

И.В. Марусенко, Ю.А. Раков, Н.С. Якушкина

**АНГЛИЙСКИЙ ЯЗЫК  
В СПЕЦИАЛЬНОЙ ДЕЯТЕЛЬНОСТИ**

**ВОЕННЫЙ ПЕРЕВОД**

**Учебное пособие**

**Санкт-Петербург  
2016 год**

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В учебное пособие входят материалы, предназначенные для чтения военной, военно-технической и другой литературы по специальности на языке оригинала; осуществления аннотирования и реферирования англоязычных военных материалов, а также поддержания устных речевых контактов в ситуациях профессионального общения и ведения двустороннего перевода в ходе беседы с иностранным военным специалистом.

В качестве дополнительных текстов в учебном пособии использованы новейшие оригинальные материалы (в основном американские), опубликованные в открытой печати на английском языке.

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## ОГЛАВЛЕНИЕ

<b>ПРЕДИСЛОВИЕ .....</b>	<b>4</b>
<b>ГЛАВА 1. Общие сведения о вооруженных силах США .....</b>	<b>5</b>
<b>ГЛАВА 2. Сухопутные войска США .....</b>	<b>39</b>
2.1 Пехота .....	76
2.2 Бронетанковые войска .....	103
2.3 Артиллерия .....	124
2.4 Воздушно-десантные войска .....	140
2.5 Войска связи .....	150
<b>ГЛАВА 3. Военно-воздушные силы США .....</b>	<b>170</b>
<b>ГЛАВА 4. Военно-морские силы США .....</b>	<b>192</b>
<b>ГЛАВА 5. Ракетное оружие .....</b>	<b>215</b>
<b>ГЛАВА 6. Противовоздушная, противоракетная и противокосмическая     оборона .....</b>	<b>233</b>
<b>ГЛАВА 7. Оружие массового поражения .....</b>	<b>250</b>
<b>ГЛАВА 8. Обеспечение действий войск .....</b>	<b>268</b>
<b>ГЛАВА 9. Боевые действия войск .....</b>	<b>280</b>
<b>Тексты для аудирования .....</b>	<b>295</b>
<b>Дополнительный материал к главе 2 («Порядок радиообмена») .....</b>	<b>302</b>
<b>ПРИЛОЖЕНИЯ</b>	
1. Английский фонетический алфавит .....	308
2. Основные единицы измерения, принятые в США .....	308
3. Воинские звания в вооруженных силах США .....	309
<b>СПИСОК ЛИТЕРАТУРЫ .....</b>	<b>312</b>

## ПРЕДИСЛОВИЕ

Учебное пособие «Английский язык. Военный перевод» предназначено для обучения специальному (военному) переводу в объёме, необходимом для выполнения задач информационно-аналитической работы

Основные принципы, способы, приемы и методы перевода вообще и специального перевода в частности характерны и для военного перевода. Однако этот вид перевода обладает специфическими чертами, связанными с особенностями стиля, лексики и грамматики языка иностранных (англоязычных) военных материалов.

В процессе изучения данного учебного пособия обучающийся должен получить знания, умения и навыки, необходимые для чтения, перевода, аннотирования и реферирования военной, военно-технической и военно-политической литературы по специальности на иностранном (английском) языке и ведения беседы военно-профессионального содержания в наиболее типичных ситуациях.

Основной единицей организации практической работы в данном учебном пособии является глава. Пособие содержит 9 глав; а также два дополнительных раздела: «Тексты для аудирования» и «Порядок радиообмена».

В приложение включены таблицы, в которых представлен английский фонетический алфавит, основные единицы измерения, принятые в США, а также воинские звания в вооруженных силах США.

Каждая из 9 глав состоит из основного текста, поурочного словаря, системы упражнений и дополнительных текстов соответствующей тематики. В качестве дополнительных текстов в учебном пособии использованы новейшие оригинальные текстовые материалы в основном американские, опубликованные в открытой печати на английском языке.

Основной текст содержит фактический материал по вооруженным силам США. Он предназначен для отработки и первичного закрепления военной терминологии по теме урока.

После основного текста следует поурочный словарь, содержащий термины для активного усвоения. Помимо терминов для активного усвоения в большинстве глав в поурочном словаре приведены также глагольные словосочетания, вызывающие трудности при переводе. Наиболее сложная терминология подробно комментируется отдельно и имеет обозначение Attention!

Основной текст рассматривается как материал для выполнения различных типов упражнений.

При выполнении упражнений в ходе первичного закрепления и активизации новой лексики, постановки вопросов, пересказа текстов формируются разнообразные умения и навыки, необходимые для ведения беседы военно-профессионального содержания на английском языке и как результат осуществления двустороннего перевода.

# ГЛАВА 1

## ОБЩИЕ СВЕДЕНИЯ О ВООРУЖЕННЫХ СИЛАХ США

### US ARMED FORCES GENERAL CONSIDERATIONS

#### A (Alpha). US National Security Structure

The term “Armed Forces of the United States” means the Army, Navy, Air Force, Marine Corps and Coast Guard, including their Regular and Reserve components.

Under the Constitution of the United States the President is the Commander-in-Chief of the Armed Forces. In the execution of his responsibilities for national security, the President is assisted by several agencies.

At the top of the US security structure is the National Security Council which was founded in 1947 by Harry Truman. Its function is to advise the President with respect to domestic, foreign, and military policies relating to national security. The Council is composed of the President, the Vice President, the Secretary of State, the Secretary of Defense and the Director of National Intelligence, as a non-voting member who coordinates the intelligence activities of the Government departments and agencies.

The US Armed Forces are organized to serve within and under control of the DOD. The latter has its residence in Washington, in a huge pentagonal building, from which it got its nickname – the Pentagon.

The Armed Forces of the United States include three main *Armed Services*: the Army, the Navy and the Air Force. Correspondingly, the DOD contains the Departments of the Army, Navy and Air Force, each headed by a civilian secretary (Secretary of the Army, Secretary of the Navy, Secretary of the Air Force).

The National Security Act of 1947 established the position of the Secretary of Defense and his responsibility over the departments of the three armed services. The SECDEF, as a cabinet member, is the principal assistant to the President in all matters relating to the DOD. He is appointed by the President of the United States from civil life with the advice and consent of the Senate.

Actual command of the Armed Service in each dept is exercised accordingly by the Chief of Staff, United States Army; Chief of Naval Operations; and Chief of Staff, United States Air Force. They form the Joint Chiefs of Staff.

The JCS are the principal mil advisers to the President, the NSC, the Homeland Security Council and the SECDEF. They constitute the immediate mil staff of the SECDEF. The JCS consist of a Chairman, the CSUSA, the CNO, and the CSUSAF; and in addition, when matters which directly concern the MC are under

consideration, the Commandant of the Marine Corps has equal status with the JCS members.

To assist the JCS there is a Joint Staff composed of officers, selected in approximately equal numbers from the Army, Navy, AF, and MC.

## **B (Bravo). Active and Reserve Forces**

The Armed Forces of the United States are composed of the Army, the Navy, the Air Force – termed *Armed Services* – and Marine Corps and Coast Guard, including their Regular and Reserve components, the latter including Reserve elements and National Guard.

The Regular element is the permanent professional force the members of which are on active fulltime military duty. It is a federal force responsive to the President as Commander-in-Chief.

The Reserve components of the US Armed Forces are called into active federal service in case of war or national emergency to augment the Regular Forces. They include the Army National Guard of the United States; the Army Reserve; the Naval Reserve; the Marine Corps Reserve; the Air National Guard of the United States; the Air Force Reserve; the Coast Guard Reserve.

The National Guard is composed of state troops formed and commanded by state officials. As a state force the National Guard responds to the governor, not the President. It is also ready to support in civil disaster or to reinforce state police.

The Army Reserve; the Naval Reserve; the Air Force Reserve; the Marine Corps Reserve and the Coast Guard Reserve consist of reservists who are civilians. Reserve units constitute a federal force commanded by the President and rely on Congress for political and economical support.

## **C (Charlie). Unified Combatant Commands**

The key elements in the US military establishment comprise a strategic offensive force, a strategic defensive force, air-and sealift forces and a command and control system to direct Armed Forces under all conditions.

Unified Combatant Commands are established to accomplish a specific major task or to employ US Armed Forces in a certain region of strategic importance (known as “Area of Responsibility”, AOR). A *unified combatant command* (formally known as “COCOM” – for “combatant command”) is composed of elements of two or more Services. There are *a number of unified combatant commands* in the US Armed Forces: US European Command; US Pacific Command; US Southern Command; US Africa Command; US Northern Command; US Central Command; US Strategic Command; US Special Operations Command; US Transportation Command. The commander-in-chief of such a command reports to the SECDEF

through the JCS. The commanders of the Unified Combatant commands had been called Commanders-in-Chief (“CINCs”) for decades until October 24, 2002, when Secretary of Defense announced that the title of “Commander-in-Chief” would thereafter be reserved only for the President. Armed forces CINCs in specified regions would thereafter be known as “combatant commanders”, heading what are now known as Unified Combatant Commands.

The area of land, sea and air which is or may become involved directly in the operations of war is known as *the theater of war*. As a rule the theater of war is subdivided into the zone of interior and theaters of operations. The *zone of interior* comprises all national territory exclusive of *theaters of operations*.

