASE! | ВОЛЬНО! |
| REST! | ЗАПРАВИТЬСЯ! |
| FALL OUT! | РАЗОЙДИСЬ! |
| DISMISSED! | РАЗОЙДИСЬ! |
| ATTENTION! | СМИРНО! |
| Right (Left), DRESS; ready FRONT! | Направо (Налево) РАВНЯЙСЬ; СМИРНО! |
| Eyes RIGHT! | Равнение на-ПРАВО! |
| Eyes LEFT! | Равнение на-ЛЕВО! |
| Eyes FRONT! | Равнение на -СЕРЕДИНУ! |
| Right FACE! | Напра-ВО! (на месте) |
| Left FACE! | Нале-ВО! (на месте) |
| About FACE | Кру-ГОМ (на месте) |
| Forward, MARCH! | Шагом – МАРШ! |
| Double time, MARCH! | Бегом – МАРШ! |
| Mark time, MARCH! | На месте, шагом-МАРШ! |
| In place, double time, MARCH! | На месте, бегом-МАРШ |
| Halt! | Стой! |

| | |
|---|---|
| By the right (left) flank, MARCH! | Напра-ВО (Нале-ВО)! (в движении) |
| To the rear, MARCH! | Кру-ГОМ! (в движении) |
| Change step, MARCH! | Взять ногу! |
| Route step, MARCH! | ИДТИ НЕ В НОГУ |
| At ease, MARCH! | ВОЛЬНО! (в движении) |
| to stay in step | |
| Count, OFF! | По порядку – РАССЧИТАЙСЬ! |
| By twos, NUMBER! | На первый и второй – РАССЧИТАЙСЬ! |
| Action! | К бою! |
| Sling, ARMS! | На ре-МЕНЬ! |
| Order, ARMS! | К но-ГЕ! |
| Present, ARMS! | На кра-УЛ! |
| Sholder, ARMS! | На пле-ЧО! |
| Fix (Unfix), BAYONETS! | Штык – ПРИМКНУТЬ (ОТКИНУТЬ)! |
| present arms | брать на караул |
| fatigue | рабочая форма одежды |

**Exercise 4. Read and translate the text:**

**DAILY ROUTINE**

Recruiting of the US Armed Forces is based on voluntary enlistment. The persons selected for service are delivered to induction stations where they are examined and inducted.

The day a person enters any branch of the armed forces he/she begins to take military training.

The daily routine starts with "reveille" and ends with “taps” or “lights out.” The mil training, based on mil regulations, field manuals, technical manuals, and orders, includes instructions and classes, drill and ceremonies, physical fitness program, range practice, field exercises, map reading, tactics, etc.

The daily routine varies, depending upon the day and the training but a typical weekday includes:

a. Reveille at 5.30 am;

b. Breakfast starting at 6.00 am;

c. Inspection at 7.10 am;

d. Classes from 8.00 am to 4.30 pm;

e. Reading hours, and

f. Lights out 10.00 pm.

## DRILL AND CEREMONIES

Drill training starts the day a man enters the armed forces. It consists of certain movements by which a serviceman, squad, platoon, company, or battalion is moved in an orderly manner from one formation to another or from one place to another.

Some of the drill terms are: element, formation, line, rank, file, column, flank, interval, distance, and front.

There are two kinds of commands: the preparatory command and the command of execution.

When an instructor desires to take command of an element, he cautions – "AT MY COMMAND." To form an elm the command is – "FALL IN," to resume the previous position the command is "AS YOU WERE."

All rests are executed from the halt. At the command "AT EASE," silence is required but one may move; at the command "REST," one may talk and move. At the command "FALL OUT," one can leave the ranks but is required to remain in the immediate area. To dismiss the men the command "DISMISSED" is given.

Being at any of the rests except "FALL OUT," to resume the position of attention the command is — "ATTENTION." At the command "ATTENTION," the position of attention is executed; and the commands — "Eyes, RIGHT (LEFT; FRONT)," may follow. To align an element the commands — "Dress right (left); DRESS; ready, FRONT," are given.

To face the men to the flank or rear, the commands are: "Right (left), FACE"; "About, FACE."

Being at a halt, to march forward the commands are: "Forward, MARCH," "Double time, MARCH." To march or double the time in place, the commands are accordingly: "Mark time, MARCH"; "In place, double time, MARCH." To end the marching the command "HALT" is given.

To face in marching the following commands are used: "By the right (left) flank, MARCH"; "To the rear, MARCH."

The appropriate commands for changing the step or marching other than at attention are: "Change step, MARCH"; "Route step, MARCH" (one is not required to maintain silence or stay in step); "At ease, MARCH" (silence must be maintained, but one may stay out of step).

The commands for counting off are "COUNT OFF"; "By twos, NUMBER."

Before starting any movement of armed troops, the weapons are brought to the right or left shoulder, or sling position. The appropriate commands are: "Right shoulder (or Sling), ARMS"; "Left shoulder, ARMS"; "Order, ARMS"; "Present, ARMS"; "Fix (Unfix), BAYONETS."

**GUARD DUTY**

Guard duty is also a part of soldier's life. Soldiers are detailed for duty according to a duty roster. The detail for guard consists of an officer of the day (OD) with necessary offs, NCOs and privates. The senior NCO of the guard, whatever his grade, is known as the SGT of the Guard. If there is no officer of the guard he will perform the duties of the Commander of the Guard. There is always one corporal of the guard for each relief.

Relief of the old detail for guard takes place after the guard mounting. The usual tour is 24 hours. Sentinels on post (sentries on post) and guards on duty are posted armed and equipped according to their particular duty. The OD inspects the guard and sentinels – at least once between midnight and daytime and visits the guardhouse.

Except in emergencies, members of the old guard may not be detailed for duty until four hours after they have been relieved. Men coming off guard duty are usually allowed 24 hours before being placed on any other duty.

An interior guard consists of a system of patrols and fixed posts. At an appropriate time before sentinels go on post, the training officer assembles them, checks their appearance, fitness for duty, and the condition of their arms, if carried. He issues ammunition, if required, and makes sure that they understand their instructions.

**COMMENTARY:**

**1. Terms and Definitions:**

Значения команд в русском и английсом языках не всегда полностью совпадают. Например, семантическое поле английской команды

**ATTENTION** шире семантического поля русской команды «СМИРНО» и не требует предварительных команд. Обучаемые часто допускают ошибку, переводя русскую команду «ВСТАТЬ, СМИРНО» двумя словами STAND – ‘SHUN. В данном случае при подаче этой команды следует использовать только одно слово – ATTENTION.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. What does the daily routine start and end with?
2. What does the detail for guard consist of?
3. When does the relief of the old guard take place?
4. What does the drill training consist of?
5. How many types of commands do you know? Name them.
6. What command is used for dismissing the men?
7. What commands may follow the command “ATTENTION”?
8. What are the commands for changing the step in marching?
9. What commands do you know for counting off?

**Exercise 6. Decipher and translate the following abbreviations:**

PT, en, KP, inf, CENTCOM, SGT, div HQ, OD, HQ co, ToD, div arty, NCO, cav sqdn, prvt, ADA bn, engr bn, sig bn, MI bn, MP co, S.O.B., avn bde, AD, KP; 2Lt; BDU; PSYOPS, SOP, mech inf, hel, engr, CS, CSS, CONUS, JTF, COSCOM, TOE, obj, JCS, SACEUR, OOTW, OPCON, CinC.

**Exercise 7. Translate the following words and word combinations by ear:**

Physical training; to take military training; to take command of an element; to stay out of step; to double in place; to align an elm; to change step; to end the marching; to dismiss the men; "Eyes, FRONT!"; ; mil regulations; range practice; in an orderly manner; the condition of the arms; "AS YOU WERE"; “FALL IN"; to relieve; map reading; field exercises; tour of duty; roll-call; rank and file.

Построение; выравнивать строй; идти в ногу; назначать в наряд; ОТСТАВИТЬ!; принять стойку смирно; соблюдать тишину; СТОЙ!; обозначать бег на месте; проходить военную подготовку; пойти по стопам отца; внутренняя караульная служба; назначать в наряд; выставлять на пост; сменяться с наряда; строить личный состав; проверять внешний вид; готовность к несению службы.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| All interior guards are required to memorize, understand, and comply with the following general orders:a) I will guard everything within the limits of my post and quit my post only when properly relieved. | b) При необходимости вступлю в рукопашную схватку для защиты себя или охраняемого объекта; буду смело действовать штыком и прикладом. |
| I will report violations of my special orders, emergencies, and anything not covered in my instruction, to the commander of the relief. All persons, regardless of rank, are required to respect members of the guard in the performance of their duties | Начальник караула обязан знать задачу караула, инструкцию начальнику караула и обязанности всех лиц караула. |
| When the person is approximately 30 steps, or at sufficient distance to allow the guard time to react, the guard will command "HALT!" When the person has halted, the guard asks, "WHO IS THERE?" The guard may advance toward the person while challenging to put himself in a better position | Начальник караула обязан лично проверять вместе с начальником старого караула наружным осмотром состояние наиболее важных охраняемых объектов, указанных в инструкции. |

**Exercise 9. Translate the following text at sight:**

I hadn't finished high school when I took the entrance examination for the Army Air Corps Aviation Cadet program. About three months later, in March 1943, I was called to duty. My first duty station was Hill Field, Ogden, Utah, and it was primarily an induction station. We were given thorough physical exams, and numerous shots for various diseases. Since I am one of those persons who nearly faint whenever I get a shot, I remember all of them.

We were issued uniforms including neckties, socks, underwear, and even a safety razor with blades.I caught the flu after about two days and didn't know I was supposed to go to an infirmary for "sick call", and simply remained in my bunk (койка). No one seemed to miss me, and after a day was able to resume my processing (здесь: прохождение отбора). To this day I don't know what I missed, but it obviously wasn't too important. But anyway I was drafted in September, went down to Fort Dix, or they called it camp Dix down in New

Jersey for my indoctrination (воспитание, образование, обучение; идеологическая обработка).

The first thing I did, they put us in tent city, you know what tent city is, full of mud, everything else. It was terrible. We had to go and get all our things from the quartermaster (интендант), our uniforms, underwear and socks. The place was a mess. You slept on a little cot. I thought we were nice and comfortable, but you're on these little cots with these old Army blankets that always itched, didn't they? But anyway we were there for three or four days. Finally we went up to the regular barracks that they had up there waiting for assignment. We were there, always on duty, KP, policing the area or something. No matter what, always on formation doing something. Nothing to do with drilling or anything, just keeping the boys busy. So about three days I was there. We had to go out in formation every day for chow and for school. We ate in the dining area.

**Exercise 10. Translate the following text at sight:**

**Text 1. A NORMAL DAY AT FORT DRUM[1]**

**(as described by an anonymous insider)**

0650 – PT formation outside.

MON – FOUR MILE RUN, no matter how cold, wet or slushy. 20 below zero indoor running may be contemplated. *May* being the key word. Small groups run according to their abilities (speed). The fast stay fast, and the slow run slow together.

TUES – Push up and sit up improvement. Push ups are emphasized, suggestions not open for debate.

WED – 4, 6, 8 or 12 mile ruck march. Minimum 35 lb[2] requirement, regardless of soldier size. All climates approved. All battle-rattle worn[3].

THURS – Circuit training[4]

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[1] N.Y., 10th Mountain (Light Infantry) Division.

[2] Pounds, one lb is ~ 0.450 gr.

[3] ~ С полной выкладкой.

[4] **Circuit Training** consists of a series of resistance exercises performed one after another with little rest between exercises.

FRI – 4 mile run. One big group. The slow are humiliated, the fast get angry. What morale!

0800 – Stretching begins.

0805 – Battle drill practice.

0820-0900 – Personal hygiene, breakfast and barracks maintenance.

0920 – Report to the Motor Pool (автопарк) or hallway area for further "go-fer" directions from a higher rank. What training schedule?

1200-1300 – Lunch

1300-1655 – More "go-fer" details and BS[5].

1700 – Formation

1720 – Release time, that is if we're not in the field, still detailed or in a class.

**Text 2. DAILY ROUTINE**

Below is an example of a daily program for an Australian Army recruit. As you can see it is a very busy program with many lessons and new skills being taught constantly.

Activity Time
Reveille 0600h
Personal Hygiene 0600-0615h
Breakfast 0615-0640h
Barrack Maintenance 0640-0700h
Barrack and Uniform Inspection 0700-0720h
Training 0720-1120h
Lunch 1130-1230h
Training 1240-1440h
OR
Training 1130-1210h
Lunch 1220-1320h
Training 1330-1640h
Dinner 1700-1800h
Training 1830-2030h
Training 2030-2200h
Training 2200h

[5] Bullshit.

**Exercise 11. Translate the following text in writing:**

**DAILY ROUTINE**

Due to the nature of the job your daily routine will always be different but in camp the average day starts at about 08.00am. The day may start with general duties or sport. No two days are the same.

After a shower and breakfast you will move on to training, this could be learning new skills such as driving, Fieldcraft, firing weapon systems and may include maintaining infantry skills, communications, field craft, drill, map reading and shooting. The average day finishes at about 4.30 pm.

Meals are served in the Regimental Restaurant. The chefs provide a high standard of food with a choice of hot dishes or salads and you are guaranteed to have food provided 3 times a day, every day, with no need for cooking or cleaning. All you have to do is turn up.

When you are on exercise or operations these timings are obviously a lot more flexible and the days can be much longer. However, everyone enjoys the deployments because you are able to put into practice your skills. In addition you will receive extra pay and allowances and be reimbursed your food and accommodation charges.

The single soldiers are normally accommodated in their own en-suite,(this is dependant on location and Operation) one-man room; you are responsible for keeping your room clean and tidy. You can layout your room, as you wish, your living space is very much a personal thing. TV, Telephone and Internet connections are in most room, but you will be responsible for the bills if you want to make use of these facilities.

There are six rooms in every flat and you will live here with your colleagues. Each flat has a kitchen, sitting room, storeroom and laundry room. The Regimental Recruiting team run regular visits for potential recruits to come and see the Regiment. It is free, and there is no obligation to take things further if you don’t want to.

**Exercise 12. Translate the following text in writing:**

**ЛАГЕРЬ ПРИЗЫВНИКОВ В КАНТЕМИРОВСКОЙ ДИВИЗИИ**

– Ребята еще не привыкли к новому распорядку: подъем – в 7, отбой – в 22.00. Но за эти 3 недели, я уверен, – говорит подполковник Г.Шевченко, – они поймут, что такое армия и решат, нужно им это или нет.

Каждый год родители сталкиваются с одной и той же проблемой: куда деть любимое чадо, чтобы оно отошло от школьных будней, окрепло

и загорело. С другой стороны, чтобы было под присмотром, в надежных воспитательных руках.

– Кантемировка – это именно то, что нужно мальчишкам, – говорят приехавшие навестить детей родители.

– Мы хотим, чтобы сын пошел по стопам (to follow /to tread[6], to walk/ in smb.'s footsteps) своего деда-полковника. Здесь он получит армейскую закалку. Спасибо префекту (Prefect) и военкому за организацию этого лагеря, – сказали родители 13-летнего подростка.

Мальчишки приехали такие худенькие, – заметила полковая медсестра. – Но уже проявляют героизм: говорят, что из-за мозолей (footsores) в медпункт ходить не будут.

Скоро в Кантемировке следующий заезд, 2-я смена (shift). А пока у ребят далеко не серые солдатские будни. Кстати, в День дивизии здесь прошли соревнования по стрельбе, эстафеты (relay runs) и другие конкурсы. Победителей ждали сладкие призы, книги и электронные игры.

**ARMY HUMOR**

**Bragging about old times**

Two men were boasting to each other about their old army days.
"Why, my outfit was so well drilled," declared one, "that when they presented arms all you could hear was slap, slap, click."
"Very good," conceded the other, "but when my company presented arms you'd just hear slap, slap, jingle."
"What was the jingle?" asked the first. "Oh," replied the other offhand, "just our medals."

# ГЛАВА 2

# БОЕВЫЕ ДЕЙСТВИЯ ВОЙСК

# CHAPTER 2
# COMBAT OPERATIONS

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## УРОК 9
## НАСТУПАТЕЛЬНЫЕ ОПЕРАЦИИ

## LESSON 9
## OFFENSIVE OPERATIONS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| fundamentals | pursuit |
| orient | sequence |
| exploit | adjacent |
| analysis | estimate |
| execution | concept |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To stay out of step; to double in place; to align an elm; to change step; to end the marching; to dismiss the men; "Eyes, FRONT!"; ; mil regulations; range practice; in an orderly manner; the condition of the arms; "AS YOU WERE"; “FALL IN"; to relieve; map reading; field exercises; tour of duty; roll-call; rank and file.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| assault (aslt) | атака; штурм |
| movement to contact | сближение с противником |
| coordinated attack | одновременное наступление |
| exploitation (xpit) | развитие успеха |
| pursuit (pur) | преследование |

| | |
|---|---|
| main attack | главный удар; направление главного удара |
| supporting attack | вспомогательный удар |
| frontage | ширина полосы (участка, района) наступления (обороны) |
| attack formation | боевой порядок в наступлении |
| envelopment (env) | охват |
| penetration (pent) | прорыв |
| double envelopment | двойной охват |
| turning movement | обход; обходный манёвр |
| estimate n. (est) | оценка (обстановки) |
| conventional munition | обычный боеприпас |
| surprise | внезапность |
| army corps | армейский корпус |
| concentration of superior combat power | сосредоточение превосходящей боевой мощи |
| frontal attack | фронтальное наступление (удар) |
| types of offensive operations | виды наступления |
| reconnaisance in force | разведка боем |
| planning guidance | указания по организации (боя) |
| concept of operation | замысел действий |
| organization for combat (orgn for cbt) | распределение сил и средств |
| task force (TF) | (временная) тактическая (оперативная) группа, группировка |
| to gain an advantage over the enemy | достигать превосходства над противником |
| то retain a reserve | оставлять резерв (в подчинении) |

| | |
|---|---|
| to achieve surprise | достигать внезапности |
| to analyze the mission | уяснять задачу |
| to state a decision (decn) | формулировать решение |
| to make a decision | принимать решение |
| at division level | в дивизии; в дивизионном звене |

**Exercise 4. Read and translate the text:**

**FUNDAMENTALS OF OFFENSIVE ACTION**
**(US VIEWS)**

In offensive operations, attacking forces are maneuvered to gain an advantage over the en force in order to close with and to destroy or capture it. To accomplish this, the commander may orient his attack on the front or flank of the en force. He employs a combination of fire and maneuver to accomplish offensive missions. The fires include nuclear, chemical and conventional munitions. The attacker maneuvers to exploit the effects of his fire and to close with and destroy the en by assault. Successful offensive action requires the concentration of superior combat power at the decisive pt-and time. Operations often are directed toward the early control or neutralization of key terrain features. Plans provide for the exploitation of any favorable advantage that develops during the attack. This may require the commander to retain a mobile reserve of troops and fire support to exploit successes. When an opportunity for decisive action presents itself, the commander commits all necessary resources and demands the ultimate from his troops.

There are five types of offensive operations: the movement to contact, the recon in force, the coordinated attack, the exploitation and the pursuit. The division's forces may be designated as the main attack, the supporting attack, or the reserve. Prior to the attack, plans are made to reconstitute a reserve at the earliest opportunity after the reserve is committed.

The division's mission and combat power are major consideration in determining the frontage to assign to an attacking unit. The mission, terrain and weather, en situation, and troops available indicate the most suitable attack formation. Div formations are a column of brigades, a line of brigades, and an echelon of brigades.

After the en has been located, there are three principal tasks in the attack: holding the en in pos, maneuvering to gain an advantage, and delivering an

overwhelming attack at the decisive time. Surprise is always sought. Cover and deception operations aid in achieving surprise.

## FORMS OF MANEUVER

The basic forms of maneuver are the envelopment, the frontal attack, and the pent. The envelopment and the pent are the primary forms employed by the div. The frontal attack is normally employed by corps and higher echelons. A double envelopment and a turning movement are variations of the envelopment. Infiltration is a technique of movement that may be used with all forms of maneuver and in all types of offensive operations. The exploitation is a type of offensive operation that frequently takes place during a successful pent or envelopment. The pursuit is an extension of a successful exploitation.

## PLANNING THE ATTACK

The planning sequence begins with the receipt of a mission. Based on info available to him from his staff and from higher, lower, and adjacent units, the commander initiates his estimate by analyzing and restating the mission and issuing his planning guidance, based on the commander's guidance, the staff prepares and presents estimates and recommendations. The commander and the staff must prepare individual estimates of situation. These estimates are developed separately but concurrently. The elms of the estimate — mission, situation and courses of action, analysis of opposing courses of action, comparison of own courses of action, and the decision or recommendation — are essential to effective offensive planning.

The commander then completes his estimate and states his decision. After stating his decision, the commander provides the staff with his concept of how the operation will be conducted. In addition, he may provide guidance and instructions that will permit issuance of an oral order. At div level, oral orders are usually issued first, followed as soon as feasible, by written orders. The commander and the staff supervise the execution of the commander's Orders. In accordance with the commander's decision and concept, the staff completes planning and prepares the operational plan and supporting plans for the commander's approval. The organization for combat is covered in the div operation 0rder. The brigade commander normally orgs battalion TFs consisting of tank-infantry teams supported by arty.

**COMMENTARY:**

**1. Terms and Definitions:**

a) **Assault** is a final phase of an attack; closing with the enemy in hand-to-hand fighting.

b) **Attack** is an offensive action directed against an enemy; a phase of an offensive operation that involves advance that usually ends with fighting at close range.

c) **Offensive** is an attack, especially one on a large scale.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. От чего зависит боевой порядок войск в наступлении?
2. Какие задачи ставятся дивизии на главном направлении наступления корпуса?
3. В каком случае командир дивизии оставляет подвижный резерв в своём подчинении?
4. От чего зависит ширина полосы наступления дивизии?
5. Каким образом достигается внезапность нанесения удара в наступлении?
6. В каком документе отражается распределение сил и средств для боя?

**Exercise 6. Decipher and translate the following abbreviations:**

TF; est; org; orgn for cbt; msn; decn; stf; situ; info; elm; intel; atk; fmn; HE; CEV; recon; en; spt; IC; NSC; mg; SA; svc spt; sup; bde; ech; cal; env; SAM; Xmtr; FM; LASER;AF.

**Exercise 7. Translate the following words and word combinations by ear:**

To exploit the effects of fire; the planning sequence begins with the receipt of a mission; to initiate one's estimate by analyzing; exploitation of any favorable advantage; to deliver an overwhelming attack; to gain an advantage over the en; to orient one's attack on the front or flank of the en; the commander commits all resources; major consideration in determining the frontage; the most suitable attack formation; to issue oral orders.

Развивать успех; сближаться с противником; захватывать в плен; восстанавливать резерв; достигать превосходства над противником; с получением задачи; отдавать приказ; планирование начинается с получением...; на основе данных; оценка обстановки; замысел действий; охват; обход; достигать внезапности; просачивание; фронтальное наступление; прорыв; сочетание огня и манёвра; группировка главного удара; вводить в бой резерв; боевой порядок в наступлении.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Под термином "одновременное наступление" понимаются наступательные действия дивизии, которые характеризуются координированным использованием огневых средств и согласованным проведением манёвра в целях сближения с противником и уничтожения его. | The two types of offensive operations, movement to contact and reconnaissance in force, are preliminary operations and the coordinated attack is the next logical step. |
| Перед одновременным наступлением обычно проводится тщательная разведка, точная оценка противника и местности для достижения полного превосходства над противником. | The coordinated attack is the offensive operation most frequently referred to or thought of when the term "attack" is used. |
| Одновременное наступление обычно проводится для прорыва хорошо оборудованной в инженерном отношении обороны противника и требует максимального использования всех сил и средств наступающих войск. | A coordinated attack may be made before, after, or as a part of other offensive operations. In a coordinated attack, adequate time is necessary to allow for thorough planning of the attack, careful reconnaissance, and detailed evaluation. |
| Замысел действий командира дивизии должен исключать шаблонное или типовое распределение сил и средств для боя. | The commander uses his judgment to develop the best organization for combat and attack formation for each tactical situation requiring a coordinated attack. |

**Exercise 9. Translate the following text at sight:**

**Текст 1. THE FRONTAL ATTACK**

The frontal attack is employed to overrun and destroy or capture a weaker en in position or to fix an en force in position to support another form of maneuver. Normally it is appropriate only for C and higher levels of command.

During a frontal attack, the commander seeks to create or take advantage of conditions that will permit a pent or envelopment of the en pos. A reserve is retained to permit redistribution of forces and to take advantage of changes in the tactical situation. The frontal attack is commonly employed in the exploitation; by the enveloping forces in an envelopment; by the fixing force in a supporting attack; in recon in force; and by the turning force in a turning movement.

**Текст 2. EXPLOITATION**

Exploitation is the following up of gains to take full advantage of success in battle. It is a phase of the offensive that destroys the en's ability to reconstitute an organized def. The div can exploit its own success; it can be exploiting force for a higher echelon; or it can follow and support another exploiting force.

Exploiting forces can accomplish a mission of securing objectives deep in the en rear, cutting lines of communications, surrounding and destroying en forces, denying escape routes to an encircled force and destroying en reserve. Employment of forces is the exploitation is similar to the movement to contact. Attack from multiple march columns is normal.

**Текст 3. PURSUIT**

The pursuit normally follows the exploitation. It differs from the exploitation in that its primary function is to complete the destruction of the en force which is in the process of disengagement. The pursuit usually consists of direct pressure and enveloping forces.

**Exercise 10. Translate the following text at sight:**

**ХАРАКТЕРИСТИКА СОВРЕМЕННОГО НАСТУПАТЕЛЬНОГО БОЯ**

Современные наступательные действия отличаются решительным и маневренным характером; войска наступают на широком фронте и на большую глубину. Наступательный бой ведётся объединёнными усилиями всех родов войск и специальных войск. При этом каждый род войск и специальные войска, применяя присущие им способы и приёмы действий, решают свои задачи, исходя из общей боевой задачи, поставленной перед войсками. Это требует от командиров чёткого определения замыслов своих действий, умелого распределения сил и средств для боя и объединения их усилий для достижения успеха.

Наступление – основной вид боя российских войск; оно имеет решающее значение в достижении победы над противником. Сущность наступления заключается в том, что наступающие войска поражают противника всеми имеющимися огневыми средствами и, используя достигнутые результаты, стремительно сближаются с ним, чтобы решительным ударом разгромить его живую силу и огневые средства и овладеть занимаемой им местностью.

**Exercise 11. Translate the following text in writing:**

**THE ENVELOPMENT**

In the envelopment the enveloping force attempts to avoid the enemy's main defensive strength by passing around or over his principal defensive positions to secure objectives in the rear that cut his escape routes, disrupt his communications and support, and subject him to destruction in position. Supporting attacks hold the enemy in position during the advance of the enveloping attack. The envelopment forces the enemy to fight in two or more directions simultaneously to meet the converging attacks.

The division can use the envelopment for its main attack or it can assign envelopment missions to subordinate units. In the turning movement — a variation of the envelopment — the attacking force passes around or over the enemy's main force to secure an objective deep in the enemy's rear. An aerial envelopment requires that adequate suppressive fires, be available or that the enemy's dispositions or capabilities not interfere materially with the flights of large number of aircraft. The attacks may be launched simultaneously or the times of the supporting and enveloping attack may be staggered; supporting attacks normally will be launched first to increase deception.

**Exercise 12. Translate the following text in writing:**

**НАСТУПЛЕНИЕ**

Наступление – вид военных (боевых) действий, основанный на предельно решительном и активном использовании вооруженных сил, войск (сил флота). Применяется для разгрома противника и овладения важными районами, рубежами и объектами на его территории (акватории). Заключается в нанесении по противнику мощных ударов всеми боевыми средствами на суше, в воздухе и на море, уничтожении основных группировок его войск (сил флота) и решительном использовании достигнутого успеха путем стремительного продвижения своих войск (сил флота), охвата

противника по воздуху, а на приморских направлениях и с моря. Может проводиться в стратегическом, оперативном и тактическом масштабах.

Наступление чаще всего начинается после успешного ведения обороны. Во всех случаях оно связано с захватом инициативы и навязыванием своей воли противнику. Вместе с тем, предполагается возможность последующего перехода к временной обороне (на всех или на каком-либо одном направлении) для закрепления достигнутого успеха и отражения ударов противника.

Разновидностями наступления в оперативном и тактическом масштабах являются встречный бой, встречное сражение, преследование, а в стратегическом и оперативно-стратегическом масштабах – контрнаступление, воздушное наступление.

## ARMY HUMOR

### The Colonel's Order

A COLONEL ISSUED THE FOLLOWING DIRECTIVE TO HIS EXECUTIVE OFFICERS:

"Tomorrow evening at approximately 2000 hours Halley's Comet will be visible in this area; an event which occurs only every 75 years. Have the men fall out in the battalion area in fatigues, and I will explain this rare phenomenon to them. In case of rain, we will not be able to see anything, so assemble the men in the theater and I will show them films of it."

EXECUTIVE OFFICER TO COMPANY COMMANDER:

"By order of the Colonel, tomorrow at 2000 hours, Halley's Comet will appear above the battalion area. If it rains, fall the men out in fatigues, then march to the theater where this rare phenomenon will take place, something which occurs only once every 75 years."

COMPANY COMMANDER TO LIEUTENANT:

"By order of the Colonel be in fatigues at 2000 hours tomorrow evening. The phenomenal Halley's Comet will appear in the theater. In case of rain in the battalion area, the Colonel will give another order, something which occurs once every 75 years."

LIEUTENANT TO SERGEANT:

"Tomorrow at 2000 hours, the Colonel will appear in the theater with Halley's comet, something which happens every 75 years. If it rains, the Colonel will order the comet into the battalion area."

SERGEANT TO SQUAD:

"When it rains tomorrow at 2000 hours, the phenomenal 75-year-old General Halley, accompanied by the Colonel, will drive his comet through the battalion area theater in fatigues."

## УРОК 10
## СБЛИЖЕНИЕ И АТАКА

## LESSON 10
## MOVEMENT TO CONTACT AND ATTACK

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| subordinate | anticipate |
| perpendicular | dispersion |
| avenue | momentum |
| route | contingency |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To initiate one's estimate by analyzing; exploitation of any favorable advantage; to deliver an overwhelming attack; to gain an advantage over the en; to orient one's attack on the front or flank of the en; the commander commits all resources; major consideration in determining the frontage; the most suitable attack formation; to issue oral orders.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| coordination | взаимодействие; согласование |
| objective | боевая задача; цель; объект; |
| final objective | конечный объект (наступления) |
| close-in objective | ближайший объект (наступления) |
| line of departure (LD) | исходный рубеж (для наступления) |
| line of contact (LC) | линия соприкосновения с противником |
| dispersion | рассредоточение |
| boundary (bdry) | разграничительная линия |
| avenues of approach | пути подхода; подступы |

| | |
|---|---|
| axis of advance | основное направление наступления |
| direction of attack | направление удара (атаки) |
| phase line (PL) | рубеж регулирования |
| checkpoint | пункт регулирования; блок-пост; КПП |
| attack position | исходный район (для наступления) |
| infiltration | просачивание; прохождение через боевые порядки других частей |
| tactical movement | марш в предвидении встречи с противником; тактическое продвижение. |
| tactical column | предбоевой порядок |
| deployment | развёртывание |
| covering force | войска (силы) прикрытия |
| main body | главные силы (на марше) |
| meeting engagement | встречный бой |
| preparatory fire | огневая подготовка |
| supporting fire | огневая поддержка |
| pocket of resistance | очаг (узел) сопротивления |
| main command post | главный командный пункт |
| to designate control measures | указывать средства управления |
| to gain contact with the enemy | устанавливать соприкосновение с противником |
| to take up dispersed formations | принимать расчленённый боевой порядок |
| reconnaissance in force | разведка боем |

**Exercise 4. Read and translate the text:**

## COORDINATION AND CONTROL

Unity of effort is achieved in the attack by using appropriate control measures. Objectives may be used to provide unity of effort, to phase the attack, or to facilitate a change in the direction. They should be easily identified on the ground. It is preferable that subordinate division units be assigned only final objectives. Intermediate objectives are designated only when essential to the division's mission. Subordinate commanders may designate close-in objectives to coordinate their attacks thru the en def position.

When units are in contact, the LD may be designated along the LC. It should be generally perpendicular to the direction of adv, easily recognizable on the ground, and as close as possible to the en. The dispersion of the division laterally and in depth may make it desirable to assign separate LD's and times of attack to the various attacking units. A habitual relationship of time of attack to the time of a nuclear, CBR preparation must be avoided.

Boundaries are prescribed to guide the fwd adv of units in the attack and to control the fires and maneuver of two adjacent units. They are situated so that key terrain features and avenues of approach are completely Included in the area assigned to one unit. The commander also designates an axis of adv for indicating the general direction of movement along which he wants a subordinate commander to attack. A direction of attack indicates the route along which the commander issuing the order wants a subordinate commander to center his attack.

PL's are established to control progress of units, to coordinate an operation, and to assist in executing contingency plans. Checkpoints may be used to supplement PL's or in lieu of PL's. The division does not use an attack position nor does it assigned attack position to its subordinate elms except for an attack after infiltration. The division provides command and control of tactical and combat service support operations thru the division main, division alternate and division rear CP's.

## MOVEMENT TO CONTACT

Troop movements are either tactical or admin. They can be further classified according to the type of trans means employed: rail, motor, air, or water. A tactical movement emphasizes movement in combat-ready formations. Tactical movements assume that contact with the en will occur either en route or shortly after arrival at the destination.

Movement to contact is an offensive operation to gain or to reestablish contact with the en. The preferred method of movement is to adv on a broad front using the techniques of the tactical column or approach march. It terminates when determined en resistance requires the deployment and coordinated effort of the division. Movement to contact may frequently be made at night or during periods of reduced visibility.

Primary components are the covering force; adv guard, flank guard, rear guard; and the main body. The position of inf, tank, and engineer units in the formation is dictated by the situation, particularly the anticipated employment of the units. Security is obtained thru the use of the security forces. Tactical air support aircraft reinforce security efforts. Army aircraft furnish aerial fire support; airlift cargoes, troops, and sups; and perform visual and photo recon missions.

A meeting engagement is the combat action that occurs when a moving force, incompletely deployed for battle, engages an en force, static or in motion, concerning which it has inadequate intel. The basic principle in conducting a meeting engagement is to seize and retain the initiative. Meeting engagements may occur at lower echelons of the division in both offensive and def situation.

## THE ATTACK

Immediately preceding the attack, a nuclear, CBR or conventional preparation may be delivered. Attacking units move rapidly from dispersed locations under the cover of preparatory fires and fire in support of the attack. In nuclear conflict, these units maintain their dispersed formations until required to mass to achieve sufficient combat power to overcome en resistance. Once the mission that required the cone of the force is completed, units again take up dispersed formations.

The progress of the attack is not delayed to preserve the alignment of units or to adhere to the original plan of attack. Follow-on units reduce isolated en pockets of resistance and mop up as necessary. The reserve is kept dispersed but ready for instant employment. The attacker uses all possible means to maintain the momentum of the attack. Upon attainment or destruction of the division objective, reorganization is accomplished rapidly and all means are used to continue the attack if so ordered. Continuation of the attack with fresh troops, a new direction of attack, exploitation by the reserve may require a passage of lines or a relief in place. Contingencies may require the attack to be halted. The division commander may have freedom of choice in discontinuing the attack.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Какие факторы определяют успех при проведении наступления?
2. С какой целью указываются разграничительные линии?
3. Какие виды передвижения войск вам известны?
4. Как осуществляется сближение с противником?
5. Когда возникает встречный бой?
6. С какой целью назначаются основное направление наступления и направление атаки?
7. Где проходит исходный рубеж для наступления?
8. Могут ли мелкие подразделения вести встречный бой?

**Exercise 6. Decipher and translate the following abbreviations:**

Obj; arty; situ; rr guard; flk guard; gnd; DS; GS; LD; DZ; LZ; GZ; pent; xpit; env; ech; fmn; asit; asgn; res; LC; pos; recon; bdry; SAM; LASER; SLBM; ALCM; ICBM; IEBM; LOMAD; HIMAD; NOEAD; FW acft; EW acft; RIF.

**Exercise 7. Translate the following words and word combinations by ear:**

To phase the attack; to coordinate the attacks; arrival at the destination; approach march; to obtain security; to furnish aerial fire support; to airlift supplies; inadequate intelligence; at lower echelons; in nuclear conflict; to delay the progress of the attack; to accomplish reorganization; relief in place; to discontinue the attack; alternate CP, reconnaissance in force.

Определять на местности; рубеж соприкосновения с противником; соседние части; органы охранения; захватывать инициативу; удерживать инициативу; разведка боем; сохранять построение боевого порядка в линию; очищать от противника; прохождение через боевые порядки; восстанавливать соприкосновение с противником.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| В армии США в наступлении войскам указывается основное направление наступления. | Normally, it follows well-defined terrain features such as a series of roads, ridge lines, or valleys extending to the objective area. |

| | |
|---|---|
| Указанное основное направление наступления помогает подчинённым командирам уяснить общий план наступательного манёвра при выполнении поставленной задачи. | A commander assigned an axis of advance may maneuver his troops and supporting fires freely to either side of his assigned axis. |
| В этом случае войска могут обходить препятствия и вступать в соприкосновение с противником или обходить его. | But their maneuver is coordinated with and does not interfere with adjacent units and the unit-remains oriented on its objective. |
| При возникновении необходимости значительно удалиться от основного направления наступления, командир части (подразделения) информирует об этом вышестоящего начальника. | As distinct from the axis of advance, the direction of attach is a very restrictive control measure and is not normally used to control mounted operations. |
| Направление атаки может указываться тогда, когда при помощи других мер руководства боевыми действиями нельзя направить продвижение части в нужном направлении. | It is used primarily in counterattacks or to insure that a supporting attack makes the maximum contribution to the main attack. |

**Exercise 9. Translate the following text at sight:**

**Текст 1. INFILTRATION**

Infiltration is a technique of movement used with offensive operations. The division can attack after infiltration to obtain Intel and to harass the en. A widely dispersed en force with gaps between its defensive positions invites infiltration. Infiltration against an alert, en equipped with means for detecting movement requires a careful use of deception diversionary measures, ECM, and passive security measures.

Infiltration is difficult to coordinate and control. Deviation from plans is difficult to coordinate after elms have begun to move. Coordination of the movement of the infiltrating gaps with the division's fires is essential. Infiltration lanes, in conjunction with the coded designation of infiltrating gaps and

their probable sequence of movement, checkpoints, and PL's, provide a means of reporting the progress of the operation.

**Текст 2. TACTICAL MARCH**

A division movement requires detailed planning. Frequently the time available for issuing orders is short. As soon as the commander receives the first notification concerning the movement, he issues a WO to subordinate commands so they can plan, prepare, and perform recon. In preparation for tactical movement, the force is organized into manageable movement echelons. To reduce vulnerability to NBC fires, the division prefers to move cross-country on multiple routes. The use of multiple routes allows more rapid completion of movement, provides dispersion, and aids security.

The division commander prescribes the security measures for the division. When an element halts for a short period, its advance, flank, and rear guards establish march OP's. March discipline and adherence to march techniques are necessary for uninterrupted movement and reduced vulnerability.

**Текст 3. THE COVERING FORCE**

The division may be assigned a covering force mission for a larger force, normally a corps. The purpose of a covering force is the early development of the situation, the provision of security for the main body, and the prevention of unnecessary delay of the main body. Covering force operations require measures by which the rate and direction of movement of the covering force can be correlated with the remainder of the force. They are checkpoints or PL's; boundaries; and coordinated use of various means of communications.

Nuclear and chemical weapons are employed against targets of opportunity to block en avenues of approach and to restrict the en use of key terrain. Every action is directed toward insuring the uninterrupted movement of the main force.

**Exercise 10. Translate the following text at sight:**

**НАПРАВЛЕНИЕ НАСТУПЛЕНИЯ**

В зависимости от величины части приемы обучения, масштаб разрешения тактических задач в продолжение одного и того же учения будут постоянно изменяться. Например, для стрелкового отделения сближение, наступление, атака, прорыв и преследование могут развиваться на протяжении 12 – 18 километров. При этом фронт отделения может колебаться примерно от 30 до 100 метров. Мы видим, что при общей длине пути

наступления отделения фронт последнего так мал, что в общем полоса этого наступления будет, скорее, похожа на линию, чем на полосу. Даже отдельные тактические этапы, как, например, сближение или наступление, настолько велики, что по отношению к ним фронт отделения остается ничтожным, и не приходится говорить о полосе наступления отделения. Дело и тут и там сводится к направлению наступления.

**Exercise 11. Translate the following text in writing:**

**RECONNAISSANCE IN FORCE**

Reconnaissance in force (RIF) is a type of military operation used specifically to probe an enemy's disposition. By mounting an offensive with considerable (but not decisive) force, the commander hopes to elicit a strong reaction by the enemy that reveals its own strength, deployment, and other tactical data. In modern warfare, key weapon systems such as surface-to-air missile batteries, radar sites, artillery, and so forth can give their location away to everyone for miles around when actively fighting. The RIF commander retains the option to fall back with the data or expand the conflict into a full engagement

The recon in force is a limited objective operation to discover and test the en's disposition and strength and to obtain other Intel. Although its primary purpose is recon, the recon in force may discover weaknesses in the en's disposition which, if promptly exploited, would permit tactical success.

The recon in force may be part of either def or offensive operations. The recon in force normally develops info more rapidly than other recon methods. When deciding to recon in force, the commander considers the efficiency and speed of other intel collection agencies. The reconnoitering force must be of size and composition to cause the en to react strongly and definitely to the attack, thus disclosing his locations, disposition, strength, planned fires, and planned use of reserves.

The Division Commander may use a Bn TF or he may use the bulk of the division, retaining sufficient reserves to exploit en weaknesses. The Division Commander exploits the success gained by the recon in force primarily to continue the attack or retain control of terrain secured by the force. The Division Commander orders a withdrawal and assists in the extrication of the force if it becomes closely engaged.

**Exercise 12. Translate the following text in writing:**

**НАСТУПЛЕНИЕ**

Целью любой войны является победа над врагом. Средство – уничтожение его армии. Совершенно очевидно, что армия противника не мо-

жет быть разбита обороной. Наступление – единственный вид боевых действий, который может принести победу над врагом.

А как же оборона? Оборона нужна для того, чтобы изменить временно сложившееся неблагоприятное для воюющей стороны соотношение сил, удержать территорию, нанести противнику максимальные потери и выиграть время для наращивания военно-промышленного потенциала, увеличения численности армии. Конечной целью обороны является создание предпосылок для перехода в наступление в целях разгрома армии противника и достижения победы над ним.

Таким образом, оборона играет подчиненную роль по отношению к наступлению. Это фундаментальное положение стратегии, которое справедливо всегда. Оно действует и сейчас. Наступление является основным видом боевых действий подразделений ВС РФ. Только решительным наступлением достигается полный разгром противника.

В современных условиях часто будут возникать встречные бои, когда обе стороны будут стремительно выполнять задачи наступлением. Главная цель наступления – полный разгром противника и овладение важным районом. Это достигается применением всех средств поражения, умелым использованием результатов ядерных ударов, решительными действиями войск.

Наступление ведётся непрерывно днём и ночью, в любых условиях погоды. Наступление при отсутствии у противника открытых флангов начинается с прорыва его обороны. Батальону и роте в наступлении указываются ближайшая задача и направление дальнейшего наступления. Мотострелковый батальон и танковый батальон до начала выдвижения на рубеж перехода в атаку располагаются в указанных им районах поротно. Перед атакой проводится огневая подготовка, а в ходе наступления – огневая поддержка.

## ARMY HUMOR
## Practical joke on his ex-girlfriend

The soldier serving in Hong Kong was annoyed and upset when his girl wrote breaking off their engagement and asking for her photograph back.
He went out and collected from his friends all the unwanted photographs of women that he could find, bundled them all together and sent them back with a note saying, "I regret to inform you that I cannot remember which one is you – please keep your photo and return the others."

## УРОК 11
## ОБОРОНА

## LESSON 11
## DEFENSE

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| execution | scheme |
| variation | retention |
| to incorporate | to repulse |
| laterally | to conduct |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To coordinate the attacks; arrival at the destination; to obtain security; to furnish aerial fire support; to airlift supplies; inadequate intelligence; at lower echelons; in nuclear conflict; to delay the progress of the attack; to accomplish reorganization; relief in place; to discontinue the attack; alternate CP, reconnaissance in force.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| defense | оборона |
| all-round defense | круговая оборона |
| area defense | оборона района |
| mobile defense | мобильная оборона |
| defense in depth | глубина построения обороны |
| protection of (flanks) | обеспечение (флангов) |
| defensive area | район обороны |
| counterattack | контратака; контрудар |
| spoiling attack | упреждающий удар; удар по противнику перёд передним краем |

| | |
|---|---|
| laterally | по фронту; в сторону фланга |
| mutual support | взаимная поддержка |
| delaying action | сдерживающие действия |
| control of terrain | удержание местности |
| organization of fires | организация системы огня |
| forward defensive echelon | первый эшелон |
| coordinating point | стык |
| forward edge of the battle area (FEBA) | передний край района обороны |
| assembly area | район сосредоточения (сбора) |
| scheme of defense | план обороны |
| tactical grouping | тактическая группировка |
| to resume the offensive | возобновлять наступление |
| to repulse the enemy attack | отражать атаку противника |
| to contain the enemy | сковывать силы противника |
| to conduct defensive operations | вести оборонительный бой |
| to eject the enemy | выбивать противника |
| to develop the plan | разрабатывать план |
| to retain the position | удерживать позицию |
| temporary measure | временная мера |
| div flanks & rear | фланги и тыл дивизии |
| retention of terrain | удержание местности |

**Exercise 4. Read and translate the text:**

**FUNDAMENTAL CONSIDERATIONS**

The def is a temporary measure adopted until the defender can assume or resume the offensive. Defensive operations prevent, resist, repulse, or destroy en attacks. The defender undertakes the defense to develop more favorable

conditions for subsequent offensive operations, to economize in one area in order to apply decisive force elsewhere, to compel an en F to mass, to destroy, or trap an en force, or to reduce the en's combat power with minimum losses to forward force.

Fundamental considerations for planning, organizing, and conducting the defense are proper use of terrain, security, all-round defense, defense in depth, responsiveness, dispersion, maximum use of off action, and mutual support.

Terrain is a major factor in selecting the def area and disposing defending force. An evaluation of the avenues of approach in conjunction with key terrain features serves as the basis for positioning force as well as for using survival means and for planning fire support. Security measures include placing security elms to the front in the direction of anticipated en approach and providing necessary security for the protection of div flanks & rear.

All-round defense requires the defender dispose his force, to prevent the en from gaining a decisive advantage by surprise as to direction or location of the attack. The defensive area must have sufficient depth to allow the defender to contain or canalize the en and to permit execution of counterattacks. The defense is organized to counter the developing attack. The defender disperses units as permitted by the requirements of his mission to reduce vulnerability to nuclear or chemical munitions.

The div must be prepared to take offensive action whenever the opportunity presents itself. The counterattack or a spoiling attack is often the key to success in the defense. The positioning of force and the planning of fires laterally and in depth should allow mutual support between forces.

## FORMS OF DEFENSE

The basic forms of defense are the mobile defense and the area defense. Defense postures for a given situation will be some variation of either the mobile or the area defense and will incorporate characteristics of each. The commander establishes the defense that best meets the requirements of the particular situation.

The mobile defense employs a combination of offensive, defense, and delaying actions. In a mobile defense, the commander deploys minimum force forward and uses maneuver with organization of fires and terrain to seize the initiative from the enemy. This defense emphasizes destruction of en force rather than retention of terrain. The forward defense echelon — those min necessary forces initially committed in the forward def area — conducts defense, delaying, screening, or limited offensive operations in any combination required to make the attacker vulnerable to counterattack by the reserve. Normally, the div is considered to be the smallest element capable of conducting a

mobile defense because of the need for a strong reserve capable of executing a decisive counterattack. The reserve echelon receives priority in the allocation of combat power in the mobile defense.

The area defense emphasizes the retention or con of specific terrain for a specified period. The defender deploys the bulk of his combat power in the forward defensive area to stop en force forward of FEBA. He relies on the ability of fires and forces deployed on pos in the forward def area to stop and repulse the attacker. The forward def echelon is expected to have a higher priority for combat power than does the reserve. The defender conducts counterattacks to eject or destroy en force that penetrated the forward defensive area.

**PLANNING THE DEFENSE**

The commander develops his plan for the defense after a careful estimate of the situation. On determining the basic form of defense, the commander, with the aid of his staff, develops the plan in detail to include organization of the ground, designation of con measures, organization for combat, missions for units, fire support plans, log support plans, and counterattack plans. Considerations that Influence the commander's choice of the form of defense include the mission, terrain, weather, en, and troops avail.

Adoption of the mobile defense is favored when the man and the area of operation permit the defense to be organized and fought in depth. The area defense is adopted where there is a requirement to retain specific terrain. Organization of the ground is planned to involve use of the natural defense qualities of the terrain and maximal improvement of the natural terrain. Control measures used in defensive operations include boundaries, coordination points, FC measures, blocking positions, and designated assembly areas.

The div plan for the defense includes a detailed organization for combat to implement the scheme of defense. The force organization portion of the operation plan or order shows the allocation of force to the major tactical groupings.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Какую цель преследуют оборонительные действия?
2. Какой фактор является основный при выборе района обороны?
3. Где располагаются органы охранения в обороне?
4. Какие требования предъявляются к обороне?
5. Какие принципы лежат в основе организации обороны?
6. В каких условиях войска будут переходить к мобильной обороне?
7. На каком этапе оборонительного боя проводятся контратаки?

8. За счёт чего усиливаются возможности обороняющихся войск?

**Exercise 6. Decipher and translate the following abbreviations:**

IFF; F; FEBA; cbt; fwd; pent; situ; drgn; res; GOP; COP; CP; aslt; fwd; cml; pos; rr gd; adv gd; flk; msn; wea; assy; con; intel; stf; mob def; TF; recon; coord; subord; DA; SA; USMC.

**Exercise 7. Translate the following words and word combinations by ear:**

To assume the offensive; to trap an enemy force; to plan fire support; to seize the initiative; forward defense echelon; designation of control measures; fire control measures; to develop the plan for defense; estimate of situation; to be key to success; to meet the requirements of the particular situation; to dispose defending force; to develop more favorable conditions; to economize in one area in order to apply decisive force elsewhere.

Переходить к обороне; остановить и разгромить наступающего противника; создать благоприятные условия для перехода в наступление; с наименьшими потерями для своих войск; промежутки между обороняющимися войсками; прикрытие флангов; рассредоточение; организация круговой обороны; остановить продвижение противника; вынуждать противника двигаться в направлениях, выгодных для обороняющегося.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| В плане обороны может предусматриваться нанесение обороняющимися войсками упреждающего удара с тем, чтобы сорвать или задержать наступление противника. | It is normally launched against enemy forces that are forming or assembling for an attack. |
| Упревающий удар может наноситься отдельно войсками, огневыми средствами или при взаимодействии их друг с другом. | Commander makes and coordinates plans for the spoiling attack with the same care and coordination as for a coordinated attack. |
| После упреждающего удара про- | The objective of the spoiling attack |

| | |
|---|---|
| тивник может быть лишён возможности перейти в наступление. | is to destroy enemy personnel and equipment, not to secure terrain or other physical objectives. |
| Упреждающий удар не наносится, если потери или разгром части (подразделения) будет ставить под угрозу выполнение задачи обороняющимися войсками. | Higher commanders may limit the size of the force that can be used for a spoiling attack. |
| Выбор объекта для нанесения упреждающего удара должен способствовать выполнению задачи обороняющимися войсками. | The mobility of forces available for the spoiling attack should exceed that of the enemy force. |

**Exercise 9. Translate the following text at sight:**

**Текст 1. ORGANISATION OF THE GROUND**

As a prerequisite to detailed planning for the organization of the defense, the commander must know the specific mission of the defense force including the starting Time 01 cue operation, any special requirements, the area, the en situation, and the selected form or variation of def. Detailed recon of the area is necessary to determine the major avenues of approach into the area, key terrain features that con these avenues of approach, natural obstacles, and routes for the movement of force within the area. The commander divides the div area into sectors, assigning responsibility for these areas to major subordinate units. In addition to the preparation of the initial def and blocking positions, organization of the def includes installation of minefields, preparation and execution of demolitions and other artificial obstacles.

**Текст 2. ORGANIZATION FOR COMBAT**

In the mobile defense, the commander allocates minimal essential forces to forward defensive echelon. These forces may be primarily infantry heavy. These forces require mobility equal to or greater than that of the opposing forces. The reserve, as the principal element of the defense, has priority in the allocation of combat power.

In the area defense, the forward defensive echelon has priority in allocation of forces. The reserve gets sufficient strength to insure continuity of defense. The div may be involved in another operation when given the mission to defend and, consequently, will have to reorganize. Time to estimate the def is usually limited. To avoid unnecessary changes and shifting of units, the commander makes only essential changes to the existing organization of major subordinate units. Shifts of tk and inf elements between brigades should normally be by bn TF.

**Текст 3. COMBAT SUPPORT**

The commander determines early in the planning stage the number of nuclear and chemical munitions that he will employ on targets of opportunity or preplanned targets forward of FEBA and the number he will retain to support counterattacks. Delivery means must be available and properly located to deliver these fires as needed. In the mobile def, the commander normally reserves the bulk of these munitions for support of counterattacks. Div normally retains con of attached air defense arty and uses it to provide defense of the div area. Div establishes priority for the protection of installations or areas such as nuclear delivery means, div reserve, support command and critical areas.

Units in contact with the en may require the attachment of engineers in support of bn TF. The div engineers assists in the formulation of the overall barrier plan and its implementation.

**Exercise 10. Translate the following text at sight:**

**СОСТАВЛЯЮЩИЕ БОЯ**

Бой слагается из наступательных и оборонительных действий, которые, в маневренной обстановке, в ходе всего боя тесно переплетаются между собой для всякой войсковой части.

При наступлении, как и при обороне, части должны располагаться на достигнутом (занимаемом) рубеже и двигаться от одного к другому расчленению по фронту и в глубину, огневыми средствами, занимая наиболее выгодные для ведения огня точки на местности, для живой же силы используя скрытые подступы, в целях накапливания к пункту удара или контрудара. Расположение частей на достигнутом при наступлении рубеже должно обеспечивать прочное его удержание; обратно, расположение частей при обороне должно обеспечивать возможность быстрого перехода в наступление.

**Exercise 11. Translate the following text in writing:**

**CONTROL MEASURES IN BASE DEFENSE OPERATIONS**

Control measures in base defense operations are the same as those used in other defensive operations. The headquarters establishing the base or base cluster designates the base's area of operation (AO) using rear, lateral, and forward boundaries. The AO for the base may or may not be contiguous to the AO of other units. The echelon rear area commander may further subdivide his assigned area into subordinate AOs, bases, and base clusters. He can assign maneuver forces to assembly areas and battle positions. He establishes phase lines, contact points, objectives, and checkpoints as necessary to control his maneuver. He establishes fire support coordinating measures (FSCM) to permit or restrict fires in and around the base.

No-fire areas may be required to protect civilians, prevent disruption of sustaining operations, or protect combat outposts, observation posts, and patrols from friendly fire. All established control graphics are coordinated with host nation agencies to minimize interference, misunderstandings, and unnecessary collateral damage. The BDF commander, in coordination with the base commander, designates the base perimeter, target reference points, and sectors of fire to organizations located within the base.

When the commander cannot define the forward edge of the battle area by a terrain feature, he may show it on the map or overlay as a dashed line connecting coordinating points and representing the general trace of FEBA. The division commander designates boundaries to define terrain responsibility for major subordinate units. He extends lateral boundaries forward to the range of direct support fires or limits of ground observation, whichever is greater. The rearward extension of the lateral boundaries between forward defense forces defines the depth of responsibility of each forward defense area commander. Commanders may designate a rear boundary to clearly establish responsibility for specific terrain. Lateral boundaries also serve as a fire control measure. The commander designates coordinating points on boundaries as specific points for coordination of fires and maneuver between adjacent units. The division controls the general location of the reserve by designating assembly areas or blocking positions that are to be occupied by elements of the reserve.

**Exercise 12. Translate the following text in writing:**

**ОБОРОНА**

Оборона – вид боевых действий, применяемых с целью сорвать или отразить наступление противника, нанести ему поражение, удержать за-

нимаемые позиции и создать условия для перехода в наступление. Войска обычно переходят к обороне при невыгодных условиях обстановки, когда требуется выиграть время для сосредоточения сил и перехода в наступление или для экономии их на одних направлениях и создания превосходства над противником на др. направлениях, для отражения контратак и контрударов противника в ходе наступления, обеспечения флангов наступающих войск, закрепления на захваченных рубежах. Оборона организуется заблаговременно или занимается в результате перехода войск к обороне под воздействием противника.

В зависимости от задач, привлекаемых сил и средств оборона может иметь стратегическое, оперативное или тактическое значение. В современных условиях к обороне предъявляются требования её высокой устойчивости в противоядерном, противоартиллерийском, противотанковом и противовоздушном отношениях. Оборона основывается на умелом использовании выгодных условий местности, её инженерном оборудовании, применении заграждений, рассредоточенном расположении войск по фронту и в глубину. Сила обороны заключается в нанесении ударов всеми видами оружия, широком маневре огнем контратаках и контрударах. Важнейшие условия успеха обороны: высокие моральные и боевые качества войск, их стойкость постоянное взаимодействие и непрерывное управление войсками.

Переход батальона к обороне может проводиться в условиях непосредственного соприкосновения с противником или вне соприкосновения с ним. В ходе наступления оборона по приказанию старшего командира применяется для закрепления захваченных рубежей и объектов, отражения контратак превосходящих сил противника и обеспечения флангов. Оборона должна быть устойчивой и активной, способной отразить атаку танков и пехоты противника, а в случае вклинения в оборону – уничтожить их. В обороне должны быть приняты меры противоатомной и противохимической зашиты и обеспечена способность противостоять огню артиллерии и ударам авиации.

**ARMY HUMOR**

**Give chocolate pudding**

First soldier: "Pass me the chocolate pudding, would you?"
Second soldier: "No way, Jose!"
First soldier: "Why ever not?"
Second soldier: "It's against regulations to help another soldier to dessert!"

## УРОК 12
## ОСОБЫЕ ЗАДАЧИ В ОБОРОНЕ

## LESSON 12
## SPECIAL DEFENSIVE CONSIDERATIONS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| extend | divert |
| disrupt | disorganize |
| reconstitute | momentum |
| dissipate | disaster |
| counterreconnaissance | to withdraw |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To plan fire support; to seize the initiative; forward defense echelon; designation of control measures; fire control measures; to develop the plan for defense; estimate of situation; to be key to success; to meet the requirements of the particular situation; to dispose defending force; to develop more favorable conditions.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| security area | полоса обеспечения |
| forward defense area (FDA) | передовой район обороны |
| counterreconnaissance` | борьба с разведкой противника |
| covering force | войска (силы) прикрытия |
| listening post | пост подслушивания |
| observation post (OP) | наблюдательный пункт (НП) |
| rear area | тыловой район |
| area damage control | ликвидация последствий применения оружия массового поражения |
| fixing force | сковывающая группа (группировка) |
| to withdraw | отходить, отводить |
| to furnish information of the enemy | добывать данные о противнике |
| to disrupt the enemy force | расстраивать боевой порядок противника |

| | |
|---|---|
| to launch a counter-attack | предпринимать контратаку |
| to consolidate gains | закреплять успех |
| flank security | прекрытие флангов |
| warning system | система предупреждения |
| striking distance | расстояние удара |
| danger of infiltration | опасность проникновения |
| defensive positions | оборонительные позиции |
| guerilla threat | партизанская угроза; угроза со стороны повстанцев |
| to minimize the effects of hostile actions | минимизировать воздействие со стороны противника |
| natural disaster | стихийное бедствие |
| manmade disaster | техногенная катастрофа |
| to disrupt an attack | срывать наступление |
| to contain an attack | сдерживать наступление |
| to hold the terrain | удерживать местность |
| div commander | командир дивизии |
| to commit the reserve | вводить резервные силы в бой |
| div counterattack | контратака (контрнаступление) дивизии |

**Exercise 4. Read and translate the text:**

**DEFENSIVE AREAS**

The primary divisions of the defensive area are the security area, the forward defensive area, and the reserve area. Forces and fires are allocated to each of these areas as part of the overall defensive plan.

The div security area begins at the forward edge of the battle area (FEBA) and extends as far to the front and the flanks as elements of the security echelon are employed. Security forces gain time for the preparation of the div defensive pos; furnish info of the en; delay, and disrupt the en force as much as possible, and provide a counterreconnaissance screen. Ps operating in the security area may include elements from higher echelons, such as covering forces and units providing air surveillance and flank security. Div Forces in the security area consist of GOP, COP, flank security forces, div air surveillance elements, listening posts and OPs.

FDA extends from the FEBA to the rear of the area organized by the forward defensive forces. The form of defense employed strongly influences the composition of the forward defensive echelon.

The reserve area, which is also referred to as the division rear area, extends from the rear boundaries of the forward defensive Forces to the div rear boundary. The reserve forces, those uncommitted forces under div control, occupy positions in the div reserve area and add depth to the defensive position. The reserve is the commander's principal means of influencing the defensive battle and regaining the initiative. The combat power of the reserve may consist of nuclear, chemical or conventional fires or combat forces.

## SPECIAL DEFENSIVE CONSIDERATIONS

When a constant threat of en armor, air mobile, airborne, guerilla, or infiltration actions exists within the div area, the div must prepare plans to counter it. The nature of the threat will often require locating or organizing mobile combat forces in the div rear area. AT defense covers likely avenues of approach of tanks. No area can be overlooked, however, because an aggressive en frequently will employ armor over other than ideal terrain.

Defense against airborne and air mobile attack requires including AD measures, a warning system, troops available to defend likely objectives, and mobile reserve. The latter are located within striking distance of these areas. The danger of infiltration is particularly critical during the mobile defense because of the relatively light forces in the forward defensive area and the distances between defensive positions. Although a commander can seldom divert major combat elements for protection within the div area, he may have to divert mobile combat elements to combat a serious guerilla threat.

Rear area protection is the term used to describe those actions taken by rear area forces to preserve themselves or to minimize the effects of hostile actions or natural or manmade disasters. Rear area protection is divided into two functional areas: rear area security and area damage con.

## THE DEFENSE

Once the security forces have withdrawn through the FEBA, the attacker can engage forward defensive forces. As the en comes within range, maximum supporting fires slow down and disrupt his attack. As they gain contact with the en, the commanders of the forward defensive forces initiate action to stop, repel, contain, or disorganize the en. If they cannot stop or contain the attack,

the commanders take action to slow or channel the en into an area that permits the reserve to counterattack.

With the relatively light fixing forces in the forward defensive echelon in mobile defense, the div can anticipate that a strong and determined en will penetrate the PDA. At the appropriate time, the div launches a strong counterattack using the reserve supported by nuclear munitions and all other available fires to destroy the penetration. In area defense, the div emphasizes blocking avenues of approach at the FEBA and defending in depth to hold the terrain.

When the div commander commits the reserve, he knows that the div is decisively engaged and that, for a time, he will not possess a major troop reserve. Therefore, he must base his decision to execute a div counterattack on a reasonable chance for success. Once he completely commits the reserve, the div commander reconstitutes a reserve from other available forces. When possible, the counterattack is launched when the en presents his flanks or rear, when he becomes overextended, or when his momentum dissipates. Launching of a counterattack should precede the time when the attacking en can consolidate his gains and reorganize or regroup his forces.

**COMMENTARY:**

**Terms and Definitions:**

a) **Area damage control** are the measures taken prior to, during, and after a mass destruction attack or natural disaster to minimize the immediate effects thereof.

b) **General outpost** implies the bodies of troops placed at some distance from the main force, while at a halt, in camp or bivouac, or in battle position to protect the main force from observation and surprise by the enemy and also to keep the enemy under observation.

c) **Combat outpost** is a security element established by the frontline units which performs the same mission as the general outpost within the capabilities of its strength and location.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. На что обращается особое внимание при выделении частей и подразделений охранения?
2. Где заканчивается передовой район обороны?
3. Каким образом командир дивизии оказывает решающее влияние на ведение боя в обороне?

4. Какие участки местности являются ключевыми при организации противотанковой обороны?
5. Представляет ли просачивание опасность при мобильной обороне?
6. Может ли командир дивизии привлекать боевые части и подразделения для борьбы с партизанами?
7. Для чего организуется охранение типового района?
8. Когда целесообразно проводить контратаку?

**Exercise 6. Decipher and translate the following abbreviations:**

FEBA; Intel; aslt; AT; def; orgn; rr gd; GOP; COP; assy; mbl; abn; pent; cml; fmn; BZ; LZ; LC; LD; GZ; elm; msn; DA; DAF; CVAN; nuc; SLBM; ALCM; SA; trp res; dest; CEV; PDA; OP; Stf; pers; con; F

**Exercise 7. Translate the following words and word combinations by ear:**

To extend to the front and the flanks; security echelon; to add depth to the defensive position; to counter a threat; airmobile actions; air defense measures; to divert combat elements; to minimize the effects of hostile actions; manmade disasters; to repel the enemy; the determined enemy; nuclear munitions; to destroy the penetration; to possess a major troop reserve; to reorganize forces.

Общий план обороны; вводить противника в заблуждение; состав первого эшелона; в распоряжении командира дивизии; действия партизан; система предупреждения; замедлить наступление противника; вынуждать противника наступать в определённом направлении; удерживать местность; проводить контратаку; решительно вести бой; подставлять фланг; растянутые боевые порядки противника.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Перед частями первого эшелона обороны ставится задача блокировать противника, задержать его и вынудить наступать в определённом направлении. | As a minimum, the fixing force will support the passage of the counterattack force. |
| В боевом приказе должны быть указаны все необходимые дополнительные средства поддержки, а | Tactical air and AD artillery support is important in insuring freedom of movement for the reserve. |

также вопросы взаимодействия между сковывающей группировкой и контратакующими войсками.

Необходимо, чтобы тактическая авиация обеспечила господство в воздухе в данном районе с тем, чтобы авиация противника не могла воздействовать на контратакующего, а также с целью воспрепятствовать подходу резервов к месту прорыва.

The division provides nuclear or chemical munitions support for the counterattack.

В своём решении командир учитывает использование ядерных и химических боеприпасов наряду с вводом в бой своих резервов.

He may use nuclear and chemical fires to facilitate the action of the reserve in destroying the enemy in the penetration; to protect the flank of the reserve; to prevent enemy reinforcement of the penetration during the counterattack; and to help contain a secondary penetration.

Не использованные в ходе контратаки ядерные и химические боеприпасы представляют собой дополнительный резерв командира дивизии на случай возникновения непредвиденных обстоятельств.

In some situations, the division commander may determine that he cannot counterattack with a reasonable chance of success and he uses his resources to contain or to delay the enemy in order to gain time for employment of reserves of a higher echelon.

**Exercise 9. Translate the following text at sight:**

**Text 1. DOCTRINE OF DEFENSE**

The doctrine of defense envisions the use of security forces to provide early warning and to delay, deceive, and disorganize the en attack; forward defensive forces to organize the PDA, to repel the attacker, and to develop the situation; and reserve forces to eject or to destroy the attack by off action. The doctrine envisions capitalizing on mobility, firepower, and off action in the defense to regain the initiative; to deny the attacker his decisive objectives; to avoid becoming fixed and destroyed; and to destroy the en by firepower and maneuver.

When the en is a modern mech force, the forward defensive echelon must contain sufficient tanks and other AT weapons either to repel the attacker or to develop the situation. Effective defense requires adequate space for maneuver and a high degree of mobility.

**Text 2. REAR AREA SECURITY**

The term "rear area security" refers to measures taken before, during, or after hostile action to neutralize or destroy localized en forces that constitute threats to units, activities, and installations in the rear area and to minimize their effects.

Designated forces under div control accomplish the security of the div rear except for the div support area. The G3 plans for the security of the rear area. He exercises staff supervision over rear area security and coordinates the assignment of definite areas of responsibility to major subordinate commanders.

Depending on the threat to security and availability of combat forces, the div commander may assign to a separate combat unit, or to the reserve echelon, rear area security tasks or full responsibility for rear area security of the div rear.

**Text 3. AREA DAMAGE CONTROL**

The term "area damage control" refers to measures taken before, during, or after hostile action or natural or manmade disasters to avoid or reduce the probability of damage and to minimize its effects on combat support and combat svc support operations.

Commander is responsible for area damage control operations within his area of responsibility. When a unit has been subjected to a NBC attack, the commander sends a con and assessment team to the location. The senior member of this team determines the operational effectiveness of the unit, executes are damage con operations, and takes action to assist the unit in resuming its primary mission.

**Exercise 10. Translate the following text at sight:**

Современные мотострелковые и танковые части и подразделения обладают значительными возможностями для создания в короткие сроки устойчивой обороны и успешного отражения наступления противника. Вместе с тем необходимо учитывать, что ведение оборонительного боя в условиях, когда наступающий противник применяет мощные средства поражения, включая высокоточное оружие, тактические воздушные де-

санты, аэромобильные войска, диверсионно-разведывательные группы, связано с большими трудностями. В современных условиях и в будущем решающая роль в бою будет принадлежать человеку – войну, обладающему высокими боевыми и психологическими качествами, в совершенстве владеющему современной боевой техникой и искусством подготовки и ведения боя в сложных условиях современной войны.

ОБОРОНА – основной вид общевойскового боя она осуществляется преднамеренно или вынужденно с главной целью – отразить наступление противника, нанести ему максимальные потери, удержать важные районы местности и тем самым создать благоприятные условия для перехода в наступление.

В зависимости от боевой задачи, наличия сил и средств, а так же от характера местности, оборона может быть: позиционной или маневренной.

ПОЗИЦИОННАЯ ОБОРОНА – основной вид обороны. Она наиболее полно отвечает главной цели обороны и ведется путем нанесения максимальных потерь противнику в ходе упорного удержания подготовленных к обороне районов местности. Она применяется на большинстве направлений, и, прежде всего, там, где потеря территории недопустима.

МАНЕВРЕННАЯ ОБОРОНА – применяется в целях нанесения противнику потерь, выигрыша времени и сохранения своих сил путем последовательных оборонительных боев на заранее намеченных и эшелонированных в глубину рубежах в сочетании с короткими контратаками. Она допускает оставление некоторых районов территории и применяется в условиях внезапного нападения противника и при ведении боя в полосе обеспечения. В ходе маневренной обороны противника вынуждают наступать в направлении, на котором подготовлена устойчивая позиционная оборона, или он вовлекается в район, обеспечивающий выгодные условия для его разгрома контрударами (контратаками).

**Exercise 11. Translate the following text in writing:**

**THE DIVISION AS CORPS RESERVE**

In the defense, the Corps plans for a suitable reserve. This normally is a combination of mobile combat forces and nuclear or chemical munitions. The armored and mechanized divisions are well suited for this mission.

As the Corps reserve, the division is located in positions from which it can execute planned counter-attacks. The same general criteria apply as for the location of the reserve at lower levels. The reserve must be far enough to the rear both to prevent interference with the maneuver of the divisions in the Corps forward defense area and to preclude involvement in the battle until the

desired time of commitment. The location must allow commitment of the reserve to any portion of the Corps area; and it also must provide sufficient area for dispersion to avoid undue vulnerability to nuclear and chemical attacks.

The counterattack force develops counterattack plans in detail, based on the Corps counterattack plan. In the mobile defense, the bulk of the nuclear munitions allocated to the Corps normally support the reserve in the execution of counterattacks.

Corps controls the execution of Corps counterattacks. It launches the counterattack as the decisive move in the engagement when a reasonable choice of success exits.

**Exercise 12. Translate the following text in writing:**

**ТАНКОВЫЙ БАТАЛЬОН АРМИИ США В ОБОРОНЕ**

Использование танкового батальона в оборонительном бою будет зависеть, прежде всего, от типа соединения, в которое он организационно входит. Обычно батальон будет вести оборону в составе бригады и находиться во втором, а иногда и в первом эшелоне. Однако не исключается, что батальон, подчиняясь непосредственно командиру дивизии, может выполнять самостоятельную задачу, например, при действии в полосе обеспечения или обороне важного района или объекта.

Танковый батальон, составляющий второй эшелон бригады, располагается в 6-8 км от переднего края обороны. Для проведения контратак батальону указываются рубежи развертывания за тыловой границей районов обороны мотопехотных батальонов первого эшелона. Контратаку танкового батальона рекомендуется проводить внезапно, решительно и в высоких темпах, обычно во фланг вклинившейся группировки противника.

При переходе дивизии к обороне вне соприкосновения с противником батальон бригады, действующей во втором эшелоне дивизии, может высылаться в качестве войск прикрытия в полосу обеспечения.

**ARMY HUMOR**

**Humor relating to Iraq**

The problem with the Iraqi army is that they were using Russian defense tactics:

1. Engage the enemy.
2. Draw him into your territory.
3. Wait until winter sets in.

The Iraqi verions of the classic army regulations can be summarized as:

If it doesn't move, hide behind it. If it does move, surrender to it.

# ГЛАВА 3
# ОРУЖИЕ МАССОВОГО ПОРАЖЕНИЯ И РАДИАЦИОННАЯ, ХИМИЧЕСКАЯ И БИОЛОГИЧЕСКАЯ ЗАЩИТА

# CHAPTER 3
# WEAPONS OF MASS DESTRUCTION AND NUCLEAR, BIOLOGICAL AND CHEMICAL PROTECTION

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## УРОК 13
## ЯДЕРНОЕ ОРУЖИЕ
## LESSON 13
## NUCLEAR WEAPON

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| yield | radiation |
| thermal | contamination |
| radioactive | megaton |
| fission | fusion |
| ionizing | nuclei |
| molecule | beta |
| gamma | neutron |
| hazard | deposited |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Designation of control measures; fire control measures; to develop the plan for defense; estimate of situation; to be key to success; to meet the requirements of the particular situation; to dispose defending force; to develop more favorable conditions.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| weapons of mass destruction (WMD) | оружие массового поражения (ОМП) |

| | |
|---|---|
| nuclear, biological and chemical protection | радиационная, химическая, биологическая защита (РХБЗ) |
| trinitrotoluol (TNT) | тринитротолуол (тротил) |
| TNT equivalent | тротиловый эквивалент |
| fission | деление, распад |
| splitting | расщепление, деление |
| to fuse | сливаться |
| fusion | синтез, слияние |
| fission device | ядерное устройство |
| fusion devices | термоядерное устройство |
| fission-fusion weapon | оружие, основанное на реакции деления – синтеза ядер |
| fission-fusion-fission weapon | оружие, основанное на реакции деления – синтеза – деления ядер |
| yield | мощность; калибр (ядерного боеприпаса); выход энергии |
| effects | поражающие факторы (ядерного оружия) |
| blast | взрывная волна; ударная волна |
| shock wave | ударная волна; взрывная волна |
| electromagnetic pulse (EMP) | электромагнитный импульс |
| thermal radiation | световое излучение |
| radioactive contamination | радиоактивное заражение |
| fireball | огненный шар |
| neutron | нейтрон |
| nucleus (-i) | ядро (ядра) |
| nuclear radiation | ядерное излучение; проникающая радиация |
| immediate (initial) nuclear radiation | мгновенная (начальная) проникающая радиация |
| residual nuclear radiation | остаточная радиация; радиоактивное заражение |
| induced nuclear radiation | наведенная радиация |
| release of energy | выход энергии; высвобождение энергии |
| ionization of the upper atmosphere | ионизация верхних слоёв атмосферы |
| radioactive fall-out | радиоактивные осадки |
| enrichment | обогащение |
| enriched uranium | обогащённый уран |

| | |
|---|---|
| underground burst | подземный взрыв |
| burst on the ground | наземный взрыв |
| hazard | опасность |
| hazardous | опасный |
| to deposit | откладываться, выпадать |
| deposit | осадок |
| to spill over | выпадать |
| spill-over | выпадение |
| to fall out | выпадать |
| fall-out | осадки |
| ground zero (GZ) | эпицентр взрыва |
| lethal | смертоносный; смертельный |
| to persist | оставаться; продолжаться |
| to travel in straight lines | распространяться прямолинейно |
| with the speed of light (sound) | со скоростью света (звука) |
| to cause damage | поражать (наносить урон) |
| to be hazardous | представлять опасность |
| x-ray | рентгеновское излучение |
| high altitude nuclear burst | *высотный ядерный взрыв* |
| underground nuclear burst | подземный ядерный взрыв |
| burst on the ground | наземный ядерный взрыв |
| burst near the ground | воздушный (низкий) ядерный взрыв |
| reflection wave | отраженная волна |
| Mach wave | сверхзвуковая ударная волна |
| matter | вещество |
| atomic bomb (A-bomb) | атомная бомба |
| neutron bomb (N-bomb) | нейтронная бомба |
| dirty bomb | грязная бомба |
| thermonuclear weapon | термоядерное оружие |
| enhanced radiation warhead | ядерная боевая часть с повышенным выходом радиации |
| radiological weapon | радиологическое оружие |
| living tissue | живая ткань |
| nuclear blackout | нарушение работы радиоэлектронных средств при ядерном взрыве |
| shock-wave refraction | преломление ударной волны |
| absorption | поглащение, абсорбция |
| scattering | диспергирование, рассеяние |
| plutonium bomb | плутониевая бомба |

| | |
|---|---|
| urchin | импульсный нейтронный инициатор (ИНИ, «ёжик», «урчин») |
| beryllium (Be) | бериллий |
| ittrium (Y) | иттрий |
| polonium (Po) | полоний |
| alloy | сплав |
| plutonium (Pu) | плутоний |
| baratol | боратол |
| triaminobtrinitrobenzene (TATB) | триаминотринитробензол (ТАТБ) |
| half life period | период полураспада |

**Exercise 4. Read and translate the text:**

**NUCLEAR WEAPON TYPES**

Nuclear explosions are produced by altering the structure of atoms. Apart from the power (or yield measured in 1,000-t units of TNT) of such explosions they cause certain effects such as lethal radiation which are not produced in chemical reactions of conventional explosives at all.

There are two ways of altering the structure of atoms: splitting very heavy ones (fission), or fusing together light ones (fusion).

Apart from the fission and fusion weapons, a third kind of weapon has been developed, i.e. a fission-fusion-fission bomb.

Thus, a typical nuclear weapon family is composed of the following elements:

- fission devices (based on plutonium-239 suitable for lightweight low-yield weapons from 1 to 20 Kt);
- fusion devices (yields from 0.5 to 20 Mt);
- fission-fusion-fission weapons (high yield).

**NUCLEAR WEAPON EFFECTS**

When a nuclear weapon explodes, an immense amount of energy is released almost instantaneously. As a result of the sudden release of immense quantities of energy, a fireball is formed. A nuclear detonation creates a severe environment including blast or shock wave, thermal pulse, neutrons, x- and gamma-rays, radiation, electromagnetic pulse (EMP), and ionization of the upper atmosphere. Depending upon the environment in which the nuclear device is detonated, blast effects are manifested as ground shock, water shock, “blueout,” cratering, and large amounts of dust and radioactive fallout. All

pose problems for the survival of friendly systems and can lead to the destruction or neutralization of hostile assets. The energy of a nuclear explosion is transferred to the surrounding medium in three distinct forms: blast; thermal radiation; and nuclear radiation.

The distribution of energy among these three forms will depend on the yield of the weapon, the location of the burst, and the characteristics of the environment. For a low altitude atmospheric detonation of a moderate sized weapon in the kiloton range, the energy is distributed roughly as follows: 50% as blast; 35% as thermal radiation; made up of a wide range of the electromagnetic spectrum, including infrared, visible, and ultraviolet light and some soft x-ray emitted at the time of the explosion; and 15% as nuclear radiation; including 5% as initial ionizing radiation consisting chiefly of neutrons and gamma rays emitted within the first minute after detonation, and 10% as residual nuclear radiation. Residual nuclear radiation is the hazard in fallout resulted in radioactive contamination. Considerable variation from this distribution will occur with changes in yield or location of the detonation.

## THERMAL RADIATION

With the nominal bomb the pulse of thermal radiation in the IE part of the spectrum from the fireball lasts for only 1½ seconds though most of the energy is radiated in about half a second.

With a 10-Mt bomb the thermal radiation lasts much longer, it may persist for 20 seconds or more.

The heat rays from the fireball are similar to those from the sun. They travel in straight lines with the speed of light and heat up surfaces into which they are absorbed.

## NUCLEAR RADIATION

Whatever the size or nature of a nuclear explosion is the material in the fireball is highly radioactive, emitting radiations usually referred to as either nuclear or ionizing radiations. They are called nuclear because they arise from disturbances taking place in the nuclei of the atoms, and ionizing because passing through materials they produce electrically charged atoms or molecules called ions.

Nuclear radiations consist of alpha rays, beta rays, gamma rays and neutrons.

The extent of the hazard which arises from the radioactivity left in the fireball and subsequently deposited on the ground (residual nuclear radiation) is

influenced more by the height of the burst and the nature of the surface underneath.

## FALLOUT AND INDUCED RADIOACTIVITY

If the explosion has been on or near the ground, some of the products of the explosion settle on the ground at the point of the burst; some may spill over into the immediate area around and downwind; and some are carried out into the upper air to be deposited eventually much further from the ground zero (GZ). Any such settling, spill-over or deposition of these radioactive products of the explosion is termed fall-out.

## BLAST

When the explosion takes place in the air, light, heat and nuclear radiations travel outwards through the air in all directions with the speed of light. The blast takes the form of a pressure wave in air which travels with speeds exceeding that of sound.

Close to the explosion the pressure produced may be fifty times the atmospheric pressure but it drops rapidly as the blast wave travels outwards. With an air burst the pressure in the wave is also reinforced by reflection from the ground (the reflected wave fusing with the direct wave and forming the Mach wave).

## ELECTROMAGNETIC PULSE

One effect which may be most critical to the army in the field is the electromagnetic pulse. It can be defined as electromagnetic energy pulse of short duration produced by the interaction of radiation from a nuclear burst with the atmosphere. It does not affect people, just equipment, control, command and communication equipment and electronic systems at hundreds of kilometers (in a high altitude nuclear burst) causing damage to electronics at distances where other effects (nuclear radiations, blast, thermal radiation) are not hazardous.

**COMMENTARY:**

**Terms and Definitions:**

а) **Baratol** – боратол (по другому "баратол") так называемая "медленная взрывчатка", смесевое взрывчатое вещество со стабильной скоростью детонации, представляющее собой смесь тринитротолуола с бариевой селитрой (нитрат бария), и некотрыми добавками.

Скорость детонации около 4 км/с.

Боратол применялся в составе устройства фокусирующих детонационных линз обжатия делящегося материала в устройствах ядерных бомб. Боратол создан в научной лаборатории "Манхэттенского проекта" под руководством эмигранта из СССР и будущего специального советника президента США по науке и технике, химика Георгия Кистяковского.

b) **A radiological weapon (or radiological dispersion device, RDD)** is any weapon that is designed to spread radioactive material with the intent to kill, and cause disruption upon a city or nation. It is primarily known as a dirty bomb because it is not a true nuclear weapon and does not yield the same destructive power. It uses conventional explosives to spread radioactive material, most commonly the spent fuels from nuclear power plants or radioactive medical waste.

c) Грязная бомба – гипотетическая разновидность ОМП, использующая в качестве поражающего элемента ионизирующее излучение радиоактивных материалов.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Чем отличается обычный взрыв от ядерного взрыва?
2. Почему при ядерном взрыве образуется огненный шар?
3. Как образуется ударная волна?
4. Что вы можете сказать о степени повреждения объектов и сооружений в результате воздействия ударной волны?
5. Можете ли вы дать определение понятия "проникающая радиация"?
6. Что означает термин "световое излучение"?
7. Каковы поражающие факторы ядерного взрыва?
8. Как классифицируются ядерные взрывы в зависимости от высоты взрыва?
9. Каковы источники проникающей радиации?
10. Как измеряется мощность ядерного боеприпаса?

**Exercise 6. Decipher and translate the following abbreviations:**

TNT; GZ; EMP; CINC; WMD; NSC; RA; EM; FM; CONUS;MBT; PCS; JCS; WAC; MV;SIGCEN; SSB;CW; IR; IFF; BOOM; POL;ADM; SAC; TAC; MAC; ADC; TATB; GM; ICBM; MIRV; SAM; RDD.

**Exercise 7. Translate the following words and word combinations by ear:**

To cause certain effects; an immense amount of energy is released; lethal radiation; a sudden release of energy; a pulse of intense light and heat is radiated; to be radiated in about half a second; to be similar to; whatever the size and nature of an explosion; radiation emitted at the time of; to depend on the yield; to deposit on the ground; some products spill over into the immediate area around or downwind; to travel outwards with speeds exceeding that of sound; to affect people; to cause damage.

Высвобождение большого количества энергии; производить ядерный взрыв; вызывать цепную реакцию; средства доставки ядерных боеприпасов к цели; мощность ядерного взрыва; тротиловый эквивалент; реакция синтеза; термоядерные боеприпасы; поражающие факторы ядерного взрыва; оружие массового поражения; реакция деления; ударная волна; проникающая радиация; световое излучение; лучи, обладающие большой проникающей способностью.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| The effective employment of nuclear weapons requires an understanding of the effects produced by those weapons and the nature of a nuclear explosion. | К поражающим факторам ядерного взрыва относятся: ударная волна, световое излучение, проникающая радиация, радиоактивное заражение местности и объектов и электромагнитный импульс. |
| There are three types of explosions, classified as to height of burst: air burst, surface burst and subsurface burst. | Ударная волна является основным поражающим фактором ядерного взрыва, так как на ее долю приходится 35 – 60% общей энергии, высвобождающейся при ядерном взрыве. |
| The blast energy can damage either through direct reaction of blast overpressure or through secondary effects caused by flying debris or by overturning objects. | Повреждения боевой техники ударной волной американцы делят на три степени: сильное, среднее, слабое. |
| The nuclear explosion is also accompanied by highly penetrating and harmful invisible rays, called ‘initial’ or ‘imme- | Проникающая радиация состоит из нейтронов, гамма-лучей, альфа-частиц и бета-частиц. |

diate' nuclear radiation.

| | |
|---|---|
| Initial or immediate nuclear radiation is that radiation which is emitted by a nuclear explosion within the first minute after the burst. | Электромагнитный импульс, сопровождающий ядерный взрыв, может повреждать системы связи, сигнализации и управления. |

**Exercise 9. Translate the following text at sight:**

**A BURST ON OR NEAR THE GROUND**

If the explosion takes place close to the ground about a third of the total heat produced may be lost by absorption into the ground itself.

Some of the immediate nuclear radiation is also absorbed into the ground.

The blast wave through the air is reduced in power because some of the energy is used up in producing a crater and in sending a shock wave through the ground itself. The reinforcing effect of the reflection (Mach) wave which is a feature of the high air burst is reduced.

When the fireball touches the ground it engulfs and vaporizes large quantities of matter from the surface, which later cool and condense into fine solid particles. When the fireball starts to rise the suction at ground level is much greater than with an air burst, and a good deal of heavy matter is sucked up into the cloud without being vaporized. The result is that the cloud contains much more solid matter than with an air burst and this increases the fall-out of radioactive material immediately downwind, the heavier particles falling out first and the lighter particles later, producing a residual radiation hazard to people on the ground.

**AN UNDERGROUND BURST**

In this case a large part of the heat radiation and the immediate nuclear radiation is absorbed in the crater produced by the explosion, and the surrounding buildings provide considerable shielding against the remainder.

Much of the blast energy goes into the production of a shock wave in the earth, a feature which is absent from the air burst and less important when the burst is on or near the ground. This shock wave will cause damage to underground structures and services as well as to buildings above the ground, but the power of the blast wave in the air above is reduced. A greater proportion of the radioactivity is trapped in the debris of the crater, mingling with the mate-

rial which spills out around the crater and immediately downwind. This gives rise to a serious but more localized residual radiation hazard; the radioactive fall-out beyond is less widely distributed.

## N-BOMB

Tactical neutron bombs are primarily intended to kill soldiers who are protected by armor. Armored vehicles are very resistant to blast and heat produced by nuclear weapons, but steel armor can reduce neutron radiation only by a modest amount so the lethal range from neutrons greatly exceeds that of other weapon effects. The lethal range for tactical neutron bombs can exceed the lethal range for blast and heat even for unprotected troops. Armor can absorb neutrons and neutron energy, thus reducing the neutron radiation to which the tank crew is exposed, but this offset to some extent by the fact that armor can also react harmfully with neutrons. Alloy steels for example can develop induced radioactivity that remains dangerous for some time. When fast neutrons are slowed down, the energy lost can show up as x-rays. Some types of armor, like that of the M-1 tank, employ depleted uranium which can undergo fast fission, generating additional neutrons and becoming radioactive. Special neutron absorbing armor techniques have also been developed, such as armors containing boronated plastics and the use of vehicle fuel as a shield.

Also called ENHANCED RADIATION WARHEAD, specialized type of small thermonuclear weapon that produces minimal blast and heat but which releases large amounts of lethal radiation. The neutron bomb delivers blast and heat effects that are confined to an area of only a few hundred yards in radius. But within a somewhat larger area it throws off a massive wave of neutron and gamma radiation, which can penetrate armor or several feet of earth. This radiation is extremely destructive to living tissue. Because of its short-range destructiveness and the absence of long-range effect, the neutron bomb would be highly effective against tank and infantry formations on the battlefield but would not endanger cities or other population centers only a few miles away. It can be carried in a missile or delivered by an 8-inch (200-millimetre) howitzer, or possibly by attack aircraft.

In strategic terms, the neutron bomb has a theoretical deterrent effect: discouraging an armored ground assault by arousing the fear of neutron bomb counterattack. The bomb would disable enemy tank crews in minutes, and those exposed would die within days.

**Exercise 10. Translate the following text at sight:**

## КЛАССИФИКАЦИЯ ЯДЕРНОГО ОРУЖИЯ

В зависимости от типа ядерного заряда можно выделить:
– собственно ядерное оружие, в боеприпасе которого в момент взрыва происходит ядерная реакция деления тяжёлых элементов с образованием более лёгких; в нём иногда выделяют так называемые «чистые» ядерные заряды, сконструированные таким образом, чтобы снизить до минимума радиоактивное заражение местности;
– термоядерное оружие, основное энерговыделение которого происходит при термоядерной реакции – синтезе тяжёлых элементов из более лёгких, а в качестве запала для термоядерной реакции используется ядерный заряд;
– нейтронное оружие – ядерный заряд малой мощности, дополненный механизмом, обеспечивающим выделение большей части энергии взрыва в виде потока быстрых нейтронов; его основным поражающим фактором является нейтронное излучение и наведённая радиоактивность.

По назначению ядерное оружие делится на:
– тактическое, предназначенное для поражения живой силы и боевой техники противника на фронте и в ближайших тылах;
– оперативно-тактическое – для уничтожения объектов противника в пределах оперативной глубины;
– стратегическое – для уничтожения административных, промышленных центров и иных стратегических целей в глубоком тылу противника.

**Exercise 11. Translate the following text in writing:**

## NUCLEAR BLACKOUT

Nuclear weapons produce a phenomena known as nuclear blackout. Nuclear blackout is the result of the blast fireball, itself, and of large dust clouds which may also be created. It can last from a few seconds to many hours, depending on the altitude and yield of the burst, and the frequency of victim equipment. Nuclear blackout affects radio and radar by
- refraction (bending of the waves).
- absorption (consuming of the waves).
- scattering (waves scattered in all directions).

All of the above result in partial or total loss of the information being transmitted One of the effects of nuclear explosions is the emission of intense heat which ionizes air particles in the air. Beta-ray emission from the radioac-

tive debris of the explosion has the same effect. Ionized air distorts and absorbs electromagnetic radiation, thus affecting the operation of radar, which is based on the use of this form of energy. ‘Blackout’ detonations have been widely described as effective ECM to ballistic missile defense based on radar. This penetration tactic envisages the use of ‘precursor’ ICBM's to black out the defense radars so that subsequent ICBM's can get a free ‘ride’.

The intensity of the blackout effect depends on the yield and altitude of the detonation, the respective positions of the radar and the detonation, and on the frequency of the former. The effect on a system of radars, such as used by the Safeguard ABM, depends on the number of ‘precursors’ and the precision with which they are coordinated, in terms of accuracy of both in timing and in space. After making due allowances for errors (and for ‘precursors’ intercepted by the defense prior to their detonation), the neutralization of an ABM by means of this tactic requires a large number of ICBM's, since any ‘window/ left in the blackout will still allow the radar to observe the Incoming warheads. This is, therefore, by no means the cheap and highly reliable ABM countermeasure which it has been claimed to be.

**Exercise 12. Translate the following text in writing:**

**ПЛУТОНИЕВАЯ БОМБА**

Конструктивно бомба представляет собой несколько сфер, вложенных друг в друга:

1. Импульсный нейтронный инициатор (ИНИ, «ёжик», «урчин» (англ. urchin)) – шар диаметром порядка 2 см из бериллия, покрытый тонким слоем сплава иттрий-полоний или металлического полония-210 – первичный источник нейтронов для резкого снижения критической массы и ускорения начала реакции. Срабатывает в момент перевода боевого ядра в закритическое состояние (при сжатии происходит смешение полония и бериллия с выбросом большого количества нейтронов). В настоящее время короткоживущий полоний-210 заменён долгоживущим плутонием-238, также способным при смешении с бериллием к мощному нейтронному импульсу.

2. Плутоний. Желателен максимально чистый изотоп плутоний-239, хотя для увеличения стабильности физических свойств (плотности) и улучшения сжимаемости заряда плутоний легируется небольшим количеством галлия.

3. Оболочка (англ. tamper), служащая отражателем нейтронов (из урана).

4. Обжимающая оболочка (англ. pusher) из алюминия. Обеспечивает бóльшую равномерность обжима ударной волной, в то же время предохраняя внутренние части заряда от непосредственного контакта со взрывчаткой и раскалёнными продуктами её разложения.

5. Взрывчатое вещество со сложной системой подрыва, обеспечивающей синхронность подрыва всего взрывчатого вещества. Синхронность необходима для создания строго сферической сжимающей (направленной внутрь шара) ударной волны. Несферическая волна приводит к выбросу материала шара через неоднородность и невозможности создания критической массы. Создание подобной системы расположения взрывчатки и подрыва являлось в своё время одной из наиболее трудных задач. Используется комбинированная схема (система линз) из «быстрой» и «медленной» взрывчаток – боратола и ТАТВ.

6. Корпус.

**ARMY HUMOR**

**Indian chief's signal**

An Indian chief is driving his Cadillac somewhere at Nevada. Suddenly his car gets broken. He examines it, and reveals that a technician must be called. But the chief has only $4, and no credit card (unfortunately). So he gathers some wood, makes a fire and signals his tribe with its smoke: "Hey, send somebody to my location with $500!" The tribe accepts this signal, but to make sure in its meaning, signals back - once again, with the smoke:

"OK, chief, but why so much ?"

At this moment a ground test of nuclear bomb is being held on the test field nearby. A huge mushroom-like cloud of smoke rises into the sky... The tribe signals:

"Ok, Ok, chief, we just wondered, why to be so angry?"

## УРОК 14
## БОЕВЫЕ ДЕЙСТВИЯ С ПРИМЕНЕНИЕМ БИОЛОГИЧЕСКИХ И ХИМИЧЕСКИХ ОТРАВЛЯЮЩИХ ВЕЩЕСТВ

## LESSON 14
## BIOLOGICAL AND CHEMICAL WARFARE

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| substance | harassing |
| hallucinogenic | chocking |
| irritant | vomiting |
| persistent | exposure |
| odorless | inhalation |
| tissue | respiratory |
| acute | bronchial |
| nausea | copious |
| binary | defoliant |
| mustard | phosgene |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

A sudden release of energy; a pulse of intense light and heat is radiated; to be radiated in about half a second; to be similar to; whatever the size and nature of an explosion; radiation emitted at the time of; to depend on the yield; to deposit on the ground; some products spill over into the immediate area around or downwind; to travel outwards with speeds exceeding that of sound.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| mission-oriented protective posture (MOPP) | методы и средства РХБ защиты с учетом характера выполняемой задачи |
| protective clothing | защитное снаряжение |
| protective mask | полевой противогаз |

| | |
|---|---|
| chemical (protection) overgarment | верхняя защитная одежда |
| protective gloves | защитные перчатки |
| overboots | защитные чулки |
| biological agent | биологический возбудитель болезни (БВБ) |
| combat biological agent | боевое биологическое средство (ББС) |
| immunization shot | прививка |
| standing operating procedure (SOP) | постоянно дейсвующая инструкция |
| rickettsia | рикеттсия (род микроорганизмов) |
| protozoa | протозоа (простейшие животные организмы) |
| viruse | вирус |
| "Yellow Rain" toxin | токсин «Желтый дождь» |
| mycotoxin | микотоксин (токсин, продуцируемый плесневым грибом) |
| botulinum toxin | токсин ботулинуса |
| substance | вещество |
| poison | яд |
| weed-killer | гербицид |
| herbicide | гербицид |
| defoliant | дефолиант |
| chemical agent | отравляющее вещество (0В) |
| toxic agent | токсическое средство |
| persistent agent | стойкое 0В |

| | |
|---|---|
| non-persistent agent | нестойкое ОВ |
| incapacitating agent | ОВ, временно выводящее из строя |
| incapacitant | инкапаситант, ОВ, временно выводящее из строя |
| chemical warfare (CW) | боевые действия с применением химического оружия |
| toxic chemical warfare | боевые действия с применением токсичного химического оружия |
| war gases | боевые отравляющие газы |
| lethal agent | смертельное ОВ |
| casualty agent | средство поражения живой силы |
| nerve agent | ОВ нервно-паралитического действия |
| blood agent | ОВ общеядовитого действия |
| blister agent | ОВ кожно-нарывного действия |
| choking agent | ОВ удушающего действия |
| vomiting agent | ОВ рвотного действия |
| irritant agent | ОВ раздражающего действия |
| harassing agent | ОВ беспокоящего действия |
| tear agent | ОВ слезоточивого действия |
| solid | твердый |
| odor | запах |
| inhalation | вдыхание |
| bloodstream | кровеносная система |
| respiratory system | органы дыхания |

| | |
|---|---|
| bronchial tubes | бронхи |
| sneezing | чихание |
| substance | вещество |
| nausea | тошнота |
| to disseminate | распространять |
| weeping | слезотечение |
| copious weeping | обильное слезотечение |
| binary chemical weapon | бинарное химическое оружие |
| to inflame | вызывать воспаление |
| inflammation tissue | воспаленная ткань |
| phosgene | фосген |
| mustard | иприт |
| sarin | зарин |
| soman | зоман |
| V-gases | V-газы |
| chloropicrin | хлорпикрин |
| adamsite | адамсит |
| tabun | табун |
| lewisite | люизит |
| hydrogen cyanide | синильная кислота |
| delayed-action chemical agents | ОВ замедленного действия |
| to produce casualties among exposed personnel | поражать живую силу вне укрытий |
| death occurs | наступает смертельный исход |

| | |
|---|---|
| to attack the blood-stream | поражать кровеносную систему |
| to cause severe burns | вызывать сильные ожоги |
| to inflame the eyes | вызывать воспаление глаз |
| short exposure | кратковременное воздействие |

**Exercise 4. Read and translate the text:**

**OPERATING IN BIOLOGICAL AND CHEMICAL ENVIRONMENTS**

The threat is the best-equipped, best trained, and most heavily armed force in the world in terms of chemical warfare. It is fully capable of producing and employing biological agents on a massive scale. Threat forces can operate either in toxic areas imposed on them or to exploit their own use of chemical agents. Their troops train and equip for chemical warfare as if it were inevitable -- so must you!

**BIOLOGICAL AND CHEMICAL WARFARE**

Threat doctrine describes chemical agents as "weapons of mass destruction" and treats their use as a basic part of warfare. It emphasizes the use of chemical weapons in close coordination with conventional and nuclear weapons.

The threat will use chemical strikes to paralyze our defensive capacity and logistic support. Specific areas may be attacked to the point of saturation. Likely targets probably will include artillery and ADA units, troops in reserve, airfields, and supply depots. In order to maintain their high-speed advance, threat forces will attempt to bypass or cross contaminated areas in sealed tanks and personnel carriers.

**PROTECTION AGAINST BIOLOGICAL AND CHEMICAL AGENT EFFECTS**

Protective actions against biological and chemical agents depend on the threat, mission, situation, and weather. As with nuclear protective actions, chemical and biological protective actions fall into three categories: actions before the attack, during the attack, and after the attack.

**PROTECTIVE ACTIONS BEFORE THE ATTACK**

A mission-oriented protective posture (MOPP) is designated for your unit by your commander for combat situations. The MOPP balances mission re-

quirements against chemical protection requirements and other factors such as temperature and work rate. Essentially, the four levels of MOPP tell you how prepared you must be for a chemical attack. However, if your unit is attacked with chemical agents without warning, go immediately to the highest state of preparedness (MOPP 4).

Based on the MOPP, you will be directed to wear protective clothing and equipment as shown in the illustration. Heavy work rate activities while wearing protective clothing should be done in the coolest part of the day. The protective clothing and equipment include the M17-series protective mask and protective clothing.

The M17-series protective mask, when properly fitted and worn with the hood, gives protection against all known enemy chemical agents. It also provides protection against biological agents. Accessories and components provided for use with the mask include those items shown in the following illustration.

Chemical protective clothing is available for wear in different weather conditions and for special purposes. In addition to the M17-series protective mask, MANPAD personnel will normally be issued a chemical overgarment, protective gloves, and overboots.

Even in a full MOPP status you must remain alert and constantly aware of the chemical threat. You must know your unit's chemical alarm and signals and how to react to have the most protection.

Your equipment and supplies must be protected against liquid agents. Keep them organized and covered. Fighting position covers, brush, ponchos, shelter halves, or any other material can be used for this. Wear full protective clothing when sleeping and cover yourself and your equipment before going to sleep.

Have an alert and questioning attitude toward any indication of biological attack. Although respect for biological agents is important, don't have an unreasonable fear of disease. Don't repeat or exaggerate rumors about biological warfare. Observe the following preventive measures to reduce the effects of potential exposure to biological agents:

1. Practice good hygiene.
2. Clean all wounds and cuts well.
3. Keep your immunization shots up-to-date.

## PROTECTIVE ACTIONS DURING THE ATTACK

Whenever you recognize or are alerted to a chemical or biological attack (if not already wearing MOPP level 4 clothing)

1, Hold your breath, put on your protective mask.
2. Give the alarm (per SOP), put on your protective clothing.
3. Continue your mission.

4. Keep all protective clothing buttoned up and wear your mask until the ALL CLEAR signal is given.

In addition if the situation permits, take cover.

Symptoms of nerve agent poisoning appear, use your Mark 1 nerve agent antidote against it. These kits are used for nerve agent first aid. The individual soldier will carry three of them in his protective mask carrier. However, in very cold weather, the injectors must be carried inside your clothing to prevent them from freezing.

Your skin becomes contaminated, use the individual decontamination kit M258A1. The M258A1 allows you to decontaminate your skin and selected personal equipment. Do not use the M258A1 on your protective overgarments.

Your eyes are contaminated, flush them with water from your canteen.

The attack is a spray attack, protect your body and equipment with a poncho, shelter half, or any other covering material.

The agent is identified, follow other first aid and decontamination actions prescribed for the type of agent used.

## PROTECTIVE ACTIONS AFTER THE ATTACK

After the attack, remain masked and continue your mission. Give first aid to any casualties in your immediate area and report to your immediate supervisor. If exposed skin was contaminated, decontaminate it immediately. As time permits, check your clothing and equipment for possible contamination, and decontaminate equipment and reimpregnate clothing as required.

Do not unmask after an attack until authorized by your commander. If no leader is present, follow the unmasking procedures in your SOP. These will include the use of a chemical agent detector kit and will also be applicable to situations where no such kit is available.

## BIOLOGICAL AGENTS AND THEIR EFFECTS

Biological agents are microorganisms that cause disease among personnel, animals and plants. To a lesser extent, they can also cause deterioration of material. It is not necessary for biological agents to kill to be effective. Their purpose may only be to reduce the ability of enemy forces to fight. This can be done by killing or incapacitating troops and by causing food or supply shortage.

Biological agents consist of groups of living microorganisms such as rickettsia, protozoa, and viruses. Most are easily destroyed by sunlight or weather within hours, but some can remain inactive for longer periods of time. Most enemy biological agents are disseminated in aerosol form. This allows them to be spread rapidly by the wind. Others are transmitted by insects (vectors) such as mosquitoes and ticks.

Toxins are also considered in the class of biological agents. These can be derived from plants, animals or bacteria. The "Yellow Rain" toxins which witnesses and victims described as toxic rain (because the agent was released from aircraft as yellow powder or liquid) used in Southeast and Southwest Asia consisted of a mixture of toxins belonging to the tricothecene mycotoxins family. The tricothecene mycotoxins are found under certain conditions in cereal grain. There are also neurotoxins such as botulinum toxin which is occasionally found in food poisoning. Depending on the type of toxin, concentration, and exposure, toxins can be used as lethal agents or incapacitants. Some of the neurotoxins are several thousand times more lethal than CW nerve agents, such as GB. Most toxins are easily stored, stable for long periods of time, and remain effective after dissemination. The symptoms associated with the tricothecene-type toxins include any or all of the following: dizziness, severe itching or tingling of the skin, formation of multiple small, hard blisters, nausea, coughing up blood, shock, and death. Some toxins cause complete incapacitation due to nausea and vomiting, while others such as neurotoxins can kill within less than a minute. See FM 21-40 or FM 3-100 for further details regarding toxins.

The effects of biological agents are generally the same as for the diseases they are associated with, such as typhoid or influenza. These effects can be minor, such as a common cold; or prolonged illnesses which can result in death, such as plague. TM 3-216 contains complete descriptions of diseases that can be produced by possible biological agents.

**COMMENTARY:**

**1. Terms and Definitions:**

a) **Casualty** is an individual incapable of performing his normal tasks. The term includes those who are temporarily incapacitated as well as those who are killed. It may be used for civilians as well as military personnel

b) **Chemical warfare (CW)** includes toxic chemical warfare, including the employment of smoke and incendiary materials.

c) **Chemical agents** are the compounds disseminated in toxic chemical warfare.

d) **Persistency** is defined as the length of time during which an agent remains effective in the general area of its release. The following factors affect the degree of persistency: the physical state and volatility of the agent; the method of dissemination; and the meteorological conditions (wind and temperature).

e) **Toxic Chemical Warfare** is the use of, and defense against, chemical compounds which are intentionally disseminated to reduce man's military effec-

tiveness. These compounds may affect man directly by being introduced into the body, or indirectly by destroying some of his food. The physiological effect may range from temporary incapacitation to death. The compounds can be disseminated as gases, liquids, or solids.

f) **Radiological agents** are radioactive isotopes used deliberately to contaminate an area with the intent of producing casualties or denying use of the area to enemy personnel.

g) Термин **weed-killer** представляет собой типичный пример ложной речевой номинации (информация не соответствует реальному объекту). В обычной жизни данный термин обзначает средство для борьбы с сорняками. Применяется для сокрытия результата применения подобных веществ военными, выражающегося в уничтожении растительности на территории противника.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Что представляет собой химическое оружие?
2. Как классифицируются отравляющие вещества, состоящие на вооружении армии США?
3. Какие отравляющие вещества относятся к ОВ нервно-паралитического действия?
4. В каких целях, по взглядам командования армии США, могут применяться в бою психотропные ОВ?
5. Какие средства могут использоваться для доставки ОВ к цели?
6. Что составляет основу поражающего действия химического оружия?
7. Какова классификация средств химической войны?
8. Чем отличается обычное химическое оружие от бинарного химического оружия?
9. Каким образом ОВ воздействуют на человеческий организм?

**Exercise 6. Decipher and translate the following abbreviations:**

CW; TNT; GZ; EMP; SAC; NSC; CIA; DOD; DA; DN; RR; TOW; MBT; APDS; FA; SP How Bn; HVAP; APHC; FCS; Xmtr; IFF; PPI; POL; ADM; ADC; SSM; SAM; ATGM; ICBM; TM; SM; SRAM; ALCM; SLBM; BMEWS; AWACS; DEW; NORAD, MOPP.

**Exercise 7. Translate the following words and word combinations by ear:**

Currently available agents; incapacitating agents; another classification divides chemical agents into…; death occurs after…; short exposure to…; to

attack the bloodstream; to push ahead with the plans; to affect the eyes; the gas inflames the eyes and irritates the lungs; to cause acute vomiting; to conduct research and development on…; to be codenamed.

ОВ, временно выводящее из строя; имеющиеся ОВ; классифицировать по физическому состоянию; смертельный исход наступает после…; не иметь запаха; по другой классификации ОВ подразделяются на…; попадать в организм через кожный покров или органы дыхания; поражать кровеносную систему; иметь кодовое обозначение; ОВ замедленного действия; воздействовать на глаза; вызывать раздражение лёгких; ощущение жжения; доставляться к цели при помощи…; форсировать планы.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Chemical agents can be classified by physical state (solids, liquids and gases), by tactical use (casualty gases, training and riot control gases) and by physiological action | По характеру действия на организм ОВ подразделяются на слезоточивые, кожно-нарывные, рвотного действия, общеядовитого и нервно-паралитического действия. |
| Blood agents attack the bloodstream carrying oxygen to tissue. Example: hydrogen cyanide.Blister agents, such as mustard and lewisite are delayed-action chemical agents that produce casualties among exposed personnel by affecting the eyes, skin or parts of the respiratory system. | По мнению американского командования, химическое оружие имеет ряд преимуществ по сравнению с другими видами оружия, так как не вызывает разрушений важнейших промышленных объектов. |
| Toxic chemical agents may be delivered on target by multiple rocket launchers, missiles, mines, aerial bombs, aerial spray. | В последнее время в США ведутся интенсивные работы по созданию бинарного химического оружия, чтобы заменить запасы первно-паралитического газа новым невидимым оружием. |
| Binaries consist of two relatively non-toxic components which form a lethal agent only if mixed together. The new | Самым токсичным из ОВ нервно-паралитического действия является ОВ типа VX. Капля данного вещества размером с булавочную головку – |

| | |
|---|---|
| agents can be delivered on target by artillery projectiles filled with a non-toxic chemical solution. | смертельна для человека. |

**Exercise 9. Translate the following text at sight:**

**Text 1. BIOLOGICAL AGENT DETECTION**

Biological attacks are difficult to recognize. However, they can be detected by alert troops and the intelligence sources of major commands. Since sunlight reduces the effects of biological agents, the most likely time for a biological attack is in the evening and early morning hours. Cloudy and foggy days are also ideal for launching biological attacks.

The means of delivering biological agents can signal an attack. The appearance of seemingly ineffectual explosive bomblets and missiles; aircraft with spray tanks; and generators may signal a biological attack. An abnormal number of vectors, such as mosquitoes, flies, mites, ticks, and lice may also be carrying the agents. On the other hand, other subtler measures such as using enemy infiltrators to contaminate water and food supplies may escape early detection. The following illustration shows some of the alerting signs that could signal a biological attack.

If a biological attack is detected, stay masked and buttoned up in your protective clothing. Drink and eat only from sealed containers. "Yellow rain" or other types of toxins cannot be detected by standard CW detection devices. Individual defense measures normally associated with a persistent chemical agent attack will protect personnel against toxins; that is, the wearing of the protective mask with hood, overgarment, gloves, and booties and implementation of MOPP. Upon recognition of an attack or onset of symptoms, personnel should immediately mask and put on all protective equipment (MOPP 4).

**Text 2. BLISTER AGENTS**

Blister agents (mustard, lewisite) come in liquid or vapor form. They may appear as colorless or dark brown oily droplets. The agents are effective even in small amounts and produce delayed effects. For example, a pinhead-size drop of mustard agent (one of the most common types of blister agents) can produce a blister 1 inch in diameter. The effects are often more serious than what is first seen. Exposure to some agents may go unnoticed because they usually do not cause immediate pain or signs of injury. Unprotected troops

exposed to low vapor concentrations for long periods of time can eventually become casualties.

Primarily, blister agents affect the eyes and lungs and blister the skin. However, they can burn or blister any part of the body they contact. The degree of this effect depends on the type and concentration of the agent, the victim's activity, and the exposure time. Some types of blister agents are painless, others sting, and still others cause burning welts.

Blister agents which come in direct contact with the eyes will produce marked effects such as redness, inflammation, and temporary or permanent blindness.

They are quickly absorbed through the skin. The affected area may redden anytime up to 12 hours after exposure, depending on the concentration and weather conditions. Blisters may appear in a day or less following the reddening. Healing time varies from 6 days to as much as weeks in severe cases, particularly those involving moist skin areas, such as the crotch and armpits. Inhalation of blister agents will cause serious damage to tissues in the mouth, nose, throat, and lungs. The main danger from blisters is infection. If a blister agent has come into contact with your eyes, flush your eyes immediately with water. Decontaminate any agent on your skin using the M258A1 decontamination kit (described later in this chapter) or by using soap and water.

**Text 3. BLOOD AGENTS**

Blood agents (such as hydrogen cyanide) come in vapor (gas) form. Individual reactions to these agents are headache, dizziness, pink skin color, eye and nose irritation, nausea, convulsions, slow or rapid breathing, rapid heartbeat, and coma.

If the symptoms of blood agent poisoning appear, you should immediately crush two amyl nitrite ampules and place them inside the face piece of the mask, next to the eyes. Repeat this every 4 to 5 minutes until normal breathing returns, or a total of eight ampules have been used. Medical personnel must approve the use of more than eight ampules. Artificial respiration may be necessary in some cases.

**Text 4. CHOKING AGENTS**

Choking agents (phosgene and chloropicrin) are usually disseminated as gases and are taken into the body by breathing. The victim usually feels no initial effects from choking agents. Delayed effects usually occur 2 to 4 hours after exposure.

Choking agents affect the respiratory system by damaging the lungs and, in severe cases, causing the lungs to fill with fluid. This causes a victim to literally drown in his own fluids. Other symptoms include the following:

- rapid and shallow breathing.
- painful coughing and choking.
- tightness in the chest.
- nausea and headache.
- watering of the eyes.
- discomfort and fatigue.
- shock and death.

If the symptoms for a choking agent develop, let another crew member or buddy know. Take cover and keep warm. Move only if absolutely necessary and await medical attention.

**Exercise 10. Translate the following text at sight:**

**ХИМИЧЕСКОЕ ОРУЖИЕ**

Химическое оружие (ХО) – это отравляющие вещества и средства их применения. Отравляющими веществами (0В) называются токсичные химические соединения, предназначенные для нанесения массовых поражений живой силе при боевом применении. Отравляющие вещества составляют основу химического оружия и состоят на вооружении армий ряда западных государств. В армии США каждому 0В присвоен определенный буквенный шифр. По характеру воздействия на организм человека 0В подразделяются на нервно-паралитические, кожно-нарывные, общеядовитые, удушающие, психохимические и раздражающие.

По быстроте наступления поражающего действия 0В (в армии США) подразделяются на смертельные, временно выводящие из строя и кратковременно выводящие из строя.

**Exercise 11. Translate the following text in writing:**

**NERVE AGENTS**

Nerve agents (sarin, soman, tabun and V-gases), directly affect the nervous system and are highly toxic in both liquid and vapor form. Nerve agent vapor is readily absorbed by the eyes and by tissues in the nose, throat, and lungs. The liquid readily penetrates the skin, eyes, and tissues of the body. Its effects are similar whether inhaled or absorbed.

The following are symptoms of nerve agent exposure:
- tightness of the chest and difficult breathing.
- excessive sweating and drooling.

- nausea, stomach cramps, and vomiting.
- dimness of vision and pinpointing of the pupils of the eyes.
- convulsions and death.
- unexplained runny nose.
- sudden headache.
- localized twitching in an area of exposed/contaminated skin.

Most nerve agents are quick acting when inhaled with some symptoms developing in 1 to 2 minutes. They act quicker when absorbed through damaged skin. When the eyes are exposed to nerve agent vapor, the pupils will become pinpointed. However, this pinpointing may not occur for 10 minutes or longer if exposure was to a low concentration vapor. When only the skin is exposed to liquid nerve agent, the pupils may remain normal or be only slightly reduced in size. The casualties caused by nerve agents can range from mild disability to death. This will depend on the dose received and the adequacy and speed of first aid treatment.

If you or one of your buddies experience any or all of the mild symptoms of nerve agent poisoning, you must perform first aid measures immediately.

Self aid. Immediately put on the protective mask. Remove a nerve agent antidote kit Mark I from the protective mask carrier and inject yourself in the thigh with the two injectors from the kit. Use the small injector first. Hold the injector against the thigh for at least 10 seconds. Follow this procedure with the second injector (large auto-injector) on the other thigh. Remove the injectors and place each injector needle through the pocket flap of the overgarment and bend the needle to form a hook. Massage the area of injection if time permits. If you experience dryness in the mouth and a rapid heartbeat in about 5 minutes after injecting a set, you have received enough antidote. However, if symptoms of nerve agent poisoning persist or recur after 10-15 minutes, you may inject another set of auto-injectors from the Mark I nerve agent antidote kit. The maximum number of sets you may administer to yourself is three. The administration of more than three sets must be authorized by medical support personnel.

Buddy aid. If an individual experiences severe symptoms after nerve agent poisoning and is unable to treat himself, another soldier will be required to perform buddy aid measures. If your buddy experiences nerve agent poisoning, mask him. Using the victim’s nerve agent antidote kits Mark I, administer three sets immediately and in rapid succession in the thigh muscles of the legs. Hook the expended auto-injectors to his overgarment pocket flap. Administer the back pressure arm lift method of

artificial respiration if breathing is difficult or has ceased. Seek medical attention for the casualty.

**Exercise 12. Translate the following text in writing:**

**ОТРАВЛЯЮЩИЕ ВЕЩЕСТВА**
**ХИМИЧЕСКОЕ ОРУЖИЕ**

Химическое оружие (ХО) – это отравляющие вещества и средства их применения. Отравляющими веществами (0В) называются токсичные химические соединения, предназначенные для нанесения массовых поражений живой силе при боевом применении. Отравляющие вещества составляют основу химического оружия и состоят на вооружении армий ряда западных государств. В армии США каждому 0В присвоен определенный буквенный шифр. По характеру воздействия на организм человека 0В подразделяются на нервно-паралитические, кожно-нарывные, общеядовитые, удушающие, психохимические и раздражающие.

По быстроте наступления поражающего действия 0В (в армии США) подразделяются на смертельные, временно выводящие из строя и кратковременно выводящие из строя.

При боевом применении смертельные ОВ вызывают тяжелые (смертельные) поражения живой силы. В эту группу входят ОВ нервно-паралитического, кожно-нарывного, общеядовитого и удушающего действия, ботулинический токсин (вещество XR). Временно выводящие из строя ОВ (психохимического действия и стафилококковый токсин PG) лишают боеспособности личный состав на срок от нескольких часов до нескольких суток. Поражающее действие кратковременно выводящих из строя ОВ (раздражающего действия) проявляется на протяжении времени контакта с ними и сохраняется в течение нескольких часов после выхода из зараженной атмосферы.

В момент боевого применения ОВ могут находиться в парообразном, аэрозольном и капельно-жидком состоянии. В парообразное и мелкодисперсное аэрозольное состояние (дым, туман) переводятся ОВ, применяемые для заражения приземного слоя воздуха. Облако пара и аэрозоля, образованное в момент применения химических боеприпасов, называется первичным облаком зараженного воздуха (3В). Облако пара, образующееся за счет испарения 0В, выпавших на почву, называется вторичным. 0В в виде пара и мелкодисперсного аэрозоля, переносимые ветром, поражают живую силу не только в районе применения, но и на значительном расстоянии. Глубина распространения 3В на пересеченной и лесистой местности в 1,5 – 3 раза меньше, чем на открытой.

Для заражения местности, вооружения и военной техники, обмундирования, снаряжения и кожных покровов людей ОВ применяются в виде грубодисперсных аэрозолей и капель. Зараженная местность, вооружение и военная техника и другие объекты являются источником поражения людей. В этих условиях личный состав будет вынужден длительное время, обусловленное стойкостью ОВ, находиться в средствах защиты, что снизит боеспособность войск.

Стойкость ОВ на местности – это время от его применения до момента, когда личный состав может преодолевать зараженный участок или находиться на нем без средств защиты.

ОВ могут проникать в организм через органы дыхания (ингаляционно), через раневые поверхности, слизистые оболочки и кожные покровы (кожно-резорбтивно). При употреблении зараженной пищи и воды проникновение ОВ осуществляется через желудочно-кишечный тракт. Большинство 0В обладает кумулятивностью, т. е. способностью к накоплению токсического эффекта.

**ARMY HUMOR**

**His military etiquette**

Officer: Soldier, do you have change for a dollar?

Soldier: Sure, buddy.

Officer: That's no way to address an officer! Now let's try it again.

Do you have change for a dollar?

Soldier: No, SIR!

## УРОК 15
## СРЕДСТВА РАДИАЦИОННОЙ, ХИМИЧЕСКОЙ И БИОЛОГИЧЕСКОЙ ЗАЩИТЫ

## LESSON 15
## PROTECTION AGAINST CHEMICAL, BIOLOGICAL AND NUCLEAR AGENTS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| dosimeter | permeable |
| decontamination | crayon |
| radiological | monitoring |
| coverall | radioactivity |
| sarin | hydrogen |
| soman | cyanide |
| tabun | adamsite |
| lewisite | chlorpicrin |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Incapacitating agents; another classification divides chemical agents into…; death occurs after…; short exposure to…; to attack the bloodstream; to affect the eyes; the gas inflames the eyes and irritates the lungs; to cause acute vomiting; to conduct research and development on…; to be codenamed.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| radiological | радиационный |
| chemical detection and radiological monitoring | химическая и радиоационная разведка |
| radiological monitoring | дозиметрический контроль |
| radiological survey | радиационная разведка |
| NBC center | центр сбора данных о применении ОМП |
| decontamination station | пункт дегазации, дезактивации и санитарной обработки |
| shielding | защита |

| | |
|---|---|
| protective mask | противогаз |
| individual protection gear | средства индивидуальной защиты |
| collective protection | средства коллективной защиты |
| radiacmeter | дозиметр |
| radioactivity detection, indecation and computation (RADIAC) | обнаружение и определение радиоактивности |
| meter | счётчик |
| dosimeter | дозиметр |
| detector paper | индикаторная бумага |
| detector crayon | индикаторный мелок |
| chemical agent detector kit | газоопределитель, газосигнализатор |
| permeable protective clothing | импрегнированное обмундирование |
| self aid | самопомощь |
| antidote kit | противохимический пакет |
| injector | шприц |
| to dig in | окапываться |
| individual fighting position | стрелковый окоп |
| storm drain | водосточная канава |
| culvert | водопропускная труба, кульверт |
| explosives | взрывчатое вещество |
| flammables | огнеопасные материалы |
| debris | 1. продукты взрыва<br>2. обломки и развалины |
| debris clearance | расчистка завалов |
| be secured | *зд.* надежно прикрепленный |
| NBC report | донесение о применении ОМП |
| dust respirator | противопылевой респиратор |
| fallout prediction | прогноз радиационной обстановки |
| radiation hazard | опасность радиоактивного заражения |
| fallout predictor | приспособление для определния по карте вероятных районов радиоактивного заражения |
| permeable protective clothing | импрегнировнное обмундирование |
| impregnated combat uniform | импрегнированная полевая форма |
| burn-resistant clothing | огнеупорная одежда |
| residual radioactivity | остаточная радиоактивность |
| corrugated iron | волнистая сталь |

| | |
|---|---|
| airtight | герметичный; воздухонепроницаемый |
| filter unit | фильтро-вентиляционная установка |
| airlock | тамбур, шлюз |
| coveralls | комбинезон |
| hood | капюшон |
| decontamination | обеззараживание; дегазация; дезактивация; дезинфекция |
| to afford protection against gamma rays, neutrons, alpha and beta particles | обеспечивать защиту от гамма-излучения, нейтронов, альфа-, и бета-частиц |
| to don the protective mask | надевать противогаз |
| to issue permeable protective clothing | выдавать импрегнированное обмундирование |
| to withstand blast | противостоять действию ударной волны |
| protection factor | коэффициент защиты (КЗ) |
| outside dose | доза облучения вне укрытия |
| inside dose | доза облучения внутри укрытия |
| chemical and biological environment (CBE) | химическая и биологическая обстановка |

**Exercise 4. Read and translate the text:**

## PROTECTION AGAINST NUCLEAR EFFECTS

The nuclear weapon, although tremendously powerful, is not a weapon against which there is no defense. The more you know about nuclear weapons, the more effective you will be on the battlefield. More importantly, the more you know, the greater will be your chances for survival.

The three classes of nuclear protective measures are actions before the attack, during the attack, and after the attack.

## PROTECTIVE ACTIONS BEFORE THE ATTACK

You must do two things to prepare yourself and your equipment for a nuclear attack. First, you must shelter yourself and your equipment. Second, you must further protect your equipment against EMP damage. Remember, the next war

may be nuclear, so you must take these precautions when operating on a future battlefield.

The best defense against a nuclear attack is to dig in. Unit defensive positions must be prepared whenever possible. These can vary from individual fighting positions to improved defensive positions. Certain common materials and types of construction provide good shielding against gamma rays and neutrons. They also provide protection against blast and heat.

A well-built fighting position gives good protection against both initial and residual radiation. A deep fighting position gives more protection than a shallow one. A fighting position with overhead cover is even better. This will reduce the amount of thermal and initial radiation that reaches you and will also prevent the entrance of fallout. If you cover your fighting position, make sure that the cover is strong enough to withstand the blast wave.

Tunnels, caves, and storm drains also provide good shelter unless there is a nearby subsurface collapse. Culverts and ditches can be used in an emergency, but they offer only partial protection. Buildings are usually not strong enough to provide effective shelter. However, if you can find the basement of a reinforced concrete or steel-framed building, it will provide good protection against all effects. If you take shelter in a building, avoid the areas around windows and other openings.

Individual clothing, equipment, and other items must be kept in fighting positions, or in a separate covered hole. None of this equipment can be left unsecured because the blast wave will convert it into deadly missiles. Unit supplies, especially explosives and flammables, must be dispersed within the unit area and protected or shielded. Debris must be kept to a minimum and not be allowed to collect where it could catch fire. Objects such as radios, generators, tools, and fuel cans must always be secured to reduce the danger of casualties from flying objects.

Protective measures taken for EMP before a nuclear attack are critical to unit survival. Cables, wires, antenna systems, and all other metal structures are good electrical conductors, and all absorb EMP energy. The term used is "coupling." Material that couples with electromagnetic energy can absorb enough EMP energy to induce voltage and currents. The key to protection is to develop techniques of equipment installation and operation that reduce EMP coupling.

EMP can enter electrical systems through intentional antennas, unintentional antennas, and direct penetration. Intentional antennas are standard radio and radar antennas. Unintentional antennas can be any device (masts, wiring loops, cables) that can act as an antenna even though it is not meant to be one.

In direct penetration, internal electronic components act as loop antennas, allowing strong electromagnetic fields to be created inside equipment.

## PROTECTIVE ACTIONS DURING THE ATTACK

Enemy nuclear attacks can come without warning. Your first indication of an attack will be a very bright flash of light. Heat and initial nuclear radiation arrive with the light and the blast will follow in a few seconds. You will have very little time -- protective actions must be automatic and instinctive. Unit activities will be suspended for a short time while all personnel take cover. If you are out in the open when a nuclear burst occurs, immediately drop flat on the ground (face down) or to the bottom of a fighting position. Face away from the fireball. Any depression in the ground will provide you some protection if you can get to it immediately. Close your eyes. Protect exposed skin by putting your hands and arms under your body. Keep your helmet on, it will protect you from flying debris. Remain down until the blast wave has passed and debris has stopped falling. Stay protected until the negative phase of the blast wave has also passed. As the blast wave passes a position; there is a resulting decrease in air pressure to a point below normal atmospheric pressure. This, in effect, creates a vacuum. Air will rush in to fill the vacuum, causing high winds from the direction opposite that of the direction of travel of the blast wave. Stay calm, check for injury and equipment damage, and prepare to continue your mission. Count the number of seconds between the flash of light and bang, if possible, for inclusion in an NBC 1 report.

## PROTECTIVE ACTIONS AFTER THE ATTACK

After a nuclear attack, secure and organize your equipment, repair and reinforce your position, and help any casualties. To protect yourself against fallout, begin to prepare or improve your position. Designated persons will begin radiological monitoring. When warned of fallout, take cover and remain protected until the fallout has stopped or until you receive further orders.

If nuclear weapons have been used and you have no radiac equipment, you face a very real danger of exposing yourself to radiation without knowing it. If you have seen a nuclear burst, stay away from that area. If you see what looks like sand, dust, or ashes falling from the sky, assume that it is fallout. Find a good shelter or dig in quickly and cover your position and equipment. If dust particles make breathing difficult, a handkerchief or cloth can be worn over

your nose and mouth. The M17 series protective mask cannot be used as a dust respirator.

When the dust stops falling, scrape or brush the dust away from the edges of your shelter. Stay in your position for at least 24 hours, and then move to a friendly position as fast as possible. If you are separated from your FU, try to rejoin your unit or another friendly unit as soon as possible. Your unit may be ordered to move to a less hazardous area if the radiation dose reaches a dangerous level after fallout is complete. However, movement to another area is never based solely on a fallout prediction, because the exact location of fallout cannot be reliably forecast. If you come upon an area where many trees have been blown down, change your course and stay away from that area. The same is true if you find a large crater or an area of ground which looks glassy. Keep in mind that you cannot tell when you are in a radiologically contaminated area unless you have radiac equipment.

It may be necessary for your unit to enter and/or remain in an area receiving fallout. If so, quickly dig in, sweep the fallout away from your fighting position, and cover up with your poncho until fallout is complete. The period of time a unit may stay in a contaminated area depends on the total dose of radiation the troops can receive and still remain effective, the intensity of the radiation, and the protection available.

Take remedial actions for nuclear blackout. These actions are extremely limited. However, remember that nuclear blackout only affects certain areas and lasts for only a limited time. For radio blackout use wire. This may be a simple solution since nuclear blackout does not affect wire systems. However, remember that wire systems are extremely susceptible to EMP. Use routing through a manual relay or retransmission station to bypass the affected region. Use assigned alternate frequencies. Use higher frequencies if the blackout is caused by ionization. If it appears that dust is the problem, use lower frequencies if other corrective measures do not work.

## FALLOUT PREDICTION

Fallout prediction is used to estimate fallout areas from a nuclear burst before the actual arrival of the fallout. The two types of prediction procedures are: detailed fallout prediction and simplified fallout prediction. A detailed prediction is normally prepared at your major command headquarters. It will be sent to your unit in the NBC 3 report format (see FM 21-40). A simplified fallout prediction is usually prepared at battery level using the M5A2 radiological fallout area predictor (see FM 3-22 and TM 3-6665-304-10). Fallout predictions are used by commanders to:

- warn or alert subordinate units to expect fallout.
- aid in tactical planning.
- plan radiological surveys.

## PROTECTION AGAINST RADIATION HAZARD

To lessen or minimize the hazard from all forms of radioactivity resulting from a possible attack with nuclear weapons, strict radiological monitoring and survey might be necessary over extensive areas. For the Immediate radiation from a nuclear explosion the dose received behind some shielding material varies with its thickness. The shielding material which gives reasonable protection against gamma rays also gives good protection against neutrons. Heavy clothing, thick boots, socks and gloves provide fairly complete protection against alpha and beta particles.

The most readily available shielding material is earth, then comes concrete, but the best shielding is provided by steel. A tank will provide excellent protection in the majority of situations. The protective gas mask is the most important of the items of individual protection. When properly fitted and donned in time it gives a high level of protection against inhalation of all known war gases and radioactive material. This emphasizes the need for some warning and detection. To detect nuclear radiation and identify the chemical agents used, troops are issued meters, detector papers and crayons, and chemical agent detector kits. Besides, troops are issued permeable protective clothing which consists of impregnated combat uniform, underwear, socks, gloves, boots, coveralls and hoods.

## COLLECTIVE PROTECTION

The most important element of collective protection is a shelter. It could be a dugout or any other structure which is airtight and has a door that will resist the entry of outside air. The most elaborate type of shelter is normally a heavy concrete structure located underground. It must be able to withstand blast and at the same time shield against thermal and nuclear radiation, as well as against chemical agents. The shelter has a filter unit and an airlock formed by two gas-tight doors. Such shelters can be used for the operation of communication centers, fire control centers, headquarters, and personnel decontamination centers.

**COMMENTARY***:*

**1 Terms and Definitions:**

a) **Decontamination** is the reduction or removal of contaminating radioactive material from a structure, area, object or person. Decontamination may

be accomplished by (1) treating the surface so as to remove or decrease the contamination; (2) letting the radioactivity to decrease through natural decay.

b) Термин **to secure** – многозначен. Помимо словосочетания «надежно прикреплять», данный термин может переводиться как «застраховывать», «заключать под стражу», «захватывать», «задраивать» и т.д/

c) **M.O.P.P. (Mission Oriented Protective Posture**) (acronym pronounced as "mop") is a military term used to describe protective gear, to be used in a toxic environment, i.e., during a chemical or biological strike:

MOPP protection levels

MOPP Level 0 — Protective mask worn in carrier, at side. Overgarments, gloves, and overboots accessible.

MOPP Level 1 — Chemical agent detectors worn, mask worn in carrier at side. Overgarments worn. Gloves and overboots readily accessible.

MOPP Level 2 — Overgarments and overboots worn. Gloves and mask readily accessible.

MOPP Level 3 — Mask, overgarments, and overboots worn. Gloves kept ready.

MOPP Level 4 — All protection worn.

MOPP Level Alpha — Mask and gloves worn. Overgarments and overboots accessible.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Какие типы противогазов имеются в армии США?
2. Что такое тамбур и где он применяется?
3. Какие средства индивидуальной защиты вам известны?
4. Как должен быть оборудован вход в убежище?
5.Для чего применяются газоопределители?
6. Какие приборы используются для обнаружения БОВ и радиоактивных веществ?
7. Какие виды защитной одежды вам известны?
8. Что такое средства коллективной защиты?
9. Что такое радиационная разведка?
10. Когда проводится радиационная разведка?
11. Для чего организуется дозиметрический контроль??

**Exercise 6. Decipher and translate the following abbreviations:**

CW; GZ; ICBM; SSM; ASM; GM; AAGM; SRAM; DOD; DA; DN; NSC; JCS; SLBM; ALCM; BMEWS; DEW; POL; AIM; CEV; FM; PCS; HEAT; KE; RADIAC.

**Exercise 7. Translate the following words and word combinations by ear:**

To lessen or minimize the hazard; collective protection; gas mask; to shield against nuclear radiation; to withstand blast; to issue meters and dosimeters; gastight; to don a gas mask; permeable clothing; decontamination center; to give protection against inhalation of war gases;

Радиоактивность, возникающая в результате применения атомного оружия; изолирующая защитная одежда; надевать противогаз; средства индивидуальной защиты; радиационная разведка; дозиметрический контроль; изменяться в зависимости от толщины; обеспечивать достаточную защиту; при правильной подгонке; надевать противогаз; выдавать импрегнированное обмундирование; коллективная защита.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Various instruments and devices have been designed to detect the presence of chemical and radiological agents. | Основными среди них являются счётчики, дозиметры, индикаторная бумага, индикаторный мелок и газоопределитель. |
| The most important items of individual protection are the protective gas mask and permeable clothing. | Индивидуальные средства защиты предназначаются для защиты от попадания внутрь организма человека, а также на кожу и обмундирование радиоактивных и отравляющих веществ. |
| Permeable clothing consists of impregnated combat uniform, socks, gloves, underwear, boots, coveralls and hoods. | К коллективным средствам защиты относятся специально оборудованные инженерные сооружения, предназначенные для защиты личного состава от поражающего действия ядерного и химического оружия. |
| The most elaborate type of collective protection is a shelter which is normally a heavy concrete structure capable of withstanding blast and at the same time shielding against thermal | В качестве средств коллективной защиты от радиоактивных и отравляющих веществ могут служить боевые, специальные и транспортные машины. |

and nuclear radiation, chemical
and radiological agents.

**Exercise 9. Translate the following text at sight:**

**Текст 1.** No clothing can in any way protect the wearer against gamma rays, whether from the initial emission at the time of the explosion, or emanating from residual radioactivity. A considerable degree of protection can, however, be provided against beta particles from radioactive dust by ordinary clothing, the degree of protection depending on the thickness of the material and on its ability to prevent dust from reaching the skin.

It would be advisable to wash all exposed skin as soon as possible after leaving a contaminated area.

**Текст 2**. Personnel directly exposed to the thermal radiation from a nuclear burst would receive burns on any exposed skin. However, it is relatively easy to gain protection, since one has only to be out of the direct path of the rays from the fireball. Complete protection from thermal radiation could be achieved if everyone took cover. Any form of shield or covered trench would suffice. The clothing of exposed personnel also affords some degree of protection to the skin underneath, particularly if the clothing is not in contact with the body. The Army field uniform, especially the wool uniform, will give considerable protection. Burn-resistant clothing is being developed.

**Текст 3.** Protection against fallout can be provided in different ways. Structures, where the radiation from outside is attenuated by a very great thickness of earth, have protection factors ranging up to 200-300. A slit trench with even a light cover of boards or corrugated iron without earth overhead give adequate shielding against radioactive fallout. If the trench can be covered with 30-90 cm of earth then a protection factor (the factor by which the outside dose is divided to get the inside dose) of more than 200-300 can be obtained.

**Exercise 10. Translate the following text at sight:**

**КОЛЛЕКТИВНЫЕ СРЕДСТВА РХБ ЗАЩИТЫ**

Коллективные средства защиты подразделяются на герметизированные и негерметизированные, причём только первые обеспечивают коллективную защиту от радиоактивных, химических и биологических средств. К.с.з. бывают открытого и закрытого типа. Простейшим К.с.з. является щель, в том числе имеющая легкое перекрытие; она защищает от пуль, осколков, в 1,5 – 2 раза снижает воздействие поражающих фак-

торов ядерного оружия. Перекрытия с грунтовой обсыпкой в 30 – 60 см обеспечивает и защиту от воздействия зажигательных веществ, предохраняет от непосредственного попадания радиоактивных осадков и капельно-жидких ОВ. Большую степень защиты обеспечивают сооружения закрытого типа – блиндажи и убежища. В отличие от блиндажа убежище оборудуется табельными фильтровентиляционными комплектами и надёжно герметизизируются. Поэтому в них личный состав может находиться длительное время без индивидуальных средств защиты.

**Exercise 11. Translate the following text in writing:**

**CHEMICAL DETECTION AND RADIOLOGICAL MONITORING**

Chemical detection and radiological monitoring and survey are integral parts of the overall intelligence effort. Collection of CBE data is planned and coordinated by the division NBC center.

Chemical detection and radiological monitoring and survey teams are trained by division units authorized detection, monitoring, and survey equipment. Divisional aviation units and the cavalry squadron are the principal division agencies that conduct aerial radiological surveys. All units are responsible for monitoring. Pathfinder teams in the airborne and air assault divisions perform monitoring activities in the objective areas to provide current chemical and radiological information.

The division adopts passive measures to protect itself from nuclear and chemical attacks. These measures include speed of movement; cover and concealment, including that offered by darkness; dispersion; deception; and the protection of armored vehicles, protective clothing, and fortifications including foxholes.

Too much radiation can make you sick or perhaps kill you. You cannot see, feel, taste, smell, or hear radiation, so special instruments must be used to detect it. This is known as radiological monitoring, and is performed to detect radiation and measure its dose rate. At squad and platoon levels, the IM-174/PD radiacmeter, IM-93/UD dosimeter, radiacmeter IM-185 and radiacmeter IM-185UD are used in radiological monitoring

It is the section chief's or team chief's responsibility to have his section or team operating area checked for radiation. Designated team members will use their IM-174/PD radiacmeter to detect any radiation and measure the dose rates. Monitoring techniques, correlation factor data, and recording forms are described in FM 3-12.

First aid measures for nuclear casualties are limited to those for burns caused by thermal radiation and injuries caused by the blast wave. There are no immediate life saving measures for radiation sickness or blindness. Detailed procedures for the first aid treatment of specific types of injuries are given in FM 21-11.

Nuclear fallout is a solid material and is not absorbed by equipment. The most rapid method of decontaminating vehicles, weapons, and other equipment is by brushing off the loose particles and then washing them off. Vehicles can be washed with steam or water and scrubbed with detergent. Decontamination stations may also be made available at battery or battalion level for mass decontamination of vehicles.

**Exercise 12. Translate the following text in writing:**

**ИСТОРИЯ ИЗОБРЕТЕНИЙ:**
**ПРОТИВОГАЗ**

Первый в мире фильтрующий угольный противогаз был изобретен русским ученым Николаем Дмитровичем Зелинским в 1915 г. Он был принят на вооружение армий Антанты в 1916 г. Чуть раньше кайзеровская Германия стала первой страной в мире, которая массово применила отравляющие вещества в военных действиях. Это произошло 22 апреля 1915 года на Западном фронте, где немецкая армия провела массированную хлорную атаку против французов, выпустив по ветру из 5730 баллонов около 170 тысяч тонн хлора, в результате этой атаки получили отправления более 15000 и умерло более 5000 человек. Практически сразу же, различные отравляющие вещества начали использовать все воюющие страны.

Впервые применив отравляющие вещества, Германия была вынуждена первой принять на оснащение армии средства индивидуальной химической защиты. Противогаз образца 1915 года (GM-15, Gasmask 1915) предназначался для защиты органов дыхания, лица и глаз от отравляющих веществ. Маска противогаза изготавливалась из резины (чуть позже из прорезиненного брезента), имела два окуляра для глаз, а небольшой цилиндрический фильтр присоединялся непосредственно к маске. Хранился противогаз в цилиндрической металлической коробке, которая должна была надёжно защитить противогаз от загрязнения и от внешних повреждений.

В настоящее время противогаз остаётся самым важным средством защиты, относящимся к группе индивидуальных средств зашиты. Он не допускает попадания ОВ в органы дыхания. При вдыхании воздуха газы

пары и аэрозоли задерживаются активированным углем. Однако некоторые ОВ плохо адсорбируются, поэтому уголь пропитывают веществами, содержащими медь, серебро, хром, чтобы вызвать изменение химической структуры ОВ. ОВ в виде паров или газов, проходя через этот уголь, окисляются или разлагаются. Продукты реакции адсорбируются углем. В дополнение к активированному углю в противогазе имеется противодымный или аэрозольный фильтр для поглощения ядовитых дымов, туманов и радиоактивной пыли.

## ARMY HUMOR
## Misunderstanding terms

One reason the Services have trouble operating jointly is that they don't speak the same language. For example, if you told Navy personnel to "secure a building," they would turn off the lights and lock the doors. Army personnel would occupy the building so no one could enter. Marines would assault the building, capture it, and defend it with suppressive fire and close combat. The Air Force, on the other hand, would take out a three-year lease with an option to buy.

# ГЛАВА 4

# ВОЕННО-ВОЗДУШНЫЕ СИЛЫ (ВВС)
# CHAPTER 4
# AIR FORCE

## УРОК 16
## СТРУКТУРА ВВС

## LESSON 16
## AIR FORCE STRUCTURE

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| surveillance | personnel |
| primarily | vary |
| bombing | strafing |
| surface | altitudes |
| maneuverable | commandant |
| rotary-winged | Illinois |
| superiority | autonomous |
| in an emergency | interior |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Collective protection; gas mask; to shield against nuclear radiation; to withstand blast; to issue meters and dosimeters; gastight; to don a gas mask; permeable clothing; decontamination center; to give protection against inhalation of war gases.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| air warfare | война в воздухе |

| | |
|---|---|
| strafing | атака с бреющего полета |
| accomplish objectives | выполнять задачи |
| attack aircraft | штурмовик |
| ground support aircraft | штурмовик |
| fighter | истребитель |
| air superiority fighter | истребитель завоевания превосходства в воздухе |
| fighter-bomber | истребитель-бомбардировщик |
| bomber | бомбардировщик |
| recconnaissnce aircraft | разведывательный самолет |
| training aircraft | учебно-тренировочный самолет |
| to operate aircraft | иметь в своем составе и использовать авиацию |
| to fly a plane | управлять самолетом |
| cargo planes | транспортная авиация |
| rotary-winged aircraft | вертолеты (в отличие от *fixed wing aircraft* – самолетов) |
| assault troops | десантные подразделения |
| surveillance | наблюдение, разведка (воздушная) |
| Department of the Air Force | министерство военно-воздушных сил |
| Joint Chiefs of Staff (JCS) | Комитет начальников штабов (КНШ) |
| in an emergency | в чрезвычайных обстоятельствах |
| to counter the threat of | отражать угрозу |
| streamlining | оптимизация, организационно-штатные мероприятия |
| to be in charge of | руководить, отвечать за… |

| | |
|---|---|
| airlift plane | транспортный самолет |
| big-bodied aircraft | широкофюзеляжный самолёт |
| to attack surface targets | наносить удары по наземным целям |
| single-seat aircraft | одноместный самолёт |
| twin-seat aircraft | двухместный самолёт |
| Air Force HQ | штаб ВВС |
| long-range bomber | бомбардировщик дальнего радиуса действия |
| bombing | бомбардировка |
| demands placed on | требования, предъявляемые к… |
| space shuttle | космический челнок |
| space junk | космический мусор |
| basic military training | базовая военная подготовка |
| air wing | авиакрыло |
| early warning of an enemy air attack | раннее предупреждение о воздушном нападении противника |
| keep track | отслеживать |
| unconventional warfare | боевые действия с решением нетрадиционных задач |
| navigator | штурман |
| tanker | самолет-заправщик |
| interceptor | перехватчик |
| Air Combat Command (ACC) | боевое авиционное командование (БАК) |
| Air Mobility Command (AMC) | авиационное командование воздушных перебросок |

| | |
|---|---|
| USAF Reserve command | Командование резерва ВВС США |
| Air Force Intelligence Command | разведывательное авиационное командование (РАК) |
| Air Force Material Command | командование материально-технического обеспечения |
| Air Force Space Command | космическое командование ВВС США |
| Air Force Special Operations Command (SOC) | командование специальных оперций ВВС США |
| Air Training Command (ATC) | командование обучения и подготовки |
| Pacific Air Force (PACAF) | командование ВВС США в зоне Тихого океана |
| Air Forces in Europe (USAFE), | командование ВВС США в Европе |
| Air University | Университет ВВС США |
| Aerospace Defense (former Air Defense) Command | командование воздушно-космической обороны |
| Air Force Logistics Command | командование тыла ВВС США |
| Air Force Systems (former Air Research and Development) Command | командование систем вооружения ВВС |
| Military Airlift Command (MAC) | военно-транспортное авиационное командование (ВТАК) |
| Alaskan Air Command (AAC) | командование ВВС США на Аляске |

| | |
|---|---|
| Strategic Air Command (SAC) | стратегическое авиационное командование (САК) |
| Tactical Air Command (TAC) | Тактическое авиационное командование (ТАК) |
| U.S. Air Force Security Service | управление службы безопасности |
| Air Force Communications Service | служба связи ВВС |

**Exercise 4. Read and translate the text:**

**AIR FORCE**

AIR FORCE is a military organization of a nation, which is primarily responsible for the conduct of air warfare. The air force has the missions of gaining control of the air, supporting surface forces (as by bombing and strafing), and accomplishing strategic-bombing objectives. The basic weapon systems of air forces are such military airplanes as fighters, bombers, fighter-bombers, attack aircraft, reconnaissance craft, and training craft.

Since the mid-20th century, the air forces of some of the world's major powers have also operated those nations' contingents of land-based intercontinental ballistic missiles (ICBMs), as well as of nuclear-armed long-range bombers.

The army and naval branches of a nation's armed forces may also operate aircraft, but the air force usually remains the prime instrument of a nation's air power. The organization, command structure, and personnel grades within air forces vary from country to country.

Aircraft have been a fundamental part of military power since the mid-20th century. Generally speaking, all military aircraft fall into one of the following categories: fighters, which secure control of essential airspaces by driving off or destroying enemy aircraft; bombers, which are larger, heavier, and less maneuverable craft designed to attack surface targets with bombs or missiles; ground-support, or attack, aircraft, which operate at lower altitudes than bombers and air-superiority fighters to attack tanks, troop formations, and other ground targets; transport and cargo planes, big-bodied craft with large amounts of interior space for carrying weapons, equipment, supplies, and troops over moderate or long distances; and helicopters, which are rotary-

winged aircraft used for ground support, to transport assault troops, and for short-distance transport and surveillance.

The Russian Air Force organization is currently adopting a structure in keeping with the international practice. Russia was undergoing an organizational reform, which is aimed at bringing the dispersed and overlapping air force resources under more centralized, and thus more efficient, command. As a part of the organizational reform aimed at increasing efficiency and cutting military personnel, the Air Force merged with the Air Defense Force.

The demands placed on air forces are great and growing. In the past, it was unlikely that substantial numbers of aircraft would be able to switch roles, from the counterair battle to offensive air support. This should be more likely in the future, at least from a technological viewpoint. New aircraft types and improved munitions are increasing both capabilities and flexibility.

## AN INTRO TO THE AIR FORCE

### USAF Background Information

In 1903, the Wright brothers laid the ground work for the future formation of the Air Force when they flew their first airplane. It carried two men and flew at about 40 miles per hour.

The first flight for the Signal Corps, US Army was in 1909.

The Air Force is the youngest of all U.S. military services. Its birth date is September 18, 1947. On that day, the National Security Act became law. Signed by President Harry Truman, it set up the National Military Establishment, which was renamed the Department of Defense (DOD) in 1949.

The DOD was divided into three equal branches. The former War Department became the Department of the Army. The Navy Department became the Department of the Navy, which included the Marine Corps. And a brand-new branch was created, the Department of the Air Force.

All American military forces are commanded by the Joint Chiefs of Staff (JCS). This group meets weekly in Washington, D.C. It includes a chairman and vice chairman, the Chiefs of Naval Operations, the Commandant of the Marine Corps, and the Chiefs of Staff (COS) of the Army and Air Force. These six people advise the president in decisions about the military. The president is commander in chief of all the military forces.

The job of the United States Air Force (USAF) is to protect the United States from any threat by air and to defeat aggressors. Along with the Army, Navy, and Marine Corps, the Air Force is pledged to preserve the peace and security of the United States and to defend it if necessary.

Air Force Headquarters is located in the Pentagon building in Washington, D.C., as are the headquarters for all the military services. Headquarters sets policy, reviews programs, plans and budgets, and distributes resources to all Air Force units. It is the center of all Air Force activities.

The Air Force includes more than 500,000 servicemen and women on active duty. In addition, there are more than 250,000 men and women in the Air Force Reserve and the Air National Guard. The Air Force Reserve has its headquarters at Robins Air Force Base (AFB) in Georgia and has units all around the country. Its members are not on active duty, but they stay in training and can be called into service in an emergency. Some reserve units of the Air Force, as well as the Army and Navy, were activated during the war in the Persian Gulf in 1991.

**AIR FORCE COMMANDS:**

For years, one of the main jobs of the Air Force and other services was to counter the threat of nuclear war with the Soviet Union. But in 1991, the Soviet Union collapsed. At that time, the Air Force began a streamlining project.

Changes in technology have also changed the way the Air Force will operate in the future. "Global reach–global power" might be thought of as its new slogan.

In this new "leaner, meaner" Air Force, these are the major commands:

AIR COMBAT COMMAND, Langley AFB, Virginia, is in charge of fighters and bombers.

AIR MOBILITY COMMAND, Scott AFB, Illinois, controls most of the tanker force and airlift planes.

AIR FORCE INTELLIGENCE COMMAND, Kelly AFB, San Antonio, Texas, combines intelligence operations, once scattered among other commands.

AIR FORCE MATERIAL COMMAND, Wright-Patterson AFB, Ohio, makes sure that Air Force units everywhere have the supplies they need. It buys, stores, supplies, and transports anything the Air Force needs anywhere, including about 890,000 airplane parts.

AIR FORCE SPACE COMMAND, Peterson AFB, Colorado, is in charge of Air Force space programs. It was created in 1982. The Space Command works with NASA on U.S. space projects, including the operation of the space shuttle. And it is responsible for early warning of an enemy air attack. It also keeps track of weather and communications satellites as well as "space junk," pieces of rockets or satellites left in orbit. The ICBM missiles are under the Space Command.

AIR FORCE SPECIAL OPERATIONS COMMAND, Hurlburt Field, Florida, has as its motto "Air Commandos–Quiet Professionals." Its mission is to organize, train, equip, and educate special operations units of the Air Force. This would such as dealing with terrorism.

AIR TRAINING COMMAND, Randolph AFB, Texas, recruits and trains airmen and officers for the Air Force. Since it was created in 1943 during World War II, it has trained more than ten million people! Anyone who joins the Air Force will at some time be trained by this command. It provides, among other things, basic military and officer training (at Lackland AFB, Texas), reserve officer training, (headquarters Maxwell AFB, Alabama), and technical training in nearly 350 different fields at six centers in Colorado, Illinois, Mississippi, and Texas. This command also runs a fifty-two-week pilot training program at five bases in Arizona, Mississippi, Oklahoma, and Texas; navigator school at Mather AFB, California; and space training for specialists at Lowrt AFB, Colorado.

AIR UNIVERSITY, Maxwell AFB, Alabama, sees to the higher education of Air Force officers at various locations around the country. It may be thought of as the Air Force Academy's graduate school.

PACIFIC AIR FORCE, Hickam AFB, Hawaii, provides the U.S. Pacific Command with everything it needs for air combat.

UNITED STATES AIR FORCE IN EUROPE, Ramstein AFB, Germany, provides the U.S. European Command with what it needs for air combat.

The thirty-four Field Operating Agencies include such units as the Air Weather Service, the Civilian Personnel Management Center, and the Air Force Reserve. The three Direct Reporting Units are the Air Force District of Washington, the Air Force Operational Test and Evaluation Center, and the United States Air Force Academy.

The basic fighting unit of the Air Force has always been and continues to be, the "wing". A wing is stationed at one base and has one commander. Some wings operate only one kind of aircraft, such as fighters or bombers. Others are composite wings. They might have, for example, fighters, tankers, and special-mission craft. They are designed to get to trouble spots in a hurry anywhere in the world, which is another example of "global reach–global power."

**COMMENTARY**

**1.Grammar:**

а) Термин **военно-воздушные силы** (как вид вооруженных сил) на русском языке имеет форму множественного числа, тогда как эквивалент этого термина на английском языке – *Air Force*, также как и *Royal Air Force*, – имеет форму единственного числа. Нельзя идти на поводу у рус-

ской конструкции, называя этот вид вооруженных сил “air force**s**”, что фактически означает «ВВС нескольких стран» или «воздушные армии». Эта ошибка довольно типична и неочевидна для неспециалиста еще и потому, что сходно звучащие термины – *вооруженные силы* и *armed forces* – имеют форму множественного числа как в русском, так и английском языке.

b) Слово **aircraft** употребляется со значением как единственного, так и множественного числа (аналогично менее известным cannon, series и всем производным от craft – spacecraft, watercraft, hovercraft и др.) Некоторые носители английского языка американского происхождения говорят о самолетах **aircrafts,** тем не менее, данная форма не считается нормативной и в письменной речи практически не встречается.

c) **Headquarters** – неизменяемое существительное, употребляемое как в единственном, так и во множественном числе (см. в следующем тексте: Air Force Headquarters is located… – Штаб ВВС находится…).

*Headquarters (HQ)* – это *штаб* и *штабы*, (как звенья управления выше батальонных) и здания, в которых они размещены. В чем же смысловое различие между *headquarters* и *staff*? В современном понимании *staff* (*Br.* [stQ:f; *Am.* [stxf]) означает *штаб, штабные офицеры, помощники руководителя, персонал.* Есть одно исключение: *Генеральный штаб – the General Staff.*

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. В каком году ВВС США были выделены в самостоятельный вид вооруженных сил, наряду с сухопутными войсками и ВМС США?
2. Извините, я, кажется, немного запутался. Сколько же в настоящий момент имеется командований в составе ВВС США?
3. Правда ли, что воздушное мобильное командование ВВС США находится в Колорадо, на авиабазе Петерсон?
4. Не могли бы вы уточнить, сколько американских военнослужащих и гражданских специалистов служат в американских ВВС?
5. Сокращаются ли ВВС США, или они становятся более мощными в соответствии с их ролью в современной войне?

**Exercise 6. Decipher and translate the following abbreviations:**

DOD, USAF, AFB, JCS, HQ, AFIC, AWC, ATC, ICBM, AFSC, AMC, ACC, USAFE, D.C., COS

**Exercise 7. Translate the following words and word combinations by ear:**

Personnel grades; craft designed to attack surface targets with bombs or missiles; ground-support, or attack, aircraft; secure control of essential air-spaces; army and naval branches also operate aircraft; basic weapon systems; responsible for gaining control of the air; reconnaissance and training craft; aircraft fall into one of the following categories; air-superiority fighters; to transport assault troops; to fly at about 1000 miles per hour; Department of Defense; brand-new branch; Joint Chiefs of Staff; advise smb. in decisions; commander-in-chief; to set policy; distributes resources to units; to fly a B-1 bomber; in an emergency; was to counter the threat of.

Завоевывать господство в воздухе; выполнять стратегические задачи; вести войну в воздухе; вид вооруженных сил; иметь в своем составе авиацию; воинские звания; состоять из следующих типов; обеспечивать контроль над воздушным пространством; менее маневренные машины; большегрузные самолеты; оказывать поддержку сухопутным войскам; средней и большой дальности; истребитель завоевания превосходства в воздухе; летать на бомбардировщике B-1B; наземные цели и объекты; переброска десантных подразделений; летать со скоростью; переименовать; морская пехота; вид вооруженных сил; оптимизация; давать рекомендации по вопросам.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Уважаемый господин подполковник Клиффтон, насколько я помню, первые самолеты братьев Райт были изобретены в Америке. Значит, среди ВВС всех стран ваши военно-воздушные силы имеют самую долгую историю? | That’s not exactly so. You were correct saying about the Wright brothers, but actually the United States Air Force is some 30 years younger, as an independent air force, than the RAF. |
| Но, тем не менее, самолеты применялись для ведения боевых действий еще в начале прошлого века? | Oh, yes. Military flying in the USA actually dates back some one hundred years, when the US Army Signal Corps formed an Aeronautical Division. It happened a few years after the Wright Brothers’ great achievement at Kitty Hawk, North |

| | |
|---|---|
| | Carolina. |
| Значит, когда американская авиация проводила массированные бомбардировки немецких городов, организационно она находилась в составе войск связи? | Not only Germany but Japan! During the Second World War it was part of the Army, called USAAF. Only in 1947, when President Truman signed the National Security Act aboard his presidential C-54, the USAF was created as a separate armed service. |
| И уже вскоре новому виду вооруженных сил США пришлось пройти новую боевую проверку. | Right you are. It was in June 1959, when communist North Korea attacked South Korea. The USAF helped protect United Nations ground forces with close air support and the interdiction of enemy reinforcements and supplies. That war ended only in 1953, and then Vietnam… |
| Я слышал, что вы участвовали в войне в Персидском заливе. Как вы оцениваете роль ВВС США в достижении общего успеха операции? | Our air power allowed the Coalition forces to liberate Kuwait and quickly drive into Iraq almost without casualties. I'd say, we helped win one of the most one-sided battlefield victories in military history. In the whole conflict we had fewer casualties than in a typical week of the Vietnam War. |

**Exercise 9. Translate the following text at sight:**

**UNITED STATES AIR FORCE**

The United States Air Force (USAF) is one of the major components of the U.S. military organization, with primary responsibility for air warfare, air defense, and the development of military space research. It must also provide air services in coordination with the other military branches.

U.S. military activities in the air began with the use of balloons by the army for reconnaissance during the American Civil War and the Spanish-American War.

The first use of military aircraft, in an action against Pancho Villa in Mexico in 1916, was a failure. Much of the success of U.S. military air activity dur-

ing World War I was attributable to William ("Billy") Mitchell, combat air commander (1917-18), who coordinated air attacks with a combined U.S.-French-British force and developed a strong conviction that the United States should establish a separate air force. Despite his efforts, however, the Army Reorganization Act of 1920 created the Air Service (after 1926, Air Corps) as a combatant unit within the Army.

The Air Corps was supplanted on June 20, 1941, by the Army Air Forces as an autonomous command within the Army. On July 26, 1947, the National Security Act created the independent U.S. Air Force, and Executive Order No. 9877 defined the roles and responsibilities of the new military branch. The National Security Act Amendments of 1949 reorganized the military services, with the Department of the Air Force included within the Department of Defense.

Headquarters of the Department of the Air Force are at the Pentagon, outside Washington, D.C. The department consists of the Office of the Secretary of the Air Force; the Air Staff, which provides assistance to the secretary and the chief of staff; and the field organization, which consists of 13 commands and 13 separate operating agencies.

Of the major commands, 10 are domestic and are organized according to function. They are the Aerospace Defense (former Air Defense) Command; Air Force Logistics Command; Air Force Systems (former Air Research and Development) Command, charged with the development of aerospace technology; Air Training Command; Air University, offering higher education for officers; Military Airlift Command, providing air transport to all U.S. military services worldwide; Strategic Air Command (SAC); Tactical Air Command (TAC); U.S. Air Force Security Service, monitoring all Air Force communications; and the Air Force Communications Service, providing communications, flight facilities, and air traffic control services to the Air Force and other U.S. and foreign government and civil organizations.

The three overseas commands are organized regionally. They are the U.S. Air Forces in Europe (USAFE), Pacific Air Forces (PACAF), and Alaskan Air Command (AAC).

**Exercise 10. Translate the following text at sight:**

В истекшем году Военно-воздушные Силы продолжали развиваться как важнейший вид Вооруженных Сил Российской Федерации, основной задачей которых является завоевание и удержание господства в воздухе

при отражении любой военной угрозы, направленной против России и ее союзников.

Группировка ВВС, развернутая на основных стратегических направлениях, сегодня обеспечивает прикрытие важнейших административно-промышленных центров на территории страны, а также мест дислокации основных группировок войск, в том числе и стратегических ядерных сил.

Военно-воздушные Силы принимали активное участие в осуществлении антитеррористической операции, проводимой на Северном Кавказе. Особо следует отметить, что многие полки ВВС, привлеченные к участию в ней, приступили к выполнению боевых задач фактически без предварительной подготовки, буквально через несколько часов после получения соответствующего приказа.

**Exercise 11. Translate the following text in writing:**

**ALEXANDER MOZHAISKY**

Alexandr Fyodorovich Mozhaisky is a Russian naval officer, aviation pioneer, researcher and inventor in the design of heavier-than-air-craft. The son of a naval officer, he was born on March 9 (21), 1825 in Rochensalm, Viborg district.

He followed in the footsteps of his father and upon completion of his education at the Naval Cadet School in 1841, he served in the navy from 1841 to 1862. Later he also served in the navy from 1879 to 1882.

In the 1860's he began to give serious thought and consideration to the possibility of creating a flying machine which was heavier than air. He studied the structure of birds' wings, determining the relationship between the wing areas and the weight of birds of various species. He next turned his attention to the flights of air kites. At the same time he studied the work of air screws. It was at this time that he sought and received from the Military Ministry funding for his research.

But in 1878 when he sought a new commission from the government, that request was denied and he had to proceed on his own. For the study of the resistance of air to the movement of bodies, Mozhaiskii created an original experimental apparatus with the aid of which he carried out very accurate determinations of aerodynamic strength. On June 4, 1880 he petitioned to receive a license for his airplane and on November 3, 1881 he received the first patent in Russia for his invention.

He had submitted drawings which showed that he had all of the five basic parts of the contemporary airplanes: wings, hull, power arrangement, tail assembly, and chassis.

In 1881, with a government grant of 2,500 rubles, he purchased two 20- and 10-horsepower steam engines for his "flying device". The construction was completed by 1882, but the record of the flight has not been preserved. Nevertheless this was the first time in the world that there had been a flight of a heavier-than-air "flying machine".

What records that do exist indicate that his attempt resulted in the crash of his "flying machine", but that he continued with his research into aerodynamics and air propellers. The significant contribution which Mozhaiskii from a historical point of view made lay in the fact that he made the first practical attempts to build a piloted air craft. He died in Saint Petersburg on March 20 (April 1), 1890.

**Exercise 12. Translate the following text in writing:**

**РОССИЯ – РОДИНА АВИАЦИИ**

После 25 лет упорного труда талантливый российский ученый и изобретатель капитан I ранга А. Можайский в 1882 году построил первый в мире самолет. В конце первого десятилетия XX века российские изобретатели и конструкторы Я.Гаккель, С. Гризодубов, Д.Григорович, А. Пороховщиков, И. Сикорский А. Шуиков и другие создали ряд отечественных самолетов оригинальной конструкции. Теоретическую базу их разработок составили труды «отца русской авиации» профессора Н. Жуковского, который вместе с академиком Чаплыгиным основал научную школу аэродинамики. В 1909 – 1910 гг. в России появились первые авиационные предприятия, где собирались самолеты и моторы отечественных и зарубежных конструкций.

В эти же годы формируются школы и подразделения военной авиации. Одним из первых училищ была Севастопольская офицерская школа авиации. Она стала колыбелью отечественного воздушного флота, как военного, так и гражданского. Его создание осуществлялось Великим князем Александром Михайловичем на добровольные пожертвования граждан России по повелению Николая II. 26 октября 1911 года Николай II благословил на ратную службу первый выпуск 24 летчиков авиашколы, а в последствии участвовал в освящении авиагородка на речке Кача, куда школа переехала из Севастополя в 1912 году и от которой в последующем получила название Качинской. Со дня своего основания до октября 1917 года школа подготовила 609 летчиков: 376 – из офицеров и 233 – из солдат. Многие из них отличились в боях Первой мировой войны.

Лучшие летчики страны были качинцами: это и первый русский летчик М.Н. Ефимов, и автор "мертвой петли " П.Н. Нестеров, и покоритель штопора К.К. Арцеулов, и ас Первой мировой войны Е.Н. Крутень. В Качинском училище было аккумулировано все лучшее, что имела авиация России с первых лет своего существования. Среди выпускников Качи всех лет 342 Героя Советского Союза, 17 Героев России, 12 Маршалов авиации и более 300 генералов. Первое боевое крещение русские летчики получили в ходе Балканской войны (1912 – 1913). Тогда на стороне Болгарии действовал российский авиационный отряд.

К началу Первой мировой войны Россия уже имела 39 отрядов, в составе которых насчитывалось 263 самолета. В 1914 г. на вооружение русской армии поступил первый в мире тяжелый бомбардировщик «Илья Муромец», способный нести до 500 кг бомб. В ходе Первой мировой войны авиация из вспомогательного средства разведки и связи превратилась в самостоятельный род войск. На завершающем этапе войны она принимала участие во всех крупных операциях и оказала существенное влияние на характер боевых действий.

## ARMY HUMOR

### Recruiting any and all pilots

The chief of staff of the US Air Force decided that he would personally intervene in the recruiting crisis affecting all of our armed services. He directed a nearby Air Force base that will be opened and that all eligible young men and women be invited. As he and his staff were standing near a brand new F-15 Fighter, a pair of twin brothers who looked like they had just stepped off a Marine Corps recruiting poster walked up to them.

The chief of staff walked up to them, stuck out his hand and introduced himself .He looked at the first young man and asked, "Son, what skills can you bring to the Air Force?" The young man looks at him and says, "I'm a pilot!"
The general gets all excited, turns to his aide and says, "Get him in today, all the paper work done, everything, do it!" The aide hustles the young man off.
The general looks at the second young man and asked, "What skills to you bring to the Air Force?" The young man says, "I chop wood!"
"Son," the general replies, "we don't need wood choppers in the Air Force, what do you know how to do?" "I chop wood!"

"Young man," huffs the general, "you are not listening to me, we don't need wood choppers, this is the 21st century!" "Well," the young man says, "you hired my brother!"
"Of course we did," says the general, "he's a pilot!"

The young man rolls his eyes and says, "So what! I have to chop it before he can pile it!"

## УРОК 17
## КЛАССИФИКАЦИЯ ЛЕТАТЕЛЬНЫХ АППАРАТОВ

## LESSON 17
## AIRCRAFT CLASSIFICATION

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

dirigible
hydrogen
helium
steerable
perpendicular
catapult
biplane
fuselage
longitudinal
mechanism
aerodynamic
primarily
Mach
encompass
axes

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Steering committee, steering column, steering command, steering compass, steering device, steering engine, steering error, steering pedal, steering station, steering test.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| airplane lighter than air | летательный аппарат (ЛА) легче воздуха |
| airplane heavier than air. | летательный аппарат тяжелее воздуха |
| monoplane | моноплан |
| biplane | биплан |
| delta wing | дельтовидное крыло |
| swept wing | стреловидное крыло |
| to vary sweep | изменять стреловидность |

| | |
|---|---|
| forward swept wing | крыло обратной стреловидности |
| flying wing | летающее крыло |
| takeoff | взлет |
| aerodynamic | 1. аэродинамический<br>2. обтекаемой формы (о кузове и т. п.) |
| landing gear | 1. шасси; 2. опора шасси |
| fuselage | фюзеляж |
| hydrogen | водород |
| thrust | тяга, сила тяги |
| lift | аэро- или гидродинамическая подъемная сила |
| propulsion | силовая установка, двигатель |
| design | 1. проектирование; разработка; конструирование 2. проект; разработка; конструкция, конструктивное решение; конструктивное исполнение, конструктивное оформление 3. схема; чертеж; схемное решение; план 4. расчет 5. дизайн |
| dirigible, *syn*. Airship | дирижабль |
| non-rigid airship | дирижабль мягкой системы |
| glider | планёр |
| cell | камера; секция; отсек; ячейка |
| agent | (ре)агент, средство, вещество; добавка |
| verticle takeoff and landing airplane (VTOL) | самолёт вертикального взлёта и посадки (СВВП) |
| short takeoff and landing aircraft (STOL) | самолет с укороченными взлётом и посадкой (СУВП) |
| unmanned aerial vehicle (UAV) | беспилотный летательный аппарат |

| | |
|---|---|
| carrier-based airplane | палубный самолет (самолет, базирующийся на авианосце) |
| shipborne fighter | палубный истребитель |
| arresting gear | тормозной механизм |
| tail hook | хвостовой крюк |
| tilt rotor aircraft | самолет-вертолет, ЛА с поворотным крылом, конвертоплан |
| jump jet | реактивный самолет с вертикальным взлетом и вертикальной посадкой |
| ambient air | атмосферный воздух |
| to encompass | заключать (в себе), касаться |
| taxiing out | выруливание |
| runway | взлетно-посадочная полоса (ВПП) |
| forward-swept wing | крыло обратной стреловидности |
| landing | посадка |
| take-off run | разбег самолёта |
| landing roll | послепосадочный пробег |
| lift-off | отрыв |
| touchdown | касание ВПП |
| UAV | БПЛА |
| shipborne fighter | палубный истребитель |
| taxiway | рулежная дорожка |
| unguided missiles | неуправляемые средства поражения |
| to operate aircraft round-the-clock | применять авиацию в любое время суток |
| aircraft instrumentation | пилотажно-навигационный комплекс |

| | |
|---|---|
| in-flight refueling | заправка топливом в полете |
| cruise missile | крылатая ракета |
| canard | крыльевая схема «утка» |
| canards | оперение |
| arrested landing | посадка с аэрофинишером |

**Exercise 4. Read and translate the text:**

**TYPES OF AIRCRAFT**

There are a number of ways to identify aircraft by type. The primary distinction is between those that are lighter than air and those that are heavier than air.

**LIGHTER-THAN-AIR (LTA)**

Aircraft such as balloons, airships or dirigibles are designed to contain within their structure a sufficient volume that, when filled with a gas lighter than air (heated air, hydrogen, or helium), displaces the surrounding ambient air and floats, just as a cork does on the water. Balloons are not steerable and drift with the wind.

Non-rigid airships, which have enjoyed a rebirth of use and interest, do not have a rigid structure but have a defined aerodynamic shape, which contains cells filled with the lifting agent. They have a source of propulsion and can be controlled in all three axes of flight.

**HEAVER-THAN-AIR (HTA)**

This type of aircraft must have a power source to provide the thrust necessary to obtain lift. Simple heavier-than-air craft include kites.

Gliders are usually used for flight training and have the capability to fly reasonable distances when they are catapulted or towed into the air.

**AIRCRAFT CONFIGURATIONS**

**Wing types**

Aircraft can also be categorized by their configurations. One measure is the number of wings, and the styles include monoplanes, with a single wing

(that is, on either side of the fuselage); and biplanes, with two wings, one atop the other.

The wing planform is the shape it forms when seen from above. Delta wings are formed in the shape of the Greek letter delta (Δ) and are triangular wings lying at roughly a right angle to the fuselage. The supersonic Concorde features delta wings.

Swept wings are angled, usually to the rear and often at an angle of about 35°. Forward swept wings also are used on some research craft.

Some aircraft have wings that may be adjusted in flight to attach at various angles to the fuselages. Variable geometry (swing) wings can vary the sweep (i.e., the angle of a wing with respect to the plane perpendicular to the longitudinal axis of the craft) of their wings in flight. These two types have primarily military applications.

Another configuration limited to military craft is the so-called flying wing, a tailless craft having all its elements encompassed within the wing structure (as in the Northrop B-2 bomber).

## Takeoff and landing gear

Another means of categorizing aircraft is by the type of gear used for takeoff and landing. In a conventional aircraft the gear consists of two primary wheels under the forward part of the fuselage and a tailwheel. An aircraft with two main undercarriage assemblies in the fuselage and wing tip protector wheels is said to have bicycle gear.

Large aircraft, such as the Boeing 747, incorporate multiple bogies (several wheels arranged in a variety of configurations) in their landing gear to spread out the weight of the aircraft.

A few aircraft use skis or other structures to allow takeoff from or landing in water.

The demands placed on naval planes used on aircraft carriers require a heavier structure to withstand the stresses of catapult launches and landings abruptly terminated by arresting gear. Landing-gear mechanisms are also reinforced, and a tail hook is installed to engage the arresting gear, a system that is also used for land-based heavy military aircraft.

The mode of takeoff and landing also differs among aircraft. Conventional craft gather speed (to provide lift) on an airfield prior to liftoff and land on a similar flat surface. A variety of means have been used in the design of aircraft intended to accomplish short takeoffs and landings (STOL vehicles). Vertical-takeoff-and-landing (VTOL) vehicles include the helicopter, tilt rotors, and “jump jets,” which lift off from the ground in a vertical motion.

**COMMENTARY:**

**1.Grammar:**

a**)** Акронимы VTOL и STOL читаются нетрадиционно: ['vJ"tOl] и ['es"tOl] соответственно.

b) Перечисляя тактико-технические характеристики (specifications, performance characteristics, или performances) практически любой системы вооружений, нельзя обойтись без таких параметров как вес – *weight*, и высота – *height*. В английском языке эти термины пишутся почти одинаково, но произносятся совершенно по-разному: weight [w**eI**t] – height [h**aI**t].

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. В связи с чем возобновился интерес к воздушным шарам и дирижаблям?
2. Когда вы видели самолет-биплан в последний раз?
3. Зачем нужны крылья с изменяемой геометрией крыла?
4. Правда ли, что Конкорд можно назвать самолетом «летающее крыло»?
5. Какие особенности у шасси самолета Боинг-747?
6. Какие требования предъявляются к морской авиации, базирующейся на авианосных кораблях?
7. Какие СВВП вы можете назвать?
8. Используются ли планёры в военных целях?

**Exercise6. Decipher and translate the following abbreviations:**

STOL, JCS, HTA, Pt Off, MOD, RAF, 2LT, KFOR, AWACS, СУВП, AFB, AH, HQ, VTOL, ЛА, COS, SFOR, СВВП, ATC, Flt Lt, AFSC, ICBM.

**Exercise7. Translate the following words and word combinations by ear:**

To identify vehicle by type; to contain sufficient volume; the primary distinction is; when filled with agent; displaces the ambient air; feature a defined aerodynamic shape; a source of propulsion; used for flight training; to control in all three axes of flight; to fly reasonable distances; towed into the air; STOL

aircraft; one atop the other; when seen from above; lie at roughly a right angle; to attach at various angles; to the rear; can be adjusted in flight; flying wing; with respect to the axis; abruptly terminated. Основное различие, требования, предъявляемые к…; достаточный объем, тяжелее воздуха, на воде, по своей конструкции предназначен…, вытеснять воздух, быть характерной обтекаемой формы, обеспечивать развитие тяги, классифицировать по, почти под прямым углом, в форме буквы…, иметь дельтовидные крылья, под углом … градусов, изменять в полете, военное применение, быть присущим в основном для военных ЛА, обычные самолеты, хвостовое колесо, стреловидное крыло, один над другим.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Господин Стрикленд, позвольте вам задать несколько вопросов. | Hi, gentlemen. Go ahead with your questions. |
| Мы с интересом прослушали ваше сообщение о перспективных программах в области самолетостроения. А как идут дела с эксплуатацией вашего самолета-гибрида «Оспри». | Well, things have improved considerably since the last accident. We are pursuing a dream of aircraft designers to create an airplane that not only can fly long ranges at high speeds and carry heavy cargo, but can also take off, hover and land like a helicopter. |
| По вашему мнению, найденное инженерное решение можно считать удачным? | I guess it's a breakthrough solution – the tilt rotor design. It has a long history. The VTOL concept is an old idea stemming from the German air force at the end of World War II. After the war, the U.S. Navy developed two experimental VTOL fighter aircraft, the Pogo and the Salmon. However, the programs were cancelled because of technical difficulties. |
| Кажется, что такая цепь неудач может охладить энтузиазм любого, даже самого опти- | For your information, 38 billion dollars have already been spent on the program. We now have three configurations |

мистичного конструктора.

of the Osprey – depending upon what it's being used for, such as search-and-rescue, medium-range assault or long-range special operations. While three branches of the U.S. Armed Forces – the Marines, Navy and Air Force – will use the Osprey, the Bell Co. is also exploring its design for possible civilian uses.

Я вижу у вас в руках хорошие фотографии этой машины. Не могли бы вы пояснить, как он летает и какие особенности имеет этот, как мы его называем, многоцелевой военно-транспортный самолет с ВВП или КВП.

The Osprey has two, large, three-bladed rotors that rotate in opposite directions and produce lift. Because the rotors turn in opposite directions, there is no need for a tail rotor to provide stability as in a helicopter. The wing tilts the rotors between airplane and helicopter modes and generates lift in the airplane mode. The Osprey can convert smoothly from helicopter mode to airplane mode in as few as 12 seconds.

**Exercise 9. Translate the following text at sight:**

**ЯК-141**

10 лет назад в ходе летных испытаний состоялся первый вертикальный взлет самолета короткого и вертикального взлета и посадки (СКВВП) Як-141, созданного в ОКБ им. А.С. Яковлева. Як-141 стал первым в мире самолетом, сочетающим в себе качества сверхзвукового истребителя и вертикально взлетающего самолета. Он опережал разработки Англии и США в этой области на 10 – 15 лет.

Преимущества этого СКВВП перед самолетами обычного взлета неоспоримы. К примеру, Як-141 способен взлетать без выруливания на взлетно-посадочную полосу, непосредственно, из укрытия по рулежной дорожке. Это позволит в случае тревоги совершить массовый взлет и ввод в бой подразделений Як-141. Самолет может эксплуатироваться с поврежденных аэродромов, его способность взлетать с коротких или поврежденных участков полос и садиться вертикально обеспечивает повышенную выживаемость и скрытность базирования, а значит, в случае внезапного массированного удара противника боевой потенциал будет

сохранен. Немаловажно и то, что лотажно-навигационный комплекс Як-141 обеспечивает ручное и автоматическое управление от взлета до посадки в любое время суток, в различных метеоусловиях, на всех географических широтах. Система управления вооружением обеспечивает выполнение задач с применением различных видов оружия (30-миллиметровая пушка, управляемые ракеты и неуправляемые средства поражения).

**Exercise 10. Translate the following text at sight:**

**SU-33 SHIPBORNE FIGHTER**

The Su-33 aircraft is designed to protect aircraft carrier forces and warships against air attacks by rotary- and fixed-wing aircraft, UAVs, and cruise missiles, as well as to engage surface targets with guided and unguided weapons. The aircraft is capable of self-sustained and group round-the-clock operations, in any weather, over international and enemy water areas. The Su-33 is also capable of providing support for naval operations, conducting air reconnaissance, and carring out buddy in-flight refueling.

The Su-33 has canards, modified high-lift wing devices, in-flight refueling equipment, and special airborne communications and navigation equipment that ensures above-water flights and arrested landings.

**Exercise 11. Translate the following text in writing:**

**Text 1.**

The Russian Federation Air Force Museum at Monino, is located approximately 38 kilometers (24 miles) east of Moscow along the Gorky Highway in a lovely wooded area. It is the largest and best aviation museum in Russia. The facility used to be an operational air base from 1932 through April, 1956. The museum was founded at the former airfield and was officially opened in 1960. It was formerly known as the USSR Air Force Museum. Among the exhibits are various fixed-wing and rotary wing aircraft, airships, associated equipment and documentary materials.

**Text 2.**

There are a wide variety of types of airplanes. Land planes, carrier-based airplanes, seaplanes (гидросамолеты), amphibians (самолеты-амфибии),

vertical takeoff and landing (VTOL), short takeoff and landing (STOL), and space shuttles all take advantage of the same basic technology, but their capabilities and uses make them seem only distantly related.

**Text 3.**

The first aircraft to fly at supersonic speeds was a Bell XS-1 rocket-powered research plane piloted by Major Charles E. Yeager of the U.S. Air Force on Oct. 14, 1947. After being dropped from the belly of a Boeing B-29 mother ship, the XS-1 broke the (local) sound barrier at 1,066 km (662 miles) per hour and attained a top speed of 1,126 km (700 miles) per hour, or Mach 1.06. Thereafter many military aircraft capable of supersonic flight were built, though their speed was generally limited to Mach 2.5 because of problems caused by frictional heating of the skin of the plane. The first supersonic, passenger-carrying, commercial airplane (or supersonic transport, SST), the Concorde, was built jointly by aircraft manufacturers in Great Britain and France and entered regular service in 1976. The Concorde has a maximum cruising speed of 2,179 km (1,354 miles) per hour, or Mach 2.04.

**Exercise 12. Translate the following text in writing:**

**КЛАССИФИКАЦИЯ ЛЕТАТЕЛЬНЫХ АППАРАТОВ**

Летательный аппарат – устройство для полетов в атмосфере Земли или в космическом пространстве.

1. По функциональному назначению летательные аппараты делятся на: научно-исследовательские (экспериментальные), народно-хозяйственные (пассажирские, грузовые, сельскохозяйственные и т.д.), военные, спортивные.

2. По принципам действия летательные аппараты различаются на следующие группы:

Аэростатические (воздухоплавательные) летательные аппараты – аппараты, у которых всплывная сила обеспечивается архимедовой силой, действующей на оболочку, наполненную легким газом или теплым воздухом: *аэростаты, стратостаты, дирижабли, гибридные летательные аппараты.*

Аэродинамические летательные аппараты – аппараты, использующие для полета аэродинамическую подъёмную силу, которая образуется при обтекании воздушным потоком:

– крыла: планёры, самолеты, экранопланы, крылатые ракеты;

– несущего винта: автожиры, вертолеты, летающие платформы с несущим винтом и т.п.;

– несущего корпуса: аппараты с несущим корпусом.

К гибридным относятся аэродинамические летательные аппараты вертикального взлета и посадки: преобразуемые аппараты, самолеты вертикального взлета и посадки, винтокрылы.

Космические летательные аппараты.

Ракеты – способны двигаться в атмосфере земли и в безвоздушном пространстве под действием реактивной силы – тяги ракетного двигателя: ракеты-носители, боевые ракеты, научно-исследовательские (геофизические, метеорологические), и т.д.

Гибридные летательные аппараты – сочетают свойства аэродинамических и космических аппаратов.

## ARMY HUMOR
## Landing at a hidden military base

You've all heard of the Air Force's ultra-high-security, super-secret base in Nevada, known simply as "Area 51?" Well, late one afternoon, the Air Force folks out at Area 51 were very surprised to see a Cessna landing at their "secret" base. They immediately impounded the aircraft and hauled the pilot into an interrogation room.

The pilot's story was that he took off from Vegas, got lost, and spotted the Base just as he was about to run out of fuel. The Air Force started a full FBI background check on the pilot and held him overnight during the investigation.

By the next day, they were finally convinced that the pilot really was lost and wasn't a spy. They gassed up his airplane, gave him a terrifying "you-did-not-see-a-base" briefing, complete with threats of spending the rest of his life in prison, told him Vegas was that-a-way on such-and-such a heading, and sent him on his way.

The day after that though, to the total disbelief of the Air Force, the same Cessna showed up again. Once again, the MP's surrounded the plane...only this time there were two people in the plane. The same pilot jumped out and said, "Do anything you want to me, but my wife is in the plane and you have to tell her where I was last night!"