A *base* is an area or locality containing installations which provide all kinds of support to military operations.

All locations, including Alaska and Hawaii *outside the continental United States* (OCONUS) are referred to as *overseas*.

According to US views war can be general or limited. *General war* is an armed conflict between major powers in which the total resources of the belligerents are employed. And *limited war* is an armed conflict short of general war involving the overt engagement of the military forces of two or more nations.

## **D (Delta). Grade and Rank**

Enlisted personnel comprise noncommissioned officers (petty officers in the Navy), specialists and other grades (men in the Navy). Noncoms are appointed by their unit comdrs (in the Army – company commander). They are placed in charge of other NCOs (or petty officers) and men. Each enlisted man title corresponds to a pay grade, designated as E-1 through E-9.

Ranking next above noncoms are warrant officers. They are normally selected from the NCOs and appointed by the SA. Usually WOs hold positions as technical and administrative supervisors. WOs are not normally required to perform duties as comdrs or ldrs.

Commissioned officers are appointed by the President and confirmed by the Senate. ComOs of the USAR, USAF and USMC are subdivided into company offs, field offs, and general offs, and into offs and flag offs in the USN. Second and First Lieutenants and Captains are known as company offs. Majors, Lieutenant Colonels and Colonels are called field offs and Brigadier Generals, Major Generals, Lieutenant Generals and Generals are general offs.

Flag offs are Commodore, Rear Admiral, Vice Admiral and Admiral.

The preliminary training of offs is conducted at the US Military Academy at West Point, US Air Force Academy at Colorado Springs and US Naval Academy at



Annapolis. Upon graduation cadets of the USMA and the USAFA are commissioned second lieutenants and midshipmen of the USNA are commissioned ensigns.

After receiving a commission the offs are required to continue their development by attending the branch service school.

ComOs on active duty may be recommended for promotion to a higher grade. Offs are eligible for promotion if they meet certain requirements based primarily on age, length of service, length of service in grade and existing position vacancy. At a specific age officers retire.

Recruiting of the US Armed Forces is based on voluntary enlistment, whereas in time of war recruits are drawn through a draft system or conscription.

#### **TEXT A.**

#### **ACTIVE TERMS AND EXPRESSIONS**

Armed Forces of the United States	вооруженные силы США (включая резервные формирования)
Army (USAR)	сухопутные войска, армия
Navy (USN)	военно-морские силы, ВМС
Air Force (AF)	военно-воздушные силы, ВВС
Marine Corps (MC)	корпус морской пехоты
Coast Guard (CG)	береговая охрана
regular (reg)	регулярный, кадровый
reserve (res)	резерв, запас, резервный, запасный
component (comp)	составная часть, контингент, формирование (вооруженных сил)
Commander-in-Chief (CINC)	(верховный) главнокомандующий; командующий
security (scty)	безопасность, служба безопасности, боевое обеспечение, охранение
National Security Council (NSC)	Совет национальной безопасности
Homeland Security Council (HSC)	Совет по внутренней безопасности
secretary	министр
deputy secretary	заместитель министра
Secretary of State	Госсекретарь, министр иностранных дел
Secretary of Defense (SECDEF)	министр обороны
Director of National Intelligence (DNI)	Директор Национальной разведки
department (dept)	министерство, департамент
defense (def)	оборона
Department of Defense (DOD, DoD)	министерство обороны (США)
Armed Service	вид вооруженных сил

Department of the Army (DA)	министерство сухопутных войск
Department of the Navy (DN)	министерство ВМС
Department of the Air Force (DAF)	министерство ВВС
Secretary of the Army (SA)	министр сухопутных войск
Secretary of the Navy (SN; SECNAV)	министр ВМС, военно-морской министр
Secretary of the Air Force (SAF)	министр ВВС
command (comd)	командование, командовать
staff (stf)	штаб, личный состав штаба
Chief of Staff (CofS)	начальник штаба
Chief of Staff, United States Army (CSUSA)	начальник штаба сухопутных войск
Chief of Naval Operations (CNO)	начальник штаба ВМС
Chief of Staff, United States Air Force (CSUSAF)	начальник штаба ВВС
Joint Chiefs of Staff (JCS)	[Объединенный] комитет начальников штабов
Chairman	председатель
Commandant of the Marine Corps	Комендант морской пехоты
Joint Staff (JS)	объединенный штаб

\* \* \*

to be responsible for responsibility responsible	быть ответственным за, отвечать за ответственность, обязанность ответственный
to assist assistant	помогать, содействовать помощник
to advise adviser advice	советовать, консультировать, рекомендовать советник, консультант совет, рекомендация
to advise the President <i>with respect to</i> foreign policy	помогать Президенту <i>по вопросам (что касается, относительно)</i> внешней политики
in all matters <i>relating to</i> the DOD	по всем вопросам, <i>касающимся (относящимся)</i> МО
matters which directly <i>concern</i> the MC	вопросы, которые непосредственно <i>касаются</i> морской пехоты
to be composed of = to consist of	состоять из
to exercise = to perform, to carry	осуществлять, выполнять

out	
to constitute	составлять, образовывать

### **Attention!**

#### **1. force – *войска, силы; войсковая единица: соединение, объединение***

*ground forces* – сухопутные *силы*

*enemy forces* – *войска* противника

*air force* – воздушная *армия*

Armed Forces – вооруженные *силы*

Air Force – военно-воздушные *силы*

#### **2. security – *безопасность (служба безопасности, контрразведка,***

***сохранение тайны; боевое обеспечение, охранение):***

*security agency* – орган службы безопасности (*контрразведки*)

*security information* – *секретная* информация

*security at the halt* – сторожевое *охранение*

National Security Council – Совет национальной безопасности

National Security Act – закон о национальной обороне

National Security Structure = National Security Organization –

организация вооруженных сил государства

#### **3. army - the Army – *сухопутные войска, армия* (как вид вооруженных сил)**

*field army* – [*полевая*] *армия* – оперативное объединение сухопутных войск, состоящее из нескольких корпусов или дивизий

*army doctor* – военный *врач*

*army language* – военный *лексикон*

#### **4. Deputy Director – *заместитель директора***

***Under Secretary General*** – *заместитель генерального секретаря*

***Vice Chief of Staff*** – *заместитель начальника штаба*

## **EXERCISES**

### **I. Study these translations before reading Text A.**

1. Under the constitution the President is the Commander-in-Chief of the Armed Forces.

*По конституции президент является верховным главнокомандующим вооруженными силами.*

2. The Secretary of Defense, as a cabinet member, is the principal assistant to the President in all matters relating to the Department of Defense.

*Министр обороны, будучи членом правительства, является главным помощником президента по всем вопросам, имеющим отношение к министерству обороны.*

3. The Secretaries of the Army, Navy and Air Force as well as the Secretary of Defense are civilian heads of the Departments.

*Министры сухопутных войск, ВМС, ВВС так же, как и министр обороны, назначаются из гражданских лиц и являются руководителями своих министерств.*

4. The military heads of the Departments are the chiefs of staff (Chief of Staff, US Army; Chief of Staff, US Air Force; Chief of Naval Operations).

*Военными руководителями министерств являются начальники штабов (начальник штаба сухопутных войск США, начальник штаба ВВС США и начальник штаба ВМС).*

5. The Joint Chiefs of Staff are responsible for strategic planning, employment and training of the Armed Forces.

*Комитет начальников штабов отвечает за стратегическое планирование, применение и боевую подготовку вооруженных сил.*

6. The Joint Staff is the staff of the Joint Chiefs of Staff as provided for under the National Security Act of 1947.

*В соответствии с законом о национальной обороне 1947г. объединенный штаб является штабом комитета начальников штабов.*

7. When matters which directly concern the USMC are discussed, the Commandant of the Marine Corps attends the meetings of the JCS.

*Когда обсуждаются вопросы, непосредственно касающиеся корпуса морской пехоты, командующий морской пехотой присутствует на заседаниях комитета начальников штабов.*

8. The US Armed Forces comprise three armed services: The Army, the Navy and the Air Force.

*Вооруженные силы США включают три вида вооруженных сил: сухопутные войска, военно-морские силы и военно-воздушные силы.*

## **II. Give Russian equivalents to the following English phrases.**

1. The term "Armed Forces of the United States" means...
2. ..., including their Regular and Reserve components.
3. In the execution of his responsibilities for national scety...
4. The President is assisted by several agencies.
5. The NSC is to advise the President with respect to domestic, foreign, and mil policies...
6. The DNI coordinates the intel activities of the Government depts and agencies.
7. The US Armed Forces are organized to serve within and under control of the DOD.
8. Correspondingly, the DOD contains the DA, the DN, and the DAF.

9. ...to establish the position of the SECDEF...
10. The DOD is headed by a civilian secy.
11. The SECDEF is the principal assistant to the President...
12. ...in all matters relating to the DOD...
13. He is appointed with the advice and consent of the Senate.
14. Actual comd of the Armed Service is exercised accordingly by...
15. The JCS are the principal advisers to the President...
16. ...when matters which directly concern the MC are under consideration...
17. ...an authorized strength...
18. ...offs, selected in approximately equal numbers...

### **III. *Improve your skills in making questions.***

#### **A. *Put questions using the models.***

**The DOD is headed by the civilian SECDEF.**

**Model 1:** Who(m) **is** the DOD **headed** by?

Who **heads** the DOD?

**Model 2:** What dept **is headed** by the civilian SECDEF?

1. The DA **is headed** by the SA.

2. The DN **is headed** by the SN.

3. The DAF **is headed** by the SAF.

#### **B. *Translate into English.***

1. Кто возглавляет министерство СВ?
2. Какое министерство возглавляет министр СВ?
3. Кто стоит во главе министерства ВМС?
4. Какое министерство возглавляется военно-морским министром?
5. Кем возглавляется министерство ВВС?
6. Во главе какого министерства стоит министр ВВС?

### **IV. *Decipher the following abbreviations.***

reg; comp; mil; res; scty; NSC; intel; dept; def; DOD; comd; SECDEF; JCS; CSUSA; CNO; CSUSAF; MC; offs; AF, HSC

### **V. *Translate into English.***

Вооруженные силы США состоят из сухопутных войск, военно-морских сил, военно-воздушных сил, корпуса морской пехоты, береговой охраны и их резервных компонентов. Сухопутные войска, военно-морские силы и военно-воздушные силы являются основными видами вооруженных сил США. По конституции США верховным главнокомандующим вооруженными силами является президент. Он осуществляет руководство вооруженными силами через

Совет национальной безопасности и Министерство обороны. Во главе МО стоит министр обороны, являющийся гражданским лицом. Три основных вида вооруженных сил США – армия, ВМС, ВВС – возглавляются министрами армии, ВМС и ВВС. Фактическое командование видами вооруженных сил осуществляют начальники штабов, которые образуют КНШ, – консультативный орган президента по военным вопросам. Работу комитета начальников штабов обеспечивает объединенный штаб, который состоит из офицеров трех видов вооруженных сил и корпуса морской пехоты.

**VI. *Translate as quickly as possible:***

сухопутные войска; Armed Forces; корпус морской пехоты; Air Force; вид вооруженных сил; Navy; начальник штаба ВМС; Commander-in-Chief; министр обороны; Joint Chiefs of Staff; совет национальной безопасности; DNI; береговая охрана; Joint Staff; министр ВВС; Chief of Staff, United States Army; командующий корпусом морской пехоты.

**VII. *Listen to the text and then translate it sentence by sentence in a written form.***

Under the Constitution of the United States the President is the Commander-in-Chief of the Armed Forces. According to the National Security Act of 1947 the US Armed Forces are under the control of the Department of Defense headed by the civilian Secretary of Defense.

The US Armed Forces include the following three main armed services – Army, Navy, and Air Force – each of them has its own Department (Department of the Army, Department of the Navy, and Department of the Air Force) headed by a civilian Secretary (Secretary of the Army, Secretary of the Navy, Secretary of the Air Force). The military heads of the Departments are their Chiefs of Staff – Chief of Staff US Army, Chief of Staff US Air Force, Chief of Naval Operations – who are principal military advisers to the Secretary of Defense.

**VIII. *Answer the following questions.***

1. What does the term “Armed Forces of the United States” mean?
2. Who is the Commander-in-Chief of the Armed Forces of the United States?
3. What agencies is the President assisted by?
4. What agency is at the top of the national security structure?
5. Whom does the NSC consist of?
6. What is its function?
7. What is the mission of the DNI?
8. What department controls the US Armed Forces?

9. Who heads the DOD?
10. What are the main armed services of the US Armed Forces?
11. What depts head the Armed Services?
12. Who heads these depts?
13. Who are the principal mil advisers to the SECDEF?
14. Who(m) do the JCS consist of?
15. What staff assists the JCS?
16. What is its strength?

**IX. Be ready to retell text A.**

**X. Two-way translation.**

1. *Для чего предназначены ВС США?* – The purpose of the US Armed Forces is to defend the nation against the risks of future wars.
2. *Who is the CINC of the US Armed Forces?* – *По конституции США Президент является верховным главнокомандующим ВС США.*
3. *Из чего состоят ВС США?* – The US Armed Forces is composed of three Armed Services (the Army, Navy, Air Force) and Marine Corps and Coast Guard, including their Regular and Reserve components.
4. *Who is the principal assistant to the President on defense matters?* – *Министр обороны является главным помощником Президента по вопросам обороны.*
5. *Как известно, министр обороны и министры видов ВС являются гражданскими лицами. А кто является военными руководителями ВС?* – The military heads of the Departments are the Chiefs of Staff (Chief of Staff, US Army; Chief of Staff, US Air Force; Chief of Naval Operations).
6. *What are the Joint Chiefs of Staff responsible for?* – *Комитет начальников штабов отвечает за стратегическое планирование, применение и подготовку ВС.*
7. *Когда комендант морской пехоты участвует в работе КНШ?* – When matters which directly concern the US Marine Corps are discussed the Commandant of the MC attends the meetings of the JCS.

**TEXT B.**

**ACTIVE TERMS AND EXPRESSIONS**

National Guard (NG)	национальная гвардия
element (elm)	составная часть; подразделение, часть
professional force	регулярные войска
active [fulltime military] duty	действительная военная служба
service (svc)	служба
active federal service	действительная служба в федеральных войсках

Army National Guard (ARNG)	национальная гвардия сухопутных войск
Army Reserve (ARes)	резерв сухопутных войск
Naval Reserve (NR; NRes)	резерв ВМС
Marine Corps Reserve (MCR)	резерв (корпуса) морской пехоты
Air National Guard (Air NG)	национальная гвардия ВВС
Air Force Reserve (AFRes)	резерв ВВС
Coast Guard Reserve (CGRes)	резерв береговой охраны
troops (trps)	войска
reservist	резервист

\* \* \*

to respond to...	нести ответственность, отвечать, отчитываться (перед кем-то); находиться в подчинении
responsive to...	ответственный, несущий ответственность (перед кем-то), подчиненный
to augment	усиливать, увеличивать, наращивать
to command	управлять, командовать; подавать команду
to reinforce	усиливать
reinforcement	усиление, укрепление
reinforcements	усиление; подкрепление, пополнение
reinforcing	поддержка средствами усиления; усиление, подкрепление; усиливающий

### **Attention !**

**command, control, supervise (supervision), oversee, administer (administration)**

command	1. командование, управление 2. командовать, управлять 3. приказание, команда, подавать команду
control	1. управление, руководство, контроль 2. управлять, руководить
command and <b>control</b> (C <sup>2</sup> )	командование и <b>управление</b>
supervise	контролировать
supervision	контроль, руководство, надзор
oversee	1. наблюдать, следить; 2. курировать 3. осуществлять (обеспечивать) контроль
administer	осуществлять административное руководство
administration	тыл и снабжение; управление тылом; административно-хозяйственное управление; администрация



## EXERCISES

### I. Study these translations before reading Text B.

1. The Regular Army is the permanent professional force the members of which are on active, full-time military duty.

*Регулярная армия представляет собой постоянное профессиональное формирование, состоящее из кадровых военнослужащих, которые в течение установленного времени находятся на действительной военной службе.*

2. The National Guard is composed of state troops formed and commanded by state officials, however in time of emergency it is called into active federal duty.

*Национальная гвардия состоит из войск штатов, которые формируются властями штатов и находятся в их подчинении, однако в случае чрезвычайного положения они могут быть призваны на действительную федеральную службу.*

3. The Army Reserve consists of reservists who are civilians and may be called into active service in case of emergency.

*Резерв сухопутных войск состоит из резервистов, которые являются гражданскими лицами. В случае чрезвычайного положения они могут быть призваны на действительную военную службу.*

### II. Give Russian equivalents to the following English phrases:

1. ...the latter including Res elements and National Guard.
2. It is a federal force responsive to the President as the CINC.
3. ... in case of war or national emergency...
4. The Res comps are called into active federal service to augment the Regular forces.
5. The National Guard is composed of state troops formed and commanded by state officials.
6. As a state force the NG responds to the governor.
7. The National Guard is also ready to support in civil disaster...
8. ...to reinforce state police...
9. Res units constitute a federal force commanded by the President...
10. ...to rely on Congress for political and economical support.

### III. Put questions using the model.

**Model:** The NSC is composed of the President, Vice President, Secretary of State and SECDEF (Whom...)

Whom is the NSC composed of?

1. The Armed Forces of the United States are composed of the Army, Navy, AF, MC and CG, including their Regular and Reserve comps (What...).

2. *The President is assisted* by several agencies (*What agencies...*)
3. *The Res comps of the US Armed Forces are called* into active federal service in case of war (*When...*)
4. *The National Guard is composed of* state troops (*What troops...*).
5. *Actual command of the armed service in each dept is exercised* accordingly by the CSUSA, CNO and CSUSAF (*Whom...*).

#### **IV. Cipher and decipher.**

**A.** 1. Commander-in-Chief; 2. Department of Defense; 3. Secretary of Department of Defense; 4. Department of the Army; 5. Department of the Navy; 6. Department of the Air Force; 7. Secretary of the Army; 8. Secretary of the Navy; 9. Secretary of the Air Force; 10. Chief of Staff; 11. Chief of Staff US Army; 12. Chief of Staff US Air Force; 13. Chief of Naval Operations; 14. Army National Guard; 15. Army Reserve.