## УРОК 18
## УСТРОЙСТВО САМОЛЕТА

## LESSON 18
## AIRCRAFT DESIGN

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| horizon | altimeter |
| empennage | determine |
| fabric | sewn |
| miniature | alignment |
| perpendicular | series |
| eventually | nacelle |
| components | aileron |
| horizon | altimeter |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To contain sufficient volume; the primary distinction is; when filled with agent; displaces the ambient air; feature a defined aerodynamic shape; a source of propulsion; used for flight training; to control in all three axes of flight; to fly reasonable distances; towed into the air; STOL aircraft; one atop the other; when seen from above; lie at roughly a right angle.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| cockpit | кабина экипажа |
| cockpit display | бортовой индикатор |
| tail assembly, *syn.* tail unit, tail group, empennage | хвостовое оперение самолета; стабилизатор |
| flight controls | органы управления (самолетом) |
| engine controls | органы управления двигателем |
| navigator | штурман |

| | |
|---|---|
| aerial engineer | бортинженер; бортмеханик |
| bombardier | бомбардир |
| gunner | стрелок |
| copilot | второй пилот |
| instruments | авиаприборы |
| blended | смешанный, комбинированный |
| computer-aided design | автоматизированное проектирование |
| airport facilities | оборудование аэропорта |
| flying wing aircraft | самолет типа «летающее крыло» |
| rudder | руль направления |
| rudder pedal | педаль руля направления |
| elevator | руль высоты |
| trailing edge | задняя кромка |
| turn | разворот, вираж |
| banking | кренение; вираж, разворот; |
| yawing | рыскание |
| pitch | тангаж; |
| pitch attitude | положение по тангажу |
| pitching *syn.* pitch-up | кабрирование |
| to pitch nose- up | кабрировать |
| to pitch in, to dive | пикировать |
| control column *syn.* Stick | штурвальная колонка; штурвал |
| nacelle | гондола (*дирижабля*) |
| brake | тормоз |
| heat-resistant materials | термостойкие материалы |
| to abort a takeoff | прерывать взлет |

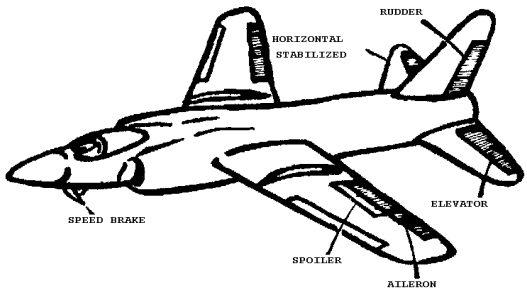
| | |
|---|---|
| antiskid braking systems (ABS) | противоблокировочная тормозная система |
| emergency | аварийная ситуация |
| retractable landing gear | убирающееся шасси |
| to climb | набирать высоту |
| to descend | снижаться |
| longitudinal axis | продольная ось |
| lateral axis | поперечная ось |
| wingtip | законцовка крыла |
| to deflect | отклонять(ся) |
| device | устройство; прибор, аппарат |
| flaps | закрылки; щитки |
| slats *syn*. leading-edge flaps | предкрылки |
| trim tabs | триммеры |
| spoilers | интерцепторы |
| speed brakes | тормозные щитки |
| to droop down | свисать |
| leading-edge flaps | предкрылки |
| alignment | центрирование, центровка; выравнивание |
| flight path | линия полета |
| approach | заход на посадку; подход к зоне аэродрома |
| airstream | воздушный поток |
| increment | прирост, приращение; увеличение |
| piston-engine | поршневой двигатель |
| exhaust-gas *syn*. exhaust | выхлопные газы |

| | |
|---|---|
| rotational speed | число оборотов |
| artificial horizon | авиагоризонт |
| blades | лопатки (двигателя) |
| jet aircraft *syn.* Jet | реактивный самолет |
| momentum | инерция |
| Mach number | число Маха, число М |
| global positioning system (GPS), | “Джи-Пи-Эс”, глобальная (спутниковая) система местоопределения, глобальная система позиционирования |
| radio-beacon | радиомаяк |
| instrument Landing Systems (ILS) | система посадки по приборам |
| microwave Landing System | микроволновая система обеспечения посадки |

**Exercise 4. Read and translate the text:**

**AIRCRAFT CONFIGURATION**

An airplane consists of a fuselage, or body; a wing or wings as sustaining surfaces; flight control surfaces; an undercarriage or landing gear; and a power plant.




The fuselage is the main structure of an airplane which houses the crew, and sometimes the armament and the power plant. The tail group or empennage and the landing gear are attached to it. The crew of a fighter usually consists of one man – the pilot. Bombers may have a crew of 3 to 12 men:

pilot, copilot, navigator, aerial engineer, radio operator, bombardier and gunner, as well as some other crew members. The fuselage contains the pilot cockpit with all flight and engine controls, instruments, radio and navigation equipment.

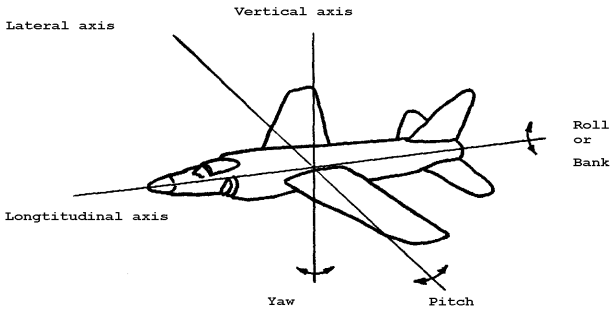
## WINGS

All airplanes, by definition, have wings. Some are nearly all wing with a very small cockpit. Others have minimal wings, or wings that seem to be merely extensions of a blended, aerodynamic fuselage, such as the space shuttle.

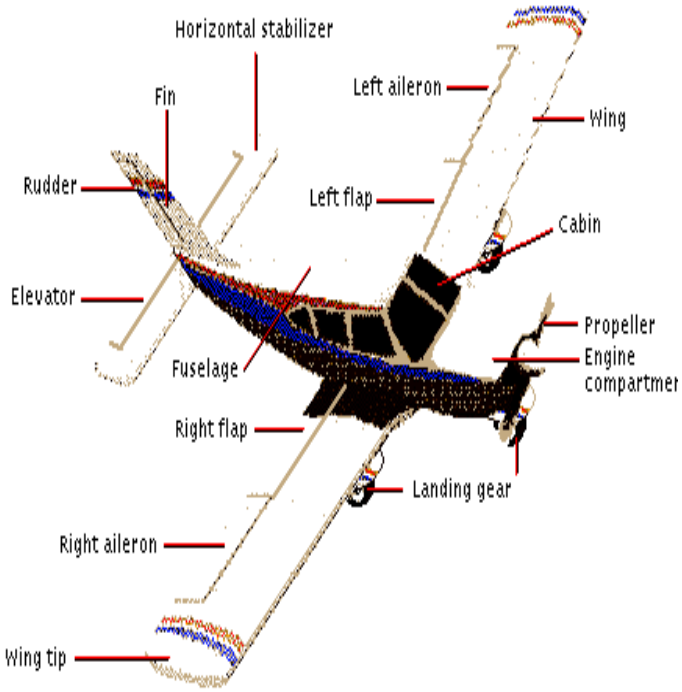
## TAIL ASSEMBLY

Most airplanes, except for flying wings, have a tail assembly attached to the rear of the fuselage, consisting of vertical and horizontal stabilizers, which look like small wings; a rudder; and elevators. The components of the tail assembly are collectively referred to as the empennage.

The stabilizers serve to help keep the airplane stable while in flight. The rudder is at the trailing edge of the vertical stabilizer and is used by the airplane to help control turns. An airplane actually turns by banking, or moving, its wings laterally, but the rudder helps keep the turn coordinated by serving much like a boat's rudder to move the nose of the airplane left or right. Moving an airplane's nose left or right is known as a yaw motion. Rudder motion is usually controlled by two pedals on the floor of the cockpit, which are pushed by the pilot.




Elevators are control surfaces at the trailing edge of horizontal stabilizers. The elevators control the up-and-down motion, or pitch, of the airplane's nose. Moving the elevators up into the airstream will cause the tail to go down and the nose to pitch up. A pilot controls pitch by moving a control column or stick.




**LANDING GEAR**

All airplanes must have some type of landing gear. Modern aircraft employ brakes, wheels, and tires designed specifically for the demands of flight. Tires must be capable of going from a standstill to nearly 322 km/h (200 mph) at landing, as well as carrying nearly 454 metric tons. Brakes, often incorporating special heat-resistant materials, must be able to handle emergencies, such as a 400-metric-ton airliner aborting a takeoff at the last possible moment. Antiskid braking systems, common on automobiles today, were originally developed for aircraft and are used to gain maximum possible braking power on wet or icy runways.

Larger and more complex aircraft typically have retractable landing gear – so called because they can be pulled up into the wing or fuselage after takeoff.

Having retractable gear greatly reduces the drag generated by the wheel structures that would otherwise hang out in the airstream.

## CONTROL COMPONENTS

An airplane is capable of three types of motion that revolve around three separate axes. The plane may fly steadily in one direction and at one altitude or it ma
banking its wings either left or right, about the longitudinal axis, which runs the length of the craft. The airplane may yaw its nose either left or right about the vertical axis, which runs straight down through the middle of the airplane. Finally, a plane may pitch its nose up or down, moving about its lateral axis, which may be thought of as a straight line running from wingtip to wingtip.

Airplanes that are more complex also have a set of secondary control surfaces that may include devices such as flaps, slats, trim tabs, spoilers, and speed brakes. Flaps and slats are generally used during takeoff and landing to increase the amount of lift produced by the wing at low speeds. Flaps usually droop down from the trailing edge of the wing, although some jets have leading-edge flaps as well. On some airplanes, they also can be extended back beyond the normal trailing edge of the wing to increase the surface area of the wing as well as change its shape. Leading-edge slats usually extend from the front of the wing at low speeds to change the way the air flows over the wing, thereby increasing lift. Flaps also often serve to increase drag and slow the approach of a landing airplane.

Trim tabs are miniature control surfaces incorporated into larger control surfaces. For example, an aileron tab acts like a miniature aileron within the larger aileron. These kinds of controls are used to adjust more precisely the flight path of an airplane that may be slightly out of balance or alignment. Elevator trim tabs are usually used to help set the pitch attitude (the angle of the airplane in relation to the Earth) of an airplane for a given speed through the air. On some airplanes, the entire horizontal stabilizer moves in small increments to serve the same function as a trim tab.

## INSRUMENTS

Airplane pilots rely on a set of instruments in the cockpit to monitor airplane systems, to control the flight of the aircraft, and to navigate.

Systems instruments will tell a pilot about the condition of the airplane's engines and electrical, hydraulic, and fuel systems. Piston-engine instruments monitor engine and exhaust-gas temperatures, and oil pressures and tempera-

tures. Jet-engine instruments measure the rotational speeds of the rotating blades in the turbines, as well as gas temperatures and fuel flow.

Flight instruments are those used to tell a pilot the course, speed, altitude, and attitude of the airplane. They may include an airspeed indicator, an artificial horizon, an altimeter, and a compass. These instruments have many variations, depending on the complexity and performance of the airplane. For example, high-speed jet aircraft have airspeed indicators that may indicate speeds both in nautical miles per hour (slightly faster than miles per hour used with ground vehicles) and in Mach number. The artificial horizon indicates whether the airplane is banking, climbing, or diving, in relation to the Earth. An airplane with its nose up may or may not be climbing, depending on its airspeed and momentum.

General-aviation (private aircraft), military, and commercial airplanes also have instruments that aid in navigation. The compass is the simplest of these, but many airplanes now employ satellite navigation systems and computers to navigate from any point on the globe to another without any help from the ground. The Global Positioning System (GPS), developed for the United States military but now used by many civilian pilots, provides an airplane with its position to within a few meters. Many airplanes still employ radio receivers that tune to a ground-based radio-beacon system in order to navigate cross-country. Specially equipped airplanes can use ultraprecise radio beacons and receivers, known as Instrument Landing Systems (ILS) and Microwave Landing Systems (MLS), combined with special cockpit displays, to land during conditions of poor visibility.

**COMMENTARY**

**1. Grammar:**

**а) Нужен ли артикль?**

Употребление артикля перед индексным обозначением всех образцов боевой техники и вооружения в письменной и устной речи является обязательным. Это правило действует и в тех случаях, когда после индексного обозначения следует наименование системы вооружения: The F-22 Raptor will carry…; The SU-27 is often called…; The AIM-9X missile was launched from an F/A 18…; The upgraded T-72 MBT weighs…

Названия и индексные обозначения, входящие в состав многокомпонентных терминов, передаются в переводе на русский язык обычно в обратном порядке следования компонентов, т.е. название или индексное обозначение системы вооружения ставятся на последнее место. Например:

The Sukhoi-27 air superiority fighter – Истребитель завоевания господства в воздухе Су-27.

The AH-64D Apache Longbow attack helicopter – Вертолет огневой поддержки Эй-Эйч-64Д «Апачи Лонгбоу».

Это простое правило, естественно, выполняемое при переводе с английского языка, часто забывается, когда название какой-либо системы вооружений переводится с русского языка на английский.

В письменной русской речи названия военной техники, как и компаний-производителей, обычно заключается в кавычки: вертолет «Черная акула», противокорабельная ракета «Базальт», фирма «STN Atlas» и т.п. Действуя по аналогии, начинающий (или непрофессиональный) переводчик сохраняет кавычки в английском переводе, что совершенно неправильно. Ошибка часто усугубляется применением русских кавычек – « . . .», которых в английском языке нет вообще, что воспринимается носителями языка как элемент русской экзотики.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Сколько человек входит в экипаж бомбардировщика?
2. Из каких основных частей состоит самолет?
3. Какова функция рулей высоты самолета?
4. Какими качествами отличаются материалы, применяемые для изготовления покрышек шасси самолетов?
5. Чем отличается конструкция самолета типа «летающее крыло» от конструкции других типов самолета?
6. Могут ли использоваться крылья для размещения топлива?
7. Когда заходит речь об околозвуковых и сверхзвуковых самолетах, то часто оперируют понятием «число М». Что такое «число М»?

**Exercise 6. Decipher and translate the following abbreviations:**

JCS, HQ, AH, ICBM, COS, DOD, AVM, ВПП, RAF, STOL, ATC, SFOR, AFB, ЛА, AFIC, AFSC, СВВП, AWACS, ABS, GPS, LTA, VTOL, SFOR, ОКБ.

**Exercise 7. Translate the following words and word combinations by ear:**

To greatly reduce the drag; to be pulled up into the wing; to land during conditions of poor visibility; to tune to a ground-based radio-beacon; to pro-

vide an airplane with its position; in relation to the Earth; the artificial horizon indicates whether…; depending on the complexity, altitude and attitude of the airplane, aircraft employ satellite navigation systems; tune to a ground-based radio-beacon, known as, to tell a pilot the course; the instruments monitor engine and exhaust-gas temperatures

Внутри фюзеляжа находится экипаж; свешиваться с кромки крыла; закрылки выпускаются на малых скоростях; снижать скорость при заходе на посадку; триммеры являются частью…; устанавливать положение по тангажу; приборы показывают давление масла; в зависимости от сложности; авиагоризонт указывает; определять местонахождение самолета; относительно земли; настраиваться на радиомаяк; в сочетании с бортовым индикатором; в условиях плохой видимости; называется рысканием.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Captain, sir. May I clarify a point from today's presentation? | Пожалуйста, лейтенант Бенни Матьюз. Задавайте вопросы всегда сразу, чтобы потом не было недоразумений. |
| Today you said that the elevators control the movement of the airplane along its lateral axis. This motion is pitch, right? | Правильно. То есть, тангаж – это наклон самолета относительно его главной поперечной оси в полете. |
| Yes, I was afraid I misunderstood you. | Надеюсь, что вы записали, что авиагоризонт показывает не только углы тангажа и крена, но и пространственное положение самолета, путевую скорость, отклонение скорости. Он также представляет некоторую навигационную информацию. |
| I was under the impression that the rudder behind the cockpit was more a tribute to tradition than a necessity, because ailerons alone provided sufficient direction control. | У этого руля есть еще ряд функций, которые мы рассмотрим во время следующей лекции. Положение этих элеронов и стабилизаторов обеспечивает продольную устойчивость машины. |
| Many thanks for your interesting | Да, все материалы будут размноже- |

presentation and I hope that we will be provided with handouts on the material.

ны, и, кроме того, вы получите схему приборной доски с указанием всех приборов контроля работы двигателей.

**Exercise 9. Translate the following text at sight:**

An airplane relies on the movement of air across its wings for lift, and it makes use of this same airflow to move in any way about the three axes. To do so, the pilot will manipulate controls in the cockpit that direct control surfaces on the wings and tail to move into the airstream. The airplane will yaw, pitch, or roll, depending on which control surfaces or combination of surfaces are moved, or deflected, by the pilot.

In order to bank and begin a turn, a conventional airplane will deflect control surfaces on the trailing edge of the wings known as ailerons. In order to bank left, the left aileron is lifted up into the airstream over the left wing, creating a small amount of drag and decreasing the lift produced by that wing. At the same time, the right aileron is pushed down into the airstream, thereby increasing slightly the lift produced by the right wing. The right wing then comes up, the left wing goes down, and the airplane banks to the left. To bank to the right, the ailerons are moved in exactly the opposite fashion.

In order to yaw, or turn the airplane's nose left or right, the pilot must press upon rudder pedals on the floor of the cockpit. Push down on the left pedal, and the rudder at the trailing edge of the vertical stabilizer moves to the left. As in a boat, the left rudder moves the nose of the plane to the left. A push on the right pedal causes the airplane to yaw to the right.

In order to pitch the nose up or down, the pilot usually pulls or pushes on a control wheel or stick, thereby moving the elevators at the trailing edge of the horizontal stabilizer. Pulling back on the wheel deflects the elevators upward into the airstream, pushing the tail down and the nose up. Pushing forward on the wheel causes the elevators to drop down, lifting the tail and forcing the nose down.

**Exercise 10. Translate the following text at sight:**

**УДАРНЫЙ САМОЛЕТ СУ-30М**

Принимая во внимание роль, которую играет авиация в современной войне, на фирме Сухого решили создать новый ударный самолет для фронтовой авиации. Это решение обусловливалось еще и тем, что во многих странах, которые в свое время закупали у СССР, а позднее у Рос-

сии, военную технику, в том числе МиГ-23, МиГ-27, Су-7 и Су-17 разных модификаций, парк самолетов устаревает и его необходимо заменять современными и эффективными самолетами. Используя Су-30 как базовый самолет, в 1993 году ОКБ предложило его дальнейшее развитие – многофункциональный истребитель Су-30МК (модернизированный коммерческий).

Машину оснастили БРЭО нового поколения, включающим: универсальную РЛС, способную обнаруживать и сопровождать одновременно несколько воздушных целей, а также цели на поверхности земли или моря; многофункциональными жидкокристалическими цветными экранами, с большой разрешающей способностью; новым оптико-электронным прицельно-навигационным комплексом с широкими функциями на базе современных ЭВМ, с инерциальной навигационной системой на лазерных гироскопах и спутниковой навигацией; новой системой объективного контроля с фиксированием не только рабочих параметров систем самолета, но и внешней тактической обстановки. При этом второй член экипажа становился штурманом-оператором.

**Exercise 11. Translate the following text in writing:**

Early airplanes were usually biplanes □craft with two wings, usually one mounted about 1.5 m (about 5 to 6 ft) above the other. These designs created a great deal of drag, so aircraft engineers eventually pursued the monoplane, or single-wing airplane. A monoplane's single wing gives it great advantages in speed, simplicity, and visibility for the pilot.

After World War I (1914-1918), designers began moving toward wings made of steel and aluminum, and, combined with new construction techniques, these materials enabled the development of modern all-metal wings capable not only of developing lift but of housing landing gear, weapons, and fuel.

Over the years, many airplane designers have postulated that the ideal airplane would, in fact, be nothing but wing. Flying wings, as they are called, were first developed in the 1930s and 1940s. American aerospace manufacturer Northrop Grumman Corporation's flying wing, the B-2 bomber, or stealth bomber, developed in the 1980s, has been a great success as a flying machine, benefiting from modern computer-aided design (CAD), advanced materials, and computerized flight controls. Popular magazines routinely show artists' concepts of flying-wing airliners, but airline and airport managers have been unable to integrate these unusual shapes into conventional airline and airport facilities.

**Exercise 12. Translate the following text in writing:**

## КОНСТРУКТИВНЫЕ СООБРАЖЕНИЯ

Две основные особенности, которые отличают авиационные конструкции от наземных инженерных сооружений – это влияние аэродинамических нагрузок на форму конструкции и использование исключительно легких удлиненных и тонкостенных элементов из высокопрочных материалов.

На различных этапах развития авиации предлагались различные конструктивные решения для самолетов. Существует очевидная связь между оптимальной конструкцией самолета и его скоростью. Интересно отметить, что некоторые конструктивные решения, принятые на ранней стадии развития авиации, оказались приемлемыми и для современных самолетов, летающих в том же диапазоне скоростей. Так, сварной фюзеляж из стальных трубок во время Первой мировой войны был новинкой, позволившей улучшить характеристики истребителей и увеличить скорости их полета до 160 км/ч.

Подобные конструкции стали совершенно непригодными для истребителей времен Второй мировой войны, которые летали со скоростями около 640 км/ч. С другой стороны, спортивные самолеты и самолеты для личного пользования, появившиеся намного позднее, редко развивают скорость больше 160 км/ч, и в конструкциях их фюзеляжей успешно применяются свариваемые металлические трубки.

## ARMY HUMOR
### Piloting your plane

An F-111 was flying escort with a B-52 and generally making a nuisance of himself by flying rolls around the lumbering old bomber. The message for the B-52 crew was, "Anything you can do, I can do better." Not to be outdone, the bomber pilot announced that he would rise to the challenge.

The B-52 continued its flight, straight and level, however.

Perplexed, the fighter pilot asked, "So? What did you do?"

"We just shut down two engines."

## УРОК 19
## ИСТРЕБИТЕЛИ МИРА

## LESSON 19
## WORLD FIGHTERS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| fulcrum | inferior |
| agile | capabilities |
| simultaneously | experimental |
| escort | adversary |
| to escort | equation |
| versatility | aperture |
| Malaysia | cathode |
| approximately | sidewinder |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To be pulled up into the wing; to land during conditions of poor visibility; to tune to a ground-based radio-beacon; to provide an airplane with its position; in relation to the Earth; the artificial horizon indicates whether…; depending on the complexity, altitude and attitude of the airplane, aircraft employ satellite navigation systems.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| target search and track system | система обнаружения и сопровождения целей, поисково-следящая система |
| air intake | воздухозаборник |
| thrust vector control | управление вектором тяги |
| g-limit | ограничение по перегрузке; предельная (предельно допустимая) перегрузка |
| hardpoint | точка подвески вооружения |

| | |
|---|---|
| pulse-Doppler radar | импульсно-доплеровский радиолокатор |
| flight performances | летные характеристики |
| test flight | испытательный полет |
| multi-role | многоцелевой |
| laser range finder | лазерный дальномер |
| trailing edge | задняя кромка; задний край |
| specification | техническое задание |
| close air support | непосредственная воздушная поддержка |
| twin engine | спаренный двигатель |
| escort | сопровождение |
| multiplexer (MUX) | 1. устройство уплотнения (сигналов, каналов) 2. мультиплексор |
| bus | шина |
| multiplexed bus | мультиплексная шина |
| ratio | 1. отношение; соотношение; пропорция 2. коэффициент; степень: кратность 3. передаточное отношение 4. передаточное число 5. *мат.* частное |
| thrust-to-weight ratio | тяговооруженность |
| sustainability | устойчивость (работы, функционирования) |
| equation | уравнение |
| mission profile | программа полёта |
| organic assets | штатные средства |
| cathode ray tubes | катодные лучевые трубки |
| versatility | универсальность; разносторонность; гибкость в применении |
| availability | работоспособность, эксплуатационная готовность |

| | |
|---|---|
| high-speed anti-radiation missiles | высокоскоростная ПРЛР |
| infrared imaging | формирование ИК-изображений, тепловидение |
| missile sites | стартовые позиции (площадки) ракет |
| pod | подвесной контейнер (под крылом, фюзеляжем) |
| to acquire target | обнаруживать цель |
| to track target | следить за целью; сопровождать, отслеживать цель, осуществлять проводку цели |
| head-up display | 1. индикация (проецирование показаний приборов) на лобовом стекле (самолета)<br>2. головной коллиматор |
| raster | поэлементный, растровый |
| lighting | 1. освещение; подсветка<br>2. светосигнальное оборудование |
| weapon station | точка подвески вооружения |
| compatibility | совместимость |
| avionics system | (бортовая) авиационная (радио) электронная система, авиационное электронное оборудование, авионика, БРЭО |
| cockpit instruments | авиаприборы |
| pulse-Doppler radar system | импульсно-доплеровский радиолокационный комплекс |
| ground clutter | мешающие отражения от земной поверхности или наземных предметов |
| dogfight | воздушный бой |
| heading | курс |
| engine throttles | рычаги управления двигателем |
| control stick | штурвал самолета |
| pylon | пилон |

| | |
|---|---|
| windscreen | лобовое стекло, козырек кабины |
| fly-by-wire (control-by-wire) control system | электродистанционное управление |
| synthetic aperture | синтезированная апертура |
| sortie | вылет |
| contractor | подрядчик |

**Exercise 4. Read and translate the text at sight:**

**SUKHOI-27 "FLANKER-B"**

The Sukhoi-27 is without doubt one of the most powerful fighters in the world. It was built as a reply to the American F-15, and is superior in many aspects.

As an air superiority fighter and holder of numerous world records, a participant in spectacular air shows and unparalleled non-stop flights, the Su-27 is often called the Russian enigma. It is an aircraft which still continues to amaze the world with its top flight performances.

This aircraft opened the door to the 21st century for our tactical aviation. The story of the aircraft dates back to 1969, when the then Sukhoi Experimental Design Bureau (EDB) won a governmental contract to design a long-range interceptor superior to western fighters.

The grand project turned out to be one of the most challenging in the history of combat aviation. It has materialized in the whole Su family, which currently comprises the Su-27UB, Su-30, Su-33, Su-32FN, Su-35, and, finally, the Su-37 aircraft.

The new multi-role all-weather super-agile Su-37 fighter with the thrust vector control (TVC) represents a logical step forward in the steady implementation by the Sukhoi EDB of a development program of fourth and fifth generation of tactical aircraft from the basic Su-27 fighter for the Russian Air Force. As its General Designer Mikhail Simonov has announced, the new fighter can be regarded as "the fourth with two pluses" generation.

The first prototype made its first flight in 1977, but after a few tests flights it became clear that the prototype (called T-10-1) was inferior to the F-15 and the designers had to completely redesign the plane. The new plane was called T-10S. The test flights showed its superiority to the F-15 in many respects.

Serial production of the plane began in 1982 and the first Su-27 entered service in the Russian Air Force in 1985. The Russian Air Force today operates about 400 of these incredible aircraft.

Its radar is a jam-proof pulse-Doppler radar that can detect targets at a distance of 240 km and can simultaneously track up to 10 targets at a distance of 185 km. It can fire at two of these targets simultaneously. In case of radar failure, the plane is equipped with an electro-optical system that contains a laser range finder and infrared search and track system. The electro-optical system can be attached to the pilot's helmet mounted target designator to allow the pilot to target by moving his head.

**Specifications**:

| | |
|---|---|
| Aircraft | Su-27 |
| Type | Fighter |
| Year | 1977 |
| Crew | 1 |
| Engine | 2*Lyulka AL-31F turbojet |
| Length | 21.94 m |
| Wingspan | 14.7 m |
| Height | 5.93 m |
| Empty weight | 16000 kg |
| Normal weight | 22500 kg |
| Max weight | 28000 kg |
| Max speed | 2500 km/h (2.35M) |
| **Ceiling** | 18500 m |
| Range | 4000 km |
| g-limit | 9 |
| Armament | 1*30 mm gun + 10 hardpoints for AAMs, AGMs, bombs, rockets, drop tanks and ECM pods. |

**MIKOYAN-GUREVICH-29 "FULCRUM-A"**

As the Su-27 fighter, the MiG-29 was also designed as a reply to the American fighter F-15. It is a medium-sized air superiority fighter with great maneuverability and armament. One advantage that the MiG-29 has it that it is able to use rough airfields, thanks to the two upper air intakes on the top of the

wing. During take-off and landing the lower air intakes are closed to prevent dust and other things from getting inside the engines.

Although the plane was built as a reply to the F-15, the plane is often compared to the F-16 and has a lot of advantages over that plane. One weak point however is range, and later models were modified to carry more fuel.

The specification of the aircraft was issued in 1972 and the design of the plane was started in 1974. The first prototype (called 9-10) made its first flight in 1977 and the first plane entered service in 1984. The Russian Air Force today operates about 300 MiG-29s.

The Russian Air Force prefers the Su-27 and its derivatives to the MiG-29, but the current MiG-29's in service are about to be upgraded with more advanced avionics and equipment (MiG-29SMT and MiG-29UBT).

| Specifications | |
|---|---|
| Crew | 1 |
| Engine | 2*Klimov RD-33 turbojet |
| Length | 17.32 m |
| Wingspan | 11.36 m |
| Height | 4.73 m |
| Empty weight | 11000 kg |
| Normal weight | 15000 kg |
| Max weight | 18500 kg |
| Max speed | 2450 km/h (2.3M) |
| Ceiling | 18000 m |
| Range | 2100 km |
| g-limit | ? |
| Armament | 1*30 mm gun + 6 hardpoints for AAMs, ASMs, bombs, rockets, drop tanks and ECM pods |

**F/A-18 HORNET**

The F/A-18 "Hornet" is a single- and two-seat, twin engine, multi-mission fighter/attack aircraft that can operate from either aircraft carriers or land bases. The F/A-18 performs a variety of roles: air superiority, fighter escort, suppression of enemy air defenses, reconnaissance, forward air control, close and deep air support, and day and night strike missions.

The F/A-18 has a digital control-by-wire flight control system, which provides excellent handling qualities, and allows pilots to learn to fly the airplane with relative ease. At the same time, this system provides exceptional maneuverability and allows the pilot to concentrate on operating the weapons system. A solid thrust-to-weight ratio and superior turn characteristics combined with energy sustainability, enable the F/A-18 to hold its own against any adversary. The power to maintain evasive action is what many pilots consider the Hornet's finest trait. In addition, the F/A-18 was also the Navy's first tactical jet aircraft to incorporate a digital, MUX bus architecture for the entire system's avionics suite. The benefit of this design feature is that the F/A-18 has been relatively easy to upgrade on a regular, affordable basis.

The F/A-18 has proven to be an ideal component of the carrier based tactical aviation equation over its 15 years of operational experience. The only F/A-18 characteristic found to be marginally adequate by battle group commanders, outside experts, and even the men who fly the Hornet, is its range when flown on certain strike mission profiles. However, the inadequacy is managed well with organic and joint tanking assets.

## F/A-18C/D HORNET

Following a successful run of more than 400 A and B models, the US Navy began taking fleet deliveries of improved F/A-18C (single seat) and F/A-18D (dual seat) models in September 1987. These Hornets carry the Advanced Medium Range Air-to-Air Missile (AMRAAM) and the infrared imaging Maverick air-to-ground missile. Two years later, the C/D models came with improved night attack capabilities. The new components included a navigation forward looking infrared (NAVFLIR) pod, a raster head-up display, night vision goggles, special cockpit lighting compatible with the night vision devices, a digital color moving map and an independent multipurpose color display.

F/A-18Cs have synthetic aperture ground mapping radar with a Doppler beam sharpening mode to generate ground maps. This ground mapping capability permits crews to locate and attack targets in adverse weather and poor visibility or to precisely update the aircraft's location relative to targets during the approach, a capability that improves bombing accuracy.

On the first day of Operation Desert Storm, two F/A-18s, each carrying four 2,000 lb. bombs, shot down two Iraqi MiGs and then proceeded to deliver their bombs on target. Throughout the Gulf War, squadrons of U.S. Navy, Marine and Canadian F/A 18s operated around the clock, setting records daily in reliability, survivability and ton-miles of ordnance delivered.

Throughout its service, annual upgrades to F/A-18 weapon systems, sensors, etc. continued. The latest lot of the F/A-18C/D has grown to be far more capable (night attack, precision strike, low observable technologies, etc.) than the original F/A-18A/B; however, by 1991, it was becoming clear that avionics cooling, electrical, and space constraints would begin to limit future growth. Additionally, another operational deficiency was beginning to develop. As the F/A-18C/D empty weight increased the aircraft were returning to the carrier with less than optimal reserve fuel and/or unexpended weapons. The additional range and "bring back" is not as essential to shore based operations. F/A-18A/B/C/D aircraft will fly for years with the U.S. Marine Corps and eight international customers: Australia, Canada, Finland, Kuwait, Malaysia, Spain, Switzerland and Thailand.

Although the F/A-18C/D's future growth is now limited, it will also continue to fill a critical role in the U.S. Navy's carrier battle group for many years to come and will be an excellent complement to the larger, longer range, more capable F/A-18E/F Super Hornet.

**Exercise 5. Translate the following questions by ear and answer them in English**

1. В каком году экспериментальное конструкторское бюро Сухого получило государственный заказ на создание истребителя нового поколения, превосходящего американский F-15?
2. Можно ли утверждать, что у российского истребителя Су-27 по-прежнему очень высокая репутация в мире?
3. Правда ли, что первый прототип истребителя был не совсем удачный?
4. В каком году истребитель Су-27 был запущен в серийное производство?
5. На какой дальности Су-27 способен обнаруживать цели, и сколько целей он может сопровождать?
6. Какие тактико-технические характеристики истребителя Су-27 вы считаете наиболее важными?
7. Верно ли то, что МиГ-29 отличается особой надежностью среди других истребителей? Какие конструктивные особенности объясняют это преимущество?
8. Какие недостатки имелись у первых моделей этих самолетов?
9. В каком году было завершено техническое задание на создание истребителя МиГ-29, и когда было закончено его проектирование?
10. Какие планы связаны с модернизацией истребителя МиГ-29?

**Exercise 6. Decipher and translate the following abbreviations:**

CO, ВПП, ICBM, SFOR, HQ, lb., ЛА, AMRAAM, РЛС, Maj, СВВП, ATC, ПРЛР, COS, RAF, LT, STOL, DOD, LTC, КМП США, AFB, AFSC, ABS, GPS, LTA, AWACS, AH, VTOL, TALD, ОКБ, JCS, ИК, MUX, USS, NAVFLIR, ops.

**Exercise 7. Translate the following words and word combinations by ear:**

To increase responsiveness, a designated net (quick-fire channel); may be superior to western fighters; air shows; multi-role; jam-proof; range finder; infrared search and track system; helmet mounted target designator; rough airfields; air intakes; prevent dust from getting inside; to prefer smth to; medium-sized; with great maneuverability; the plane is equipped with; pulse-Doppler radar; simultaneously track up to 10 targets; search and track system; flight performances; non-stop flights; medium-sized fighter; can be attached to the pilot's helmet; empty weight; unparalleled flights; twin engine attack aircraft; to suppress enemy air defenses; to perform combat missions; to provide close air support; control-by-wire flight control system; to learn to fly the airplane; to consider it its finest trait; to hold its own against any adversary; evasive action; easy to upgrade; energy sustainability; avionics suite; the benefit of this design feature is that; on a regular basis; found to be marginally adequate; coupled with; the inadequacy is managed well with; to become commander's mainstay; to retain the general configuration; to make full use of new digital technology; cockpit displays.

Конструкторское бюро; превосходить западные истребители; средний истребитель; беспосадочные перелеты; многоцелевой; помехоустойчивый; поисково-следящая система, дальномер; нашлемный целеуказатель; неприспособленный аэродром; импульсно-доплеровский радиолокатор; обладающий великолепной маневренностью; истребитель оснащен; устанавливать мировой рекорд; беспримерный полет; высочайшие летные качества, двухмоторный штурмовик; многоцелевой истребитель; подавлять средства ПВО противника; маневр уклонения; выступать в нескольких ролях; подавлять средства ПВО противника, машина послушна в управлении, сравнительно легко научиться, оказывать непосредственную воздушную поддержку, истребительное сопровождение, воздушная поддержка на большую глубину, сосредоточиться на применении оружия, обеспечивать исключительную маневренность, использовать с максимальной эффективностью, относительно легко модернизировать.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| 1. Господин Ли, вы прекрасно | 1. In February 1996 Moscow |

осведомлены о состоянии российско-китайского военно-технического сотрудничества. Каковы его объемы в настоящее время?

and Beijing reached a $2.2 billion agreement for Chinese co-production of the Sukhoi Su-27. Under the initial agreement China would produce up to 200 aircraft–without the right to reexport the jets to third countries–from Russian-made components over three to five years. Eventually China might seek to obtain as many as 300 Su-27s.

2. Какие, на ваш взгляд, основные трудности, которые приходится преодолевать совместными усилиями?

2. The integration of the Su-27 into the Chinese Air Force has proven difficult, particularly with respect to training and maintenance costs. Russia delivered parts and assemblies for 2 fighters, which were assembled in 1998, bringing China's total inventory to some 50 aircraft. However, these initial airframes proved unsatisfactory, and no additional production had been completed by late 1999.

3. Как проявляют себя наши самолеты в ходе боевой подготовки?

3. Last year the PLA Air Force and other PLA elements conducted joint-service exercises in the Taiwan Strait. During these exercises the JL-11 (or what you call Su-27) fired a variety of air-to-ground rockets, and also dropped four deceleration bombs similar to the US MK82 Snake-Eye, the first time that such bombs have been shown publicly.

4. Какие выводы были сделаны по результатам этих учений?

4. These exercises clearly showed the need to make some improvements to its air-to-surface attack capacities. The plane’s radar and computer software need to be upgraded to

the level of the advanced SU-35 fire control equipment to provide higher accuracy.

5. Уважаемый господин Ли. Разрешите мне от имени членов моей делегации в память о нашей встречи вручить вам этот небольшой сувенир – вымпел Военно-воздушных Сил России, офицерскую кокарду и этот традиционный предмет народного промысла – чайный сервиз «Гжель». До новых встреч!

5. Thank you very much, General. Let me reciprocate and present to you, as a memento of our meeting, the crest of my headquarters.

**Exercise 9. Translate the following text at sight:**

**F/A-18A/B HORNET**

While the general configuration of the YF-17 was retained, the F-18 became a completely new airplane. To meet the single-place fighter and attack mission capability, full use was made of new technology in digital computers. Coupled with cathode ray tubes for cockpit displays and appropriate controls based on thorough pilot evaluations in simulators, a single airplane and subsystems configuration for both missions was evolved.

During development, two-place trainer versions were added, to be built in limited numbers as TF/A-18s, intermingled with the basic F/As. Minimum changes were made to incorporate the second cockpit, with the two-seat airplanes retaining the ability to perform combat missions.

While much attention was focused on development problems, these were largely typical of those in any new program, with their resolution being part of the development process. For the most part, these occurred in the basic aircraft hardware rather than in the digital electronic systems.

The original F/A-18A (single seat) and F/A-18B (dual seat) became operational in 1983 replacing Navy and Marine Corps F-4s and A-7s. It quickly became the battle group commander's mainstay because of its capability, versatility and availability. Reliability and ease of maintenance were emphasized in its design, and F/A-18s have consistently flown three times more hours without failure than other Navy tactical aircraft, while requiring half the maintenance time.

The Hornet has been battle tested and has proved itself to be exactly what its designers intended: a highly reliable and versatile strike fighter. The F/A-18

played an important role in the 1986 strikes against Libya. Flying from USS CORAL SEA (CV 43), F/A-18s launched high-speed anti-radiation missiles (HARMs) against Libyan air defense radars and missile sites, effectively silencing them during the attacks on Benghazi facilities.

**Exercise10. Translate the following text at sight:**

F/A-18 Hornet – самый массовый боевой самолет ВМС и КМП США. Относится к реактивным истребителям четвертого поколения. На F/A-18C/D установлена мультиплексная шина данных, соответствующая стандартам MIL-STD-1760, и бортовая система регистрации и контроля отказов FIRAMS.

На F/A-18C и D "Найт Аттэк", способных выполнять атаки в темное время суток и в сложных метеоусловиях, используются тепловизионная (thermal imaging) навигационная система Хьюз AN/AAR-50 (TINS), ИК система переднего обзора Лорал AN/AAS-38 NITE, очки ночного видения и совместимое с их использованием освещение кабины, цветные индикаторы и система отображения цифровой движущейся карты местности.

Конструкция самолета состоит на 49,6% из алюминиевых сплавов, на 16,7% – из стали, на 12,9% – из титановых сплавов, на 9,9% – из композиционных и др. материалов.

Самолет оборудован многорежимной цифровой импульсно-доплеровской РЛС Хьюз AN/APG-65, которая позволяет сопровождать до 10 целей, включать режим картографирования земной поверхности, осуществлять обход наземных препятствий, поиск надводных целей и сопровождение движущихся наземных целей. РЛС обеспечивает прицеливание при стрельбе из пушки, пуске УР и бомбометании.

На борту расположены две центральные 16-разрядные БЦВМ Контрол Дейта AN/AYK-14, аппаратура спутниковой навигационной системы, радионавигационная система Коллинз AN/ARN-118 TACAN, автоматическая система посадки на авианосец, станции предупреждения о радиолокационном облучении Магнавокс AN/ALR-50, устройство для разбрасывания дипольных отражателей, станция уводящих помех и другие системы.

**Exercise 11. Translate the following text in writing:**

**THE FIRST MIG-31**

In summer 1977, the Gorky based aircraft production plant built two first MiG-31s of the first development batch coded ‘Product 01’ (registration numbers 011 and 012). They had a number of design features different from experimental aircraft #831 and 832.

- an increased flaps' span (from 1.93 to 2.68 m);
- reduced area of horizontal control surfaces (from 10.12 down to 9.8 sq.m, due to the removal of the trim strip from the trailing edge), smaller sweep angles, rotation axes and stabilizer deflection angles;
- increased vertical tail length;
- modified brake flaps - their area was reduced from 1.94 to 1.4 sq.m with the deflection angle increasing from 40 to 44 degrees, the brake flaps moved in the plane parallel to the aircraft symmetry plane;
- the underbelly fins were the same as those of aircraft #832;
- the aircraft was equipped with the standard KN-25 navigation set featuring an inertial navigation system and a new computer;
- the weapons suite included the GSh-6-23 23 mm integral six-barrel cannon.

**Exercise 12. Translate the following text in writing:**

**F-22 RAPTOR – ИСТРЕБИТЕЛЬ НОВОГО ПОКОЛЕНИЯ**

I. Пентагон одобрил программу начала производства истребителей нового поколения F-22 "Raptor", сообщает ИНТЕРФАКС. Этот истребитель разработан американской авиастроительной компанией "Локхид Мартин" с применением современных технологий, включая "стелс". Однако вместо запланированных ранее 311 самолетов американское военное ведомство намерено приобрести 295 в связи с тем, что расходы на программу превысят выделенную сумму в $60 млрд., сообщает телекомпания CNN. Заместитель министра обороны США Пит Олдридж сообщил, что управление закупок Пентагона дало добро на приобретение первых 10 истребителей на сумму в $2,1 млрд. Истребитель F-22 "Raptor" призван заменить находящиеся на вооружении ВВС США самолеты F-15. При конструировании нового самолета использовались передовые технологии, в том числе "стелс", новые системы управления полетом и вооружением. Максимальная скорость F-22 составляет 2335 км/ч, операционная дальность полета 3704 км. Экипаж истребителя – 1 человек.

F-22 разработан компаниями Lokheed Aeronautical Systems Company, Lockheed Fort Worth Company и Boeing. При конструировании самолёта использовались передовые технологии, в том числе "stealth", новые системы управления полётом и вооружением, а также установлена РЛС с активной фазированной антенной решёткой. Техническая характеристи-

ка: мах. масса самолёта 26.308 кг, мах. скорость 2.335 км/ч, операционная дальность полёта 3.704 км, перегоночная дальность 19.810 км. Длина 19,55 м, высота 5,39 м, размах крыла 13,10 м. Экипаж 1 человек.

Вооружение: 20 мм авиационная пушка Вулкан (боекомплект 480 снарядов), УР класса воздух-воздух AIM-9 Sidewinder, 6 AIM-120 AMRAAM, 4 AIM-120A, управляемые авиационные бомбы 2 GBU-30 JDAM. Всё вооружение размещается во внутренних отсеках – два боковых и один большой в нижней части фюзеляжа. Возможно также размещение вооружения на 4-х внешних узлах подвески – 8 AIM-120A или 4 топливных бака.

Силовая установка состоит из двух новых ТРДД Pratt & Whitney F119-PW-100, на которые установлена система отклонения вектора тяги в вертикальном направлении в пределах +20-20 градусов. Особенностью данных двигателей является то, что сверхзвуковая скорость достигается в бесфорсажном режиме. Это значительно повышает время полёта в сверхзвуковом режиме.

## ARMY HUMOR
## Fighter Pilots

Q: How do you know if there is a fighter pilot at your party?
A: He'll tell you.
Q: What's the difference between God and fighter pilots?
A: God doesn't think he's a fighter pilot.
Q: What's the difference between a fighter pilot and a jet engine?
A: A jet engine stops whining when the plane shuts down.

## УРОК 20
## ВЕРТОЛЁТЫ

## LESSON 20
## HELICOPTERS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| helicopter | thrust |
| tandem-rotor | sonar buoys |
| anti-torque | autorotation |
| lever | coaxial |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons and translate them:**

Operations short of war; air superiority fighter; satellite navigation system; power projection; to conduct nuclear and chemical operations; redeployment; boresighting; suppression of enemy air defense; concentration of superior combat power at the decisive point and time; to assist in executing contingency plans; at the forward edge of the battle area; to alter the structure of atoms; the use of toxic substances; reconnaissance and training craft; aerodynamic shape.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| main rotor | несущий винт, главный ротор |
| tail rotor | рулевой винт, хвостовой винт; хвостовой ротор |
| main rotor blades | лопасти несущего винта |
| to hover | зависать (над объектом) |
| pitch | шаг воздушного винта |
| anti-torque pedals (directional control pedals) | педали путевого (ножного) управления |
| cyclic pitch stick | ручка управления циклическим шагом |

| | |
|---|---|
| collective pitch stick | ручка управления общим шагом; рычаг общего шага; ручка «шаг-газ» |
| torque | крутящий момент |
| thrust | сила тяги |
| tilting | 1. наклон 2. отклонение |
| swashplate | автомат перекоса; тарелка автомата перекоса |
| autorotation | авторотация |
| safety feature | способность обеспечить безопасность |
| emergency landing | аварийная посадка |
| tandem rotor (coaxial) heli | вертолет соосной схемы |
| sweep | *мор*. траление ‖ тралить |
| engine throttle controls | рычаги управления двигателя |
| to mount | монтировать, устанавливать |
| midsection | мидель |
| exhaust ports | выхлопное отверстие |
| to taper | сходить на конус, сужаться |
| rounded | закругленный, округлый, сферический, шарообразный |
| stepped-up | ступенчатый |
| landing gear struts | стойки шасси |
| hydraulically adjusted | с гидравлическим приводом |
| rear doors | створки задней двери |
| tailskid | костыль |
| retractable | выдвижной |
| loading ramp | 1. погрузочная аппарель<br>2. люк-трап; грузовой трап; рампа |
| winch | лебедка |
| tie-down ring | швартовочное кольцо |
| closed-circuit television system | замкнутая телевизионная система |

| | |
|---|---|
| sling load | подвесной груз, груз на внешней подвеске |
| large-size | крупногабаритный |
| engine load sharing system | система распределения нагрузки двигателя |
| cargo hatch | грузовой люк |
| ladder | трап |
| hoist | подъемный механизм |
| tie-down ring | швартовочное кольцо |
| joint stock company | акционерная компания; акционерное общество (АО) |
| freight | груз |
| firefighter | пожарный |
| airworthiness standards | нормы летной годности |
| refueling nozzle | заправочный рукав (пистолет) |
| hose | шланг |
| lubricants | смазочный материал |
| fuel reserve | запас топлива |
| standard payload | нормальная нагрузка |
| deice | противообледенительное устройство |
| loadmaster | старший по погрузочно-разгрузочным работам |

**Exercise 4. Read and translate the text at sight:**

## MANEUVERING A HELICOPTER

Helicopter is an aircraft that can take off and land vertically and can also hover motionless in the air. Helicopters are known as rotary-wing aircraft, as opposed to fixed-wing aircraft such as airplanes. A helicopter produces thrust by means of the blades of a main rotor as they rotate above the fuselage, or body, of the aircraft. As the blades rotate, an airflow is created over them, resulting in lift, which raises the helicopter skyward. The same rotor blades can be controlled to make the helicopter travel forward, backward, or sideways.

Some helicopters can achieve forward flight at speeds of over 320 km/h (200 mph).

A pilot maneuvers a helicopter by changing the pitch, or angle, of the rotor blades as they rotate through the air. As the blades rotate, they create lift. When the pitch of a blade is increased, more lift is produced. By directing the lift, the helicopter can be propelled in different directions. Pilots use three different controls to maneuver helicopters: anti-torque pedals, a cyclic pitch stick, and a collective pitch stick.

The pilot's feet control two anti-torque pedals, which are used to turn the helicopter to the left or right. The pedals control the pitch of the tail rotor blades, increasing or decreasing the thrust produced by that rotor. The tail rotor provides the sideways thrust needed to counteract the torque produced by the main rotor. Tandem-rotor helicopters, which use two main rotors instead of a main rotor and a tail rotor, turn by tilting the rotors in different directions.

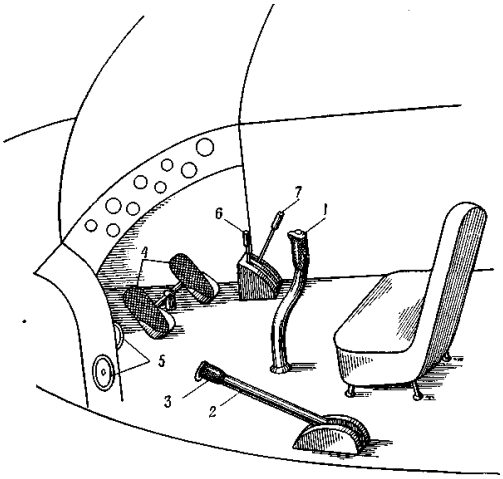



**Fig. 4. Helicopter controls:**

1. Cyclic pitch control stick 2. Collective pitch control stick 3. Fuel control 4. Directional control pedals 5. Trimmer control 6 –7 Engine throttle controls

The cyclic pitch stick moves a helicopter in a chosen direction by controlling the direction of the main rotor's thrust.

This stick affects the pitch of the rotor blades as they cycle through a rotation. Increasing the pitch of a blade at a particular point during its rotation increases the amount of lift at that point. By selecting where along the rotor's path lift is increased, the pilot can tilt the helicopter forward, backward, or to either side.

The cyclic pitch stick changes rotor pitch through a device called a swashplate. This device consists of two circular plates that surround the rotor shaft. The upper plate rotates with the shaft and the rotor blades and rests on the lower plate, which is controlled by the cyclic pitch stick. Moving the cyclic pitch stick forward, for example, tilts the lower plate, which in turn tilts the upper plate controlling the rotor blades.

The swashplate lowers the pitch of the blades as they pass the right side of the helicopter, momentarily decreasing lift and causing the blades to flap downward. The swashplate at the same time increases the pitch of the blades as they pass the left side of the helicopter, increasing lift and causing the blades to flap upward.

The front of the helicopter then points lower than the rear, and so the helicopter moves forward. Pushing the cyclic pitch stick in any direction will tip the rotor blades accordingly, allowing the helicopter to travel in any direction. When the stick is centered, the helicopter hovers in midair.

The collective pitch stick is a lever that allows the helicopter to climb and descend vertically. It changes the pitch of all the main rotor blades equally, and performs much the same function as the pedals perform on the tail rotor. Pulling or pushing on the lever increases or decreases the thrust produced, varying the lift.

In the event of a power failure, a helicopter can land safely by going into autorotation, or unpowered rotation of the rotor blades. The rotors will continue to turn because the helicopter's descent through the air produces an airflow over the blades and rotates them. When the rotor blades turn as the helicopter falls, they produce enough lift to allow the pilot to control the landing. Since the tail rotor gets power from the spinning of the main rotor, rather than directly from the engine itself, the tail rotor will continue to provide directional control. This safety feature allows the pilot to maintain a limited degree of control during an emergency landing.

Helicopters come in many sizes and are designed for a variety of roles.

The largest helicopter is the 80-seat Russian Mi-26 military helicopter. Its eight-bladed rotor has a diameter of 32 m (105 ft) and supports a gross weight of 56,000 kg (123,450 lb). Its maximum speed is 295 km/h (183 mph) with a cruising speed of 254 km/h (158 mph).

Helicopters also play an important role as military aircraft. Helicopters were first used in significant numbers during the Korean War (1950-1953), evacuating wounded soldiers from the battlefield to field hospitals. During the Vietnam War (1959-1975) helicopters also participated in combat missions. An attack helicopter can provide fire support to ground troops or serve as an antitank vehicle, capable of firing wire-guided or laser-guided missiles. Heli-

copters are frequently used to move troops quickly into and out of combat zones. Navies use helicopters equipped with sonar buoys to listen for enemy submarines. Other naval helicopters can rescue downed pilots from the sea or tow sleds that sweep for underwater mines.

**COMMENTARY:**

**Terms and definitions**

а) Среди «ложных друзей переводчика» термин ***control***, как уже известно из предыдущих комментариев, пожалуй, наиболее часто встречающийся в военной лексике. Его основное значение – ***управление, руководство***, а не *контроль*; по аналогии ***to control*** значит, прежде всего, ***управлять, руководить***. Такие терминологические группы как ***command and control (C²)*** или **C³** ***(command, control and communications)*** переводятся как *руководство и управление* и *руководство, управление и связь,* соответственно.

В армии «контролирующий офицер», или «офицер группы контроля», это вовсе не начальник и не руководитель. Нет универсального английского глагола, подходящего для всех ситуаций, для того, чтобы перевести глагол ***контролировать***. Переводчик обычно стоит перед выбором из ряда английских эквивалентов, таких как ***to supervise, monitor, check, verify, regulate, audit, control***, причем ***to control*** среди них наименее точный, но наиболее напрашивающийся.

Однако для таких устоявшихся словосочетаний, как *The situation is under control* перевод «Ситуация под контролем» будет совершенно адекватным.

Неординарность слова ***control*** еще больше подчеркивает тот факт, что с употреблением его во множественном числе происходит «сдвиг значения» – довольно редкое языковое явление. Термин ***controls*** означает *рычаги, ручки, штурвалы* или *рули управления*.

б) Другими примерами сдвига значения термина во множественном числе, с которыми сталкивается военный переводчик, являются пары **defense** – оборона, **defenses** – оборонительные сооружения (air defenses – силы и средства ПВО), store – склад, запас; stores – материальные средства, имущество, грузы.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. How does the helicopter produce thrust to hover in the air?
2. What maximum forward speed can a helicopter achieve?

3. How does the pilot change the pitch of the rotor blades to maneuver his helicopter?
4. What the anti-torque pedals are for?
5. Do you know any tandem-rotor helicopters?
6. Do engines drive the tail rotor?
7. Why are helicopters capable of increasing the pitch of a blade at a particular point?
8. What is the cyclic pitch stick designed for?
9. What does the swashplate consist of and what are its functions?
10. How does the collective pitch stick affect the lift?

**Exercise 6. Decipher and translate the following abbreviations:**

GPS, DOD, Pt Off, LTC, HQ, ВПП, Maj, ATC, ICBM, ПРЛР, AWACS, COS, RAF, LT, STOL, Flt Lt, Col, AFB, AFSC, СВВП, ЛА, Bn, SFOR, ABS, CO, LTA, Sqn Ldr, AH, КМП США, VTOL, ОКБ, Air Cdre, $C^3$, JCS, РУД, lb., ИК, MUX, USS, Gp Capt, NAVFLIR, ops, T/O AFIC, Wg Cdr.

**Exercise 7. Translate the following words and word combinations by ear:**

To take off and land vertically; the cyclic pitch stick; to produce thrust by means of the blades; to provide fire support to ground troops; the anti-torque pedals, to raise the helicopter skyward; to travel forward; at speeds of over 320 km/h; to use different controls to maneuver helicopters; the collective pitch stick; tail rotor blades; to counteract the torque produced by the main rotor; tilting the rotors in different directions; this stick affects the pitch of the rotor blades; the swashplate; a chosen direction; when the stick is centered; a lever that allows the helicopter to climb and descend; in the event of a power failure; the spinning of the main rotor; unpowered rotation; helicopters come in many sizes; to participate in combat missions; were used in significant numbers; to listen for enemy submarines; laser-guided missiles; to rescue downed pilots.

Ручка управления циклическим шагом, в заданном направлении; крутящий момент; лопасти несущего винта; автомат перекоса; наклон; аварийная посадка; вертикально взлетать и садиться; при вращении лопастей; создавать большую подъемную силу; вертолеты соосной схемы; лопасти рулевого винта; совершать маховые движения, гидроакустическая станция, компенсировать крутящий момент; когда рычаг находится в центральном положении; выполнять примерно такие же функции; спасти сбитого летчика; при отказе двигателя; менять шаг, педаль управле-

ния хвостовым винтом; отдать ручку управления от себя; увеличить шаг рулевого винта; воздействуя на педали; участвовать в боевых действиях; осуществлять гидроакустический поиск подводных лодок противника.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| 1. Major, sir, can I ask you something? During your presentation you were saying that we would enjoy flying the Kamov-50… | 1. Вы никогда не замечали, что все хвалят К-50? А почему? Потому, что центр его массы (center of mass) находится на оси с несущим винтом. И поэтому он может с одинаковой легкостью летать боком или задом вперед, да как угодно! |
| 2. I know the feeling. Sea Kings are very maneuverable machines too. | 2. Не для всех вертолетов это так. Потому приходится учитывать еще эффект смещения (shift effect) центра массы. Когда вертолет уходит на поворот, сила тяжести, действующая на центр массы, заставляет вертолет повернуться по оси несущего винта так, чтобы направление движения совпадало с направлением фюзеляжа (извините за некоторый каламбур). |
| 3. Sorry, I didn’t get it. What was that again? | 3. Я говорю, что когда вертолет делает поворот, сила, действующая на центр тяжести – центр тяжести – заставляет вертолет повернуться по оси несущего винта таким образом, чтобы направление движения совпадало с продольной осью фюзеляжа. |
| 4. I see your point. It’s even worse if the chopper is overloaded. | 4. Хорошо, если центр массы расположен немного впереди и внизу, тогда все идет без проблем, а если он позади, то вертолет будет порываться уехать по оси в сторону. |
| 5. So, what? | 5. На скорости это не страшно, но при зависании, в частности при проведении спасательных работ, эта неустойчивость сказывается. Если вы пробовали посадить вертолет при полной загрузке, вы, наверное, замечали склонность вертолета крутиться при взлете или посадке. |
| 6. Oh, yeah. You have to balance it with ped- | 6. Для избежания этого пилоты тяжелых "вертушек" стараются взлетать и садиться с |

als – to control the pitch of the tail rotor blades.

разгоном по полосе. Некоторые вертолеты при перегрузе или высокогорных условиях вообще не могут взлететь по-другому. На легких машинах часто можно заметить дополнительные плоскости на хвостовой балке, которые дают дополнительную устойчивость при полете на скорости.

**Exercise 9. Translate the following text at sight:**

Igor Sikorsky built the first successful single main rotor helicopter, which he first flew in 1939. He was the first to include a tail rotor, the second set of blades at the rear of the helicopter, to stabilize the aircraft and make it easier to control.

During the 1990s, aeronautical engineers applied radar-evading stealth technology to the design of certain military helicopters. The first helicopter to incorporate this technology was the U.S. Army's RAH-66 Comanche, developed jointly by the Boeing Company and Sikorsky Aircraft Corporation.

The fuselage is shaped to reduce the helicopter's visibility to enemy radar, and weapons are carried internally to further reduce the helicopter's detection by radar. The Comanche is also designed to radiate less heat than other helicopters in order to evade infrared (heat-seeing) detectors.

**Exercise10. Translate the following text at sight:**

Особый интерес представляют развороты (banking) на режиме висения вертолета, которые осуществляются увеличением или уменьшением шага рулевого винта. При этом число оборотов (rpm) рулевого винта строго соответствует числу оборотов несущего винта, так как несущий винт через трансмиссию синхронно связан с рулевым винтом. Изменяя шаг лопастей рулевого винта, мы соответственно увеличиваем или уменьшаем мощность, затрачиваемую на его вращение (за счет изменения момента), т. е. мы как-то перераспределяем мощность, которую отдает двигатель. Уменьшая мощность, затрачиваемую на вращение рулевого винта, мы увеличиваем часть мощности, которая затрачивается на несущий винт, и тем самым увеличиваем скорость его вращения. Это вызывает некоторое увеличение тяги несущего винта, а затем и подъем вертолета. При увеличении мощности, затрачиваемой на вращение рулевого винта (разворот в сторону вращения несущего винта), происходит некоторое уменьшение тяги несущего винта и "просадка" вертолета. Таким образом, для сохра-

нения постоянной высоты полета при разворотах (что важно при висении у земли), необходимо корректировать газ двигателя для поддержания постоянной величины тяги несущего винта.

**Exercise 11. Translate the following text in writing:**

**Mi-26 HALO**

The Mi-26 helicopter, the heaviest and most powerful helicopter in the world, was designed for carrying large-size cargoes weighing up to 20 tons. It can be used for construction projects ranging from bridges and power transmission lines to heavy fortifications. The combination of high load-carrying capacity and high cruise speed makes the use of the helicopter economically efficient.

The Mi-26 is the first helicopter with an eight-blade main rotor, which is mounted above the fuselage midsection on a hump. Two turboshaft engines are mounted on top of the cabin with round air intakes above and behind the cockpit and exhaust ports at the sides of the engines.

The long, bus-like body with fixed tricycle landing gear tapers to the nose and rear, with an upswept rear section and rounded nose and stepped-up cockpit. The tail is swept-back with a slightly tapered fin with large rotor on right side. The flats are forward-tapered and low-mounted on leading edge of the fin.

The HALO-A has no armament. The load and lift capabilities of the aircraft are comparable to the US C-130 Hercules transport aircraft. The length of the landing gear struts can be hydraulically adjusted to facilitate loading through the rear doors. The tailskid is retractable to allow unrestricted approach to the rear clamshell doors and loading ramp.

The cargo compartment has two electric winches (each with 2,500 kg capacity) on overhead rails that can move loads along the length of the cabin. The cabin floor has rollers and tie-down rings throughout. The HALO has a closed-circuit television system to observe positioning over a sling load, and load operations. The Mi-26 is capable of single-engine flight in the event of loss of power by one engine (depending on aircraft mission weight) because of an engine load sharing system. If one engine fails, the other engine's output is automatically increased to allow continued flight.

**Exercise 12. Translate the following text in writing:**

Переход с горизонтального полета на режим висения или вертикального спуска осуществляется взятием ручки управления на себя и некоторым умень-

шением общего шага; однако для окончательного прекращения горизонтального движения вертолета необходимо несколько увеличить общий шаг.

Вертикальный спуск осуществляется постепенным уменьшением общего шага винта. Техника пилотирования (flying technique) различных вертолетов имеет свои особенности и подробно излагается в инструкциях по технике пилотирования каждого данного типа вертолета. Ручка управления расположена перед сиденьем летчика и связана с автоматом перекоса. Отклонения ручки от нейтрального положения будут означать: вперед – наклон вертолета на нос и движение его вперед, назад – наклон вертолета на хвост и движение его назад, влево – наклон вертолета влево и движение его влево, вправо – наклон вертолета вправо и движение его вправо.

Педали ножного управления расположены так же, как и на самолете, т. е. впереди сиденья. Воздействуя на педали, летчик управляет шагом рулевого винта, осуществляя тем самым путевое управление вертолетом.

Рычаг управления общим шагом расположен обычно влево от сиденья летчика. С помощью его летчик одновременно управляет изменением шага (установочного угла) всех лопастей несущего винта. Движение рычага вверх соответствует увеличению шага – подъему вертолета. Движение рычага вниз соответствует уменьшению шага – снижению вертолета. Изменение положения рычага общего шага немедленно вызывает изменение числа оборотов двигателя, так как при этом происходит изменение потребной мощности.

## ARMY HUMOR

### Time Check

On some air bases the Air Force is on one side of the field and civilian aircraft use the other side of the field, with the control tower in the middle. One day the tower received a call from an aircraft asking, "What time is it?"
The tower responded, "Who is calling?"
The pilot replied, "What difference does it make?"
The tower replied "It makes a lot of difference.
If it is an American Airlines flight, it is 3 o'clock.
If it is an Air Force plane, it is 1500 hours.
If it is a Navy aircraft, it is 6 bells.
If it is an Army aircraft, the big hand is on the 12 and the little hand is on the 3.
If it is a Marine Corps aircraft, it's Thursday afternoon and 120 minutes to "Happy Hour".

# ГЛАВА 5
# ПРОТИВОВОЗДУШНАЯ ОБОРОНА (ПВО) И ПРОТИВОРАКЕТНАЯ ОБОРОНА (ПРО)

# CHAPTER 5
# AIR DEFENSE AND MISSILE DEFENSE

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## УРОК 21
## СТРУКТУРА ПВО

## LESSON 21
## AIR DEFENSE STRUCTURE

**Exercise 1. Find and translate the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| extraterrestrial | decoy |
| sophisticated | isolated |
| revetment | horizon |
| appropriate | plexus |
| Cheyenne | warning |

**Exercise 2. Read the following words and word combinations of the previous lessons:**

To take off and land vertically; the cyclic pitch stick; to produce thrust by means of the blades; to provide fire support to ground troops; the anti-torque pedals, to raise the helicopter skyward; to travel forward; at speeds of over 320 km/h; to use different controls to maneuver helicopters; of very large radars; at about the 55th parallel; gaps in the radar coverage.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| air defense (AD) | противовоздушная оборона |
| distant early warning line (DEW line) | рубеж дальнего радиолокационного обнаружения |

| | |
|---|---|
| general air defense | ПВО страны |
| area air defense | ПВО района (территориальная ПВО) |
| point air defense | ПВО объекта |
| antiaircraft defense | ПСО (противосамолётная оборона) |
| missile defense | противоракетная оборона (ПРО) |
| penetration of air space | проникновение в воздушное пространство |
| penetration of air defense | преодоление системы ПВО |
| revetment | Капонир |
| sensor | датчик, чувствительный элемент |
| IFF interrogator | запросчик «свой-чужой» |
| IFF transponder | ответчик «свой-чужой» |
| target present data | текущие координаты цели |
| target designation | целеуказание |
| display board | табло отображения информации |
| fan-shaped beam | веерный луч |
| airborne early warning aircraft | самолёт радиолокационного дозора |
| radar picket ship | корабль радиолокационного дозора |
| over-the-horizon-back-scatter (OTH-B) radar | загоризонтная РЛС |

| | |
|---|---|
| aerospace attack | воздушно-космическое нападение |
| North American Aerospace Defense Command (NORAD) | командование воздушно-космической обороны Северной Америки |
| North American Air Defense Command (NORAD) (ист.) | Объединенное командование ПВО североамериканского континента (НОРАД) |
| NORAD COC — NORAD Combat Operations Center | Боевой оперативный центр НОРАД |
| NORAD SC — NORAD Surveillance Center | Центр сбора и обработки данных наблюдения НОРАД |
| NORAD SDC — NORAD Space Defense Center | Центр космической обороны НОРАД |
| BMEWS — Ballistic Missile Early Warning System | система дальнего обнаружения баллистических ракет |
| Mid-Canada Line | рубеж радиолокационного обнаружения «Мид Канада» |
| Pine tree line | рубеж радиолокационного обнаружения "Пайн Три" |
| SPADATS — Space Detection and Tracking System | система обнаружения и слежения за воздушным и космическим пространством |
| SEWS — Satellite Early Warning System | система раннего обнаружения и слежения за спутниками противника |
| to scan the air space | осуществлять наблюдение за воздушным пространством |
| to predict the path of the target | осуществлять расчёт траектории |

| | |
|---|---|
| | полёта |
| to transmit (generate) target designation instructions | вырабатывать (выдавать) данные целеуказания |
| to alert active AD forces | приводить активные средства ПВО в боевую готовность |
| to scramble fighter-interceptors | поднять (по тревоге) истребители-перехватчики |
| to lock on | осуществить захват |
| to pick up | обнаруживать и захватывать |

**Exercise 4. Read and translate the text:**

**AIR DEFENSE (AD)**

The term ‘air defense’ denotes defensive measures taken against attack by aircraft or other flying objects. It consists of two types of activities (a) active AD to prevent or oppose enemy penetration of air space or AD and (b) passive AD to reduce the effect of enemy air action. In general, active AD includes the detection, identification, interception and destruction of attacking aircraft or missiles. Passive AD includes dispersion, camouflage, evacuation, provision of air raid shelters, revetments, etc. Active AD of a vast area is termed general AD (or national AD), while that of a small area or an isolated objective is known as area AD for the former and point AD for the latter.

The effective AD system should provide necessary warning and protection against aerial (aerospace) attacks as a balanced whole. Detection and warning are afforded by sophisticated radar systems, sensors, electronic means, IR and communication equipment. Protection is provided by the intricate weapons systems of antiaircraft, antiballistic missile and extraterrestrial defense forces. In addition there may be ECM techniques to prevent own radars and communications against jamming and to jam enemy radars and communications.

Basic to any AD system is the early warning radar system consisting of two different types of defense radars: (a) search (surveillance) broad-beam radar stations to detect objects in the airspace, and (b) tracking narrow-beam radar stations designed to lock-on any object picked up by the detection radars. When unknown aircraft is detected it should be identified as friendly or hos-

tile. For this purpose target identification radars are used. They comprise IFF interrogator and IFF responder systems. Apart from determining such target present data as elevation, bearing and range, the tracking radar can also produce target speed information by means of the Doppler effect. The target data is then passed on to an electronic computer which records and predicts the path of the target, and transmits target designation instructions to the fire control system.

## NORTH AMERICAN AEROSPACE DEFENCE COMMAND (NORAD)

North American Aerospace Defense Command (NORAD) is a joint organization of the United States and Canada that provides aerospace warning and control for North America. It was founded on May 12, 1958, as the North American Air Defense Command. Since 1963, NORAD's main technical facility has been the Cheyenne Mountain Operations Center in Colorado, and for this reason NORAD is sometimes unofficially referred to as Cheyenne Mountain.

NORAD's headquarters facilities in Colorado are administered by the U.S. Air Force under the command of the 721st Mission Support Group, part of the 21st Space Wing, headquartered at Peterson Air Force Base. NORAD's forces consist of the Alaskan NORAD Region/Eleventh Air Force, Canadian NORAD Region, and Continental NORAD Region.

### MISSSION

"NORAD continuously provides worldwide detection, validation and warning of a ballistic missile attack on North America and maintains continental detection, validation, warning and aerospace control of air-breathing threats to North America, to include peacetime alert levels and appropriate aerospace defense measures to respond to hostile actions against North America."

### HISTORY

The growing perception of the threat of long-range Soviet strategic bombers armed with nuclear weapons brought the U.S. and Canada into closer cooperation for air defense. In the early 1950s the U.S. and Canada agreed to construct a series of radar stations across North America to detect a Soviet attack over the Arctic. The first series of radars was the Pinetree Line, completed in 1954 and consisting of 33 stations across southern Canada. However, technical defects in the system led to more radar networks being built. In 1957, the McGill Fence was completed; it consisted of Doppler radar for the detection of low-flying craft. This system was roughly 300 miles north of the Pinetree Line along the 55th parallel. The third joint system was the Distant Early Warning Line (DEW Line), also completed in 1957. This was a network of 57 stations along the 70th parallel. The systems gave around three hours

warning of bomber attack before they could reach any major population center.

The command and control of the massive system then became a significant challenge. In 1957, with the U.S. and Canada established an integrated command, the North American Air Defense Command. On September 12, operations commenced in Colorado.

By the early 1960s, about 250,000 personnel were involved in the operation of NORAD. The emergence of the intercontinental ballistic missile (ICBM) and submarine-launched ballistic missile (SLBM) threat in the early 1960s was something of a blow. In response, a space surveillance and missile warning system was constructed to provide worldwide space detection, tracking and identification. The extension of NORAD's mission into space led to a name change, the North American Aerospace Defense Command in March 2007.

From 1963, the size of the U.S. Air Force was reduced, and obsolete sections of the radar system were shut down. However, there was increased effort to protect against an ICBM attack; two underground operations centers were set up, the main one inside Cheyenne Mountain and an alternate at North Bay, Ontario. By the early 1970s, the acceptance of mutual assured destruction doctrine led to a cut in the air defense budget and the repositioning of NORAD's mission to ensuring the integrity of airspace during peacetime. There followed significant reductions in the air defense system until the 1980s, when, following the 1979 Joint US-Canada Air Defense Study (JUSCADS) the need for the modernization of air defenses was accepted—the DEW Line was to be replaced with an improved Arctic radar line called the North Warning System (NWS); there was to be the deployment of Over-the-Horizon Backscatter (OTH-B) radar; the assignment of more advanced fighters to NORAD, and the greater use of Airborne Warning and Control System (AWACS) aircraft from Tinker Air Force Base in Oklahoma or Elmendorf Air Force Base in Alaska. These recommendations were accepted by the governments in 1985. The United States Space Command was formed in September 1985 as an adjunct but not a component of NORAD.

## POST-COLD WAR

At the end of the Cold War NORAD reassessed its mission. To avoid cutbacks, from 1989 NORAD operations expanded to cover counter-drug operations, especially the tracking of small aircraft. But the DEW line sites were still replaced, in a scaled-back fashion by the North Warning System radars between 1986 and 1995. The Cheyenne Mountain site was also upgraded. However, none of the proposed OTH-B radars is currently in operation.

## POST-SEPTEMBER 11 ATTACKS

After September 11, the NORAD mission evolved to include monitoring of all aircraft flying in the interior of the United States. On July 28, 2006, military officials announced that NORAD's day-to-day operations would be consolidated, for purposes of efficiency, in an ordinary building at Peterson Air Force Base in nearby Colorado Springs. The mountain will be kept only as a backup in "warm standby," though fully operational and staffed with support personnel should the need arise. NORAD officials stated that the same surveillance work can be continued without the security the facility provides. They emphasized that they are no longer concerned about a halt to their operations from an intercontinental nuclear attack.

**CHRISTMAS**

NORAD comes annually to public attention at Christmas, when it tracks Santa Claus on his journey around the world delivering toys for the world's children. This tradition started in 1955 when a local Sears store in Colorado misprinted the phone number and children thought they were calling Santa, but called CONAD (NORAD's predecessor) instead. The NORAD Christmas patrol was referenced in the book Stuffed Animals by Michael Fry and T Lewis, the fourth Over the Hedge book.

**COMMENTARY:**

**1. Terms and Definitions:**

a) **Doppler Effect** is the change in the observed frequency of a vibration because of relative motion between the observer and the source of the vibration.

To sound this effect is everyday experience; e.g., when a blowing horn is passed at any speed above 10 mph the pitch of the note becomes increasingly lower.

b) **OTHB** is the over-the-horizon-backscatter radar, a system designed to eliminate the line-of-sight handicap of conventional radar.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Как вы думаете, в чём причина того, что задачи, решаемые войсками ПВО, усложнились, а круг их расширился?
2. Какие задачи возлагаются на силы и средства ПСО, ПРО и ПКО?
3. При помощи каких средств ведётся обзор воздушно-космического пространства?

4. Почему самолёты и корабли радиолокационного дозора располагаются на значительном удалении от обороняемых объектов?
5. Объединяются ли наземные станции обнаружения в единую систему радиолокационного обнаружения?
6. Какова дальность действия радиолокационных станций, расположенных в Гренландии, на Аляске и в Англии?

**Exercise 6. Decipher and translate the following abbreviations:**

AD; ABM; SPADATS; SEWS; NORAD; DEW; BMEWS; SDC; SC; COC; ECM; ECCM; DOD; JCS; SAC; USMC; USAF; USN; CEV; NATO; RR; TOW; LASER; SIGCEN; COMINT; XMTR; CRT; PPI; AP; EEAT; MICV; APC; ARSD; IR; IFF.

**Exercise 7. Translate the following words and word combinations by ear:**

Target designation; IFF interrogator; to detect targets in the airspace; surveillance radar; blip; NORAD surveillance center; ascertained by computers; BMEWS; to alert active AD forces; to scramble; phased-array radar; airborne early warning aircraft; to track the target; to penetrate AD system; picket ship; to predict the path of the target; display board; to serve as the main plexus; target present data; bearing.

Выдавать целеуказание; обеспечивать обнаружение и раннее оповещение; производить опознавание воздушных объектов; уточнять, является ли воздушный объект боевой частью МБР, стратегическим бомбардировщиком или ложной целью; преодолевать систему ПВО; табло отображения информации; осуществлять наблюдение за воздушным пространством; радиопротиводействие; обнаруживать цель и захватывать её при помощи РЛС; веерный луч; определять координаты цели.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Под термином ПВО понимается комплекс оборонительных мероприятий, направленных на борьбу с самолётами и другими летающими объектами. | It consists of two types of activities - active measures to prevent or to interfere with air attacks and passive measures to reduce the effect of enemy air action. |
| Активная ПВО включает обнаружение, опознавание, перехват | It is a military responsibility carried out by a unified system of |

| | |
|---|---|
| и уничтожение воздушных целей. | aircraft control and warning radar stations, interceptor aircraft and antiaircraft artillery. |
| Некоторые пассивные мероприятия, например управление полетами самолетов, осуществляются совместно военными и гражданскими службами. Другие пассивные мероприятия возлагаются на гражданские органы. | The effective air defense system requires close co-operation between military and civilian organizations. |
| Радиолокационные средства раннего обнаружения составляют основу системы ПВО США. | Although restricted in its ability to ‘see’ long distances because it operated on a line-of-sight principle and did not follow the curvature of the earth, radar in the air defense system of the 1950's was able to detect aircraft at distances of nearly 250 mi and at heights of 50,000 ft. |
| Сеть РЛС обнаружения, расположенных в несколько линий, позволяет ПВО страны обеспечить раннее оповещение о приближении бомбардировочной авиации и привести средства ПВО в боевую готовность. | Because a serious limitation of radar is its inability to detect objects at low altitudes, all air defense systems continued for some years to rely upon ground observers to the radar networks. |

**Exercise 9. Translate the following text at sight:**

**Text 1.**

The tracking radar is in effect the slave of the computers. In theory, the detection radars are in operation at all times, sending their ‘fans’ out over the polar horizon. When an object passes through these fans, the information is passed along to the computers. The computers, in turn, calculate the position and velocity of the object, and feed these data to the tracking radars. The

tracking radars then rapidly swivel to the correct azimuth and degree of elevation (as indicated by the computers), lock-on the missile, and continue to track it as it comes in — all the while gathering new data which are also fed into the computers.

**Text 2.**

The Aerospace Defense Command's air defense warning continues to be provided by the DEW line, coupled with the OTH-B system. The latter is along in its development. It is to eliminate the line-of-sight restrictions of conventional radar, and increases detection capability from hundreds of miles to thousands of miles. Four of these radars would give 360-degree coverage from the very ground up to extreme ranges.

**Text 3.**

A fully automatic AD system — the first to integrate IR sensors with conventional radars and correlate the returns — has been successfully tested by Hughes and is used aboard US Navy ships as the improved Point Defense Target Acquisition System to speed the detection, identification, and tracking of approaching targets so that single ships can quickly defend themselves against threats — especially low-flying targets.

**Exercise 10. Translate the following text at sight:**

В период конца 70-х начала 80-х годов в практику рода войск входит отработанная методика вывода частей и соединений на государственный полигон для проведения тактических учений с боевой стрельбой. Соединения и части выводились на полигон в полном составе, со штатным вооружением и военной техникой. Учения проводились комплексно, на сложном тактическом и оперативном фонах, с реальным совершением длительных маршей комбинированным способом. Руководили учениями общевойсковые командиры (командующие).

В последние десятилетия войска ПВО сухопутных войск в ходе реформ, проводимых в Вооружённых силах, претерпели существенные изменения, в первую очередь, связанные с сокращением их боевого и численного составов.

Сегодня основу войсковой противовоздушной обороны составляют войска ПВО военных округов, соединения, воинские части и подразделения ПВО Сухопутных, Воздушно-десантных и береговых войск ВМФ. Они предназначены для:

- ведения разведки и отражения ударов средств воздушного нападения противника;
- защиты группировок войск и объектов от ударов с воздуха во всех видах боевых действий, при перегруппировках войск и расположении их на месте.

**Exercise 11. Translate the following text in writing:**

The US Command holds that the modern equipment installed in the Cheyenne Mountain is being outdated by new developments. To counter an attack from orbiting satellites, parts of the AD system are being converted to the needs of the space age.

This phase of the network is called SPADATS. The BMEWS radars, and other radar systems operated by the AF, Army and Navy, have been following more than 3000 orbiting objects (the number increases almost weekly) ranging from burned-out booster motors to pay-load satellites. Every one of these sightings, plus their paths and characteristics, are fed into NORAD computers – just in case they are needed.

The 1,500-lb satellites in the SEWS system carry two types of sensors and a ground-activated TV camera.

One of the sensors detects and reports missile launches by picking up IR emissions given off by the rockets' engines, while the second records the rise of the rockets into the atmosphere by tracking light reflections. For defense planners the possibilities inherent in these satellites are enormous. For the first time they can envision a ballistic missile defense system that will permit accurate interception of the enemy warheads in mid-flight and before they can release their decoys and multiple warhead re-entry vehicles.

**Exercise 12. Translate the following text in writing:**

**Text 1.**

На НОРАД возлагается задача управления боевыми действиями при отражении налетов авиации, баллистических ракет и других средств нападения. Для этого командование НОРАД располагает комплексом автоматизированных и полуавтоматизированных систем, обеспечивающих наблюдение за воздушно-космическим пространством, сбор, анализ и передачу информации и координацию боевых действий всех систем ПСО и ПРО.

В рамках блока НАТО объединенная европейская система Нейдж, которая охватывает группу стран, входящих в Североатлантический блок,

простирается в виде вытянутой дуги от Норвегии через Италию до Турции. Вся территория этой группы стран разбивается на несколько районов ПВО. Управление боевыми действиями в районе ПВО осуществляется из центра района, где обрабатывается и отображается различная информация.

**Text 2.**

Основными источниками информации оперативно-командного центра НОРАД по вопросам противосамолетной и противоракетной обороны являются следующие автоматизированные станции: станции системы дальнего обнаружения баллистических ракет «Бимьюс», расположенные в Англии, Туле (Гренландия) и Клире (Аляска); станции системы дальнего обнаружения самолетов «Дью», расположенные несколько севернее полярного круга вдоль северного побережья Канады и Аляски (протяженность линии свыше 8000 км), ее флагманами служат самолеты и корабельные радиолокационные дозоры в Атлантическом и Тихом океанах, станции системы «Мид Канада», расположенные в центральной части Канады, станции, расположенные вдоль северной границы США – система «Пайн Три», и станции, расположенные вдоль восточных, южных и западных границ США.

Кроме указанных автоматизированных систем, оперативно-командный центр НОРАД обеспечивается информацией от системы «Сейдж», осуществляющей наблюдение за воздушным пространством Североамериканского континента.

Средствами информации противокосмической обороны являются станции системы «Спадатс», расположенные на Аляске, западном побережье США, на северном побережье Южноамериканского континента и в других местах.

**ARMY HUMOR**
**Military Christmas**

'Twas the night before Christmas,
and all through the skies,
Air defenses were up, with electronic eyes.
Combat pilots were nestled in ready-room beds,
As enemy silhouettes danced in their heads.

On Aegis! Up Patriot, Phalanx and Hawk,
And scramble our fighters--let's send the whole flock.
Launch decoys and missiles, use chaff by the yard!
Get the kitchen sink up! Call the National Guard!

Every jet on the apron, each SAM in its tube,
Was triply-redundant, linked to the Blue Cube,
And ELINT and AWACS gave coverage so dense
That nothing that flew could slip through our defense.

When out of the klaxon arose such a clatter
I dashed to the screen to see what was the matter;
I increased the gain and then, quick as a flash,
Fine-adjusted the filters to damp out the hash.

And there found the source of the warning we'd heeded:
An incoming blip, by eight escorts preceded.
"Alert status red!" went the word down the wire,
As we gave every system the codes that meant "FIRE!"

They turned toward the target, moved toward it, converged.
Till the tracks on the radar all finally merged,
And the sky was lit up with a demonic light,
As the foe met his fate in the high arctic night.

So we sent out some recon to look for debris,
Yet all that they found, both on land and on sea
Were some toys, a red hat, a charred left leather boot,
Broken sleigh bells, white hair, and a deer's parachute.

Now it isn't quite Christmas, with Saint Nick shot down.
There are unhappy kids in each village and town.
For the Spirit of Christmas can't hope to evade
All the web of defenses we've carefully made.

But a crash program's on: Working hard, night and day,
All the elves are constructing a radar-proof sleigh.
So let's wait for next Christmas, in cheer and in health,
For the future has hope: Santa's coming by stealth!

## УРОК 22
## СИСТЕМЫ ВООРУЖЕНИЙ ПВО

## LESSON 22
## AIR DEFENSE WEAPONS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| miniaturized | virtually |
| impetus | re-evaluate |
| evasive | associated |
| thermionic | aerodynamic |
| astern | Patriot |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

If it is used to deploy; these include; aided by advances in the field of electronics; such as the substitution of the transistor; in their right perspective; correlates it in terms of; for the servo-controls to align towards these coordinates; to provide low-altitude short-range air defense throughout the combat zone; these are represented in the US aerospace defense command.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| package | аппаратура управления (наведения); |
| guidance package | блок аппаратуры управления (наведения) |
| servo control | сервоуправление; серворегулирование; сервопривод |
| astern | сзади, со стороны хвоста; с задней полусферы |

| | |
|---|---|
| collision course | встречно-пересекающийся курс; траектория наведения в упрежденную точку |
| wing loading | (удельная) нагрузка на крыло |
| low aspect ratio wing | крыло малого удлинения |
| AI (airborne intercept) radar | бортовая (поисково-прицельная) РЛС перехвата |
| attack area | зона атаки; район цели; зона выхода на цель |
| inertial navigation | навигация при помощи инерциальной системы; инерциальное наведение |
| terminal mode | режим управления на конечном участке траектории |
| evasive action | противозенитный маневр |
| formation target | групповая цель |
| split-up warhead | разделяющаяся боевая часть ракеты |
| automated control system | автоматизированная система управления (АСУ) |
| high-to-medium-altitude air defense (HIMAD) | ПВО против высотных и средневысотных целей |
| low-to-medium-altitude air defense (LOMAD) | ПВО против средне- и маловысотных целей |
| short-range air defense system (SHOEAD) | ЗРК ближнего действия |

| | |
|---|---|
| to correlate | сопоставлять, устанавливать соотношение |
| to align | выравнивать (в заданном направлении); нацеливать; наводить |
| to deploy active AD means | развертывать активные средства ПВО |
| to put smth in its right perspective | реально оценивать перспективу |
| to be contained within the missile body | находиться (размещаться) на борту ракеты |
| to provide the necessary cover | обеспечивать надежное прикрытие |
| to maneuver into an attacking position | занимать выгодное положение для атаки |
| to release the weapons | открывать огонь боевыми средствами |

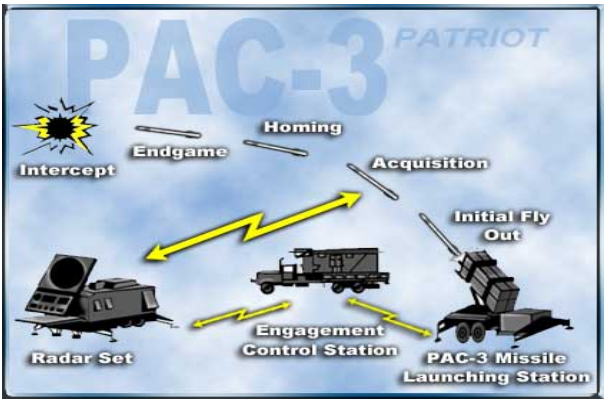
**Exercise 4. Read and translate the text:**

**AIR DEFENSE WEAPONS**

An early warning system is only part of any AD system and is only effective if used to deploy the other vital element of defense capability, that is the weapons to counter the attack of which warning is given. Thus, NORAD's job is to organize an effective defense, for which it has operational control of active AD means. These include ground- or ship-based SAM systems, supersonic fighter-interceptors, AA artillery and automated control systems.

Later AD developments are characterized by the growing importance of the SAM's. These range from the man-portable Stinger to the long-range Bomarc. The development of such weapons was due to the advances in the field of electronics. New techniques such as the substitution of the transistor for the thermionic valve, printed circuits and other attainments resulted in the necessary guidance and control packages being made in miniaturized electron-

ics units. This made it possible to put such weapons in their right perspective when used in AD.




SAM works on the principle of a launching in the direction of the target zone, using its own motor for the necessary impetus. Once in flight the electronic equipment contained within the missile body receives information either from a ground source or from its own target-seeking head, correlates it in terms of target coordinates, and generates correction signals for servocontrols to align towards these co-ordinates especially during the terminal mode until intercept. Any evasive action by the target is evaluated by the computer to correct the course of a high acceleration missile.

A complete SAM weapon system is comprised of missiles proper, launchers, radars, associated electronics, control and communications gear as well as test and other auxiliary equipment. To provide the necessary cover, there has been developed a spectrum of weapons designed to engage enemy aircraft at all altitudes. HIMAD and LOMAD are currently provided by the Patriot system.

There are several weapon systems available to provide low-altitude SHORAD throughout the combat zone. These are the Avenger systems and the Stinger weapon.

**FIM-92A STINGER**

| | |
|---|---|
| weight | 15.2/10.0 kg system/missile |
| warhead | 1.0 kg PHE |
| length | 1.52 m |
| diameter | 70 mm |

Incorporating the capability of using nuclear ammunition in AD, SAM's afford a required response to formation targets and aerodynamically supported

missiles, and offer a promising solution to the problem of defense against ICBM's or their split-up warheads. This is to be provided by an ABM system comprising a system of sensors, MSB and PAR units and antimissile interceptors.

## INTERCEPTORS

These are represented in the USADC by F-16 Fighting Falcon and F-5 Eagle aircraft equipped with Sparrow, Sidewinder and Falcon air-to-air missiles to attack targets not only from astern as in the case with gun-armed interceptors but also on collision courses.

Fighter-interceptor is a high performance supersonic aircraft capable of rocketing to 40,000 ft in two or three minutes and of attaining Mach 2 to identify and/or destroy other aircraft. This requires a high wing loading and a highly swept and low aspect ratio wing. In addition, it requires a reliable navigation system (e.g. inertial navigation baaed on inertial platforms), a nose AI radar and communications and weapon control gear for a so-called ‘all-weather’ capability, to ensure position advantage of the interceptor over the target since the high closing speeds involved in present-day attacks mean that even in daylight the task of locating an enemy and maneuvering into an attacking position is virtually beyond the ability of the human eye and brain to react fast enough. The interceptor's low payload usually consists of air-to-air missiles and guns with very high rates of fire; these are fired automatically by the ranging radar or electronic fire control unit, which releases the weapons when the target is in range and within the attack area.

## AD ARTILLERY

Since no single weapon system is able to counter the variety of available aerial attack weapons, the defense must be composed of complementary AD weapons. Thus, ADA is the principal Army AD means. It also provides for the protection of important objects.

Current ADA weapons are the Avenger and the M163 Vulcan Self-propelled Anti-aircraft Gun System.

## AVENGER SELF-PROPELLED AIR DEFENSE SYSTEM

| | |
|---|---|
| crew | 3 |
| combat weight | 3901kg |
| hull length | 4.95m |
| width | 2.49m |

| | |
|---|---|
| tactical height | 2.64m |
| ground clearance | 410mm |
| wheelbase | 3.3m |
| armament | 8 Stinger SAM, 12.7mm machine gun with 200 rounds |
| powerplant | 135hp air-cooled V8 diesel |
| suspension | independent |
| obstacle clearance | 0.56m |

Configuration: 4x4
Engine: GM V-8 diesel 150 hp
Max road speed: 105 km/h
Range: 563 km
Armament: 2x4 Stinger SAMs and 1x12.7 mm M2 MG

Gun elevation/depression: +70°/-10°
Turret traverse: 360°
Launch max speed: Mach 4
Max effective range: 7,000 m
Min effective range: 300 m

**M163 VULCAN AIR DEFENSE SYSTEM**

| | |
|---|---|
| crew | 4 |
| combat weight | 12490kg |
| hull length | 4.93m |
| width | 2.69m |
| tactical height | 2.64m |
| ground clearance | 406mm |
| track width | 381mm |
| armament | 6x20mm guns |
| sensors/fire controls | visual tracking, M61A1, AN/VPS-2 radar, AN/TVS-2B night vision sight |
| powerplant | 215hp water-cooled V6 diesel |
| suspension | torsion bar |
| obstacle clearance | 0.61m |

Power-to-weight ratio: 17.46 hp/t
Ground pressure: 0.61 kg/cm$^2$
Max road speed: 67.6 km/h
Max water speed: 5.6 km/h
Range: 483 km
Armour: 12-38 mm

Armament: 1x6 barrel 20 mm cannon
Ammunition: 2,280 rounds
Max rate power traverse: 60°/s
Max rate power elevation: 45°/s
Gun elevation/depression: +80°/-5°
Turret traverse: 360°
Max effective range: 2,600 m

**COMMENTARY:**

**1. Terms and Definitions:**

**All-weather interceptor** is the aircraft that can make a ‘blind’ Intercept (ground control guides the aircraft to the target area, until the airborne radar can take over and home in for the final intercept).

**Inertial platform** is the platform that consists of a gyroscopically stabilized assembly on which some accelerometers are mounted. The gyroscopes have the well-known property of retaining stability.

If an object containing an inertial platform is moved, the platform will ‘sense’ and record the movement. It is, therefore, possible to navigate by using an inertial platform, since it can locate accurately its own position relative to its known starting position: given that one knows where one is at the start.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Как американские военные специалисты оценивают потенциальные возможности межконтинентальных баллистических ракет?
2. Что вам известно о тех многочисленных модернизациях, которые претерпели зенитные ракетные комплексы за рубежом?
3. В какой степени в современных зенитных ракетных комплексах применяются электронно-вычислительные устройства?
4. Как вы думаете, почему зенитные ствольные системы не снимаются с производства и состоят на вооружении современных систем ПВО?
5. Почему крыло самолета перехватчика рассчитывается на высокую удельную нагрузку?
6. Для чего предназначена бортовая поисково-прицельная РЛС перехватчика?
7. Является ли система ПРО "Сейфгард" единственной в арсенале средств борьбы с МБР?

**Exercise 6. Decipher and translate the following abbreviations:**

SAM; AI; HIMAD; LOMAD; SHORAD; NORAD COC; ICBM; PPI; EOSM; FCS; SPADATS; SEWS; DEW; BMEWS; IFF; CONARC; SIGCEN; Spt&Svc Co; APFSDS; REDCCM; coax; NCO; Sig Bn; TOE; ATGM; LASER; CEV.