**B.** ARNG; Ares; off; mil; svc; Res comp; comps; mil svc; res; Reg comp; NG; trps; elm; MCR; AFRes

#### **V. Insert adverbs and prepositions:**

1. ...the Constitution of the United States the President is the Commander-in-Chief ... the Armed Forces.
2. The US Armed Forces are ... the control ... the Department ... Defense.
3. The US Armed Forces include the three main armed services each ... them has its own Department.
4. Each Department is headed ... a civilian secretary.
5. The military heads ... these Departments are their Chiefs ... Staff.
6. The Regular element is the permanent professional force the members of which are ... active fulltime military duty.
7. The Reserve comps ... the US Armed Forces are called ... active federal service ... case of war or national emergency.
8. The National Guard is composed ... state troops formed and commanded ... state officials.
9. As a state force the National Guard responds ... the governor, not the President.
10. Reserve units rely ... Congress for political and economical support.

#### **VI. Translate into English.**

**A.** 1. Кто является главнокомандующим вооруженными силами США? 2. Что означает понятие “вооруженные силы США”? 3. Какое министерство возглавляет вооруженные силы США? 4. Кто возглавляет министерство обороны? 5. Какие министерства входят в министерство обороны?

- B.** 1. Какое министерство стоит во главе сухопутных войск? 2. Кто возглавляет это министерство? 3. А какие министерства возглавляют ВВС и ВМС? 4. Кто стоит во главе этих министерств? 5. Каковы основные функции видов вооруженных сил?
- C.** 1. Что представляют собой регулярные войска вооруженных сил США? 2. Кому они подчиняются? 3. Когда на действительную федеральную службу призывают резервы? 4. Какие формирования входят в резервы вооруженных сил США? 5. Что представляет собой Национальная гвардия? 6. Из кого формируются резервы?

**VII. *Translate using a dictionary.***

The Regular Army provides a permanent, professional force, a base upon which an enlarged United States Army can be built in an emergency. It provides immediate defense in case of attack, garrisons occupied areas, and trains other components. The Regular Army consists of officers and soldiers who have chosen the military profession as a lifetime career.

The National Guard has units in all the States and territories. Weapons, ammunition, uniforms, equipment, outdoor training facilities, pay, and supervision of instruction are provided by the Federal Government, while the States or territories furnish personnel, armories, camps, and storage facilities. The Federal Government provides some financial assistance for the construction of armories.

**VIII. *Translate as quickly as possible:***

вид вооруженных сил; professional force; совет национальной безопасности; Secretary of State; действительная военная служба; Air National Guard; заместитель министра; Joint Staff; командующий корпусом морской пехоты; active federal service; береговая охрана; Chief of Staff United States Army; резерв личного состава сухопутных войск; Commander-in-Chief; консультировать Президента по вопросам внешней политики; to augment the Regular Forces; в случае войны или чрезвычайного положения в стране; authorized strength; подчиняться губернатору.

**IX. *Answer the following questions.***

1. What are the Armed Forces of the United States composed of?
2. Explain what the Regular element of the US Armed Forces is.
3. Who(m) are the Reg components responsive to?
4. When are the Reserve comps called into active federal service?
5. What do the Res components of the Armed Forces of the United States include?
6. What is the National Guard?

7. Who(m) do res comps consist of?

**X. Be ready to retell Text B.**

**XI. Two-way translation.**

1. What are the Armed Forces of the United States composed of? – *ВС США состоят из сухопутных войск, ВМС, ВВС, которые являются основными видами ВС, морской пехоты и береговой охраны, их регулярных сил и резервных формирований.*
2. Что представляют собой регулярные силы? – The Regular element is the permanent professional force the members of which are on active fulltime military duty.
3. Who(m) are the Regular forces responsive to? – *Это федеральные силы, подчиненные Президенту как главнокомандующему.*
4. Когда резервы призывают на действительную федеральную службу? – The Reserve comps of the US Armed Forces are called into active federal service in case of war or national emergency to augment the Regular Forces.
5. What do the Reserve components of the US Armed Forces include? – *Резервные компоненты ВС США – это Национальная гвардия и резервы Армии, ВМС, ВВС морской пехоты и береговой охраны.*
6. Что такое Национальная гвардия? – The NG is composed of state troops formed and commanded by state officials. As a state force the NG responds to the governor, not the President. It is also ready to support in civil disaster or to reinforce state police.
7. Who(m) do res comps consist of? – *Резервы сухопутных войск, ВМС, ВВС, морской пехоты и береговой охраны состоят из резервистов, которые являются гражданскими лицами.*

**TEXT C.**

**ACTIVE TERMS AND EXPRESSIONS**

offensive force	наступательные силы
defensive force	оборонительные силы
airlift force	силы воздушных перевозок
sealift force	силы морских перевозок
command (comd) and control (con) system (sys)	система командования и управления
area of responsibility (AOR)	зона ответственности
unified combatant command (UCC) = combatant command (COCOM)	объединенное командование

combatant commander (CCDR)	командующий объединенным командованием
theater of war = area of war	театр войны
zone of interior (ZI)	внутренняя зона
continental United States (CONUS)	континентальная часть США
theater of operations = area of operations	фронт, ТВД, операции в масштабе всего ТВД
base	база
overseas	заморский, заграничный
general war	всеобщая война
limited war	ограниченная война

\* \* \*

to comprise = to include	включать, охватывать
to report to ...  report	докладывать, давать отчет (о проделанной работе), находиться в подчинении донесение, рапорт
to be subdivided into ...	подразделяться на...
to be referred to as ...= to be known as ...	называться
to engage in combat = to be engaged in combat engagement	вести боевые действия, участвовать в боевых действиях бой, сражение
to establish establishment	учреждать, организовывать организация, устройство

\* \* \*

**US European Command (USEUCOM)** – Объединенное командование ВС США в Европейской зоне

**US Pacific Command (USPACOM)** – Объединенное командование ВС США в зоне Тихого океана

**US Southern Command (USSOUTHCOM)** – Объединенное командование ВС США в зоне Центральной и Южной Америки

**US Africa Command (USAFRICOM)** – Объединенное командование ВС США в зоне Африки

**US Northern Command (USNORTHCOM)** – Объединенное командование ВС США в зоне Северной Америки

**US Central Command (USCENTCOM)** – Объединенное Центральное командование ВС США

**US Strategic Command (USSTRATCOM)** – Объединенное Стратегическое командование ВС США

**US Special Operations Command (USSOCOM)** – Объединенное командование специальных операций ВС США

**US Transportation Command (USTRANSCOM)** – Объединенное командование стратегических перебросок ВС США

## EXERCISES

### I. Study these translations before reading Text C:

1. **command** (A unit or units, an organization, or an area under command of one individual) – **командование** (*Воинское формирование или несколько формирований, организационная единица или район под командованием одного человека*).
2. With the advice of the JCS the President through the SECDEF is empowered to establish unified combatant commands composed of elements of two or more Services. – *По рекомендации комитета начальников штабов президент имеет право поручить министру обороны создать объединенные командования, состоящие из компонентов двух или более видов вооруженных сил.*
3. The theater of war is that area of land, sea, and air which is, or may become involved directly in the operations of war. – *Театр войны – район суши, моря и воздушного пространства, в котором ведутся или могут вестись боевые действия.*
4. As a rule the theater of war is subdivided into the zone of interior and theaters of operations. The zone of interior comprises all national territory exclusive of theaters of operations. – *Как правило, театр войны подразделяется на внутреннюю зону и на театры военных действий. Внутренняя зона охватывает всю территорию страны, исключая территории театров военных действий.*
5. A base is an area or locality containing installations which provide all kind of support to military operations. – *База представляет собой район или участок местности, на котором располагаются учреждения и объекты, предназначенные для оказания различного вида поддержки и обеспечения боевых действий.*
6. **general war** (Armed conflict between major powers in which the total resources of the belligerents are employed) – **всеобщая война** (*Вооруженный конфликт между великими державами, в котором используется весь военно-промышленный потенциал противостоящих сторон*).
7. **limited war** (Armed conflict short of general war, exclusive of incidents, involving the overt engagement of the military forces of two or more nations) –

**ограниченная война** (*В отличие от отдельных военных инцидентов ограниченная война представляет собой вооруженный конфликт, не перерастающий во всеобщую войну, в котором принимают открытое участие вооруженные силы двух или более стран*).

8. **overseas** (All locations, including Alaska and Hawaii, outside the continental United States) – **заморский, заграничный** (*Территории, включая Аляску и Гавайи, находящиеся за пределами континентальной части США*).

## **II. Give Russian equivalents to the following English phrases.**

1. The key element in the US mil establishment comprise...
2. ...a command and control system to direct Armed Forces under all conditions.
3. Unified Combatant Commands are established to accomplish a specific task ...
4. ...to employ US Armed Forces in a certain region of strategic importance.
5. A unified comd is composed of elms of two or more Services.
6. The CCDR of such a comd reports to the SECDEF.
7. All locations outside the continental United States (CONUS) are referred to as overseas.
8. ...the total resources of the belligerents are employed.
9. ...an armed conflict short of general war ...
10. ...the overt engagement of the mil forces of two or more nations.