**Exercise 7. Translate the following words and word combinations by ear:**

Projected antimissile; later AD developments; miniaturized electronics; position advantage; ranging radar; to align towards these coordinated; to re-

evaluate an evasive action; electronic fire-control unit; high-acceleration missile; inertial platform; control package; target area; automated control system; AD gun; to deploy AD means; target-seeking head; astern; wing loading, Корабельная зенитная управляемая ракета; ЗРК; встречно-пересекающийся курс; крыло малого удлинения; аппаратура управления; зона выхода на цель; режим управления на конечном участке траектории; АСУ; групповая цель; сигнал коррекции; носовая РЛС; занимать выгодное положение для атаки; приборы управления артиллерийским зенитным огнем; противозенитный маневр.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Перехват и уничтожение воздушных целей является конечной задачей противовоздушной обороны. | The main missiles used in NATO Europe for defense against high and medium altitude air attack are the Patriot SAMs. |
| Зенитная артиллерия делится на малокалиберную, среднекалиберную и крупнокалиберную. | The AA 20 mm twin with two rapid-fire guns and fire control equipment is a modern powerful AA system specially adapted for low-flying aircraft and ground targets. |
| В качестве основного средства уничтожения баллистических ракет США собираются применять специальные управляемые снаряды-антиракеты (перехватчики) с высокими летно-тактическими характеристиками. | A typical ABM system consists of interceptor missiles, acquisition and tracking radars, data processing equipment and command-and-control communications. |
| Благодаря новейшим достижениям ЗУР обладают большой скоростью, высотой и дальностью полета, высокой маневренностью и точностью поражения. | All modern nations are now seriously considering how to improve their defenses against low level air attack. |

**Exercise 9. Translate the following text at sight:**

## THE CROTALE

The Crotale, developed by France, is one of the newest AD weapons to be produced and is studied by the United States for possible adoption as a successor to the Chaparral. Crotale is designed to operate effectively in all weather conditions to counter the threat of low-altitude attack by modern high-performance aircraft.

The Crotale system is, in most respects, a much more technically advanced weapon than the Chaparral.

The Crotale has an extremely quick reaction time for first engagement. The large HE warhead, coupled with a missile range greater than that of Chaparral, should make this a very effective weapon. The system is not helicopter transportable but can easily be moved in C130 aircraft. Each weapon system, consisting of an acquisition unit and up to three firing units, has its own identification, friend-or-foe radar and is capable of guiding two missiles to intercept simultaneously.

**Exercise10. Translate the following text at sight:**

В настоящее время в армии США завершаются работы по замене существующих ракетных комплексов "Найк Геркулес" и "Хок". В прессе отмечается, что ЗРК "Найк Геркулес" постепенно снимается с вооружения. В стадии разработки находится ЗРК "САМ-Д".

Новый ЗРК предназначен для борьбы с высотными и низколетящими целями. Он быстро приводится в боевую готовность, обладает высокой степенью подвижности и прост в обслуживании. ЗРК оснащён большим количеством электронной аппаратуры, встроенным контрольно-проверочным оборудованием и обслуживается сокращённым (почти на 60% по сравнению с ЗРК "Найк Геркулес") боевым расчётом.

Несмотря на большие преимущества нового ЗРК, его разработка и внедрение в производство считаются исключительно дорогостоящими, что может привести к увеличению запланированных сроков его создания, а также возникновению такого положения, при котором на вооружении армии США будет отсутствовать эффективное средство ПВО для борьбы с высотными целями противника.

**Exercise 11. Translate the following text in writing:**

### S-300V AIR DEFENSE MISSILE SYSTEM

The S-300V air defense missile system is designed to provide air defense of task forces and key military and state installations against mass attacks by theatre and tactical ballistic missiles, aeroballistic and cruise missiles, strategic

and tactical aircraft, as well as to engage loitering ECM aircraft and other air strike assets.

The S-300V system is a mobile multi-channel long-range surface-to-air missile system. It can provide effective theatre missile and air defense. The system has high jamming immunity, and therefore is capable of engaging aerial targets in heavy ECM and fire counteraction, in any weather, by day and night.

A typical S-300V system structure includes:

- target detection and designation unit;

- up to four SAM systems;

- missile support and maintenance assets.

**Exercise 12. Translate the following text in writing:**

**ЗЕНИТНАЯ РАКЕТНАЯ СИСТЕМА**
**С-400 "Триумф" (40Р6)**

Основным разработчиком ЗРС "Триумф" является ОАО "НПО "Алмаз" им. академика А.А. Расплетина" (входит в состав Концерна ПВО "Алмаз-Антей"). Она может применяться днем и ночью в любых погодно-климатических и физико-географических условиях при интенсивном радиоэлектронном противодействии. "Триумф" – система нестратегической ПРО и противосамолетной обороны с новейшим математическим обеспечением.

От предыдущих вариантов ЗРС семейства С-300 она отличается расширенной зоной боевого применения и может использовать существующие и новые ЗУР. Новая ЗУР предназначена для первоочередного поражения самолетов ДРЛО и РЭБ, воздушных КП, стратегических бомбардировщиков, ОТБР и БРСД на дальности до 400 км. ЗУР 9М96Е и 9М96Е2 унифицированы между собой и могут быть использованы корабельными зенитными ракетными системами. ЗУР 9М96Е2 отличается более мощным двигателем, большей длиной, стартовой массой и дальностью поражения. Их эффективность примерно в 2 раза выше возможностей ЗУР "Патриот" РАС-3 и "Астер". Кроме того, "Триумф" может использовать ракеты 48Н6Е и 48Н6Е2. Все указанные ЗУР вертикального старта с инерциальной системой наведения (радиокоррекция на маршевом и активное радиолокационное самонаведение на конечном участках траектории). В районе цели используется газодинамическое управление, обеспечивающее маневр ракеты с ростом перегрузки на 20 единиц. Цель

поражается осколочно-фугасной БЧ с радиовзрывателем и системой многоточечного инициирования.

Самоходная пусковая установка – СПУ (тяжелая и облегченная на автомобильных шасси высокой проходимости) обеспечивает транспортировку, подготовку и пуск любых типов ЗУР. На тяжелой СПУ может устанавливаться до 4 стандартных ТПК, в каждом из которых размещается по одной новой ЗУР или по четыре типа 9М96Е и 9М96Е2 средней дальности.

ЗРС "Триумф" с новой ЗУР будут составлять основу противовоздушной обороны ВВС в течение ближайших 30 – 40 лет. 6 августа 2007 года первый дивизион С-400 заступил на боевое дежурство в подмосковном городе Электросталь. Ежегодно силы ПВО должны получать 1 – 2 полка, оснащенных комплексами этого типа. Ожидается, что после первых двух лет эксплуатации, но не ранее 2009 г., ЗРС С-400 может быть предложена для экспорта за пределы России.

## ARMY HUMOR
## Give us new missiles

The 1982 Israeli invasion of Lebanon resulted in many dogfights between Syrian and Israeli jet fighters. In the end, the Syrians lost over 80 planes and had a number of SAM batteries knocked out, while the Israelis lost no planes.

Sometime later, the Syrian Defense Minister was shopping for weapons in Moscow. His host, the Soviet Defense Minister, was embarrassed about the scorecard from Lebanon. He told his Syrian guest, "Take anything you want - our best tanks, rifles, or surface-to-air missiles."

"No, no - you don't understand!" the Syrian replied. "Last time you gave us surface-to-air missiles. This time we need surface-to-*jet* missiles!

## УРОК 23
## УПРАВЛЯЕМЫЕ И НЕУПРАВЛЯЕМЫЕ РАКЕТЫ

## LESSON 23
## MISSILES AND ROCKETS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| aerodynamic | altimeter |
| projected | troposphere |
| preferable | air-breathing |
| referred | nautical |
| targeted | stabilization |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Used loosely as a synonym for…; such as a sound rocket to explore the atmosphere; the missile launcher and the target; communication centers or industrial areas; are effective in destroying high-speed airplanes; in this case the launching point is…; missiles such as…; constitute the next type; the next point; are referred to as…; is toward a wider use of…; fly two times the speed of sound; one of the essentials in the classification of missiles is their airframe design; cruise-type vehicles.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| rocket motor | ракетный двигатель (на твердом топливе) |
| disposable | одноразового применения (действия) |
| rocket | ракета (неуправляемая) |
| missile | ракета (управляемая) |
| surface-to-surface missile | ракета класса "поверхность – поверхность» |
| stand-off air-to-surface missile | управляемая ракета класса "воздух – земля», запускаемая из зон, находящихся вне досягаемости зенитного |

| | |
|---|---|
| | огня противника |
| surface-to-air missile (SAM) | ракета класса «поверхность – воздух» |
| air-to-air missiles (AAM) | ракета класса «воздух – воздух» |
| air-to-surface missile (ASM) | ракета класса «воздух – поверхность» |
| anti-ballistic missile (interceptor) | противоракета (ракета-перехватчик) |
| anti-radiation (antiradar) missile | противорадиолокационная ракета |
| aerodynamic (cruise) missile | аэродинамическая (крылатая) ракета |
| air launched cruise missile (ALCM) | крылатая ракета воздушного базирования (КРВБ) |
| air-launched ballistic missile (ALBM) | баллистическая ракета воздушного базирования |
| anti-submarine rocket (ASROC) | противолодочная ракета-торпеда |
| submarine-launched rocket (SUBROC) | противолодочная ракета-торпеда, запускаемая с подводной лодки |
| battlefield missile | ракета ближнего (радиуса) действия; тактическая ракета |
| tactical missile | ракета оперативно-тактического назначения; ракета средней дальности (радиуса) |
| short-range attack missile (SRAM) | ракета ближнего радиуса действия |
| underwater-to-surface missiles (USM) | ракета класса «подводная лодка – поверхность» |
| fleet ballistic missile system | баллистический ракетный комплекс морского базирования |
| multiple independently targetable reentry vehicle (MIRV) | разделяющаяся головная часть с боеголовками индивидуального наведения |
| airframe | корпус (ракета); планер (самолета) |
| Guidance | управление, наведение |
| command (remote-control) guid- | командное (дистанционное) управле- |

| | |
|---|---|
| ance | ние (наведение) |
| internal (pre-set) guidance | автономное (программированное) управление |
| hypersonic speed | гиперзвуковая скорость |
| solid propellant | твердое ракетное топливо |
| liquid propellant | жидкое ракетное топливо |
| to be aimed by orienting the launcher | наводиться при помощи пусковой установки |
| to perform a radar-altimeter-controlled level flight in "ground-hugging" fashion over varying terrain | совершить горизонтальный полет по траектории, огибающей складки местности на самых различных участках полета, во время которого ракета наводится на цель при помощи радиолокационного высотомера |
| a small radar cross-section makes the missile practically invisible on the enemy's radar screens | небольшая эффективная отражающая поверхность ракеты делает ее фактически незаметной на экранах РЛС противника |

**Exercise 4. Read and translate the text:**

**CLASSIFICATION OF MISSILES**

Missiles can be classified in a number of different ways. Some are said to be unguided because, once they are launched, there is no further control over their flight. The German V-2 rockets were unguided missiles. Such missiles can be directed at the launch site in the general vicinity of a target, but once they are on their way, there is no further way that their path can be adjusted or corrected.

The vast majority of missiles, however, are guided missiles. This term refers to the fact that the missile's pathway can be monitored and changed either by instruments within the missile itself or by a guidance station.

Missiles can also be classified as aerodynamic or ballistic missiles. An aerodynamic missile is one equipped with wings, fins, or other structures that allow it to maneuver as it travels to its target. Aerodynamic missiles are also known as cruise missiles. Ballistic missiles are missiles that follow a free-fall

path once they have reached a given altitude. In essence, a ballistic missile is fired into the air, the way a baseball player makes a throw from the outfield, and the missile (the ball) travels along a path determined by its own velocity and the Earth's gravitational attraction

The relative location of the missile launcher and the target provides the basis for dividing missiles and rockets into several general types.

Surface-to-surface missiles (SSM). Surface may denote both the ground and the sea. The majority of operational missiles, from the small antitank ones to ICBM's belong to this type. SSMs can be fired from land against troop concentrations, important supply depots, communication centers or industrial areas. V-2 rockets were surface-to-surface missiles since they were launched from a station on the ground in Germany and were designed to strike targets on the ground in Great Britain. This type also includes anti-submarine missiles, such as US Asroc and Subroc.

Surface-to-air missiles (SAM) are effective in destroying high-speed aircraft at all altitudes. In this case the launching point is on the surface and the target is in the air. The first surface-to-air missile used by the United States military was the Nike Ajax, a rocket with a weight of 2,295 lb (1,042 kg), a length of 34.8 ft (10.6 m), a diameter of 12.0 in (30.5 cm),and a range of 30 mi (48 km). This type includes a wide range of missiles from the man-portable Stinger to the recently developed Patriot Anti-Radiation Missile System.

The underwater-to-surface missiles (USM) type is illustrated by the Trident Fleet Ballistic Missile System. It’s an underwater-launched missile system (ULMS) based on submarine-fired missiles carrying MIRV warheads and possessing a range of some 6,000 nautical miles.

Air-to-air missiles (AAM) are the principal weapons of air-to-air combat. They are used as aircraft-to-aircraft weapons to supplement or replace guns. One of the best known air-to-air missiles is the United States' Sidewinder missile, first put into operation in 1956. The first Sidewinders were 9.31 ft (2.84 m) long and 5.00 in (12.7 cm) in diameter, with a weight of 165 lb (5 kg) and a range of 0.68 mi (1.1 km).

Air-to-surface missile (ASM) constitute the next type. It includes stand-off missiles, anti-radiation missiles such as Shrike as well as ALBM (air-launched ballistic missile) and SRAM (short-range attack missile). After launch SRAM performs a radar-altimeter-controlled level flight in "ground-hugging" fashion over varying terrain. A small radar cross-section makes it practically invisible on the enemy's radar screens.

Military leaders were at one time also very enthusiastic about another type of missile, the anti-ballistic missile (ABM). The ABM program was conceived of as a large number of solid rockets that could be aimed at incoming missiles.

U.S. engineers developed two forms of the ABM: the Spartan, designed for long-distance defensive uses, and the Spring, designed for short-range interception. The former Soviet Union, in the meanwhile, placed its reliance on an ABM given the code name of Galosh. The ABM program came to a halt in the mid-1970s when the cost of implementing a truly effective defensive system became apparent.

The missiles which replace interceptor aircraft are called interceptor missiles (IM).

According to their combat missions and range all missiles and rockets of the US Armed Forces are designated as battlefield (short range) missiles, tactical (mid-range) missiles and strategic (long range) missiles.

One of the essentials in the classification of missiles is their airframe design. According to the latter, missiles fall into two broad categories: cruise vehicles (short for aerodynamic cruise missiles) and missiles proper (rocket-powered missiles).

According to guidance and control, missiles are basically subdivided into the following groups:

-those relying on internal (pre-set) guidance;

-those using some sort of command (remote-control) guidance;

-and finally the so-called homing missiles.

The next point in classification of missiles and rockets is their speed or velocity. Most of the cruise-type missiles possess either a subsonic or nearsonic (transonic) speed. Other missiles, such as antitank TOW missiles fly two times the speed of sound. As for long-range ballistic missiles, they are normally hypersonic. For example, Titan ICBM has a speed of up to 18,000 mph which is 26 times faster than the speed of sound.

According to the propellants they use, all missiles and rockets are usually referred to as either solid-propellant or liquid-propellant. A general trend in missilery now is toward a wider use of the solid-propellant engines because such missiles are claimed to be in a higher state of readiness for action.

**COMMENTARY**

**1. Terms and Definitions:**

**Aerodynamic vehicle** is a device, such as an airplane, glider, cruise missile, etc. capable of flights only within the sensible atmosphere and relying on aerodynamic forces to maintain flight.

**Air breather** is an aerodynamic vehicle propelled by fuel oxidized by intake for the purpose of combination.

**Airframe** is the assembled structural and aerodynamic components of an aircraft or rocket vehicle that support the different systems and subsystems integral to the vehicle.

**Angle of attack** is the angle between a reference line fixed with respect to an airframe and a line in the direction of movement of the body.

**Angle of pitch** is the angle between the longitudinal body axis of an aircraft, missile or similar body and a chosen reference line or plane, usually the horizontal plane.

**Angle of roll** is the angle that the lateral body axis of an aircraft, missile or similar body makes with a chosen reference plane in rolling.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Что представляет собой управляемая ракета?
2. Чем отличается управляемая ракета от неуправляемой?
3. Каковы основные принципы классификации ракет в вооруженных силах США?
4. На какие классы подразделяется ракетное оружие в зависимости от взаимного расположения пускового устройства и цели?
5. Как называются ракеты, летящие с дозвуковой и околозвуковой скоростью?
6. Какими двигателями оснащены самолеты-снаряды?
7. Не могли бы вы привести пример сверхзвуковых ракет?
8. Какова скорость полета баллистических ракет и как они классифицируются по дальности?
9. А есть ли какие-либо конструктивные различия в планере самолета и ракеты?
10. Для чего предназначается пусковая установка?
11. Каковы основные тенденции в развитии современного ракетного оружия?

**Exercise 6. Decipher and translate the following abbreviations:**

GM; ICBM; SEAM; TM; SM; ATC; TAG; MAC; SAC; COMCEN; CEV; HEAT; APSD; IM; ALBM; USM; SAM; SSM; ABM; ADC; APC; MICV; LASER

**Exercise 7. Translate the following words and word combinations by ear:**

To replace interceptor aircraft; to be called interceptor missiles; according to their combat missions and range; to be regarded as tactical

missiles; to fall into two broad categories; cruise-type vehicle; air-breathing engine.

Обладать стратегическими возможностями; быть оснащенным воздушно-реактивным двигателем; высота; горизонтальный полет; самонаведение; управляемые ракеты класса "воздух-земля", запускаемые из зон, находящихся вне досягаемости зенитного огня противника; в отличие от; баллистическая ракета; наводиться на цель после пуска; в зависимости от взаимного расположения пускового устройства и цели.

**Exercise 8. Make a two-way translation:**

A rocket is an unguided vehicle driven by the reaction effect of a high-velocity stream in the combustion chamber by the burning propellant.

Основными принципами, лежащими в основе классификации ракетного оружия, являются класс ракет, их скорость, особенности конструкции, системы наведения и управления, а также назначение и дальность.

The rocket is aimed by orienting its launcher.

Управляемой ракетой называется беспилотный летательный аппарат с реактивным двигателем, приборами управления и боевым зарядом.

The principal difference between a rocket and a missile

is that the latter's trajectory or flight path can be altered by a guiding mechanism within the missile itself, thus ensuring high accuracy of target kill.

По скорости ракеты подразделяются на дозвуковые, околозвуковые, сверхзвуковые и гиперзвуковые.

According to their airframe design, missiles fall into two broad categories: cruise-type vehicles and missiles proper.

Самолеты-снаряды оснащены ВРД, и их полет проходит в плотных слоях тропосферы.

As distinct from a cruise missile, a rocket -powered missile carries its oxygen beyond the earth's

По боевому назначению и дальности ракеты подразделяются на ракеты ближнего радиуса действия, оперативно-тактического назначения и стратеги-

atmosphere. ческие.

**Exercise 9. Translate the following text at sight:**

**Text 1. BALLISTIC MISSILE DEFENSE SYSTEM**

Realizing the potential of the ICBMs to deliver mass destruction, the USA began development of a ballistic missile defense system (BMD).

The BMD mission is the destruction of incoming ICBMs and their nuclear warheads before they reach their intended targets.

A typical system consists of interceptor missiles, acquisition and tracking radars, data-processing equipment and the necessary control and communication equipment. After acquiring the incoming re-entry vehicles (RVs), the radars provide data to the computers for discrimination and tracking and the computation of launch and guidance signals to the IM which then must close to within lethal range of the attacking missile.

In the past 20 years the USA has had five major BMD systems in various phases of research and development, reflecting adaptations to shifting strategic and political conditions.

The Safeguard and site-defense systems of the 1970's have been replaced by the Patriot SAMs.

**Text 2. BALISTIC MISSILES**

Ballistic missiles are unmanned rocket-propelled vehicles which fly to their target in a high parabolic trajectory which in ICBMs lies mostly outside the atmosphere. BM's are guided only during the ascending phase of the trajectory with the altitude, bearing and velocity setting the missile in a predictable course up to the apogee and then in a descending curve to target. BM's consist of a booster stage, one or more ‘sustainer’ propulsion stages, and a re-entry vehicles which in long range missiles consists of a heat shield (to protect the missile during the re-entry into the atmosphere) and the nuclear warhead as well as penetration aids. Multiple independently-targeted re-entry vehicle (MIRV) systems, where two or more warheads are separately targeted, may include a maneuvering ‘dispenser’ stage.

BMs include ICBMs, intermediate-range ballistic missiles (IRBM), and short-range ballistic missiles (SRBM). ICBMs have a range of at least 5,000 nautical miles.

Ballistic missiles with ranges of between 1,500 and 4,000 nautical miles are usually described as IRBMs. But this concept is usually applied to land-based systems. The range of SRBMs may be up to 500 nautical miles.

**Exercise10. Translate the following text at sight:**

В области ракетного оружия стратегического назначения основные усилия Пентагона направлены на модернизацию системы МБР "Минитмэн II" и МХ, на разработку мобильных вариантов МБР воздушного и наземного базирования, перспективных головных частей баллистических ракет (многозарядных боевых частей разделяемого наведения типа "Мирв", маневрирующих типа "Марв" и боевых частей повышенной мощности), стратегических крылатых ракет для бомбардировщиков и подводных лодок, на совершенствование ракетной системы морского базирования «Трайдент» и т.д. Каждое из трех министерств видов вооруженных сил (Сухопутных войск, ВВС, ВМС) имеет собственную программу разработки и производства ракетного оружия. Причем особое внимание уделяется производству ракетного оружия для стратегических наступательных сил, которое предназначается для нанесения ударов по важным объектам на территории потенциального противника**.**

**Exercise 11. Translate the following text in writing:**

**MISSILE BASES**

A missile base includes the missiles and all the required equipment and facilities which permit the missiles to carry their warheads to the desired targets. These may include the Ground Operating Equipment (GOE), and the operational and support facilities.

GOE is defined as the equipment which does not fly but is required to launch the missile. It consists of launch control equipment, launch consoles, electrical equipment and various cabling devices, elevation equipment or booms, umbicals, power equipment, propellant loading systems, and any of the required utilities.

GOE is the equipment necessary to test, maintain, handle, repair, and support the missile but which is not required to actually launch it. For example, the check-out equipment is required for the proper operation of a missile system. However, during the actual countdown the missile can be launched without it, providing the missile is in readiness. Other GOE includes missiles handling trailers, cranes, liquid oxygen tankers, liquid nitrogen trailers, component testing equipment, liquid oxygen plants, handling equipment and repair equipment.

The operational facilities are those which protect the missiles from the effects of weather and nuclear explosions and aid in launching the missiles. The silo launcher and the launch operations building are operational facilities.

The support facilities include roads, utilities, security fencing, munitions building and maintenance buildings.

**Exercise 12. Translate the following text in writing:**

**КЛАССИФИКАЦИЯ РАКЕТ**

Боевое ракетное оружие подразделяется:

- по способу базирования: стационарное, подвижное (мобильное);
- по характеру и способу реализации полёта: баллистическое, аэробаллистическое, воздушное, подводное;
- по целевому назначению: противотанковое, противосамолетное (зенитная ракета), противокорабельное, противолокационное, противокосмическое;
- по принадлежности к видам ВС: наземное, авиационное, противовоздушное, противокосмическое, морское;
- по дальности полета (от места старта до цели): межконтинентальное (дальность пуска – более 5500 км); средней дальности (1000 – 5500 км) оперативно-тактической дальности (300 – 1000 км); тактической дальности (менее 300 км);
- по физической среде применения от места старта (земля, море, воздух) до местоположения цели, как правило, на следующие классы: «земля-земля», «земля-воздух», «воздух-земля», «воздух-воздух», «воздух-корабль».

Ракеты «земля-земля» бывают баллистическими или крылатыми.

За рубежом ракеты класса «земля-земля», как правило, делят на категории дальности (то есть малой дальности, средней дальности и т. д.). В некоторых международных соглашениях применяется другая классификация ракет по дальности.

Ракеты класса «земля-земля» разделяют также по боевому предназначению: на тактические, оперативно-тактические и стратегические.

Стратегические ракеты являются средством доставки ядерных зарядов большой мощности и обладают способностью поражать объекты стратегического значения в глубоком тылу противника. Стратегические ракеты размещаются на стационарных базах (площадках), в шахтных пусковых установках, в отсеках подводных лодок, на железнодорожных платформах и на подвижных автомобильных шасси.

Ракеты оперативно-тактического назначения состоят на вооружении крупных войсковых соединений и объединений и предназначены для выполнения задач оперативного и тактического уровня. К этой группе ракет относятся ракеты с дальностью пуска до 1000 км. Боевые части этих ракет могут быть как ядерного, так и обычного снаряжения различной мощности.

Тактические ракеты предназначены для поражения различных объектов, расположенных в тактической глубине противника. К ним относятся тактические средства ядерного нападения, артиллерия, войсковые группировки в районах сосредоточения, в боевых порядках и на марше, оборонительные сооружения и командные пункты

## ARMY HUMOR
## CIA Assassin test

The CIA had an opening for an assassin. After all the background checks, interviews, and testing were done, there were three finalists. two men and a woman. For the final test, the CIA agents took one of the men to a large metal door and handed him a gun. "We must know that you will follow our instructions, no matter what the circumstances. Inside this room, you will find your wife sitting in a chair. Kill Her!!!" The man said, "You can't be serious. I could never shoot my wife." The agent said, "Then you're not the right man for this job. Take your wife and go home."

The second man was given the same instructions. He took the gun and went into the room. All was quiet for about five minutes. Then the man came out with tears in his eyes. "I tried, but I can't kill my wife." The agent said, "You don't have what it takes. Take your wife and go home."

Finally, it was the woman's turn. She was given the same instructions, to kill her husband. She took the gun and went into the room. Shots were heard, one shot after another. They heard screaming, crashing, banging on the walls. After a few minutes, all was quiet. The door opened slowly and there stood the woman. She wiped the sweat from her brow. "This gun is loaded with blanks", she said. "I had to beat him to death with the chair."

## УРОК 24
## КОНСТРУКЦИЯ РАКЕТ

## LESSON 24
## DESIGN OF MISSILES

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Pressurization | throttled |
| Affect | steering |
| Withstand | apparatus |
| Interchangeable | longitudinal |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Stabilize it in flight; affect its path; the entire airframe; rigid to withstand the shock; to use some form; in the jet stream; jet gases; so that the line; the center of gravity; liquid-fuelled ones though their specific...; tends to be lower; a longer acting; engine is cut off; two valves shutting off propellants to the engine; throttled over an entire spectrum.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| propulsion system | двигательная установка, силовая установка |
| Payload | боевая часть (полезный груз) |
| Warhead | боевая часть |
| Booster | ускоритель; разгонный двигатель |
| Seeker | головка самонаведения (ГСН) |
| Sustainer | маршевый (основной) ракетный двигатель |

| | |
|---|---|
| Radome | обтекатель антенной радиолакационной станции |
| guidance and control system | система управления и наведения |
| specific energy | энерговооружённость; |
| specific energy per unit weight | тяговооруженность |
| pressurization apparatus | система подачи топлива под давлением |
| lethality enhancer | оптимизатор поражающего действия боевой части |
| propellant tankage | запас ракетного топлива |
| storable (packaged) liquid propellant | расфасованное жидкое ракетное топливо длительного хранения |
| concentric engines | соосно расположенные двигатели |
| Steering | проводка по траектории; изменение траектории |
| jet vane | газовый руль |
| means of delivery | средства доставки |
| liquid propellant | жидкое ракетное топливо |
| solid propellant | твёрдое ракетное топливо |
| homing head | головка самонаведения |
| circular error probable | круговое вероятное отклонение |
| interchangeable warheads | взаимозаменяемые головные части |

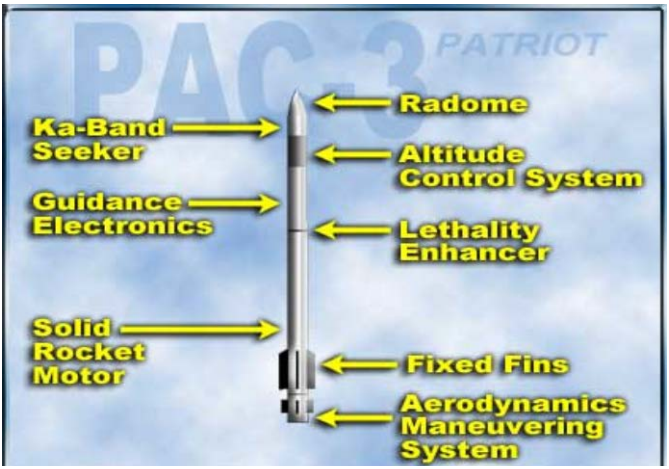
| | |
|---|---|
| side jet | боковой газовый руль |
| to impart spin to the missile | сообщать вращение ракете |
| to withstand shock loads | выдерживать перегрузки |
| highly rarefied atmosphere | сильно разряженная атмосфера |
| to drive the propellants to the engine | подавать компоненты ракетного топлива в двигатель |
| to modify the thrust to fit different phases of flight | изменять силу тяги на различных этапах полета |

**Exercise 4. Read and translate the text:**

**DESIGN OF GUIDED MISSILES**

Missiles consist of the following main components: airframe, propulsion system (power plant), guidance and control system, and payload (warhead).

**PAC-3 Missile Elements**



## AIRFRAME

The airframe of a GM consists of a body of the weapon and the airfoils (wings and fins) which stabilize it in flight and affect its path. The entire airframe must be light in weight and rigid to withstand the shock loads, vibrations and accelerations the missiles experience in fit. Airfoils work efficiently while a missile is in the dense layer of the atmosphere. But when it reaches highly rarefied atmosphere, it is necessary to use some form of jet steering, such as jets to control the fit of the missile.

Jet vanes are placed in the jet stream of the motor, and when moved, they deflect a portion of the jet gases so that the line of thrust is not directly through the center of gravity nor along the longitudinal axis of the missile. This causes the missile to turn. Jet motors which are permanently fixed on the sides of the missile are called side jets, they are designed to be capable of being turned on and off rapidly.

## PROPULSION SYSTEM

Early missiles were generally powered by liquid-propellant motors. Storable-liquid (SL) fuels were introduced in the next generation of missiles. Such motors are still used on many missiles. For instance. Lance was a single-stage liquid propellant missile using a packaged SL propellant, but today most missiles are propelled by solid-fuel motors, which are generally more reliable and economical than liquid-fuelled ones though their specific energy per unit weight tends to be lower.

Since most missiles require a powerful initial thrust for lift-off and a substantially weaker sustaining thrust, different stages are generally used: a powerful booster and a longer acting but less powerful sustainer. Recently, however, dual-thrust rocket motors have been evolved. These are motors which can modify the thrust to fit different phases of fit.

The propulsion system of Lance (US surface-to-surface tactical guided missile), which used to be fielded the US Army, consisted of three major components: pressurization apparatus (designed to drive propellants to the engine and impart spin to the missile), propellant tankage and engine.

The engine consists of two concentric engines, with the thrust chamber of the booster surrounding the sustainer. Both of these engines operate during the boost phase of the fit. Operation of the fixed thrust boost engine is cut off at a predetermined velocity by two valves shutting off propellants to the engine. The sustainer (which operates at full thrust during boost) can be rapidly throttled over an entire spectrum of thrust levels between full-off and full-on.

## PAYLOAD

It is the warhead in a missile as in other vehicle systems. BM's and stand-off missiles (those launched from a silo at long ranges to avoid having to penetrate inner air defenses) are equipped with nuclear warheads, though some SRBMs can have chemical warheads as an alternative. Very short-range missiles are generally equipped with HE warheads, usually fitted with a proximity fuse. TM's are generally equipped with interchangeable nuclear, HE and chemical warheads. Some AA and anti-shipping missiles, though quite small, are also equipped with nuclear warheads in order to reduce the accuracy requirement for a ‘kill’, or to deal with particularly ‘hard’ targets.

The Lance missile system could carry either conventional or nuclear warhead. The warhead of the improved version contains between nine and fifteen submissiles which have no propulsion apparatus of their own. Instead, on being thrown out from the main missile, they use a thermal self-guidance sys that directs them towards the heat sources of armored vehicles, trucks, etc.

**COMMENTARY**

**1. Terms and Definitions:**

a) **Acceleration** is either the rate of change of velocity, or the act (process) of accelerating, or the state of being accelerated. Negative acceleration it called deceleration.

b) **Booster** is (1) short for booster engine or booster rocket; (2) a rocket motor, either solid or liquid, that assists the normal propulsive system or sustainer engine of a rocket or aeronautical vehicle in some phase of its flight; (3) a rocket used to set a vehicle in motion before another engine takes over.

c) **Jet vane** is a vane, either fixed or movable, used in a jet stream , especially in a jet stream of a rocket, for purposes of stability and control under conditions where external aerodynamic control is ineffective.

d) **Throttling** is the varying of a rocket engine thrust during powered flight by some technique. Methods to achieve throttling are tightening of fuel lines, changing thrust chamber pressure, pulsed thrush and variation of nozzle expansion.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Из каких основных частей состоит ракета?
2. Что представляет собой двигательная установка?

3. Какое топливо использовалось в ракете "Ланс"?
4. Каковы преимущества твердотопливных реактивных двигателей над жидкостными реактивными двигателями?
5. Для чего предназначен стартовый двигатель ракеты?
6. Каковы конструктивные особенности двигательной установки ракеты "Ланс"?
7. За счет чего обеспечивается устойчивость и управляемость ракеты в полете?
8. Какова скорость полета современных межконтинентальных баллистических ракет?
9. Под действием каких сил и моментов ракета изменяет свое положение в пространстве?
10. Каковы взгляды иностранных военных специалистов на боевое применение ракетного оружия?

**Exercise 6. Decipher and translate the following abbreviations:**

ICBM; IRBM; MRBM; GM; SM; TM; SRAM; SSM; SAM; SL; SIGCEN; JCS; AAA; USN; USAF; SAC; TAC; MAC; DOD; DOA; DON; CEV; RR; rpm

**Exercise 7. Translate the following words and word combinations by ear:**

To be powered by liquid-propellant rocket motors; to be propelled by a solid-fuel motor; to drive the propellants to the engine; to impart spin to the missile; to modify the thrust to fit different phases of fit; to shut off propellants to the engine; to operate at full thrust during boost; to be throttled over an entire spectrum of thrust levels between full-off and full-on; to withstand shock loads, vibrations and accelerations.

Двигательная установка; средство доставки ядерного оружия; тактическая ракета; система подачи топлива под давлением; сообщать вращение ракете; изменять траекторию полета ракеты; в плотных слоях атмосферы; ядерная боевая часть; выдерживать перегрузки; скорость полета ракеты.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Early missiles were powered by liquid-propellant rocket motors. | Однако жидкое топливо невозможно было хранить длительное время в ракетах. |

| | |
|---|---|
| Thus, liquid-propellant rocket motors required lengthy fuelling. Solid-propellant motors are generally more reliable and economical than liquid-fuelled ones, though their energy per unit weight tends to be lower. | Обычно силовая установка ракеты состоит из стартового ускорителя и маршевого двигателя. |
| More recently, however, dual-thrust rocket motors have been developed. | Двигательная установка ракеты "Ланс" состоит из трех частей: вытеснительной системы подачи компонентов ракетного топлива, топливных баков и двигателя. |
| Missiles can be equipped with nuclear, HE and chemical warheads. | Ракета "Ланс" оснащена многозарядной боевой частью раздельного наведения, позволяющей одновременно поражать несколько целей. |

**Exercise 9. Translate the following text at sight:**

**Text 1.**

**CONTROL**

Three kinds of rotary movements can be made by the missiles: pitch, roll, and yaw. Pitch, or turning up or down, is a rotation about the lateral axis. The missile rolls about the longitudinal axis. It yaws, or turns to the right or left, about the vertical axis.

GM fit control includes all the processes of attitude and path control. The final process of control, called steering, puts the directing signals into effect by the application of some force which will turn the missile about one of its three axes.

The four basic processes in missile guidance and control are tracking, computing, directing, and steering.

Tracking is the process of continuously determining the relative position of the missile with respect to the launcher, the target and the fit path. Computing is the process of calculating the directing signals for the missile by using the info supplied by the tracking devices. Directing is the process of sending correction data to the controls within the missile. Steering is the process of changing the fit path.

**Text 2. SPEED AND ACCURACY**

The speed of missile weapons varies from the few hundred miles per hour of the wire-guided ATGM's to the 16,000 mph or higher of long-range BM's. But speed is generally not a critical variable since guidance systems determine the limits and usefulness of speed performance. But in ABM missiles, such as the US Spartan and Sprint, acceleration is, however, a critical variable.

Accuracy is usually a far more important variable than speed. This is usually stated as the CEP, Circular Error Probable, defined as the radius around the aiming point within which half the warheads will impact. ‘Battlefield’ systems with non-nuclear warheads have CEP's of the order of a few yards, though the use of nuclear warheads on some air-to-air and surface-to-air missiles allows ‘kills’ with far higher CEP's.

**Exercise 10. Translate the following text at sight:**

**ПРОТИВОКАРАБЕЛЬНАЯ РАКЕТА «ТЕРМИТ»**

Ракета П-15М (П-21 / П-22) "Термит" является улучшеной модификацией ракеты П-15У с увеличенной дальностью полета. Ракета имеет складывающееся (раскрывающееся после старта) крыло небольшого удлинения, Y-образное хвостовое оперение с рулями. Оперение не складывается. Маршевый двигатель – двухрежимный жидкостный реактивный двигатель. Стартовый ускоритель установлен в задней части ракеты снизу. Ракета имеет инерциальную систему управления, работающую на маршевом участке полета и два варианта активной головки самонаведения (ГСН): активную радиолокационную (АРЛ ГСН) и инфракрасную (ИК ГСН) типа "Снегирь-М". ГСН работает на конечном участке полета ракеты – участке самонаведения. Ракета может оснащаться как обычной боевой частью массой 513 кг, так и ядерной мощностью 15 Кт. Высота маршевого полета ракеты (25 – 50 – 250 м) задается перед пуском.

**Exercise 11. Translate the following text in writing:**

**WARHEADS**

Among the types of warheads which may be used in GM's are external blast, fragmentation, shaped charge, explosive-pellet, chemical, and nuclear.

External blast warheads cause damage by means of a high-pressure wave or blast which results from the detonation of an explosive substance. Fragmentation warheads operate by bursting a metal case containing a HE charge. Shaped-charge war-

heads, also called cavity charges, make use of the Monroe Effect, in which explosion power is concentrated by shaping the explosive material.

Explosive-pellet warheads contain a number of small explosive charges, or pellets, each of which is separately fused. When the main warhead is detonated, the pellets are ejected and hurled intact toward the target. The pellets then detonate either on impact or after penetrating the target skin.

Chemical warheads may contain either war gases or incendiary material.

Nuclear and thermonuclear warheads produce destruction and damage through the process of fission or fusion. The destructive effects are blast, heat, and nuclear radiation.

The destructive capacity of a nuclear warhead per unit yield (kilotons or megatons) falls off sharply as the total yield Increases. For example, three 5-megaton warheads are far more effective against all targets than a single 25-megaton warhead. Ten small 50-kiloton warheads are similarly superior to a single 10-megaton warhead, though the latter's yield is twenty times as large as that of the ten small warheads. This sort of ratio is especially important with small and dispersed targets such as missile silos, and these considerations contributed to the development of MRV (multiple re-entry vehicles, which fall in a fixed cluster) and MIRV payloads for SMs. In this way a single booster can dispense several warheads, each of which is separately guided to its target. The US Minuteman III is reported to carry three 0.2 megaton MIRVs, while the Poseidon is to deliver about ten MIRV warheads of some tens of kilotons each.

**Exercise 12. Translate the following text in writing:**

Современные самолеты способны заходить на цели и наносить ракетно-бомбовые удары вне зоны эффективного огня ЗРК, т.е. на малых (150 – 600 м) и предельно малых (25 – 150 м) высотах.

ВВС различных стран не только отработали подобные способы ведения боевых действий, но и успешно применяли их в локальных войнах. Широко использовался указанный тактический прием и при нанесении бомбовых ударов по иракским войскам авиацией коалиционных сил.

Эти особенности современной тактики боевых самолетов и вертолетов продиктованы трудностью борьбы с низколетящими целями из-за сложности их обнаружения, определения национальной принадлежности, организации управления огнем средств противовоздушной обороны, отсутствия достаточно мобильных и эффективных средств поражения. При борьбе с такими целями время на приведение в готовность средств противодействия сокращается до минимума, а большая угловая скорость их перемещения значительно усложняет прицеливание и пуски ракет или ведение огня ствольными артиллерийскими системами.

Принципы, которые конструкторы с самого начала своей работы над ПЗРК закладывали в их конструкцию, можно сформулировать следующим образом:
- операции по обнаружению воздушных целей, прицеливанию и производству выстрела возлагаются на стрелка-зенитчика («вижу-стреляю»);
- обязательное применение системы самонаведения («выстрелил-забыл»);
- постоянная боевая готовность, обеспечиваемая выходом на боевой режим за несколько секунд;
- масса комплекса в боевом положении не должна превышать 20 кг;
- прямое попадание в цель;
- структура комплекса: самонаводящаяся ракета с боевой частью, способной поражать современные летательные аппараты, пусковая труба-контейнер, пусковой механизм, наземный источник питания аппаратуры в предстартовый период.

## ARMY HUMOR
## STRANGERS ON A TRAIN

Four strangers traveled together in the same compartment of a European train. Two men and two women faced each other. One woman was a very wealthy and sophisticated 70 year old lady who was decked out in the finest of furs and jewelry. Next to her Sat a beautiful young woman, nineteen years old--who looked like something right off the cover of a fashion magazine. Across from the older lady was a very mature looking man in his mid-forties who was a highly decorated Sergeant Major in the Army. Next to the Sergeant Major sat a young private fresh out of boot camp.

As these four strangers traveled, they talked and chatted about trivial things until they entered an unlighted tunnel, and there they sat in complete darkness and total silence, until the sound of a distinct kiss broke the silence; following the kiss a loud slap could be heard throughout the cabin. In the ensuing period of silence the four strangers sat quietly with their own thoughts.

The older lady was thinking, "Isn't it wonderful that even in this permissive day and age there are still young women who have a little self-respect and dignity?"

The young woman, shaking her head and greatly puzzled, asked herself, "Why in the world would any man in his right mind want to kiss an old fossil like that when I'm sitting here?"

The Sergeant Major, rubbing his sore face, was outraged that any woman could ever think that a man in his position would try to sneak a kiss in the dark.

The private, grinning from ear to ear, was thinking, "What a wonderful world this is when a private can kiss the back of his hand and then smack a Sergeant Major in the face and get away with it!"

## УРОК 25
## ПРОТИВОРАКЕТНАЯ ОБОРОНА (ПРО)

## LESSON 25
## MISSILE DEFENSE (MD)

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Extraterrestrial | decoy |
| Sophisticated | isolated |
| Revetment | horizon |
| Appropriate | plexus |
| Cheyenne | warning |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Denotes defensive measures; to reduce the effect of; includes dispersion; that of a small area; provided by the intricate weapons; consisting of two different parts; which records and predicts the path; to serve as the main plexus; have to do with; on the use of very large radars; at about the 55$^{th}$ parallel; gaps in the radar coverage.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| air defense (AD) | противовоздушная оборона |
| Distant Early Warning Line (DEW line) | рубеж дальнего радиолокационного обнаружения |
| general air defense | ПВО страны |
| area air defense | ПВО района (территориальная ПВО) |
| point air defense | ПВО объекта |

| | |
|---|---|
| antiaircraft defense | ПСО |
| antiballistic missile defense | противоракетная оборона (ПРО) |
| penetration of air space | проникновение в воздушное пространство |
| penetration of air defense | преодоление системы ПВО |
| Revetment | капонир |
| Sensor | датчик, чувствительный элемент |
| IFF interrogator | запросчик «свой-чужой» |
| IFF responder | ответчик «свой-чужой» |
| target present data | текущие координаты цели |
| target designation | целеуказание |
| display board | табло отображения информации |
| Alert | тревога |
| antimissile guidance system | система наведения противоракеты |
| automatic target tracking | автоматическое сопровождение цели |
| boost phase | активный участок |
| combat use | боевое применение |
| Command Post Exercise (CPX) | командно-штабное учение (КШУ) |
| Compatibility | совместимость |

| | |
|---|---|
| cruise missile | крылатая ракета |
| Decoy | ложная цель |
| Deterrence | сдерживание |
| electronic warfare | РЭБ |
| exo-atmospheric interception | заатмосферный перехват |
| endo-etmaspheric interception | внутриатмосферный перехват |
| layered defense | эшелонированная оборона |
| Theatre Missile Defense (TMD) | противоракетная оборона на театре военных действий (ПРО ТВД) |
| National Missile Defense (NMD) | национальная проиворакетная оборона (НПРО) |
| midcourse phase | средний участок траектории |
| multiple ballistic target | сложная баллистическая цель |
| target designation | целеуказание |
| target detection | обнаружение цели |
| missile flight trajectory | траектория полёта ракеты |
| terminal phase | конечный участок траектории полёта баллистической ракеты |
| early warning | раннее предупреждение |
| fan-shaped beam | веерный луч |
| airborne early warning aircraft | самолёт радиолокационного дозора |

| | |
|---|---|
| radar picket ship | корабль радиолокационного дозора |
| over-the-horizon-back-scatter (OTHB) radar | загоризонтная РЛС |
| aerospace attack | воздушно-космическое нападение |
| NORAD COC — NORAD Combat Operations Center | Боевой оперативный центр НОРАД |
| NORAD SC — NORAD Surveillance Center | Центр сбора и обработки данных наблюдения НОРАД |
| NORAD SDC — NORAD Space Defense Center | Центр космической обороны НОРАД |
| BMEWS — Ballistic Missile Early Warning System | система дальнего обнаружения баллистических ракет |
| Mid-Canada Line | рубеж радиолокационного обнаружения «Мид Канада» |
| Pine tree line | рубеж радиолокационного обнаружения "Пайн Три" |
| SPADATS — Space Detection and Tracking System | система обнаружения и слежения за воздушным и космическим пространством |
| SEWS — Satellite Early Warning System | система раннего обнаружения и слежения за спутниками противника |
| ground-based interceptor (GBI) | противоракета наземного базирования |
| to scan the air space | осуществлять наблюдение за воздушным пространством |

| | |
|---|---|
| to predict the path of the target | осуществлять расчёт траектории полёта |
| to transmit (generate) target designation instructions | вырабатывать (выдавать) данные целеуказания |
| to alert active AD forces | приводить активные средства ПВО в боевую готовность |
| to scramble fighter-interceptors | поднять (по тревоге) истребители-перехватчики |
| to lock on | осуществить захват |
| to pick up | обнаруживать и захватывать |

**COMMENTARY**

**Terms and definitions:**

Российским военнослужащим, находящимся за границей часто приходится встречаться не только с офицерами Соединенных Штатов Америки, но и представителями Великобритании, а также ряда стран (Индия, Пакистан и ряд других), в котрых для обзначения воинских званий, осбенно в ВВС и ПВО, применяется британская терминология. Ниже приводится сравнительная таблица воиских званий ВВС США и Великобритании.

| United States Air Force | Royal Air Force |
|---|---|
| Second Lieutenant (2LT) | Pilot officer (Pt Off) |
| First Lieutenant (1LT) | Flying Officer (Fg Off) |
| Captain (CAPT) | Flight Lieutenant (Flt Lt) |
| Major (MAJ) | Squadron Leader (Sqn Ldr) |
| Lieutenant Colonel (Lt Col) | Wing Commander (Wg Cdr) |
| Colonel (COL) | Group Captain (Gp Capt) |

| | |
|---|---|
| Brigadier General (BG) | Air Commodore (Air Cdre) |
| Major General (MG) | Air Vice Marshal (AVM) |
| Lieutenant General (LTG) | Air Marshal (AM) |
| General (GEN) | Air Chief Marshal (ACM) |
| General of the Air Force | Marshal of the Royal Air Force |

**Exercise 4. Read and translate the text:**

**MISSILE DEFENSE**

Missile Defense (MD) is a deployment readiness program that integrates and tests the key components (called Elements) of a Missile Defense system. If deployed, MD will protect all 50 States from limited attack by ballistic missiles from states of concern. As the result of the evolving threat, the Ballistic Missile Defense Organization (BMDO) designed the MD program to be flexible and evolutionary.

The U.S. traditionally has relied on the wide expanses of the Atlantic and Pacific oceans to keep our homeland at arms length from the turmoil of global conflict. However, the proliferation of long range ballistic missiles and weapons of mass destruction to third world countries may negate much of this advantage and possibly deliver a serious blow to the national security of the United States.

**HISTORY**

At present, only a few countries possess missiles that can strike the U.S., but the possibility that this number will increase cannot be ignored. Today, technology is spreading around the world at an astonishing rate, including technology dealing with ballistic missile development and, more ominously, with weapons of mass destruction.

Complementing this growing technological capability is the continuing intent among some regimes to harm the international system, particularly the U.S. and its allies. Furthermore, it is impossible to predict whether traditional notions of deterrence will operate under future conditions.

The need for flexibility in Defense Programs is not new. Since the 1970s, changes in defense missions and in the systems designed to implement them have occurred every few years. The evolution of the program through the last

four changes (from 1987 to 1999) has changed NMD missions from a deterrence enhancing role against a massive threat, requiring large numbers of defense interceptors, to a protection role against small numbers of threats.

In 1996, the Department of Defense (DoD) established National Missile Defense (NMD) as a Major Defense Acquisition and Deployment Readiness Program. To execute the program, BMDO established the NMD Joint Program Office (JPO) in 1997. With significant Army, Air Force and BMDO material contributions, the goal of the JPO is to integrate the various elements into a cost effective and operationally sound system designed to protect all 50 states from a ballistic missile attack.

## THE MD SYSTEM

All elements of the MD system will work together to respond to a limited ballistic missile attack directed against the United States. The U.S. Early Warning System, consisting of Defense Support Program (DSP) satellites, and its follow-on capability, the Space Based Infrared System (SBIRS) satellites, will detect the launch of enemy missiles and then track these missiles while simultaneously gathering critical data. After confirmation, this information will be passed to the Battle Management/ Command, Control, and Communications (BM/C3) system while ground-based radars acquire and track the incoming missile. This information will then be used to make an engagement decision. When defense engagement authority is granted, one or more interceptors will be launched on command to engage the threat. The BM/C3 system will continue to process radar and other system data in order to provide more information to the interceptor so it, in turn, can better discriminate between debris, false objects (penetration aids), and real warheads. The interceptor will use its on-board sensor to acquire the threat, select the target warhead, and guide itself to a direct, high-speed collision using on-board computers and divert propulsion systems. During and after the engagement, the radars continue to collect data and observe the intercept results in order to provide “kill assessment” information which evaluates the interceptor’s success or failure. As part of the MD system, the Ballistic Missile Defense Organization (BMDO) is developing, testing, and integrating several major components. These include:

- The PATRIOT Advanced Capability-3 (PAC-3)
- The Navy Area Defense System
- Medium Extended Air Defense System (MEADS)
- The Theater High Altitude Area Defense (THAAD)
- The Navy Theater Wide program

- Joint Theater Missile Defense programs
- Ground Based Interceptor (GBI);
- Upgraded Early Warning Radars (UEWR);
- Forward Deployed and/or U.S.-based X-Band Radars (XBR);
- Battle Management/Command, Control, and Communications (BM/C3);
- The Space Based Infrared System (SBIRS) in high and low earth orbit.

**The PATRIOT ADVANCED CAPABILITY**

The PATRIOT Advanced Capability-3 is a lower-tier MD system that builds on the existing PATRIOT air and missile defense infrastructure. Since the Gulf War, BMDO and the Army have significantly increased the effectiveness of the PATRIOT system. In the last few years we have fielded the PAC-2 Guidance Enhanced Missile (GEM) to improve PATRIOT's accuracy against short-range ballistic missiles. In addition, the PAC-3 Configuration 1 Air and Missile Defense System will soon be completely fielded and we have begun to field the PAC-3 Configuration 2, which uses both PAC-2 and GEM interceptors. It also incorporates modifications to the radar, communications system, remote launch capability, and other system improvements.

**GROUND-BASED INTERCEPTOR (GBI)**

The GBI and its associated components provide the “weapon” of the NMD system. Its mission is to strike high-speed ballistic missile warheads in the midcourse or exo-atmospheric phase of their trajectories and destroy them by force of impact. The GBI consists of several components. The missile payload is called the kill vehicle (KV). This component has its own sensors, propulsion, communications, guidance, and computing functions which all work together to complete the intercept. Next, is the booster that will propel the KV toward an approximate intercept location enabling the KV to perform terminal maneuvers and impact the incoming warhead. In addition to the missile payload, there is also ground command and launch equipment that is needed to launch the interceptor. This consists of the hardware and software for interface with the BM/C3 system, human control interfaces (consoles) and interceptor storage sites (silos), in order to accomplish daily maintenance and readiness functions in addition to providing the launch of the interceptor upon command.

**UPGRADED EARLY WARNING RADAR (UEWR)**

U.S. early warning radars are large, fixed, phased-array surveillance radars used to detect and track ballistic missiles directed into the United States. Upgrades to America’s Early Warning Radar network will provide the existing forward-based radars with the capability to support the NMD surveillance function. Prior to deployment of the SBIRS (Low) satellites, the UEWRs

will be used to detect and track objects during their midcourse phase, primarily to cue the more precise X-Band Radar.

**THE SPACE-BASED INFRARED SYSTEM (SBIRS)**

SBIRS is an additional element that future MD systems will utilize. SBIRS (High) is being developed by the Air Force as part of the early warning system upgrade, which will replace the Defense Support Program (DSP) satellites. In its MD mission, the SBIRS (High) constellation of sensor satellites will acquire and track ballistic missiles throughout their trajectory. This information will provide the earliest possible trajectory estimate to the BM/C3 element. By providing this "over-the-horizon" precision tracking data to the MD system, the effective MD battle space is expanded to permit interceptors to be launched before threats come within range of the XBR, which is critical for effective Missile Defense.

**Exercise5. Translate the following questions by ear and answer them in English:**

1. How much money did the United States spend on its missile defense program?
2. Who was the initiator of the Strategic Defense Initiative?
3. What are the current missile defense assets available for the United States?
4. What does the term «reconstitutional potential» mean?

**Exercise 6. Decipher and translate the following abbreviations:**

PRF; mHz; kHz; CRT; PPI; IFF; LF; VLF; IF; EF; AF; AM; FM; AGO; AFC; ANL; BFO; LO; Sig Bn; Hq Co; Sig Cen; Comm Cen; TOE; HF; VHP; UHF; VHP; SHF; EHF; A; W; V; H; uA; uV

**Exercise 7. Translate the following words and word combinations by ear:**

Radar crass section, to lock on, target designation mode, intermediate and shorter range missiles, the third area, tracking radar, 1972 ABM Treaty, technical support facilities, strategic missile defense, fixed radar, early warning radar, telemetry.

Система раннего предупреждения о ракетном нападении, самолёт ДРЛО, район пуска, impact area, возвратный потенциал, забрасываемый вес, лазерное целеуказание, перехват на активном участке траектории полёта, SDI Programme.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Что собой представляет система ПВО “Флайкэтчер”? | The Flycatcher is a mobile low-level air defense system for all-weather point and area defense against any target, from high-speed aircraft to hovering helicopters and even to terrain - following missiles. |
| Сколько времени нужно на то, чтобы привести комплекс в боевое состояние? | The system requires little time for deployment. From a moving condition it only takes a few minutes to get the Flycatcher operationally ready. |
| Каковы преимущества данной системы? | The Flycatcher is capable of controlling various types of medium-caliber gums, surface-to-air launchers, or a combination of both. Furthermore, the Flycatcher can supply additional, stand-alone weapons sites with early warning through a data links, thus extending area coverage. |
| Какие еще системы созданы за последнее время компанией “Сааб мисайлз”? | Another recent Saab Missiles success has been there IRS-700 air defense infra-red surveillance and target acquisition system produced by the Swedish Coastal defense. |

**Exercise 9. Translate the following text at sight:**

**Text 1. JOINT THEATRE MISSILE PROGRAMS**

The Joint Theater Missile Defense Programs, provide direct support to many separate programs and introduce greater efficiency because they accomplish efforts that otherwise would have to be achieved separately by each program. These include interoperability in Battle Management/Command, Control, Communications and Intelligence (BM/C3I), which is essential for joint

TMD operations. BMDO takes an aggressive lead to establish an architecture that all the Services can build upon that includes improving early warning and dissemination, ensuring communications interoperability, and upgrading command and control centers. In addition to BM/C3I, the other activities include test and evaluation, modeling and simulation support, Commander-In-Chief's (CINCs) TMD Assessment program, the U.S.-Israeli Arrow Deployability Project, and Cooperative Engagement Capability (CEC) analysis. These are absolutely critical to the success of the overall U.S. Missile Defense system. They are the glue that holds the architecture together and will ensure that the whole is greater than the sum of its parts.

## Text 2. MISSILE DEFENSE

Missile defense is not a new idea. The British tried to devise a defense against Hitler's V-2 rockets during the waning days of World War II. In the 1960s, the United States devised a system to protect population centers from ballistic missiles. The Anti-Ballistic Missile Treaty of 1972 between the United States and the Soviet Union forbade either party from working on a continent-wide missile defense program. In the 1980s, President Ronald Reagan proposed the Strategic Defense Initiative. He envisioned a high-tech, impenetrable ballistic missile shield for the United States.

With the fall of the Soviet Union, the Strategic Defense Initiative morphed into the Ballistic Missile Defense Organization and that organization is on the point for all research and development for missile defense programs. Along the way, the extent of missile defense changed. From Reagan's impenetrable shield, missile defense today offers more realistic defense against a handful of missiles. Russia still has thousands of ICBMs. The Russians would easily overwhelm any U.S. missile defense system.

The danger now comes from rogue states. There are 12 nations with nuclear weapons programs. Twenty-eight nations have ballistic missiles. Nations developing ballistic missiles include Iraq, Libya, North Korea, Pakistan, India, Iran and Syria.

When the United States faced the Soviet Union, there were rational men in the Kremlin that understood the power of these weapons and would not make hasty decisions. For the first time in history, political leaders with no political structure around them or free press to temper a decision to launch will soon possess nuclear, chemical, or biological weapons and the means to deliver them. The mere possession of these weapons is a threat to the population of the United States, American national interests around the world, U.S. friends and allies and U.S. deployed forces.

The future of missile defense lies with the Ballistic Missile Defense Organization. The organization is testing boost-phase defenses, mid-course defenses and terminal-phase defenses. Serious research and development is exploring all aspects of missile defense in a way that had not been done before. The Clinton administration did not examine many technologies for fear of violating the ABM Treaty. The Bush administration has concluded that the threat is serious, and the only way to proceed is to be truthful about our desire to move beyond the treaty and construct a broader framework of deterrence for the 21st century.

**Exercise 10. Translate the following text at sight:**

## ПЕРСПЕКТИВЫ НАЦИОНАЛЬНОЙ ПРОТИВОРАКЕТНОЙ ОБОРОНЫ

Создатели системы НПРО утверждают, что эта система жизненно необходима для обеспечения безопасности США, потому что в последние годы в мире стали широко доступными ракетные технологии. Это позволяет многим государствам и даже частным структурам создавать ракеты, в том числе баллистические, которые теоретически могут быть использованы для атаки на США. Эта опасность возрастает и из-за того, что террористические структуры или страны-изгои могут оснастить подобную ракету боеголовкой с ядерным, химическим или биологическим оружием. Ныне, по данным ЦРУ, более 30 государств обладают технологиями создания ракет. Примерно 25 государств обладают или предпринимают шаги, чтобы получить доступ к оружию массового уничтожения.

Противники этого подхода утверждают, что эта система бесполезна потому, что будет не в состоянии остановить ракетную атаку государств, обладающих значительными ракетными арсеналами (например, Россия и Китай). На страны с небольшими ракетными арсеналами (например, Северная Корея или Иран) можно воздействовать экономическими и дипломатическими средствами, чтобы заставить их отказаться от идеи атаковать Америку. Против террористов НПРО также бессильна, потому что они могут атаковать США любым иным образом, не используя ракеты.

**Exercise 11. Translate the following text in writing:**

## U.S. To Develop, Deploy Ballistic Missile Defense System

By Gerry J. Gilmore
American Forces Press Service

BRUSSELS, Belgium — The United States will build and deploy a ballistic missile defense system, the US Secretary of Defense said June 7 to defense ministers gathered at NATO headquarters here.

At a morning North Atlantic Council meeting, US secdef told the ministers that the "development and deployment of ballistic missile defenses will be an element" of a revamped U.S. defense framework.

"We intend to build and deploy [missile] defenses to protect the U.S., our forward-deployed forces, and in cooperation with friends and allies," he added. The secretary told NATO ministers that the goal "is to deploy defenses against handfuls of missiles." He added that creating such a system wouldn't occur overnight.

The United States would not make decisions on the configuration of the missile defense system "until our technologies have been tested, and it is likely they will evolve over time," he said.

"As this program progresses, we will likely deploy test assets to provide rudimentary defenses to deal with emerging threats," he added.

At an afternoon NATO press briefing, he told reporters that the proliferation of nuclear, chemical and biological weapons of mass destruction — and of the ballistic missile systems to deliver them — are real threats to world peace and stability.

He told reporters non-democratic countries like North Korea, Iraq and others that are unfriendly to the United States and its allies either have or are seeking WMD and ballistic missile technology to increase their political profile and "clout" in the world.

These countries are often poor, the secretary told reporters. "(They) are determined, they are taking their funds from all the creature comforts for their people ... and investing them in ballistic missile technology and weapons of mass destruction technology," he said.

The Chief Pentagon official showed videotape of previous, successful U.S. missile defense system tests at the North Atlantic Council meeting and told the NATO ministers he welcomed their input.

"We look forward to exploring opportunities for enhanced cooperation with friends, allies and others," he said.

His proposal for NATO consultation on U.S. missile defense plans "marks an important opportunity for allies to consult about the direction of U.S. thinking," NATO Secretary- General remarked in a press release distributed after the council meeting.

The United States and NATO must adjust to global geopolitical changes and evolve their deterrence strategy, the US President's top aid said to NATO ministers. A fly in the ointment, he believes, is the 1972 Anti-Ballistic Missile Defense Treaty between the United States and the Soviet Union.

The ABM treaty "stands in the way of a 21st century approach to deterrence," he told the ministers. "It prevents deployment of defenses that can deny others the power to hold our populations hostage to nuclear blackmail. Deploying missile defenses capable of protecting the U.S., friends and allies will eventually require moving beyond the ABM treaty."

The right honorable Secretary of defense told the ministers the United States would consult with NATO and Russia "to find a new framework that will enable us to test and deploy defenses against new threats."

No country, he said to the ministers, should be worried about the envisioned ballistic missile defense system.

"Such defenses are no threat whatsoever to anyone. They are defenses, not offenses," he said. "And by no stretch of anyone's imagination could they even begin to deal with the thousands of weapons deployed by Russia.

**Exercise 12. Translate the following text in writing:**

**СИСТЕМЫ ПРОТИВОРАКЕТНОЙ ОБОРОНЫ США**

Разрабатываемые в США системы противоракетной обороны (ПРО) могут быть разделены на четыре больших группы по характеру задач, для решения которых они создаются. Такими группами являются:

- системы войсковой ПРО (ПРО поля боя) – предназначены для непосредственного прикрытия войск на поле боя преимущественно от ударов тактических баллистических ракет малой (до 150 км) дальности, а также прикрытия от ударов такого рода ракет ограниченных по размерам объектов преимущественно военного назначения;
- оперативно-тактические системы ПРО (системы ПРО зоны боевых действий) – предназначены для прикрытия войск и высокоценных объектов от ударов баллистических ракет тактического и оперативно-тактического назначения, имеющих дальность до 1000 км;
- оперативно-стратегические системы ПРО (системы ПРО театра военных действий) – предназначены для прикрытия войск и объектов на те-

атре военных действий от ударов баллистических ракет средней дальности (до 3500 км);
- стратегические системы ПРО – предназначены для отражения ударов баллистических ракет межконтинентальной дальности по национальной территории страны. В зависимости от состава и боевых возможностей могут быть зональными (прикрывающими лишь определенный район) или национальными (предназначенными для прикрытия от ударов МБР всей национальной территории страны). Во втором случае применительно к подобным системам вполне обоснованно можно применять термин «системы ПРО национальной территории».

## ARMY HUMOR

### GI Insurance

Airman Jones was assigned to the induction center, where he advised new recruits about their government benefits, especially their GI insurance.

It wasn't long before Captain Smith noticed that Airman Jones had almost a 100% record for insurance sales, which had never happened before. Rather than ask about this, the Captain stood in the back of the room and listened to Jones's sales pitch.

Jones explained the basics of the GI Insurance to the new recruits, and then said: "If you have GI Insurance and go into battle and are killed, the government has to pay $200,000 to your beneficiaries. If you don't have GI insurance, and you go into battle and get killed, the government only has to pay a maximum of $6000."

"Now," he concluded, "which bunch do you think they are going to send into battle first?"

## УРОК 26
## РАДИОЛОКАЦИОННАЯ СТАНЦИЯ (РЛС)

## LESSON 26
## RADIO DETECTION AND RANGING (RADAR)

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Radar | fluorescent |
| Microsecond | segment |
| Parabolic | Synchronizer |
| Conical | Scope |
| Electron | Focusing |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Is used to detect and position; independent of the object; during the time interval between; pulse repetition frequency; a receiver is connected to; each connected in turn; the azimuth bearing of any plane; a light map of the area being swept out; a thin electron beam or stream; outward from the center of the scope; the intensity remains uniform throughout the entire length.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| Radar | радиолокационная станция (РЛС) |
| acquisition radar | РЛС обнаружения и сопровождения |
| air surveillance radar | РЛС обнаружения самолётов radar |
| air search radar | поисковая РЛС |
| early warning radar | РЛС дальнего обнаружения |
| mortar (Arty) locating radar | РЛС засечки позиций минометов |
| height-finding radar | РЛС определения высоты цели |
| target designation radar | РЛС целеуказания |
| target illuminating radar | РЛС подсветки цели |
| forward-looking radar | РЛС (авиа.) обнаружения цели в перед- |

| | |
|---|---|
| | ней полусфере |
| up-looking radar | РЛС (авиа.) обнаружения цели в верхней полусфере |
| down-looking radar | РЛС (авиа.) нижнего обзора |
| tail warning radar | РЛС защиты хвоста самолёта |
| terrain following radar | РЛС "слежения" за рельефом местности |
| three-dimensional radar | трёхкоординатная РЛС |
| IFF (Identification Friend or Foe) radar | РЛС опознавания "свой-чужой" |
| mapping radar | РЛС составления радиолокационной карты местности |
| Doppler radar | доплеровская РЛС |
| pulsed Doppler radar | импульсно-доплеровская РЛС |
| coherent radar | когерентно-импульсная РЛС |
| high-resolution radar | РЛС с высокой разрешающей способностью |
| phased array radar | РЛС с фазированной антенной решеткой |
| planar array radar | РЛС с плоской фазированной антенной решеткой |
| over-the-horizon radar | загоризонтная РЛС |
| very long range radar | РЛС сверхдальней локации |
| Beam | луч |
| narrow beam | узкий луч |
| pencil-shaped beam | узконаправленный луч |
| Pulse | импульс |
| rectangular pulse | прямоугольный импульс |
| transmitted pulse | зондирующий импульс |

| | |
|---|---|
| main pulse | зондирующий импульс |
| trigger pulse | запускающий импульс |
| pulse repetition frequency (PRF) | частота повторения импульса |
| Indicator | индикатор |
| CRT indicator | индикатор с ЭЛТ |
| plan position indicator (PPI) | индикатор кругового обзора |
| Display | индикатор |
| to radiate | излучать |
| RADAR units | блоки РЛС |
| timer, synchronizer | синхронизатор |
| Modulator | модулятор |
| antenna switch, duplexer | антенный переключатель |
| antenna array | антенная решётка |
| phased array | фазированная решётка |
| antenna assembly | антенное устройство |
| cathode ray tube (CRT): | электронно-лучевая трубка |
| electron gun | электронная пушка |
| focusing magnet | фокусирующий магнит |
| deflection ceil | отклоняющая катушка |
| CRT face (screen) | экран трубки |
| Fluorescent | светящийся |
| Compound | состав |
| Lobe | лепесток (диаграмма направленности) |
| main lobe | основной лепесток |
| side lobe | боковой лепесток |
| Pip | отметка, "всплеск" |

| | |
|---|---|
| Oscillator | генератор (в радиотехнике) |
| local oscillator | гетеродин |
| Trace | след |
| Sweep | развёртка на экране |
| Resolution | разрешающая способность |
| resolution in azimuth | разрешающая способность по азимуту |
| resolution in range | разрешающая способность по дальности |
| to apply a voltage to | подавать напряжение на... |
| to deliver a signal to | подавать сигнал на... |
| to connect smth to smth | подсоединять что-либо к чему-либо |
| independent of | независимо от... |
| to radiate at a certain PRF | излучать с определенной частотой р |
| to operate in the (SHF) band | работать в диапазоне (СВЧ) |
| to be composed of | состоять из ... |
| to disconnect from | отключать от ... |
| to operate in a definite time relationship | действовать в определённом временном соотношении |
| to prevent a target from forming an echo | предотвращать образование отражённого сигнала |

**Exercise 4. Read and translate the text:**

**RADAR**

Radar is used to detect and position objects by means of reflected radio waves independent of the object itself. Short pulses of radio waves ($^1/_4$ of a microsecond duration) are radiated at a certain PRF depending upon the range required in a narrow beam from a rotating antenna. During the time interval between the pulses a receiver is connected to the antenna to receive the reflected pulses which are applied to a CRT indicator suitably calibrated. The

distance to the object is determined by measuring the time Interval between the transmission and reception of the reflected pulse. The reflected wave from objects one mile away is received about 10 μsec after the transmit pulse.

An aircraft radar developed for fighters had one transmitting and four receiving antennas each connected in turn. Two CRT displays were provided, one giving elevation and the other the azimuth bearing of any plane in the vicinity.

With PPI, the reflected signal causes a change in intensity of the light spot on the display screen. A rotating trace on CRT geared to the antenna system gives a light map of the area being swept out by the radio beam. The system gives a recognizable map of the terrain over which the aircraft is flying.

Automatic locking devices can keep the radar and associated AA weapon on the target once it has been "spotted".

## WHAT ARE THE COMPONENTS OF A TYPICAL RADAR SET?

A radar set may be broken into five major units: the timer; the XMTR; the antenna; the receiver, and the indicator.

The timer (or synchronizer) is the heart of the radar system. Its function is to insure that all circuits connected with the system operate in a definite time relationship with each other and that the time interval between transmitted pulses is of the proper duration. The timer triggers the other units into operation.

The transmitter (XMTR) is similar to the radio XMTR except it operates in the SHF band for very short periods of time.

The antenna is a "parabolic dish" which directs the transmitted energy into a narrow wedge or into a conical beam like that of a searchlight. It serves not only for transmission but for reception as well.

The receiver, like the XMTR, is similar to a radio receiver. Its main function is to amplify the relatively weak echoes which return to the antenna.

The indicator for the radar set is a special vacuum tube called CRT, commonly called the scope. An electromagnetic CRT is composed of an electron gun, a focusing magnet, and a set of deflection coils. The function of the electron gun is to produce a thin electron beam. The beam is so acted upon by the focusing magnet that the focal point of the beam is at the face of the tube. The CRT face is coated with a fluorescent compound which glows when struck by the electron beam.

## HOW IS AN OBJECT LOCATED BY MEANS OF RADAR?

The location of an object by means of the five units of a radar involves the simultaneous solution of two separate problems. First, the time interval be-

tween the transmitted pulse and its echo must be accurately measured and presented as range on the indicator. Second, the direction in which each signal is transmitted must be Indicated, giving the bearing of the object. The radar cycle begins when the timer triggers the transmitter. A powerful pulse of RF energy is generated there which is then emitted from the antenna. As soon as the pulse leaves the antenna, the latter is automatically disconnected from the XMTR and connected to the receiver. If an echo returns, it is amplified by the receiver and seat to the Indicator for display. At the same time that the timer triggers the XMTR, it also sends a trigger signal to the indicator. Here, a circuit is actuated which causes the current in the deflection coils to rise at a linear rate. The rising current, in turn, causes the spot to be deflected radially outward from the center of the scope. The spot thus traces a faint line on the scope; this line is called the sweep. If no echo is received, the intensity of the sweep remains uniform throughout the entire length. If an echo is returned, it is so applied то the CRT that it intensifies the spot and brightens momentarily a short segment of the sweep. Since the sweep is linear and begins with the emission of the transmitted pulse, the point at which the echo brightens the sweep will be an indication of the range to the object causing the echo.

## HOW IS A FRIENDLY TARGET IDENTIFIED?

It has probably occurred to you that there is nothing to prevent a friendly target from forming a pip on the radar screen. The answer to the problem was a device called IFF. When a radar beam swept over one of planes equipped with IFF, the received waves triggered a small XMTR, which sent back a signal what showed on the scope, right next to the pip, saying in effect, "Lay off, brother."

### COMMENTARY

**Terms and definitions:**

a) **Coverage.** The usable range of the radar set measured in all directions about the radar location. The coverage is a function of the characteristic of the system, including output power, receiver sensitivity, target size, and the presence of interference sources in the fields of view of the radar.

b) **Line-of-sight coverage.** The distance to which radar sets are, in general, limited.

c) **Plan Position Indicator.** A radar display showing the positions of objects producing echoes. When the center of the display does not correspond with the position of the radar antenna, it is known as an off-center plan display. When the ring round The center corresponds with zero range, it is called

an expanded plan display. Other rings indicate different ranges. The scale of the ranges can be altered so as to obtain greater accuracy on short ranges when required.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Почему зондирующий импульс должен быть большой мощности?
2. Как РЛС определяют расстояние до цели и азимут?
3. Какие РЛС используются для определения скорости цели? Каков принцип их действия?
4. В каком диапазоне частот работает большинство РЛС и почему?
5. Для чего предназначен синхронизатор?
6. Для чего используется в импульсной РЛС антенный переключатель?
7. Почему энергия зондирующего импульса должна излучаться в виде узкого луча?
8. Почему антенна должна быть направленной?
9. Как осуществляется переключение импульсной РЛС с передачи на приём?
10. Почему необходимо усиливать сигналы, отражённые от цели?
11. Как осуществляется опознавание "свой-чужой"?

**Exercise 6. Decipher and translate the following abbreviations:**

PRF; mHz; kHz; CRT; PPI; IFF; LF; VLF; IF; EF; AF; AM; FM; AGO; AFC; ANL; BFO; LO; Sig Cen; Comm Cen; TOE; HF; VHP; UHF; VHP; SHF; EHF; A; W; V; H; uA; uV

**Exercise 7. Translate the following words and word combinations by ear:**

To detect and position objects; by means of reflected radio waves; short pulses are radiated at a certain PRF; the reflected signals are applied to CRT indicator; the distance to the object; is determined by measuring the time interval; a radar set may be broken down into; to operate in a definite time relationship; the timer triggers the other units; to be similar to; to operate in the SHF band; to direct the transmitted energy into a narrow beam; it glows when struck by electrons; the location involves the simultaneous solution of two separate problems.

Использоваться для обнаружения и определения местоположения; длительностью в одну четвёртую микросекунды; короткие импульсы

излучаются с определённой частотой повторения; определять угол места цели; определять пеленг; определять соотношение; запускать блоки; на экран наносится покрытие; светиться под воздействием электронов; антенна автоматически отключается от передатчика; синхронизатор запускает передатчик; начинаться с момента излучения зондирующего импульса; передатчик посылает сигнал, который появляется на экране индикатора.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| The synchronizer provides toe timing for the radar signal and synchronizes the transmitter, receiver, and indicator so that all operate together with correct timing. | Синхронизатор вырабатывает управляющие сигналы, которые позволяют согласовывать по времени с работой передатчика работу приёмника и индикатора. |
| The timing and synchronizing are accomplished by trigger pulses generated in the synchronizer. | Синхронизатор определяет временные соотношения РЛС |
| The modulator stores energy and supplies high voltage pulses which are released by the trigger pulse from the synchronizer. | Модулятор использует синхронизирующие сигналы и формирует мощные импульсы необходимой амплитуды и формы. |
| When the trigger pulse releases this energy, a high voltage pulse, rectangular in shape, is delivered to the transmitter. | Передатчик вырабатывает мощные ВЧ колебания в виде импульсов, мощность которых может достигать нескольких миллионов ватт. |
| The principal element of a radar XMTR is a magnetron tube which receives the high energy pulse from the modulator and converts it to an EHF pulse to be sent on to the antenna system to be radiated into space. | Для генерации электромагнитной энергии применяются магнетроны и клистроны. Затем ВЧ импульсы по фидеру проводятся к антенне и излучаются в пространство. |
| The UHF pulse from XMTR is carried by means of a waveguide section to the duplexer and from the duplexer through a waveguide to the antenna. | Импульсные РЛС используют для приёма отражённых сигналов и излучения импульсов электронный переключатель. |

| | |
|---|---|
| The duplexer is an electronic switching device which alternately connects the XMTR and receiver to the antenna. | Переключатель отключает приемник от антенны в момент работы передатчика и вновь переключает его после излучения импульса. |
| As soon as the XMTR pulse ends the receiver line is opened to receive the reflected pulse. At this time the path to the XMTR is blocked so that the pulse being received cannot go to the magnetron tube. | Для предотвращения попадания мощного импульса передатчика в приёмник в волноводном тракте установлен антенный переключатель, который закрывает вход приемника. |
| In a radar system the RF energy pulses travel alone the waveguide which terminates in a feed element, which reflects the pulses from the XMTR backward to the paraboloidal reflector that forms the pulses into a beam and radiates them into free space. | Импульс ВЧ энергии поступает через волновод и фидер на антенну, которая формирует энергию волн в узконаправленный луч и излучает её в пространство. |

**Exercise 9. Translate the following text at sight:**

### A. TERRAIN FOLLOWING RADAR

The radar can either be directly connected to the aircraft autopilot and fly the aircraft, or it can show on a display in the cockpit the terrain ahead: the pilot flies the aircraft by looking at the display. The object is for the aircraft to fly as low as possible, while following the contours of the ground. With automatic terrain following, it is possible to set the required height above the ground and for the radar and autopilot to keep the aircraft at this height automatically all the time.

### B. FORWARD AND DOWN LOOKING RADAR

Texas Instruments designed a forward and down looking radar are used in the Tornado. The radar is to make a map of the ground over which the aircraft is flying. Another specialty of the radar is to provide terrain following. The radar map can be displayed superimposed on a moving map display, or as a separate display.

### C. THE US ARMY'S AN/TPQ-37 RADAR

The location of enemy artillery can be pinpointed in seconds with the US Army's new AN/TPQ-37 artillery locating radar. Its three-dimensional antenna scans the horizons with a pencil-shaped beam which moves so fast it forms an electronic barrier that can detect incoming projectiles as they rise above the horizon. These are tracked and their trajectories are backplotted to locate the firing weapons often before the first shell hits the ground.

The ALE can be deployed quickly and set up in 30 min. It has two main units: an antenna trailer towed by a 5-ton truck which carries the XMTR, receiver, and generator, and an operations unit housed in a standard S-280 shelter mounted on a 2½-ton truck. The shelter has room for two operators and a supervisor, although one man can do the job if necessary.

### D. THE FRENCH THOMSON-CSF CYRANO IV SERIES 100 RADAR

The radar is a fully digital, multi-mode search radar, designed on a modular basis. The equipment is capable of providing beyond-visual range and offboresight tracking and acquisition, autotracking and missile illumination.

**Exercise 10. Translate the following text at sight:**

### СВЕРХДАЛЬНЕЕ РАДИОЛАКАЦИОННОЕ ОБНАРУЖЕНИЕ

Для выполнения задач по сверхдальнему радиолокационному обнаружению созданы загоризонтные РЛС. Луч такой РЛС посылается под определённым углом с земли. Достигнув наиболее насыщенной зарядами области ионосферы, расположенной на высоте около 300 км, луч отражается от неё и снова возвращается к земле. Волна делает при этом скачок в 2 – 4 тыс. км. Вернувшись, она снова отражается от земной поверхности и снова уходит вверх и отражается от ионосферы, луч коротковолнового локатора при встрече с ионосферой делает излом и, падая на землю, облучает объект, находящийся за горизонтом. Отражённые объектом радиосигналы идут тем же путём в сторону излучающей станции и приносят информацию об объекте. Измерив при помощи индикатора время прохождения радиоволн до объекта и обратно, узнают, где он находится.

Станции сверхдальнего обнаружения используются для обнаружения запусков МБР и ядерных взрывов на дальностях в несколько тысяч км. Система РЛС, как утверждается в зарубежной печати, позволяет регистрировать запуск ракет в любой точке земного шара.

**Exercise 11. Translate the following text in writing:**

### THE F-16 RADAR

The F-16 radar has operating modes which are particularly suited to the roles of air superiority and air-to-surface weapon delivery. The radar is designed for easy operation by a one-man crew.

The F-16 radar is capable of both air-to-air uplook for search and track above the horizon and air-to-air downlook for search and track below the horizon. The air-to-air search area in front of the aircraft is - 60° azimuth.

The pilot determines the operating mode and the mode parameters by making a switch selection on the radar control panel. A variable number of target history scan frames can be selected for display by the pilot.

Target acquisition and tracking can be initiated manually by placing an acquisition symbol over the displayed target and then pressing the acquisition switch.

The F-16 radar consists of six line-replaceable units which are organized for autonomy, ease of maintenance, logical function, minimum interconnection and coproduction potential.

The six replaceable units are the antenna, XMTR, low-power RF unit, digital signal processor, the radar computer and a radar control panel.

The planar array antenna was selected for its good gain and low side lobes over all scan angles.

The low-power RF unit contains a receiver protector, low-noise amplifier, receiver, analog/digital (A/D) converters, stable local oscillator and the system clock generator.

**Exercise 12. Translate the following text in writing:**

### РЛС ОБНАРУЖЕНИЯ АРТИЛЛЕРИЙСКИХ И МИНОМЕТНЫХ ПРОЗИЦИЙ ПРОТИВНИКА

РЛС обнаружения артиллерийских позиций состоит на вооружении самоходных дивизионов 155-мм гаубиц механизированной и бронетанковой дивизий. Она предназначена для засечки огневых позиций миномётов и орудий, а также ПУ НУР. РЛС AN/MPQ4 используется также для корректировки миномётно-артиллерийского огня и обнаружения движущихся целей на дальности до 10 км. Станция работает на волне около 2 см и обеспечивает точность определения дальности – 10 м. Определение координат целей осуществляется по карте при помощи ЭВМ.

В армии США созданы малогабаритные РЛС, предназначенные для ведения прицельного огня из пехотного оружия. Эти станции обеспечивают обнаружение движущихся наземных целей и определение их дальности и азимута. За счёт применения антенн нового типа и микросхем станции имеют малый вес и могут крепиться на пехотном оружии: автоматической винтовке, пулемёте, гранатомёте и безоткатном орудии. Станция 1019 является когерентно-доплеровской и обладает дальностью действия до 250 м.

## ARMY HUMOR

### American Soldier, British Manners

An American GI, serving in World War II, had just returned from several weeks of intense action on the German front lines. He had finally been granted R&R and was on a train bound for London. The train was very crowded, so the soldier walked the length of the train, looking for an empty seat. The only unoccupied seat was right next to a well dressed middle aged lady and was being used by her little dog.

The war weary soldier asked, "Please, ma'am, may I sit in that seat?"

The English woman looked down her nose at the soldier, sniffed and said, "You Americans. You are such a rude class of people. Can't you see my Little Fifi is using that seat?"

The soldier walked away, determined to find a place to rest, but after another trip down to the end of the train, found himself again facing the woman with the dog. Again he asked, "Please, lady. May I sit there? I'm very tired."

The English woman wrinkled her nose and snorted, "You Americans! Not only are you rude, you are also arrogant. Imagine!"

The soldier didn't say anything else; he leaned over, picked up the little dog, tossed it out the window of the train and sat down in the empty seat.

The woman shrieked and railed, and demanded that someone defend her and chastise the soldier. An English gentleman sitting across the aisle spoke up, "You know, sir, you Americans do seem to have a penchant for doing the wrong thing. You eat holding the fork in the wrong hand. You drive your autos on the wrong side of the road. And now, sir, you've thrown the wrong bitch out the window."

# ГЛАВА 6
# ВОЕННО-МОРСКИЕ СИЛЫ

## УРОК 27
## СТРУКТУРА ВМС США

## CHAPTER 6
## NAVY

## LESSON 27
## U.S. NAVY ORGANIZATION

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Construe | appropriate |
| Pursuant | constituted |
| Synonymous | flotilla |
| Bureau | similarly |
| Explanatory | ease |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To detect and position objects; by means of reflected radio waves; short pulses are radiated at a certain PRF; the reflected signals are applied to CRT indicator; the distance to the object; is determined by measuring the time interval; a radar set may be broken down into; to operate in a definite time relationship; the timer triggers the other units; to be similar to.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| the Department of the Navy | Министерство ВМС США |
| the Operating Forces | боевые силы МО США |

| | |
|---|---|
| the Shore Establishment | береговые части и учреждения |
| the Coastal Guard | береговая охрана |
| the Navy Department | Министерство ВМС США |
| the Secretary of the Navy | Министр ВМС США |
| the Chief of Naval Operations (CNO) | начальник штаба ВМС США |
| sea frontier forces | силы военно-морских округов |
| Fleet | флот |
| the Military Sea Transportation Service | военно-морская транспортная служба |
| District | округ |
| type organization | организация однородных сил флота |
| amphibious command | командование амфибийных сил |
| destroyer command | командование миноносных сил |
| Flotilla | флотилия, бригада |
| Squadron | эскадра (крупных кораблей) |
| Division | дивизия (крупных кораблей) |
| type commander | командующий однородных сил |
| fleet organization | организация флота |
| task force organization | организация оперативного соединения |

| | |
|---|---|
| unified command | объединённое командование |
| sea going forces | силы и средства, предназначенные для действий на море |
| to operate as part of | действовать в составе |
| pursuant to law | в соответствии с законом |
| to be assigned to the Operating Forces | входить в состав боевых сил |
| to have a numbered designation | иметь цифровое обозначение (номер) |
| communication call signs | позывные для связи |

**Exercise 4. Read and translate the text:**

**THE ORGANIZATION OF THE US NAVY**

The following chart presents an overview of the organization of the Department of the Navy. The U.S. Navy was founded on 13 October 1775, and the Department of the Navy was established on 30 April 1798. The term 'Department of the Navy' is construed to mean the Department of the Navy at the seat of the government; the headquarters, USMC; the entire operating forces of the US Navy, including naval aviation, and of the USMC, including the reserve components of such forces; all field activities, headquarters, forces, bases, installations, activities, and functions under the control or supervision of the Secretary of the Navy; and the Coastal Guard when operating as part of the Navy pursuant to law.

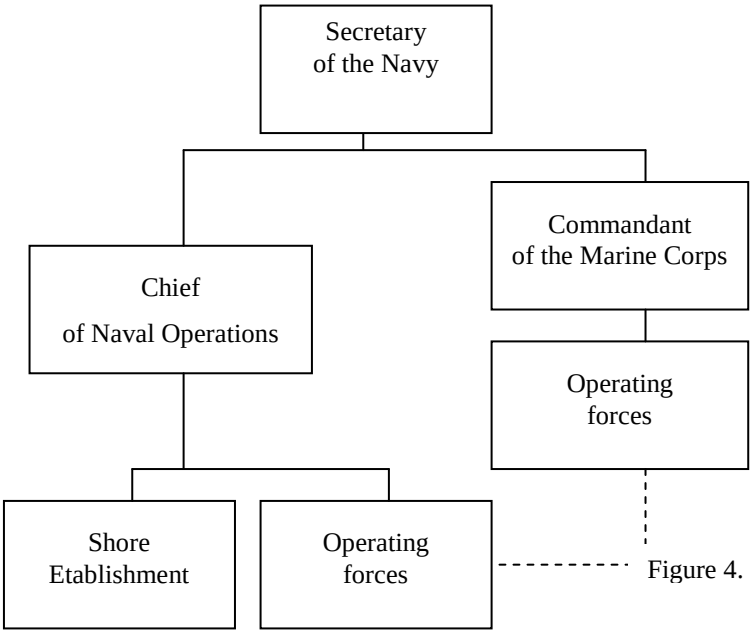



Figure 4.

The term ‘Department of the Navy’ is synonymous with the term ‘Naval Establishment’.

The Department of the Navy consists of three principal parts as follows:

1. The Operating Forces of the Navy, which comprise the several fleets, seagoing forces, sea frontier forces, the Military Transportation Service, and such shore activities as may be assigned to the Operating Forces of the Navy by the President or the Secretary of the Navy.

2. The Navy Department, which is the central executive authority of the Department of the Navy, is located at the seat of the government. These organizationally comprise the Office of the Secretary of the Navy, the Office of the Chief of Naval Operations, and the headquarters organizations of the USMC, the Naval Material Command, the Bureau of Naval Personnel, etc.

3. The Shore Establishment comprises all activities of the Department of the Navy not assigned to Operating Forces of the Navy and not part of the Navy Department. This includes the Operating Forces of the Marine Corps which are not assigned to the Operating Forces of the Navy or to a unified or specified combatant command.

## THE OPERATING FORCES

The operating forces commanders and fleet commanders have a dual chain of command. Administratively, they report to the Chief of Naval Operations and provide, train, and equip naval forces. Operationally, they provide naval forces and report to the appropriate Unified Combatant Commanders. The Fleet Forces Commander – who has additional duty as Commander, U.S. Atlantic Fleet – controls LANTFLT and PACFLT assets for interdeployment training cycle purposes. As units of the Navy enter the area of responsibility for a particular Navy area commander, they are operationally assigned to the appropriate numbered fleet. All Navy units also have an administrative chain of command with the various ships reporting to the appropriate Type Commander.

The Operating Forces of the Navy comprise the several fleets, seagoing forces, sea frontier forces, district forces. Fleet Marine Forces and other assigned Marine Corps forces, the Military Sea Transportation Service, and such shore activities 01 the Navy and other forces and activities as may be assigned to the Operating Forces of the Navy by the President or the Secretary of the Navy.

Ships of the Operating Forces are organized under three different organizational systems. First, the majority of forces are assigned to Type Commanders for administrative control and for operational control during primary and intermediate training phases.

Second, these same forces are assigned to Fleet Commanders for advanced training and operations.

Third, some elements of these forces are further assigned to task force organizations for specific operations and missions.

Type organization. All ships are organized into broad categories under commanders whose titles are self-explanatory, such as Amphibious, Destroyer, Mine, Submarine, Air, etc.

Each type command contains further administrative sub-divisions such as flotillas, squadrons, and divisions or air wings, air groups, and squadrons.

Normal administration is carried on by this organization, and a ship or unit is always under the administrative control of the appropriate type commander, even though under the operational control of a fleet or task force commander.

Fleet Organization. There are four regularly constituted fleets — the First and Seventh Fleets in the Pacific under the Commander in Chief, Pacific Fleet, and the Second and Sixth Fleets in the Atlantic under the Commander in Chief, Atlantic Fleet.

Under normal peacetime procedures the Commander First Fleet exercises operational control over all forces in the Pacific Coast and the Commander

Seventh Fleet exercises operational control over certain forces in the Far East. Similarly in the Atlantic, Commander Second Fleet exercises operational control over all forces in the Atlantic and Commander Sixth Fleet exercises operational control over certain forces in the Mediterranean.

Task Force Organization. Only rarely does the task to be performed by the Navy lends itself to the use of the foregoing organizations. In order to provide flexibility of organization and ease of communication, the Task Force Organization (or more properly the Task Fleet Organization) was formed during World War II. Under this system a flexible structure is provided consisting of Fleets further divided into Forces, Groups, Units and Elements. Each subdivision has a numbered designation and appropriate communication call signs.

**COMMENTARY**

In the text that follows you will come across such word combinations as “normal administration is carried on”, and “under normal peacetime procedures”. To translate them, one has to resort to transformations. Such transformations are necessary because of the peculiarities of the languages. For in Russian the phrase “обычное управление” is stylistically incongruous in sentences “обычное управление осуществляется…” therefore, one has to transform the adjective “нормальный” into the adverb. One will act likewise when translating the other sentence.

From among the peculiarities which are typical of the English language there are some things that are implicit. To render them into Russian, one has to convey the meaning that is implied.

For example:

...such shore activities of the Navy and other forces and activities as may be assigned to the Operating Forces of the Navy by the President or the Secretary of the Navy.

The preposition “by” implies here “by the decision of”, “by the order of”. Hence, one has the full right to translate it: “боевые силы флота выполняют задачи по приказу (решению) Президента или Министра ВМС”.

The lesson, as well as the entire chapter, deals with the Navy, that is why the texts are abundant in naval terms.

NAVY means a state's ships of war, as well as the organization and manpower of a state's force for war at sea. Its Russian counterpart is ВМС(ВМФ).