## **III. Improve your skills in making questions.**

**Pay attention to: include = comprise = consist of = be composed of**

**Какие элементы включают в себя ВС США? = Из чего состоят ВС США?**

- 1) What elms **do** the US Armed Forces **include**?
- 2) What elms **do** the US Armed Forces **comprise**?
- 3) What elms **do** the US Armed Forces **consist of**?
- 4) What elms are the US Armed Forces **composed of**?

### **Put questions using the models**

**Model 1:** *The US Armed Forces include three main Armed Services.*

What **do** the *US Armed Forces* include?

**Model 2:** *Each armed service consists of the reg and res comps.*

What does *each armed service* **consist of**?

**Model 3:** *The NSC is composed of the President, the Vice President, the Secretary of State and the SECDEF.*

Who(m) **is the NSC composed of**?

1. The DNI **coordinates** the intel activities of the Government depts. and agencies.

2. The JCS **constitute** the immediate mil stf of the SECDEF.
3. The JCS **consist of** a Chairman, the CSUSA, the CNO, and the CSUSAF.
4. The res comps **include** the ARNG; Ares; Nres; MCR; AirNG; AFRes; CGRes.
5. As a state force the NG **responds to** the governor.
6. The key elements in the US mil establishment **comprise** a strategic offensive force, a strategic defensive force, air- and sealift forces, and a comd and con sys.
7. A unified comd **is composed of** elms of two or more svcs.
8. The CINC of such a comd **reports to** the SECDEF.
9. The theater of war **is subdivided into** the ZI and theaters of operations.
10. All locations, including Alaska and Hawaii outside the CONUS **are referred to as** overseas.

#### **IV. Decipher the following *a b b r e v i a t i o n s*.**

DA; mil; comp; DOD; comd; con; DN; DAF; SA; stf; CofS; JCS; NSC; SECDEF; CSUSA; res; ARes; NG; def; CONUS; svc; elm; CINC; ZI.

#### **V. Translate *w i t h* a dictionary.**

According to the US mil doctrine, the purpose of the Armed Forces of the United States, both Regular and Reserve is to defend the nation against the risks of future wars, nuclear and nonnuclear, large or small. The key elements in the US mil establishment, therefore, include a strategic offensive force; a command and control system to direct the attack; a continental def system to intercept enemy atk and civil defense program to help protect the population from the perils of nuclear fallout; combat-ready tactical ground, sea, and air forces and the air- and sealift needed to move them quickly to wherever they might be needed; and special forces to cope with the threat of insurrection and subversion, as well as civil disobedience and disturbances.

#### **VI. A n s w e r *the following questions*.**

1. What is a unified combatant command? What is it composed of?
2. What unified combatant comds of the US Armed Forces do you know?
3. What locations are known as overseas?
4. What is the theater of war? What is it subdivided into?
5. What is a base?
6. What is general war?
7. What is limited war?



## **VII. Spell the names of NATO military bases using the military alphabet.**

### **NATO Military Bases**

The Atlantic Alliance (NATO) has its own Network of military bases, thirty in total.

The latter are primarily located in Western Europe:

1. Whiteman, U.S.A., Fairford,
2. Lakenheath and Mildenhall in United Kingdom,
3. Eindhoven in Netherlands,
4. Bruggen, Geilenkirchen, Landsberg, Ramstein, Spangdahlem, Rhein-Main in Germany,
5. Istres and Avord in France,
6. Moron de la Frontera and Rota in Spain,
7. Brescia, Vicenza, Piacenza, Aviano, Istrana, Trapani, Ancora, Pratica di Mare, Amendola, Sigonella, Gioia dell Colle, Grazzanise and Brindisi in Italy,
8. Tirana in Albania,
9. Incirlik in Turkey,
10. Eskan Village in Soudi Arabia,
11. Ali al Salem in Koweit

### **TEXT D.**

### **ACTIVE TERMS AND EXPRESSIONS**

grade (gr)	воинское звание, должностная категория личного состава
other grades	рядовые
pay grade	разряд тарифной сетки денежного содержания
rank	воинское звание, чин
enlist	поступать на военную службу (добровольно)
enlistment	поступление на военную службу (добровольное)
enlisted personnel (pers)	военнослужащие рядового и унтер-офицерского (сержантского) состава
enlisted man (EM)	военнослужащий рядового <i>или</i> унтер-офицерского (сержантского) состава
commission	производство в офицеры, присваивать первичное офицерское звание
noncommissioned officer (NCO; noncom)	унтер-офицер (сержант)

commissioned officer (ComO)	офицер
specialist (sp)	специалист
petty officer man	унтер-офицер (в ВМС), старшина нижний чин: рядовой, матрос
commander (comdr, cmdr, cdr)	командир, начальник
leader (ldr)	командир подразделения (до роты)
warrant officer (WO)	уорент-офицер
company officer (CoOff)	младший офицер
field officer (FO)	старший офицер
general officer (GO)	высший офицер, генерал (СВ, ВВС, МП)
flag officer	высший офицер, адмирал (ВМС)
training (tng)	подготовка, обучение
US Military Academy at West Point (USMA)	военное училище США в Уэст-Пойнте
US Naval Academy (USNA)	военно-морское училище США
US Air Force Academy (USAF A)	военное авиационное училище США
cadet	курсант, слушатель, кадет
midshipman	гардемарин, курсант военно-морского училища
branch service school	курсы усовершенствования офицерского состава рода войск (службы)
promotion	присвоение (очередного) звания, продвижение по службе
length of service	выслуга лет
length of service in grade	выслуга лет в звании
position vacancy	вакантная должность
retire	уходить в отставку (на пенсию)
resign	уходить (подавать) в отставку без пенсии
recruiting recruit	набор, вербовка, комплектование новобранец
voluntary	добровольный
draft	призыв в армию, призывать на военную службу
conscript	призывать, призывник
conscription = draft system	призыв, воинская повинность

to appoint = to assign to be appointed = to be assigned	назначать (кого-то на должность) назначаться (на должность кем-то)
to be in charge of	быть за старшего, командовать, отвечать за...
to be recommended for promotion	быть представленным к очередному званию

## EXERCISES

### I. Study these translations before reading Text D.

1. The personnel of the US Army is classified into three main categories: Enlisted Men, Warrant Officers, Commissioned Officers. – *Личный состав сухопутных войск США подразделяется на три главные категории: рядовой и сержантский состав, уорент-офицеры, офицеры.*
2. Enlisted Men group comprise Other Grades, Specialists and Noncommissioned Officers. – *Рядовой и сержантский состав включает рядовых, специалистов и сержантов.*
3. Usually Warrant Officers hold positions as technical and administrative supervisors. – *Обычно уорент-офицеры назначаются на технические и административные должности.*
4. The Commissioned Officer group is subdivided into company officers, field officers and general officers. – *Офицерский состав подразделяется на младших офицеров, старших офицеров и высших офицеров (генералов).*
5. Each enlisted man title corresponds to a pay grade, designated to as E-1 through E-9. – *Каждому званию рядового и сержантского состава соответствует определенный разряд тарифной сетки денежного содержания, имеющий обозначение от E-1 до E-9.*
6. Recruiting of the US Armed Forces is based on voluntary enlistment. – *Комплектование вооруженных сил США основывается на добровольном поступлении на военную службу.*
7. The preliminary training of officers is conducted at the US Military Academy at West Point, the US Naval Academy at Annapolis and US Air Force Academy at Colorado Springs and other educational institutions. – *Первоначальную подготовку офицеры получают в военном училище, расположенном в Уэст-Пойнте, в военно-морском училище в городе Аннаполис, в военном авиационном училище в Колорадо-Спрингс и в других учебных заведениях.*

8. Upon graduation, cadets of USMA are commissioned second lieutenants in the Regular Army. – *После выпуска курсантам военного училища сухопутных войск присваивается звание второго лейтенанта регулярной армии.*
9. After receiving a commission the officers are required to continue their development by attending the branch service school. – *После получения первичного офицерского звания офицеры повышают свою квалификацию на курсах усовершенствования офицерского состава определенного рода войск.*
10. Commissioned officers on active duty may be recommended for promotion to a higher grade. – *Кадровые офицеры могут быть представлены к очередному званию.*
11. Officers are eligible for promotion if they meet certain requirements based primarily on age, length of service, length of service in grade and existing position vacancy. – *Офицеры могут быть повышены в звании, если они отвечают определенным требованиям, в основном таким, как возраст, выслуга лет, выслуга лет в звании и наличие вакансии.*
12. At a specific age officers retire. – *По достижении определенного возраста офицеры увольняются с действительной военной службы.*

## **II. Give Russian equivalents to the following English phrases.**

1. NCOs are placed in charge of other NCOs and men.
2. Each EM title corresponds to a pay grade, designated as E-1 through E-9.
3. Ranking next above NCOs are ...
4. Usually WOs hold positions as tech and admin supervisors.
5. WOs are not normally required to perform duties as comdrs and ldrs.
6. ComOs are appointed by the President and confirmed by the Senate.
7. The preliminary training is conducted ...
8. Upon graduation cadets are commissioned second lieutenants.
9. After receiving a commission...
10. ...to continue their development by attending the branch service school.
11. ComOs on active duty may be recommended for promotion to a higher grade.
12. Offs are eligible for promotion...
13. ...if they meet certain requirements...
14. Recruiting of the US Armed Forces is based on voluntary enlistment...
15. ...in time of war recruits are drawn through a draft system or conscription.