NAVAL refers to anything associated with the navy. It is used in such word combinations as:

NAVAL
- Academy
- Air
- Area
- Armament
- Aviation
- Base
- Blockade
- Aircraftman
- campaign, combat
- District
- Establishment
- Encounter
- Engagement
- Force
- Gunfire
- Means
- Power

NAVAL
- reserve
- Science
- Ship
- Station
- Strategy
- Operations
- Tactics
- Secretary
- Strength
- Support
- warfare, etc.

A ship, a basic unit of a navy, is usually referred to as a COMBATANT ship or AUXILIARY vessel depending on her purpose.

COMBATANT as an adjective means prepared to fight or intended for fighting purposes.

The word is used in combinations as follows:

**COMBATANT**
- ship
- facility
- vehicle

Synonyms of the word ‘ship’ are: WARSHIP, MAN-OF-WAR, VESSEL, CRAFT.

WARSHIP is a heavily armed ship used in naval combat.

VESSEL is a hollow structure, capable of floating and of carrying considerable weight.

- merchant
- passenger
- Whaling
- Auxiliary

**VESSEL**

Vessels serve as a base of operations at sea.

CRAFT may be used as a singular or collective noun and now is applicable to any type of boat or ship that plies the water. Originally it was found only in the phrase 'small craft', and was applied to smaller vessels, especially to those in the service of ships, such as lighters, tugs, and fireboats, or to those forming part of a navy or fleet. At present the term tends to become a comprehensive term covering all kinds of boats and vessels.

MAN-OF-WAR is the word used in describing warships of the past. It is becoming obsolete now.

FLEET stands for a number of warships under one command, or (2) any naval force, or (3) a national navy.

The word occurs in word combinations as follows:

**FLEET**
- admiral
- air
- ballistic missile
- ballistic missile submarine
- flagship
- marine force
- submarine

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Каков состав боевых сил ВМС США?
2. Каковы основные компоненты организации ВМС США?
3. Входят ли боевые силы корпуса морской пехоты в состав береговых частей и учреждений?
4. С какой целью созданы командования однородных сил флота?
5. Какие флоты входят в состав Атлантического флота ВМС США?
6. Кто осуществляет оперативное управление силами ВМС США в Тихом океане?
7. Кто осуществляет оперативное управление силами 6-го флота?
8. В каких случаях и с какой целью создаются оперативные соединения в ВМС США?

**Exercise 6. Decipher and translate the following abbreviations:**

USMC; USCG; USN; USNR; SLBM; ALCM; ALBM; SLM; SN; SAF; SA; CSUSAF; CSUSA; CNO; CE; CIC; APDS; CONUS; DAF; DD; DN; ECM; EOSM; FA; FM; GM; GZ; HEAT; SAC; TAC; MAC; ADC; ADM; SRAM; NORAD; NSA; NCO

**Exercise 7. Translate the following words and word combinations by ear:**

To be located at the seat of the government; to be under the operational control; when operating as part of…; to be assigned to; to be under the administrative control of; to have a numbered designation; for the ease of communication; Department of the Navy; the Operating Forces of the Navy; the Secretary of the Navy; the Navy Department; the US Marine Corps; the US Coast Guard; sea district; flotilla; squadron; division;

Организационно входить; однородные силы флота; министерство ВМС; начальник штаба ВМС США; аппарат министра ВМС США; округ; командование амфибийных сил; береговые части и учреждения; ВМС; аппарат начальника штаба ВМС США; главное управление личного состава ВМС США; осуществлять оперативное руководство; объединенное командование.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| The Operating Forces of the Navy comprise the several fleets, seagoing forces, sea frontier forces, the Military Sea Transportation Service. | Министерство ВМС США состоит из аппарата министра ВМС, аппарата начальника штаба ВМС, штаба корпуса морской пехоты,главного управления личного состава ВМС и т.д. |
| The Department of the Navy consists of three main parts: the Operating Forces, the Navy Department and the Shore Establishment. The Shore Department comprises all activities of the Department of the Navy not assigned to the Operating Forces of the Navy and not part of the Navy Department. | Штаб ВМС США возглавляет начальник штаба, который подчинен министру ВМС. Он несет ответственность за организацию, боевую подготовку и разработку принципов боевого применения ВМС, оснащение кораблей и частей оружием и боевой техникой, а также за административное руководство ВМС. |

The majority of the naval forces are assigned to Type Commanders for administrative control and for operational control during primary and intermediate training phases.

Каждое командование однородных сил флота подразделяется на флотилии, эскадры и дивизии.

There are four regularly constituted fleets — the First and Seventh Fleets in the Pacific, and the Second and Sixth Fleets in the Atlantic.

В мирное время командующий первым флотом осуществляет оперативное руководство всеми силами на тихоокеанском побережье. Командующий седьмым флотом осуществляет оперативное руководство определенными силами США на Дальнем Востоке.

The Commandant of the Marine Corps is responsible directly to the Secretary of Navy for the procurement, training, and discipline of the officers and enlisted men of the Marine Corps.

Командующий корпусом морской пехоты ответственен перед министром ВМС за организацию, боевую подготовку и боевую готовность частей и соединений морской пехоты, материально-техническое обеспечение и административное руководство силами морской пехоты.

Officers of the Regular Navy and the Naval Reserve are divided among the line and seven staff corps. Officers of the line exercise the military command of the Navy. Line officers command, administer, train, and fight the ships and larger units of the fleet. Warrant officers possess detailed practical knowledge of their specialty. Enlisted men. Basic legislation enacted since World War II allows 500,000 enlisted men in the Regular Navy.

В состав морской пехоты ВМС США входят 3 дивизии, которые поддерживаются 3 крыльями авиации морской пехоты с 550 боевыми самолетами современных типов.

**Exercise 9. Translate the following text at sight:**

**Text 1. THE NAVY DEPARTMENT**

One of the principal components of the Naval Establishment, the Navy Department is composed of offices of the Secretary of the Navy, the Civilian Executive Assistants, the Chief of Naval Operations, the Chief of Naval Material and the Bureau and offices headed by the Naval Technical Assistants including the headquarters of the Marine Corps and the Coast Guard (when serving under the Navy Department).

The Secretary of Navy has the general superintendence of construction, manning, armament, equipment, maintenance, and employment of vessels of war and performs such duties as the President, who is Commander-in-Chief, may direct.

The various offices, boards, and agencies reporting to, and performing staff duty for, the Chief of Naval Operations are collectively referred to as the Office of the Chief of Naval Operations, they assist him in executing two kinds of duties: Naval Command of the Naval Establishment and Consumer Logistics.

The CNO as the principal naval adviser to the President, the Secretary of Defense, and the Secretary of the Navy on the conduct of war and as the principal naval adviser and naval executive to the Secretary of the Navy on the conduct of the activities of the Naval Establishment. He is a member of the Armed Forces Policy Council and Joint Chiefs of Staff.

The CNO has the responsibility for the command, use, and administration of the Operating Forces, and is responsible to the Secretary of the Navy for their use in war and for plans and preparations for their readiness for war.

The CNO is responsible for executing the directives of the JCS insofar as they affect the Navy.

**Text 2. THE NAVAL RESERVE**

The Naval Reserve is to provide qualified individuals and trained units to be available for active duty in time of war or national emergency. It is designed to meet the requirements of the Navy in excess of those of the regular component during and after the period needed for the procurement and training of additional qualified individuals and trained units to achieve the planned mobilization.

**Text 3. THE NAVY TOMORROW (US views)**

Throughout the post-World War II era, the US Navy has played a major role as one of the principal instruments of the US foreign policy.

The basic Navy mission is broken into four categories of capabilities.

First is that of contributing to the US strategic nuclear forces by sea-based Trident missile systems.

Second is that of sea control in support of US overseas allies. This capability now lies in surface and submarine ASW forces, large attack carriers and their escorts, and in helicopter and fixed-wing aircraft.

The third essential capability is to project US power overseas by use of large carriers and Marine Corps.

And finally, the mission of manifesting an overseas presence sufficiently powerful and visible to make it plain that any effort to challenge the US overseas interest could bring confrontation with American armed might.

**Exercise 10. Translate the following text at sight:**

Высшим административным органом управления ВМС США является министерство ВМС во главе с министром – гражданским лицом, подчинённым министру обороны США.

Министерство осуществляет руководство по вопросам строительства, финансирования, комплектования, вооружения, МТО и мобилизационной готовности ВМС.

В систему министерства входят три составные части: управления и отделы собственно министерства, штаб ВМС и штаб морской пехоты.

Штаб ВМС возглавляет начальник штаба, который подчинён министру ВМС. Начальник штаба ВМС ответствен перед министром за организацию, боевую подготовку и разработку принципов боевого использования ВМС, а также за строительство, оснащение кораблей и частей оружием и боевой техникой и административное руководство ВМС.

**Exercise 11. Translate the following text in writing:**

**THE U.S. MARINE CORPS**

The missions of the Corps are as follows: to provide Fleet Marine forces of combined arms, together with supporting air components, for service with the fleet in the seizure or defense of advanced naval bases and for the conduct of such land operations as may be essential to the prosecution of a naval campaign; to develop, in coordination with other services those phases of amphibious operations which pertain to the tactics, techniques, and equipment employed by landing forces; to provide detachments and organizations for service

on board naval vessels; to provide security detachments for protection of naval stations and bases; and to perform such other duties as the President may direct.

The Commandant of the Marine Corps is responsible directly to the Secretary of the Navy for the procurement, discharge, education, training, discipline, and distribution of officers and enlisted men of the Corps, including the Marine Corps Reserve, and its equipment, supply, administration, and general efficiency.

The operating forces of the Marine Corps consist of two Marine Corps Forces (FMF), integral units of the US Atlantic .and Pacific Fleets. The FMF includes the air and ground tactical units of the Corps. Its mission of conducting overseas amphibious operations for the seizure and defense of advanced bases as part of a naval campaign requires that the EMF be kept in a high state of readiness for action. Its units — infantry, artillery, armor, communication, engineer, and logistic troops, and aviation organizations to provide close air support of ground troops – are kept continuously trained and highly mobile.

**Exercise 12. Translate the following text in writing:**

**СТРУКТУРА ВМФ**

Военно-Морской Флот (ВМФ) является мощным фактором обороноспособности страны. Он состоит из трёх флотов:

Черноморский флот (ЧФ) – оперативно-стратегическое объединение Военно-Морского Флота России на Черном море. Главная база – г.Севастополь.

Тихоокеанский флот (ТОФ) – оперативно-стратегическое объединение Военно-Морского Флота России. Тихоокеанский флот России, как составная часть Военно-Морского Флота и Вооруженных Сил России в целом, является средством обеспечения военной безопасности России в АТР. Для выполнения поставленных задач Тихоокеанский флот имеет в своем составе ракетные подводные крейсера стратегического назначения, многоцелевые атомные и дизельные подводные лодки, надводные корабли для действий в океанской и ближней морской зонах, морскую ракетоносную, противолодочную и истребительную авиацию, сухопутные войска, части сухопутных и береговых войск.

Основными задачами Тихоокеанского флота России в настоящее время являются:

- поддержание морских стратегических ядерных сил в постоянной готовности в интересах ядерного сдерживания;

- защита экономической зоны и районов производственной деятельности, пресечение незаконной производственной деятельности;
- обеспечение безопасности судоходства;
- выполнение внешнеполитических акций правительства в экономически важных районах Мирового океана (визиты, деловые заходы, совместные учения, действия в составе миротворческих сил и др.)

Северный флот (СФ) – оперативно-стратегическое объединение Военно-Морского Флота России. Основу современного Северного флота составляют атомные ракетные и торпедные подводные лодки, ракетоносная и противолодочная авиация, ракетные, авианесущие и противолодочные корабли.

Балтийский флот – оперативно-стратегическое объединение Военно-Морского Флота России на Балтийском море. Основные пункты базирования – Балтийск (Калининградская область) и Кронштадт (Ленинградская область). В своем составе имеет дивизию надводных кораблей, бригаду дизельных подводных лодок, соединения вспомогательных и поисково-спасательных судов, ВВС флота, береговые войска, части тылового технического и специального обеспечения.

## ARMY HUMOR

### Finish overseas tour

A young ensign had nearly completed his first overseas tour of sea duty when he was given an opportunity to display his ability at getting the ship under way. With a stream of crisp commands, he had the decks buzzing with men. The ship steamed out of the channel and soon the port was far behind.

The ensign's efficiency has been remarkable. In fact, the deck was a buzz with talk that he had set a new record for getting a destroyer under way. The ensign glowed at his accomplishment and was not all surprised when another seaman approached him with a message from the captain.

He was, however, a bit surprised to find that it was a radio message, and he was even more surprised when he read, "My personal congratulations upon completing your underway preparation exercise according to the book and with amazing speed. In your haste, however, you have overlooked one of the unwritten rules. Make sure the Captain is aboard before getting under way!"

## УРОК 28
## АВИАНОСЦЫ ВМС США

## LESSON 28
## U.S. NAVY AIRCRAFT CARRIERS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Commission | superstructure |
| Displacement | funnel |
| Catapult | heat-exchanger |
| Conversion | sonar |
| Obsolescent | bow |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

nuclear-powered aircraft carriers; has a length of over 250 feet; can operate and provide sustained support for a naval air wing; the most powerful, less vulnerable ship force; least vulnerable surface ship force; a complement of 70 to 100; allows the ship to be sealed against; four aft 5-in guns; water-cooled nuclear reactors; four deck-edge elevators; carry advanced radar and sonar systems.

**Exercise 3. Read and learn the following words and word combinations by heart:**

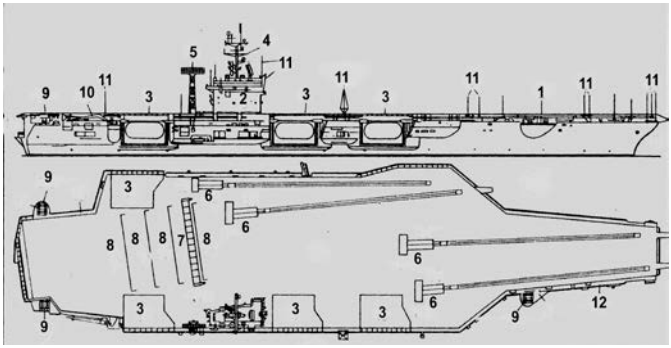
| | |
|---|---|
| Commission | вводить в строй действующих |
| surface ship | надводный корабль |
| Deck | палуба |
| flight deck | полётная палуба |
| angled deck | угловая полётная палуба |
| straight deck | прямая полётная палуба |
| Displacement | водоизмещение |
| full-load displacement | полное водоизмещение |
| light (ship) displacement | водоизмещение в порожнем состо- |

| | |
|---|---|
| | янии |
| total displacement | полное водоизмещение |
| standard displacement | стандартное водоизмещение |
| nuclear-powered aircraft carrier (CVN) | авианосец с ЯЭУ |
| attack carrier (CVA) | ударный авианосец |
| ASW carrier (CVS) | авианосец ПЛО |
| conventionally-powered carrier | авианосец с обычной ЭУ |
| helicopter assault carrier | десантный вертолётоносец |
| Superstructure | надстройка |
| island superstructure | «островная» надстройка |
| Funnel | дымовая труба |
| Complement | количество самолётов палубного базирования |
| heat-exchanger | теплообменник |
| Sonar | гидролокатор |
| Bow | нос корабля |
| Forward | носовой |
| Fore | носовой |
| Stern | корма |
| Aft | кормовой |
| center line (CL) | диаметральная плоскость (ДП) |
| Elevator | самолётоподъёмник |
| deck-edge elevator | бортовой самолётоподъёмник |
| centerline elevator | самолётоподъёмник, расположенный параллельно ДП палубы (палубный) |
| Class | тип (корабля) |
| to convert (into) | переоборудовать |
| Conversion | переоборудование |
| Speed | ход, скорость хода |
| surface speed | скорость надводного хода |
| rated speed | расчётная скорость хода |

| | |
|---|---|
| economical speed | экономическая скорость хода |
| dead slow speed | самый малый ход |
| full speed | полный ход |
| high speed | максимальная скорость хода |
| full ahead | полный вперед |
| full astern | полный назад |
| to provide sustained support | оказывать поддержку в течение длительного периода времени |
| to carry out operations | вести боевые действия |
| unlike ... | в отличие от... |
| to be fitted with smth | быть оснащённым чем-либо |
| in the CVS version | при использовании в качестве авианосца ПЛО |
| apart from | в отличие от |

**Exercise 4. Read and translate the text:**

**USN AIRCRAFT CARRIER "THEODORE ROOSEVELT" (CVN 71)**




1. flight deck
2. island (bridge)
3. aircraft elevators
4. pole (antenna) mastradar antenna
5. twin launching catapult
7. emergency crash barrier
8. arrester wire
9. SAM packets
10. deck crane
11. antenna
12. safety net

## USS THEODORE ROOSEVELT (CVN 71)

USS Theodore Roosevelt (CVN 71) is the fourth Nimitz-class aircraft carrier. Her history began Sept. 30, 1980, when a contract was awarded to Newport News Shipbuilding. Construction began Oct. 31, 1981, when Secretary of Defense authenticated the keel laying by initiating the first weld. The ship was commissioned and placed in active service on Oct. 25, 1986.

The Theodore Roosevelt has a length of 1,092 ft, a flight deck width of over 250 ft, her displacement is approximately 97,000 tons (98,556.67 metric tons) full load. She can operate and provide sustained support for a naval air wing of about 100 aircraft. Her replaced nuclear cores will provide her with enough fuel to carry out operations for the next 13 years.

The Theodore Roosevelt has a very clean deck with an island superstructure, no funnels, no guns and four deck-edge elevators. She carries a complement of 70 to 100 aircraft and 3,950 crew. The absence of funnels and air-intakes allows the ship to be sealed against RBC agents and has facilitated the installation of an advanced phased array radar system. Her eight pressurized water-cooled nuclear reactors (with two reactors driving each of the four turbines by supplying heat to 32 heat-exchangers) provide the power output of 300,000 shp that allows a maximum speed of 35 kt, though the rated speed is 33 kt. Even at this speed the Theodore Roosevelt has a radius of 140,000 mi, with 400,000 mi at the economical (20 kt) cruising speed. Her armament: Two NATO Sea Sparrow launchers; four 20mm Phalanx CIWS mounts

Theodore Roosevelt began her sixth deployment on Mar. 26, 1999, with CVW-8. They were immediately called to duty in the Ionian Sea to support NATO's Operations Allied Force and Noble Anvil. The aircraft of CVW-8 conducted air strikes for two months over Kosovo against the Serbians, expending more than 800 tons of ordnance. After the peace accord was signed in June 1999, Theodore Roosevelt and CVW-8 spent the remaining two months of the deployment conducting operations in the Arabian Gulf in support of Operation Southern Watch.

Modern fleet of US nuclear aircraft carriers include: Nimitz (CVN 68), commissioned in 1975, Dwight D. Eisenhower (CVN 69), commissioned in 1977, Carl Vinson (CVN 70), commissioned in 1982, Theodore Roosevelt (CVN 71), commissioned in 1986, Abraham Lincoln (CVN 72), commissioned in 1989, George Washington (CVN 73), commissioned in 1992, John C. Stennis (CVN 74), commissioned in 1995, Harry S. Truman (CVN 75), commissioned in 1998, Ronald Reagan (CVN 76), commissioned on the 12$^{th}$ of July 2003, George H. W. Bush (CVN 77), keel laying ceremony took place on the 6$^{th}$ of September 2003.

Conventionally-powered aircraft carriers America (CV-66) and J.F.Kennedy (CV-67) are similar to the Nimitz class but have a smaller deck. Like Theodore Roosevelt, they can carry three attack squadrons (FA-18 Hornett or A-10 Thunderbolt) and two fighter squadrons (F-18 Hornett). Both carriers are equipped with Sea Sparrow missiles with box launchers; and 3 20 mm CIWS mounts. These CVs carry advanced radar and sonar systems.

CVs range in displacement (full load) from 75,000 to 79,000 short tons.

The two Midway class CVs, Coral Sea and F.D.Roosevelt were of wartime design with straight decks, CL elevators and an open bow. They were converted into modern carrier configuration.

Three vessels of the Essex class were converted into helicopter assault carriers (LPH), but this role is being taken over by a new class of specially designed vessels. The new LPSs (Iwo Jima) accommodate 24 medium helicopters, four heavy helicopters and four light ones, as well as 2,000 Marines. Four Essex class carriers have been converted into antisubmarine carriers (CVS) In the CVS version they carry helicopters and FW aircraft (up to 28). Some CVS retain some 5-in guns. Apart from the LPH standard Essex class vessels are operating as antisubmarine carriers (CVS).

Many older carriers have been converted into aircraft ferries (AKV), aircraft transports (AVT) and communications relay ships (AGMR).

**COMMENTARY**

**Terms and definitions:**

a) **Attack aircraft carrier (CVA**) is a warship designed to support and operate aircraft, engage in attacks on targets , and engage in sustained operations in support of other forces.

Designated either CV or CVN depending upon the type of the power plant.

The ‘N’ in the CVN stands for ‘nuclear’.

b) **Attack carrier striking force** is a naval force, the primary offensive weapon of which is carrier-based aircraft. Ships other than carriers included in the force act primary to support and screen against submarine and air threat, and secondary against surface threat.

c) **Antisubmarine carrier group** is a group of ships consisting of one or more ASW carriers and a number of escort vessels whose primary mission is to detect and destroy submarines. Such groups may be employed in convoy support or hunter/killer roles.

d) **Antisubmarine support aircraft carrier** is a ship primary designed to support and operate aircraft and for sustained ASW and escort convoys. It also may be used to provide close air support.

Designated CVS.

e) **Amphibious assault ship** is a ship designed to transport and land troops, equipment by means of embarked helicopters.

f) All ships in the US Navy are subdivided as to the type of the power plant installed into: nuclear-powered (nuclear) or conventionally-powered (Diesel) ships.

All ships in the US Navy are subdivided as to the type of the power plant installed into: nuclear-powered (nuclear) or conventionally-powered (Diesel) ships.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1, Сколько реакторов установлено на борту авианосца «Теодор Рузвельт»?
2. С какой целью командование ВМС планирует использование десантных вертолётоносцев?
3. Сколько вертолётов имеется на борту вертолётоносца «Иво Дзима»?
4. Какую максимальную скорость хода способен развивать атомный авианосец?
5. Сколько самолётов и какого типа имеется на борту авианосца «Дж.Ф.Кеннеди»?
6. Какие самолёты имеются на борту авианосца «Теодор Рузвельт»?

**Exercise 6. Decipher and translate the following abbreviations:**

nm; USN; CVN; CVS; LPH; CV; AVT; AKV; USS; USMC; DN; DA; DAF; kt; CNO; FW; AM; FM; PM; EHF; STOL; VTOL; SAGE; NORAD; ECM; SLBM; ICBM; IRBM; SSM; SAM; ALCM; SLCM; MIRV; CEV

**Exercise 7. Translate the following words and word combinations by ear:**

to provide a sustained support; to operate a naval air wing; to carry out operations; to be scheduled to join the fleet; a nuclear carrier force; to carry a complement of 100 aircraft; to be sealed against RBC agents; to be fitted with; to be converted into helicopter assault carriers; the absence of funnels and air-intakes allows the shipto ...; at the economical speed; атомный ударный

авианосец; авианосное ударное соединение; полётная палуба; угловая палуба; прямая палуба; надстройка; дымовая труба; диаметральная плоскость; носовая часть; паровая катапульта; осуществлять герметизацию и защиту от ОМП; расчётная скорость хода; экономическая скорость хода; оснащаться; переоборудовать; ввод в строй планируется; осуществлять поддержку в течение длительного периода времени.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| При посадке на палубу у самолета все еще сохраняется высокая скоростью. Каким образом удается ее погасить и избежать вылета самолета за пределы палубы (over-run)? | Each carrier-based aircraft has a tailhook, a hook bolted to an 8-foot bar extending from the after part of the aircraft. It is with the tailhook that the pilot catches one of the four steel cables stretched across the deck, bringing the plane, traveling at 150 miles per hour, to a complete stop in about 320 feet. The cables are set to stop each aircraft at the same place on the deck, regardless of the size or weight of the plane. |
| Авианосец – это целый город на воде. Где находится главный пост управления этим гигантом и кто непосредственно управляет авианосцем? | The bridge is the primary control position for every ship when the ship is underway, and the place where all orders and commands affecting the ship, her movements, and routine originate. An Officer of the Deck (OOD) is always on the bridge when the ship is underway. Each OOD stands a four-hour watch and is the officer designated by the Commanding Officer (CO) to be in charge of the ship. The OOD is responsible for the safety and operation of the ship, including navigation, ship handling, communications, routine tests and inspections, reports, supervision of the watch team, and carrying out the Plan of the Day. |
| Сколько имеется на борту | The four steam-powered catapults thrust |

авианосца паровых катапульт? Каково их предназначение?

a 48,000-pound aircraft 300 feet, from zero to 165 miles per hour in two seconds. On each plane's nose gear is a T-bar which locks into the catapult's shuttle which pulls the plane down the catapult. The flight deck crew can launch two aircraft and land one every 37 seconds in daylight, and one per minute at night.

Говорят, на авианосцах применяется специальная световая система, обеспечивающая правильный заход на посадку в сложных метеорологических условиях и ночью. Каков принцип действия этой системы?

This series of lights aids the pilot in lining up for the landing. In the center are amber and red lights with Fresnel lenses. Although the lights are always on, the Fresnel lens only makes one light at a time seem to glow, as the angle at which the pilot looks at the lights changes. If the lights appear above the green horizontal bar, the pilot is too high. If it is below, the pilot is too low, and if the lights are red, the pilot is very low. If the red lights on either side of the amber vertical bar are flashing, it is a wave off.

**Exercise 9. Translate the following text at sight:**

A. During late August and early September the American carrier, the 96,000-ton (full-load displacement) nuclear-powered USS Nimitz (CVN-68), visited ports in Britain, Germany and Norway in company with the missile cruiser South Carolina and the nuclear-powered attack submarine Seahorse.

Technically, the Nimitz differs little in terms of electronic equipment from her conventionally-powered predecessors. Her air wing full strength is about 100 aircraft.

B. The power plant of the Nimitz consists of two pressurized water-cooled reactors.

The reason for the reduction in the number of reactors compared to Enterprise was to lessen the amount of weight and space taken up by reactor shielding. Shock tests carried out on a reduced-scale model of the reactor area have shown that the reactors in Nimitz should be able to withstand the shock of a

bomb, missile or torpedo hit. The reactors are claimed to be considerably safer than those found ashore in power stations in the USA.

C. The first USN nuclear carrier, USS Enterprise (CVN-65), was commissioned in 1961 and the keel laying ceremony of the last one, George H. W. Bush (CVN 77), was held in September 2003.

The lead time for the carriers of the Nimitz type is now about 10 years.

D. On the flight deck there are four steam catapults; two on the angled deck and two forward port and starboard on the flight deck. The width of the flight deck (the total area is some 4½ acres) allows aircraft to be parked in safety during recovery periods on the port side of the angled deck.

Over the CVN expected 30-year operational life, her overall cost will be four to five per cent lower than that of an oil-fired ship of comparable size.

In comparison with conventionally-powered half-sisters, the CVN can carry 90% more aviation fuel and 30% more weapon stores. She can carry enough fuel то support 16 days' intensive flying by her air wing, whereas a conventional carrier's fuel capacity without replenishment would be about eight days.

**Exercise 10. Translate the following text at sight:**

**АВИАНОСЕЦ ВМС США "КИТТИ ХОУК"**
**ОТПРАВИЛСЯ В ПОСЛЕДНИЙ ПОХОД**

Старейший корабль ВМС США – авианосец "Китти Хоук" отправился в свой последний поход перед окончательным списанием. Как сообщает AP со ссылкой на командование Тихоокеанского флота, авианосец в сопровождении кораблей и подводных лодок поддержки вышел из порта своей постоянной приписки на военно-морской базе США в Йокосуке, Японии.

Авианосная группировка проведет ряд маневров в западной и центральной части Тихого океана, а затем направится к берегам США.

Дизельный авианосец "Китти Хоук" был спущен на воду в 1961 году и принимал участие в нескольких крупномасштабных военных операциях, в частности, во время войн во Вьетнаме и Ираке. С 1998 года является единственным боевым кораблем американского флота, постоянно дислоцированным за рубежом. В 2008 году его заменит на дежурстве атомный авианосец "Джордж Вашингтон".

Ротация авианосцев уже вызвала многочисленные протесты в самой Японии. Критики этого плана уверены, что появление у берегов Японии

корабля с атомной силовой установкой ухудшит экологическую обстановку и будет способствовать росту напряженности в регионе.

Правительство Японии поддерживает намерения американских военных по реорганизации авианесущей группировки.

**Exercise 11. Translate the following text in writing:**

**WHY THE CARRIERS?**

The United States has become increasingly entwined in the business and security issues with the rest of the world. Our economy and security depends upon our protecting our overseas interests as well as encouraging peace and stability around the globe. Forward presence by U.S. Navy aircraft carrier battle groups and amphibious ready groups helps us accomplish this. As former Secretary of Defense William Cohen stated: "If you don't have that forward deployed presence, you have less of a voice, less of an influence." The U.S. Navy is engaged. And engaged means being there.

As example, on 11 September 2001, USS Enterprise (CVN 65) had just been relieved from being on station in support of Operation Southern Watch. She was heading south in the Indian Ocean, beginning her trip back to homeport in Norfolk, Va., when, on television, they saw the live coverage of attack on the World Trade Center, then on the Pentagon. Enterprise, without an order from the chain of command, put the rudder over, executed a 180-degree course change and headed back to the waters off Southwest Asia. Enterprise then remained on station in support of Operation Enduring Freedom, launching air attacks against al Qaeda terrorist training camps and Taliban military installations in Afghanistan. For approximately the next three weeks, aircraft from Enterprise flew nearly 700 missions in Afghanistan, dropping hundreds of thousands of pounds of ordnance.

The carrier battle group, operating in international waters, does not need the permission of host countries for landing or overflight rights. Nor does it need to build or maintain bases in countries where our presence may cause political or other strains. Aircraft carriers are sovereign U.S. territory that steam anywhere in international waters — and most of the surface of the globe is water. This characteristic is not lost on our political decision-makers, who use Navy aircraft carriers as a powerful instrument of diplomacy, strengthening alliances or answering the fire bell of crisis. As former President Bill Clinton said during a visit to the aircraft carrier USS Theodore Roosevelt, "When word of crisis breaks out in Washington, it's no accident the first question that comes to everyone's lips is; where is the nearest carrier?"

The carrier battle group can not only operate independently but it presents a unique range of options to the President, Congress and Secretary of Defense. By using the oceans — more than 70% of the earth's surface is ocean — both as a means of access and as a base, forward-deployed Navy and Marine forces are readily available to provide the United States with a rheostat of national response capabilities. These capabilities range from simply showing the flag — just a presence — to insertion of power ashore. The unique contribution of aircraft carriers to our national security was best expressed by Gen. John Shalikashvili, former Chairman of the Joint Chiefs of Staff, who said during a visit to *USS Dwight D. Eisenhower*, "I know how relieved I am each time when I turn to my operations officer and say, 'Hey, where's the nearest carrier?' and he can say to me 'It's right there on the spot.' For United States' interests, that means everything."

**Exercise 12. Translate the following text in writing:**

**ТЯЖЕЛЫЙ АВИАНЕСУЩИЙ КРЕЙСЕР «АДМИРАЛ КУЗНЕЦОВ»**

ТАКР "Адмирал Кузнецов" от предшественников отличает увеличенная полётная палуба и наличие трамплина (угол схода 14°) в носовой части. Корпус высокобортный, изготовлен из стали по продольной системе набора. Дно двойное по всей длине. Корпус имеет 9 палуб. Надстройка ("остров") смещена к правому борту. В кормовой части корпуса размещена оптическая система посадки "Луна-3". Энергетическая установка аналогична ТАВКР "Адмирал Горшков", но отличается увеличенным запасом топлива. На борту могут базироваться 26 самолётов (Су-33 и МиГ-29К) и 24 вертолёта (18 Ка-27 и Ка-29, 2 Ка-27ПС, 4 Ка-31) (по состоянию на март 1996 года на борту имелось 15 Су-33, 1 Су-25УТГ, 11 Ка-27, 1 Ка-31). Для размещения авиатехники под главной палубой имеется ангар (153х26х7,2 м). Вооружение корабля состоит из 12 пусковых установок 4К80 ПКРК "Гранит", 4 шестиствольных пусковых установок ЗРК "Кинжал" (192 ракеты), 8 пусковых установок "Кортик" (256 ракет), 6 шестиствольных 30-мм артиллерийских установок АК-630М (48000 снарядов), 2 установок РБУ-12000 "Удав". В состав радиоэлектронного оборудования входят: БИУС "Лесоруб", многофункциональный комплекс "Марс-Пассат", трёхкоординатная РЛС "Фрегат-МА", РЛС обнаружения низколетящих целей "Подкат", навигационный комплекс "Бейсур", комплекс связи "Буран-2", РЛС управления полётами "Резистор", средства РЭБ "Созвездие-БР", ГАС "Звезда-М1" и др. (всего 58 наименований).

23 декабря 1995 – 22 марта 1996 года "Адмирал Кузнецов" совершил поход в Средиземное море с 15 самолётами и 11 вертолётами на борту. Всего пройдено 14156 миль, выполнено 524 полёта самолётами и 996 вертолётами. Во время похода нанесены визиты в Тартус (Сирия, 29.01—02.02.1996) и Ла-Валетту (Мальта, 17—18.02.1996). После возвращения прошёл плановый ремонт на СРЗ-35 в Росте. С августа 1998 года обеспечивал боевую подготовку палубной авиации. В октябре 1999 года обеспечивал лётные испытания самолёта Су-27КУБ. Осенью 2000 года вновь прошёл ремонт на СРЗ-35. 27 сентября – 24 октября 2004 года участвовал в учениях КСФ в северо-восточной Атлантике.

## ARMY HUMOR

### Change your course now

This is the transcript of an actual radio conversation of a US naval ship with Canadian authorities off the coast of Newfoundland in October, 1995.
Radio conversation released by the Chief of Naval Operations on November 10, 1995.

Americans: Please divert your course 15 degrees to the North to avoid a collision.

Canadians: Recommend you divert YOUR course 15 degrees to the South to avoid a collision.

Americans: This is the Captain of a US Navy ship. I say again, divert YOUR course.

Canadians: No. I say again, you divert YOUR course.

Americans: THIS IS THE AIRCRAFT CARRIER USS LINCOLN, THE SECOND LARGEST SHIP IN THE UNITED STATES' ATLANTIC FLEET. WE ARE ACCOMPANIED BY THREE DESTROYERS, THREE CRUISERS, AND NUMEROUS SUPPORT VESSELS. I DEMAND THAT YOU CHANGE YOUR COURSE 15 DEGREES NORTH, THAT'S ONE FIVE DEGREES NORTH, OR COUNTER-MEASURES WILL BE UNDERTAKEN TO ENSURE THE SAFETY OF THIS SHIP.

Canadians: This is a lighthouse. Your call.

## УРОК 29
## ПОДВОДНАЯ ЛОДКА

## LESSON 29
## SUBMARINE

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Submersible | Patrol |
| Oceanological | Entail |
| Complex | Penalty |
| Probe | Suspect |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

A ship capable of running on or below the surface of the sea; while the submarine is submerged; be driven by steam turbines; connected to the propellers; areas of fairly shallow water; the electric motor is used for; the nuclear reactor is shut down; a less serious disadvantage; increased size.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| submarine (SS) | подводная лодка |
| attack submarine | торпедная подводная лодка |
| fleet submarine | эскадренная подводная лодка |
| antisubmarine warfare submarine | подводная лодка ПЛО |
| hunter-killer submarine | подводная лодка ПЛО |
| nuclear ballistic missile submarine | ракетная подводная лодка с ЯЭУ |

| | |
|---|---|
| (SSBN) | (ПЛАРБ) |
| fleet ballistic missile submarine (SSBN | ПЛАРБ (подводная лодка атомная, ракеты баллистические) |
| to surface | всплывать |
| to submerge | погружаться |
| to operate submerged | действовать в погруженном состоянии |
| Submersible | погружаемый, способный погружаться |
| true submersible | истинная подводная лодка |
| Waters | воды, акватория |
| hostile waters | акватория противника |
| friendly waters | своя акватория |
| deep waters | глубоководная акватория |
| shallow waters | мелководье |
| territorial waters | территориальные воды |
| international waters | международные воды |
| coastal waters | прибрежные воды |
| Sonar | гидроакустическая станция (ГАС) |
| active sonar | гидролокатор |
| passive sonar | шумопеленгатор |

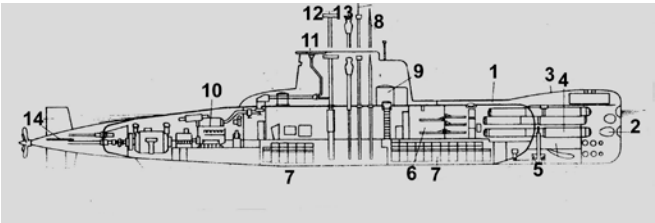
| | |
|---|---|
| to dive | погружаться |
| to stay dived | находиться в погруженном состоянии |
| a dive | погружение |
| crash dive | срочное погружение |
| fast dive | быстрое погружение |
| maximum dive | предельная глубина погружения |
| running dive | погружение на ходу |
| stationary dive | погружение без хода |
| reduction gear | редукционная передача, редуктор |
| the application of the nuclear power plant to submarines | применение ЯЭУ (ядерная энегетическая установка) на подводных лодках |
| to lead to (the development of ...) | привести к ... (развитию чего-либо) |
| to shut down the nuclear reactor | остановить атомный реактор |
| to travel at high speed | идти на большой скорости хода |
| a lack of dived speed and range | недостаточные скорость и дальность подводного хода |
| to establish identity | устанавливать принадлежность |
| the advantage lies with… | преимущество принадлежит ... |

| | |
|---|---|
| in the immediate vicinity of ... | в непосредственной близости от... |
| torpedo tube | торпедный аппарат |
| pressure hull | жесткий корпус |

**Exercise 4. Read and translate the text:**

## SUBMARINE

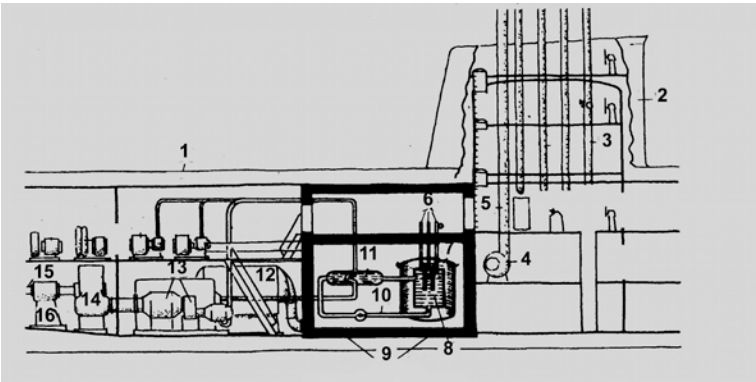
Submarine is a ship capable of running on or below the surface of the sea. Diesel engines are used for power while the ship is surfaced, and electric motors while it is submerged. Power for the electric motors is provided by banks of storage batteries. The batteries are charged by Diesel generators while the submarine is surfaced. Since the batteries can store only a limited amount of power, the submarine can operate submerged for only limited periods.




1. pressure hull
2. outer flap (door) for torpedoes
3. flooded foredeck
4. torpedo tube
5. anchor
6. living quarters with folding bunks
7. battery
8. attack periscope
9. main hatchway
10. diesel generators
11. exhaust outlet
12. radar antenna
13. snorkel

The invention of the nuclear power plant and its application to submarines led to the development of the first true submersible. Nuclear submarines can oper-

ate submerged indefinitely because their power plants do not require air to be mixed with the fuel. Nuclear submarines are driven by steam turbines connected to the propellers for reduction gearing. When the electric motor is used for propulsion, the turbines and reduction gearing are disconnected. As in conventional submarines, electric power is stored in banks of storage batteries. The batteries are charged by turbine driven generators or Diesel generators when the nuclear reactor is shut down.




1. pressure hull
2. turret
3. retractable instruments
4. air inlet
5. snorkel
6. control rods
7. nuclear reactor casing
8. reactor core
9. lead screen
10. primary water circuit
11. heat exchanger
12. condenser
13. high and low pressure turbine
14. reduction gear
15. propeller shaft
16. thrust block

**THE ROLE OF THE SUBMARNE**

A submarine has the following advantages compared with surface warships:

1. It can operate in hostile waters, virtually without restriction, and without revealing its presence.

2. Being able to move in three dimensions, and so take advantage of oceanological conditions to deploy various sensors (but more particularly, passive sonar), a considerable range-advantage in detecting the presence of other shipping.

3. As a result of 1 and 2 above, the ability to dictate tactical situations to their own advantage.

These advantages have been enormously extended by the nuclear submarine's ability to stay dived and travel at high speed for very long periods. Lack of dived speed and range, and dependence on the atmosphere for the maintenance of life and power, have always been considered the most serious disadvantages of the non-nuclear submarine; although modern developments in propulsion efficiency and power storage have made these a less serious disadvantage than they used to be. But with the eventual disappearance of the diesel-electric patrol submarine it is reasonable to assume that patrol-type duties will have to be undertaken by the Fleet submarine, in the event of a limited war at sea.

Fleet submarines are large, complex, and expensive, and it can be argued that their size and complexity render them more vulnerable to action damage if attacked by surface antisubmarine forces, In the fleet-support role, such attacks are unlikely: the submarine is operating in deep waters and can rely on the ability to maneuver – at high speed and in three dimensions – to escape surface attack.

The task of the patrol submarine is quite different from that of its Fleet counterpart. Its role is to probe to intrude: to operate in waters regarded by the enemy as his own by territorial right; and in the last resort, to inflict damage and cause trouble out of proportion to the size or coat of the war vessel involved. Alternatively, in a limited war which has not yet achieved this particular level of violence, the patrol submarine can still intrude, observe, report, and record valuable information. The enemy may well suspect its presence, but would have considerable difficulty in establishing identity without committing a warlike act likely to cause a deteriorating situation to grow worse. In such conditions, all the tactical and political advantage lies with patrol submarine.

All continents are surrounded by areas of fairly shallow water; and it is implicit to the role of the patrol submarine that it must be capable of efficient operation in these conditions if it is to probe, Intrude, and in general make a nuisance of itself to the extent of threatening war in the immediate vicinity of potential enemies. The Fleet submarine is dependent on deep water and speed to maintain invulnerability, so operation in coastal waters would entail acceptance of considerable penalties: which in turn would have to be balanced against increased size and complexity making the submarine more vulnerable to surface ship counter-attack in a situation where speed alone will not ensure safety.

**COMMENTARY**

**Terms and definitions**

a) The term **“penetrate**” suggests the achieving of any entrance into or through something.

b) **“Probe”** suggests a deliberate cautious, or exploratory attempt to penetrate something, it may also mean a thorough investigation or examination. There is an expression with the verb “Probe”: to probe for the weak spots (нащупывать слабые стороны). The verb can also be found in the expression "probing action" (разведка боем).
c) **Measurements.** The English or long ton is equal to 2,240 lb, the American or short ton is 2,000 lb while the metric ton equals 2,2404.6 lb.; one long ton equals 1,1016.05 kg; one short ton equals 907.19 kg. As for linear measures, remember that one nautical mile (nm) equals 1.8533 km; one statute mile equals 1.60934 km ( 5 mi = approx. 8 km).As for temperature measurements, remember that to convert F° into C°, one has to subtract 32, multiply by five (5), and divide by nine (9).

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Какие ПЛАРБ находятся на вооружении ВМС США в настоящее время?
2. Какова дальность стрельбы ракеты "Трайдент"?
3. Сколько ракет "Трайдент" имеется на борту ПЛАРБ типа "Огайо"?
4. Когда планируется завершить строительство 10 ПЛАРБ "Трайдент"?
5. Какие атомные торпедные лодки строятся для ВМС США?
6. Каково вооружение атомных торпедных лодок?
7. Каково предназначение крейсерских и патрульных подводных лодок?
8. Каковы преимущества атомной подводной лодки по сравнению с дизельной?

**Exercise 6. Decipher and translate the following abbreviations:**

AAA; CVN; CVA; NSC; DA; DAF; DN; JCS, ammo; ASW; SS; CLGP; GP; ATGM; HEAT; CEV;LPH; GM; SAM; SSM; ICBM; SRAM; ALCM; SLCM; ALBM; SLBM; TNT; CW; X; NORAD; SAGE; CE; SSBN; PCS; USMC; RR

**Exercise 7. Translate the following words and word combinations by ear:**

While the ship is surfaced; to operate submerged; the reactor is shut down; to dictate tactical situations to one's own advantage; to stay dived; to render smth vulnerable to ; to maintain invulnerability ; to email penalties; источником питания является аккумуляторная батарея; батарея заряжается; в по-

груженном положении; появление ЯЭУ; применение ЯЭУ на подводной лодке; при остановке реактора; действовать в акватории противника; делать более уязвимым; действовать на большой глубине; погружаться;

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Подводная лодка способна выполнять стратегические, оперативно-тактические задачи как в подводном, так и надводном положении. | Submarines have two distinct hulls. The outer hull encloses inner or pressure hull which resists water pressure when the ship is submerged. |
| Подводная лодка имеет металлический корпус, способный выдержать давление воды на глубинах погружения. | Built into the space between the inner and outer hulls are the ballast and fuel oil tanks. To prevent them from being crushed by water pressure, these tanks must be kept filled with fluid or compressed air. |
| Для погружения балластные цистерны заполняются водой. Изменение глубины и всплытие производятся при помощи горизонтальных рулей с последующим вытеснением воды из балластных цистерн сжатым воздухом. | To dive, a submarine opens vent valves in the main ballast tanks allowing water to enter them. To surface, the vents are closed and compressed air is admitted to the tanks. This forces water out of the tanks what enables the submarine to rise. |
| Для движения в надводном положении применяются АЭУ или дизельные установки, в подводном положении АЭУ, электрические аккумуляторы, на малых глубинах – дизельные установки, имеющие соответствующие воздухозаборные устройства. | Snorkels are used for allowing the air to enter the submarine and mix with the fuel. |

**Exercise 9. Translate the following text at sight:**

## FLEET BALLISTIC MISSILE SUBMARINE (SSBN)

Strategic deterrence has been the sole mission of the fleet ballistic missile submarine (SSBN) since its inception in 1960. The SSBN provides the nation's most survivable and enduring nuclear strike capability. The Ohio class submarine replaced aging fleet ballistic missile submarines built in the 1960s and is far more capable.

Ohio-class/Trident ballistic missile submarines provide the sea-based "leg" of the triad of U.S. strategic deterrent forces. The 18 Trident SSBNs (each carrying 24 missiles), carry 50 percent of the total U.S. strategic warheads. Although the missiles have no pre-set targets when the submarine goes on patrol, the SSBNs are capable of rapidly targeting their missiles should the need arise, using secure and constant at-sea communications links.

The first eight Ohio class submarines (Tridents) were originally equipped with 24 Trident I C-4 ballistic missiles. Beginning with the ninth Trident submarine, USS Tennessee (SSBN 734), all new ships are equipped with the Trident II D-5 missile system as they are built, and the earlier ships are being retrofitted to Trident II. Trident II can deliver significantly more payload than Trident I C-4 and more accurately.

The Ohio-class submarines are specifically designed for extended deterrent patrols. To decrease the time in port for crew turnover and replenishment, three large logistics hatches are fitted to provide large diameter resupply and repair openings. These hatches allow sailors to rapidly transfer supply pallets, equipment replacement modules and machinery components, significantly reducing the time required for replenishment and maintenance. The class design and modern main concepts allow the submarines to operate for 15+ years between overhauls.

The first four Ohio-class submarines are scheduled for conversion over the next five years to guided missile submarines (SSGN) with an additional capability to transport and support Navy special operations forces.

### GENERAL CHARACTERISTICS, *OHIO* CLASS

**Builders:** General Dynamics Electric Boat Division.

**Power Plant:** One nuclear reactor, one shaft

**Length:** 560 feet (170.69 meters)

**Beam:** 42 feet (12.8 meters)

**Displacement:** 16,764 tons (17,033.03 metric tons) surfaced; 18,750 tons (19,000.1 metric tons) submerged

**Speed:** 20+ knots (23+ miles per hour, 36.8 +kph)

**Ships:**

**Homeported at the Naval Submarine Base, Bangor, Washington:**
*USS Michigan* (SSBN 727) — conversion to SSGN
*USS Georgia* (SSBN 729) — conversion to SSGN
*USS Henry M. Jackson* (SSBN 730)
*USS Alabama* (SSBN 731)
*USS Alaska* (SSBN 732)
*USS Nevada* (SSBN 733)
*USS Pennsylvania* (SSBN 735)
*USS Kentucky* (SSBN 737)
**Homeported at the Naval Submarine Base, Kings Bay, Georgia:**
*USS Tennessee* (SSBN 734)
*USS West Virginia* (SSBN 736)
*USS Maryland* (SSBN 738)
*USS Nebraska* (SSBN 739)
*USS Rhode Island* (SSBN 740)
*USS Maine* (SSBN 741)
*USS Wyoming* (SSBN 742)
*USS Louisiana* (SSBN 743)
**Ships undergoing conversion to SSGN:**
*USS Ohio* (SSBN 726) —conversion to SSGN, Puget Sound Naval Shipyard
*USS Florida* (SSBN 728) — conversion to SSGN, Norfolk, Va.
**Crew:** 15 Officers, 140 Enlisted
**Armament:** 24 tubes for *Trident* I and II, MK-48 torpedoes, four torpedo tubes.

**Exercise 10. Translate the following text at sight:**

**АТОМНЫЕ ПОДВОДНЫЕ ЛОДКИ ПРОЕКТА 971**

Атомные подводные лодки проекта 971 “Барс” (“Щука”) являются ударными субмаринами. Водоизмещение субмарин – 5700 – 7900 тонн.

Корпус изготовлен из слабомагнитной стали. На подводных лодках проекта 971 установлен один атомный реактор ОК-650 с водяным охлаждением мощностью 43 тысячи л.с.

Вооружение подводных лодок “Барс” (“Щука”) составляют атомные торпеды РК-55.

Подводные лодки класса “Барс” (обозначение НАТО – Akula) являются самыми быстрыми подводными лодками, стоящими на вооружении ВМФ России. Уровень шума, производимого этими подводными лодками на скорости хода 6 – 9 узлов также является крайне малым, что существенно затрудняет их обнаружение.

**Exercise 11. Translate the following text in writing:**

**ATTACK SUBMARINE**

The concept of technical superiority over numerical superiority was and still is the driving force in American submarine development. A number of Third World countries are acquiring modern state-of-the-art non-nuclear submarines. Countering this threat is the primary mission of U.S. nuclear attack submarines.

Their other missions range from intelligence collection and special forces delivery to anti-ship and strike warfare. The Navy began construction of Seawolf class submarines in 1989. Seawolf is designed to be exceptionally quiet, fast well-armed with advanced sensors. It is a multi-mission vessel, capable of deploying to forward ocean areas to search out and destroy enemy submarines and surface ships and to fire missiles in support of other forces.

The first of the class, Seawolf (SSN 21), completed its initial sea trials in July 1996. Attack submarines also carry the Tomahawk cruise missile. Tomahawk launches from attack submarines were successfully conducted during Operation Desert Storm.

In late 1998, the contract was let for building the first of the New Attack Submarine. This class, the Virginia-class fully embraces the new strategic concept in ... From the Sea and Forward... From the Sea. It is the first U.S. submarine to be designed for battlespace dominance across a broad spectrum of regional and littoral missions as well as open-ocean, "blue water" missions. The Virginia-class achieves the right balance of core military capabilities and affordability.

The Benjamin Franklin-class were converted from Fleet Ballistic Missile submarines and carry drydeck shelters. They are equipped for special operations and support SEALs. The former missile spaces have been converted to accommodations, storage, and recreation spaces.

**Exercise 12. Translate the following text in writing:**

## ШВЕДСКАЯ ПОДВОДНАЯ ЛОДКА ТИПА 43

Шведская фирма "Коккумс" спроектировала подводную лодку типа 43, приспособленную для плавания в тропических районах. Ее основные тактико-технические данные: длина 62,5 м, ширина 6,1 м, стандартное водоизмещение 1350 т, рабочая глубина погружения 225 м, максимальная подводная скорость 21 узел, автономность 45 суток, экипаж 32 человека. При конструировании механизмов и оборудования предусматривались специальные меры по снижению шумности их работы.

Маневренность и управляемость лодки характеризуются следующими показателями: при перекладке руля на 15° диаметр циркуляции составляет 230 м; поворот на 360° может быть выполнен за 300 с на скорости 7 узлов и за 152 с – на скорости 15 узлов; погружение с 10 до 30 м на скорости 7 узлов возможно за 90 с., а с 10 до 60 м – за 130 с. Управление рулями автоматизировано.

Энергетическая установка лодки одновальная дизель-электрическая. Гребной электродвигатель питается от аккумуляторной батареи, состоящей из четырех групп (119 элементов в каждой) или от двух дизель-генераторов.

Подводная лодка вооружена шестью носовыми торпедными аппаратами. Боекомплект состоит из 14 шведских телеуправляемых торпед (возможно использование мин). Для быстрого заряжания торпедных аппаратов имеется специальное устройство. На лодке предусмотрена возможность установки системы ЗУР "Слэм".

Лодка оснащена боевой информационно-управляющей системой TFCJ для отображения тактической обстановки и выработки данных стрельбы по трем целям и одновременного наведения четырех телеуправляемых торпед на две из них. Имеются также современное навигационное оборудование, средства радиосвязи, обнаружения и целеуказания.

## ARMY HUMOR
## The Prayers of Officers

One day, three O-6s were hiking together and unexpectedly came upon a wide, raging, biolent river. They needed to get to the other side, but had no idea of how to do so.

The Air Force Colonel called out to God, praying, "Please God, give me the strength to cross this river."

POOF!

God gave him big arms and strong legs, and he was able to swim across. It did, however, take him more than an hour and he almost drowned a couple of times.

Seeing this, the Army Colonel played to God saying, "Please God, give me the strength and tools to cross this river."

POOF!

God gave him a rowboat and oars. He was able to row across but it still took almost an hojr, it was very rough, and he almost capsized several times.

The Navy Captain saw how things worked out for the other two, so when he prayed to God, he said, "Pleae God, give me the strength, tools, and the intelligence to cross this river."

POOF!

God turned him into a Marine Lance Corporal. He looked at the map, hiked upstream a couple of hundred yards, and walked across the bridge.

# ГЛАВА 7

# ВОЕННО-ПОЛИТИЧЕСКИЕ ДОГОВОРЫ

# CHAPTER 7
# MILITARY-POLITICAL TREATIES

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## УРОК 30
## ДОГОВОР О СОКРАЩЕНИИ И ОГРАНИЧЕНИИ СТРАТЕГИЧЕСКИХ НАСТУПАТЕЛЬНЫХ ВООРУЖЕНИЙ

## LESSON 30
## STRATEGIC OFFENSIVE ARMS REDUCTION AND LIMITATION TREATY

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Consequences | pursuant to |
| Non-Proliferation | throw-weight |
| Weapons | aggregate |
| Provisions | facility |
| Bomber | to maintain |
| Warhead | missile |
| Associated | reentry |
| attributed to | vehicle |
| Integer | dispensing |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

While the ship is surfaced; to operate submerged; the reactor is shut down; to dictate tactical situations to one's own advantage; to stay dived; to render smth vulnerable to ; to maintain invulnerability ; to email penalties.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| hereinafter referred to as | ниже именуемый |
| conscious that | сознавая, что |
| convinced that | будучи убежденными |
| reduction and limitation of strategic offensive arms | сокращение и ограничение стратегических наступательных вооружений |
| to be set forth | быть изложенным |
| outbreak of nuclear war | возникновение ядерной войны |
| recognizing that | признавая, что |
| mindful of their undertakings | учитывая свои обязательства |
| with regard to | в отношении |
| Non-Proliferation of Nuclear Weapons | нераспространение ядерного оружия |
| Joint Statement | совместное заявление |
| Anti-Ballistic Missile System | система противоракетной обороны |
| Summit | встреча на высшем уровне |
| Provisions | положения (договора) |
| this Treaty | настоящий договор |
| Annex | приложение |
| Memorandum of Understanding (MOU) | Меморандум о договоренности… |
| Intercontinental ballistic missile (ICBM) | межконтинентальная баллистическая ракета (МБР) |
| Launcher | пусковая установка |
| submarine launched ballistic missile (SLBM) | баллистическая ракета подводных лодок (БРПЛ) |

| | |
|---|---|
| heavy bomber | тяжелый бомбардировщик |
| Warhead | боезаряд |
| to entry into force | вступать в силу |
| Thereafter | в дальнейшем |
| the aggregate number | суммарное количество |
| their associated | связанный с ними |
| to be attributed to | числиться за |
| pursuant to | согласно (пункту) |
| throw-weight | забрасываемый вес |
| Counting | засчет |
| the maximum aggregate limits | суммарные предельные уровни |
| to remove from | удалить из |
| to install | устанавливать |
| to locate | находиться, размещать |
| Facility | объект |
| to maintain | обслуживать |
| to store | хранить |
| Stage | ступень |
| launch canister | пусковой контейнер |
| data base | база данных |

| | |
|---|---|
| reentry vehicle (RV) | боеголовка |
| front section | головная часть (ГЧ) |
| front section with multiple reentry vehicles | разделяющаяся головная часть |
| Integer | целое число |
| penetration aids | средства преодоления обороны |
| within the framework of | в рамках (соглашения) |
| air launched cruise missile (ALCM) | крылатая ракета воздушного базирования (КРВБ) |
| long-range nuclear air launched cruise missile (LRNA) | (ядерная ) крылатая ракета воздушного базирования большой дальности |
| the upper atmosphere | верхние слои атмосферы |
| space launch facilities | места запуска космических объектов |
| to overlap | частично перекрывать |
| unless otherwise agreed | если только не согласовано иное |
| silo launcher | шахтная пусковая установка |
| transporter-loader | транспортно-погрузочное средство |
| road-mobile launcher | грунтовая мобильная пуско- |

| | |
|---|---|
| | вая установка (ГМПУ) |
| deployment area (DA) | район развертывания |
| test range | испытательный полигон |
| ballistic missile submarine | подводная лодка, оснащенная пусковыми установками БРПЛ |
| dry dock | док |
| storage facility | место складского хранения |
| repair facility | место ремонта |
| locational restrictions | ограничения на места размещения |
| maintenance facility | объект по обслуживанию |
| loading facilities | место загрузки |
| production facilities | объект по производству |
| conversion facilities | место переоборудования |
| elimination facilities | место ликвидации |
| Prototype | прототип |
| missile tender | плавучая база для ракет |
| storage crane | кран-хранилище |
| solid rocket motor | твердотопливный ракетный двигатель |
| Nozzle | сопло |

| | |
|---|---|
| restricted area | ограниченный район |
| fixed structure | стационарное сооружение |
| rail-mobile launcher of ICBMs | железнодорожная мобильная пусковая установка МБР |
| rail garrison | железнодорожная станция базирования |
| Track | железнодорожный путь |
| parking site | пункт размещения |
| train of standard configuration | состав стандартной конфигурации |
| Relocation | передислокация |
| operational dispersal | оперативное рассредоточение |
| except as prohibited by | с учетом запрещений |
| launch weight | стартовый вес |
| provided that | при условии, что |
| the Protocol on Notifications | Протокол об уведомлениях |
| emplacement equipment | установочное оборудование |
| intermediate-range missile | ракета средней дальности |
| routine movements | обычные передвижения |
| Verification | контроль |
| continuous monitoring activities | деятельность по непрерывно- |

| | |
|---|---|
| | му наблюдению |
| to be subject to | подпадать под |
| to render inoperable | привести в состояние непригодности для эксплуатации |
| in situ | на месте |
| the Joint Compliance and Inspection Commission (JCIC) | Совместная комиссия по соблюдению и инспекциям (СКСИ) |
| baseline data | исходные данные |

**Exercise 4. Read and translate the text:**

**TREATY**
**BETWEEN THE UNITED STATES OF AMERICA**
**AND THE UNION OF SOVIET SOCIALIST REPUBLICS**
**ON THE REDUCTION AND LIMITATION OF**
**STRATEGIC OFFENSIVE ARMS**
**(ABSRACT)**

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as the Parties,

Conscious that nuclear war would have devastating consequences for all humanity, that it cannot be won and must never be fought,

Convinced that the measures for the reduction and limitation of strategic offensive arms and the other obligations set forth in this Treaty will help to reduce the risk of outbreak of nuclear war and strengthen international peace and security,

Recognizing that the interests of the Parties and the interests of international security require the strengthening of strategic stability,

Mindful of their undertakings with regard to strategic offensive arms in Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons of July 1, 1968; Article XI of the Treaty on the Limitation of Anti-Ballistic Missile Systems of May 26, 1972; and the Washington Summit Joint Statement of June 1, 1990,

Have agreed as follows:

## ARTICLE I

Each Party shall reduce and limit its strategic offensive arms in accordance with the provisions of this Treaty, and shall carry out the other obligations set forth in this Treaty and its Annexes, Protocols, and Memorandum of Understanding.

## ARTICLE II

1. Each Party shall reduce and limit its ICBMs and ICBM launchers, launchers and SLBM launchers, heavy bombers, ICBM warheads, SLBM warheads, and heavy bomber armaments, so that seven years after entry into force of this Treaty and thereafter, the aggregate numbers, as counted in accordance with Article III of this Treaty, do not exceed:

(a) 1600, for deployed ICBMs and their associated launchers, deployed ICBMs and their associated launchers, and deployed heavy bombers, including 154 for deployed heavy ICBMs and their associated launchers.

(b) 6000, for warheads attributed to deployed ICBMs, deployed SLBMs, and deployed heavy bombers, including:

(i) 4900, for warheads attributed to deployed ICBMs and deployed SLBMs;

(ii) 1100, for warheads attributed to deployed ICBMs on mobile launchers of ICBMs;

(iii) 1540, for warheads attributed to deployed heavy ICBMs.

2. Each Party shall implement the reductions pursuant to paragraph 1 of this Article in three phases.

3. Each Party shall limit the aggregate throw-weight of its deployed ICBMs and deployed SLBMs so that seven years after entry into force of this Treaty and thereafter such aggregate throw-weight does not exceed 3600 metric tons.

## ARTICLE III

1. For the purposes of counting toward the maximum aggregate limits provided for in subparagraphs 1(a), 2(a)(i), and 2(b)(i) of Article II of this Treaty:

(a) Each deployed ICBM and its associated launcher shall be counted as one unit; each deployed SLBM and its associated launcher shall be counted as one unit.

(b) Each deployed heavy bomber shall be counted as one unit.

2. For the purposes of counting deployed ICBMs and their associated launchers and deployed SLBMs and their associated launchers:

(a) Each deployed launcher of ICBMs and each deployed launcher of SLBMs shall be considered to contain one deployed ICBM or one deployed SLBM, respectively.

(b) If a deployed ICBM has been removed from its launcher and another missile has not been installed in that launcher, such an ICBM removed from its launcher and located at that ICBM base shall continue to be considered to be contained in that launcher.

(c) If a deployed SLBM has been removed from its launcher and another missile has not been installed in that launcher, such an SLBM removed from its launcher shall be considered to be contained in that launcher. Such an SLBM removed from its launcher shall be located only at a facility at which non-deployed SLBMs may be located pursuant to subparagraph 9(a) of Article IV of this Treaty or be in movement to such a facility.

3. For the purposes of this Treaty, including counting ICBMs and SLBMs:

(a) For ICBMs or SLBMs that are maintained, stored, and transported in stages, the first stage of an ICBM or SLBM of a particular type shall be considered to be an ICBM or SLBM of that type.

(b) For ICBMs or SLBMs that are maintained, stored, and transported as assembled missiles without launch canisters, an assembled missile of a particular type shall be considered to be an ICBM or SLBM of that type.

4. For the purposes of counting warheads:

(a) The number of warheads attributed to an ICBM or SLBM of each existing type shall be the number specified in the Memorandum of Understanding on the Establishment of the Data Base Relating to this Treaty, hereinafter referred to as the Memorandum of Understanding.

(b) The number of warheads that will be attributed to an ICBM or SLBM of a new type shall be the maximum number of reentry vehicles with which an ICBM or SLBM of that type has been flight-tested. The number of warheads that will be attributed to an ICBM or SLBM of a new type with a front section of an existing design with multiple reentry vehicles, or to an ICBM or SLBM of a new type with one reentry vehicle, shall be no less than the nearest integer that is smaller than the result of dividing 40 percent of the accountable throw-weight of the ICBM or SLBM by the weight of the lightest reentry vehicle flight-tested on an ICBM or SLBM of that type.

## ARTICLE IV

4. For ICBMs and SLBMs used for delivering objects into the upper atmosphere or space:

(a) Each Party shall limit the number of space launch facilities to no more than five, unless otherwise agreed. Space launch facilities shall not overlap ICBM bases.

(b) Each Party shall limit the aggregate number of ICBM launchers and SLBM launchers located at space launch facilities to no more than 20, unless otherwise agreed. Within this limit, the aggregate number of silo launchers of ICBMs and mobile launchers of ICBMs located at space launch facilities shall not exceed 12. Within this limit, the number of mobile launchers of ICBMs located at space launch facilities shall not exceed ten.

(c) Each Party shall limit the aggregate number of ICBMs and SLBMs located at a space launch facility to no more than the number of ICBM launchers and SLBM launchers located at that facility.

5. Each Party shall limit the number of transporter-loaders for ICBMs for road-mobile launchers of ICBMs located at each deployment area or test range to no more than two for each type of ICBM for road-mobile launchers of ICBMs that is attributed with one warhead and that is specified for that deployment area or test range, and shall limit the number of such transporter-loaders located outside deployment areas and test ranges to no more than six. The aggregate number of transporter-loaders for ICBMs for road-mobile launchers of ICBMs shall not exceed 30.

6. Each Party shall limit the number of ballistic missile submarines in dry dock within five kilometers of the boundary of each submarine base to no more than two.

8. Each Party shall limit the aggregate number of storage facilities for ICBMs or SLBMs and repair facilities for ICBMs or SLBMs to no more than 50.

9. With respect to locational and related restrictions on strategic offensive arms:

(a) Each Party shall locate non-deployed ICBMs and non-deployed SLBMs only at maintenance facilities of ICBM bases; submarine bases; ICBM loading facilities; SLBM loading facilities; production facilities for ICBMs or SLBMs; repair facilities for ICBMs or SLBMs; storage facilities for ICBMs or SLBMs; conversion or elimination facilities for ICBMs or SLBMs; test ranges; or space launch facilities. Prototype ICBMs and prototype SLBMs, however, shall not be located at maintenance facilities of ICBM bases or at submarine bases. Non-deployed ICBMs and non-deployed SLBMs may also be in

transit. Non-deployed ICBMs for silo launchers of ICBMs may also be transferred within an ICBM base for silo launchers of ICBMs. Non-deployed SLBMs that are located on missile tenders and storage cranes shall be considered to be located at the submarine base at which such missile tenders and storage cranes are specified as based.

10. Each Party shall locate solid rocket motors for first stages of ICBMs for mobile launchers of ICBMs only at locations where production and storage, or testing of such motors occurs and at production facilities for ICBMs for mobile launchers of ICBMs. Such solid rocket motors may also be moved between these locations. Solid rocket motors with nozzles attached for the first stages of ICBMs for mobile launchers of ICBMs shall only be located at production facilities for ICBMs for mobile launchers of ICBMs and at locations where testing of such solid rocket motors occurs. Locations where such solid rocket motors are permitted shall be specified in Annex I to the Memorandum of Understanding.

## ARTICLE VI

1. Deployed road-mobile launchers of ICBMs and their associated missiles shall be based only in restricted areas. A restricted area shall not exceed five square kilometers in size and shall not overlap another restricted area. No more than ten deployed road-mobile launchers of ICBMs and their associated missiles may be based or located in a restricted area. A restricted area shall not contain deployed ICBMs for road-mobile launchers of ICBMs of more than one type of ICBM.

2. Each Party shall limit the number of fixed structures for road-mobile launchers of ICBMs within each restricted area so that these structures shall not be capable of containing more road-mobile launchers of ICBMs than the number of road-mobile launchers of ICBMs specified for that restricted area.

3. Each restricted area shall be located within a deployment area.

A deployment area shall not exceed 125,000 square kilometers in size and shall not overlap another deployment area. A deployment area shall contain no more than one ICBM base for road-mobile launchers of ICBMs.

4. Deployed rail-mobile launchers of ICBMs and their associated missiles shall be based only in rail garrisons. Each Party shall have no more than seven rail garrisons. No point on a portion of track located inside a rail garrison shall be more than 20 kilometers from any entrance/exit for that rail garrison. This distance shall be measured along the tracks. A rail garrison shall not overlap another rail garrison.

5. Each rail garrison shall have no more than two rail entrances/exits. Each such entrance/exit shall have no more than two separate sets of tracks passing through it (a total of four rails).

6. Each Party shall limit the number of parking sites in each rail garrison to no more than the number of trains of standard configuration specified for that rail garrison. Each rail garrison shall have no more than five parking sites.

7. Each Party shall limit the number of fixed structures for rail-mobile launchers of ICBMs in each rail garrison to no more than the number of trains of standard configuration specified for that rail garrison. Each such structure shall contain no more than one train of standard configuration.

8. Each rail garrison shall contain no more than one maintenance facility.

9. Deployed mobile launchers of ICBMs and their associated missiles may leave restricted areas or rail garrisons only for routine movements, relocations, or dispersals. Deployed road-mobile launchers of ICBMs and their associated missiles may leave deployment areas only for relocations or operational dispersals.

**COMMENTARY**

**1.Grammar:**

a) shall be subject to agreement – подлежит согласованию;

Each Party shall reduce and limit its strategic offensive arms. – Каждая из сторон сокращает и ограничивает свои стратегические наступательные вооружения.

В текстах договоров глагол shall применяется никак вспомогательный глагол будущего времени, а как модальный глагол и придает смысловому глаголу, переводимому на русский язык настоящим временем, оттенок долженствования.

b) SLBM shall be considered to contain … – БРПЛ рассматривается как содержащая…

ICBM shall continue to be considered to be contained … – МБР продолжает рассматривается рассматриваться как содержащаяся…

Данные предложения представляют собой примеры инфинитивной конструкции Complex Subject, часто встречающейся в официальных документах.

**2. Terms and Definitions:**

a) The term **"reentry vehicle"** means that part of the front section that can survive reentry through the dense layers of the Earth's atmosphere and that is designed for delivering a weapon to a target or for testing such a delivery.

Термин **"боеголовка"** означает ту часть головной части, которая способна сохраняться при возвращении через плотные слои атмосферы Земли и которая сконструирована для доставки оружия к цели или испытания такой доставки.

b) The term **"warhead"** means a unit of account used for counting toward the 6000 maximum aggregate limit and relevant sublimits as applied to deployed ICBMs, deployed SLBMs, and deployed heavy bombers.

Термин **"боезаряд"** означает единицу засчета, используемую применительно к развернутым МБР, развернутым БРПЛ и развернутым тяжелым бомбардировщикам для засчета в суммарный предельный уровень в 6000 единиц и соответствующие подуровни.

c) The term **"front section"** means that portion of the payload of the final stage that contains the reentry vehicle or reentry vehicles and may, depending on design, include a reentry vehicle platform, penetration aids, and a shroud.

Термин **"головная часть"** означает ту часть полезной нагрузки последней ступени, которая содержит боеголовку или боеголовки и может, в зависимости от конструкции, включать платформу боеголовки или боеголовок, средства преодоления обороны и обтекатель.

d) The term **"submarine-launched ballistic missile (SLBM)"** means a ballistic missile with a range in excess of 600 kilometers of a type, any one of which has been contained in or launched from a submarine.

Термин **"баллистическая ракета подводных лодок (БРПЛ)"** означает баллистическую ракету с дальностью свыше 600 километров того или иного типа, какая-либо из ракет которого содержалась на подводной лодке или использовалась для запуска с подводной лодки.

e) The term **"intercontinental ballistic missile (ICBM)"** means a land-based ballistic missile with a range in excess of 5,500 kilometers.

Термин **"межконтинентальная баллистическая ракета (МБР)"** означает баллистическую ракету наземного базирования с дальностью свыше 5500 километров.

f) The term **"air-launched cruise missile (ALCM)"** means an air-to-surface cruise missile of a type, any one of which has been flight-tested from an aircraft or deployed on a bomber after December 31, 1986.

Термин **"крылатая ракета воздушного базирования (КРВБ)"** означает крылатую ракету класса "воздух-поверхность" того или иного типа, какая-либо из ракет которого прошла летное испытание с летательного аппарата или была развернута на бомбардировщике после 31 декабря 1986 года.

**Exercise 5. Translate the following questions and answer them in English:**

1. Каковы причины подписания Договора о сокращении и ограничении стратегических наступательных вооружений?
2. Какие страны подписали этот Договор?
3. Какие виды боевой техники и вооружений должны быть сокращены в соответствии с данным Договором?
4. Какое количество боевой техники и вооружений должно остаться через семь лет после вступления в силу настоящего Договора?
5. Что означает термин «район развёртывания» и каковы его размеры?

**Exercise 6. Decipher and translate the following abbreviations:**

MOU, ICBM, JCIC, START, SLBM, RV, ALCM, DA БРПЛ, КРВБ, МБР, СНВ, СКСИ; ГМПУ; ГЧ.

**Exercise7. Translate the following words and word combinations by ear:**

To be in movement to; for ICBMs; to be transported in stages; as assembled missiles; establishment of the data base; relating to; dispensing penetration aids; to be placed on static display; the Joint Compliance and Inspection Commission; for delivering objects; to overlap ICBM bases; notification of variations from; undertakings; the Protocol on Inspections and Continuous Monitoring Activities; aggregate number; related restrictions on strategic offensive arms; locational restrictions on facilities; to be in transit; with nozzles attached; train of standard configuration; the Conversion or Elimination Protocol.

Применительно к; в виде собранных ракет; установление исходных данных; транспортируется по ступеням; быть включенным в стационарную экспозицию; в связи с; разведение средств преодоления обороны; перемещаться к объекту; прошедший летное испытание; Совместная комиссия по соблюдению и инспекциям; заходить на территорию баз МБР; для доставки объектов; обязательства; суммарное количество; уведомление об отклонениях от; ограничения на места размещения объектов; Протокол об инспекциях и деятельности по непрерывному наблюдению.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Каждая из Сторон осуществляет | by the end of the first phase, that is, no later than 36 months after |

| | |
|---|---|
| сокращения согласно пункту 1 настоящей статьи в три этапа таким образом, чтобы ее стратегические наступательные вооружения не превышали: | entry into force of this Treaty, and thereafter, the following aggregate numbers: |
| 2100 единиц для развернутых МБР и связанных с ними пусковых установок, развернутых БРПЛ и связанных с ними пусковых установок и развернутых тяжелых бомбардировщиков; | 9150, for warheads attributed to deployed ICBMs, deployed SLBMs, and deployed heavy bombers; |
| 8050 единиц для боезарядов, которые числятся за развернутыми МБР и развернутыми БРПЛ; | by the end of the second phase, that is, no later than 60 months after entry into force of this Treaty, and thereafter, the following aggregate numbers: |
| 1900 единиц для развернутых МБР и связанных с ними пусковых установок, развернутых БРПЛ и связанных с ними пусковых установок и развернутых тяжелых бомбардировщиков; | 7950, for warheads attributed to deployed ICBMs, deployed SLBMs, and deployed heavy bombers; |
| 6750 единиц для боезарядов, которые числятся за развернутыми МБР и развернутыми БРПЛ; | by the end of the third phase, that is, no later than 84 months after entry into force of this Treaty: the aggregate numbers provided for in paragraph 1 of this Article. |

**Exercise 9. Translate the following text at sight:**

**Text 1.**

For the purposes of this Treaty, including counting ICBMs and SLBMs:

- For ICBMs that are maintained, stored, and transported as assembled missiles in launch canisters, an assembled missile of a particular type, in its launch canister, shall be considered to be an ICBM of that type.

- Each launch canister shall be considered to contain an ICBM from the time it first leaves a facility at which an ICBM is installed in it until an ICBM has been launched from it or until an ICBM has been removed from it for

elimination. A launch canister shall not be considered to contain an ICBM if it contains a training model of a missile or has been placed on static display. Launch canisters for ICBMs of a particular type shall be distinguishable from launch canisters for ICBMs of a different type.

**Text 2.**

The number of reentry vehicles with which an ICBM or SLBM has been flight-tested shall be considered to be the sum of the number of reentry vehicles actually released during the flight test, plus the number of procedures for dispensing reentry vehicles performed during that same flight test when no reentry vehicle was released. A procedure for dispensing penetration aids shall not be considered to be a procedure for dispensing reentry vehicles, provided that the procedure for dispensing penetration aids differs from a procedure for dispensing reentry vehicles.Each reentry vehicle of an ICBM or SLBM shall be considered to be one warhead.

**Exercise 10. Translate the following text at sight:**

**Text 1.**

Для целей зачета боезарядов:

количество боезарядов, которое будет числиться за МБР или БРПЛ нового типа, является максимальное количество боеголовок, с которым прошла летное испытание МБР или БРПЛ этого типа. Количество боезарядов, которое будет числиться за МБР или БРПЛ нового типа с разделяющейся головной частью существующей конструкции либо за МБР или БРПЛ нового типа с одной боеголовкой, должно быть не менее частного от деления 40 процентов подлежащего зачету забрасываемого веса МБР или БРПЛ на вес самой легкой боеголовки, которая прошла летное испытание на МБР или БРПЛ этого типа, округленного до целого числа в сторону уменьшения. В отношении МБР или БРПЛ нового типа с головной частью принципиально новой конструкции вопрос о применимости правила 40 процентов к такой МБР или БРПЛ подлежит согласованию в рамках Совместной комиссии по соблюдению и инспекциям. До согласования правила, которое будет применяться к такой МБР или БРПЛ, количеством боезарядов, которое будет числиться за такой МБР или БРПЛ, является максимальное количество боеголовок, с которым прошла летное испытание МБР или БРПЛ этого типа. Количество новых типов МБР или БРПЛ с головной частью принципиально новой кон-

струкции не превышает двух для каждой из Сторон до тех пор, пока остается в силе настоящий Договор;

**Text 2.**

За каждым тяжелым бомбардировщиком, оснащенным для ядерных вооружений, не являющихся ядерными КРВБ большой дальности, числится один боезаряд. Все тяжелые бомбардировщики, не оснащенные для ядерных КРВБ большой дальности, рассматриваются как тяжелые бомбардировщики, оснащенные для ядерных вооружений, не являющихся ядерными КРВБ большой дальности, за исключением тяжелых бомбардировщиков, оснащенных для неядерных вооружений, тяжелых бомбардировщиков, предназначенных для испытаний, и тяжелых бомбардировщиков, предназначенных для обучения.

**Exercise 11. Translate the following text in writing:**

For the Union of Soviet Socialist Republics, each heavy bomber equipped for long-range nuclear ALCMs, up to a total of 180 such heavy bombers, shall be attributed with eight warheads. Each heavy bomber equipped for long-range nuclear ALCMs in excess of 180 such heavy bombers shall be attributed with a number of warheads equal to the number of long-range nuclear ALCMs for which it is actually equipped. The Union of Soviet Socialist Republics shall specify the heavy bombers equipped for long-range nuclear ALCMs that are in excess of 180 such heavy bombers by number, type, variant, and the air bases at which they are based. The number of long-range nuclear ALCMs for which each heavy bomber equipped for long-range nuclear ALCMs in excess of 180 such heavy bombers is considered to be actually equipped shall be the maximum number of long-range nuclear ALCMs for which a heavy bomber of the same type and variant is actually equipped.

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Each Party shall have the right to reduce the number of warheads attributed to ICBMs and SLBMs only of existing types, up to an aggregate number of 1250 at any one time.

a) Such aggregate number shall consist of the following:

- for the United States of America, the reduction in the number of warheads attributed to the type of ICBM designated by the United States of America as, and known to the Union of Soviet Socialist Republics as, Minuteman

III, plus the reduction in the number of warheads attributed to ICBMs and SLBMs of no more than two other existing types;

- for the Union of Soviet Socialist Republics, four multiplied by the number of deployed SLBMs designated by the Union of Soviet Socialist Republics as RSM-50, which is known to the United States of America as SS-N-18, plus the reduction in the number of warheads attributed to ICBMs and SLBMs of no more than two other existing types.

**Exercise 12. Translate the following text in writing:**

Для Соединенных Штатов Америки за каждым тяжелым бомбардировщиком, оснащенным для ядерных КРВБ большой дальности, в пределах общего количества в 150 таких тяжелых бомбардировщиков, числится десять боезарядов. За каждым тяжелым бомбардировщиком, оснащенным для ядерных КРВБ большой дальности, сверх общего количества в 150 таких тяжелых бомбардировщиков, числится количество боезарядов, равное тому количеству ядерных КРВБ большой дальности, для которого он реально оснащен. Соединенные Штаты Америки указывают тяжелые бомбардировщики, оснащенные для ядерных КРВБ большой дальности, сверх общего количества в 150 таких тяжелых бомбардировщиков по количеству, типу, варианту и авиационным базам, на которых они базируются. Количеством ядерных КРВБ большой дальности, для которого каждый тяжелый бомбардировщик, оснащенный для ядерных КРВБ большой дальности, сверх общего количества в 150 таких тяжелых бомбардировщиков считается реально оснащенным, является максимальное количество ядерных КРВБ большой дальности, для которого реально оснащен тяжелый бомбардировщик того же типа и варианта;

***

Уменьшение количества боезарядов, которое числится за МБР Минитмен-III, осуществляется с соблюдением следующего:

– МБР Минитмен-III, за которыми числится различное количество боезарядов, не развертываются на одной и той же базе МБР; любое такое уменьшение осуществляется не позднее чем через семь лет после вступления в силу настоящего Договора; платформа боеголовок каждой МБР Минитмен-III, за которой числится уменьшенное количество боезарядов, уничтожается и заменяется новой платформой боеголовок.

**ARMY HUMOR**

**Shit: Through the Eyes of the Military**

An Army grunt stands in the rain with a 35-pound pack on his back, 15-lb. weapon in his hand, having marched 12 miles, and says, "This is shit."

An Army Airborne Ranger stands in the rain with a 45-pound pack on his back, weapon in hand, after having jumped from a plane and jogged 18 miles, says with a smile, "This is good shit."

A Navy Seal lies in the mud, 55-pound pack on his back, weapon in hand, after swimming 10 miles to shore, crawling through a swamp, and running 25 miles at night past enemy positions, says with a grin, "This is really great shit."

A Marine, up to his nose in the stinking, bug-infested mud of a swamp with a 65-pound pack on his back and weapons in both hands after jumping from an aircraft at high altitude into the ocean, swimming 12 miles to shore, killing several alligators to enter the swamp, then crawling 30 miles through the brush to assault an enemy camp, says, "I love this shit."

An Air Force NCO sits in an easy chair in an air-conditioned, carpeted office in front of his computer and says, "My e-mail is out? What kind of shit is this?"

## УРОК 31
## ДОГОВОР О СОКРАЩЕНИИ И ОГРАНИЧЕНИИ СТРАТЕГИЧЕСКИХ НАСТУПАТЕЛЬНЫХ ВООРУЖЕНИЙ

## LESSON 31
## STRATEGIC OFFENSIVE ARMS REDUCTION AND LIMITATION TREATY

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| Exhibition | to conduct |
| Accuracy | exchange |
| initial | covert |
| Assembly | completion |
| to confirm | distinguishability |
| to equip | feature |
| Requirements | to enhance |
| Content | Rescheduling |
| to acknowledge | Receipt |
| Identifier | unique |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To be in movement to; for ICBMs; to be transported in stages; as assembled missiles; establishment of the data base; relating to; dispensing penetration aids; to be placed on static display; the Joint Compliance and Inspection Commission; throw-weight; self-contained.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| to conduct inspections | проводить инспекции |

| | |
|---|---|
| exhibition | показ |
| baseline data inspection | инспекция в отношении исходных данных |
| accuracy | точность |
| item | 1. изделие<br>2. средство (зд.) |
| initial exchange | первоначальный обмен |
| in accordance with | в соответствии с |
| data update inspection | инспекция в отношении обновленных данных |
| new facility inspection | инспекция новых объектов |
| suspect-site inspection (SSI) | инспеция по подозрению |
| covert assembly | скрытая сборка |
| reentry vehicle inspection | инспекция в отношении боеголовок |
| post-exercise dispersal inspection | инспекция после завершения рассредоточения при учениях |
| conversion or elimination inspection | инспекция в связи с переоборудованием или ликвидацией |
| close-out inspection | инспекция ликвидированных объектов |
| formerly declared facility inspection | инспекция ранее заявленных объектов |
| to be inconsistent with | быть несовместимым с |
| technical characteristics exhibition | показ в связи с подтверждением соответствия технических характеристик |
| distinguishability exhibition | показ в связи с отличимостью |
| a test heavy bomber | тяжелый бомбардировщик, предназначенный для испытаний |

| | |
|---|---|
| nuclear armaments | ядерные вооружения |
| to satisfy the requirements | отвечать требованиям |
| to provide to | предоставить кому-либо |
| for subparagraph | применительно к подпункту |
| cooperative measures | меры на основе сотрудничества |
| telemetric information | телеметрическая информация |
| pursuant to | согласно чему-либо |
| the rescheduling of activities | изменение сроков осуществления деятельности |
| the Nuclear Risk Reduction Center ((NURRC) | Центр по уменьшению ядерной опасности (ЦУЯО) |
| to acknowledge | подтвердить |
| receipt | получение |
| in Greenwich Mean Time (GMT) | по Гринвичу |
| to be at smb’s disposal | находиться в чьем-либо распоряжении |
| international law | международное право |
| to interfere with | чинить помехи |
| concealment measures | меры маскировки |
| concealment | сокрытие |
| to result in | приводить к |
| to impede | затруднять |

| | |
|---|---|
| environmental shelter | укрытие для защиты от воздействия атмосферных явлений |
| identifier | опознавательный знак |
| to release to the public | опубликовать |
| site diagram | схема (объекта) |
| version | разновидность |
| Reciprocal Advance Notification | взаимное заблаговременное уведомление |
| Major Strategic Exercises | крупные стратегические учения |
| on-board technical measurements | бортовые измерения технических параметров |
| encryption | Шифрование |
| jamming | Глушение |
| narrow directional beaming | узконаправленное излучение |
| encapsulation | капсулирование |
| ejectable capsule | сбрасываемая капсула |
| self-contained dispensing mechanism (SCDM) | автономный блок разведения (АБР) |
| to count against the quotas | засчитывать в квоты |
| on-site inspection (OSI) | инспекция на месте |
| launcher | пусковая установка (ПУ) |

| | |
|---|---|
| the inspected Party | инспектируемая сторона |
| viewing | визуальный осмотр |
| specially allocated site | специально выделенное место |
| inspection team leader. | руководитель инспекционной группы |
| member of the in-country escort | лицо, сопровождающее внутри страны |
| upper silo | верхний срез шахты |
| tube edge | верхний срез шахты |
| the vicinity | район расположения |
| clear and unobstructed view | четкий и беспрепятственный обзор |
| to familiarize themselves with | ознакомиться с |
| the relative positions | взаимное расположение (объектов) |
| temporary structure | временное сооружение |
| device | устройство |
| ICBM silo launcher door | защитная крыша шахты пусковой установки МБР |
| SLBM launcher hatch | крышка люка пусковой установки БРПЛ |
| to be at the discretion of | определяться по собственному усмотрению |
| object | предмет (*зд.*) |
| to carry out | осуществлять |
| to proceed on the surface | следовать в надводном положении |
| the interior | внутреннее пространство |
| to be put in place | установить |

| | |
|---|---|
| shroud | обтекатель |
| portion of the site | участок местности (*зд.*) |
| to seal | опечатывать |
| seal | пломба |
| mounting platform | монтажная платформа |
| cover | чехол |
| to hamper | мешать, препятствовать |
| to be environmentally protected | быть защищенным от воздействия атмосферных явлений |
| dimensions | габариты |
| item of inspection | средство, подлежащее инспекции |
| to read the data from | считывать данные с |
| unique identifier | собственный опознавательный знак |
| field of view | поле зрения |
| post-inspection procedures | послеинспекционные процедуры |
| satellite system receiver | приемник спутниковой системы |
| maintenance hatch | технологический люк |
| railcar | железнодорожный вагон |
| entry compartment | тамбур |

| | |
|---|---|
| inspection site | место инспекции |
| the inspecting Party | инспектирующая сторона |
| global positioning system (GPS) | геопозиционная спутниковая система |
| GPS receiver | приемник геопозиционной спутниковой системы |
| distinguishable | отличимый |
| continuous monitoring activities | деятельность по непрерывному наблюдению |

**Exercise 4. Read and translate the text:**

**TREATY**
**BETWEEN THE UNITED STATES OF AMERICA**
**AND THE UNION OF SOVIET SOCIALIST REPUBLICS**
**ON THE REDUCTION AND LIMITATION OF**
**STRATEGIC OFFENSIVE ARMS**
**(ABSTRACT)**

**ARTICLE XI**

1. For the purpose of ensuring verification of compliance with the provisions of this Treaty, each Party shall have the right to conduct inspections and continuous monitoring activities and shall conduct exhibitions pursuant to this Article and the Inspection Protocol. Inspections, continuous monitoring activities, and exhibitions shall be conducted in accordance with the procedures provided for in the Inspection Protocol and the Conversion or Elimination Protocol.

2. Each Party shall have the right to conduct baseline data inspections at facilities to confirm the accuracy of data on the numbers and types of items specified for such facilities in the initial exchange of data provided in accordance with paragraph 1 of Section I of the Notification Protocol.

3. Each Party shall have the right to conduct data update inspections at facilities to confirm the accuracy of data on the numbers and types of items specified for such facilities in the notifications and regular exchanges of up-

dated data provided in accordance with paragraphs 2 and 3 of Section I of the Notification Protocol.

4. Each Party shall have the right to conduct new facility inspections to confirm the accuracy of data on the numbers and types of items specified in the notifications of new facilities provided in accordance with paragraph 3 of Section I of the Notification Protocol.

5. Each Party shall have the right to conduct suspect-site inspections to confirm that covert assembly of ICBMs for mobile launchers of ICBMs or covert assembly of first stages of such ICBMs is not occurring.

6. Each Party shall have the right to conduct reentry vehicle inspections of deployed ICBMs and SLBMs to confirm that such ballistic missiles contain no more reentry vehicles than the number of warheads attributed to them.

7. Each Party shall have the right to conduct post-exercise dispersal inspections of deployed mobile launchers of ICBMs and their associated missiles to confirm that the number of mobile launchers of ICBMs and their associated missiles that are located at the inspected ICBM base and those that have not returned to it after completion of the dispersal does not exceed the number specified for that ICBM base.

8. Each Party shall conduct or shall have the right to conduct conversion or elimination inspections to confirm the conversion or elimination of strategic offensive arms.

9. Each Party shall have the right to conduct close-out inspections to confirm that the elimination of facilities has been completed.

10. Each Party shall have the right to conduct formerly declared facility inspections to confirm that facilities, notification of the elimination of which has been provided in accordance with paragraph 3 of Section I of the Notification Protocol, are not being used for purposes inconsistent with this Treaty.

11. Each Party shall conduct technical characteristics exhibitions, and shall have the right during such exhibitions by the other Party to conduct inspections of an ICBM and an SLBM of each type, and each variant thereof, and of a mobile launcher of ICBMs and each version of such launcher for each type of ICBM for mobile launchers of ICBMs. The purpose of such exhibitions shall be to permit the inspecting Party to confirm that technical characteristics correspond to the data specified for these items.

12. Each Party shall conduct distinguishability exhibitions for heavy bombers, former heavy bombers, and long-range nuclear ALCMs, and shall have the right during such exhibitions by the other Party to conduct inspections, of:

(a) heavy bombers equipped for long-range nuclear ALCMs. The purpose of such exhibitions shall be to permit the inspecting Party to confirm that the

technical characteristics of each type and each variant of such heavy bombers correspond to the data specified for these items in Annex G to the Memorandum of Understanding; to demonstrate the maximum number of long-range nuclear ALCMs for which a heavy bomber of each type and each variant is actually equipped; and to demonstrate that this number does not exceed the number provided for in paragraph 20 or 21 of Article V of this Treaty, as applicable;

(b) for each type of heavy bomber from any one of which a long-range nuclear ALCM has been flight-tested, heavy bombers equipped for nuclear armaments other than long-range nuclear ALCMs, heavy bombers equipped for non-nuclear armaments, training heavy bombers, and former heavy bombers. If, for such a type of heavy bomber, there are no heavy bombers equipped for long-range nuclear ALCMs, a test heavy bomber from which a long-range nuclear ALCM has been flight-tested shall be exhibited. The purpose of such exhibitions shall be to demonstrate to the inspecting Party that, for each exhibited type of heavy bomber, each variant of heavy bombers equipped for nuclear armaments other than long-range nuclear ALCMs, each variant of heavy bombers equipped for non-nuclear armaments, each variant of training heavy bombers, and a former heavy bomber are distinguishable from one another and from each variant of heavy bombers of the same type equipped for long-range nuclear ALCMs; and

(c) long-range nuclear ALCMs. The purpose of such exhibitions shall be to permit the inspecting Party to confirm that the technical characteristics of each type and each variant of such long-range ALCMs correspond to the data specified for these items in Annex H to the Memorandum of Understanding. The further purpose of such exhibitions shall be to demonstrate differences, notification of which has been provided in accordance with paragraph 13, 14, or 15 of Section VII of the Notification Protocol, that make long-range non-nuclear ALCMs distinguishable from long-range nuclear ALCMs.

13. Each Party shall conduct baseline exhibitions, and shall have the right during such exhibitions by the other Party to conduct inspections, of all heavy bombers equipped for non-nuclear armaments, all training heavy bombers, and all former heavy bombers specified in the initial exchange of data provided in accordance with paragraph 1 of Section I of the Notification Protocol. The purpose of these exhibitions shall be to demonstrate to the inspecting Party that such airplanes satisfy the requirements for conversion in accordance with the Conversion or Elimination Protocol. After a long-range nuclear ALCM has been flight-tested from a heavy bomber of a type, from none of which a long-range nuclear ALCM had previously been flight-tested, the Party conducting the flight test shall conduct baseline exhibitions, and the other Party

shall have the right during such exhibitions to conduct inspections, of 30 percent of the heavy bombers of such type equipped for nuclear armaments other than long-range nuclear ALCMs at each air base specified for such heavy bombers. The purpose of these exhibitions shall be to demonstrate to the inspecting Party the presence of specified features that make each exhibited heavy bomber distinguishable from heavy bombers of the same type equipped for long-range nuclear ALCMs.

14. Each Party shall have the right to conduct continuous monitoring activities at production facilities for ICBMs for mobile launchers of ICBMs to confirm the number of ICBMs for mobile launchers of ICBMs produced.

## PROCEDURES FOR REENTRY VEHICLE INSPECTIONS CONDUCTED PURSUANT TO PARAGRAPH 6 OF ARTICLE XI OF THE TREATY (ABSTRSACT)

1. The inspected Party shall have the right to prepare the front section for viewing in the launcher of ICBMs or SLBMs, in close proximity to it, in a vehicle, or at a specially allocated site determined by the inspected Party.

2. For silo launchers of ICBMs and SLBM launchers:

(a) Upon arrival of the inspection team at a designated silo launcher of ICBMs containing the ICBM to be inspected, inspectors shall have the right to confirm, in accordance with the procedures provided for in paragraph 1 of Annex 2 to this Protocol, that it is the silo launcher of ICBMs designated by the inspection team leader.

(b) Upon arrival of inspectors at the silo launcher of ICBMs or SLBM launcher containing the ICBM or SLBM to be inspected, a member of the in-country escort shall designate one or more places where the inspectors may be present. This place or these places shall be determined in a manner permitting inspectors to observe the upper silo or tube edge of such an ICBM or SLBM launcher and permitting inspectors to see any vehicles, containers, or objects that enter or leave the vicinity of the ICBM or SLBM launcher. The boundaries of that vicinity shall be determined by a member of the in-country escort. The place or places from which inspectors may observe the upper silo or tube edge of the ICBM or SLBM launcher shall be located no more than 50 meters from that launcher. In cases where a clear and unobstructed view cannot be achieved within a 50-meter distance, the inspection team leader and a member of the in-country escort may agree to a position or positions that permit a clear and unobstructed view of the upper edge of the launcher from a distance greater than 50 meters.

(c) Upon the arrival of inspectors at the designated silo launcher of ICBMs or SLBM launcher, if requested by the inspection team leader, a member of the in-country escort shall provide the inspectors the opportunity to familiarize themselves with the vicinity of this launcher in such a manner that inspectors may orient themselves and have an understanding of the relative positions of the launcher and such structures or vehicles as may be located in its vicinity.

(d) Inspectors shall have the right to maintain continuous visual observation of the upper silo or tube edge of such an ICBM or SLBM launcher or of vehicles, devices, or temporary structures used for the removal of the missile or the front section from the launcher or for the preparation of the front section for viewing. The purpose of such observation shall be to ascertain that no reentry vehicle is removed from the ICBM or SLBM launcher during the time period beginning with the opening of the ICBM silo launcher door or SLBM launcher hatch and ending with the completion of preparation of the front section for viewing or the removal of the missile or front section from the ICBM or SLBM launcher, whichever is earlier.

(e) Prior to the time of the opening of the ICBM silo launcher door or SLBM launcher hatch, a member of the in-country escort shall inform the inspection team leader of the opening. Inspectors shall have the right to observe the opening of the ICBM silo launcher door or SLBM launcher hatch; the time of the opening shall be at the discretion of the inspected Party.

3. As required, at the choice of the inspected Party, a mobile launcher of ICBMs that contains an ICBM to be inspected may proceed to a specially allocated site where the viewing of the front section of such an ICBM will be carried out, or where the front section will be separated from the ICBM. In that case, the inspection team shall have the right to maintain uninterrupted visual contact with the mobile launcher of ICBMs.

4. As required, at the choice of the inspected Party, a submarine whose launcher contains an SLBM to be inspected, may proceed to a specially allocated site where the viewing of the front section of such an SLBM will be carried out, or where the SLBM will be removed from its launcher, or the front section will be separated from the SLBM. In that case, the submarine shall proceed on the surface to that site, and the inspection team shall have the right to maintain uninterrupted visual contact with that ballistic missile submarine.

5. The inspected Party shall not remove any reentry vehicles from the front section of the ICBM or SLBM to be inspected throughout the entire period of time between the time it is designated for inspection and the completion of the viewing of the front section.

6. If the front section is viewed directly in the ICBM or SLBM launcher, the inspected Party shall prepare the front section for viewing subject to the

provisions of paragraph 8 or 11 of this Section and shall give the inspection team an opportunity to view it. Preparation of the front section for viewing may include its partial separation from the missile. Inspectors shall have the right to view the interior of the vehicles and devices used to prepare the front section for viewing, prior to their use and after the completion of viewing of the front section. This viewing shall be carried out to confirm that such vehicles or devices do not contain another front section or other reentry vehicles. For SLBMs, if the inspected Party places over an SLBM launcher a temporary structure specially intended for preparing the front section for viewing and for viewing it, inspectors shall have the right to inspect that temporary structure before it is put in place and after the viewing of the front section is completed. This viewing shall be carried out to confirm that the temporary structure does not contain another front section or other reentry vehicles.

7. For viewing of the front section carried out outside an ICBM or SLBM launcher:

(b) The inspected Party shall separate the front section and remove it from the ICBM or SLBM launcher or remove the missile with its front section from the ICBM or SLBM launcher.

(c) If the inspected Party separates the front section in the ICBM or SLBM launcher and then removes it, no more than two inspectors shall have the right to view the interior of the launcher for no more than one minute from a place designated by a member of the in-country escort, to confirm that the front section is completely separated. A member of the in-country escort shall designate this place in such a way as to provide an unobstructed view of the interior of the ICBM or SLBM launcher.

(d) If, in the process of preparing for the demonstration, the front section or missile with its front section is placed into a vehicle, inspectors shall have the right to view the interior of the vehicle before the missile or front section is placed in it, in order to ascertain that it does not contain another missile, front section, or other reentry vehicles.

(e) If the front section is viewed at a specially allocated site, inspectors shall have the right to follow that vehicle during the transportation of the missile with its front section or of the front section in the vehicle to that site in such a way as to maintain uninterrupted visual contact with the vehicle; after the missile with its front section or the front section has been unloaded from that vehicle, inspectors shall have the right to view the vehicle again to ascertain the absence therein of reentry vehicles.

10. If the front section is viewed at a specially allocated site, the following procedures shall apply:

(a) Before the shroud is removed inspectors shall have the right to view the specially allocated site inside a room or within a portion of the site for viewing the front section, to ascertain that the site does not contain another front section or other reentry vehicles.

(b) During the entire process of preparation of the front section for viewing, inspectors shall have the right, at their own choice, either to observe all exits of the site to ascertain that no reentry vehicles are removed from that site, or to seal all the exits with seals. During the process of preparation of the front section for viewing, no vehicle, container, launch canister, or object shall leave the site until inspected or until an inspector declares that he or she does not intend to inspect it.

11. Before the front section is viewed, the inspected Party may cover reentry vehicles and other equipment, including the mounting platform, with covers, in such a manner that the covers shall not hamper inspectors in ascertaining that the front section contains no more reentry vehicles than the number of warheads attributed to missiles of that type. Inspectors shall have the right to view the covers and to measure hard covers prior to their placement on the reentry vehicles.

**COMMENTARY**

**1.Grammar:**

a) В английском языке достаточно широко встречаются омографы – слова, имеющие одинаковое написание, но различное ударение. Как правило, ударение, падающее в двухсложном омографе на первый слог, относит его к категории имени существительного, а если на второй – то к глаголам. Например: c**o**nduct – поведение, a to cond**u**ct – проводить; a pr**e**sent – подарок; a to pres**e**nt – дарить, брать оружие на караул; an **e**scort – сопровождение, to esc**o**rt – сопровождать.

b) Часто переводчикам медвежью услугу оказывают «ложные друзья переводчика» – иностранные слова по своему звучанию или написанию напоминающие слова из русского языка, но не имеющие с ними ничего общего. Так, например, «international law» переводится на русский язык не как «интернациональный закон», а как «международное право»; термин «accuracy» означает вовсе не аккуратность, а «точность»; «in a manner» не «в манере», а «таким образом, чтобы».

c) Некоторые латинизмы (заимствования из латинского языка) сохранили на новой родине грамматические особенности родного языка. Например, слово «data» – форма множественного числа от «datum», а criteria – множественное число от слова «criterion».

**2. Terms and Definitions:**

a) The term "**encapsulation**" means, for telemetric information, recording and not broadcasting such information during the flight test of a missile, and recovering it subsequently.

Термин **"капсулирование"** означает применительно к телеметрической информации запоминание такой информации в ходе летного испытания ракеты без передачи этой информации в эфир и ее последующее спасение.

b) The term "**encryption**" means, for telemetric information, the reversible transformation of such information that gives it a random character to prevent unauthorized access to such information.

Термин **"шифрование"** означает применительно к телеметрической информации обратимое преобразование такой информации, придающее ей случайный характер в целях предотвращения несанкционированного доступа к такой информации.

c) The term **"jamming"** means, for telemetric information broadcast from a missile, creating interference on frequencies used for broadcasting such information.

Термин **"глушение"** означает применительно к передаваемой в эфир с ракеты телеметрической информации создание помех на частотах, используемых для передачи в эфир такой информации.

d) The term "**version**" means, for mobile launchers of ICBMs, fixed structures for mobile launchers of ICBMs, and support equipment, a classification, declared by the inspected Party, based on external differences from other such items for a particular type of ICBM or SLBM.

Термин **"разновидность"** означает применительно к мобильным пусковым установкам МБР, стационарным сооружениям для мобильных пусковых установок МБР и вспомогательному оборудованию – заявленную инспектируемой Стороной классификацию на основе внешних отличий от других таких средств применительно к определенному типу МБР или БРПЛ.

e) The term "**variant**" means:

(a) for heavy bombers, a classification, declared by the inspected Party, of airplanes of one type and one category that are distinguishable from other airplanes of the same type and the same category;

(b) for long-range nuclear ALCMs, a classification, declared by the inspected Party, of items of the same type that are distinguishable from other items of the same type;

(c) for ICBMs and SLBMs, a classification, declared by the inspected Party, of ICBMs or SLBMs of the same type that are distinguishable from other ICBMs or SLBMs of the same type.

Термин **"вариант"** означает:

a) применительно к тяжелым бомбардировщикам - заявленную инспектируемой Стороной классификацию самолетов одного типа и одной категории, которые отличимы от других самолетов того же типа и той же категории;

b) применительно к ядерным КРВБ большой дальности – заявленную инспектируемой Стороной классификацию средств одного и того же типа, которые отличимы от других средств того же типа;

c) применительно к МБР и БРПЛ – заявленную инспектируемой Стороной классификацию МБР или БРПЛ одного и того же типа, которые отличимы от других МБР или БРПЛ того же типа.

f) The term **"continuous monitoring"** means carrying out procedures in accordance with the Inspection Protocol that involve inspection of containers, launch canisters, and vehicles leaving a monitored facility.

Термин **"непрерывное наблюдение"** означает осуществление в соответствии с протоколом об инспекциях процедур, которые связаны с инспектированием покидающих наблюдаемый объект контейнеров, пусковых контейнеров и транспортных средств.

**Exercise 5. Translate the following questions and answer them in English:**

1. Какие виды инспекций могут проводиться Сторонами в соответствии с положениями настоящего Договора?
2. Каковы цели проведения инспекций?
3. Какими документами регламентируется процедура проведения инспекций?
4. Каковы задачи проведения инспекций по подозрению?
5. Какие цели преследуют Стороны, проводя инспекции в отношении исходных данных?
6. Чем отличаются инспекции в отношении исходных данных от инспекций в отношении обновлённых данных?

**Exercise 6. Decipher and translate the following abbreviations:**

MOU; ICBM; OSI; NURRC; the USSR; SCDM; JCIC; START; SLBM; SSI; RV; ALCM; GMT; LRNA; the USA; ASBM; INF; GPS; DA.

БРПЛ; КРВБ; МБР; СССР; СНВ; СКСИ; ШПУ; США; ЦУЯО; АБР; БРВЗ; ПУ; НТСК; РСМД.

**Exercise 7. Translate the following words and word combinations by ear:**

Continuous monitoring activities; to be expressed in Greenwich Mean Time; unless otherwise provided for in this Treaty; long-range nuclear ALCMs; provided for in; satisfy the requirements for; recoverable reentry vehicle; initial exchange of data; flight-tested; the Notification Protocol.

Непрерывное наблюдение; прошедший летные испытания; показ в связи с исходными данными; если только в настоящем Договоре не предусмотрено иное; ядерные КРВБ большой дальности; быть оснащенным для; первоначальный обмен данными; протокол об уведомлениях; числиться за; каждый его вариант; указываться по Гринвичу;

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Each Party shall provide to the other Party, in accordance with the Notification Protocol, and, for subparagraph (i) of this paragraph, in accordance with Section III of the Inspection Protocol: | уведомления относительно передвижения средств, подпадающих под предусмотренные в настоящем Договоре ограничения; |
| notifications concerning data with respect to items subject to the limitations provided for in this Treaty, according to categories of data contained in the Memorandum of Understanding and other agreed categories of data; | уведомления относительно данных о забрасываемом весе МБР и БРПЛ в связи с Протоколом о забрасываемом весе МБР и БРПЛ в связи с настоящим Договором, ниже именуемым Протоколом о забрасываемом весе; |
| notifications concerning conversion or elimination of items subject to the limitations provided for in this Treaty or elimination of facilities subject to this Treaty; | уведомления относительно мер на основе сотрудничества, направленных на повышение эффективности национальных технических средств контроля; |
| notifications concerning flight tests of ICBMs or SLBMs and notifications concerning telemet- | уведомления относительно изменений в содержании информации, предоставляемой согласно настоя- |

ric information;

notifications concerning strategic offensive arms of new types and new kinds;

notifications concerning inspections and continuous monitoring activities; and notifications concerning operational dispersals.

щему пункту, в том числе относительно изменения сроков осуществления деятельности;

Если в уведомлении, предоставляемом согласно настоящей статье, требуется сообщить время, то оно указывается по Гринвичу.

**Exercise 9. Translate the following text at sight:**

**Text 1.**

Each Party shall use the Nuclear Risk Reduction Centers ((NURRCs), which provide for continuous communication between the Parties, to provide and receive notifications in accordance with the Notification Protocol and the Inspection Protocol, unless otherwise provided for in this Treaty, and to acknowledge receipt of such notifications no later than one hour after receipt.

For the purpose of ensuring verification of compliance with the provisions of this Treaty, each Party shall use national technical means of verification at its disposal in a manner consistent with generally recognized principles of international law.

Each Party undertakes not to interfere with the national technical means of verification of the other Party operating in accordance with paragraph l of this Article.

Each Party undertakes not to use concealment measures that impede verification, by national technical means of verification, of compliance with the provisions of this Treaty. In this connection, the obligation not to use concealment measures includes the obligation not to use them at test ranges, including measures that result in the concealment of ICBMs, SLBMs, mobile launchers of ICBMs, or the association between ICBMs or SLBMs and their launchers during testing. The obligation not to use concealment measures shall not apply to cover or concealment practices at ICBM bases and deployment areas, or to the use of environmental shelters for strategic offensive arms.

To aid verification, each ICBM for mobile launchers of ICBMs shall have a unique identifier as provided for in the Inspection Protocol.

**Text 2.**

Each Party shall have the right to conduct exercise dispersals of deployed mobile launchers of ICBMs and their associated missiles from restricted areas or rail garrisons. Such an exercise dispersal may involve either road-mobile launchers of ICBMs or rail-mobile launchers of ICBMs, or both road-mobile launchers of ICBMs and rail-mobile launchers of ICBMs. Exercise dispersals of deployed mobile launchers of ICBMs and their associated missiles shall be conducted as provided for below:

- an exercise dispersal shall be considered to have begun as of the date and time specified in the notification provided in accordance with paragraph 11 of Section II of the Notification Protocol.
- An exercise dispersal shall be considered to be completed as of the date and time specified in the notification provided in accordance with paragraph 12 of Section II of the Notification Protocol.
- Those ICBM bases for mobile launchers of ICBMs specified in the notification provided in accordance with paragraph 11 of Section II of the Notification Protocol shall be considered to be involved in an exercise dispersal.
- When an exercise dispersal begins, deployed mobile launchers of ICBMs and their associated missiles engaged in a routine movement from a restricted area or rail garrison of an ICBM base for mobile launchers of ICBMs that is involved in such a dispersal shall be considered to be part of the dispersal.

**Exercise 10. Translate the following text at sight:**

**Text 1.**

Каждая из Сторон имеет право проводить инспекции по подозрению с целью подтвердить, что не осуществляется скрытная сборка МБР для мобильных пусковых установок МБР или скрытная сборка первых ступеней таких МБР. Каждая из Сторон имеет право проводить инспекции в отношении боеголовок развернутых МБР и БРПЛ с целью подтвердить, что такие баллистические ракеты не содержат большее количество боеголовок, чем количество боезарядов, которое за ними числится.

Каждая из Сторон имеет право проводить инспекции после завершения рассредоточения при учениях развернутых мобильных пусковых установок (ПУ) МБР и связанных с ними ракет с целью подтвердить, что количество мобильных пусковых установок МБР и связанных с ними ракет, находящихся на инспектируемой базе МБР, а также не возвратившихся на нее после завершения рассредоточения, не превышает количество, указанное для данной базы МБР. Каждая из Сторон проводит показы в связи с подтверждением соответствия технических характеристик и имеет право в ходе таких осуществляемых другой Стороной показов

проводить инспекции МБР и БРПЛ каждого типа и каждого его варианта и мобильной пусковой установки МБР и каждой разновидности такой пусковой установки для каждого типа МБР для мобильных пусковых установок МБР. Цель таких показов состоит в том, чтобы обеспечить инспектирующей Стороне возможность подтвердить соответствие технических характеристик данным, указанным применительно к этим средствам.

**Text 2.**

Крупное стратегическое учение с участием тяжелых бомбардировщиков, о котором предоставлено уведомление согласно Соглашению между Правительством Союза Советских Социалистических Республик и Правительством Соединенных Штатов Америки о взаимных заблаговременных уведомлениях о крупных стратегических учениях от 23 сентября 1989 года проводится, как это предусмотрено ниже:

– такое учение рассматривается как начавшееся с даты и времени, которые указаны в уведомлении, предоставленном в соответствии с пунктом 16 раздела II Протокола об уведомлениях;

– такое учение рассматривается как завершенное с даты и времени, которые указаны в уведомлении, предоставленном в соответствии с пунктом 17 раздела II Протокола об уведомлениях;

– в качестве охваченных таким учением рассматриваются авиационные базы тяжелых бомбардировщиков и авиационные базы бывших тяжелых бомбардировщиков, которые указаны в уведомлении, предоставленном в соответствии с пунктом 16 раздела II Протокола об уведомлениях;

– такое учение начинается не более одного раза в любой календарный год и завершается не позднее чем через 30 дней после его начала.

**Exercise 11. Translate the following text in writing:**

Except as otherwise provided in this Article, each Party shall have the right to release to the public all data current as of September 1, 1990, that are listed in the Memorandum of Understanding, as well as the photographs that are appended thereto. Geographic coordinates and site diagrams that are received pursuant to the Agreement Between the Government of the United States of America and the Government of the Union of Soviet Socialist Republics on Exchange of Geographic Coordinates and Site Diagrams Relating to the Treaty of July 31, 1991, shall not be released to the public unless otherwise agreed. The Parties shall hold consultations on releasing to the public

data and other information provided pursuant to this Article or received otherwise in fulfilling the obligations provided for in this Treaty. The provisions of this Article shall not affect the rights and obligations of the Parties with respect to the communication of such data and other information to those individuals who, because of their official responsibilities, require such data or other information to carry out activities related to the fulfillment of the obligations provided for in this Treaty.

***

During each flight test of an ICBM or SLBM, the Party conducting the flight test shall make on-board technical measurements and shall broadcast all telemetric information obtained from such measurements. The Party conducting the flight test shall determine which technical parameters are to be measured during such flight test, as well as the methods of processing and transmitting telemetric information.

During each flight test of an ICBM or SLBM, the Party conducting the flight test undertakes not to engage in any activity that denies full access to telemetric information, including:

- the use of encryption;
- the use of jamming;
- broadcasting telemetric information from an ICBM or SLBM using narrow directional beaming; and
- encapsulation of telemetric information, including the use of ejectable capsules or recoverable reentry vehicles.

During each flight test of an ICBM or SLBM, the Party conducting the flight test undertakes not to broadcast from a reentry vehicle telemetric information that pertains to the functioning of the stages or the self-contained dispensing mechanism of the ICBM or SLBM.

**Exercise 12. Translate the following text in writing:**

После каждого летного испытания МБР или БРПЛ Сторона, проводящая летное испытание, предоставляет в соответствии с разделом I Протокола о телеметрической информации в связи с Договором, ниже именуемого Протоколом о телеметрии, магнитные ленты, которые содержат запись всей телеметрической информации, переданной в эфир в ходе летного испытания.

После каждого летного испытания МБР или БРПЛ Сторона, проводящая летное испытание, предоставляет в соответствии с разделом II

Протокола о телеметрии данные, связанные с анализом телеметрической информации.

Независимо от положений пунктов 1 и 2 настоящей статьи каждая из Сторон имеет право капсулировать и шифровать бортовые измерения технических параметров в ходе в общей сложности не более 11 летных испытаний МБР или БРПЛ в каждый год. Из этих 11 летных испытаний в каждый год не более четырех являются летными испытаниями МБР или БРПЛ каждого типа, какая-либо из ракет которого прошла летное испытание с автономным блоком разведения. Такое капсулирование осуществляется в соответствии с разделом I и пунктом 1 раздела III Протокола о телеметрии, и такое шифрование осуществляется в соответствии с пунктом 2 раздела III Протокола о телеметрии. Капсулирование и шифрование, которые осуществляются в ходе одного и того же летного испытания МБР или БРПЛ, засчитываются как два летных испытания в квоты, указанные в настоящем пункте.

## ARMY HUMOR

### High military ranks

When little Reggie was inducted into the Army, he was advised to act tough.

"That's the only way to command respect in the Army," his friends said.

So Reggie did his best to carry out the advice. He swaggered all around camp, bragging, blustering and talking out of the corner of his mouth.

"Show me a sergeant and I'll show you a dope," Reggie shouted.

No sooner had he spoken than a brawny, battle-hardened figure appeared.

"I am a sergeant!" he bellowed.

"I am a dope," whispered Reggie.

## УРОК 32

## ДОГОВОР ОБ ОБЫЧНЫХ ВООРУЖЕННЫХ СИЛАХ В ЕВРОПЕ

## LESSON32

## TREATY ON CONVENTIONAL ARMED FORCES IN EUROPE

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| integrity | threat |
| Europe | conscious |
| heretofore | disparity |
| prejudicial | adversely |
| priority | to affect |
| recategorization | exclusively |
| distinguishable | vehicle |
| the Faroe Islands | the Grand Duchy of Luxembourg |
| the Ural Mountains | expiration |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

The Notification Protocol; at the time pre-inspection restrictions went into effect; to confirm the presence of features; the unique identifier; radiation detection equipment; areas of the interior; with nozzles attached; sufficient lighting; the Memorandum of Understanding; to direct a vehicle to proceed to the portal; to be inconsistent with; It shall be the responsibility solely of each individual State Party to; to sign or accede to the Treaty; Conscious of the need; common responsibility; as a matter of high priority; to affect adversely the security interests; in the light of; to belong to historical collections; shall confer by itself no right on smb; the aggregate numbers, as appropriate.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| conventional armed forces in Europe (CFE) | обычные вооруженные силы в Европе (ОВСЕ) |
| the Conference on Security and Co-operation in Europe | Совещание по безопасности и сотрудничеству в Европе |
| guided by | руководствуясь чем-либо |
| to refrain from the threat or use of force | воздерживаться от применения силы или угрозы силой |
| territorial integrity | территориальная целостность |
| conscious of | сознавая что-либо |
| pattern of relations | характер отношений |
| to contribute to | вносить вклад в |
| State Party | государство-участник |
| to be committed to | быть приверженным чему-либо |
| than heretofore | чем до сих пор |
| to eliminate disparity | ликвидировать неравенство |
| prejudicial to | наносящий ущерб |
| to launch surprise attack | осуществить внезапное нападение |
| to recall | напоминать |
| armaments and equipment | вооружения и техника |
| battle tank | боевой танк |
| armoured combat vehicle | боевая бронированная машина |
| piece of artillery | артиллерийская единица (*зд.*) |
| combat aircraft | боевой самолет |
| attack helicopter | ударный вертолет |
| combat helicopter | боевой вертолет |

| | |
|---|---|
| combat-capable trainer aircraft | учебно-боевой самолет |
| unarmed trainer aircraft | невооруженный учебный самолет |
| to govern | регулировать |
| multi-purpose attack helicopter | многоцелевой ударный вертолет |
| recategorization | переклассификация |
| reclassification | переклассификация |
| integral part | неотъемлемая часть |
| area of application | район применения |
| numerical limitations | количественные ограничения |
| research and development | исследования и разработки |
| disposal | утилизация |
| to decommission from service | списать с вооружения |
| to refurbish | переоборудовать |
| to be separately distinguishable from | быть раздельно отличимым от |
| armoured personnel carrier (APC) | бронетранспортер (БТР) |
| armoured infantry fighting vehicle (AIFV) | боевая машина пехоты (БМП) |
| heavy armament combat vehicle | боевая машина с тяжелым вооружением |
| final destination | конечный пункт |

| | |
|---|---|
| active unit | регулярная часть |
| permanent storage site | место постоянного складского хранения |
| military district | военный округ |
| land territory | сухопутная территория |
| holdings of conventional armaments and equipment | наличие обычных вооружений и техники |
| at the signature of this Treaty | при подписании настоящего Договора |
| to take effect | вступить в силу |
| to remain valid | оставаться в силе |
| before expiration | до истечения |
| to confer no right on smb | не давать право кому-либо |
| individual state | отдельно взятое государство |
| self-propelled | самоходный |
| muzzle velocity | начальная скорость снаряда |
| cross-country capability | проходимость по пересеченной местности |
| integral or organic cannon | встроенная или штатно устанавливаемая пушка |
| unladen weight | сухой вес |
| to engage a target | поразить цель |

| | |
|---|---|
| indirect fire | огонь с закрытых огневых позиций |
| combined arms formation | общевойсковое формирование |
| technological means | техническое средство |
| to dispose debris | использовать останки |
| to deem sufficient (appropriate) | считать достаточным (необходимым) |
| reduction site | место сокращения |
| hull | корпус (танка) |
| turret | башня |
| gun tube | орудийный ствол |
| breech system | затворная система |
| trunnion | цапфа |
| trunnion mount | место установки цапфы |
| to salvage | использовать в дальнейшем |
| machine gun | пулемет |
| cradle | люлька |
| trail | станина |
| launcher tubes | трубчатые направляющие пусковой установки |
| launcher rails | рельсовые направляющие пусковой установки |
| base plate | опорная плита (миномета) |
| mortar | миномет |
| transmission mounting area | место установки трансмиссии |
| to sever | разделять на части |
| procedure of destruction by severing | процедура уничтожения разделением на части |

| | |
|---|---|
| procedure of destruction by explosive demolition | процедура уничтожения путем подрыва |
| procedure of destruction by deformation | процедура уничтожения путем деформации |
| procedure of destruction by smashing | процедура уничтожения путем сокрушения |
| detachable equipment | навесное оборудование |
| on- board armament | бортовое вооружение |
| welding | сварка, приваривание |
| breech block | затвор |
| breech ring | казенная часть |
| hull turret aperture | подбашенное отверстие в корпусе |
| to be centred on | быть сориентированным |
| final drive | бортовая передача |
| side plate | бортовой лист |
| deck plate | лист крыши |
| belly plate | лист днища |
| front plate | передний лист |
| rear plate | кормовой лист |
| hatch | люк |
| cornerplate | лючок |

| | |
|---|---|
| venting | доступ воздуха |
| explosive charge | заряд взрывчатого вещества |
| road wheel | опорный каток |
| weld | сварной шов |
| escape hatch | аварийный люк |
| turret casting | опора башни |
| running gear | ходовая часть |
| road wheel station | место установки одного из катков |
| wrecking ball, | шаровой таран |
| wheeled armoured combat vehicle | колесная боевая бронированная машина |
| tracked armoured combat vehicle | гусеничная боевая бронированная машина |
| final gearbox | привод |
| breech casing | ствольная коробка |
| barrel | ствол |
| multiple launch rocket systems (MLRS) | реактивная система залпового огня (РСЗО) |
| upper carriage | верхний станок |
| traversing deck | вращающаяся основа |
| linear shaped charge | удлиненный кумулятивный заряд |

| | |
|---|---|
| assembly joint | стыковочный узел |
| central wing section | центроплан |
| cockpit | кабина самолета |
| target drone | самолет-мишень |
| self-destruct mechanism | механизм самоликвидации |
| tail boom | хвостовая балка вертолета |

**Exercise 4. Read and translate the text:**

**TREATY ON CONVENTIONAL FORCES IN EUROPE (ABSTRACT)**

The Kingdom of Belgium, the Republic of Bulgaria, Canada, the Czech and Slovak Federal Republic, the Kingdom of Denmark, the French Republic, the Federal Republic of Germany, the Hellenic Republic, the Republic of Hungary, the Republic of Iceland, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands, the Kingdom of Norway, the Republic of Poland, the Portuguese Republic, Romania, the Kingdom of Spain, the Republic of Turkey, the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland and the United States of America, hereinafter referred to as the States Parties,

Guided by the Mandate for Negotiation on Conventional Armed Forces in Europe of January 10, 1989, and having conducted this negotiation in Vienna beginning on March 9, 1989,

Guided by the objectives and the purposes of the Conference on Security and Cooperation in Europe, within the framework of which the negotiation of this Treaty was conducted,

Recalling their obligation to refrain in their mutual relations, as well as in their international relations in general, from the threat or use of force against the territorial integrity or political independence of any State, or in any other manner inconsistent with the purposes and principles of the Charter of the United Nations,

Conscious of the need to prevent any military conflict in Europe.

Conscious of the common responsibility which they all have for seeking to achieve greater stability and security in Europe,

Striving to replace military confrontation with a new pattern of security relations among all the States Parties based on peaceful cooperation and thereby to contribute to overcoming the division of Europe.

Committed to the objectives of establishing a secure and stable balance of conventional armed forces in Europe at lower levels than heretofore, of eliminating disparities prejudicial to stability and security and of eliminating, as a matter of high priority, the capability for launching surprise attack and for initiating large-scale offensive action in Europe,

Recalling that they signed or acceded to the Treaty of Brussels of 1948, the Treaty of Washington of 1949 or the Treaty of Warsaw of 1955 and that they have the right to be or not to be a party to treaties of alliance,

Committed to the objective of ensuring that the numbers of conventional armaments and equipment limited by the Treaty within the area of application of this Treaty do not exceed 40,000 battle tanks, 60,000 armoured combat vehicles, 40,000 pieces of artillery, 13,600 combat aircraft and 4,000 attack helicopters,

Affirming that this Treaty is not intended to affect adversely the security interests of any State,

Affirming their commitment to continue the conventional arms control process including negotiations, taking into account future requirements for European stability and security in the light of political developments in Europe,

Have agreed as follows:

## ARTICLE 1

1. Each State Party shall carry out the obligations set forth in this Treaty in accordance with its provisions, including those obligations relating to the following five categories of conventional armed forces: battle tanks, armoured combat vehicles, artillery, combat aircraft and combat helicopters.

2. Each State Party also shall carry out the other measures set forth in this Treaty designed to ensure security and stability both during the period of reduction of conventional armed forces and after the completion of reductions.

3. This Treaty incorporates the Protocol on Existing Types of Conventional Armaments and Equipment, hereinafter referred to as the Protocol on Existing Types, with an Annex thereto; the Protocol on Procedures Governing the Reclassification of Specific Models or Versions of Combat-Capable Trainer Aircraft Into Unarmed Trainer Aircraft, hereinafter referred to as the Protocol on Aircraft Reclassification; the Protocol on Procedures Governing the Reduction of Conventional Armaments and Equipment Limited by the Treaty on Conven-

tional Armed Forces in Europe, hereinafter referred to as the Protocol on Reduction; the Protocol on Procedures Governing the Categorization of Combat Helicopters and the Recategorization of Multi-Purpose Attack Helicopters, hereinafter referred to as the Protocol on Helicopter Recategorization; the Protocol on Notification and Exchange of Information, hereinafter referred to as the Protocol on Information Exchange, with an Annex on the Format for the Exchange of Information, hereinafter referred to as the Annex on Format; the Protocol on Inspection; the Protocol on the Joint Consultative Group; and the Protocol on the Provisional Application of Certain Provisions of the Treaty on Conventional Armed Forces in Europe, hereinafter referred to as the Protocol on Provisional Application. Each of these documents constitutes an integral part of this Treaty.

The States Parties hereby agree upon procedures governing the reduction of conventional armaments and equipment limited by the Treaty as set forth in Article VIII of the Treaty on Conventional Armed Forces in Europe of November 19, 1990, hereinafter referred to as the Treaty.

## SECTION I. GENERAL REQUIREMENTS FOR REDUCTION

1.Conventional armaments and equipment limited by the Treaty shall be reduced in accordance with the procedures set forth in this Protocol and the other protocols listed in Article VIII, paragraph 1 of the Treaty. Any one of such procedures shall be deemed sufficient, when conducted in accordance with the provisions of Article VIII of the Treaty or this Protocol, to carry out reduction.

2. Each State Party shall have the right to use any technological means it deems appropriate to implement the procedures for reducing conventional armaments and equipment limited by the Treaty.

3. Each State Party shall have the right to remove, retain and use those components and parts of conventional armaments and equipment limited by the Treaty which are not themselves subject to reduction in accordance with the provisions of Section II of this Protocol, and to dispose of debris.

4. Unless otherwise provided for in this Protocol, conventional armaments and equipment limited by the Treaty shall be reduced so as to preclude their further use or restoration for military purposes.

5. After entry into force of the Treaty, additional procedures for reduction may be proposed by any State Party. Such proposals shall be communicated to all other States Parties and shall provide the details of such procedures in the same format as the procedures set forth in this Protocol. Any such procedures shall be deemed sufficient to carry out the reduction of conventional armaments and equipment limited by the Treaty upon a decision to that effect by the Joint Consultative Group.

## SECTION II. STANDARDS FOR PRESENTATION AT REDUCTION SITES

1. Each item of conventional armaments and equipment limited by the Treaty which is to be reduced shall be presented at a reduction site. Each such item shall consist, at a minimum, of the following parts and elements:

(A) for battle tanks: the hull, turret and integral main armament. For the purposes of this Protocol, an integral main armament of a battle tank shall be

(B) for armoured combat vehicles: the hull, turret and integral main armament, if any. For the purposes of this Protocol, an integral main armament of an armoured combat vehicle shall be deemed to include the gun tube, breech system, trunions and trunions mounts. . For the purposes of this Protocol, an integral main armament shall be deemed not to include machine guns of less than 20 millimetre calibre, all of which may be salvaged;

(C) for artillery: the tube, breech system, cradle including trunnions and trunnion mounts, trails, if any; or launcher tubes or launcher rails and their bases; or mortar tubes and their base plates. In the case of self-propelled pieces

(D) for combat aircraft: the fuselage; and

(E) for attack helicopters: the fuselage, including the transmission mounting area.

2. In each case, the item presented at the reduction site in accordance with paragraph 1 of this Section shall consist of a complete assembly.

3. Parts and elements of conventional armaments and equipment limited by the Treaty not specified in paragraph 1 of this Section, as well as parts and elements which are not affected by reduction under the procedures of this Protocol, including the turrets of armoured personnel carriers equipped only with machine guns, may be disposed of as the State Party undertaking the reduction decides.

## SECTION III. PROCEDURES FOR REDUCTION OF BATTLE TANKS BY DESTRUCTION

1. Each State Party shall have the right to choose any one of the following sets of

Procedures each time it carries out the destruction of battle tanks at reduction sites.

2. Procedure for destruction by severing:

(A) removal of special equipment from the chassis, including detachable equipment, that ensures the operation of on- board armament systems;

(B) removal of the turret, if any;

(C) for the gun breech system, either;

(1) welding the breech block to the breech ring in at least two places; or

(2) cutting of at least one side of the breech ring along the long axis of the cavity that receives the breech block;

(D) severing of the gun tube into two parts at a distance of no more than 100 milimetres from the breech ring;

(E) severing of either of the gun trunnions and its trunnion mount in the turret;

(F) severing of two sections from the perimeter of the hull turret aperture, each constituting a portion of a sector with an angle of no less than 60 degrees and, at a minimum, 200 millimetres in radial axis, centred on the longitudinal axis of the vehicle; and

(G) severing of sections from both sides of the hull which include the final drive apertures, by vertical and horizontal cuts in the side plates and diagonal cuts in the deck or belly plates and front or rear plates, so that, the final drive apertures are contained in the severed portions.

3. Procedure for destruction by explosive demolition:

(A) hull, hatches and cornerplates shall be open to maximise venting;

(B) an explosive charge shall be placed inside the gun tube where the trunnions connect to the gun mount or cradle;

(C) an explosive charge shall be placed on the outside of the hull between the second and third road wheels, or between the third and fourth road wheels in a six road wheel configuration, avoiding natural weaknesses such as welds or escape hatches. The charge must be located within the radius of the turret casting. A second charge shall be placed on the inside of the hull on the same side of the tank, offset and opposite to the external charge;

(D) an explosive charge shall be placed on the inside of the turret casting in the area of the main armament mounting; and

(E) all charges shall be fired simultaneously so that the main hull and turret are cracked and distorted; the breech block is stripped from the gun tube, fused or deformed; the gun tube is split or longitudinally cut; the gun mount or cradle is ruptured so as to be unable to mount a gun tube; and damage is caused to the running gear so that at least one of the road wheel stations is destroyed.

4. Procedure for destruction by deformation:

(A) removal of special equipment from the chassis, including detachable equipment, that ensures the operation of on-board armament systems;

(B) removal of the turret, if any;

(C) for the gun breech system, either:

(1) welding the breech block to the breech ring in at least two places; or

(2) cutting of at least one side of the breech ring along the long axis of the cavity that receives the breech block;

(D) severing of the gun tube into two parts at a distance of no more than 100 milimetres from the breech ring;

(E) severing of either of the gun trunnions and

(F) the hull and turret shall be deformed so that their widths are each reduced by at least 20 percent.

5. Procedure for destruction by smashing:

(A) a heavy steel wrecking ball, or the equivalent, shall be dropped repeatedly onto the hull and turret until the hull is cracked in at least three separate places and the turret in at least one place;

(B) the hits of the ball on the turret shall render either of the gun truninons and its trunnion mount inoperative, and deform visibly the breech ring, and

(C) the gun tube shall be visibly cracked or bent.

**COMMENTARY**

**1. Terms and Definitions:**

a) ) The term **"battle tank"** means a self-propelled armoured fighting vehicle, capable of heavy firepower, primarily of a high muzzle velocity direct fire main gun necessary to engage armoured and other targets, with high cross-country mobility, with a high level of self-protection, and which is not designed and equipped primarily to transport combat troops. Such armoured vehicles serve as the principal weapon system of ground-force tank and other armoured formations.

Термин **"боевой танк"** означает самоходную бронированную боевую машину, обладающую высокой огневой мощью, главным образом, за счет основной пушки с высокой начальной скоростью снаряда для ведения огня прямой наводкой, необходимой для поражения бронированных и других целей, высокой мобильностью на пересеченной местности, высоким уровнем защищенности и которая не сконструирована и не оборудована, главным образом, для транспортировки боевых войск. Такие бронированные машины служат основной системой оружия танковых и других бронетанковых формирований сухопутных войск.

b) The term **"armoured combat vehicle"** means a self-propelled vehicle with armoured protection and cross-country capability. Armoured combat vehicles include armoured personnel carriers, armoured infantry fighting vehicles and heavy armament combat vehicles.

Термин **"боевая бронированная машина"** означает самоходную машину, обладающую бронезащитой и проходимостью по пересеченной местности. Боевые бронированные машины включают броне-

транспортеры, боевые машины пехоты и боевые машины с тяжелым вооружением.

c) The term "**armoured personnel carrier**" means an armoured combat vehicle which is designed and equipped to transport a combat infantry squad and which, as a rule, is armed with an integral or organic weapon of less than 20 milimetres caliber.

Термин **"бронетранспортер"** означает боевую бронированную машину, сконструированную и оборудованную для транспортировки боевого пехотного отделения, которая, как правило, вооружена встроенным или штатно устанавливаемым оружием калибра менее 20 миллиметров.

d) The term "**armoured infantry fighting vehicle**" means an armoured combat vehicle which is designed and equipped primarily to transport a combat infantry squad, which normally provides the capability for the troops to deliver fire from inside the vehicle under armoured protection, and which is armed with an integral or organic cannon of at least 20 millimeters calibre and sometimes an antitank missile launcher. Armoured infantry fighting vehicles serve as the principal weapon system of armoured infantry or mechanized infantry or motorized infantry formations and units of ground forces.

Термин **"боевая машина пехоты"** означает боевую бронированную машину, сконструированную и оборудованную, главным образом, для транспортировки боевого пехотного отделения, которая обычно обеспечивает десанту возможность вести огонь из машины под прикрытием брони и которая вооружена встроенной или штатно устанавливаемой пушкой калибра не менее 20 миллиметров и иногда пусковой установкой противотанковых ракет. Боевые машины пехоты служат основной системой оружия мотопехоты, танковых или механизированных или моторизованных формирований и частей сухопутных войск.

e) The term "**heavy armament combat vehicle**" means an armoured combat vehicle with an integral or organic direct fire gun of at least 75 millimeters calibre, weighing at least 6.0 metric tonnes unladen weight, which does not fall within the definitions of an armoured personnel carrier, or an armoured infantry fighting vehicle or a battle tank.

Термин **"боевая машина с тяжелым вооружением"** означает боевую бронированную машину с встроенной или штатной пушкой калибра не менее 75 миллиметров для ведения огня прямой наводкой, имеющую сухой вес не менее 6,0 метрических тонн, которая не подпадает под определения бронетранспортера, боевой машины пехоты или боевого танка.

f) The term **"artillery"** means large calibre systems capable of engaging ground targets by delivering primarily indirect fire. Such artillery systems provide the essential indirect fire support to combined arms formations.

Термин **"артиллерия"** означает системы большого калибра, способные поражать наземные цели, главным образом с закрытых огневых позиций. Такие артиллерийские системы обеспечивают общевойсковым формированиям основную огневую поддержку с закрытых огневых позиций.

**2. Grammar:**

a) **"Division"** – очередной «ложный друг переводчика». В данном случае переводится не термином «дивизия», а существительным «разделение», от английского глагола «to devide» («разделять»).

b) **«Technological means»** переводится не как «технологическое средство», а как «техническое средство». Кроме того, следует помнить о том, что термин «means» имеет одинаковую форму единственного и множественного числа.

**Exercise 5. Translate the following questions and answer them in English:**

1. Какие страны подписали Договор об обычных вооружённых силах в Европе?
2. Каковы причины подписания Договора?
3. Какие виды боевой техники подподают под действие данного Договора?
4. Каковы допустимые пределы бронетанковой техники согласно настоящему Договору?
5. Что означает термин «боевая машина пехоты»?
6. Какие прцедуры уничтожения боевой техники предусмотрены данным Договором?

**Exercise 6. Decipher and translate the following abbreviations:**

MOU; ICBM; OSI; NURRC; MIRV; the USSR; SCDM; JCIC; START; SLBM; SSI; RV; ALCM; APC; GMT; MLRS; LRNA; GPS; DA; the USA; ETA; MRV; INF; WSA; ASBM; CFE; AIFV.

БРПЛ; ПУ; РГЧ; КРВБ; МБР; БМП; СКСИ; СССР; СНВ; СКСИ; ШПУ; США; ЦУЯО; АБР; ТРД; РГЧ ИН; ТБ; ГМПУ; ГЧ; БРВЗ; НТСК; РСМД; ОВСЕ; БТР; РСЗО.

**Exercise 7. Translate the following words and word combinations by ear:**

To be inconsistent with; it shall be the responsibility solely of each individual State Party to; to sign or accede to the Treaty; Conscious of the need; common responsibility; as a matter of high priority; to affect adversely the security interests; in the light of; to belong to historical collections.

Само по себе не дает права; каждое отдельно взятое Государство-участник несет исключительную ответственность за; считаться достаточным; составлять единую сборку; для максимального доступа воздуха; приводить что-либо в негодное состояние; только не предусмотрено иное; снаружи (внутри) корпуса; выемка, принимающая затвор; криволинейный разрез.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| For the purposes of this Treaty, the States Parties shall apply the following counting rules: | Все боевые танки, боевые бронированные машины, артиллерия, боевые самолеты и ударные вертолеты, в пределах района применения, подпадают под количественные ограничения. |
| the exception is those which in a manner consistent with a State Party's normal practice (A) are in the process of manufacture, including manufacturing-related testing; | (B) ожидают экспорта или реэкспорта или переоборудуются для экспорта или реэкспорта и временно остаются в пределах района применения с положениями статьи IX; |
| (C) Such battle tanks, armoured combat vehicles, artillery, combat aircraft and attack helicopters shall be located elsewhere than at sites declared under the terms of Section V of the Protocol on Information Exchange | Они должны быть раздельно отличимы от обычных вооружений и техники, ограничиваемых Договором; |
| (D) are used exclusively for the purposes of research and development; | (E) относятся к историческим экспонатам; F) ожидают утилизации после списания с вооружения в соответствии с положениями статьи IX; |

(G) are, in the case of armoured personnel carriers, armoured infantry fighting vehicles, heavy armament combat vehicles or multipurpose attack helicopters, held by organizations designed and structured to perform in peacetime internal security functions.

(H) следуют транзитом через район применения из пункта, лежащего за пределами района применения, в конечный пункт, лежащий за пределами района применения, и находятся в районе применения не более семи дней в целом.

**Exercise 9. Translate the following text at sight:**

**Text 1.**

Battle tanks, armoured combat vehicles and artillery not in active units shall be placed in designated permanent storage sites, as defined in Article II, and shall be located only in the area described in paragraph 2 of this Article. Such designated permanent storage sites may also be located in that part of the territory of the Union of Soviet Socialist Republics comprising the Odessa Military District and the southern part of the Leningrad Military District. In the Odessa Military District, no more than 400 battle tanks and no more than 500 pieces of artillery may be thus stored. In the southern part of the Leningrad Military District, no more than 600 battle tanks, no more than 800 armoured combat vehicles, including no more than 300 armoured combat vehicles of any type with the remaining number consisting of armoured personnel carriers, and no more than 400 pieces of artillery may be thus stored. The southern part of the Leningrad Military District is understood to mean the territory within that military district south of the line East-West 60 degrees 15 minutes northen latitude.

**Text 2.**

Within the area consisting of the entire land territory in Europe, which includes all the European island territories, of the Kingdom of Belgium, the Czech and Slovak Federal Republic, the Kingdom of Denmark including the Faroe Islands, the French Republic, the Federal Republic of Germany, the Republic of Hungary, the Italian Republic, the Grand Duchy of Luxembourg, the Kingdom of the Netherlands, the Republic of Poland, the Portuguese Republic including the islands of Azores and Madeira, the Kingdom of Spain including the Canary Islands, the United Kingdom of Great Britain and Northern Ireland and that part of the territory of the Union of Soviet Socialist Republics west of the Ural Mountains comprising the Baltic, Byelorussian, Carpathian, Kiev, Moscow and Volga-Ural Military Districts, each State Party shall limit and, as

necessary, reduce its battle tanks, armoured combat vehicles and artillery so that, 40 months after entry into force of this Treaty and thereafter, for the group of States Parties to which it belongs the aggregate numbers do not exceed the numbers stated in Article IV.

**Exercise 10. Translate the following text at sight:**

**Text 1.**

В пределах района применения, как он определен в статье II, каждое государство-участник ограничивает и, при необходимости, сокращает свои боевые танки, боевые бронированные машины, артиллерию, боевые самолеты и ударные вертолеты таким образом, чтобы через 40 месяцев после вступления в силу настоящего Договора и в дальнейшем для группы государств – участников, к которой оно принадлежит, как она определена в статье II, суммарные количества не превышали:

(A) 20000 боевых танков, из которых не более 16500 в регулярных частях;

(B) 30000 боевых бронированных машин, из которых не более 27300 в регулярных частях. Из 30000 боевых бронированных машин не более 18000 составляют боевые машины пехоты и боевые машины с тяжелым вооружением; из боевых машин пехоты и боевых машин с тяжелым вооружением не более 1500 составляют боевые машины с тяжелым вооружением;

(C) 20000 артиллерийских единиц, из которых не более 17000 в регулярных частях;

(D) 6800 боевых самолетов; и

(E) 2000 ударных вертолетов.

**Text 2.**

В пределах района, состоящего из всей сухопутной территории в Европе, которая включает все европейские островные территории, Королевства Бельгия, Венгерской Республики, Федеративной Республики Германии, Королевства Дания, включая Фарерские острова, Итальянской Республики, Великого Герцогства Люксембург, Королевства Нидерландов, Республики Польша, Соединенного Королевства Великобритании и Северной Ирландии, части территории Союза Советских Социалистических Республик, охватывающей Прибалтийский, Белорусский, Прикарпатский и Киевский военные округа, Французской Республики и Чешской и Словацкой Федеративной Республики, каждое государство-участник ограничивает и, при необходимости, сокращает свои боевые тан-

ки, боевые бронированные машины и артиллерию таким образом, чтобы через 40 месяцев после вступления в силу настоящего Договора и в дальнейшем для группы государств-участников, к которой оно принадлежит, суммарные количества в регулярных частях не превышали:

(A) 10300 боевых танков;

(B) 19260 боевых бронированных машин;

(C) 9100 артиллерийских единиц;

**Exercise 11. Translate the following text in writing:**

In order that the limitations set forth in Articles IV, V and VI are not exceeded, no State Party shall exceed, from 40 months after entry into force of this Treaty, the maximum levels which it has previously agreed upon within its group of States Parties, in accordance with paragraph 7 of this Article, for its holdings of conventional armaments and equipment limited by the Treaty and of which it has provided notification pursuant to the provisions of this Article.

Each State Party shall provide at the signature of this Treaty notification to all other States Parties of the maximum levels for its holdings of conventional armaments and equipment limited by the Treaty. The notification of the maximum levels for holdings of conventional armaments and equipment limited by the Treaty provided by each State Party at the signature of this Treaty shall remain valid until the date specified in a subsequent notification pursuant to paragraph 3 of this Article.

In accordance with the limitations set forth in Articles IV, V and VI, each State Party shall have the right to change the maximum levels for its holdings of conventional armaments and equipment limited by the Treaty. Any change in the maximum levels for holdings of a State Party shall be notified by that State Party to all other States Parties at least 90 days in advance of the date, specified in the notification, on which such a change takes effect. In order not to exceed any of the limitations set forth in Articles IV and V, any increase in the maximum levels for holdings of a State Party that would otherwise cause those limitations to be exceeded shall be preceded or accompanied by a corresponding reduction in the previously notified maximum levels for holdings of conventional armaments and equipment limited by the Treaty of one or more States Parties belonging to the same group of States Parties. The notification of a change in the maximum levels for holdings shall remain valid from the date specified in the notification until the date specified in a subsequent notification of change pursuant to this paragraph.

**Exercise 12. Translate the following text in writing:**

Каждое уведомление, требуемое согласно пункту 2 или 3 настоящей статьи для боевых бронированных машин, также включает максимальные уровни для наличия боевых машин пехоты и боевых машин с тяжелым вооружением государства-участника, предоставляющего уведомление.

За 90 дней до истечения 40-месячного периода сокращений, определенного в статье VIII, и в последующем во время любого уведомления об изменении согласно пункту 3 настоящей статьи каждое государство-участник предоставляет уведомление о максимальных уровнях для наличия у него боевых танков, боевых бронированных машин и артиллерии в отношении каждого из районов, указанных в пунктах с 2 по 4 статьи IV и в подпункте "А" пункта 1 статьи V.

Уменьшение количеств обычных вооружений и техники, ограничиваемых Договором, имеющихся в наличии у государства-участника и подлежащих уведомлению согласно Протоколу об обмене информацией, само по себе не дает права любому другому государству-участнику увеличивать его максимальные уровни для наличия, подлежащие уведомлению согласно настоящей статье.

Каждое отдельно взятое государство-участник несет исключительную ответственность за обеспечение того, чтобы не превышались его максимальные уровни для наличия, о которых предоставлено уведомление согласно положениям настоящей статьи.

Государства-участники, принадлежащие к той же группе государств-участников, проводят консультации в целях обеспечения того, чтобы максимальные уровни для наличия, о которых предоставлено уведомление согласно положениям настоящей статьи, вместе взятые, как уместно, не превышали ограничений, установленных в статьях IV, V и VI.

**ARMY HUMOR**

**Painting shows it all**

At an exhibition of military painting a visitor was admiring a picture.

"What a great realist that painter is!" he exclaimed.

"What painter?"

"The one that painted this picture 'Soldiers at Work'."

"Yes, hut something is wrong there. Those soldiers aren't working at all!"

"That is just the greatest stroke of realism in the picture!"

## УРОК 33
## ПРОТОКОЛ
## ОБ ИНСПЕКЦИЯХ

## LESSON 33
## PROTOCOL ON INSPECTIONS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| simultaneous | exit |
| prejudice | privilege |
| immunity | crew member |
| consulate | route |
| necessitate | appropriate |
| cumulative | to delineate |
| ambiguities | to clarify clarifications |
| pertinent | sequential |
| preceding | notification |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To be inconsistent with; It shall be the responsibility solely of each individual State Party to; to sign or accede to the Treaty; Conscious of the need; common responsibility; as a matter of high priority; to affect adversely the security interests; in the light of; to belong to historical collections; shall confer by itself no right on smb; the aggregate numbers, as appropriate; unless otherwise provided for; to be deemed sufficient; to consist of a complete assembly; cavity that receives the breech block; to maximize venting; irregular cut; on the outside (inside) of the hull; to render smth inoperative.

**Exercise 3 : Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| inspection team | инспекционная группа |

| | |
|---|---|
| inspection site | место инспекции |
| point of entry/exit | пункт въезда/выезда |
| linguistic ability | лингвистические навыки |
| to disclose publicly | разглашать публично |
| the express consent | выраженное согласие |
| consulate | консульство |
| route | маршрут |
| inspected State Party | инспектируемое государство-участник |
| inspecting State Party | инспектирующее государство-участник |
| to grant a request | выполнить запрос |
| to necessitate | требовать (делать необходимым) |
| travel | поездка |
| report | отчет |
| passive night vision device | пассивный прибор ночного видения |
| still camera | фотоаппарат |
| tape measure | рулетка |
| flashlight | электрофонарик |
| cross-country vehicle | транспортное средство повышенной проходимости |
| flight regulations | правила полетов |
| helicopter overflight | вертолетный облет |
| sensitive point | чувствительный пункт |
| cumulative total | в совокупности |
| to hamper operations | создавать помехи деятельности |

| | |
|---|---|
| object of verification | объект контроля |
| specified area | указанный район |
| declared site | объявленное место |
| to delineate | отграничивать |
| shrouded object | зачехленный объект |
| armoured personnel carrier look-alike | бронетранспортер-подобный |
| armoured infantry fighting vehicle look-alike | боевая машина пехоты-подобная |
| armoured vehicle launched bridge | танковый мостоукладчик |
| hardened aircraft shelter | высоко защищенное укрытие для самолетов |
| confirmed data | заверенные данные |
| to clarify | разъяснять |
| to be signed and countersigned | быть подписанным обеими сторонами |
| sequential inspection | последующая инспекция |
| preceding inspection | предыдущая инспекция |
| site of origin | исходный пункт |
| man-made outer boundary | искусственная внешняя граница |
| associated territory | связанная с ней  территория |
| helicopter airfield | вертолетная площадка |

| | |
|---|---|
| railroad loading facility | железнодорожная погрузочно-разгрузочная площадка |
| combat support helicopter | вертолет боевого обеспечения |
| specialized attack helicopter | специализированный ударный вертолет |
| access | доступ |
| notification | уведомление |
| declared site inspection | инспекция объявленных мест |
| challenge inspection within specified areas | инспекция по требованию в пределах указанных районов |
| inspection of certification | инспекция сертификации |
| inspection of reduction | инспекция сокращений |
| to count against the quotas | засчитывать в квоты |
| reduction site | место сокращения |
| ongoing activities | текущая деятельность |
| Schedule | расписание |
| calendar reporting period | календарный период отчетности |
| intermittent basis | дискретная основа |
| scheduled date | запланированная дата |
| factory serial number | заводской серийный номер |
| working register | рабочий реестр |
| aggregate data | сводные данные |
| standardised report | стандартизированный отчёт |
| certification site | место сертификации |
| actual date | фактическая дата |
| to validate | подтверждать |

| | |
|---|---|
| conversion | переоборудование |
| inspection request | заявка на инспекцию |
| structure | сооружение |
| facility | объект |
| premises | объекты |
| reasonable assurance | разумные гарантии |
| reasonable certainty | разумная уверенность |
| force majeure | форс-мажорные обстоятельства |
| to count against | засчитывать в |
| to grant access | предоставить доступ |
| the most expeditious means | самое быстрое средство (передвижения) |
| travel time | время доставки (группы) |
| the agreement on utilisation | соглашение об использовании |
| ground border crossing point | пункт пересечения сухопутной границы |
| to be assigned to | быть приписанным к |
| briefing facility | место приведения брифинга |
| accurate depiction | точное указание |
| true north | истинный север |
| unit record number | регистрационный номер части |
| to be permanently assigned | быть постоянно приписанным |

| | |
|---|---|
| modalities of transportation | порядок транспортировки |
| holdings and locations | наличие и места расположение |
| projected stay | планируемое пребывание |
| origin | исходный пункт |

**Exercise 4. Read and translate the text:**

**GENERAL RULES FOR CONDUCTING INSPECTIONS (ABSTRACT)**

1. An inspection team may include inspectors from States Parties other than the inspecting State Party.

2. For inspections conducted in accordance with Sections VII, VIII, IX and X of this Protocol, an inspection team shall consist of up to nine inspectors and may divide itself into up to three sub-teams. In the case of simultaneous inspections on the territory of States Parties that do not have military districts specified in Articles IV and V of the Treaty or within a single military district of a State Party with such military districts, only one inspection team may divide itself at the inspection site into three sub-teams, the others into two sub-teams.

3. Inspectors and escort team members shall wear some clear identification of their respective roles.

4. An inspector shall be deemed to have assumed his or her duties upon arrival at the point of entry/exit on the territory of the State Party where an inspection is to be carried out and shall be deemed to have ceased performing those duties after leaving the territory of that State Party through the point of entry/exit.

5. The number of transport crew members shall exceed 10.

6. Without prejudice to their privileges and immunities, inspectors and transport crew members shall respect the laws and regulations of the State Party on whose territory an inspection is carried out and shall not interfere in the internal affairs of that State Party. Inspectors and transport crew members shall also respect regulations at an inspection site, including safety and administrative procedures. In the event that the inspected State Party determines that an inspector or transport crew member has violated such laws and regulations or other conditions governing the inspection activities set forth in this Proto-

col, it shall so notify the inspecting State Party, which upon the request of the inspected State Party shall immediately delete the name of the individual from the list of inspectors or transport crew members. If the individual is on the territory of the State Party where an inspection is carried out, the inspecting State Party shall promptly remove that individual from that territory.

7. The inspected State Party shall be responsible for ensuring the safety of the inspection team and transport crew members from the time they arrive at the point of entry/exit until the time they leave the point of entry/exit to depart the territory of that State Party.

8. The escort team shall assist the inspection team in carrying out its functions. At its discretion, the escort team may exercise its right to accompany the inspection team from the time it enters the territory of the State Party where an inspection is to be carried out until it departs that territory.

9. The inspecting State Party shall ensure that the inspection team and each sub-team have the necessary linguistic ability to communicate freely with the escort team in the language notified in accordance with Section IV, paragraph 2, subparagraph (F) and paragraph 3, subparagraph (E) of this Protocol. The inspected State Party shall ensure that the escort team has the necessary linguistic ability to communicate freely in this language with the inspection team and each sub-team. Inspectors and members of the escort team may also communicate in other languages.

10. No information obtained during inspections shall be publicly disclosed without the express consent of the inspecting State Party.

11. Throughout their presence on the territory of the State Party where an inspection is to be carried out, inspectors shall have the right to communicate with the embassy or consulate of the inspecting State Party located on that territory, using appropriate telecommunications means provided by the inspected State Party. The inspected State Party shall also provide means of communication between the sub-teams of an inspection team.

12. The inspected State Party shall transport the inspection team to, from and between inspection sites by a means and route selected by the inspected State Party. The inspecting State Party may request a variation in the selected route. The inspected State Party shall if possible grant such a request. Whenever mutually agreed, the inspecting State Party will be permitted to use its own land vehicles.

13. If an emergency arises that necessitates travel of inspectors from an inspection site to a point of entry/exit or to the embassy or consulate of the inspecting State Party on the territory of the State Party where an inspection is carried out, the inspection team shall so notify the escort team, which shall

promptly arrange such travel, and if necessary, shall provide appropriate means of transportation.

14. The inspected State Party shall provide for use by the inspection team at the inspection site an administrative area for storage of equipment and supplies, report writing, rest breaks and meals.

15. The inspection team shall be permitted to bring such documents as needed to conduct the inspection, in particular its own maps and charts. Inspectors shall be permitted to bring and use portable passive night vision devices, binoculars, video and still cameras, dictaphones, tape measures, flashlights, magnetic compasses and lap-top computers. The inspectors shall be permitted to use other equipment, subject to the approval of the inspected State Party. Throughout the in-country period, the escort team shall have the right to observe the equipment brought by inspectors, but shall not interfere with the use of equipment that has been approved by the escort team in accordance with Section V, paragraphs 5 to 7 of this Protocol.

16. In the case of an inspection conducted pursuant to Section VII or VIII of this Protocol, the inspection team shall specify on each occasion it designates the inspection site to be inspected whether the inspection will be conducted on foot, by cross-country vehicle, by helicopter or by any combination of these. Unless otherwise agreed, the inspected State Party shall provide and operate the appropriate cross-country vehicles at the inspection site.

17. Whenever possible, subject to the safety requirements and flight regulations of the inspected State Party and subject to the provisions of paragraphs 18 to 21 of this Section, the inspection team shall have the right to conduct helicopter overflights of the inspection site, using a helicopter provided and operated by the inspected State Party, during inspections conducted pursuant to Sections VII and VIII of this Protocol.

18. The inspected State Party shall not be obliged to provide a helicopter at any inspection site that is less than 20 square kilometres in area.

19. The inspected State Party shall have the right to delay, limit or refuse helicopter overflights above sensitive points, but the presence of sensitive points shall not prevent helicopter overflight of the remaining areas of the inspection site. Photography of or above sensitive points during helicopter overflights shall be permitted only with the approval of the escort team.

20. The duration of such helicopter overflights at an inspection site shall not exceed a cumulative total of one hour, unless otherwise agreed between the inspection team and the escort team.

21. Any helicopter provided by the inspected State Party shall be large enough to carry at least two members of the inspection team and at least one member of the escort team. Inspectors shall be allowed to take and use on

overflights of the inspection site any of the equipment specified in paragraph 15 of this Section. The inspection team shall advise the escort team during inspection flights whenever it intends to take photographs. A helicopter shall afford the inspectors a constant and unobstructed view of the ground.

**INSPECTION OF REDUCTION**
**(ABSTRACT)**

1.Each State Party shall have the right to conduct inspections, without the right of refusal by the inspected State Party, of the process of reduction carried out pursuant to Sections I to VIII and X to XII of the Protocol on Reduction in accordance with the provisions of this Section. Such inspections shall not count against the quotas established in Section II of this Protocol. Inspection teams conducting such inspections may be composed of representatives of different States Parties. The inspected State Party shall not be obliged to accept more than one inspection team at a time at each reduction site.

2. The inspected State Party shall have the right to organise and implement the process of reduction subject only to the provisions set forth in Article VIII of the Treaty and in the Protocol on Reduction. Inspections of the process of reduction shall be conducted in a manner that does not interfere with the ongoing activities at the reduction site or unnecessarily hamper, delay or complicate the implementation of the process of reduction.

3. If a reduction site notified pursuant to Section III of the Protocol on Information Exchange is used by more than one State Party, inspections of the reduction process shall be conducted in accordance with schedules of such use provided by each State Party using the reduction site.

4. Each State Party that intends to reduce conventional armaments and equipment limited by the Treaty shall notify all other States Parties which conventional armaments and equipment are to be reduced at each reduction site during a calendar reporting period. Each such calendar reporting period shall have a duration of no more than 90 days and no less than 30 days. This provision shall apply whenever reduction is carried out at a reduction site, without regard to whether the reduction process is to be carried out on a continuous or intermitten basis.

5. No less than 15 days before the initiation of reduction for a calendar reporting period, the State Party intending to implement reduction procedures shall provide to all other States Parties the calendar reporting period notification. Such notification shall include the designation of the reduction site with geographic coordinates, the scheduled date for initiation of reduction and the scheduled date for completion of the reduction of conventional armaments and

equipment identified for reduction during the calendar reporting period. In addition, the notification shall identify:

(A) the estimated number and type of conventional armaments and equipment to be reduced;

(B) the objects of verification from which the items to be reduced have been withdrawn;

(C) the reduction procedures to be used, pursuant to Sections III to VIII and Sections X to XII of the Protocol on Reduction, for each type of conventional armaments and equipment to be reduced;

(D) the point of entry/exit to be used by an inspection team conducting an inspection of reduction notified for that calendar reporting period; and

(E) the date and time by which an inspection team must arrive at the point of entry/exit in order to inspect the conventional armaments and equipment before the initiation of their reduction.

6. Except as specified in paragraph 11 of this Section, an inspection team shall have the right to arrive at or depart from a reduction site at any time during the calendar reporting period, including three days beyond the end of a notified calendar reporting period. In addition, the inspection team shall have the right to remain at the reduction site throughout one or more calendar reporting periods provided that these periods are not separated by more than three days. Throughout the period that the inspection team remains at the reduction site, it shall have the right to observe all the reduction procedures carried out in accordance with the Protocol on Reduction.

7. In accordance with the provisions set forth in this Section, the inspection team shall have the right to freely record factory serial numbers from the conventional armaments and equipment to be reduced or to place special marks on such equipment before reduction and to record subsequently such numbers or marks at the completion of the reduction process. Parts and elements of reduced conventional armaments and equipment as specified in Section II, paragraphs 1 and 2 of the Protocol on Reduction or, in the case of conversion, the vehicles converted for non-military purposes shall be available for inspection for at least three days after the end of the notified calendar reporting period, unless inspection of those reduced elements has been completed earlier.

8. The State Party engaged in the process of reducing conventional armaments and equipment limited by the Treaty shall establish at each reduction site a working register in which it shall record the factory serial numbers of each item undergoing reduction as well as the dates on which the reduction procedures were initiated and completed. This register shall also include aggregate data for each calendar reporting period. The register shall be made available to the inspection team for the period of inspection.

9. At the conclusion of each inspection of the reduction process, the inspection team shall complete a standardised report which shall be signed by the inspection team leader and a representative of the inspected State Party. The provisions of Section XII of this Protocol shall apply.

10. Upon completion of an inspection at a reduction site, the inspection team shall have the right to depart the territory of the inspected State Party or to conduct a sequential inspection at another reduction sit or at a certification site if the appropriate notification has been provided in accordance with Section IV, paragraph 3 of this Protocol. The inspection team shall notify the escort team of its intended departure from the reduction site and, if appropriate, of its intention to proceed to another reduction site or to a certification site at least 24 hours before the intended departure time.

11. Each State Party shall be obliged to accept up to 10 inspections each year to validate the completion of conversion of conventional armaments and equipment into vehicles for non-military purposes pursuant to Section VIII of the Protocol on Reduction. Such inspections shall be conducted in accordance with the provisions of this Section with the following exceptions:

(A) the notification pursuant to paragraph 5, subparagraph (E) of this Section shall identify only the date and time by which an inspection team must arrive at the point of entry/exit in order to inspect the items of equipment at the completion of their conversion into vehicles for non-military purposes; and

(B) the inspection team shall have the right to arrive at or depart from the reduction site only during the three days beyond the end of the notified completion date of conversion.

12. Within seven days after the completion of the process of reduction for a calendar reporting period, the State Party responsible for reductions shall notify all other States Parties of the completion of reduction for that period. Such notification shall specify the number and types of conventional armaments and equipment reduced, the reduction site involved, the reduction procedures employed and the actual dates of the initiation and completion of the reduction process for that calendar reporting period. For conventional armaments and equipment reduced pursuant to Sections X, XI and XII of the Protocol on Reduction, the notification shall also specify the location at which such conventional armaments and equipment will be permanently located. For conventional armaments and equipment reduced pursuant to Section VIII of the Protocol on Reduction, the notification shall specify the reduction site at which final conversion will be carried out or the storage sieach item designated for conversion will be transferred.

**COMMENTARY**

**Terms and Definitions:**

a) The term "**declared site**" means a facility or precisely delineated geographic location which contains one or more objects of verification. A declared site shall consist of all territory within its man-made or natural outer boundary or boundaries as well as associated territory comprising firing ranges, training areas, maintenance and storage areas, helicopter airfields and railroad loading facilities at which battle tanks, armoured combat vehicles, artillery, combat helicopters, combat aircraft, reclassified, combat-capable trainer aircraft, armoured personnel carrier look- alikes, armoured infantry fighting vehicle look-alikes or armoured vehicle launched bridges are permanently or routinely present.

Термин **"объявленное место"** означает объект или точно очерченное географическое место, которое содержит один или более объектов контроля. Объявленное место состоит из всей территории в пределах его искусственной или естественной внешней границы или границ, а также связанной с ней территории, включающей стрельбища, районы обучения, места обслуживания и хранения, вертолетные площадки и железнодорожные погрузочно-разгрузочные площадки, где постоянно или обычно находятся боевые танки, боевые бронированные машины, артиллерия, боевые вертолеты, боевые самолеты, переклассифицированные учебно-боевые самолеты, бронетранспортеры – подобные, боевые машины пехоты-подобные или танковые мостоукладчики.

b) The term "**specified area**" means an area anywhere on the territory of a State Party within the area of application other than a site inspected pursuant to Section VII, IX or X of this Protocol within which a challenge inspection is conducted pursuant to Section VIII of this Protocol. A specified area shall not exceed 65 square kilometres. No straight line between any two points in that area shall exceed 16 kilometres.

Термин **"указанный район"** означает район в любом месте на территории государства-участника в пределах района применения, не являющийся местом, инспектируемым согласно разделу VII, разделу IX или разделу X настоящего Протокола, в пределах которого проводится инспекция по требованию согласно разделу VIII настоящего Протокола. Указанный район не превышает 65 квадратных километров. Ни одна прямая линия между любыми двумя точками в этом районе не превышает 16 километров.

c) The term "**sensitive point**" means any equipment, structure or location which has been designated to be sensitive by the inspected State Party or the

State Party exercising the rights and obligations of the inspected State Party through the escort team and to which access or overflight may be limited, delayed or refused.

Термин **"чувствительный пункт"** означает любую технику, сооружение или место, обозначенные как чувствительные инспектируемым государством-участником или государством-участником, осуществляющим права и обязательства инспектируемого государства-участника, через сопровождающую группу, и в отношении доступа или облета которой может быть задержка, ограничение или отказ.

d) The term **"point of entry/exit"** means a point designated by a State Party on whose territory an inspection is to be carried out, through which inspection teams and transport crews arrive on the territory of that State Party and through which they depart from the territory of that State Party.

Термин **"пункт въезда / выезда"** означает указанный государством-участником, на территории которого будет проводиться инспекция, пункт, через который инспекционные группы и экипажи транспортных средств прибывают на территорию этого государства-участника и через который они покидают территорию этого государства-участника.

e). The term **"inspected State Party"** means a State Party on whose territory an inspection is carried out in compliance with Article XIV of the Treaty.

Термин **"инспектируемое государство - участник"** означает государство-участника, на территории которого проводится инспекция в соответствии со статьей XIV Договора.

f) The term "inspecting State Party" means a State Party which requests and is therefore responsible for carrying out the inspection.

Термин "инспектирующее государство-участник" означает государство-участника, которое запрашивает и, таким образом, отвечает за проведение инспекции.

g) The term **"passive challenge inspection quota"** means the maximum number of challenge inspections within specified areas pursuant to Section VIII of this Protocol that each State Party with territory within the area of application shall be obliged to receive within a specified time period.

Термин **"пассивная квота инспекций по требованию"** означает максимальное количество инспекций по требованию в пределах указанных районов согласно разделу VIII настоящего Протокола, которое каждое государство-участник с территорией в районе применения обязано принять в течение указанного периода времени.

h) The term **"active inspection quota"** means the total number of inspections pursuant to Sections VII and VIII of this Protocol that each State Party shall be entitled to conduct within a specified time period.

Термин **"активная квота инспекций"** означает общее количество инспекций согласно разделу VII и разделу VIII настоящего Протокола, которое каждое государство-участник имеет право провести в течение указанного периода времени.

**Exercise 5. Translate the following questions and answer them in English:**

1. Каковы основные правила проведения инспекций?
2. Какие виды инспекций предусмотрены Протоколом об инспекциях?
3. Кто уполномочен проводить инспекции?
4. Что должна делать принимающая Сторона при проведении инспекции?
5. Имеет ли право принимающая Сторона отказаться о проведениях инспекции?
6. За какой срок до начала инспекции необходимо подать уведомление?

**Exercise 6. Decipher and translate the following abbreviations:**

MOU; ICBM; OSI; ALCM; NURRC; MIRV; the USSR; SCDM; JCIC; START; SLBM; SSI; RV; GMT; LRNA; GPS; DA; the USA; ETA; MRV; INF; WSA; ASBM; CFE; APC; MLRS AIFV.

БРПЛ; ПУ; РСЗО; РГЧ; КРВБ; МБР; СКСИ; СССР; СНВ; СКСИ; ШПУ; США; ЦУЯО; АБР; ТРД; РГЧ ИН; ТБ; ГМПУ; ГЧ; БРВЗ; НТСК; РСМД; ОВСЕ; БТР; БМП

**Exercise 7. Translate the following words and word combinations by ear:**

To wear some clear identification; in discharging their functions; subject to the approval; to request a variation in the selected route; at its discretion; without prejudice to their privileges and immunities; to be in excess of; not to interfere with; whenever mutually agreed; to interfere in the internal affairs; not to exceed a cumulative total of one hour; without the right of refusal; the inspection request will be granted; to freely record; to place special marks on.

Без ущерба для их привилегий и иммунитетов; вмешиваться во внутренние дела; носить четкий знак идентификации; не превышать в сово-

купности одного часа; по своему усмотрению; запросить изменение маршрута; по взаимному согласию; не чинить помех; подлежать одобрению; при осуществлении своих функций; превышать что-либо; состоять из; без права отказа; на постоянной или дискретной основе.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| In discharging their functions, inspectors shall not interfere directly with ongoing activities at the inspection site and shall avoid unnecessarily hampering or delaying operations at the inspection site or taking actions affecting safe operation. | За исключением предусмотренного в пунктах с 24 по 29 настоящего раздела инспекторам разрешается доступ, вход и беспрепятственная инспекция в ходе инспекции объекта контроля или в пределах указанного района. |
| (A) in the case of a specified area, within the entire specified area; or (B) in the case of an object of verification, within the entire territory of the declared site except within those areas delineated on the site diagram as belonging exclusively to another object of verification which the inspection team has not designated for inspection. | Во время инспекции объекта контроля или в пределах указанного района согласно разделу VII или разделу VIII настоящего Протокола, за исключением предусмотренного в пунктах с 27 по 33 настоящего раздела, инспекторы имеют право иметь доступ к обычным вооружениям и технике лишь в той мере, как это необходимо для визуального подтверждения их количества, типа, модели или варианта. |
| The escort team shall have the right to deny access to sensitive points, the number and extent of which should be as limited as possible, to shrouded objects and to containers any dimension (width, height, length or diameter) of which is less than two metres. | В тех случаях, когда обозначается чувствительный пункт или присутствуют зачехленные объекты, сопровождающая группа объявляет, содержит ли этот чувствительный пункт, зачехленный объект какую-либо боевую технику, бронетранспортеры-подобные, боевые машины пехоты-подобные, и если содержит, то их количество, тип, модель или вариант. |
| If the escort team declares that a sensitive point, shrouded object or container does contain any of the con- | Если во время инспекции объекта контроля или в пределах указанного района единицы техники, объявленные |

ventional armaments and equipment specified in paragraph 28 of this Section, then the escort team shall display or declare such conventional armaments and equipment to the inspection team and shall take steps to satisfy the inspection team that no more than the declared number of such conventional armaments and equipment are present.

Inspectors shall have the right to take photographs, including video, for the purpose of recording the presence of conventional armaments and equipment subject to the Treaty, including within designated permanent storage sites, or other storage sites containing more than 50 such conventional armaments and equipment.

сопровождающей группой сокращенными в соответствии с положениями Протокола о сокращениях, находятся в месте инспекции, инспекционная группа имеет право провести инспекцию таких единиц техники для подтверждения того, что они были сокращены в соответствии с процедурами, указанными в разделах с III по XII Протокола о сокращениях.

Фотоаппараты ограничиваются аппаратами для 35-миллиметровой пленки и аппаратами, способными производить немедленно проявляемые отпечатки. Инспекционная группа сообщает сопровождающей группе заранее о том, планирует ли она производить фотосъемку.

**Exercise 9. Translate the following text at sight:**

**Text 1.**

During an inspection of an object of verification or within a specified area pursuant to Section VII or VIII of this Protocol and subject to the provisions of paragraph 25 of this Section, inspectors shall have the right, within the areas cited in paragraph 23 of this Section, to enter any location, structure or area within a structure in which battle tanks, armoured combat vehicles, artillery, combat helicopters, combat aircraft, reclassified combat-capable trainer aircraft, armoured personnel carrier look-alikes, armoured infantry fighting vehicle look-alikes or armoured vehicle launched bridges are permanently or routinely present. Inspectors shall not have the right to enter other structures or areas within structures the entry points to which are physically accessible only by personnel doors not exceeding two metres in width and to which access is denied by the escort team.

**Text 2.**

If, during an inspection of an object of verification or within a specified area pursuant to Section VII or VIII of this Protocol, a helicopter of a type that is

or has been on the multi- purpose attack helicopter list in the Protocol on Existing Types is present at an inspection site and is declared by the escort team to be a combat support helicopter, or if an Mi-24R or Mi-24K helicopter is present at an inspection site and is declared by the escort team to be limited pursuant to Section I, paragraph 3 of the Protocol on Helicopter Recategorisation, such a helicopter shall be subject to internal inspection in accordance with Section IX, paragraphs 4 to 6 of this Protocol.

If, during an inspection of an object of verification or within a specified area pursuant to Section VII or VIII of this Protocol, an aircraft of a specific model or version of combat-capable trainer aircraft listed in Section II of the Protocol on Aircraft Reclassification is present at an inspection site and is declared by the escort team to have been certified an unarmed in accordance with the Protocol on Aircraft Reclassification, such an aircraft shall be subject to internal inspection in accordance with Section IX, paragraphs 4 and 5 of this Protocol.

**Exercise 10. Translate the following text at sight:**

**Text 1.**

Во время инспекции объекта контроля или в пределах указанного района согласно разделу VII или разделу VIII настоящего Протокола инспекторы имеют право посмотреть внутрь высокозащищенного укрытия для самолетов для того, чтобы визуально подтвердить, присутствуют ли там какие-либо боевые танки, боевые бронированные машины, артиллерия, боевые вертолеты, боевые самолеты, переклассифицированные учебно-боевые самолеты, бронетранспортеры-подобные, боевые машины пехоты-подобные или танковые мостоукладчики, и если присутствуют, то их количество и тип, модель или вариант. Независимо от положений пункта 24 настоящего раздела, инспекторы входят внутрь таких высокозащищенных укрытий для самолетов только с одобрения сопровождающей группы. Если в таком одобрении отказано, то по просьбе инспекторов любые боевые танки, боевые бронированные машины, артиллерия, боевые вертолеты, боевые самолеты, переклассифицированные учебно-боевые самолеты, бронетранспортеры-подобные, боевые машины пехоты-подобные или танковые мостоукладчики, находящиеся в таких высокозащищенных укрытиях для самолетов, выставляются снаружи.

**Text 2**.

Фотосъёмка чувствительных пунктов разрешается только с одобрения сопровождающей группы.

За исключением предусмотренного в пункте 38 настоящего раздела, фотосъемка внутри сооружений, не являющихся местами складского хранения, указанными в пункте 34 настоящего раздела, разрешается только с одобрения сопровождающей группы.

Инспекторы имеют право осуществлять измерения для разрешения неясных вопросов, которые могут возникнуть во время инспекции. Такие измерения, фиксируемые во время инспекции, заверяются одним из членов инспекционной группы и одним из членов сопровождающей группы немедленно после их осуществления. Такие заверенные данные включаются в отчет об инспекции.

**Exercise 11. Translate the following text in writing:**

States Parties shall, whenever possible, resolve during an inspection any ambiguities that arise regarding factual information. Whenever inspectors request the escort team to clarify such an ambiguity, the escort team shall promptly provide the inspection team with clarifications. If inspectors decide to document an unresolved ambiguity with photographs, the escort team shall, subject to the provision in paragraph 35 of this Section, cooperate with the inspection team's taking of appropriate photographs using a camera capable of producing instantly developed photographic prints. If an ambiguity cannot be resolved during the inspection, then the question, relevant clarifications and any pertinent photographs shall be included in the inspection report in accordance with Section XII of this Protocol.

For inspections conducted pursuant to Sections VII and VIII of this Protocol, the inspection shall be deemed to have been completed once the inspection report has been signed and countersigned.

No later than completion of an inspection at a declared site or within a specified area, the inspection team shall inform the escort team whether the inspection team intends to conduct a sequential inspection. If the inspection team intends to conduct a sequential inspection, the inspection team shall designate at that time the next inspection site. In such cases, subject to the provisions in Section VII, paragraphs 6 and 17 and Section VIII, paragraph 6, subparagraph (A) of this Protocol, the inspected State Party shall ensure that the inspection team arrives at the sequential inspection site as soon as possible after completion of the previous inspection. If the inspection team does not intend to conduct a sequential inspection, then the provisions in paragraphs 42 and 43 of this Section shall apply.

**Exercise 12. Translate the following text in writing:**

Инспекционная группа имеет право на проведение последующей инспекции с соблюдением положений раздела VII и раздела VIII настоящего Протокола на территории государства-участника, на которой эта инспекционная группа проводила предыдущую инспекцию:

(A) в любом объявленном месте, связанном в том же пунктом въезда / выезда, что и предыдущее место инспекции, или с тем же пунктом въезда / выезда, в который прибыла инспекционная группа; или

(B) в пределах любого указанного района, для которого пункт въезда / выезда, в который прибыла инспекционная группа, является ближайшим пунктом въезда / выезда, уведомленным согласно разделу V Протокола об обмене информацией; или

(C) в любом месте, расположенном в пределах 200 километров от предыдущего места инспекции в пределах того же военного округа; или

(D) в месте, которое, по заявлению инспектируемого государства-участника согласно подпункту "A" пункта 11 раздела VII настоящего Протокола, является временным местом расположения боевых танков, боевых бронированных машин, артиллерии, боевых вертолетов, боевых самолетов и танковых мостоукладчиков, которые отсутствовали во время инспекции объекта контроля в предыдущем месте инспекции, если такие обычные вооружения и техника составляют более 15 процентов от количества таких обычных вооружений и техники, уведомленного в самом последнем уведомлении согласно Протоколу об обмене информацией; или

(E) в объявленном месте, которое, по заявлению инспектируемого государства-участника согласно подпункту "B" пункта 11 раздела VII настоящего Протокола, является исходным пунктом боевых танков, боевых бронированных машин, артиллерии, боевых вертолетов, боевых самолетов и танковых мостоукладчиков в предыдущем месте инспекции, которые превышают количество, уведомленное в самом последнем уведомлении согласно Протоколу об обмене информацией как находящееся в этом предыдущем месте инспекции, если такие обычные вооружения и техника превышают на 15 процентов количество таких обычных вооружений и техники, уведомленное таким образом.

## MILITARY HUMOR

### Jeep in the mud

During training exercises, the lieutenant who was driving down a muddy back road encountered another car stuck in the mud with a red-faced colonel at the wheel. "Your jeep stuck, sir?" asked the lieutenant as he pulled alongside.

"Nope," replied the colonel, coming over and handing him the keys, "Yours is."

# ГЛАВА 8
# ВОЕННО-ПОЛИТИЧЕСКИЕ СОЮЗЫ
# CHAPTER 8
# MILITARY-POLITICAL ALLIANCES

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## УРОК 34
## ОРГАНИЗАЦИЯ СЕВЕРОАТЛАНТИЧЕСКОГО ДОГОВОРА (НАТО)

## LESSON 34
## NORTH ATLANTIC TREATY ORGANIZATION (NATO)

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| indivisible security | headquarters |
| in an emergency | mutual confidence |
| enhancement | juridical basis |
| strengthening | to encourage cooperation |
| appropriate actions | admission |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

To wear some clear identification; in discharging their functions; subject to the approval; to request a variation in the selected route; at its discretion; without prejudice to their privileges and immunities; to be in excess of; not to interfere with; whenever mutually agreed; to interfere in the internal affairs; not to exceed a cumulative total of one hour; without the right of refusal.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| North Atlantic Treaty | Североатлантический договор |
| North Atlantic Treaty Organization (NATO) | Организация североатлантического договора (НАТО) |
| North Atlantic Alliance | Североатлантический альянс |
| member countries | страны-участницы/государства-члены |
| to commit oneself | брать на себя обязательство |

| | |
|---|---|
| admission of new members | прием новых членов |
| to conform to smth. | соответствовать чему-либо |
| juridical basis | юридическое обоснование |
| defence capabilities | оборонный (военный) потенциал |
| to underline | подчеркивать |
| consultation process | процесс проведения консультаций |
| collective defence | коллективная (совместная) оборона |
| UN Charter | Хартия/Устав ООН |
| to be deemed an attack | рассматриваться как нападение |
| in line with | в соответствии |
| to accede | вступать |
| accession | вступление |
| to undertake | брать на себя обязательство |
| the strengthening of free institutions | укрепление демократических институтов |
| to encourage cooperation | способствовать сотрудничеству |
| Euro-Atlantic area | Евроатлантический регион |
| to serve as a forum | использоваться в качестве форума |
| vital security interests | жизненноважные интересы в сфере безопасности |
| crisis management | урегулирование кризисов (кризисных ситуаций) |
| conflict prevention | предотвращение конфликтов |
| appropriate actions | соответствующие меры |
| mutual confidence | взаимное доверие |
| on a permanent basis | на постоянной основе |
| NATO's partner countries | государства-партнеры НАТО |
| pressing tasks | важные/неотложные задачи |
| assets | средства |
| command structures | органы военного управления (ОВУ) |
| economical | экономичный, экономный |
| economic | экономический |
| North Atlantic Council (NAC) | Североатлантический совет |
| Permanent Representative | постоянный представитель |
| Military Representative | военный представитель |
| Military Committee (MC) | Военный комитет |
| Defence Planning Committee | Комитет оборонного планирования |
| Nuclear Planning Group | Группа ядерного планирования |
| Secretary General | Генеральный секретарь |
| International Staff | Международный секретатиат |

| | |
|---|---|
| Allied Command Operations (ACO) | Стратегическое командование НАТО по операциям (СКО) |
| Allied Command Transformation (ACT) | Главное командование НАТО по трансформации |
| Joint Force Command (JFCs) | командование объединенных сил |
| Chief of Defence (CHOD). | 1. начальник штаба ВС государства<br>2. начальник генерального штаба |
| Combined Joint Task Force (CJTF) | многонациональная объединенная оперативно-тактическая группа |
| Supreme Allied Commander Operations (SACEUR) | 1. 1. Верховный главнокомандующий ОВС НАТО по операциям<br>2. 2. Верховный главнокомандующий объединенными вооруженными силами НАТО в Европе |
| Supreme Allied Commander Transformation (SACT) | Верховный главнокомандующий ОВС НАТО по трансформации |
| Joint Warfare Centre | Объединённый центр боевых действий |
| Joint Force Training Centre | Учебный центр объединенных сил |
| Joint Analysis and Lessons Learned Centre | Объединённый центр анализа и обобщения опыта |

**Exercise 4. Read and translate the text:**

## THE NORTH ATLANTIC TREATY ORGANIZATION

### GENERAL INFORMATION

The North Atlantic Treaty, signed in Washington on 4 April 1949, created an alliance of ten European and two North American independent nations committed to each other's defence.

Four more European nations joined the Alliance between 1952 and 1982, bringing the number of members to 16. Then it was the admission of Czech Republic, Hungary and Poland on March 12, 1999, and on 29 March 2004 seven more countries formally joined the Alliance. This was the fifth, and the largest, round of enlargement in the Alliance's history, which brought the number of allies to 28.

NATO's members are Albania, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal,

Romania, Slovakia, Slovenia, Spain, Turkey, United Kingdom and the United States.

The North Atlantic Treaty, itself a very simple document, conforms to the spirit of the Charter of the United Nations and has its juridical basis in the Charter.

In Article 3 of the Treaty, member countries commit themselves, separately and jointly, to maintaining and developing their individual and collective defence capabilities.

Article 4 of the Treaty provides a framework for consultations between the member countries, whenever one of them feels that its security is at risk. It is this article which underlines the fundamental importance of the wide-ranging consultation process which takes place within the Alliance.

Another article – Article 5 – refers to the right to collective defence as laid down by the UN Charter. It states that an armed attack on one or more members of NATO will be deemed an attack against them all.

The admission of new members to the Alliance is in line with Article 10 of the Treaty which states that other European states in a position to further the principles of the Treaty and contribute to the security of the North Atlantic area may be invited to accede.

In other articles of the Treaty, each member country undertakes to contribute to the development of peaceful and friendly international relations in a number of ways, including strengthening its free institutions and promoting conditions of stability and well-being. The Treaty also provides for efforts to eliminate conflict in the international economic policies of member countries and to encourage cooperation between them.

The fundamental role of NATO is to safeguard the freedom and security of its member countries. It is one of the foundations on which the stability and security of the Euro-Atlantic area depends and it serves as an essential forum for transatlantic consultations on matters affecting the vital security interests of all its members. Its first task is to deter and defend against any threat of aggression against any of them.

In order to improve security and stability in the area, the North Atlantic Alliance also plays a key role in the field of crisis management, by contributing to effective conflict prevention and, when there is consensus among the member countries to do so, by taking appropriate actions to resolve the crisis. In addition, it promotes partnership and cooperation with other countries in the Euro-Atlantic area, aimed at increasing openness, mutual confidence and the capacity for joint action.

The Alliance is working intensively to develop constructive relations with Russia and Ukraine which will promote understanding and effective coopera-

tion on a sound and permanent basis; to develop its cooperation with other partner countries throughout central and eastern Europe; to pursue its work on the strengthening of the European role in NATO while preserving and reinforcing the transatlantic relationship which is central to its existence; and to develop more flexible and more mobile multinational military capabilities and command structures.

Finally, at the end of this long list of pressing tasks, it is the responsibility of the Alliance to establish a basis for achieving these objectives by making optimum use of its assets and economical use of its resources, and by drawing maximum benefit from the well-established political solidarity and military cooperation which have enabled it to fulfil its functions for more than fifty five years.

## THE MILITARY COMMITTEE

The Military Committee (MC) is the senior military authority in NATO, providing NATO's civilian decision-making bodies – the North Atlantic Council, the Defence Planning Committee and the Nuclear Planning Group – with advice on military matters.

The Committee's principal role is to provide direction and advice on military policy and strategy. It is responsible for recommending to NATO's political authorities those measures considered necessary for the common defence of the NATO area and for the implementation of decisions regarding NATO's operations and missions.

The Military Committee also plays a key role in the development of NATO's military policy and doctrine within the framework of discussions in the Council, the Defence Planning Committee, the Nuclear Planning Group and other senior bodies. It is responsible for providing military guidance to NATO's two Strategic Commanders – Supreme Allied Commander Operations (SACEUR) and Supreme Allied Commander Transformation (SACT).