## **III. Put all possible questions.**

1. Enlisted personnel comprise NCOs, sps and other grades.
2. NCOs are appointed by their unit comdrs.
3. WOs are normally selected from the NCOs and appointed by the SA.

4. ComOs are subdivided into CoOffs, FOs and GOs.
5. The preliminary training of offs is conducted at the USMA at West Point; USAFA at Colorado Springs and USNA at Annapolis.
6. At a specific age officers retire.

#### **IV. Decipher the following abbreviations:**

tng; off; USMA; ARes; ComO; mil; UCC; USAFA; pers; NCO; noncom; comdr; EM; gr; SA; COCOM; WO; ldr; USNA; svc; reg off; USAR; USAF; USMC; USN; admin; stf; CINC; DNI; DA; CSUSA; CCDR; SECDEF; FO; ANG.

#### **V. Translate as quickly as possible:**

воинское звание; to commission; выходить в отставку без пенсии; to retire; министр обороны; Joint Staff; унтер-офицер; flag officer; регулярная армия; enlisted personnel; начальник штаба ВВС; in case of emergency; продолжать образование; company officers; начальник штаба ВМС; recruiting; во время войны; training.

#### **VI. Translate without a dictionary.**

##### **Ranks of the US Army Servicemen**

According to their ranks the US Army servicemen are divided into three categories: commissioned officers (ComOs), warrant officers (WOs), and enlisted men (EM), including non-commissioned officers (NCOs), specialists and other grades.

The first officer's grade is that of Second Lieutenant then go First Lieutenant, Captain, Major, Lt Col, Col, Brigadier General, Major General, Lieutenant General, General and General of the Army. A company is usually commanded by a First Lt or a Cpt. The **CO**<sup>1</sup> of a battalion may be a Lt Col or a Col. His **ExO**<sup>2</sup> who is second in command usually holds the rank of a Lt Col or a Mjr.

Ranking next below ComOs are WOs. They are placed in between ComOs and NCOs.

<sup>1</sup>CO = *commanding officer* - командир части (подразделения)

<sup>2</sup>ExO = XO = *executive officer* - начальник штаба (батальона, бригады); заместитель командира

#### **VII. Translate into English.**

1. Ваше звание? 2. Ваша должность? 3. Сколько лет вы служили в вооруженных силах? 4. Вас призвали или вы доброволец? 5. В каком году вы окончили военное училище в Уэст-Пойнте? 6. Какие должности занимают

урент-офицеры в сухопутных войсках США? 7. Кто назначает на должность унтер-офицеров в сухопутных войсках США? 8. На какие группы подразделяются офицеры ВВС, морской пехоты и сухопутных войск?

### **VIII. *Translate with a dictionary.***

#### **Military Ranks**

Most modern military services recognize three broad categories of personnel: commissioned officers, warrant officers and enlisted men.

Commissioned officers are trained as leaders and hold command positions. They typically command.

A warrant officer is an officer in a military organization who is designated an officer by a warrant<sup>1</sup>, as distinguished from a commissioned officer who is designated an officer by a commission<sup>2</sup>, and a non-commissioned officer who is designated an officer, often by virtue of seniority. Warrant officers are hybrid rank treated slightly differently in each country and service. They may either be effectively senior non-commissioned officers or an entirely separate grade. Warrant officers make up the technical foundation of the U.S. Army.

Enlisted personnel make up the vast majority of military personnel. Non-commissioned officers are enlisted under the command of an officer. They are the backbone of the Army and responsible for the care and direct control of junior military members.

<sup>1</sup> **a warrant** – уведомление о получении звания урент-офицера

<sup>2</sup> **a commission** – уведомление о получении офицерского звания

### **IX. *Answer the following questions.***

1. What are the three main categories of the personnel of the US Army?
2. What does the enlisted personnel consist of?
3. Who appoints noncoms?
4. What are warrant officers?
5. Whom are ComOs appointed by?
6. What are ComOs of the USAR, USAF and USMC subdivided into?
7. What are CoOffs?
8. What are FOs?
9. What are GOs?
10. What are ComOs subdivided into in the US Navy?
11. Where is the preliminary training of offs conducted?
12. What rank are cadets commissioned upon graduation?
13. In what way do ComOs continue their development?
14. When are offs eligible for promotion?

15. What is recruiting of the US Armed Forces based on in peacetime and in time of war?

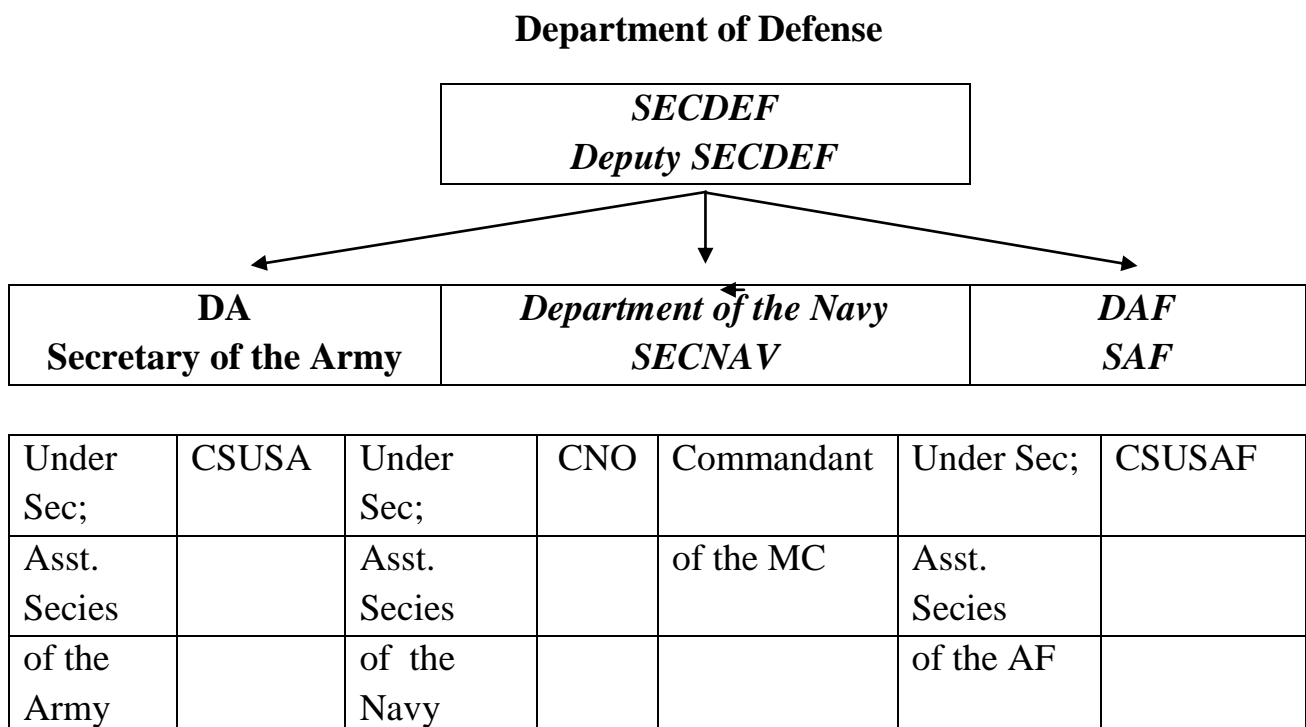
**X. Be ready to retell text D.**

**XI. Two – way translation.**

1. На какие три основные категории делится личный состав Армии США? – The personnel of the US Army consists of Enlisted Men, Warrant Officers and Commissioned Officers.
2. На какие группы делятся военнослужащие рядового и сержантского состава? – Enlisted personnel comprise Noncommissioned Officers, Specialists and Other Grades.
3. What are the Army commissioned officers subdivided into? – *Офицеры СВ делятся на младших офицеров, старших и высших офицеров.*
4. Какие звания относятся к высшим званиям ВМС? – Flag officers are Commodore, Rear Admiral, Vice Admiral and Admiral.
5. Recruiting of the US Armed Forces is based on voluntary enlistment. Is that so? – *Да, но во время войны вводится призывная система.*
6. Как офицеры могут повысить свою квалификацию? – ComOs are required to continue their development by attending various mil educational establishments, and also by correspondence at the US Armed Forces Institute and certain civilian colleges and universities.

\* \* \*

**Repeat the topics of Unit I. Speak about the DOD.**



### ***Repeat the terms and expressions of Unit I.***

Armed Forces; во время войны; Air Force; продолжать образование; Navy; регулярная армия; Commander-in-Chief; начальник штаба ВМС; Joint Chiefs of Staff; унтер-офицер; Director of National Intelligence; министр обороны; Joint Staff; воинское звание; Chief of Staff, US Army; вид вооруженных сил; professional force; совет национальной безопасности; Secretary of State; действительная военная служба; Air National Guard; заместитель министра; active federal service; младший офицер; to augment the Regular Forces; береговая охрана; authorized strength; резерв личного состава сухопутных войск; NCOs are appointed by; старший офицер; to commission; консультировать Президента по вопросам внешней политики; to retire; в случае войны или чрезвычайного положения в стране; Secretary of Defense; подчиняться губернатору; flag officer; наступательные силы; enlisted personnel; система командования и управления; in case of emergency; объединенное командование; company officers; министр ВВС; recruiting; театр военных действий; training; силы воздушных перевозок; Department of Defense; командующий корпусом морской пехоты; warrant officer

## **S U P P L E M E N T A R Y   T E X T S**

### **1. THE UNITED STATES MILITARY ACADEMY**

The United States Military Academy is a public institution that was founded in 1802. It has a total undergraduate enrollment\* of 4,591, its setting is suburban, and the campus size is 16,080 acres. It utilizes a semester-based academic calendar. Its in-state tuition\* and fees\* are \$0 (2014-15); out-of-state tuition and fees are \$0 (2014-15). Upon completing their undergraduate degree requirements, cadets are commissioned and receive the gold bar of a Second Lieutenant. They will serve in the Army as Active Duty Soldiers.

The United States Military Academy is located in West Point, N.Y., approximately 50 miles north of New York City on the Hudson River. The school, also known as USMA, West Point and Army, is the oldest of the country's five federal service academies. Students, referred to as cadets, are officers in training, and their tuitions\* are funded by the U.S. Army in return for an active-service duty obligation\*. Army offers a wide range of extracurricular\* clubs, from the glee\* and gospel clubs to the ski and sailing clubs. The Army Black Knights participate in 24 intercollegiate\* sports at the NCAA (National Collegiate Athletic Association - Национальная студенческая спортивная ассоциация США) Division I level and are known for their rivalry with the Naval Academy, particularly in football. Every



cadet is required to participate in an intercollegiate, club or intramural\* level sport each semester. Cadets live in barracks on campus all four years and receive a monthly stipend.

Army graduates earn a Bachelor of Science\* degree and are commissioned as second lieutenants in the U.S. Army. Applicants must apply directly to the academy and receive a nomination\* from a congressional representative. A tradition on campus is the Ring Weekend, during which all seniors receive their class rings. Alumni\* and students are often referred to as "The Long Gray Line," and famous members include former U.S. presidents Dwight D. Eisenhower and Ulysses S. Grant; former U.S. Army General Douglas MacArthur; and former CIA Director David Petraeus.

To apply for West Point you must be:

- At least 17 but not yet 23 years old on July 1 of the year admitted
- A U.S. citizen
- Not married
- Not pregnant or with any legal obligation to support a child or children
- Congressionally nominated or have a service-connected nomination
- A recipient of strong scores on either college entrance exam (ACT or SAT – стандартизованные тесты для приема в высшие учебные заведения США)

The student-faculty\* ratio at United States Military Academy is 7:1, and the school has 91.5 percent of its classes with fewer than 20 students. The most popular majors\* at United States Military Academy include: Engineering; Social Sciences; Foreign Languages, Literatures, and Linguistics; Business, Management, Marketing, and Related Support Services; and Engineering Technologies and Engineering-Related Fields. The average freshman retention\* rate, an indicator of student satisfaction, is 95 percent.

**\* Notes:**

enrollment – зд. численность обучающихся

tuition and fees – зд. плата за обучение и полное обеспечение

tuition - обучение

obligation - обязательство

extracurricular - дополнительный (факультативный)

glee – гли (хоровое пение с элементами мюзикла)

intercollegiate - между разными учебными заведениями

intramural - происходящий в стенах учебного заведения

nomination – зд. рекомендация

Bachelor of Science – бакалавр военных наук

alumni (от alumnus) – бывшие питомцы академии, выпускники

student-faculty ratio – соотношение количества студентов на одного преподавателя

major – основной учебный предмет; профилирующая дисциплина

retention rate – отношение числа окончивших академию к числу поступивших

## 2. EARNING A COMMISSION AND FURTHER DEVELOPMENT

There are several ways to earn an Army officers' commission. A candidate should apply for appointment and graduate from

- *The United States Military Academy* (USMA) at West Point or
- *The Reserve Officers' Training Corps* (ROTC) maintained by universities and colleges or
- *The Army's Officer Candidate School.*

The USMA is unique. Since 1802 it provides a superb four-year education, which focuses on the leader development of cadets in the academic, military, and physical domains. It is worth mentioning that most US Army general officers are USMA graduates.

Upon graduation cadets are commissioned second lieutenants in the Regular Army. The degree of Bachelor of Science\* is also awarded. Most graduates who remain in the Army after the initial five year obligation\* obtain advanced degrees at a civilian university.

Graduates of the Reserve Officers' Training Corps units are commissioned second lieutenants in the Army Reserve, and only certain distinguished graduates may be commissioned in the Regular Army.

Commissions as second lieutenants, Army Reserve, are also given to successful graduates of The Army's Officer Candidate Schools.

Most Army lieutenants start in a platoon leader position responsible for 25 - 30 soldiers. Staff positions\* are interspersed\* with troop-leading positions\*, including command of a company-sized unit as a captain.

An Army officer is required to continue his development by attending various educational establishments depending on the phase of his career. In the captain grade officers attend one of the *branch service schools* which provide the officer with the necessary training to perform as a field grade staff officer\*. Thereafter they may attend one or more courses conducted at *Army War College* or *Command and Staff College (general service schools)*.

For specialized purposes a field grade Army officer may attend one of the three institutions common to the three services: *The National War College*, *The Industrial College of the Armed Forces*, and the *Armed Forces Staff College*.

One of the forms of specialization is a system of contractual arrangements with universities and colleges, trade schools, and industrial organizations to qualify a few

carefully selected officers in physics, or electronics, or other fields not included in the curriculum of Army educational organizations, or to instruct them in the use and maintenance of the newest equipment being delivered to the Army.

In time of peace officers may acquire training through correspondence courses\* of the *US Armed Forces Institute*.

### **Words which will help you to translate the text:**

1. US Military Academy – военное училище сухопутных войск США
2. Reserve Officers' Training Corps – служба вневойсковой подготовки офицеров запаса
3. Officer Candidate School – краткосрочные курсы подготовки офицерского состава
4. branch service school – курсы усовершенствования офицерского состава (родов войск и служб)
5. Army War College – военный колледж Армии
6. Command and Staff College – командно-штабной колледж Армии
7. general service school – высшее военное учебное заведение, военный колледж (вида ВС)
8. National War College – национальный военный колледж
9. Industrial War College – промышленный колледж ВС
10. Armed Forces Staff College – штабной колледж ВС
11. US Armed Forces Institute – институт заочного обучения ВС США

### **\*Notes:**

Bachelor of Science – бакалавр военных наук

five-year obligation – зд. пять лет обязательной службы

staff position – штабная должность

intersperse – чередоваться

troop-leading positions – командные должности

field grade staff officer – в должности, соответствующей званию старшего офицера

correspondence courses – курсы заочного обучения, заочное обучение

## **3. DISCIPLINE**

Military discipline is the state of order and obedience among military personnel resulting from training. It means the exact execution of orders resulting from an intelligent, willing obedience rather than one based solely upon habit or fear.

Punishment of individuals for breaches of discipline are sometimes necessary, but only to reform or eliminate those who are unfit to serve on the team.

Discipline is necessary to secure orderly action which alone can triumph over the seemingly impossible conditions of the battle. The individual must be able to recognize and face fear because fear is the enemy of discipline. Fear unchecked will lead to panic and a unit that panics is no longer a disciplined unit but a mob. There is no sane person who is without fear, but with good discipline and high morale all can face danger.

The final object of military discipline is effectiveness in combat – to make sure that a unit performs correctly in battle, that it reaches its objectives, performs its assigned mission and helps others to accomplish their missions.

A military commander is vested with a high degree of authority. This authority extends to matters which would normally be considered of personal concern to the individual alone. These include such things as the eating of food, the care and manner of wearing clothing, health habits, and morale factors, all of which directly or indirectly affect the lives of the individuals under his command.

A soldier trains together with other soldiers so that as a team they can accomplish increasingly difficult tasks in a manner in which they can take pride. A soldier must not forget that he carries the badge of his Service and his Country, and that those who see him regard him not as individuals but as representatives of the Service whose insignia he wears. If a soldier appears smart\*, alert\* and efficient\*, others will not only say “this is a good Marine”, but also “that’s a good outfit\*”.

The word “discipline” is frequently combined with other words to refer to specific phases of living and fighting, for example: we speak of “fire discipline” which means obedience to fire orders and the observance of all instructions pertaining to the use of weapons during firing or in combat.

**\*Notes:**

smart – толковый, подтянутый, аккуратный

alert – бдительный, активный

efficient – знающий свое дело

outfit – 3д. часть, подразделение

#### **4. DEFENSE CONDITIONS**

The American military has five alert\* levels numbered five through one. DEFCON-FIVE is denoted normal peacetime operations. FOUR is slightly higher, calling for increased manning of certain posts, keeping more people – mainly meaning pilots and soldiers – close to their airplanes or tanks, as the case might be. DEFCON-THREE is far more serious. At that point units are fully manned for operational deployment. At DEFCON-TWO units begin to deploy, and this level is saved for the imminent\* threat of war. DEFCON-ONE is a level to which American

forces have never been called. At that point war is to be considered something more than a threat. Weapons are loaded and aimed in anticipation\* of orders to shoot.