The command structure had previously been divided into two main geographic areas, with one strategic command covering Europe and the other the North Atlantic area. These commands have been replaced by one operational command – Allied Command Operations (ACO) – and a functional command – Allied Command Transformation (ACT). ACO is a strategic command for all NATO operations whereas ACT is responsible for the continuing transformation of NATO's military capabilities and for promoting interoperability.

In this context, the Committee assists in developing overall strategic concepts for the Alliance and prepares an annual long-term assessment of the strength and capabilities of countries and areas posing a risk to NATO's interests.

In times of crises, tension or war, and in relation to military operations undertaken by the Alliance such as its role in Bosnia-Herzegovina, Kosovo and Afghanistan, its role is to advise the Council or Defence Planning Committee of the military situation and its implications, and to make recommendations on the use of military force, the implementation of contingency plans and the development of appropriate rules of engagement. It is also responsible for the efficient operation of agencies subordinate to the Military Committee.

The Military Committee is made up of senior military officers from the NATO member countries who serve as their country's Military Representatives to NATO, representing their Chief of Defence.The Military Representatives work in a national capacity, representing the interests of their countries while remaining open to negotiation and discussion so that a NATO consensus can be reached. A civilian official represents Iceland, which has no military forces.

The Committee meets normally every Thursday, following the regular Wednesday meeting of the North Atlantic Council, so that it can follow up promptly on Council decisions.

In practice, meetings are convened whenever necessary and both the Council and the Military Committee normally meet much more frequently. As a result of the Alliance's role in Bosnia and Herzegovina, Kosovo and Afghanistan, and its supporting role in relation to Iraq, the need for the Council and Military Committee to meet more frequently to discuss operational matters has greatly increased.

Like the political decision-making bodies, it also meets regularly at a higher level, namely at the level of Chiefs of Defence (CHODs). Meetings at this level are normally held three times a year. Two of these meetings occur in Brussels and one is hosted by NATO countries, on a rotational basis.

## NATO COMMANDS

There are two major NATO commands: Allied Command Operations (ACO), Allied Command Transformation (ACT).

## ALLIED COMMAND OPERATIONS (ACO)

Allied Command Operations, with its headquarters, SHAPE, near Mons, Belgium, is responsible for all Alliance operations. The levels beneath SHAPE have been significantly streamlined, with a reduction in the number of headquarters.

The operational level consists of two standing Joint Force Commands (JFCs) one in Brunssum, the Netherlands, and one in Naples, Italy – which can conduct operations from their static locations or provide a land-based Com-

bined Joint Task Force (CJTF) headquarters and a robust but more limited standing Joint Headquarters (JHQ), in Lisbon, Portugal, from which a deployable sea-based CJTF HQ capability can be drawn.

**ALLIED COMMAND TRANSFORMATION (ACT)**

In the future, Allied Command Transformation, with its headquarters in Norfolk, US, is overseeing the transformation of NATO's military capabilities. In doing so, it is enhance training, improve capabilities, test and develop doctrines and conduct experiments to assess new concepts. It will also facilitate the dissemination and introduction of new concepts and promote interoperability. There will be an ACT Staff Element in Belgium primarily for resource and defence planning issues.

ACT will command the Joint Warfare Centre in Norway, a new Joint Force Training Centre in Poland and the Joint Analysis and Lessons Learned Centre in Portugal. ACT Headquarters will also supervise the Undersea Research Centre in La Spezia, Italy. There will be direct linkages between ACT, Alliance schools and NATO agencies, as well as the US Joint Forces Command. A NATO Maritime Interdiction Operational Training Centre in Greece, associated with ACT, is also envisaged. In addition, a number of nationally- or multinationally-sponsored Centres of Excellence focused on transformation in specific military fields will support the command.

(*From NATO documents*)

**COMMENTARY**

**1.Grammar:**

a) В русском языке *НАТО* согласуется по среднему роду: *НАТО ввело, приняло и т.д.*

В текстах на русском языке в качестве эквивалента для английского ***NATO member states/nations/countries*** или ***allies*** употребляются *страны-участницы* или *государства – члены НАТО*. Также можно использовать словосочетания *страны/государства/члены НАТО.*

b) Переводческим эквивалентом для слова ***capabilities*** в военно-политических текстах часто становится русское слово *потенциал*. Например, ***defence (military) capabilities*** *– оборонный (военный) потенциал.*

c) При переводе ***… the decision by the French government that it wished to remain a member of the Alliance but would not participate in the integration of its military forces with those of the other member countries*** следует применить стандартизированные обороты, которые используются в текстах на русском языке, например: *Франция приняла решение о*

*выходе из военной структуры НАТО при сохранении членства в политической структуре альянса.*

d) Под английским сокращением ***CHODs (Chiefs of Defence)*** подразумеваются начальники генеральных штабов стран НАТО.

**2. Terms and Definitions:**

a) **The North Atlantic Treaty Organization** is a military and political alliance created by several European countries, the USA and Canada in 1949 to provide collective security.

**Организация североатлантического договора** – это военно-политический альянс, созданный несколькими европейскими государствами, США и Канадой в 1949 году для обеспечения коллективной безопасности.

b) **The Military Committee** is the highest military authority in NATO. It consults the Alliance political authorities on military issues and use of military force, provides guidance to the NATO Strategic Commanders and provides direction and advice on military policy and strategy.

**Военный комитет** является высшим органом военного управления в НАТО. Он консультирует политическое руководство альянса по военным вопросам и применению военной силы, дает указания верховным главнокомандующим НАТО и обеспечивает направление и консультирование по вопросам военной политики и стратегии.

c) **The International Military Staff** is responsible for planning, assessing and recommending policy on military matters for consideration by the Military Committee. The IMS supports the work of the Military Committee, preparing and following up its decisions, and is also actively involved in the process of cooperation with the countries of Central and Eastern Europe under the Partnership for Peace initiative.

**Международный военный штаб** отвечает за подготовку планов, оценок и рекомендаций по военным вопросам для дальнейшего рассмотрения Военным комитетом. МВШ поддерживает работу Военного комитета, подготавливая и выполняя его решения. Он также активно участвует в сотрудничестве со странами Центральной и Восточной Европы в рамках программы «Партнерство ради мира».

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. When and where was the North Atlantic Treaty signed?
2. What European and North American states are members of the North Atlantic Treaty Organization?

3. Does the North Atlantic Treaty conform to the spirit of the UN Charter?
4. What do the North Atlantic Treaty articles refer to?
5. What is the fundamental role of NATO?
6. What measures does NATO take in the field of crisis management?
7. What is the purpose of NATO's developing constructive relations with Russia and other partner countries?

**Exercise 6. Decipher and translate the following abbreviations:**

CHODs; ACT; MOD; COS; MLM; NAC; NATO HQ; НГШ; МО; ООН; ОВУ; IMS; SHAPE; ACO; ВГК ОВС НАТО в Европе; СЕАП; SACEUR,.

**Exercise 7. Translate the following words and word combinations by ear:**

Member countries; коллективная оборона; pressing tasks; предотвращение конфликтов; the strengthening of free institutions; процесс проведения консультаций; collective defence; взаимное доверие; juridical basis; соответствовать чему-либо; to underline; укрепление демократических институтов; соответствующие меры; accession; to conform to smth.; Североатлантический договор; economic; органы военного управления;crisis management; partner countries; Euro-Atlantic area; способствовать сотрудничеству; defence capabilities; Хартия ООН; жизненноважные интересы в сфере безопасности; to accede; на постоянной основе; conflict prevention; брать на себя обязательство; appropriate actions; assets; урегулирование кризисов; admission of new members; Евроатлантический регион; economical; UN Charter; consultation process; использоваться в качестве форума; on a permanent basis; to serve as a forum; to be deemed an attack; in line with; to undertake; to encourage cooperation; прием новых членов; mutual confidence; оборонный потенциал; command structures; vital security interests, юридическое обоснование; вступление; страны-участницы; средства; подчеркивать; рассматриваться как нападение; экономный; государства-партнеры; в соответствии; вступать; экономический; важные задачи.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Как Вы оцениваете ситуацию, сложившуюся в связи с отставанием Европейских государств – | The picture is not all gloom and doom. Some of the areas are being worked. |

| | |
|---|---|
| членов НАТО от США в вопросах военного потенциала и технологий? | |
| Какие, например? | For example, several European nations are buying precision munitions. And a number of European countries have signed up for the A400M strategic airlift transport. |
| Как идет процесс перевооружения в трех странах, вступивших в НАТО в 1999 году – Чехии, Венгрии и Польше? | All of the three countries still have large inventories of Warsaw Pact equipment, and it will take time to replace that with Western equipment. But all three are working the problem. |
| Какие меры собирается предпринять НАТО для усиления южного рубежа своей зоны ответственности? | We definitely need more high-readiness forces in the southern region. What we can do here is to create one more high-readiness force headquarters to provide command and control. |

**Exercise 9. Translate the following text at sight:**

**THE CHAIRMAN OF THE MILITARY COMMITTEE**

The Chairman of the Military Committee (CMC) is selected by the Chiefs of Defence and appointed for a three year term of office. He acts exclusively in an international capacity and his authority stems from the Military Committee, to which he is responsible in the performance of his duties. He normally chairs all meetings of the Military Committee. In his absence, the Deputy Chairman of the Military Committee (DCMC) takes the chair.

The Chairman of the Military Committee is both its spokesman and representative. He directs its day-to-day business and acts on behalf of the Committee in issuing the necessary directives and guidance to the Director of the International Military Staff (начальник Международного военного штаба). He represents the Military Committee at high level meetings, such as those of the North Atlantic Council, the Defence Planning Com-

mittee and the Nuclear Planning Group, providing advice on military matters when required.

By virtue of his appointment, the Chairman of the Committee also has an important public role and is the senior military spokesman for the Alliance in contacts with the press and media. He undertakes official visits and representational duties on behalf of the Committee, both in NATO countries and in countries with which NATO is developing closer contacts in the framework of the Partnership for Peace programme, the Euro-Atlantic Partnership Council, the NATO-Russia Council, the NATO-Ukraine Commission, the Mediterranean Cooperation Group and the South East Europe Initiative.

**Exercise 10. Translate the following text at sight:**

## СОВЕТ РОССИЯ – НАТО

В мае 2002 года в Риме состоялось первое заседание Совета Россия – НАТО, пришедшего на смену Совместному постоянному совету.

Совет Россия – НАТО занимается вопросами борьбы с терроризмом, урегулирования кризисных ситуаций, нераспространения оружия массового поражения, контроля над вооружениями, укрепления взаимного доверия, ПРО на ТВД, поиска и спасения на море, военного сотрудничества и военных реформ.

В отличие от СПС, который проводил заседания в формате 19+1, новый совет работает в формате 29. При этом Россия имеет такие же права, как и 28 стран – участниц НАТО. Заседания совета проходят на разных уровнях, в том числе, на уровне глав государств и правительств, министров иностранных дел и обороны или на уровне послов. Начальники генеральных штабов и военные представители НАТО и России также проводят совещания под эгидой Совета Россия – НАТО.

**Exercise 11. Translate the following text in writing:**

### Text 1. What is NATO Headquarters?

The NATO Headquarters in Brussels is the political headquarters of the Alliance and the home of the North Atlantic Council. In the headquarters buildings you will find the national delegations of member countries. These consist of the head of the delegation or Permanent Representative as well as a national Military Representative.

Each Permanent Representative or Ambassador is supported by a staff of civilian and military advisors and officials who represent their countries on different NATO committees. Most of NATO's partner countries also have diplomatic missions or liaison offices in the Headquarters.

Within the same buildings are the offices of the Secretary General, the International Staff and a number of NATO agencies with responsibilities in specialised fields such as standardisation or communications. There are approximately 4,000 people working at NATO Headquarters on a full-time basis. Of these, some 2,000 are members of national delegations and staffs of national military representatives to NATO. There are also about 300 members of missions of NATO's partners countries. There are approximately 1,200 civilian members of the International Staff or agencies located within the Headquarters and about 500 members of the International Military Staff including 100 civilians.

The Brussels headquarters of NATO was built in 1967 when the Organization moved to Belgium from France. When NATO was first established in 1949, it had a small secretariat based in London. After three years it moved into permanent headquarters in Paris. The move to Brussels followed the decision by the French government that it wished to remain a member of the Alliance but would not participate in the integration of its military forces with those of the other member countries.

The central part of the building consists of conference and meeting rooms where national representatives meet together in committees which are usually chaired by senior international officials. Other parts of the building contain the offices of national delegations and of the International Staff as well as a library, a newspaper shop, bank, post office, travel agent, hairdresser, restaurant and cafeteria. Across the main car park is a sports and social centre open to all the people employed at NATO.

Each year many officials and experts come to NATO from national capitals to attend meetings and nearly twenty thousand visitors come from NATO countries and from partner countries by invitation, to learn about Alliance policies and objectives.

### Text 2. What is the Role of the Secretary General?

The Secretary General of NATO is responsible for promoting and directing the process of consultation and decision-making throughout the Alliance. He is Chairman of the North Atlantic Council and of other senior committees and, through his chairmanship, has considerable influence on the decision-making process. He may propose subjects for discussion and can use his position as an

independent and impartial chairman to steer the discussion towards consensus in the interests of the Alliance as a whole. He does not have the power to take policy decisions himself and can act on behalf of NATO only to the extent that the member governments agree that he should do so.

He is the principal spokesman for the Alliance in bilateral relations between NATO and individual governments or in contacts with other international organisations. He is also the main spokesman for the Alliance with respect to the press and media.

The Alliance works on the basis of a shared commitment by all its member countries to engage in practical, mutual cooperation. Their joint security is indivisible. The underlying solidarity between the member countries is reflected in the daily work of the Alliance in political, defence, military and other spheres.

The Alliance is not a monolithic organisation and distinct differences in the points of view expressed by individual member countries may occur. The underlying assumption is that through consultations, all nations are willing to make the maximum effort to understand each others' situations and to find solutions which they can all support.

Consultation among partner countries and NATO is founded on the same basis – a willingness to cooperate, to take each others' concerns into consideration, and to search for common solutions. The task of the Secretary General and his staff is to help to maintain consensus among the nations on the overall direction of NATO policy and, where no consensus exists on the best way of reacting to new challenges or of introducing change, to work towards it. Consensus means that each member country must be able to agree – none can be "outvoted".

**Exercise 12. Translate the following text in writing:**

**ПРЕОБРАЗОВАНИЕ НАТО**

После окончания холодной войны роль НАТО в сфере безопасности значительно изменилась. Вместо угрозы прямой военной конфронтации возникли новые угрозы стабильности. В стремлении адаптироваться к этой новой стратегической обстановке НАТО приняло более широкое определение безопасности и ввело в действие всеобъемлющую стратегию партнерства и сотрудничества во всем Евроатлантическом регионе.

Благодаря непрерывному процессу внутренней и внешней адаптации НАТО смогло эффективно действовать в новых условиях безопасности и проявить гибкость, необходимую в подходе к проблемам, возникшим в результате внутригосударственных конфликтов и проявлений межэтнической розни, гуманитарных и экологических катастроф, а также к меж-

дународному терроризму, проблеме, ставшей особо актуальной после событий 11 сентября 2001 года. Кроме того, НАТО способствует развитию демократических институтов, мирному разрешению споров, предотвращению конфликтов, урегулированию кризисов, партнерству и сотрудничеству со странами, не входящими в НАТО.

На сегодняшний день 28 членов НАТО ведут регулярные консультации с 21 партнером по вопросам безопасности и обороны. Вооруженные силы стран НАТО и государств-партнеров проводят регулярные совместные учения и участвуют в совместных операциях.

## MILITARY HUMOR
### Very Important Colonel

Having just moved into his new office, a pompous, new colonel was sitting at his desk when a PFC knocked on the door.

Conscious of his new position, the colonel quickly picked up the phone, told the PFC to enter, then said into the phone, "Yes, General, I'll be seeing him this afternoon and I'll pass along your message. In the meantime, thank you for your good wishes, sir."

Feeling as though he had sufficiently impressed the young enlisted man, he asked, "What do you want?"

"Nothing important, sir," the PFC replied, "I'm just here to hook up your telephone."

## УРОК 35
## ОТНОШЕНИЯ РОССИЯ – НАТО

## LESSON 35
## NATO–RUSSIA RELATIONS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| council | headquarters |
| authorities | successor |
| extraordinary | predecessor |
| plenypotentionary | ambassador |
| reinforced meeting | uncertainity |

**Exercise 2. Read and translate the following words and word combinations of the previous lessons:**

Independent nations, conforms to the spirit of, admission of new members to, defence capabilities, to eliminate conflict, long list of pressing tasks, fundamental role, collective defence capabilities, wide-ranging consultation process, to further the principles of the Treaty, contribute to the security, peaceful and friendly international relations, an essential forum for transatlantic consultations, understanding and effective cooperation.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| Broad, Enhanced Dialogue and Cooperation | широкий углубленный диалог и сотрудничество |
| Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation | Основополагающий акт о взаимных отношениях, сотрудничестве и безопасности между Организацией Североатлантического договора и Российской Федерацией (Основополагающий акт Россия – НАТО) |
| Permanent Joint Council (PJC) | Совместный постоянный совет Россия – НАТО (СПС) |
| NATO-Russia Council (NRC) | Совет Россия – НАТО (СРН) |
| TMD (theatre missile defence) | ПРО на ТВД (противоракетная обо- |

| | |
|---|---|
| | рона на театрах военных действий) |
| to be dissolved | распадаться |
| potential major threat | потенциальная основная угроза |
| to set a goal for oneself | ставить себе цель |
| successor state | государство-правопреемник |
| to gain practical experience | получить практический опыт |
| subsequent steps | последующие действия |
| permanent deployment of soldiers | постоянное размещение войск |
| to collaborate | сотрудничать |
| extensive negotiations | продолжительные переговоры |
| high representatives | высокие представители |
| extraordinary session | внеочередное заседание |
| to bring about a political solution to the conflict | найти политическое решение конфликта |
| breakdown of negotiations | срыв переговоров |
| to start air campaign | начинать (военно-)воздушную кампанию (бомбардировки) |
| for the benefit of smth. | во благо чего-либо |
| use of force | применение военной силы |
| to inhibit progress | мешать прогрессу |
| to augur well/ill for smth. | служить хорошим/плохим предзнаменованием чего-либо |
| self-evident | само собой разумеющееся/не требующее доказательств |

**Exercise 4. Read and translate the text:**

**NATO AND RUSSIA: A NEW RELATIONSHIP**

When the Soviet Union was dissolved in December 1991 a potential major threat, which had preoccupied NATO since its foundation, finally disappeared. The NATO countries set themselves the goal of developing a partnership with Russia, which became the primary successor state to the former Soviet Union. NATO invited Russia to join the North Atlantic Cooperation Council (NACC), established as a forum for cooperation between NATO and former Warsaw Pact nations. The partnership became more formal when, in June 1994, Russia joined the Partnership for Peace initiative. In May 1995, it was agreed to develop, in addition, what was termed “Broad, Enhanced Dialogue and Cooperation” between NATO and Russia, on a separate, bilateral basis.

The NATO-Russia relationship was further strengthened in January 1996 when Russian forces joined NATO troops in the Implementation

Force (IFOR), organised to implement the military aspects of the Peace Agreement in Bosnia-Herzegovina. Russian forces remained in Bosnia until 2003 as an important part of the NATO-led Stabilisation Force (SFOR). Since this cooperation began, both NATO and Russian forces have gained valuable, practical experience in working together.

In spite of the positive development of this cooperation, the issue of NATO enlargement troubled the relationship between NATO and Russia. In response to the strong desires of new democracies in Central and Eastern Europe to join NATO, the Allies agreed in December 1994 to study "the why and how" of NATO enlargement. Most Russians viewed this and subsequent steps toward enlargement as a threat to Russian prestige, and for some it represented a threat to Russian security.

NATO's efforts to reassure both Russian and other critics took several forms. The NATO Allies pledged that they had "no intention, no plan and no reason" to deploy nuclear weapons on the territory of new NATO member countries. They also said that they planned no permanent, substantial deployments of NATO soldiers in any new member states. Perhaps most importantly, the Allies authorised the NATO Secretary General to negotiate a more permanent cooperative relationship with Russia. Those negotiations resulted in "The Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation," signed in Paris in May 1997.

The "Founding Act" set a large agenda of topics on which NATO and Russia would collaborate. It also created a "Permanent Joint Council" — NATO nations plus Russia — as a framework for continuing consultations. The work of the Council quickly became one of the important vehicles for the development of cooperative security relations in Europe. NATO-Russia cooperation had become a reality with the potential to overcome fears and prejudices on both sides.

In 2002 the PJC was replaced by the NATO-Russia Council (NRC). The NRC was established at the NATO-Russia Summit in Rome on 28 May 2002. In accordance with the Rome declaration, the NRC works on combating terrorism, crisis management, non-proliferation, TMD, search and rescue at sea, military-to-military cooperation, defence reform, and new threats and challenges. Unlike the PJC, which met in a 19+1 format between NATO and Russia, the NRC meets now at 29, with Russia equal to each of the 28 NATO members.

Meetings of the NRC are chaired by NATO's Secretary General and are held at least monthly at the level of ambassadors and military representatives; twice yearly at the level of foreign and defence ministers and chiefs of staff; and occasionally at summit level. Under the NRC is the Preparatory Commit-

tee, which meets at least twice a month to prepare ambassadorial discussions and to oversee all experts' activities under the auspices of the NRC

Since the NRC's establishment, it has evolved into a productive mechanism for consultation, consensus-building, cooperation, joint decision and joint action. As an example, more than 25 working groups and committees have been created to develop cooperation in different areas. In fact, hardly a day goes by without an NRC meeting at one level or another, leading to an unprecedented intensity of contacts and informal consultation in many different fields, conducted in a friendly and workmanlike atmosphere.

NATO countries and Russia face numerous common security problems in the Euro-Atlantic area, ranging from regional instability to the proliferation of weapons of mass destruction. Over time, joint efforts to keep the peace in the Balkans, to promote arms control and non-proliferation, and to maintain a dialogue on issues such as military strategy and doctrine, should strengthen the basis of mutual trust which is essential for peace and stability.

In sum, much has been achieved in NATO-Russia relations in recent years, to the benefit of stability and security in Europe as a whole. The NATO Allies believe that security in Europe cannot be built without Russia, and that they must seek together with Russia to build trust and cooperation to overcome the divisions of the past and to handle together security problems of the future. The benefits of working together to find common solutions to common problems are self-evident.

**COMMENTARY**

**1. Terms and Definitions:**

a) **The partnership for Peace Programme (PfP)** was launched by Allied leaders at their summit in Brussels in January 1994 to promote greater stability stability and security throughout Europe. Currently, 25 countries participate in the programme of activities, ranging from large military exercises to small workshops. Besides, the Partner countries participate in the NATO-led peacekeeping operations in the Balkans.

**Программа Партнерство ради мира (ПРМ)** была принята лидерами стран – участниц альянса на саммите в Брюсселе в январе 1994 года для того, чтобы способствовать стабильности и безопасности в Европе. В настоящее время 25 стран участвуют в программе, включающей мероприятия, варьирующиеся от крупномасштабных учений до обычных семинаров. Кроме того, государства-партнеры участвуют в миротворческих операциях на Балканах под эгидой НАТО.

b) ***Network Enabling Capability*** – потенциал ведения *сетецентричных боевых действий.* Такие боевые действия предполагают сочетание тактики, методов и процедур, которые могут использовать объединенные (полностью или частично) в одну сеть силы для создания решающего преимущества в ходе ведения боевых действий.

c) ***Asymmetric threat*** *(ассиметричная угроза)* – угроза потенциального применения разнородных средств или методов для нивелирования или нейтрализации силы оппонента и использования его слабых мест для получения несоразмерных результатов (Глоссарий НАТО AAP-6).

d) ***Combined*** в данном случае имеет значение *многонациональный*, ***joint*** – *общевойсковой, межвидовой*.

e) ***Main Planning Conference*** – *Основная конференция по планированию (учения).*

f) ***Interoperability*** – *(оперативная) совместимость, интероперабельность*.

**Exercise 5. Translate the following questions by ear and answer them in English:**

1. Какую форму приняли взаимоотношения между Россией и НАТО после распада СССР?
2. Какое влияние на взаимоотношения между Россией и НАТО оказало совместное участие в миротворческой операции в Боснии и Герцеговине?
3. Как Россия относится к расширению НАТО на восток?
4. Когда и где был подписан Основополагающий акт Россия – НАТО?
5. В чем заключается основное отличие между Совместным постоянным советом (СПС) и Советом Россия – НАТО (СРН)?
6. Как складывались взаимоотношения между Россией и НАТО после начала бомбардировок Югославии?
7. Какие общие проблемы в сфере безопасности предстоит решать России и странам НАТО?

**Exercise 6. Decipher and translate the following abbreviations:**

AOR, CJTF, СРН, ДОВСЕ, START, СМС, ООН, OSCE, ДВЗЯО, DPC, EC, ICBM, NACC, TMD.

**Exercise 7. Translate the following words and word combinations by ear:**

Найти политическое решение конфликта; use of force; получить практический опыт; to inhibit progress; Основополагающий акт Россия-НАТО; extraordinary session; служить хорошим предзнаменованием чего-либо; self-evident; последующие действия; to set a goal for oneself; начинать воздушную кампанию; to gain practical experience; "широкий, углубленный диалог и сотрудничество"; high representatives; размещать ядерное оружие на чьей-либо территории; to augur well for smth.; применение военной силы; permanent deployment of soldiers; потенциальная основная угроза; to bring about a political solution to the conflict; само собой разумеющееся; subsequent steps; продолжительные переговоры; государство-правопреемник; breakdown of negotiations; распадаться; extensive negotiations; поставить себе цель; "; to deploy nuclear weapons on smb.'s territory; постоянное размещение войск; for the benefit of; сотрудничать; successor state; высокие представители; внеочередное заседание; срыв переговоров; potential major threat; мешать прогрессу; во благо чего-либо; to be dissolved "Broad, Enhanced Dialogue and Cooperationto collaborate; to start air campaign.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Сегодня у нас в гостях Питер Флори, заместитель Генерального секретаря НАТО по оборонным инвестиция. Добро пожаловать. Спасибо, что нашли время придти и поговорить с нами, особенно сегодня, в День Благодарения. | It's a pleasure, and I'll get home after for dinner. |
| В течение нескольких месяцев работы в должности заместителя Генерального секретаря по оборонным инвестициям с какими самыми большими проблемами Вы столкнулись? | The biggest challenges in this job have to do with managing and delivering large, multinational defence cooperation projects. So one of the challenges is delivering the ones that we have, several of which I inherited when I came here. One of those is AGS (Alliance Ground Surveillance). One of them has been the strategic airlift capability, on which we made a lot of progress last summer. |
| Около месяца назад в НАТО | Well, it is a day and a half long confer- |

состоялось заседание КНДВ, Конференции национальных директоров по вооружениям. Не могли бы Вы более подробно рассказать о тех вопросах, которые обсуждались на заседании?

ence, so it covers a lot of ground. We talked about how to improve cooperation with partner nations in developing capability. We have a number of partner nations that have a lot of expertise, technology, energy and resources and are anxious to make a contribution; many of the same nations that are deployed in the field with us in Afghanistan and Kosovo. To that end we decided to open up the Defence Against Terrorism Program of Work at the partner nations on a case-by-case basis. Until now only two of our areas have been opened, soon all of them will be.

Очень интересно. За прошедшие несколько месяцев проблематика противоракетной обороны широко обсуждалась в средствах массовой информации. Скажите пожалуйста, какова роль НАТО при формировании ответов на возрастающую ракетную угрозу?

NATO's been involved in missile defence since the mid-1990s, I would say, dating back to after the Iraq's use of missiles during the first Gulf War. We have several programs, several areas of work there. The ALTBMD project, that's Active Layered Theatre Ballistic Missile Defence project, was approved by the Alliance in 2005. It is the development of a NATO capability that would protect deployed NATO forces against missiles with ranges up to 3,000 kilometres.
We also have work on territorial missile defence. This is an area where the Alliance has not yet made a decision to proceed, but a great deal of analytical work is under way.

Хорошо. В пределах Ваших полномочий Вы уже немного говорили об этом. Но все-таки, какие основные мероприятия проводит альянс в области борьбы с терроризмом?

We're actually at the broadest level supporting ongoing operations through capability development, which is something we do everyday and that supports a wide range of Alliance activity. We do have our Defence Against Terrorism Programme, which looks at a wide range

of threats and tries to develop technical solutions, doctrines and information sharing procedures. We can improve the capability of the Alliance to respond to things like improvised explosive devices, potentially attacks on harbours, attacks on large aircraft, mortar attacks, all these things that are threats that the Alliance encounters every day. Also looking at some longer-term threats, infrastructure protection and other matters.

**Exercise 9. Translate the following text at sight:**

Few events bring people together more effectively than a tragedy and few tragedies have been greater or their consequences more wide-reaching than that of 11 September. In addition to the several thousand Americans who lost their lives, close to 800 citizens of other NATO countries and nearly 100 Russians died as the twin towers of the World Trade Center collapsed, watched live on television by millions around the world. In the wake of this shared disaster, the unity of purpose of Allies and Russia in the face of a common threat has been a key feature of the international coalition's war on terrorism. Moreover, the shuttle diplomacy, summits and flurry of new proposals of recent months have clearly opened up great opportunities for closer cooperation and a deeper relationship between NATO and Russia.

It is not, of course, the first time that expectations for NATO-Russia relations have been so great. In 1997, by signing the NATO-Russia Founding Act on Mutual Relations, Cooperation and Security, the heads of state and government of NATO and Russia committed themselves to "the goal of overcoming the vestiges of earlier confrontation and competition and of strengthening mutual trust and cooperation, thus marking the beginning of a fundamentally new relationship between NATO and Russia and intending to develop a strong, stable and enduring partnership". Moreover, the NATO-Russia Permanent Joint Council (PJC) was created to provide "a mechanism for consultations, coordination and, to the maximum extent possible, where appropriate, for joint decisions and joint action".

Since then, NATO-Russia relations have seen many highs and lows. In the course of this journey, the many personalities involved have played their part, as have shifting political paradigms and pressing security challenges, including the Balkan conflicts, the first Chechen War, NATO's Kosovo campaign, the second Chechen War and now the international coalition's war on terrorism.

In attempting to place the NATO-Russia relationship on a sound footing, therefore, it is important to examine where, when and how it has turned sour in the past and to determine whether certain lessons can be learned for the future. Such an analysis should perhaps have been made earlier. But until very recently, it was precluded by the political baggage weighing on the NATO-Russia relationship.

To appreciate fully the current situation and to assess the nature of the difficulties that have to be overcome, the NATO-Russia relationship has to be viewed in its historical context. It is, after all, only a little over a decade since the end of the Cold War and attitudes from that period have continued to influence thinking. Although some individuals at the very top of Russian society were eager to pursue a pro-Western agenda in the early 1990s, many senior officials found it difficult to come to terms with the demise of both the Warsaw Pact and the Soviet Union and the loss of super-power status that this entailed. Indeed, in many cases, they found it humiliating to have to continue to deal with NATO, the "victorious Cold War adversary", as they saw it. Many in Russia viewed NATO's very continued existence as a betrayal. If the Soviet Union and the Warsaw Pact - the "threats" NATO was formed to counter - had ceased to exist, they wondered, why was a Western military alliance still necessary?

**Exercise 10. Translate the following text at sight:**

**ПЯТАЯ ГОДОВЩИНА РАБОТЫ СОВЕТА РОССИЯ – НАТО (СРН)**

Празднование пятой годовщины работы Совета Россия – НАТО и десятилетия партнерских отношений между Россией и НАТО началось сегодня в Санкт-Петербурге, где состоялся семинар на тему «Современные риски и угрозы безопасности: роль Совета Россия – НАТО».

«Мы должны стремиться реагировать на стоящие перед нами общие вызовы на основе сотрудничества, а не конфронтации», – отметил в своей вступительной речи Генеральный секретарь НАТО Яап де Хооп Схеффер. Председатель Совета Федерации Сергей Миронов, выступавший в качестве сопредседателя на данном мероприятии, подчеркнул, что в отношениях между Россией и НАТО отсутствуют тенденции к конфронтации. В дополнение он отметил, что данные отношения являются предметом дискуссии и привлекают интерес широкой общественности в России и за рубежом.

Программу юбилейных мероприятий продолжит заседание Совета Россия – НАТО на уровне послов, которое состоится в Москве 26 июня

2007 года. Генеральный секретарь альянса также проведет двустороннюю беседу с Президентом России Владимиром Путиным в Кремле.

**Exercise 11. Translate the following text in writing:**

**NATO-RUSSIA MILITARY COOPERATUION UPDATE**

This update summarizes activities from the first half of 2007

**Exercises and training**

The NATO school in Oberammergau, Germany organized a course attended by Russian officers on planning, preparation and conduct of NATO Peace Support Operations.

Two conferences took place, one on NATO Network Enabling Capability and the other on Familiarization with NATO nation training and preparation to Peace Keeping operations and Peace Supporting Operations. There were also seminars on 'Asymmetric threat and Force Protection'. One of the seminars was conducted as an exploratory seminar in order to plan a Combined Joint NATO-Russia Exercise and Command Post Exercise (2008-2010).

The Main Planning Conference for Exercise Cooperative Longbow was conducted in April. The aim of the exercise is to promote the interoperability of PfP/RUS Forces.

**Search & Rescue at Sea**

The Working Group on Command and Control discussed subjects on Automated Identification Systems at Sea and on NATO's Maritime Situational Awareness system. Russian participants presented a very impressive presentation on the 'Lessons Learned' from Russia's support (Russian Federation Ship PITLIVY) to Operation Active Endeavour. These lessons will be useful in preparation for the Russian support to Operation Active Endeavour later this year.

Russia participated in the Working Group dealing with helicopter operations from ships. The Submarine Escape and Rescue Working Group is working towards cooperation in the triennial NATO Search and Rescue Live Exercise 'Bold Monarch' planned for 2008. This work of experts, both technical and operational, builds mutual confidence.

**Naval cooperation**

Several activities have already been conducted to prepare the support of the Russian Federation Ship LADNIY in NATO's Operation Active Endeavour. A Secure Maritime Communications course was organized in order to enable non-NATO nations to operate with NATO's Communication system. Another course was organized on NATO Maritime Communications in general and how communications architecture is planned for operations.

**Logistics**

Officers from the Russian Federation Ministry of Defence participated at the fuels interoperability workshop to consider the technical implications of a practical exercise aiming to examine the interoperability. A high level logistic talk meeting was looking for on the way ahead for NATO-Russia Cooperation and will be continued.

**Exercise 12. Translate the following text in writing:**

**ОСНОВОПОЛАГАЮЩИЙ АКТ РОССИЯ – НАТО**

Основополагающий акт о взаимных отношениях, сотрудничестве и безопасности между Российской Федерацией и Организацией Североатлантического договора был подписан в Париже 27 мая 1997 года. В нем нашли свое отражение успехи, достигнутые в деле развития отношений между Россией и НАТО со времени вступления России в Совет североатлантического сотрудничества, созданный в 1991 году (с 1997 г. - Совет евроатлантического партнерства), и начала участия в программе «Партнерство ради мира» в 1994 году.

Основополагающий акт является выражением долгосрочного обязательства, принятого на самом высоком политическом уровне, действовать сообща на благо прочного и всеобъемлющего мира на евроатлантическом пространстве. Совместный постоянный совет был создан в соответствии с Основополагающим актом как форум консультаций и сотрудничества, позволив Российской Федерации и НАТО развернуть содержательную программу мероприятий в области безопасности и взаимодействия по вопросам, связанным с оборонной тематикой. Программа представляет собой взаимное обязательство содействовать созданию стабильного, безопасного и неразделенного континента на основе партнерства и взаимных интересов.

**ARMY HUMOR**
**Alligator Shoes**

An Army Ranger was on holiday in the depths of Louisiana, where he tried to buy some Alligator shoes. However, he was not prepared to pay the high prices. After failing to haggle the vendor down to a reasonable price level, he ended up shouting "I don't give two hoots for your shoes, man, I'll go and kill my own!"

The shopkeeper replied, "By all means. Just watch out for the two Marines who are doing the same.

"So the Ranger went out into the Bayou, and after a while saw two men with spears, standing still in the water. "They must be the two Marines," he thought. Just at that point he noticed an alligator moving in the water towards one of them. The Marine stood completely passive, even as the gator came ever closer. Just as the beast was about to swallow him, the Marine struck home with his spear and wrestled the gator up onto the beach, where several already lay. Together the two Marines threw the gator onto its back, whereupon one exclaimed "Damn! This one doesn't have any shoes either!"

# ГЛАВА 9

# МИРОТВОРЧЕСТВО ООН

# CHAPTER 9

## УРОК 36

## ОРЕРАЦИИ ООН ПО ПОДДЕРЖАНИЮ МИРА

## LESSON 36

## UN PEACEKEEPING OPERATIONS

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| sustainability | robust |
| repercussions | to authorize |
| genocide | vital |
| strengthening the rule of law | inadequate |

**Exercise 2. Read the following words and word combinations of the previous lesson:**

Euro-Atlantic area; defence capabilities; to accede; conflict prevention; admission of new members; economical; consultation process; on a permanent basis; to serve as a forum; to be deemed an attack; in line with; to undertake; to encourage cooperation; mutual confidence; command structures; vital security interests.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| peace building | миростроительство |
| peacekeeping | поддержание мира |
| peacemaking | установление мира |
| peace enforcement | принуждение к миру |
| sustainable peace | устойчивый мир |
| to monitor and observe peace process | наблюдать за мирным процессом |
| to implement the peace | выполнять мирные соглашения |

| | |
|---|---|
| agreement | |
| to promote human security | способствовать обеспечению безопасности людей |
| confidence-building measures | меры по укреплению доверия |
| power-sharing arrangement | соглашение о разделении полномочий |
| to maintain peace and security | сохранять мир и безопасность |
| countries torn by conflict | разрываемые конфликтом страны |
| to authorize peacekeeping operations | санкционировать проведение миротворческой операции |
| the United Nations (UN) | Организация Объединенных Наций |
| UN peacekeepers | миротворцы ООН |
| to establish peacekeeping operation | начинать миротворческую операцию |
| direct UN involvement | непосредственное участие ООН |
| the UN Security Council | Совет Безопасности ООН |
| The Charter of the United Nations | Устав Организации Объединённых Наций |
| appropriate | соответствующий, надлежащий |
| feasible | осуществимый, выполнимый |
| robust | надёжный, здравый, устойчивый, жёсткий |
| the African Union (AU) | Африканский союз |
| the Economic Community of West African States (ECOWAS) | Экономическое сообщество западноафриканских государств |
| the orderly transfer of power | организованная передача власти (полномочий) |
| multi-dimensional peacekeeping operations | многопрофильные операции по поддержанию мира |
| to flare | вспыхнуть; разразиться |
| on a massive scale | в широком масштабе |

| | |
|---|---|
| remote conflicts | удаленные конфликты |
| nongovernmental organizations (NGOs) | неправительственные организации (НПО) |
| inaction | бездействие |
| | *Syn*: пассивность; инертность; бездеятельность |
| proven dangers of inaction | подтвержденная опасность бездействия |
| repercussions | последствия, резонанс; результаты |
| rules of engagement (ROE) | правила применения силы |
| indispensable tool | необходимый инструмент, незаменимый инструмент |
| to tackle difficult issues | искать пути решения трудных вопросов |
| immediate conflict zone | непосредственная зона конфликта |
| legitimacy | законность |
| universality | универсальность |
| cost-effective | экономически эффективный, экономически целесообразный, эффективный по затратам |
| economic devastation | экономическое разорение |
| ad-hoc coalition | специальная (*организованная для данной цели*) коалиция |
| distinct advantage | явное преимущество |
| separate recent studies | проведенные недавно независимые исследования |
| due to | благодаря; вследствие; в результате |
| international legitimacy | международная законность |
| enduring peace | устойчивый мир, прочный мир |
| to devise | разрабатывать |
| *Syn: conceive , contrive, formulate , invent, think out, plot* | продумывать (планы, идеи) выдумывать; изобретать |
| to conduct a peacekeeping | проводить операцию по поддержанию мира |

| | |
|---|---|
| operation | |
| comparative advantages | сравнительные преимущества |
| impartiality | беспристрастность; непредвзятость |
| The UN Department of Peacekeeping Operations (PKO) | Департамент операций ООН по поддержанию мира |
| to ease tensions | ослабить напряжение |
| to resolve conflicts | разрешать конфликты |
| to deploy military personnel | развертывать военный персонал |
| under UN command | под командованием ООН |
| former warring parties | бывшие противоборствующие стороны |

**Exercise 4. Read and translate the following text:**

## THE PURPOSE OF UN PEACEKEEPING

Peacekeeping is a way to help countries torn by conflict create conditions for sustainable peace. UN peacekeepers—soldiers and military officers, police and civilian personnel from many countries—monitor and observe peace processes that emerge in post-conflict situations and assist conflicting parties to implement the peace agreement they have signed. Such assistance comes in many forms, including promoting human security, confidence-building measures, power-sharing arrangements, electoral support, strengthening the rule of law, and economic and social development

The Charter of the United Nations gives the UN Security Council the power and responsibility to take collective action to maintain international peace and security. For this reason, the international community usually looks to the Security Council to authorize peacekeeping operations. Most of these operations are established and implemented by the United Nations itself with troops serving under UN operational command. In other cases, where direct UN involvement is not considered appropriate or feasible, the Council authorizes regional and other international organizations such as the European Union (EU), the African Union (AU), the North Atlantic Treaty Organization (NATO), the Economic Community of West African States (ECOWAS) or “coalitions of willing countries” to implement certain peacekeeping or peace enforcement functions.

## THE ESSENTIAL TASK OF UN PEACEKEEPING

Where inadequate political structures fail to provide for the orderly transfer of power, where dissatisfied and vulnerable populations are manipulated and when competition for scarce resources intensifies the anger and frustration among people trapped in poverty, armed conflict will continue to flare. These elements provide fuel for violence within or between States, and countless numbers of weapons, readily available worldwide, provide the means. The results are human suffering, often on a massive scale, threats to wider international peace and security, and the destruction of the economic and social life of entire populations.

Many of today's conflicts may seem remote to those not immediately in the line of fire, but the nations of the world must weigh the risks of action against the proven dangers of inaction. Failure by the international community to try to control conflicts and resolve them peacefully may result in wider conflicts that can destabilize neighbouring countries and spread throughout entire regions. Few modern conflicts can be considered truly "local". They often generate a host of problems such as the illegal traffic in arms, drugs or people; terrorism; refugee flows; and damage to the environment; the repercussions of which are felt far from the immediate conflict zone.

UN peacekeeping, built on almost 60 years of experience in the field, is an indispensable tool in tackling these difficult issues. Its legitimacy and universality are unique, derived from its character as an action taken on behalf of a global organization comprising 192 Member States.

## THE PEACEKEEPING WORK OF THE UN

UN peacekeeping is both effective and cost-effective when compared to the costs of conflict and the toll in lives and economic devastation. As an investment, UN-led peacekeeping operations—as opposed to those conducted by ad-hoc coalitions—have the distinct advantage of a built-in mechanism for globally sharing the financial, material and personnel costs, according to the research done by Paul Collier and Anke Hoeffler of Oxford University.

Historians have charted a strong inverse correlation between peacekeeping deployments and war casualties, that is, as peacekeeping goes up, war casualties go down, in both the short and long term—according to two separate recent studies by the UBC's Human Security Centre and the Rand Corporation.

The Rand Corporation examined eight completed UN peacekeeping operations: in the Belgian Congo, Namibia, El Salvador, Cambodia, Mozambique, Eastern Slavonia, Sierra Leone and East Timor. The study concluded that two-thirds of these were “successful.” Rand also found that the UN provides the most suitable institutional framework for all but the largest and most demanding of nation-building missions, due to the UN's comparatively low cost structure, high success rate and high degree of international legitimacy. According to this study, UN peacekeeping is a highly efficient means of placing post-conflict societies on the path to enduring peace and democratic government, and the most efficient form of international intervention so far devised. Alternatives to the UN in this field are either vastly more expensive or considerably less capable.

A study by the US Government Accountability Office estimated that it would cost the United States about twice as much as the UN to conduct a peacekeeping operation similar to the UN Stabilization Mission in Haiti - (MINUSTAH)—$876 million compared to the UN budgeted $428 million for the first 14 months of the mission. Other comparative advantages of UN peacekeeping cited by that study included its multinational nature, which provides impartiality and legitimacy; staff members experienced in post conflict peacebuilding operations; and a structure for coordinating international assistance.

## THE CRITERIA FOR A SUCCESSFUL PEACEKEEPING OPERATION

Certain factors are critical for the success of any UN peacekeeping operation. The international community must diagnose the problem correctly before prescribing peacekeeping as the treatment; there must be a peace to keep; and all key parties to the conflict must consent to stop fighting, and to accept the UN role in helping them resolve their dispute and to the deployment of a UN peacekeeping mission. Members of the Security Council must agree on a clear and achievable mandate. Deployment must proceed quickly.

The international community has to be prepared to stay the course. When the UN Security Council authorizes a mission, it also summons the Member States to support the United Nations politically, financially and operationally in addressing that specific situation. Real peace takes time; building national capacities takes time; rebuilding trust takes time.

## COMMENTARY:

### 1. Terms and Definitions:

Деятельность Организации Объединенных Наций по поддержанию мира находится в процессе постоянной эволюции как концептуально, так и в области создания новой терминологии. В официальных документах ООН термин **peacekeeping** ныне переводится исключительно как **деятельность по поддержанию мира,** а не *миротворчество*, что это было принято раньше. Связано это с тем, что появилось несколько типов миротворческой деятельности: **peacemaking – установление мира**, **peace enforcement – принуждение к миру, peacekeeping – поддержание мира, peace building – миростроительство**. Таким образом, **peacekeeping operations** в официальных документах надо переводить как **операции по поддержанию мира**, однако все их участники – как *peacekeepers* так и *peacemakers* – продолжают называться *миротворцами*. И ещё надо помнить: “Blessed are the peacemakers” – «Блаженны миротворцы».

## 2. Grammar:

### Complex subject (Сложное подлежащее с инфинитивом).

В английском языке не существует неопределённо-личных предложений, т.е. предложений в которых не упоминается лицо, совершающее действие. Поэтому русским предложениям "Говорят: Считают: Сообщают: " соответствуют предложения, в которых инфинитив употребляется в функции сложного подлежащего.

Например: **Peacekeepers were not expected to fight fire with fire**.

Инфинитив образует сложное подлежащее с местоимением или существительным в именительном падеже. Сказуемым в таком предложении выступают глаголы **to say, to report** (сообщать), **to suppose** (полагать), **to expect** (ожидать), **to know, to consider** (считать, рассматривать), **to understand, to think, to believe, to be sure** (быть уверенным), **to be likely** (вероятно), **to be unlikely** (вряд ли, маловероятно), **to make** (в значении заставлять), etc.

Эти глаголы употребляются в страдательном залоге: **to be said, to be reported, to be supposed, to be expected, to be known, to be considered, to be understood, to be thought, to be believed, to be made**. Например:

**The conference** is supposed **to begin** at ten. (Полагают, что конференция начнётся в десять.)

**This UN PCO** is said **to be** very complicated one. (Говорят, он эта операция ООН по поддержанию мира очень сложная.)

**He** was made **to leave** the room. (Его заставили выйти из комнаты.)

Глаголы **to seem, to appear, to happen, to turn out** употребляются в действительном залоге:

Do you **happen** to hear the news? (Вы случайно не слышали новость?)

He **turned out** to be a mean person. (Он оказался подлым человеком.)

They **seemed/appeared** to be discussing something important. (Казалось, они обсуждают что-то важное.)

**Exercise 5. Translate the following questions at sight and answer them:**

1. Кто такие миротворцы ООН, и каковы их задачи?
2. Каковы полномочия у Совета Безопасности ООН?
3. Каково место России в миротворчестве
4. При каких условиях могут вспыхивать локальные конфликты?
5. Какие преимущества имеют миротворческие операции, проводимые под управлением ООН?
6. Каковы задачи Департамента миротворческих операций ООН?
7. Каковы критерии успешного проведения операции по поддержанию мира?

**Exercise 6. Decipher and translate the following abbreviations:**

EU, AU, NATO, CFE, PKO, MINUSTAH, СБ, UN DPKO, НПО, DRC, DPA, UNOMSIL, NGOs, ROE, MoD; COS, ДОВСЕ, АВМ, SOFA, ГА.

**Exercise 7. Translate the following words and word combinations by ear:**

Parties to the conflict, to give one's consent, adherence to the ceasefire, to address the causes of conflict, rules of engagement, precipitate a dramatic shift in UN peacekeeping, the UN Security Council, UN peacekeeping mission, comprehensive peace agreement, intra-state conflict, to ensure sustainability, increased demand, by and large, robust mandate, self-sustaining peace, rules of engagement, to dispatch peacekeepers to conflict zones, ceasefire, to enforce decisions, massacre, genocide.

Всестороннее мирное соглашение, внутригосударственный конфликт, гарантировать устойчивость, резня, возросшая потребность, говоря в общем, устойчивая мирная ситуация, посылать силы по поддержанию мира в зоны конфликтов, прекращение огня, проводить в жизнь решения, геноцид, конфликтующие стороны, дать согласие, строгое соблюдение прекращения огня, правила применения силы, рассматривать причины конфликта, форсировать значительные изменения в деле поддержании мира ООН, Совет Безопасности ООН, миссия ООН по поддержания мира.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Through resolutions, the Security Council establishes peace support operations, determines their mandates (including all required revisions and extensions thereto) and authorizes the deployment of troops, as well as any increase or reduction in troop strength as the situation demands. | После принятия СБ ООН резолюции о развертывании миротворческих сил начинается процесс, успех которого зависит от политической поддержки. Эффективность операций зависит от того, насколько быстро удается определить, какими ресурсами мы располагаем. |
| Compared to resolutions, presidential statements constitute a less formal expression of the will of the Security Council. In these statements the President may, on behalf of the Council, call upon the parties involved in a conflict to work towards a peaceful settlement of the dispute. | Всегда полезны контакты с политическими лидерами. Приоритетно установление доверия, это всегда должна быть «улица с двусторонним движением». И второй вывод: дивиденды от затяжных конфликтов получает лишь криминал. Наша цель – установление безопасности и верховенства закона. |
| The Secretary-General proposed that China, Egypt, India, Kenya, Kyrgyzstan, New Zealand, Pakistan, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland and Zambia are to be included in the list of countries contributing military personnel to the United Nations Observer Mission in Sierra Leone (UNOMSIL) | Бюджеты отдельных миссий рассматриваются Генеральной Ассамблеей по отдельному пункту повестки дня для каждой операции. На каждой сессии эти пункты передаются на рассмотрение Пятого комитета. Одним из основных документов, которые представляются по этим пунктам, является доклад Генерального секретаря ООН. |

**Exercise 9. Translate the following text at sight:**

## THE COST OF UN PEACEKEEPING OPERATIONS. WHO PAYS

UN peacekeeping is highly cost-effective. The UN spends less per year on peacekeeping worldwide than the City of New York spends on the annual budget of its police department. In 1993, annual UN peacekeeping costs

reached some $3.6 billion, reflecting the expense of massive operations in the former Yugoslavia and Somalia. By 1998, costs had dropped to just under $1 billion. With the resurgence of larger-scale operations, costs for UN peacekeeping rose again, and as of March 2006, the approved peacekeeping budget for the year from 1 July 2005 to 30 June 2006 was over $5 billion. This represented only 0.5% of global military spending. Peacekeeping is far cheaper than war.

All Member States are legally obliged to pay their share of peacekeeping costs under a formula that they themselves have established. Despite this legal obligation, Member States owed approximately $2.66 billion in current and back peacekeeping dues as of 31 January 2006

The top 10 providers of assessed contributions to UN peacekeeping operations were (as of 1 January 2006): the United States, Japan, Germany, the United Kingdom, France, Italy, Canada, Spain, China and the Netherlands.

Troops serving in UN peacekeeping operations are paid by their own governments according to their own national rank and salary scale. Countries volunteering military contingents and formed police units are reimbursed by the United Nations. The standard rates, approved by the General Assembly, are used to compensate for pay and allowances of all troops and supplementary payment for specialists (within infantry, logistics contingents and formed police units). In addition, troop contributing countries are reimbursed for the usage of personal clothing, gear and equipment, including personal weaponry. The current rates of reimbursement paid by the UN to troop contributing countries per peacekeeper per month include: $1,028 for pay and allowances; $303 supplementary pay for specialists; $68 for personal clothing, gear and equipment; and $5 for personal weaponry.

**Exercise 10. Translate the following text at sight:**

В начале 90-х годов, ООН Совет Безопасности начал беспрецедентное число операций по поддержанию мира, включая очень амбициозные и очень дорогостоящие миссии в Боснии и Камбодже. К середине девяностых политическая и финансовая поддержка операций по поддержанию мира уменьшилась, особенно от Соединенных Штатов.

Поддержка стран, которые поставляли войска в состав ООН, значительно уменьшилась, поскольку ООН не имела достаточных источников финансирования. Поскольку уменьшилась роль ООН в проведении операций по поддержанию мира, Соединенные Штаты начали использовать "региональные" подходы к вопросу поддержанию мира, особенно через НАТО.

Сейчас в разных странах ООН проводит 17 операций по поддержанию мира, в них задействованы 40 тысяч военнослужащих и около 12 тысяч гражданских лиц. Затраты из года в год варьируются, но в среднем это около 2,8 млрд долларов.

**Exercise 11. Translate the following text in writing:**

## THE RIGHT FOR UN PEACEKEEPERS TO USE FORCE

Under-resourced, under-sized peacekeeping operations with inadequate rules of engagement proved to be ill-suited for contemporary post-conflict situations, in which armed factions often remained active in the period following civil wars. In addition to targeting and abusing civilians, these groups have also attacked UN peacekeepers. Aware of the dangers of deploying peacekeepers in situations where there is no real peace to keep, the Security Council now provides, when it deems necessary, UN peacekeeping operations with more “robust” mandates based on Chapter VII which is the “enforcement” chapter of the United Nations Charter. Chapter VII of the UN Charter is entitled “Action with Respect to Threats to the Peace, Breaches of Peace, and Acts of Aggression. Chapter VI deals with the “Pacific Settlements of Dispute”. Chapter VII outlines when the Security Council may authorize armed forces to “give effect to its decisions” in threats to peace, breaches of a peace or acts of aggression.

These mandates allow and in fact require peacekeepers to “use all necessary means” to protect civilians, prevent violence against UN staff and personnel and deter armed elements from ignoring peace agreements. Currently, UN missions in the DRC, Liberia, Kosovo, Burundi, Haiti and Côte d'Ivoire operate under Chapter VII mandates.

In 2005, several UN peacekeeping operations, in particular MONUC in the DRC and MINUSTAH in Haiti, clearly showed how a timely robust approach to implementing their mandates could effectively help protect civilians and improve the security situation on the ground. The UN-led military operations in eastern DRC and in certain districts of Porte-au-Prince marked a significant change in the UN's approach to countering violence and protecting civilians.

The Secretary-General has repeatedly stressed, however, that this new approach should not be interpreted as a means of turning the UN into a war-fighting machine, and that the use of force should always be seen as last resort.

**Exercise 12. Translate the following text in writing:**

## ДЕПАРТАМЕНТ МИРОТВОРЧЕСКИХ ОПЕРАЦИЙ ООН:

*a*) служит в качестве оперативного подразделения Генерального секретаря для всех операций по поддержанию мира Организации Объединенных Наций и отвечает за осуществление руководства, управление, планирование и подготовку этих операций;

*b*) обеспечивает основные услуги для Совета Безопасности и Генеральной Ассамблеи в отношении всех операций по поддержанию мира;

*c*) подготавливает доклады Генерального секретаря Совету Безопасности и Генеральной Ассамблее по мере необходимости по отдельным операциям по поддержанию мира, вопросам поддержания мира в целом и разминированию;

*d*) служит в качестве координационного центра Организации Объединенных Наций по вопросам разминирования, координирует всю деятельность Организации Объединенных Наций по разминированию, разрабатывает и обеспечивает по мере необходимости программы разминирования в ситуациях поддержания мира и чрезвычайных ситуациях и осуществляет управление целевым фондом для добровольных взносов на оказание помощи в разминировании;

*e*) предоставляет основные и секретариатские услуги Специальному комитету по операциям по поддержанию мира;

*f*) на основе решений Совета Безопасности разрабатывает политику и процедуры для учреждения новых операций по поддержанию мира и эффективного функционирования текущих операций;

*g*) обеспечивает путём переговоров с правительствами предоставление военных подразделений и снаряжения, а также другого военного, гражданского полицейского и гражданского персонала, необходимого для операций по поддержанию мира;

*h*) разрабатывает оперативные планы и методологию для многопрофильных операций; осуществляет заблаговременное планирование для возможных новых операций по поддержанию мира и связанных с ними мероприятий;

*j*) предоставляет материально-техническую и административную поддержку для операций по поддержанию мира, а также для других полевых отделений и миссий по мере необходимости;

*k*) поддерживает контакты со сторонами в конфликтах и членами Совета Безопасности в отношении эффективного осуществления решений Совета Безопасности; поддерживает связь с государствами-членами, учреждениями системы Организации Объединенных Наций и неправительственными организациями и координирует с другими образованиями их участие в операциях по поддержанию мира;

*l*) готовит руководящие указания и принципы по вопросам подготовки кадров для государств-членов, предоставляющих контингенты, для операций по поддержанию мира.

## УРОК 37

## РАЗВИТИЕ МИРОТВОРЧЕСКОЙ ДЕЯТЕЛЬНОСТИ ООН

## LESSON 37

## THE DEVELOPMENT OF UN PEACEKEEPING ACTIVITIES

**Exercise 1. Find the pronunciation of the following words and word combinations in the dictionary and read them properly:**

| | |
|---|---|
| genocide | bipolarization |
| conscious of | personnel |
| massacre | materiel |
| to tear apart | demobilization |

**Exercise 2. Read the following words and word combinations of the previous lesson:**

UN peacekeeping mission, illegal arms traffic, war casualties, ad-hoc coalitions, to address the causes of conflict, to summon officers, rules of engagement, comprehensive peace agreement, intra-state conflict, to ensure sustainability, precipitate a dramatic shift in UN peacekeeping, enduring peace, robust mandate, self-sustaining peace, refugee flows, rules of engagement, an indispensable tool, adherence to the ceasefire, nongovernmental organizations, to dispatch peacekeepers to conflict zones, to enforce decisions, to maintain impartiality, to tackle difficult issues, blessed are the peacemakers.

**Exercise 3. Read and learn the following words and word combinations by heart:**

| | |
|---|---|
| The UN Department of Peacekeeping Operations (DPKO) | Департамент операций ООН по поддержанию мира |
| to ease tensions | ослабить напряжение |
| to resolve conflicts | разрешать конфликты |
| to deploy military personnel | развертывать военный персонал |
| under UN command | под командованием ООН |

| | |
|---|---|
| multi-dimensional peacekeeping operations | многопрофильные операции по поддержанию мира |
| to observe the ceasefire arrangement | наблюдать за выполнением соглашения о прекращении огня |
| to observe the separation of forces arrangement | наблюдать за выполнением соглашения о разведении войск |
| parties to the conflict | конфликтующие стороны |
| adherence to the ceasefire | строгое соблюдение прекращения огня |
| to report on smth. | докладывать по какому-либо вопросу |
| to address causes | рассматривать причины |
| military personnel | военнослужащие, личный состав |
| to maintain international peace | поддерживать международный мир |
| comprehensive peace agreement | всеобъемлющее мирное соглашение |
| to accomplish | выполнять; совершать; достигать; доводить до конца; завершать; |
| to dispatch peacekeepers | отправлять миротворцев |
| conflict zone | зона конфликта |
| manpower | личный состав; численность персонала |
| comprehensive assessment | комплексная оценка |
| to conduct peacekeeping operation | проводить операцию по поддержанию мира |
| to meet the needs | отвечать потребностям |
| on the ground | на местах |
| to bolster efforts | наращивать усилия |
| rule of law | верховенство закона, правопорядок |
| to implement the rule of law | обеспечивать верховенство закона |
| civil administration | гражданская администрация |
| human rights | права человека |
| to deter | удерживать, сдерживать, вынуждать отказаться от нападения |
| gender issues | гендерные вопросы |
| conduct | поведение |

| | |
|---|---|
| improve peacekeepers conduct | улучшать поведение миротворцев |
| plan for disarmament | план по разоружению |
| financing mechanism | механизм финансирования |
| to respond to situation | реагировать на ситуацию |
| consistent training | последовательное обучение |
| long-term efforts | долговременные усилия |
| to meet original expectations | отвечать первоначальным ожиданиям |
| to exceed original expectations | превзойти первоначальные ожидания |
| sweeping reforms | коренные преобразования радикальные реформы |
| to face challenges | стоять перед решением сложных задач |
| international community | международное сообщество |
| to emerge | а) появляться; всплывать; выходить *A hand holding the magic sword emerged from the lake. — Из озера появилась рука, держащая волшебный меч.* б) появляться, вставать, возникать (о вопросе и т. п. ) |
| to provide support | обеспечивать, осуществлять поддержку |
| fragile peace agreement | хрупкое мирное соглашение |
| peacekeeping mandate | мандат по сохранению мира |
| to complete peacekeeping mandate | выполнить мандат по сохранению мира |
| to tear apart | разрывать на части |
| HIV, human immunodeficiency virus | ВИЧ, вирус иммунодефицита человека |
| AIDS, Acquired Immunodeficiency Syndrome | СПИД, синдром приобретенного иммунодефицита |
| to transmit HIV | передавать ВИЧ |
| voluntary counselling and testing (VCT) | добровольная консультация и осмотр у врача |

| | |
|---|---|
| awareness card | информационная карточка |
| defense spendings | расходы на оборону, военные затраты, военные затраты |
| to reduce defense spendings | снижать расходы на оборону |
| troop contributors to peacekeeping operations | страны, посылающие войска в состав миротворческих сил ООН |
| roster | список, перечень, график |
| UN Stand-by Arrangements System (UNSAS) | система соглашений ООН о кредите поддержки |
| massacre | резня, бойня |

**Exercise 4. Read and translate the following text:**

## THE DEVELOPMENT OF PEACEKEEPING FROM TRADITIONAL TO MULTIDIMENSIONAL PEACEKEEPING

United Nations peacekeeping initially developed during the Cold War era as a means to ease tensions and help resolve conflicts between States by deploying unarmed or lightly armed military personnel from a number of countries, under UN command, between the armed forces of the former warring parties. Peacekeepers could be called in when the Security Council tasked the UN with observing the ceasefires or separation of forces arrangements in order to maintain international peace and security, as envisaged by the UN Charter.

Peacekeepers were not expected to fight fire with fire. As a general rule, they were deployed when a ceasefire was in place and the parties to the conflict had given their consent. UN troops observed from the ground and reported impartially on adherence to the ceasefire, troop withdrawal or other elements of the peace agreement. This gave time and breathing space for diplomatic efforts to address the underlying causes of conflict.

The end of the Cold War precipitated a dramatic shift in UN peacekeeping. Freed from bipolarization, the Security Council established larger and more complex UN peacekeeping missions, often to help implement comprehensive peace agreements between protagonists in intra-State conflicts. Furthermore, peacekeeping came to involve more and more non-military elements to ensure sustainability. The UN Department of Peacekeeping Operations (DPKO) was created in 1992 to support this increased demand for complex peacekeeping.

By and large, the new operations were successful. In El Salvador and Mozambique, for example, UN peacekeeping helped those countries during the transitional period to build self-sustaining peace. Some efforts failed, perhaps as the result of an overly optimistic assessment of what UN peacekeeping could accomplish. While complex missions in Cambodia and Mozambique were ongoing, the Security Council dispatched peacekeepers to conflict zones like Somalia and Bosnia and Herzegovina, where neither ceasefires nor the consent of all the parties in conflict had been secured.

Some of the mandates given to those missions proved to be impossible to implement with the resources and the manpower provided. In addition, in a number of situations Member States were not ready to enforce their own decisions. The failures—most notably the 1995 massacre in Srebrenica (Bosnia and Herzegovina) and the 1994 genocide in Rwanda—led to a period of self-examination in UN peacekeeping.

## THE IMPROVEMENT OF PEACEKEEPING

Having decided that a reform of UN peacekeeping was imperative, Secretary-General undertook a comprehensive assessment of events leading to the fall of Srebrenica and also commissioned an independent inquiry into the actions of the United Nations during the Rwandan genocide of 1994. These assessments highlighted the need to improve the capacity of the UN to conduct peacekeeping operations and in particular to ensure rapid deployment and mandates that met the needs on the ground. UN peacekeeping operations needed clear rules of engagement (ROE); better coordination between the UN Secretariat in New York and UN agencies in the planning and deployment of peacekeeping operations; and improved cooperation between the UN and regional organizations. The UN also needed to bolster efforts to protect civilians in conflicts.

Around the same time, demands for UN intervention began to grow again in both size and scope: peacekeeping operations expanded to include the rule of law, civil administration, economic development and human rights. In 1999, UN peacekeeping was tasked with setting up an interim administration in East Timor preparing the way towards independence. The same year, UN peacekeeping undertook a transitional administration mission in Kosovo, after NATO air strikes on the Federal Republic of Yugoslavia (FRY) had ended. In 1999 and 2000, the Council mandated the establishment of three new operations in Africa (in Sierra Leone, the Democratic Republic of the Congo and Ethiopia and Eritrea).

Later the Secretary-General asked a panel of international experts led by his long-time adviser Lakhdar Brahimi (a former Algerian foreign minister) to examine UN peace operations and identify where and when UN peacekeeping could be most effective and how it could be improved.

The Report of the Panel on UN Peace Operations—also known as the Brahimi report—offered clear advice about minimum requirements for a successful UN peacekeeping mission. These included a clear and specific mandate, consent to the operation by the parties in conflict and adequate resources, both to implement the mandate effectively and deter potential spoilers.

As a result of the report, the United Nations and Member States initiated a number of measures to improve UN peacekeeping. The Department of Peacekeeping Operations was authorized to increase its Headquarters staff to support field missions. DPKO bolstered the military and police advisers' offices. It added a Peacekeeping Best Practices Unit to analyze lessons learned and advise missions on gender issues; improve peacekeeper conduct; plan for disarmament, demobilization and reintegration programmes; and develop the means to implement the rule of law and other matters. A pre-mandate financing mechanism was established to ensure that a budget would be available for new mission start-ups, and DPKO's logistics base in Brindisi (Italy) received funding to acquire strategic deployment stocks. Ongoing training was strengthened to provide an additional rapid response capacity. DPKO reorganized the UN Stand-by Arrangements System (UNSAS), a roster of Member States' specific resources including specialized military and civilian personnel, materiel and equipment available for UN peacekeeping. The new UNSAS now provides for forces to be made available within the first 30 to 90 days of a new operation. The effort to get clear and realistic mandates from the Security Council has also progressed.

The Department has also continued to work on the development of the concept for the standing police capacity; explore the full range of feasible and effective options to respond to situations of crisis in existing missions; develop an integrated training service to ensure consistent, thorough training for all military, police and civilian personnel in the field; and better provide for an integrated team approach at Headquarters.

A substantial number of the reforms proposed in the Brahimi report, and supported by Member States, have been implemented and have significantly improved the way the UN plans, deploys and sustains its peace operations. Long-term efforts have been bearing fruit in a number of locations previously considered by many irreparable. In the past two years, several UN peacekeeping operations have met or exceeded original expectations. Reforms continue with a special emphasis on “integrated missions,” comprised of the major ac-

tors in bringing peace (human rights, the rule of law, humanitarian assistance, for example).

**COMMENTARY:**

**1. Terms and Definitions:**

В документах ООН и в разговорной речи понятия «операция ООН» и «миссия ООН» являются синонимичными как в русском, так и в английском языках. Зная это, переводчик может варьировать употребление этих терминов в русском языке, стремясь к более привычным словосочетаниям. В самом деле, ***миссии*** **создаются**, **учреждаются, укрепляются**, **завоёвывают доверие** и **выводятся**, в то время как ***операции*** **начинаются, проводятся**, и **проходят**. В тоже время так *миссии*, так и *операции* могут **развёртываться**, **иметь задачи**, **преследовать цели** и **прекращаться**.

**2. Grammar:**

**Complex subject (Сложное подлежащее с инфинитивом)**
*(continuation. See lesson 36)***.**

Предложения с инфинитивом в функции сложного подлежащего, в большинстве случаев, переводятся на русский язык неопределённо-личными предложениями: говорят, считают, предполагают и т.д.
Инфинитив, как часть сложного подлежащего может употребляться в форме:
**Простого инфинитива** (**to do**) для выражения действия, одновременного с действием глагола-сказуемого:

He is said **to live** in New York.
Говорят, он живёт в Нью-Йорке.

He was said **to know** several foreign languages.
Говорили, что он знает несколько иностранных языков.

**Продолженного инфинитива** (**to be doing**) для выражения длительного действия, одновременного с действием глагола-сказуемого:

He is said **to** be conducting combat operation.
Говорят, он выполняет боевую операцию.

**Совершённого инфинитива** (**to have done**) для выражения действия, предшествующего действию глагола в личной форме:

He is said to have completed a daily situation report.
Говорят, он закончил ежедневный доклад по обстановке.

**Совершённо-продолженного инфинитива** (**to have been doing**) для выражения длительного действия, которое совершалось в течение отрезка времени, предшествовавшего действию глагола в личной форме:

**He** was said **to have been participating in UN peacekeeping operations for a long time**
Говорили, что он уже давно принимает участие в операциях ООН по поддержанию мира.

Обратите внимание! Инфинитив в функции сложного подлежащего всегда употребляется с частицей "**to**".

**Exercise 5. Translate the following questions at sight and answer them:**

1. Какие задачи выполняли миротворческие силы ООН в самом начале холодной войны?
2. Есть ли примеры успешного выполнения миротворческих операций?
3. По каким причинам могут вспыхивать локальные конфликты?
4. Как улучшилась результативность операций ООН по поддержанию мира, начиная с 90-х годов?
5. Какие минимальные требования или условия должны выполняться для успеха операции по поддержанию мира?
6. Есть ли в ООН служба или подразделение, которая занимается изучением передового опыта миротворческих операций, или эта функция возложена на Департамент операций ООН по поддержанию мира?
7. Насколько оперативно (How quick) могут прибыть миротворцы в новую миссию после её утверждения Генеральной ассамблеей ООН?

**Exercise 6. Decipher and translate the following abbreviations:**

ROE, ABM, DPA, КРВБ, MoD; MOU, en, AU, UN DPKO, HIV, at, SOFA, AIDS, dept, VCT, UNAIDS, bn, ALCM, Pvt, FRY, NGOs, COS, loc, ДОВСЕ, co, SLBM, eng, ГЧ, Lt, ECM, PKO, pos, DMZ, AAA, smg, COL.

**Exercise 7. Translate the following words and word combinations by ear:**

Rule of law**,** to conduct peacekeeping operation, manpower, to meet the needs, to bolster efforts, comprehensive assessment, on the ground, UN agencies, rapid deployment, comprehensive peace agreement, to implement the rule of law, to observe the ceasefires arrangement, to deter, conduct, to report on smth, to accomplish, to dispatch peacekeepers, to observe the separation of forces arrangement, adherence to the ceasefire, military personnel, to address causes, by and large, human rights, gender issues, civil administration, parties to the conflict, to maintain international peace.

Поддерживать усилия, норма права, обеспечивать выполнение нормы права, гражданская администрация, в общем и целом, личный состав, комплексная оценка, проводить операции по поддержанию мира, быстрое развертывание, отвечать потребностям, на местах, управления ООН, права человека, гендерные вопросы, наблюдать за выполнением соглашения о прекращении огня, конфликтующие стороны, строгое соблюдение прекращения огня, докладывать по какому-либо вопросу, рассматривать причины, военнослужащие, наблюдать за выполнением соглашения о разведении войск, личный состав, сохранять международный мир, всеобъемлющее мирное соглашение, выполнять указания, отправлять миротворцев.

**Exercise 8. Make a two-way translation:**

| | |
|---|---|
| Socio-economic recovery and development is critical to the achievement of a lasting peace. | В условиях вооруженного внутреннего конфликта большинство жертв приходится на гражданское население. Часто мирное население насильственно перемещается, что делает его ещё более уязвимым. |
| Experience has shown that peacekeeping efforts are likely to fail unless alternative livelihoods can be provided to demobilized combatants of both parties to the conflict. | Задачи, решаемые операциями по поддержанию мира, имеют по существу военный характер и могут заключаться в следующем:<br>– наблюдение, мониторинг и представление отчётов;<br>– контроль над прекращением огня;<br>– разведение враждующих сторон и укрепление мер доверия |

| | |
|---|---|
| Peacekeeping is a way to help countries torn by conflict create conditions for sustainable peace and restore law and order. UN peacekeepers—monitor and observe peace processes and assist conflicting parties to implement the separation of forces arrangement. | Гуманитарные агентства ООН и неправительственные организации могут подтвердить, выполняется ли соглашение о прекращении огня. Тесное взаимодействие с этими организациями является существенным условием успеха миссии. |
| A peacekeeping operation must have the operational resources, and the will to manage situations where there is an absence of local consent. In some cases this may require, as a last resort, the use of force within ROE. | Возвращение беженцев и перемещенного населения (displaced population) будет более вероятно, если будут учтены особые потребности этих людей в программах социально-экономическом восстановления |

**Exercise 9. Translate the following text at sight:**

## THE WAY UN PEACEKEEPING ADDRESSES HIV/AIDS

The United Nations bases its current HIV/AIDS policy on non-discrimination and respect for human rights. Reducing the risk of peacekeepers contracting or transmitting HIV while on mission is a key priority of the UN. Member States are strongly encouraged to provide pre-deployment voluntary counselling and testing (VCT) for peacekeepers and a standardized training module has been developed for troop and police contributing countries to establish a base level of HIV knowledge and awareness prior to deployment. National HIV/AIDS programmes for uniformed personnel also receive technical and financial support from UNAIDS (the Joint United Nations Programme on HIV/AIDS) and its cosponsors.

All major peacekeeping operations have AIDS advisers, supported by UN Volunteers and national professionals, to provide ongoing awareness for civilian and uniformed personnel. UNAIDS awareness cards are distributed in 12 languages and contain basic facts about HIV transmission and what to do to prevent it.

The UN's HIV/AIDS strategy in peacekeeping operations has five central elements: (1) the creation of specific capacity within missions for AIDS pro-

grammes; (2) ensuring the availability of condoms and observing universal medical precautions, including the provision of screened blood supplies (проверенные запасы крови для переливания); (3) the development of voluntary counselling and testing capacities (возможность проводить тестирование) in missions; (4) establishing monitoring and evaluation mechanisms; and (5) developing outreach projects (проекты «аутрич», связанные с выездом к целевой группе) specifically targeting local communities and integrating HIV/AIDS projects into broader mandated activities, such as disarmament, demobilization and reintegration and the training of national police forces.

**Exercise 10. Translate the following text at sight:**

## ПОДДЕРЖАНИЕ МИРА

Операция ООН по поддержанию мира может увенчаться успехом лишь в том случае, если стороны на месте действительно заинтересованы в урегулировании конфликта политическими средствами. Если это условие не соблюдается, то существует риск того, что миротворческая операция будет парализована или, хуже того, вовлечена в конфликт. Подписание соглашения о прекращении огня или мирного договора служит важным показателем того, что стороны готовы начать политический диалог. Однако такие договоренности не всегда свидетельствуют о реальной готовности к миростроительству, особенно в тех случаях, когда стороны подписали соглашение о прекращении огня под международным давлением.

Когда в Совете Безопасности принимается решение о развертывании операции ООН по поддержанию мира, необходимо обеспечить четкость и выполнимость мандата. Должна существовать уверенность в том, что государства-члены предоставят финансирование, выделят необходимое количество военных и полицейских сил, а также обеспечат политическую поддержку операции.

Консультации со странами, предоставляющими войска и полицию, могут проходить в различных форматах на всех ключевых этапах операций по поддержанию мира, в том числе таких как: a) разработка замысла операций и подготовка мандата новой операции; b) внесение любых изменений в мандат, в частности расширение или сужение круга задач миссии, добавление новых или дополнительных функций и компонентов, либо изменение санкции на применение силы; c) продление мандата; d) существенные или серьезные события политического, военного или гуманитарного характера; e) стремительное ухудшение состояния безопас-

ности в районе миссии; f) прекращение, вывод или сокращение масштабов операции, включая переход от миротворчества к постконфликтному миростроительству.

**Exercise 11. Translate the following text in writing:**

## PERSONAL AND PROFESSIONAL CONDUCT

United Nations peacekeeping personnel should be careful to mitigate the possible negative consequences of the mission's presence. United Nations peacekeeping personnel must adhere to national laws, where these do not violate fundamental human rights standards, respect local culture, and maintain the highest standards of personal and professional conduct.

Personnel serving in United Nations peacekeeping operations should be alert to any potential, unforeseen or damaging consequences of their actions and manage these as quickly and effectively as possible. Poor driving and vehicle accidents and lax waste management practices are just some of the negative impacts that may seriously undermine the perceived legitimacy and credibility of a mission, and erode its popular support.

Social impacts such as different cultural norms of mission staff and host country customs may create friction (e.g.: employment of women in nontraditional gender roles, mixing amongst genders, drinking, gambling, inappropriate behaviour, etc.). United Nations peacekeeping operations also have a major impact on the host economy, by pushing up the price of local housing and accommodation, or staple foods and materials, placing such items out of reach of the local community. All of these have the potential for creating friction and discontent within the local population and they should be continuously monitored and managed by the mission's leadership.

Where problems do arise, they should be addressed swiftly and honestly. At the same time, rumors and vexatious or erroneous accusations against the mission must be countered with vigor to maintain the good reputation of the international presence.

**Exercise 12. Translate the following text in writing:**

## ИСКУССТВО УСПЕШНОГО ВЫПОЛНЕНИЯ МАНДАТА

На практике четкой последовательности действий по учреждению операции ООН по поддержанию мира не существует. Время, требуемое на развертывание миссии, варьирует в зависимости от ряда факторов, в особенности, от готовности государств-членов предоставить войска и

полицию для конкретной операции, а также наличия финансовых и других ресурсов. Если мандат миссии отличается значительной сложностью, или миссия сталкивается с трудностями материально-технического обеспечения, или существует серьезная опасность для жизни миротворцев, то развертывание всех необходимых подразделений и компонентов может занять несколько недель или даже месяцев. Таким образом, срок в 90 дней, отводимый на развертывание первых элементов многопрофильной операции ООН по поддержанию мира, является лишь условной целью.

Операции ООН по поддержанию мира зачастую проводятся в условиях непредсказуемой и быстро меняющейся обстановки при минимально развитой инфраструктуре страны пребывания. В такой сложной рабочей обстановке операции ООН по поддержанию мира выполняют широкий круг гуманитарных и военных задач. Более того, возможны ситуации, при которых миссии придётся прибегать к более жёстким действиям, а затем снова, на новом этапе жизненного цикла, возвращаться к обычному характеру действий, а затем смещать акцент операции в сторону конкретных задач, среди которых может быть поддержка программы разоружения, выборы или операции по обеспечению безопасности.

## СПИСОК РЯДА АББРЕВИАТУР, ИСПОЛЬЗУЕМЫХ

## СПИСОК РЯДА АББРЕВИАТУР, ИСПОЛЬЗУЕМЫХ В УРОКАХ ДАННОГО УЧЕБНИКА

| | |
|---|---|
| AAC | Alaskan Air Command |
| AAM | air-to-air missile |
| A-bomb | atomic bomb |
| ABS | antiskid braking system |
| ACC | Air Combat Command |
| ACE | armored combat earthmover |
| ACO | Allied Command Operations |
| ACT | Allied Command Transformation |
| AD | active duty |
| AD | air defense |
| ADA bn | air defense artillery battalion |
| ADHPM | artillery-delivered high precision munition |
| AI | airborne intercept |
| AIFV | armoured infantry fighting vehicle |
| ALBM | air-launched ballistic missile |
| ALCM | air launched cruise missile |
| AMC | Air Mobility Command |
| APC | armored personnel carrier |
| ASM | air-to-surface missile |
| ASROC | anti-submarine rocket |
| ATACMS | army tactical missile system |
| ATC | Air Training Command |
| ATGM | antitank guided missile |
| AVLB | armored vehicle launched bridge |
| BASOPS | base support (operations) |
| BMEWS | Ballistic Missile Early Warning System |

| | |
|---|---|
| C2 | command and control |
| CA | civil affairs |
| cav sqdn | cavalry squadron |
| CBE | chemical and biological environment |
| CFE | conventional armed forces in Europe |
| CHOD | Chief of Defence |
| CINC | Commander-in-Chief |
| CJCS | Chairman Joint Chiefs of Staff |
| CJTF | Combined Joint Task Force |
| CL | center line |
| CMC | Commandant of Marine Corps |
| CNO | Chief of Naval Operations |
| COS | chief of staff |
| COSCOM | corps support command |
| CPX | Command Post Exercise |
| CRT | cathode ray tube |
| CS | combat support |
| CSA | Chief of Staff of the Army |
| CSAF | Chief of Staff of the Air Force |
| CSS | combat service support |
| CVA | attack carrier |
| CVN | nuclear-powered aircraft carrier |
| CVS | ASW carrier |
| CW | chemical warfare |
| DA | deployment area |
| DEW line | Distant Early Warning Line |
| DISCOM) | division support command |
| div HQ | division headquarters |
| DOD | Department of Defense |
| DPKO | UN Department of Peacekeeping Op- |

| | |
|---|---|
| | erations |
| EAC | echelons above corps |
| EMP | electromagnetic pulse |
| FDA | forward defense area |
| FDC | fire direction centre |
| FDO | fire direction officer |
| FEBA | forward edge of the battle area |
| FM | field manual |
| FO | fire observer |
| FSC | fire support coordinator |
| FSCC | fire support coordination center |
| GBI | ground-based interceptor |
| GMT | Greenwich Mean Time |
| GPS | Global Positioning System |
| GZ | ground zero |
| HE | high explosive projectile |
| HEAT-FS | high explsive antitank fin stabilised |
| HEF | high explosive fragmentation projectile |
| He-Frag | high explsive fragmentation ammunition |
| HIMAD | high-to-medium-altitude air defense |
| HMMWV | high mobility multipurupose wheelled vehicle |
| HQ co | headquarters company |
| ICBM | Intercontinental ballistic missile |
| IFF | Identification Friend or Foe |
| IFV | infantry fighting vehicle |
| ILS | Instrument Landing System |
| IMC | improved conventional munition |
| inf | infantry |

| | |
|---|---|
| IVIS | Inter-Vehicular Information System |
| JCIC | Joint Compliance and Inspection Commission |
| JCS | Joint Chiefs of Staff |
| JFCs | Joint Force Command |
| JTF | joint task force |
| KP | kitchen police |
| LC | line of contact |
| LD | line of departure |
| LOMAD | low-to-medium-altitude air defense |
| LRNA | long-range nuclear air launched cruise missile |
| MAC | Military Airlift Command |
| MANPADS | man portable antiaircraft defense system |
| MBT | main battle tank |
| MC | Military Committee |
| mech inf | mechanized infantry |
| MG | machine gun |
| MI bn | military intelligence battalion |
| MIRV | multiple independently targetable reentry vehicle |
| MLRS | Multiple Launch Rocket System |
| MOPP | mission-oriented protective posture |
| MOU | Memorandum of Understanding |
| MP coy | military police company |
| MUX | multiplexer |
| NAC | North Atlantic Council |
| NATO | North Atlantic Treaty Organization |
| N-bomb | neutron bomb |
| NCA | National Command Authorities |

| | |
|---|---|
| NMD | National Missile Defense |
| NORAD | North American Aerospace Defense Command |
| NORAD SC | NORAD Surveillance Center |
| NORAD SDC | NORAD Space Defense Center |
| NORAD COC | NORAD Combat Operations Center |
| NRC | NATO-Russia Council |
| NURRC | Nuclear Risk Reduction Center |
| obj | objective |
| OP | observation post |
| OPCON | operation control |
| OSD | Office of the Secretary of Defense |
| OSI | on-site inspection |
| OTHB | over-the-horizon-back-scatter |
| PACAF | Pacific Air Force |
| PJC | Permanent Joint Council |
| PKO | peacekeeping operation |
| PL | phase line |
| Po | polonium |
| PPI | plan position indicator |
| PRF | pulse repetition frequency |
| PT | physical training |
| pur | pursuit |
| R&D | research and development |
| RADIAC | radioactivity detection, indecation and computation |
| RAP | rocket-assisted projectile |
| ROE | rules of engagement |
| RV | reentry vehicle |
| SAC | Strategic Air Command |

| | |
|---|---|
| SAW | squad automatic weapon |
| SCDM | self-contained dispensing mechanism |
| SECDEF | Secretary of Defense |
| SEWS | Satellite Early Warning System |
| SHOEAD | short-range air defense system |
| SLBM | submarine launched ballistic missile |
| SOC | Special Operations Command |
| SOP | standard operating procedure |
| SPADATS | Space Detection and Tracking System |
| SRAM | short-range attack missile |
| SS | submarine |
| SSBN | nuclear ballistic missile submarine |
| SSI | suspect-site inspection |
| STOL | short takeoff and landing aircraft |
| SUBROC | submarine-launched rocket |
| TAC | Tactical Air Command |
| TATB | triaminobtrinitrobenzene |
| TF | task force |
| TMD | Theatre Missile Defense |
| TNT | trinitrotoluol |
| TOD | tour of duty |
| TOE | table of organization and equipment |
| UAV | unmanned aerial vehicle |
| UNSAS | UN Stand-by Arrangements System |
| US | under-secretary |
| US CENTCOM | U.S. Central Command |
| US SOCOM | U.S. Special Operations Command |
| US SOUTHCOM | U.S. Southern Command |
| US SPACECOM | U.S. Space Command |
| US STRATCOM | U.S. Strategic Command |
| US TRANSCOM | U.S. Transportation Command |

| | |
|---|---|
| USACOM | U.S. Atlantic Command |
| USAFE | Air Forces in Europe |
| USAR | U.S. Army Reserve |
| USARNG | Army National Guard of the United States |
| USEUCOM | U.S. European Command |
| USM | underwater-to-surface missile |
| USPACOM | U.S. Pacific Command |
| VTOL | verticle takeoff and landing airplane |
| WMD | weapons of mass destruction |
| Y | ittrium |

## VOCABULARY

A

| | |
|---|---|
| abort a takeoff | прерывать взлет |
| About FACE | Кру-ГОМ (на месте) |
| absorption | поглащение, абсорбция |
| accede | вступать |
| accession | вступление |
| access | доступ |
| accomplish objectives | выполнять задачи |
| accuracy | точность |
| accurate depiction | точное указание |
| achieve surprise | достигать внезапности |
| acknowledge | подтвердить |
| acquire target | обнаруживать цель |
| acquisition radar | РЛС обнаружения и сопровождения |
| Action! | К бою! |
| activation | 1. введение в строй/действие<br>2. приведение в готовность к действию |
| active armor | активная защита |
| active duty (AD) | действительная служба |
| active reactive armor | |
| active sonar | гидролокатор |
| active unit | регулярная часть |
| actual date | фактическая дата |
| adamsite | адамсит |
| admission of new members | прием новых членов |
| advantage lies with… | преимущество принадлежит ... |
| aerial engineer | бортинженер; бортмеханик |

| | |
|---|---|
| aerodynamic | 1. аэродинамический<br>2. обтекаемой формы (о кузове и т. п.) |
| aerodynamic (cruise) missile | аэродинамическая (крылатая) ракета |
| aerospace attack | воздушно-космическое нападение |
| Aerospace Defense (former Air Defense) Command | командование воздушно-космической обороны |
| afford protection against gamma rays, neutrons, alpha and beta particles | обеспечивать защиту от гамма-излучения, нейтронов, альфа-, и бета-частиц |
| aft | кормовой |
| agent | (ре)агент, средство, вещество; добавка |
| aggregate data | сводные данные |
| aggregate number | суммарное количество |
| agility | маневренность; подвижность |
| AI (airborne intercept) radar | бортовая (поисково-прицельная) РЛС перехвата |
| Air Training Command (ATC) | командование обучения и подготовки |
| air assault operation | воздушно-штурмовая операция |
| Air Combat Command (ACC) | боевое авиционное командование (БАК) |
| air defense (AD) | противовоздушная оборона (ПВО) |
| air defense artillery battalion (ADA bn) | зенитный дивизион |
| Air Force Communications Service | служба связи ВВС |
| Air Force Intelligence Command | разведывательное авиационное командование (РАК) |
| Air Force Logistics Command | командование тыла ВВС США |
| Air Force Material Command | командование материально-технического обеспечения |

| | |
|---|---|
| Air Force Space Command | космическое командование ВВС США |
| Air Force Special Operations Command (SOC) | командование специальных операций ВВС США |
| Air Force Systems (former Air Research and Development) Command | командование систем вооружения ВВС |
| Air Forces in Europe (USAFE), | командование ВВС США в Европе |
| air intake | воздухозаборник |
| air launched cruise missile (ALCM) | крылатая ракета воздушного базирования (КРВБ) |
| Air Mobility Command (AMC) | авиационное командование воздушных перебросок |
| air search radar | поисковая РЛС |
| air superiority | превосходство в воздухе |
| air superiority fighter | истребитель завоевания превосходства в воздухе |
| air surveillance radar | РЛС обнаружения самолётов radar |
| air transportable field artillery weapon system | транспортируемая по воздуху орудийная система полевой артиллерии |
| Air University | Университет ВВС США |
| air warfare | война в воздухе |
| air wing | авиакрыло |
| air-assault division | воздушно-штурмовая дивизия |
| airborne division | воздушно-десантная дивизия |
| airborne early warning aircraft | самолёт радиолокационного дозора |
| aircraft instrumentation | пилотажно-навигационный комплекс |
| airdrop operation | воздушно-десантная операция с выброской войск на парашютах |
| Airforce HQ | штаб ВВС |
| airframe | корпус(ракета); планер (самолета) |

| | |
|---|---|
| air-land battle | воздушно-наземное сражение |
| air-land operation | воздушно-наземная операция |
| airlanded operation | воздушно-десантная операция с высадкой; вертолетно-десантная операция |
| air-launched ballistic missile (ALBM) | баллистическая ракета воздушного базирования |
| airlift planes | транспортные самолеты |
| airlock | тамбур, шлюз |
| airman | авиатор; летчик |
| airmen | лётный состав |
| airmobile division | аэромобильная дивизия |
| airplane heavier than air | летательный аппарат тяжелее воздуха |
| airplane lighter than air | летательный аппарат (ЛА) легче воздуха |
| airport facilities | оборудование аэропорта |
| airstream | воздушный поток |
| airtight | герметичный; воздухонепроницаемый |
| air-to-air missiles (AAM) | ракета класса «воздух – воздух» |
| air-to-surface missile (ASM) | ракета класса «воздух – поверхность» |
| airworthiness standards | нормы летной годности |
| Alaskan Air Command (AAC) | командование ВВС США на Аляске |
| alert | тревога |
| alert active AD forces | приводить активные средства ПВО в боевую готовность |
| align | выравнивать (в заданном направлении); нацеливать; наводить |
| alignment | центрирование, центровка; выравнивание |

| | |
|---|---|
| Allied Command Operations (ACO) | Стратегическое командование НАТО по операциям (СКО) |
| Allied Command Transformation (ACT) | Главное командование НАТО по трансформации |
| alloy | сплав |
| all-round defense | круговая оборона |
| ambient air | атмосферный воздух |
| ammunition | боеприпасы |
| ammunition allowance | боекомплект |
| ammunition flow | подача боеприпасов |
| ammunition load | боекомплект |
| ammunition section | секция боепитания |
| ammunition storage | боеукладка |
| amphibious command | командование амфибийных сил |
| amphibious operations | морская десантная операция |
| analyze the mission | уяснять задачу |
| angled deck | угловая полётная палуба |
| annex | приложение |
| antenna array | антенная решётка |
| antenna assembly | антенное устройство |
| antenna switch, duplexer | антенный переключатель |
| antiaircraft defense | ПСО (противосамолётная оборона) |
| antiaircraft machine-gun | зенитный пулемёт |
| anti-ballistic missile (interceptor) | противоракета (ракета-перехватчик) |
| antiballistic missile defense | противоракетная оборона (ПРО) |
| Anti-Ballistic Missile System | система противоракетной обороны |
| anticipated operational environment | предполагаемая оперативная обстановка |

| | |
|---|---|
| antidote kit | противохимический пакет |
| antimissile guidance system | система наведения противоракеты |
| anti-radiation (antiradar) missile | противорадиолокационная ракета |
| antiskid braking systems (ABS) | противоблокировочная тормозная система |
| anti-submarine rocket (ASROC) | противолодочная ракета-торпеда |
| antisubmarine warfare submarine | подводная лодка ПЛО |
| antitank guided missile (ATGM) | противотанковая управляемая ракета (ПТУР) |
| anti-torque pedals (directional control pedals) | педали путевого (ножного) управления |
| application of the nuclear power plant to submarines | применение ЯЭУ (ядерная энегетическая установка) на подводных лодках |
| apply a voltage to | подавать напряжение на... |
| apply one’s combat power | применять боевую мощь |
| approach | заход на посадку; подход к зоне аэродрома |
| appropriate actions | соответствующие меры |
| area air defense | ПВО района (территориальная ПВО) |
| area damage control | ликвидация последствий применения оружия массового поражения |
| area defense | оборона района |
| area of application | район применения |
| armament | вооружение |
| armaments and equipment | вооружения и техника |
| Armed Forces | Вооруженные Силы |
| armed services | виды вооруженных сил |
| armor plate | броневой лист |
| armored cavalry scout vehicle | бронированная разведывательная |

| | |
|---|---|
| | машина (БРМ) |
| armored combat earthmover (ACE) | универсальная инженерная машина |
| armored division | бронетанковая дивизия |
| armored personnel carrier (APC) | бронетранспортер (БТР) |
| armored vehicle launched bridge (AVLB) | танковый мостоукладчик |
| armoured | бронированный |
| armoured combat vehicle | боевая бронированная машина |
| armoured infantry fighting vehicle (AIFV) | боевая машина пехоты (БМП) |
| armoured infantry fighting vehicle look-alike | боевая машина пехоты-подобная |
| armoured personnel carrier (APC) | бронетранспортер (БТР) |
| armoured personnel carrier look-alike | бронетранспортер-подобный |
| armoured vehicle launched bridge | танковый мостоукладчик |
| Army | Сухопутные войска |
| army corps | армейский корпус |
| Army National Guard of the United States (USARNG) | национальная гвардия Сухопутных войск США |
| army tactical missile system (ATACMS) | армейская тактическая ракетная система «АТАКМС» |
| arrested landing | посадка с аэрофинишером |
| arresting gear | тормозной механизм |
| artificial horizon | авиагоризонт |
| artillery battalion | артиллерийский дивизион (адн) |
| artillery-delivered high precision munition (ADHPM) | артиллерийский высокоточный снаряд |
| AS YOU WERE! | ОТСТАВИТЬ! |
| assault (aslt) | атака; штурм |
| assault rifle | автомат |
| assault troops | десантные подразделения |

| | |
|---|---|
| assembly area | район сосредоточения (сбора) |
| assembly joint | стыковочный узел |
| assessment | оценка |
| assets | средства |
| assigned and attached forces | подчиненные и приданные войска (силы) |
| assistant secretary (US) | помощник министра (США) |
| Assistant Secretary of the Army, Financial Management | помощник министра СВ по финансовым вопросам |
| Assistant Secretary of the Army, Research, Development and Acquisition | помощник министра СВ по НИОКР и закупкам вооружения и техники |
| associated territory | связанная с ней территория |
| astern | сзади, со стороны хвоста; с задней полусферы |
| ASW carrier (CVS) | авианосец ПЛО |
| at division level | дивизии; в дивизионном звене |
| At EASE! | ВОЛЬНО! |
| At ease, MARCH! | ВОЛЬНО! (в движении) |
| AT MY COMMAND! | Слушай мою команду! |
| at the signature of this Treaty | при подписании настоящего Договора |
| atomic bomb (A-bomb) | атомная бомба |
| attack aircraft | штурмовик |
| attack area | зона атаки; район цели; зона выхода на цель |
| attack carrier (CVA) | ударный авианосец |
| attack formation | боевой порядок в наступлении |
| attack helicopter | ударный вертолет |
| attack position | исходный район (для наступления) |
| attack submarine | торпедная подводная лодка |

| | |
|---|---|
| attack surface targets | наносить удары по наземным целям |
| attack the blood-stream | поражать кровеносную систему |
| ATTENTION! | СМИРНО! |
| Auditor General | генеральный финансовый инспектор |
| augment | усиливать; наращивать силы |
| augmentee | резервист, призванный из резерва |
| augur well/ill for smth. | служить хорошим/плохим предзнаменованием чего-либо |
| automated control system | автоматизированная система управления (АСУ) |
| automatic fire detection and suppression system | автоматическая система противопожарного оборудования |
| automatic loader | автомат заряжания |
| automatic target tracking | автоматическое сопровождение цели |
| autorotation | авторотация |
| availability | работоспособность, эксплуатационная готовность |
| avenues of approach | пути подхода; подступы |
| aviation brigade (avn bde) | бригада армейской авиации |
| avionics system | (бортовая) авиационная (радио)-электронная система, авиационное электронное оборудование, авионика, БРЭО |
| axis of advance | основное направление наступления |

B

| | |
|---|---|
| ballistic missile submarine | подводная лодка, оснащенная пусковыми установками БРПЛ |
| banking | кренение; вираж, разворот |
| baratol | боратол |
| barrel | ствол |

| | |
|---|---|
| base plate | опорная плита (миномета) |
| base support (operations) (BASOPS) | обеспечение, осуществляемое базой |
| baseline data | исходные данные |
| baseline data inspection | инспекция в отношении исходных данных |
| basic load | штатный боекомплект |
| basic military training | базовая военная подготовка |
| battle tank | боевой танк |
| battlefield missile | ракета ближнего (радиуса) действия; тактическая ракета |
| be responsible for | отвечать за что-то |
| be responsible to | отвечать перед кем-то |
| be secured | *зд.* надежно прикрепленный |
| beam | луч |
| before expiration | до истечения |
| belly plate | лист днища |
| beryllium (Be) | бериллий |
| big-bodied aircraft | широкофюзеляжный самолёт |
| binary chemical weapon | бинарное химическое оружие |
| biological agent | биологический возбудитель болезни (БВБ) |
| biplane | биплан |
| bipod | сошка |
| blades | лопатки (двигателя) |
| blast | взрывная волна; ударная волна |
| blended | смешанный, комбинированный |
| blister agent | ОВ кожно-нарывного действия |
| blood agent | ОВ общеядовитого действия |
| bloodstream | кровеносная система |
| BMEWS — Ballistic Missile Early | система дальнего обнаружения |

| | |
|---|---|
| Warning System | баллистических ракет |
| bolt | затвор |
| bolt carrier | затворная рама |
| bombardier | бомбардир |
| bomber | бомбардировщик |
| bombing | бомбардировка |
| boost phase | активный участок |
| booster | ускоритель; разгонный двигатель |
| bore | канал ствола |
| botulinum toxin | токсин ботулинуса |
| boundary (bdry) | разграничительная линия |
| bow | нос корабля |
| brakes | тормоза |
| breakdown of negotiations | срыв переговоров |
| breech block | затвор |
| breech casing | ствольная коробка |
| breech ring | казенная часть |
| breech system | затворная система |
| briefing facility | место приведения брифинга |
| bring about a political solution to the conflict | найти политическое решение конфликта |
| Broad, Enhanced Dialogue and Cooperation | широкий углубленный диалог и сотрудничество |
| bronchial tubes | бронхи |
| built-up area | населенный пункт; застроенная местность |
| bulkhead | перегородка |
| bullet’s jacket | оболочка пули |
| burn-resistant clothing | огнеупорная одежда |
| burst near the ground | воздушный (низкий) ядерный взрыв |

| | |
|---|---|
| burst on the ground | наземный ядерный взрыв |
| bus | шина |
| buttstock | приклад |
| By the right (left) flank, MARCH! | Напра-ВО (Нале-ВО)! (в движении) |
| By twos, NUMBER! | На первый и второй – РАССЧИТАЙСЬ! |

C

| | |
|---|---|
| calendar reporting period | календарный период отчетности |
| call the roll | проводить поверку |
| canard | крыльевая схема «утка» |
| canards | оперение |
| cannon | пушка |
| cannons | 1. ствольная артиллерия<br>2. ствольные артиллерийские орудия |
| capitalize on the agility of the force | извлекать выгоду из маневренности войск |
| cargo hatch | грузовой люк |
| cargo planes | транспортная авиация |
| carriage | лафет, орудийный станок; ходовая часть |
| carrier-based airplane | палубный самолет (самолет, базирующийся на авианосце) |
| carry out | осуществлять |
| carry out operations | вести боевые действия |
| cartridge | патрон |
| casualties | потери личного состава |
| casualty agent | средство поражения живой силы |
| cathode ray tube (CRT): | электронно-лучевая трубка |
| cause damage | поражать (наносить урон) |

| | |
|---|---|
| cause severe burns | вызывать сильные ожоги |
| cavalry forces | разведывательные части и подразделения |
| cavalry squadron (cav sqdn) | разведывательный батальон |
| cell | камера; секция; отсек; ячейка |
| center line (CL) | диаметральная плоскость (ДП) |
| centerline elevator | самолётоподъёмник, расположенный параллельно ДП палубы (палубный) |
| central wing section | центроплан |
| ceramic blocks | керамические блоки |
| certification site | место сертификации |
| chain gun | автоматическая скорострельная пушка (с цепным электроприводом) |
| Chairman Joint Chiefs of Staff (CJCS | председатель комитета начальников штабов |
| challenge inspection within specified areas | инспекция по требованию в пределах казанных районов |
| chamber pressure | давление в зарядной камере |
| Change step, MARCH! | Взять ногу! |
| check soldiers' appearance | проверка внешнего вида |
| checkpoint | пункт регулирования; блок-пост; КПП |
| chemical (protection) overgarment | верхняя защитная одежда |
| chemical agent | отравляющее вещество (0В) |
| chemical agent detector kit | газоопределитель, газосигнализатор |
| chemical and biological environment (CBE) | химическая и биологическая обстановка |
| chemical brigade | химическая бригада |
| chemical company (cml co) | химическая рота |
| chemical detection and radiological | химическая и радиоационная раз- |

| | |
|---|---|
| monitoring | ведка |
| chemical warfare (CW) | боевые действия с применением химического оружия |
| Chief of Defence (CHOD) | 1. начальник штаба ВС государства<br>2. начальник генерального штаба |
| Chief of Naval Operations (CNO) | начальник штаба ВМС США |
| chief of staff (COS) | начальник штаба |
| Chief of Staff of the Air Force (CSAF) | начальник штаба военно-воздушных сил |
| Chief of Staff of the Army (CSA) | начальник штаба сухопутных войск |
| chloropicrin | хлорпикрин |
| choking agent | ОВ удушающего действия |
| circular error probable | круговое вероятное отклонение |
| civil affairs (ca) unit | подразделение по связям с гражданской администрацией и населением |
| civilian employees | гражданский персонал (служащие) |
| clarify | разъяснять |
| class | тип (корабля) |
| clear and unobstructed view | четкий и беспрепятственный обзор |
| climb | набирать высоту |
| close air support | непосредственная воздушная поддержка |
| close and continuous fire support | непрерывная непосредственная огневая поддержка |
| close quarter combat | ближний бой |
| close supporting fire | огневое сопровождение |
| close with and destroy the enemy by firepower, mobility, and shock effect | сблизиться и уничтожить противника при помощи огневых средств, маневра и удара |

| | |
|---|---|
| closed-circuit television system | замкнутая телевизионная система |
| close-in objective | ближайший объект (наступления) |
| close-out inspection | инспекция ликвидированных объектов |
| Coastal Guard | береговая охрана |
| coastal waters | прибрежные воды |
| coating | покрытие |
| coaxial machine gun (MG) | спаренный пулемет |
| cockpit | кабина самолета |
| cockpit display | бортовой индикатор |
| cockpit instruments | авиаприборы |
| coherent radar | когерентно-импульсная РЛС |
| collaborate | сотрудничать |
| collective defense | коллективная (совместная) оборона |
| collective pitch stick | ручка управления общим шагом; рычаг общего шага; ручка «шаг-газ» |
| collective protection | средства коллективной защиты |
| collision course | встречно-пересекающийся курс; траектория наведения в упрежденную точку |
| combat aircraft | боевой самолет |
| combat biological agent | боевое биологическое средство (ББС) |
| combat forces | боевые войска |
| combat helicopter | боевой вертолет |
| combat operation | боевая операция |
| combat power | боевая мощь; боевые силы и средства |
| combat rate of fire | боевая скорострельность |
| combat readiness time | время приведения в боевую го- |

| | |
|---|---|
| | товность |
| combat service support (CSS) assets | средства боевого и тылового обеспечения |
| combat service support (CSS) unit | часть тылового обеспечения |
| combat support (CS) unit | часть боевого обеспечения |
| combat support helicopter | вертолет боевого обеспечения |
| combat unit | боевая часть |
| combat use | боевое применение |
| combatant commands | боевые командования |
| combat-capable trainer aircraft | учебно-боевой самолет |
| combined arms | общевойсковой |
| combined arms formation | общевойсковое формирование |
| combined arms team | общевойсковое подразделение |
| Combined Joint Task Force (CJTF) | многонациональная объединенная оперативно-тактическая группа |
| command (post) vehicle | 1. машина управления |
| | 2. подвижный командный пункт (КП) |
| command (remote-control) guidance | командное (дистанционное) управление (наведение) |
| command and control (C2) | оперативное управление; |
| | боевое управление |
| command authority | командная инстанция |
| command of execution | исполнительная команда |
| Command Post Exercise (CPX) | командно-штабное учение (КШУ) |
| command structures | органы военного управления (ОВУ) |
| Commandant of Marine Corps (CMC) | командующий корпуса морской пехоты |
| commander of the guard | начальник караула |
| commander’s concept | замысел боя (операции) |
| commander’s cupola | командирская башенка |

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|---|---|
| commander’s decision | решение командира |
| commander’s weapon station | командирский пульт управления огнём |
| Commander-in-Chief (CINC) | главнокомандующий |
| commander's intent | намерение командира; решение на операцию |
| commission | вводить в строй действующих |
| commit oneself | брать на себя обязательство |
| commit the reserve | вводить резервные силы в бой |
| communication call signs | позывные для связи |
| communications | связь |
| compartmentalization | изоляция отсеков |
| compatibility | совместимость |
| complement | количество самолётов палубного базирования |
| composite armour | многослойная броня; композитная броня |
| compound | состав |
| computer-aided design | автоматизированное проектирование |
| concealment | сокрытие |
| concealment measures | меры маскировки |
| concentrate combat power at the decisive place and time to win | сосредоточивать боевые силы и средства в решающем месте и в решающее время для достижения победы |
| concentrate fire | сосредоточивать огонь |
| concentration of superior combat power | сосредоточение превосходящей боевой мощи |
| concentric engines | соосно расположенные двигатели |
| concept of operation | замысел операции, замысел действий |

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|---|---|
| conduct defensive operations | вести оборонительный бой |
| conduct inspections | проводить инспекции |
| conduct nuclear and chemical operations | проводить операции с применением ядерного и химического оружия |
| confer no right on smb | не давать право кому-либо |
| Conference on Security and Cooperation in Europe | Совещание по безопасности и сотрудничеству в Европе |
| confirmed data | заверенные данные |
| conflict prevention | предотвращение конфликтов |
| conform to smth. | соответствовать чему-либо |
| connect smth to smth | подсоединять что-либо к чему-либо |
| conscript *n.* | призывник |
| conscript *v.* | призывать на военную службу |
| consolidate gains | закреплять успех |
| consolidate the objective | закрепляться на захваченном рубеже |
| consulate | консульство |
| consultation process | процесс проведения консультаций |
| contain an attack | сдерживать наступление |
| contain the enemy | сковывать силы противника |
| contingency | один из возможных вариантов развития обстановки |
| contingency planning | планирование действий при различных вариантах обстановки, многовариантное планирование |
| continuous monitoring activities | деятельность по непрерывному наблюдению |
| contractor | подрядчик |
| contribute to | вносить вклад в |
| control column syn. stick | штурвальная колонка; штурвал |

| | |
|---|---|
| control of terrain | удержание местности |
| control stick | штурвал самолета |
| conventional armed forces in Europe (CFE) | обычные вооруженные силы в Европе (ОВСЕ) |
| conventional munition | обычный боеприпас |
| conventionally-powered carrier | авианосец с обычной ЭУ |
| conversion | переоборудование |
| conversion facilities | место переоборудования |
| conversion or elimination inspection | инспекция в связи с переоборудованием или ликвидацией |
| convert (into) | переоборудовать |
| convinced that | будучи убежденными |
| cooling system | система охлаждения |
| cooperative measures | меры на основе сотрудничества |
| coordinated attack | одновременное наступление |
| coordinating point | стык |
| coordination | взаимодействие; согласование |
| copilot | второй пилот |
| copious weeping | обильное слезотечение |
| copper | медь |
| cornerplate | лючок |
| corps | корпус |
| corps support command (COSCOM) | командование поддержки корпуса (тыла) |
| correlate | сопоставлять, устанавливать соотношение |
| corrugated iron | волнистая сталь |
| count against the quotas | засчитывать в квоты |
| Count, OFF! | По порядку – РАССЧИТАЙСЬ! |
| counter the threat of | отражать угрозу |
| counterattack | контратака; контрудар |

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|---|---|
| counterbattery fire | контрбатарейный огонь |
| counterfire | 1. контрбатарейный огонь<br>2. ответный огонь |
| counterreconnaissance` | борьба с разведкой противника |
| counting | засчет |
| cover | чехол |
| coveralls | комбинезон |
| covering force | войска (силы) прикрытия |
| covert assembly | скрытая сборка |
| cradle | люлька |
| crash dive | срочное погружение |
| crew | экипаж |
| crew-served weapons | групповое оружие |
| crisis management | урегулирование кризисов (кризисных ситуаций) |
| cross attachment | взаимное переподчинение |
| cross-country (terrain) | пересеченная местность |
| cross-country capability | проходимость по пересеченной местности |
| cross-country mobility | подвижность на пересеченной местности |
| cross-country terrain | пересеченная местность |
| cross-country vehicle | транспортное средство повышенной проходимости |
| CRT face (screen) | экран трубки |
| CRT indicator | индикатор с ЭЛТ |
| cruise missile | крылатая ракета |
| cruising range | запас хода |
| culvert | водопропускная труба, кульверт |
| cumulative total | в совокупности |

| | |
|---|---|
| cyclic pitch stick | ручка управления циклическим шагом |

D

| | |
|---|---|
| daily routine | распорядок дня |
| danger of infiltration | опасность проникновения |
| data base | база данных |
| data update inspection | инспекция в отношении обновленных данных |
| dead slow speed | самый малый ход |
| death occurs | наступает смертельный исход |
| debris | 1. продукты взрыва<br>2. обломки и развалины |
| debris clearance | расчистка завалов |
| deck | палуба |
| deck plate | лист крыши |
| deck-edge elevator | бортовой самолётоподъёмник |
| declared site | объявленное место |
| declared site inspection | инспекция объявленных мест |
| decommission from service | списать с вооружения |
| decontamination | обеззараживание; дегазация; дезактивация; дезинфекция |
| decontamination station | пункт дегазации, дезактивации и санитарной обработки |
| decoy | ложная цель |
| deem sufficient (appropriate) | считать достаточным (необходимым) |
| deep waters | глубоководная акватория |
| defeat | поражение |
| defeat the enemy in close combat | нанести поражение противнику в ближнем бою |
| defence capabilities | оборонный (военный) потенциал |
| Defence Planning Committee | Комитет оборонного планирова- |

| | |
|---|---|
| | ния |
| defense | оборона |
| defense in depth | глубина построения обороны |
| defensive area | район обороны |
| defensive positions | оборонительные позиции |
| deflect | отклонять(ся) |
| deflection ceil | отклоняющая катушка |
| defoliant | дефолиант |
| deice | противообледенительное устройство |
| delayed-action chemical agents | ОВ замедленного действия |
| delaying action | сдерживающее действие |
| delineate | отграничивать |
| deliver a signal to | подавать сигнал на... |
| Delta wing | дельтовидное крыло |
| demands placed on | требования, предъявляемые к |
| Department of Defense (DOD) | министерство обороны |
| Department of the Air Force | министерство военно-воздушных сил |
| Department of the Navy | Министерство ВМС США |
| depleted uranium | обедненный уран |
| deploy active AD means | развертывать активные средства ПВО |
| deployment | переброска войск; развёртывание |
| deployment area (DA) | район развертывания |
| deposit | осадок |
| deposit | откладываться, выпадать |
| descend | снижаться |
| design | 1. проектирование; разработка; конструирование 2. проект; разработка; конструкция, конструктивное решение; конструктивное ис- |

| | |
|---|---|
| | полнение, конструктивное оформление 3. схема; чертеж; схемное решение; план 4. расчет 5. дизайн |
| designate control measures | указывать средства управления |
| destroyer command | командование миноносных сил |
| detachable equipment | навесное оборудование |
| detail | наряд; команда |
| detector crayon | индикаторный мелок |
| detector paper | индикаторная бумага |
| deterrence | сдерживание |
| develop doctrine | разрабатывать доктрину |
| develop the plan | разрабатывать план |
| device | устройство; прибор, аппарат |
| dig in | окапываться |
| dimensions | габариты |
| direct fire | огонь прямой наводкой |
| direct firepower | средства ведения огня прямой наводкой |
| direct support | поддержка огнем прямой наводкой |
| direction of attack | направление удара (атаки) |
| Director, Information Systems | начальник управления информационных систем |
| Directorate | Главное управление ГШ ВС РФ |
| dirigible, syn. airship | дирижабль |
| dirty bomb | грязная бомба |
| disclose publicly | разглашать публично |
| disconnect from | отключать от ... |
| DISMISSED! | РАЗОЙДИСЬ! |
| dismounted operations | боевые действия мотопехоты в пешем порядке |
| disperse forces over | рассредоточивать войска |

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|---|---|
| dispersion | рассредоточение |
| displacement | водоизмещение |
| display | индикатор |
| display board | табло отображения информации |
| disposable | одноразового применения (действия) |
| disposal | утилизация |
| dispose debris | использовать останки |
| disrupt an attack | срывать наступление |
| disrupt the enemy force | расстраивать боевой порядок противника |
| disseminate | распространять |
| Distant Early Warning Line (DEW line) | рубеж дальнего радиолокационного обнаружения |
| distinguishability exhibition | показ в связи с отличимостью |
| distinguishable | отличимый |
| district | округ |
| div commander | командир дивизии |
| div counterattack | контратака (контрнаступление) дивизии |
| div flanks & rear | фланги и тыл дивизии |
| dive | погружаться |
| division | дивизия (крупных кораблей) |
| division artillery (div arty) | дивизионная артиллерия |
| division base | дивизионная основа |
| division headquarters (div HQ) | штаб дивизии |
| division support command (DISCOM) | командование тыла (поддержки) дивизии |
| dogfight | воздушный бой |
| don the protective mask | надевать противогаз |
| Doppler radar | доплеровская РЛС |

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|---|---|
| dosimeter | дозиметр |
| double envelopment | двойной охват |
| Double time, MARCH! | Бегом – МАРШ! |
| down-looking radar | РЛС (авиа.) нижнего обзора |
| drill (training) | строевая подготовка |
| drill and ceremonies | строевая подготовка и торжественные марши |
| drive the propellants to the engine | подавать компоненты ракетного топлива в двигатель |
| droop down | свисать |
| dry dock | док |
| dust respirator | противопылевой респиратор |
| duty roster | график нарядов |

E

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|---|---|
| early warning | раннее предупреждение |
| early warning of an enemy air attack | раннее предупреждение о воздушном нападении противника |
| early warning radar | РЛС дальнего обнаружения |
| ease of operation | легкость в управлении |
| echelons above corps (EAC) | формирования выше корпуса |
| economical | экономичный, экономный |
| economic | экономический |
| economical speed | экономическая скорость хода |
| effects | поражающие факторы (ядерного оружия) |
| eject the enemy | выбивать противника |
| ejectable capsule | сбрасываемая капсула |
| electromagnetic pulse (EMP) | электромагнитный импульс |
| electron gun | электронная пушка |
| electronic warfare | РЭБ |
| element | подразделение |

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|---|---|
| elevator | руль высоты; самолётоподъёмник |
| elimination facilities | место ликвидации |
| eliminate disparity | ликвидировать неравенство |
| emergency | чрезвычайное положение, аварийная ситуация |
| emergency landing | аварийная посадка |
| emplacement equipment | установочное оборудование |
| encapsulation | капсулирование |
| encompass | заключать (в себе), касаться |
| encourage cooperation | способствовать сотрудничеству |
| encryption | шифрование |
| endo-etmaspheric interception | внутриатмосферный перехват |
| enemy (en) | противник |
| engage a target | поразить цель |
| engagement control station | станция управления огнём |
| engine controls | органы управления двигателем |
| engine load sharing system | система распределения нагрузки двигателя |
| engine throttle controls | рычаги управления двигателя |
| engine throttles | рычаги управления двигателем |
| engineer battalion (engr bn) | инженерный батальон |
| engineering | строительство; разработка; проектирование; конструирование |
| engineers (engr) | саперные части и подразделения |
| enhanced radiation warhead | ядерная боевая часть с повышенным выходом радиации |
| enlist | поступать на службу |
| enlistment | зачисление (поступление) на военную службу |
| enriched uranium | обогащённый уран |
| enrichment | обогащение |

| | |
|---|---|
| entry compartment | тамбур |
| entry into force | вступать в силу |
| envelopment (env) | охват |
| environmental shelter | укрытие для защиты от воздействия атмосферных явлений |
| equation | уравнение |
| equip | снаряжать (оснащать) |
| equip forces | снаряжать (оснащать) войска |
| equipment | (боевая) техника (и вооружение) |
| escape hatch | аварийный люк |
| escort | сопровождение |
| esprit de corps | боевой дух; честь мундира |
| establish identity | устанавливать принадлежность |
| establish reserve | создавать резервы |
| estimate n. (est) | оценка (обстановки) |
| Euro-Atlantic area | Евроатлантический регион |
| evasive action | противозенитный маневр |
| except as prohibited by | с учетом запрещений |
| execute a command | выполнять команду |
| exercise supervision | осуществлять наблюдение (контроль) |
| exhaust ports | выхлопное отверстие |
| exhaust-gas syn. exhaust | выхлопные газы |
| exhibition | показ |
| exo-atmospheric interception | заатмосферный перехват |
| exploit success | развивать успех |
| exploitation (xpit) | развитие успеха |
| explosive charge | заряд взрывчатого вещества |
| explosives | взрывчатое вещество |
| express consent | выраженное согласие |

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|---|---|
| extensive negotiations | продолжительные переговоры |
| extraordinary session | внеочередное заседание |
| Eyes FRONT! | Равнение на -СЕРЕДИНУ! |
| Eyes LEFT! | Равнение на-ЛЕВО! |
| Eyes RIGHT! | Равнение на-ПРАВО! |

F

| | |
|---|---|
| facility | объект |
| factory serial number | заводской серийный номер |
| FALL IN! | СТАНОВИСЬ! |
| fall out | выпадать |
| FALL OUT! | РАЗОЙДИСЬ! |
| fall-out | осадки |
| fallout prediction | прогноз радиационной обстановки |
| fallout predictor | приспособление для определения по карте вероятных районов радиоактивного заражения |
| familiarize themselves with | ознакомиться с |
| fan-shaped beam | веерный луч |
| fast dive | быстрое погружение |
| fatigue | рабочая форма одежды |
| field manual (FM) | полевой устав, наставление |
| field of view | поле зрения |
| fighter | истребитель |
| fighter-bomber | истребитель-бомбардировщик |
| fighting vehicle | боевая машина |
| file | ряд |
| filter unit | фильтро-вентиляционная установка |
| final destination | конечный пункт |
| final drive | бортовая передача |

| | |
|---|---|
| final gearbox | привод |
| final objective | конечный объект (наступления) |
| fire by single shots | огонь одиночными выстрелами |
| fire control system | система управления огнём |
| fire direction centre (FDC) | центр управления огнем |
| fire direction officer (FDO) | офицер по управлению огнем |
| fire direction section | секция (взвод) управления огнём |
| fire in bursts | огонь очередями |
| fire observer (FO) | пердовой артиллерийский наблюдатель (ПАН) |
| fire superiority | огневое превосходство |
| fire support coordination center (FSCC) | центр координации огневой поддержки |
| fire support coordinator (FSC) | офицер по координации огневой поддержки |
| fire support unit | подразделение (часть) огневой поддержки |
| firearms | огнестрельное оружие |
| fireball | огненный шар |
| firefighter | пожарный |
| firepower | огневая мощь |
| firing battery | огневая батарея |
| firing data | данные для стрельбы |
| first round kill (hit) | поражение первым выстрелом |
| first-shot kill probability | вероятность поражения цели первым выстрелом |
| fission | деление, распад |
| fission device | ядерное устройство |
| fission-fusion weapon | оружие, основанное на реакции деления – синтеза ядер |
| fission-fusion-fission weapon | оружие, основанное на реакции деления – синтеза – деления ядер |

| | |
|---|---|
| fitness for duty | готовность к службе |
| Fix (Unfix), BAYONETS! | Штык – ПРИМКНУТЬ (ОТКИНУТЬ)! |
| fixed ammunition | унитарный артиллерийский выстрел |
| fixed structure | стационарное сооружение |
| fixed-wing aircraft | самолет |
| fixing force | сковывающая группа (группировка) |
| flame supressor | пламегаситель |
| flammables | огнеопасные материалы |
| flank security | прекрытие флангов |
| flaps | закрылки; щитки |
| flashlight | электрофонарик |
| flat trajectory | настильная траектория |
| Flechette ammunition | игольчатый боеприпас, снаряд со стреловидными паражающими элементами |
| fleet | флот |
| fleet ballistic missile submarine (SSBN) | ПЛАРБ (подводная лодка атомная, ракеты баллистические) |
| Fleet Ballistic Missile System | баллистический ракетный комплекс морского базирования |
| fleet organization | организация флота |
| fleet submarine | эскадренная подводная лодка |
| flick ramming | импульсная подача и досылание снаряда |
| flight controls | органы управления (самолетом) |
| flight deck | полётная палуба |
| flight path | линия полета |
| flight performances | летные характеристики |
| flight regulations | правила полетов |

| | |
|---|---|
| flotilla | флотилия, бригада |
| fluorescent | светящийся |
| fly a plane | управлять самолетом |
| fly-by-wire (control-by-wire) control system | электродистанционное управление |
| flying wing | летающее крыло |
| flying wing aircraft | самолет типа «летающее крыло» |
| focusing magnet | фокусирующий магнит |
| follow-on force | войска второго эшелона |
| for subparagraph | применительно к подпункту |
| for the benefit of smth. | во благо чего-либо |
| force majeure | форс-мажорные обстоятельства |
| force projection | проецирование силы |
| fore | носовой |
| fore grip | цевьё |
| formation | построение |
| formation target | групповая цель |
| formerly declared facility inspection | инспекция ранее заявленных объектов |
| formulate policies | формулировать политику |
| forward | носовой |
| forward defense area (FDA) | передовой район обороны |
| forward defensive echelon | первый эшелон |
| forward deployed force | силы передового базирования |
| forward edge of the battle area (FEBA) | передний край района обороны |
| forward presence | передовое присутствие; войска прикрытия |
| forward swept wing | крыло обратной стреловидности |
| Forward, MARCH! | Шагом – МАРШ! |

| | |
|---|---|
| forward-deployed forces | силы передового базирования |
| forward-looking radar | РЛС (авиа.) обнаружения цели в передней полусфере |
| forward-swept wing | крыло обратной стреловидности |
| Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation | Основополагающий акт о взаимных отношениях, сотрудничестве и безопасности между Организацией Североатлантического договора и Российской Федерацией (Основополагающий акт Россия – НАТО) |
| freight | груз |
| friendly waters | своя акватория |
| front plate | передний лист |
| front section | головная часть (ГЧ) |
| front section with multiple reentry vehicles | разделяющаяся головная часть |
| frontage | ширина полосы (участка, района) наступления (обороны) |
| frontal attack | фронтальное наступление (удар) |
| fuel reserve | запас топлива |
| fuel tank | топливный бак |
| full ahead | полный вперед |
| full astern | полный назад |
| full speed | полный ход |
| full-automatic fire | автоматический огонь |
| full-load displacement | полное водоизмещение |
| funnel | дымовая труба |
| furnish fire | вести огонь |
| furnish information of the enemy | добывать данные о противнике |
| fuse | взрыватель |
| fuse | сливаться |

| | |
|---|---|
| fuselage | фюзеляж |
| fusion | синтез, слияние |
| fusion devices | термоядерное устройство |

G

| | |
|---|---|
| gain an advantage over the enemy | достигать превосходства над противником |
| gain and sustain the initiative | захватывать и удерживать инициативу |
| gain contact with the enemy | устанавливать соприкосновение с противником |
| gain practical experience | получить практический опыт |
| garrison | размещать войска |
| gas piston | газовый поршень |
| gas turbine engine | газотурбинный двигатель (ГТД) |
| general air defense | ПВО страны |
| give depth to the battlefield | сообщать глубину боевому пространству |
| glider | планёр |
| g-limit | ограничение по перегрузке; предельная (предельно допустимая) перегрузка |
| Global Positioning System (GPS) | “Джи-Пи-Эс”, глобальная (спутниковая) система местоопределения; глобальная система позиционирования; геопозиционная спутниковая система |
| govern | регулировать |
| GPS receiver | приемник геопозиционной спутниковой системы |
| grant a request | выполнить запрос |
| grant access | предоставить доступ |
| grenade launcher | гранатомет |
| ground border crossing point | пункт пересечения сухопутной |

| | |
|---|---|
| | границы |
| ground clearance | клиренс, (дорожный просвет) |
| ground clutter | мешающие отражения от земной поверхности или наземных предметов |
| ground pressure | удельное давление на грунт |
| ground support aircraft | штурмовик |
| ground zero (GZ) | эпицентр взрыва |
| ground-based interceptor (GBI) | противоракета наземного базирования |
| guard mounting | развод (караулов) |
| guardhouse | караульное помещение |
| guerilla threat | партизанская угроза; угроза со стороны повстанцев |
| guidance | управление, наведение |
| guidance and control system | система управления и наведения |
| guidance package | блок аппаратуры управления (наведения) |
| guided by | руководствуясь чем-либо |
| guided missile system | комплекс управляемого вооружения (КУВ) |
| gun stabilization | стабилизация пушки |
| gun tube | орудийный ствол |
| gunner | наводчик; наводчик башенной установки; наводчик-оператор; стрелок |

H

| | |
|---|---|
| half life period | период полураспада |
| Halt! | Стой! |
| hamper | мешать, препятствовать |
| hamper operations | создавать помехи деятельности |
| handgun | ручное огнестрельное оружие |

| | |
|---|---|
| hand-to-hand fight | рукопашный бой |
| harassing agent | ОВ беспокоящего действия |
| hardened aircraft shelter | высоко защищенное укрытие для самолетов |
| hardpoint | точка подвески вооружения |
| hatch | люк |
| haul capacity | количество снарядов в подразделении |
| have a numbered designation | иметь цифровое обозначение (номер) |
| hazard | опасность |
| hazardous | опасный |
| heading | курс |
| headquarters battery | штабная батарея |
| headquarters company (HQ co) | штабная рота |
| head-up display | 1. индикация (проецирование показаний приборов) на лобовом стекле (самолета)<br>2. головной коллиматор |
| heat-exchanger | теплообменник |
| heat-resistant materials | термостойкие материалы |
| heavy armament combat vehicle | боевая машина с тяжелым вооружением |
| heavy bomber | тяжелый бомбардировщик |
| heavy division | тяжелая дивизия |
| heavy helicopter unit | часть тяжелых вертолетов |
| heavy machine gun | тяжелый (единый, станковый) пулемет; крупнокалиберный пулемет |
| height-finding radar | РЛС определения высоты цели |
| helicopter (hel) | вертолет |
| helicopter airfield | вертолетная площадка |
| helicopter assault carrier | десантный вертолётоносец |

| | |
|---|---|
| helicopter lift | транспортировка на вертолетах |
| helicopter overflight | вертолетный облет |
| herbicide | гербицид |
| hereinafter referred to as | ниже именуемый |
| high altitude nuclear burst | высотный ядерный взрыв |
| high explosive fragmentation projectile (HEF) | осколочно-фугасный снаряд |
| high explosive projectile (HE) | фугасный снаряд |
| high explsive antitank fin stabilised (HEAT-FS) | кумулятивный снаряд, стабилизированный оперением |
| high explsive fragmentation ammunition (He-Frag) | осколочно-фугасный боеприпас |
| high mobility multipurupose wheelled vehicle (HMMWV) | высокомобильная колесная машина общего назначения; многоцелевой автомобиль повышенной проходимости «Хаммер» |
| high representatives | высокие представители |
| high speed | максимальная скорость хода |
| high-altitude target | высотная цель |
| highly rarefied atmosphere | сильно разряженная атмосфера |
| high-resolution radar | РЛС с высокой разрешающей способностью |
| high-speed anti-radiation missiles | высокоскоростная ПРЛР |
| high-to-medium-altitude air defense (HIMAD) | ПВО против высотных и средневысотных целей |
| hoist | подъемный механизм; |
| hold the terrain | удерживать местность |
| holdings and locations | наличие и места расположение |
| holdings of conventional armaments and equipment | наличие обычных вооружений и техники |
| homing head | головка самонаведения |
| homing missile | самонаводящаяся ракета |

| | |
|---|---|
| hood | капюшон |
| hose | шланг |
| hostile waters | акватория противника |
| hover | зависать (над объектом) |
| howitzer | гаубица |
| hull | корпус |
| hull turret aperture | подбашенное отверстие в корпусе |
| hunter-killer submarine | подводная лодка ПЛО |
| hydraulically adjusted | с гидравлическим приводом |
| hydrogen | водород |
| hydrogen cyanide | синильная кислота |
| hypersonic speed | гиперзвуковая скорость |

I

| | |
|---|---|
| ICBM silo launcher door | защитная крыша шахты пусковой установки МБР |
| identifier | опознавательный знак |
| IFF (Identification Friend or Foe) radar | РЛС опознавания "свой-чужой" |
| IFF interrogator | запросчик «свой-чужой» |
| IFF responder | ответчик «свой-чужой» |
| IFF transponder | ответчик «свой-чужой» |
| illumination ammunition | осветительный боеприпас |
| image intensification periscope | перископический прибор с усилителем яркости изображения |
| immediate (initial) nuclear radiation | мгновенная (начальная) проникающая радиация |
| immunization shot | прививка |
| impart spin to the missile | сообщать вращение ракете |
| impede | затруднять |
| impregnated combat uniform | импрегнированная полевая форма |

| | |
|---|---|
| improved conventional munition (IMC) | снаряд повышенного могущества |
| in accordance with | в соответствии с |
| in an emergency | в чрезвычайных обстоятельствах |
| in conventional, chemical, or nuclear environments | при применении обычного, химического или ядерного оружия |
| in Greenwich Mean Time (GMT) | по Гринвичу |
| in line with | в соответствии |
| in situ | на месте |
| in the CVS version | при использовании в качестве авианосца ПЛО |
| in the immediate vicinity of ... | в непосредственной близости от... |
| incapacitant | инкапаситант, ОВ, временно выводящее из строя |
| incapacitating agent | ОВ, временно выводящее из строя |
| increment | прирост, приращение; увеличение |
| independent of | независимо от... |
| indicator | индикатор |
| indirect fire | огонь с закрытых огневых позиций |
| individual fighting position | стрелковый окоп |
| individual protection gear | средства индивидуальной защиты |
| Individual state | отдельно взятое государство |
| induced nuclear radiation | наведенная радиация |
| induct | зачислять на действительную военную службу |
| inertial navigation | навигация при помощи инерциальной системы; инерциальное наведение |
| infantry (inf) | пехота |
| infantry division | пехотная дивизия |
| infantry fighting vehicle (IFV) | боевая машина пехоты (БМП) |

| | |
|---|---|
| infiltration | просачивание; прохождение через боевые порядки других частей |
| infirmary | санчасть |
| inflame | вызывать воспаление |
| inflame the eyes | вызывать воспаление глаз |
| inflammation tissue | воспаленная ткань |
| in-flight refueling | заправка топливом в полете |
| infrared imaging | формирование ИК-изображений, тепловидение |
| inhalation | вдыхание |
| inhibit progress | мешать прогрессу |
| initial exchange | первоначальный обмен |
| injector | шприц |
| insertion | десантирование |
| inside dose | доза облучения внутри укрытия |
| inspected Party | инспектируемая сторона |
| inspected State Party | инспектируемое государство-участник |
| inspecting Party | инспектирующая сторона |
| inspecting State Party | инспектирующее государство-участник |
| inspection | утренний осмотр |
| inspection of certification | инспекция сертификации |
| inspection of reduction | инспекция сокращений |
| inspection request | заявка на инспекцию |
| inspection site | место инспекции |
| inspection team | инспекционная группа |
| inspection team leader. | руководитель инспекционной группы |
| install | устанавливать |
| Installations | объекты, сооружения |

| | |
|---|---|
| syn. facilities | |
| Instrument Landing Systems (ILS) | система посадки по приборам |
| instruments | авиаприборы |
| integer | целое число |
| integral or organic cannon | встроенная или штатно устанавливаемая пушка |
| integral part | неотъемлемая часть |
| integrated day/night sight | встроенный дневной/ночной прицел |
| integrity | целостность |
| intent of the commander | намерение командира |
| interceptor | перехватчик |
| interchangeable warheads | взаимозаменяемые головные части |
| Intercontinental ballistic missile (ICBM) | межконтинентальная баллистическая ракета (МБР) |
| interdict routes | воспрепятствовать противнику передвигаться по дорогам |
| interdict supply lines | воспрещать подвоз материальных средств |
| interfere with | чинить помехи |
| interior | внутреннее пространство |
| intermediate-range missile | ракета средней дальности |
| intermittent basis | дискретная основа |
| internal (pre-set) guidance | автономное (программированное) управление |
| international law | международное право |
| International Staff | Международный секретатиат |
| international waters | международные воды |
| interoperable forces | четко взаимодействующие войска, интероперабильные войска; оперативносовместимые войска (си- |

| | |
|---|---|
| | лы) |
| Inter-Vehicular Information System (IVIS) | внутренняя информационная система |
| inviolability | неприкосновенность |
| ionization of the upper atmosphere | ионизация верхних слоёв аммосферы |
| irritant agent | ОВ раздражающего действия |
| island superstructure | «островная» надстройка |
| issue orders | издавать приказы |
| issue permeable protective clothing | выдавать импрегнированное обмундирование |
| item | 1. изделие<br>2. средство (*зд.*) |
| item of inspection | средство, подлежащее инспекции |
| ittrium (Y) | иттрий |

J

| | |
|---|---|
| jacket | оболочка пули |
| jamming | глушение |
| jet aircraft syn. jet | реактивный самолет |
| jet vane | газовый руль |
| Joint Analysis and Lessons Learned Centre | Объединённый центр анализа и обобщения опыта |
| Joint Chiefs of Staff (JCS) | Комитет начальников штабов (КНШ) |
| joint commander | командир общевойскового соединения; командующий объединённым командованием |
| Joint Compliance and Inspection Commission (JCIC) | Совместная комиссия по соблюдению и инспекциям (СКСИ) |
| Joint Force Command (JFCs) | командование объединенных сил |
| Joint Force Training Centre | Учебный центр объединенных сил |
| joint operation | совместная операция (операция, |

| | |
|---|---|
| | проводимая различными видами ВС) |
| Joint Statement | совместное заявление |
| joint stock company | акционерная компания; акционерное общество (АО) |
| joint task force (JTF) | объединенная оперативная группа |
| Joint Warfare Centre | Объединённый центр боевых действий |
| jump jet | реактивный самолет с вертикальным взлетом и вертикальной посадкой |
| juridical basis | юридическое обоснование |

K

| | |
|---|---|
| keep crosshairs on the target | удерживать перекрестье прицела на цели |
| keep track | отслеживать |
| kitchen police (KP) | наряд по кухне |

L

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|---|---|
| lack of dived speed and range | недостаточные скорость и дальность подводного хода |
| ladder | трап |
| land | поле нареза |
| land territory | сухопутная территория |
| landing | посадка |
| landing gear | 1. шасси<br>2. опора шасси |
| landing gear struts | стойки шасси |
| landing roll | послепосадочный пробег |
| large gun | пушка |
| large-size | крупногабаритный |
| laser range finder | лазерный дальномер |
| lateral axis | поперечная ось |

| | |
|---|---|
| laterally | по фронту; в сторону фланга |
| launch a counter-attack | предпринимать контратаку |
| launch canister | пусковой контейнер |
| launch surprise attack | осуществить внезапное нападение |
| launch tube | направляющая |
| launch weight | стартовый вес |
| launcher | пусковая установка (ПУ) |
| launcher rails | рельсовые направляющие пусковой установки |
| launcher tubes | трубчатые направляющие пусковой установки |
| layered defense | эшелонированная оборона |
| lead to (the development of ...) | привести к ... (развитию чего-либо) |
| leading-edge flaps | предкрылки |
| Left FACE! | Нале-ВО! (на месте) |
| lessons learnt | полученные уроки |
| lethal | смертоносный; смертельный |
| lethal agent | смертельное ОВ |
| lethality | поражающее действие; убойная сила |
| lethality enhancer | оптимизатор поражающего действия боевой части |
| lewisite | люизит |
| liaison section | секция связи (взаимодействия) |
| liason officer | офицер связи взаимодействия |
| lift | аэро- или гидродинамическая подъемная сила |
| lift-off | отрыв |
| light (ship) displacement | водоизмещение в порожнем состоянии |
| light division | легкая дивизия |

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|---|---|
| light machine gun | лёгкий (ручной) пулемет |
| lighting | 1. освещение; подсветка<br>2. светосигнальное оборудование |
| lights out / “taps” | отбой |
| limit vulnerability | повысить живучесть |
| line of contact (LC) | линия соприкосновения с противником |
| line of departure (LD) | исходный рубеж (для наступления) |
| linear shaped charge | удлиненный кумулятивный заряд |
| linguistic ability | лингвистические навыки |
| link-up | соединение десанта с наземными войсками |
| liquid propellant | жидкое ракетное топливо |
| listening post | пост подслушивания |
| living tissue | живая ткань |
| loader | заряжающий |
| loading facilities | место загрузки |
| loading ramp | 1. погрузочная аппарель<br>2. люк-трап; грузовой трап; рампа |
| loadmaster | старший по погрузочно-разгрузочным работам |
| lobe | лепесток (диаграмма направленности) |
| local oscillator | Гетеродин |
| locate | находиться, размещать |
| locational restrictions | ограничения на места размещения |
| lock on | осуществить захват |
| lofted trajectory | навесная траектория |
| logistic support | тыловое обеспечение |

| | |
|---|---|
| logistics | материально-техническое обеспечение (МТО) |
| longitudinal axis | продольная ось |
| long-range bomber | бомбардировщик дальнего радиуса действия |
| long-range nuclear air launched cruise missile (LRNA) | (ядерная) крылатая ракета воздушного базирования большой дальности |
| low aspect ratio wing | крыло малого удлинения |
| low silhouette | низкий силуэт |
| low-intensity conflict | конфликт малой интенсивности |
| low-level target | низколетящая цель |
| low-to-medium-altitude air defense (LOMAD) | ПВО против средне- и маловысотных целей |
| lubricants | смазочный материал |

M

| | |
|---|---|
| Mach number | число Маха, число М |
| Mach wave | сверхзвуковая ударная волна |
| machine gun | пулемет |
| main attack | главный удар; направление главного удара |
| main battle tank (MBT) | основной боевой танк (ОБТ) |
| main body | главные силы (на марше) |
| main command post | основной командный пункт |
| main command post | главный командный пункт |
| main gun | основное орудие |
| main lobe | основной лепесток |
| main pulse | зондирующий импульс |
| main rotor | несущий винт, главный ротор |
| main rotor blades | лопасти несущего винта |
| maintain | обслуживать |

| | |
|---|---|
| maintain in readiness | поддерживать готовность |
| maintenance | обслуживание техники; |
| | техническое обслуживание (ТО) |
| maintenance facility | объект по обслуживанию |
| maintenance hatch | технологический люк |
| Major Strategic Exercises | крупные стратегические учения |
| make a decision | принимать решение |
| man portable antiaircraft missile system | переносной зенитно-ракетный комплекс (ПЗРК) |
| maneuver battalion | линейный (боевой) батальон |
| maneuver into an attacking position | занимать выгодное положение для атаки |
| manmade disaster | техногенная катастрофа |
| man-made outer boundary | искусственная внешняя граница |
| manpower | 1. людские ресурсы |
| | 2. живая сила |
| | 3. личный состав |
| mapping radar | РЛС составления радиолокационной карты местности |
| marine | морской пехотинец |
| Mark time, MARCH! | На месте, шагом-МАРШ! |
| In place, double time, MARCH! | На месте, бегом-МАРШ |
| mass fires on one target | сосредоточивать огонь по одной цели |
| matter | вещество |
| maximum aggregate limits | суммарные предельные уровни |
| maximum dive | предельная глубина погружения |
| means of delivery | средства доставки |
| mechanized division | механизированная дивизия |
| mechanized infantry (mech inf) | мотопехота (пехота механизированной части) |

| | |
|---|---|
| meeting engagement | встречный бой |
| member countries | страны-участницы/государства-члены |
| member of the in-country escort | лицо, сопровождающее внутри страны |
| Memorandum of Understanding (MOU) | Меморандум о договоренности… |
| mess | столовая |
| meter | счётчик |
| Microwave Landing System | микроволновая система обеспечения посадки |
| Mid-Canada Line | рубеж радиолокационного обнаружения «Мид Канада» |
| Mid-Canada Line | рубеж радиолокационного обнаружения «Мид Канада» |
| midcourse phase | средний участок траектории |
| midsection | мидель |
| Military Airlift Command (MAC) | военно-транспортное авиационное командование (ВТАК) |
| Military Committee (MC) | Военный комитет |
| military district | военный округ |
| military education and training | военная подготовка и обучение |
| military intelligence battalion (MI bn) | батальон военной разведки |
| military police company (MP coy) | рота военной полиции |
| Military Representative | военный представитель |
| Military Sea Transportation Service | военно-морская транспортная служба |
| mindful of their undertakings | учитывая свои обязательства |
| minimize the effects of hostile actions | минимизировать воздействие со стороны противника |
| missile | ракета |
| missile | ракета (управляемая) |

| | |
|---|---|
| missile defense | противоракетная оборона (ПРО) |
| missile flight trajectory | траектория полёта ракеты |
| missile guidance | наведение ракеты |
| missile sites | стартовые позиции (площадки) ракет |
| missile tender | плавучая база для ракет |
| missiles | реактивная артиллерия |
| mission profile | программа полёта |
| mission-oriented protective posture (MOPP) | методы и средства РХБ защиты с учетом характера выполняемой задачи |
| mobile defense | мобильная оборона |
| mobility | мобильность; подвижность |
| mobilize | проводить мобилизацию |
| modalities of transportation | порядок транспортировки |
| modify the thrust to fit different phases of flight | изменять силу тяги на различных этапах полета |
| modulator | модулятор |
| momentum | инерция |
| monoplane | моноплан |
| mortar | миномет |
| mortar (Arty) locating radar | РЛС засечки позиций минометов |
| most expeditious means | самое быстрое средство (передвижения) |
| motorized division | моторизованная дивизия |
| motorized infantry division | мотострелковая дивизия |
| mount | монтировать, устанавливать |
| mounted combat | бой на машинах |
| mounting platform | монтажная платформа |
| movement to contact | сближение с противником |
| multi-dimensional | многомерный |

| | |
|---|---|
| multiple ballistic target | сложная баллистическая цель |
| multi-dimensional peacekeeping operations | многопрофильные операции по поддержанию мира |
| multiple independently targetable reentry vehicle (MIRV) | разделяющаяся головная часть с боеголовками индивидуального наведения |
| Multiple Launch Rocket System (MLRS) | реактивная система залпового огня (РСЗО) |
| multiple launch rocket systems (MLRS) | реактивная система залпового огня (РСЗО) |
| multiple target | групповая цель |
| multiplexed bus | мультиплексная шина |
| multi-purpose attack helicopter | многоцелевой ударный вертолет |
| multi-role | многоцелевой |
| mustard | иприт |
| mutual confidence | взаимное доверие |
| mutual support | взаимная поддержка |
| MUX (multiplexer) | 1. устройство уплотнения (сигналов, каналов)<br>2. мультиплексор |
| muzzle | дульная часть (дуло) |
| muzzle brake | дульный тормоз |
| muzzle velocity | начальная скорость полёта (пули) |
| muzzle velocity | начальная скорость |
| muzzle velocity | начальная скорость снаряда |
| mycotoxin | микотоксин (токсин, продуцируемый плесневым грибом) |

N

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|---|---|
| nacelle | гондола (дирижабля) |
| narrow beam | узкий луч |
| narrow directional beaming | узконаправленное излучение |
| National Command Authorities | национальные органы командова- |

| | |
|---|---|
| (NCA) | ния |
| National Missile Defense (NMD) | национальная противоракетная оборона (НПРО) |
| National Security Act | закон о национальной безопасности |
| NATO-Russia Council (NRC) | Совет Россия – НАТО (СРН) |
| NATO's partner countries | государства-партнеры НАТО |
| Natural disaster | стихийное бедствие |
| nausea | тошнота |
| navigator | штурман |
| Navy | военно-морские силы (ВМС) |
| Navy Department | Министерство ВМС США |
| NBC report | донесение о применении ОМП |
| NBC center | центр сбора данных о применении ОМП |
| NBC system | система коллективной защиты от ОМП |
| necessitate | требовать (делать необходимым) |
| nerve agent | ОВ нервно-паралитического действия |
| neutron | нейтрон |
| neutron bomb (N-bomb) | нейтронная бомба |
| new facility inspection | инспекция новых объектов |
| noise supressor | глушитель |
| non-persistent agent | нестойкое ОВ |
| Non-Proliferation of Nuclear Weapons | нераспространение ядерного оружия |
| non-rigid airship | дирижабль мягкой системы |
| NORAD SC — NORAD Surveillance Center | Центр сбора и обработки данных наблюдения НОРАД |
| NORAD SC — NORAD Surveillance Center | Центр сбора и обработки данных наблюдения НОРАД |
| NORAD SDC — NORAD Space De- | Центр космической обороны |

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| fense Center | НОРАД |
| NORAD COC — NORAD Combat Operations Center | Боевой оперативный центр НОРАД |
| North American Aerospace Defense Command (NORAD) | командование воздушно-космической обороны Северной Америки |
| North American Air Defense Command (NORAD) (ист.) | Объединенное командование ПВО североамериканского континента (НОРАД) |
| North Atlantic Council (NAC) | Североатлантический совет |
| North Atlantic Treaty | Североатлантический договор |
| North Atlantic Treaty Organization (NATO) | Организация североатлантического договора (НАТО) |
| North Atlantic Alliance | Североатлантический альянс |
| notification | уведомление |
| nozzle | сопло |
| nuclear armaments | ядерные вооружения |
| nuclear ballistic missile submarine (SSBN) | ракетная подводная лодка с ЯЭУ (ПЛАРБ) |
| nuclear blackout | нарушение работы радиоэлектронных средств при ядерном взрыве |
| Nuclear Planning Group | Группа ядерного планирования |
| nuclear radiation | ядерное излучение; проникающая радиация |
| Nuclear Risk Reduction Center ((NURRC) | Центр по уменьшению ядерной опасности (ЦУЯО) |
| nuclear, biological and chemical protection | радиационная, химическая, биологическая защита (РХБЗ) |
| nuclear-powered aircraft carrier (CVN) | авианосец с ЯЭУ |
| nucleus (-i) | ядро (ядра) |
| numerical limitations | количественные ограничения |

## O

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|---|---|
| object | предмет (*зд.*) |
| object of verification | объект контроля |
| objective | боевая задача; цель; объект; |
| objective (obj) | цель; задача; объект наступления; рубеж |
| objective area | район десантирования |
| observation post (OP) | наблюдательный пункт (НП) |
| odor | запах |
| Office of the Secretary of Defense (OSD) | аппарат министра обороны |
| officer of the day | дежурный по части |
| on a permanent basis | на постоянной основе |
| on- board armament | бортовое вооружение |
| on-board technical measurements | бортовые измерения технических параметров |
| one-man-command principle | принцип единоначалия |
| ongoing activities | текущая деятельность |
| on-site inspection (OSI) | инспекция на месте |
| operate aircraft | иметь в своем составе и использовать авиацию |
| operate aircraft round-the-clock | применять авиацию в любое время суток |
| operate as part of | действовать в составе |
| operate in a definite time relationship | действовать в определённом временном соотношении |
| operate in a electronic counter measure environment | действовать в режиме постановки помех |
| operate in the (SHF) band | работать в диапазоне (СВЧ) |
| operate submerged | действовать в погруженном состоянии |
| Operating Forces | боевые силы МО США |

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|---|---|
| operation control (OPCON) | оперативное управление |
| operational control (OPCON) | оперативное управление |
| operational dispersal | оперативное рассредоточение |
| operations short of war | все операции, кроме непосредственного участия в боевых действиях |
| optronic supression system | комплекс оптикоэлектронного подавления |
| Order, ARMS! | К но-ГЕ! |
| organic | штатный |
| organic assets | штатные средства |
| organic, attached, or supporting units | штатные, приданные или поддерживающие части |
| organization for combat (orgn for cbt) | распределение сил и средств |
| organization of fires | организация системы огня |
| organize | организовывать |
| organize forces | организовывать |
| origin | исходный пункт |
| oscillator | генератор (в радиотехнике) |
| outbreak of nuclear war | возникновение ядерной войны |
| outside dose | доза облучения вне укрытия |
| overboots | защитные чулки |
| overlap | частично перекрывать |
| oversight of the activities | наблюдение за действиями |
| over-the-horizon radar | загоризонтная РЛС |
| over-the-horizon-back-scatter (OTHB) radar | загоризонтная РЛС |

P

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|---|---|
| Pacific Air Force (PACAF) | командование ВВС США в зоне Тихого океана |
| package | аппаратура управления (наведения); |

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|---|---|
| parking site | пункт размещения |
| passive night vision device | пассивный прибор ночного видения |
| passive sonar | шумопеленгатор |
| pattern of relations | характер отношений |
| payload | боевая часть (полезный груз) |
| peace building | миростроительство |
| peacekeeping | поддержание мира |
| peacekeeping operation (PKO) | операция по поддержанию мира |
| peacemaking | установление мира |
| peace enforcement | принуждение к миру |
| pencil-shaped beam | узконаправленный луч |
| penetration (pent) | прорыв |
| penetration aids | средства преодоления обороны |
| penetration of air defense | преодоление системы ПВО |
| penetration of air space | проникновение в воздушное пространство |
| perform a radar-altimeter-controlled level flight in "ground-hugging" fashion over varying terrain | совершить горизонтальный полет по траектории, огибающей складки местности на самых различных участках полета, во время которого ракета наводится на цель при помощи радиолокационного высотомера |
| perform the duties | выполнять обязанности |
| permanent deployment of soldiers | постоянное размещение войск |
| Permanent Joint Council (PJC) | Совместный постоянный совет Россия – НАТО (СПС) |
| Permanent Representative | постоянный представитель |
| permanent storage site | место постоянного складского хранения |

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|---|---|
| permeable protective clothing | импрегнировнное обмундирование |
| persist | оставаться; продолжаться |
| persistent agent | стойкое ОВ |
| phase line (PL) | рубеж регулирования |
| phased array | фазированная антенная решетка |
| phased array | фазированная решётка |
| phased array radar | РЛС с фазированной антенной решеткой |
| phosgene | фосген |
| physical training (PT) | физическая подготовка |
| pick up | обнаруживать и захватывать |
| piece | орудие, ствол |
| piece of artillery | артиллерийская единица (*зд.*) |
| pierce armor | пробивать броню |
| Pine tree line | рубеж радиолокационного обнаружения "Пайн Три" |
| pinpoint target | точечная цель |
| pip | отметка, "всплеск" |
| piston-engine | поршневой двигатель |
| pitch | тангаж; |
| pitch | шаг воздушного винта |
| pitch attitude | положение по тангажу |
| pitch in, to dive | пикировать |
| pitch nose- up | кабрировать |
| pitching syn. pitch-up | кабрирование |
| plan position indicator (PPI) | индикатор кругового обзора |
| planar array radar | РЛС с плоской фазированной антенной решеткой |
| planning guidance | указания по организации (боя) |
| plutonium (Pu) | плутоний |

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| plutonium bomb | плутониевая бомба |
| pocket of resistance | очаг (узел) сопротивления |
| pod | подвесной контейнер (под крылом, фюзеляжем) |
| point air defense | ПВО объекта |
| point of entry/exit | пункт въезда/выезда |
| poison | яд |
| policing of the area | уборка территории |
| polonium (Po) | полоний |
| portion of the site | участок местности (*зд.*) |
| post-exercise dispersal inspection | инспекция после завершения рассредоточения при учениях |
| post-inspection procedures | послеинспекционные процедуры |
| potential major threat | потенциальная основная угроза |
| power distribution | распределение мощности |
| power plant | силовая установка |
| preceding inspection | предыдущая инспекция |
| precision-guide munition | высокоточный управляемый боеприпас |
| preconfigured unit load | заранее укомплектованный груз |
| predict the path of the target | осуществлять расчёт траектории полёта |
| prejudicial to | наносящий ущерб |
| premises | объекты |
| preparatory command | предварительная команда |
| preparatory fire | огневая подготовка |
| prepare forces | подготовить войска |
| preparedness | (бое-)готовность |
| present arms | брать на караул |
| Present, ARMS! | На кра-УЛ! |
| preserve the peace and security | находиться на страже мира и без- |

| | |
|---|---|
| | опасности |
| pressing tasks | важные/неотложные задачи |
| pressure hull | жесткий корпус |
| pressurization apparatus | система подачи топлива под давлением |
| prevent a target from forming an echo | предотвращать образование отражённого сигнала |
| prime mover | тягач |
| primer cartridge | гильза (после выстрела) |
| primer charge | порховой заряд, метательный заряд |
| priorities of requirements | очередность выполнения требований |
| procedure of destruction by deformation | процедура уничтожения путем деформации |
| procedure of destruction by explosive demolition | процедура уничтожения путем подрыва |
| procedure of destruction by severing | процедура уничтожения разделением на части |
| procedure of destruction by smashing | процедура уничтожения путем сокрушения |
| proceed on the surface | следовать в надводном положении |
| produce casualties among exposed personnel | поражать живую силу вне укрытий |
| production facilities | объект по производству |
| projected stay | планируемое пребывание |
| projectile | снаряд; (минометная) мина; пуля |
| prone position | положение для стрельбы лежа |
| propellant tankage | запас ракетного топлива |
| propulsion | силовая установка, двигатель |
| propulsion system | двигательная установка, силовая установка |
| protection factor | коэффициент защиты (КЗ) |

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|---|---|
| protection of (flanks) | обеспечение (флангов) |
| protective clothing | защитное снаряжение |
| protective gloves | защитные перчатки |
| protective mask | полевой противогаз |
| protective mask | противогаз |
| Protocol on Notifications | Протокол об уведомлениях |
| Prototype | прототип |
| protozoa | протозоа (простейшие животные организмы) |
| provide sustained support | оказывать поддержку в течение длительного периода времени |
| provide the necessary cover | обеспечивать надежное прикрытие |
| provide to | предоставить кому-либо |
| provided that | при условии, что |
| provisions | положения документа |
| provisions | положения (договора) |
| pulse | импульс |
| pulse repetition frequency (PRF) | частота повторения импульса |
| pulsed Doppler radar | импульсно-доплеровская РЛС |
| pulse-Doppler radar | импульсно-доплеровский радиолокатор |
| pulse-Doppler radar system | импульсно-доплеровский радиолокационный комплекс |
| pursuant to | согласно (пункту) |
| pursuant to | согласно чему-либо |
| pursuant to law | в соответствии с законом |
| pursuit | преследование |
| pursuit (pur) | преследование |
| push ups | отжимания |
| put smth in its right perspective | реально оценивать перспективу |

| | |
|---|---|
| pylon | пилон |

Q

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|---|---|
| quadrant | квадрант |

R

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|---|---|
| radar | радиолокационная станция (РЛС) |
| radar picket ship | корабль радиолокационного дозора |
| radar set | радиолокационная станция |
| RADAR units | блоки РЛС |
| radiacmeter | дозиметр |
| radiate | излучать |
| radiate at a certain PRF | излучать с определенной частотой р |
| radiation hazard | опасность радиоактивного заражения |
| radioactive contamination | радиоактивное заражение |
| radioactive fall-out | радиоактивные осадки |
| radioactivity detection, indecation and computation (RADIAC) | обнаружение и определение радиоактивности |
| radio-beacon | радиомаяк |
| radiological | радиационный |
| radiological monitoring | дозиметрический контроль |
| radiological survey | радиационная разведка |
| radiological weapon | радиологическое оружие |
| radome | обтекатель антенной радиолакационной станции |
| rail battalion | железнодорожный батальон |
| rail garrison | железнодорожная станция базирования |
| railcar | железнодорожный вагон |
| rail-mobile launcher of ICBMs | железнодорожная мобильная пусковая установка МБР |

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|---|---|
| railroad loading facility | железнодорожная погрузочно-разгрузочная площадка |
| range | полигон; стрельбище |
| rank | шеренга |
| rapid deployment | быстрое развертывание |
| raster | поэлементный, растровый |
| rate of fire | темп стрельбы; боевая скорострельность |
| rated speed | расчётная скорость хода |
| ratio | 1. отношение; соотношение; пропорция 2. коэффициент; степень: кратность 3. передаточное отношение 4. передаточное число 5. *мат*. частное |
| reaction time | время реагирования |
| reactive armor | динамическая защита (реактивная броня) |
| reactive armor | активная броня |
| read the data from | считывать данные с |
| reading hours | самоподготовка |
| rear area | тыловой район |
| rear doors | створки задней двери |
| rear plate | кормовой лист |
| reasonable assurance | разумные гарантии |
| reasonable certainty | разумная уверенность |
| recall | напоминать |
| recategorization | переклассификация |
| recconnaissnce aircraft | разведывательный самолет |
| receipt | получение |
| receiver | ствольная коробка |
| Reciprocal Advance Notification | взаимное заблаговременное уведомление |

| | |
|---|---|
| reclassification | переклассификация |
| reclining position | положение полулёжа |
| recognizing that | признавая, что |
| recoil | отдача |
| recoil rod | шток противооткатного устройства |
| recoil system | противооткатное устройство |
| recoilless rifle | безоткатное орудие |
| reconnaisance in force | разведка боем |
| reconnaissance in force | разведка боем |
| recovery vehicle | ремонтно-эвакуационная машина |
| recruit | 1. набирать на военную службу<br>2. вербовать |
| recruit | набирать на военную службу |
| rectangular pulse | прямоугольный импульс |
| redeployment | 1. переброска<br>2. передислокация<br>3. вывод |
| redeployment | обратная переброска войск |
| reduction and limitation of strategic offensive arms | сокращение и ограничение стратегических наступательных вооружений |
| reduction gear | редукционная передача, редуктор |
| reduction site | место сокращения |
| reentry vehicle (RV) | боеголовка |
| reentry vehicle inspection | инспекция в отношении боеголовок |
| reflection wave | отраженная волна |
| refrain from the threat or use of force | воздерживаться от применения силы или угрозы силой |
| refueling nozzle | заправочный рукав (пистолет) |

| | |
|---|---|
| refurbish | переоборудовать |
| Regular Army | регулярная армия |
| regulations (regs) | наставление, устав |
| reinforce | усиливать |
| relative positions | взаимное расположение (объектов) |
| release of energy | выход энергии; высвобождение энергии |
| release the weapons | открывать огонь боевыми средствами |
| release to the public | опубликовать |
| reliability | надежность |
| relief | смена |
| relieve from the post | освободить от должности |
| relocation | передислокация |
| remain valid | оставаться в силе |
| remove from | удалить из |
| render inoperable | привести в состояние непригодности для эксплуатации |
| repair facility | место ремонта |
| repeating rifle | автоматическая винтовка |
| report | отчет |
| reposition | перегруппировать; менять позицию |
| repulse the enemy attack | отражать атаку противника |
| rescheduling of activities | изменение сроков осуществления деятельности |
| rescue operation | поисково-спасательная операция |
| research and development | исследования и разработки |
| research and development (R&D) | научно-исследовательские и опытно-конструкторские работы (НИОКР) |

| | |
|---|---|
| residual nuclear radiation | остаточная радиация; радиоактивное заражение |
| residual radioactivity | остаточная радиоактивность |
| resin | смола |
| resolution | разрешающая способность |
| resolution in azimuth | разрешающая способность по азимуту |
| resolution in range | разрешающая способность по дальности |
| respiratory system | органы дыхания |
| responsibility is vested in… | ответственность лежит на… |
| responsiveness | 1. быстрота реагирования 2. гибкость управления 3. способность нанесения ответного удара |
| REST! | ЗАПРАВИТЬСЯ! |
| restricted area | ограниченный район |
| result in | приводить к |
| resume the offensive | возобновлять наступление |
| retain a reserve | оставлять резерв (в подчинении) |
| retain the position | удерживать позицию |
| retention of terrain | удержание местности |
| Retired Reserve | резерв третьей очереди (резерв отставников) |
| retirement | выход в отставку |
| retractable | выдвижной |
| retractable landing gear | убирающееся шасси |
| reveille | подъем |
| revetment | капонир |
| Revetment | капонир |
| rickettsia | рикеттсия (род микроорганизмов) |
| rifle | винтовка, нарезное оружие |

| | |
|---|---|
| rifle groovs | нарезы канала ствола |
| rifled barrel | нарезной ствол |
| Right (Left), DRESS; ready FRONT! | Направо (Налево) РАВНЯЙСЬ; СМИРНО! |
| Right FACE! | Напра-ВО! (на месте) |
| ripple | залповый пуск |
| road speed | максимальная скорость |
| road speed | скорость по шоссе |
| road wheel | опорный каток |
| road wheel station | место установки одного из катков |
| road-mobile launcher | грунтовая мобильная пусковая установка (ГМПУ) |
| rocket | ракета (неуправляемая) |
| rocket launcher | ракетная пусковая установка; реактивная установка, направляющая ракеты |
| rocket motor | ракетный двигатель (на твердом топливе) |
| rocket-assisted projectile | активно-реактивный снаряд (АРС) |
| rocket-assisted projectile (RAP) | активно-реактивный снаряд (АРС) |
| rod | шомпол |
| roll-call | поверка |
| rotary-wing aircraft | вертолет |
| rotary-winged aircraft | вертолеты (в отличие от fixed wing aircraft – самолетов) |
| rotational speed | число оборотов |
| rounded | закругленный, округлый, сферический, шарообразный |
| rounds | патроны |
| route | маршрут |
| Route step, MARCH! | ИДТИ НЕ В НОГУ |
| routine movements | обычные передвижения |

| | |
|---|---|
| rudder | руль направления |
| rudder pedal | педаль руля направления |
| rugged terrain | сильнопересеченная местность |
| rules of engagement (ROE) | правила применения силы |
| running dive | погружение на ходу |
| running gear | ходовая часть |
| runway | ВПП |

S

| | |
|---|---|
| safety | техника безопасности |
| safety feature | способность обеспечить безопасность |
| sailor | моряк |
| salvage | использовать в дальнейшем |
| salvo | залп |
| sarin | зарин |
| satellite system receiver | приемник спутниковой системы |
| satisfy the requirements | отвечать требованиям |
| scan the air space | осуществлять наблюдение за воздушным пространством |
| scan the air space | осуществлять наблюдение за воздушным пространством |
| scatterable mine | дистанционно устаналиваемая мина (кассетная) |
| scatterable mine warhead | миноразбрасывающая кассетная боевая часть |
| scattering | диспергирование, рассеяние |
| schedule | расписание |
| scheduled date | запланированная дата |
| scheme of defense | план обороны |
| scramble fighter-interceptors | поднять (по тревоге) истребители-перехватчики |

| | |
|---|---|
| sea frontier forces | силы военно-морских округов |
| sea going forces | силы и средства, предназначенные для действий на море |
| seal | пломба |
| seal | опечатывать |
| Secretary General | Генеральный секретарь |
| Secretary of Defense (SECDEF) | министр обороны |
| Secretary of the Air Force | министр военно-воздушных сил |
| Secretary of the Army | министр сухопутных войск |
| Secretary of the Navy | министр военно-морских сил |
| Secretary of the Navy | Министр ВМС США |
| security area | полоса обеспечения |
| seeker | головка самонаведения (ГСН) |
| seize and secure terrain | захватить участок местности и закрепиться на нем |
| selector | предохранитель |
| self aid | самопомощь |
| self-contained dispensing mechanism (SCDM) | автономный блок разведения (АБР) |
| self-destruct mechanism | механизм самоликвидации |
| self-evident | само собой разумеющееся/не требующее доказательств |
| self-propelled | самоходный |
| self-propelled (SP) | самоходный |
| semi-automatic fire | полуавтоматический огонь |
| sensitive point | чувствительный пункт |
| sensor | датчик, чувствительный элемент |
| Sensor | датчик, чувствительный элемент |
| sentinel; sentry | часовой |
| sequential inspection | последующая инспекция |
| sergeant of the guard | разводящий |

| | |
|---|---|
| serve | служить |
| serve as a forum | использоваться в качестве форума |
| serve as the spokesman for | быть представителем кого-либо |
| service forces | силы обслуживания войск |
| servo control | сервоуправление; серворегулирование; сервопривод |
| set a goal for oneself | ставить себе цель |
| set up | развертывать |
| sever | разделять на части |
| SEWS — Satellite Early Warning System | система раннего обнаружения и слежения за спутниками противника |
| shallow waters | мелководье |
| shaped-charge projectile | кумулятивный снаряд |
| shielding | защита |
| shipborne fighter | палубный истребитель |
| shipping container | грузовой контейнер |
| shock effect | ударная сила |
| shock wave | ударная волна; взрывная волна |
| shock-wave refraction | преломление ударной волны |
| Sholder, ARMS! | На пле-ЧО! |
| shoot-and-scoot tactics | кратковременный огонь со сменой огневых позиций; концепция «выстрелил и ушел» |
| shooting on the move | стрельба с ходу |
| Shore Establishment | береговые части и учреждения |
| short exposure | кратковременное воздействие |
| short takeoff and landing aircraft (STOL) | самолет с укороченными взлётом и посадкой (СУВП) |
| short-range air defense system (SHOEAD) | ЗРК ближнего действия |
| short-range attack missile (SRAM) | ракета ближнего радиуса дей- |

| | |
|---|---|
| | ствия |
| shotgun | ружье |
| shoulder gun | индивидуальное огнестрельное оружие с прикладом |
| shroud | обтекатель |
| shrouded object | зачехленный объект |
| shut down the nuclear reactor | остановить атомный реактор |
| side jet | боковой газовый руль |
| side lobe | боковой лепесток |
| side plate | бортовой лист |
| sights | прицел; прицельные приспособления |
| signal battalion (sig bn) | батальон связи |
| silo launcher | шахтная пусковая установка |
| single stock | предметы снабжения одного вида |
| single-seat aircraft | одноместный самолёт |
| site diagram | схема (объекта) |
| site of origin | исходный пункт |
| six-cylinder diesel engine | 6-цилиндровый дизель |
| slats syn. leading-edge flaps | предкрылки |
| SLBM launcher hatch | крышка люка пусковой установки БРПЛ |
| sliding doors | раздвижные двери, шторки |
| sling load | подвесной груз, груз на внешней подвеске |
| Sling, ARMS! | На ре-МЕНЬ! |
| small radar cross-section makes the missile practically invisible on the enemy's radar screens | небольшая эффективная отражающая поверхность ракеты делает ее фактически незаметной на экранах РЛС противника |
| smarter munition | «умный», высокоточный боеприпас |

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|---|---|
| smoke (WP) ammunition | дымовой боеприпас (снаряженный белым фосфором) |
| smokeless powder | бездымный порох |
| smoothbore | гладкоствольный |
| smoothbore | гладкоствольное (орудие) |
| sneezing | чихание |
| soldier | солдат; военнослужащий |
| solid | твердый |
| solid propellant | твёрдое ракетное топливо |
| solid rocket motor | твердотопливный ракетный двигатель |
| soman | зоман |
| sonar | гидролокатор |
| sonar | гидроакустическая станция (ГАС) |
| sortie | вылет |
| space junk | космический мусор |
| space launch facilities | места запуска космических объектов |
| space shuttle | космический челнок |
| SPADATS — Space Detection and Tracking System | система обнаружения и слежения за воздушным и космическим пространством |
| SPADATS — Space Detection and Tracking System | система обнаружения и слежения за воздушным и космическим пространством |
| spall liner | подбой для защиты от осколков брони |
| specialized attack helicopter | специализированный ударный вертолет |
| specially allocated site | специально выделенное место |
| specific energy | энерговооружённость; |
| specific energy per unit weight | тяговооруженность |

| | |
|---|---|
| specification | техническое задание |
| specified area | указанный район |
| specified command | специальное командование |
| speed | ход, скорость хода |
| speed brakes | тормозные щитки |
| spill over | выпадать |
| spill-over | выпадение |
| splitting | расщепление, деление |
| split-up warhead | разделяющаяся боевая часть ракеты |
| spoilers | интерцепторы |
| spoiling attack | упреждающий удар; удар по противнику перёд передним краем |
| squad automatic weapon (SAW) | автоматическое оружие отделения, пулемет отделения |
| squadron | эскадра (крупных кораблей) |
| stage | ступень |
| staging area | промежуточный район сосредоточения |
| standard displacement | стандартное водоизмещение |
| standard operating procedure (SOP) | постоянно действующая инструкция |
| Standard Payload | нормальная нагрузка |
| Standard Unit Set of Ammunition | штатный боекомплект |
| standardised report | стандартизированный отчёт |
| Standby Reserve | резерв второй очереди |
| standing operating procedure (SOP) | постоянно дейсвующая инструкция |
| stand-off air-to-surface missile | управляемая ракета класса "воздух – земля», запускаемая из зон, находящихся вне досягаемости зенитного огня противника |

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|---|---|
| start air campaign | начинать (военно-) воздушную кампанию (бомбардировки) |
| State Party | государство-участник |
| state a decision (decn) | формулировать решение |
| state of emergency | чрезвычайное положение |
| stationary dive | погружение без хода |
| stay dived | находиться в погруженном состоянии |
| stay in step | |
| stay out of step | идти не в ногу |
| Steering | проводка по траектории; изменение траектории |
| steering lever | рычаг управления |
| stepped-up | ступенчатый |
| stern | корма |
| still camera | фотоаппарат |
| stock | приклад |
| storable (packaged) liquid propellant | расфасованное жидкое ракетное топливо длительного хранения |
| storage crane | кран-хранилище |
| storage facility | место складского хранения |
| store | хранить |
| storm drain | водосточная канава |
| strafing | атака с бреющего полета |
| straight deck | прямая полётная палуба |
| Strategic Air Command (SAC) | стратегическое авиационное командование (САК) |
| strategic direction | стратегическое руководство |
| strategic planning | стратегическое планирование |
| streamlining | оптимизация, организационно-штатные мероприятия |

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|---|---|
| strength | численность |
| strengthening of free institutions | укрепление демократических институтов |
| striking distance | расстояние удара |
| structure | сооружение |
| submachine gun | пистолет-пулемет; автомат |
| submarine (SS) | подводная лодка |
| submarine launched ballistic missile (SLBM) | баллистическая ракета подводных лодок (БРПЛ) |
| submarine-launched rocket (SUBROC) | противолодочная ракета-торпеда, запускаемая с подводной лодки |
| submerge | погружаться |
| submersible | погружаемый, способный погружаться |
| subsequent steps | последующие действия |
| substance | вещество |
| successor state | государство-правопреемник |
| summit | встреча на высшем уровне |
| superstructure | надстройка |
| supplies | 1. предметы снабжения<br>2. поставки |
| supply | снабжать |
| supply lines | пути подвоза материальных средств |
| supporting attack | вспомогательный удар |
| supporting fire | огневая поддержка |
| suppresive counterbattery fire | огонь на подавление артиллерии противника |
| suppression of enemy air defense | подавление ПВО противника |
| Supreme Allied Commander Operations (SACEUR) | 3. Верховный главнокомандующий ОВС НАТО по операциям<br>4. Верховный главнокомандую- |

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|---|---|
| | щий объединенными вооруженными силами НАТО в Европе |
| Supreme Allied Commander Transformation (SACT) | Верховный главнокомандующий ОВС НАТО по трансформации |
| surface | всплывать |
| surface ship | надводный корабль |
| surface speed | скорость надводного хода |
| surface-to-air missile (SAM) | ракета класса «поверхность – воздух» |
| surface-to-surface missile | ракета класса "поверхность – поверхность» |
| surprise | внезапность |
| surveillance | наблюдение, разведка (воздушная) |
| survey section | топогеодезическая секция |
| survivability | живучесть |
| suspect-site inspection (SSI) | инспеция по подозрению |
| sustainability | устойчивость (работы, функционирования) |
| sustainer | маршевый (основной) ракетный двигатель |
| swashplate | автомат перекоса; тарелка автомата перекоса |
| sweep | *мор*. траление \|\| тралить |
| sweep | развёртка на экране |
| swept wing | стреловидное крыло |
| syn. man portable antiaircraft defense system (MANPADS) | ПЗРК |
| syn. supply items | предметы снабжения |
| synchronize | синхронизировать |
| synthetic aperture | синтезированная апертура |

T

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|---|---|
| table of organization and equipment (TOE) | организационно-штатное расписание и табель имущества |
| tabun | табун |
| Tactical Air Command (TAC) | Тактическое авиационное командование (ТАК) |
| tactical column | предбоевой порядок |
| tactical grouping | тактическая группировка |
| tactical missile | ракета оперативно-тактического назначения; ракета средней дальности (радиуса) |
| tactical movement | марш в предвидении встречи с противником; тактическое продвижение |
| tail | хвостовая часть ракеты |
| tail assembly, syn. tail unit, tail group, empennage | хвостовое оперение самолета; стабилизатор |
| tail boom | хвостовая балка вертолета |
| tail hook | хвостовой крюк |
| tail rotor | рулевой винт, хвостовой винт; хвостовой ротор |
| tail warning radar | РЛС защиты хвоста самолёта |
| tailskid | костыль |
| take effect | вступить в силу |
| take up dispersed formations | принимать расчленённый боевой порядок |
| takeoff | взлет |
| take-off run | разбег самолёта |
| tandem rotor (coaxial) heli | вертолет соосной схемы |
| tank ballistic computer | танковый баллистический вычислитель |
| tanker | самолет-заправщик |
| tape measure | рулетка |

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|---|---|
| taper | сходить на конус, сужаться |
| target acquisition | обнаружение и сопровождение целей |
| target designation | целеуказание |
| target designation radar | РЛС целеуказания |
| target detection | обнаружение целей |
| target detection | обнаружение цели |
| target drone | самолет-мишень |
| target illuminating radar | РЛС подсветки цели |
| target present data | текущие координаты цели |
| target present data | текущие координаты цели |
| target search and track system | система обнаружения и сопровождения целей, поисково-следящая система |
| target tracking | сопровождение целей |
| task force (TF) | (временная) тактическая (оперативная) группа, группировка |
| task force organization | организация оперативного соединения |
| task organization | распределение сил и средств для выполнения задачи |
| taxiing out | выруливание |
| taxiway | рулежная дорожка |
| T-bar | Т-образный штурвал |
| tear agent | ОВ слезоточивого действия |
| technical characteristics exhibition | показ в связи с подтверждением соответствия технических характеристик |
| technological means | техническое средство |
| telemetric information | телеметрическая информация |
| temporary measure | временная мера |
| temporary structure | временное сооружение |

| | |
|---|---|
| terminal mode | режим управления на конечном участке траектории |
| terminal phase | конечный участок траектории полёта баллистической ракеты |
| terrain following radar | РЛС "слежения"за рельефом мест. |
| territorial integrity | территориальная целостность |
| territorial waters | территориальные воды |
| test flight | испытательный полет |
| test heavy bomber | тяжелый бомбардировщик, предназначенный для испытаний |
| test range | испытательный полигон |
| than heretofore | чем до сих пор |
| the rear, MARCH! | Кру-ГОМ! (в движении) |
| Theatre Missile Defense (TMD) | противоракетная оборона на театре военных действий (ПРО ТВД) |
| their associated | связанный с ними |
| thereafter | в дальнейшем |
| thermal night sight | тепловизионный ночной прицел |
| thermal radiation | световое излучение |
| thermal-imaging infrared device | тепловизионный инфракрасный прибор ночного видения |
| thermal-imaging night sight | тепловизионный (ночной) прицел |
| thermonuclear weapon | термоядерное оружие |
| this Treaty | настоящий договор |
| three-dimensional radar | трёхкоординатная РЛС |
| through the depth of the battlefield | на всю глубину поля боя |
| throw-weight | забрасываемый вес |
| thrust | тяга, сила тяги |
| thrust | сила тяги |
| thrust vector control | управление вектором тяги |
| thrust-to-weight ratio | тяговооруженность |

| | |
|---|---|
| tie-down ring | швартовочное кольцо |
| tilt rotor aircraft | самолет-вертолет, ЛА с поворотным крылом, конвертоплан |
| tilting | 1. наклон 2. отклонение |
| timer, synchronizer | синхронизатор |
| TMD (theatre missile defence) | ПРО на ТВД (противоракетная оборона на театрах военных действий) |
| TNT equivalent | тротиловый эквивалент |
| to be aimed by orienting the launcher | наводиться при помощи пусковой установки |
| to be assigned to | быть приписанным к |
| to be assigned to the Operating Forces | входить в состав боевых сил |
| to be at smb’s disposal | находиться в чьем-либо распоряжении |
| to be at the discretion of | определяться по собственному усмотрению |
| to be attributed to | числиться за |
| to be centred on | быть сориентированным |
| to be committed to | быть приверженным чему-либо |
| to be composed of | состоять из ... |
| to be contained within the missile body | находиться (размещаться) на борту ракеты |
| to be deemed an attack | рассматриваться как нападение |
| to be detailed for duty | быть назначенным в наряд |
| to be dissolved | распадаться |
| to be environmentally protected | быть защищенным от воздействия атмосферных явлений |
| to be fielded | поступать на вооружение |
| to be fitted with smth | быть оснащённым чем-либо |
| to be hazardous | представлять опасность |
| to be housed | размещаться |

| | |
|---|---|
| to be in charge of | руководить, отвечать за… |
| to be inconsistent with | быть несовместимым с |
| to be permanently assigned | быть постоянно приписанным |
| to be put in place | установить |
| to be separately distinguishable from | быть раздельно отличимым от |
| to be set forth | быть изложенным |
| to be signed and countersigned | быть подписанным обеими сторонами |
| to be subject to | подпадать под |
| torpedo tube | торпедный аппарат |
| torque | крутящий момент |
| total displacement | полное водоизмещение |
| touchdown | касание ВПП |
| tour [of duty] (TOD) | дежурство, наряд |
| TOW antitank missile | ПТУР ТОУ |
| towed | буксируемый; прицепной |
| toxic agent | токсическое средство |
| toxic chemical warfare | боевые действия с применением токсичного химического оружия |
| trace | след |
| track | железнодорожный путь |
| track a beacon | следить за маяком |
| track target | следить за целью; сопровождать, отслеживать цель, осуществлять проводку цели |
| tracked armoured combat vehicle | гусеничная боевая бронированная машина |
| tracked vehicle | гусеничная машина |
| track-laying vehicle | гусеничная машина |
| trail | станина |
| trailing edge | задняя кромка |

| | |
|---|---|
| trailing edge | задняя кромка; задний край |
| train | готовить (обучать) |
| train forces | обучать войска |
| train of standard configuration | состав стандартной конфигурации |
| training aircraft | учебно-тренировочный самолет |
| transmission | трансмиссия |
| transmission mounting area | место установки трансмиссии |
| transmit (generate) target designation instructions | вырабатывать (выдавать) данные целеуказания |
| transmit (generate) target designation instructions | вырабатывать (выдавать) данные целеуказания |
| transmitted pulse | зондирующий импульс |
| transporter-launcher | транспортно-пусковой контейнер (ТПК) |
| transporter-loader | транспортно-погрузочное средство |
| travel | поездка |
| travel at high speed | идти на большой скорости хода |
| travel in straight lines | распространяться прямолинейно |
| travel time | время доставки (группы) |
| traversing deck | вращающаяся основа |
| triaminobtrinitrobenzene (TATB) | триаминотринитробензол (ТАТБ) |
| trigger | спусковой крючок |
| trigger pulse | запускающий импульс |
| trim tabs | триммеры |
| trinitrotoluol (TNT) | тринитротолуол (тротил) |
| true north | истинный север |
| true submersible | истинная подводная лодка |
| trunnion | цапфа |
| trunnion mount | место установки цапфы |
| tube artillery | ствольная артиллерия |

| | |
|---|---|
| tube edge | верхний срез шахты |
| turbine engine | газотурбинный двигатель |
| turn | разворот, вираж |
| turning movement | обход; обходный манёвр |
| turret | башня |
| turret casting | опора башни |
| twin engine | спаренный двигатель |
| twin-seat aircraft | двухместный самолёт |
| two-men crew | расчет (экипаж), состоящий из двух человек |
| type commander | командующий однородных сил |
| type organization | организация однородных сил флота |
| types of offensive operations | виды наступления |

U

| | |
|---|---|
| U.S. Air Force Security Service | управление службы безопасности |
| U.S. Army Reserve (USAR) | резерв Сухопутных войск США |
| U.S. Atlantic Command (USACOM) | командование ВС США в зоне Атлантического океана |
| U.S. Central Command (US CENTCOM) | центральное командование ВС США |
| U.S. European Command (USEUCOM) | командование ВС США в Европейской зоне |
| U.S. Pacific Command (USPACOM) | командование ВС США в зоне Тихого океана |
| U.S. Southern Command (US SOUTHCOM) | командование ВС США в зоне Южной и Центральной Америки |
| U.S. Space Command (US SPACECOM) | космическое командование ВС США |
| U.S. Special Operations Command (US SOCOM) | командование специальных операций |
| U.S. Strategic Command | стратегическое командование |

| | |
|---|---|
| (US STRATCOM) | |
| U.S. Transportation Command (US TRANSCOM) | транспортное командование |
| UAV | БПЛА |
| UN Charter | Хартия/Устав ООН |
| UN Department of Peacekeeping Operations (DPKO) | департамент операций ООН по поддержанию мира |
| UN Stand-by Arrangements System (UNSAS) | система соглашений ООН о кредите поддержки |
| unarmed trainer aircraft | невооруженный учебный самолет |
| unconventional warfare | боевые действия с решением нетрадиционных задач |
| underground burst | подземный взрыв |
| underground nuclear burst | подземный ядерный взрыв |
| underline | подчеркивать |
| under-secretary (US) | заместитель министра (США) |
| undertake | брать на себя обязательство |
| underwater-to-surface missiles (USM) | ракета класса «подводная лодка – поверхность» |
| unexcused absent | незаконно отсутствующий |
| unguided missiles | неуправляемые средства поражения |
| unified command | объединённое командование |
| unique identifier | собственный опознавательный знак |
| unit | часть, подразделение |
| unit of fire | боекомплект подразделения |
| unit record number | регистрационный номер части |
| unity of command | единоначалие |
| unladen weight | сухой вес |
| unless otherwise agreed | если только не согласовано иное |
| unlike ... | в отличие от... |

| | |
|---|---|
| unmanned aerial vehicle (UAV) | беспилотный летательный аппарат |
| upgrade | усовершенствовать; модернизировать |
| up-looking radar | РЛС (авиа.) обнаружения цели в верхней полусфере |
| upper atmosphere | верхние слои атмосферы |
| upper carriage | верхний станок |
| upper silo | верхний срез шахты |
| urban areas | район городской застройки |
| urchin | импульсный нейтронный инициатор (ИНИ, «ёжик», «урчин») |
| USAF Reserve command | Командование резерва ВВС США |
| use of force | применение военной силы |
| utility a | универсальный; общего назначения |

V

| | |
|---|---|
| validate | подтверждать |
| vary sweep | изменять стреловидность |
| venting | доступ воздуха |
| verification | контроль |
| versatility | универсальность; разносторонность; гибкость в применении |
| version | разновидность |
| verticle takeoff and landing airplane (VTOL) | самолёт вертикального взлёта и посадки (СВВП) |
| very long range radar | РЛС сверхдальней локации |
| V-gases | V-газы |
| vicinity | район расположения |
| viewing | визуальный осмотр |
| vigilance | бдительность |
| viruse | вирус |

| | |
|---|---|
| vital security interests | жизненноважные интересы в сфере безопасности |
| volume of fire | плотность огня |
| vomiting agent | ОВ рвотного действия |

W

| | |
|---|---|
| war gases | боевые отравляющие газы |
| warhead | боевая часть |
| warhead | боевая часть |
| warhead | боезаряд |
| warning system | система предупреждения |
| warring party | противоборствующая сторона |
| water obstacle | водное препятствие |
| water supply battalion | батальон водоснабжения |
| waters | воды, акватория |
| weapon station | точка подвески вооружения |
| weapons of mass destruction (WMD) | оружие массового поражения (ОМП) |
| weed-killer | гербицид |
| weeping | слезотечение |
| weld | сварной шов |
| welding | сварка, приваривание |
| wheeled armoured combat vehicle | колесная боевая бронированная машина |
| wheeled vehicle | колесная машина |
| white phosphorus | белый фосфор |
| winch | лебедка |
| windscreen | лобовое стекло, козырек кабины |
| wing loading | (удельная) нагрузка на крыло |
| wingtip | законцовка крыла |
| wire guided missiles | управляемая по проводам ракета |
| with regard to | в отношении |

| | |
|---|---|
| with the speed of light (sound) | со скоростью света (звука) |
| withdraw | отходить, отводить |
| within the framework of | в рамках (соглашения) |
| withstand blast | противостоять действию ударной волны |
| withstand shock loads | выдерживать перегрузки |
| working register | рабочий реестр |
| wrecking ball, | шаровой таран |

X

| | |
|---|---|
| x-ray | рентгеновское излучение |

Y

| | |
|---|---|
| yawing | рыскание |
| yield | мощность; калибр (ядерного боеприпаса); выход энергии |

## СОДЕРЖАНИЕ

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