**\*Notes:**

alert – состояние боевой готовности, боевая тревога

imminent – надвигающийся, неизбежный

anticipation – ожидание

## **5. TITLES\*. COURTESIES\* TO INDIVIDUALS**

All military and naval personnel are customarily addressed in official correspondence by their full titles.

In conversation and unofficial correspondence, Army, Air Force and Marine personnel, male and female, are addressed as follows: all general officers – “general”; colonels and lieutenant-colonels – “colonel”; majors – “major”; captains – “captain”; all lieutenants – “lieutenant”; cadets – “mister”; warrant officers – “mister”; all sergeants – “sergeant”; corporals – “corporal”; all specialists – “specialist”; privates and privates 1-st class – “private”. When the name is not known a private may be addressed as “soldier”.

In conversation and unofficial correspondence, Navy and Coast guard officers, male and female, are addressed as follows: all admirals – “admiral”; commodores – “commodore”; captains – “captain”; commanders and lieutenant-commanders – “commander”; lieutenants, lieutenants junior grade, ensigns, midshipmen – “mister”, “miss”; all medical officers by their rank.

In referring to or introducing captains in the Navy or Coast Guard, it is customary to add after the name “of the Navy”, or “of the Coast Guard”, since the grade of captain in the Navy and in the Coast Guard corresponds to the grade of colonel in the Army, AF and Marines. Any officer in command of a ship regardless of the size and class of the ship is addressed as “captain” while actually exercising such command.

Enlisted men of the Navy and CG are addressed either by their specialty or by their last name\*. Chief Petty Officer is usually addressed as “Chief”. When his name or specialty is not known a seaman may be addressed as “sailor”.

The term of respect “sir” is used when speaking to officers and civilian officials, especially in answering questions - “Yes, sir” and “No, sir”. When speaking with a female officer the term “Ma’am” is used. The word “sir” is used in military conversation by all soldiers in addressing officers and by juniors addressing senior officers.

An enlisted man reports to an officer in the third person: “Private Smith is reporting to Captain White”. Further communication is in the first person.

Brigadier generals, major generals and lieutenant generals are addressed in conversation and non-official correspondence as “General”.

Senior officers often address juniors by their last name. But the junior does not have the same privilege. Warrant officers are addressed as “Mister”. Noncoms – by their titles – Sergeant, Corporal, etc. Socially\* they are “Mister”.

\* \* \*

**Salute** serves as an act of recognition between military people as an act of recognition between military people, and as a sign of respect. A junior salutes first and an officer with the higher rank must return the salute. Salutes are not exchanged in churches, theaters, and public gatherings.

A flag carried by unmounted troops\* is a **color** and that carried by motorized or mounted troops \* is called a **standard**. A flag flown on small boats and ships is an **ensign**. The flag of the United States is at the center, or at the highest point when grouped with flag of other nations.

When the National Anthem\* is played a serviceman out of ranks should face the flag, **come to attention**, salute and hold the salute until the last note of the music, and the same marks of respect are shown to the National Anthem of any other country when played on official occasions.

When an officer is assigned to duty at a **post** he should make his first call\* upon the post commander, after which he should call on all intermediate commanders.

An officer must remain at social gathering or reception until the commanding officer has departed. Military guests are seated at dinner parties in order of rank, the senior officer sitting on the hostess’ right. A junior takes the left position when he walks, rides or sits with a senior.

### **Words which will help you to translate the text:**

1. salute – воинское приветствие, выполнять воинское приветствие
2. color – знамя
3. standard – штандарт
4. ensign – энсин
5. come to attention – принять положение “смирно”
6. post – гарнизон

### **\* Notes:**

title – звание

courtesy – правила воинской вежливости и обращения к военному

last name – фамилия

socially – вне среды военных, в гражданской жизни

unmounted troops – войска в пеших порядках

mounted troops – войска на машинах

anthem – гимн

make call = call on (upon) – представляться

## ГЛАВА 2

### СУХОПУТНЫЕ ВОЙСКА США US ARMY ORGANIZATION

#### A. Headquarters, Department of the Army

Department of the Army is housed in the Pentagon, Washington, D.C. The head of the Army is the Secretary of the Army, a civilian, who is appointed by the President. He is assisted by the Army Staff. It consists of the Chief of Staff, the Army General Staff, and the Special Staff. The CSUSA (a four star general) reports to the SA (for most matters).

#### B. Organization by Components

The Army is the largest armed service of the Armed Forces that is responsible for preparing forces for combat operations on land.

The US Army includes the Regular Army, the Army National Guard, and the Army Reserve.

*The Regular Army.* Members of the Regular Army, both officers and enlisted, are on active full-time military duty, as volunteers. It is the permanent, professional force. The station and duty of members is as directed by mil authority.

*The Active Component.* That part of the United States Army that is on fulltime service is called the Active Army. It includes under all conditions the Regular Army as full-time professional force, plus those individuals or complete units drawn from the Army National Guard or Army Reserve to serve on fulltime basis to meet conditions of war or national emergency.

*The Reserve Component.* The Reserve components are the Army National Guard of the United States and the Army Reserve. Members of the Reserve forces may be inactive and perform part-time mil service, or may be active and be as fully engaged in mil affairs as members of the Regular service, with the same hazards and the same rewards.

#### C. Organization by Branch

The branches of the US Army are grouped into *arms and services*.

There are about twenty different arms and services in the US Army. All of them carry out important missions in combat. The difference between arms and services is the following: the main mission of all the *arms* is *combat and combat support* while the main mission of *services* is *combat service support* and administration to the Army as a whole.

In the United States Army the following branches are considered *Combat Arms*:

- Infantry



- Armor (including Armored Cavalry)
- Field Artillery
- Air Defense Artillery
- Army Aviation (e.g., Attack Helicopter and Air Cavalry units)
- Special Operations Forces
- Engineers (only Combat Engineers, e.g. Land Mine Clearance and Route Clearance).

The *Combat Support* branches are:

- Chemical Corps
- Corps of Engineers (these are units involved with civil engineering, not combat engineering)
- Military Intelligence Corps
- Military Police Corps
- Signal Corps
- Army Aviation (e.g., Battlefield Reconnaissance, Signals Intelligence, and Assault Helicopter units)

The services are responsible for supply and maintenance of combat units. The main *Combat Service Support* branches are: Transportation Corps, Civil Affairs Corps, Ordnance Corps, Quartermaster Corps, Finance Corps, Army Medical Corps, and others.

It should be noted that some branches, Aviation and Corps of Engineers, for example, have many different roles, as such these branches can be Combat Arms, Combat Support or Combat Service Support depending on function.

#### **D. Organization by Units**

A unit is a mil element whose structure is prescribed by *a table of organization and equipment*. The personnel of the US Army is grouped into:

*Rifle Fire Team*. The rifle fire team is the smallest tactical unit under a noncom as leader. It is a team that can be controlled by one person, generally by use of voice.

*Squad*. The squad is the smallest and basic mil unit. The number of Soldiers assigned to a squad varies but may be visualized as from eight to eleven Soldiers divided into two or more fire teams. Squads are grouped into a platoon or sometimes a section.

*Platoon*. The platoon consists of the platoon leader, an officer in grade of lieutenant, and three or more squads. The platoon is a smallest unit to be commanded by a ComO, the squad being controlled by a NCO.

*Company*. Several platoons form a company. The company has been the appropriate command for a captain. In the artillery, the term *battery* is used instead of company. In cavalry units, the term *troop* is used instead of company.

*Battalion.* Traditionally the battalion has included its commander, his staff and headquarters elements, with two, three, or four companies/batteries/troops. In cavalry units, the term *squadron* is used instead of battalion.

*Brigade.* Brigades consist of its commander, staff, headquarters elements, and normally three battalions.

*Regiments.* There are two meanings for the term regiment. In the tactical sense, there are several armored cavalry regiments, which consist of three cavalry squadrons. In other branches the term is more closely associated with the historical and heraldic meaning.

*Division.* In the division there are from six to fifteen combat battalions, the number and type of which depends on the type of the division. There are six types of combat divisions: armored; mechanized infantry; infantry; light infantry; airborne and air assault. The division is the appropriate command of a major general. The typical division has strength of approximately 15 thousand officers and men.

Divisions are grouped into army corps, the army corps into *field armies* and the *field armies* into *army groups*.

All units may be also classified as: *small units* (sqd, sec, plat, co, btry, trp); *units* (bn, sqdn, regt,) and *large units* (bde, div, the army corps, the field army, and the army group). All large units are referred to as units of the combined arms and services.

## **E. Organization of US Army Divisions**

The division is the Army's largest tactical organization that trains and fights as a combined arms team. It is a self-sustaining force capable of independent operations. Divisions are the basic units of maneuver at the tactical level, and possess great flexibility. They tailor\* their brigades and attached forces for specific combat missions. The mix and types of combat units determine whether a division is armored, mechanized, infantry, light infantry, airborne, or air assault. Divisions are normally commanded by Major Generals.

Currently there are two basic types of forces in the active duty inventory\*: “light” and “heavy”. Light forces – airborne, air assault, and light infantry divisions - are tailored for forcible-entry operations and for operations on restricted terrain, like mountains, jungles, and urban areas. Heavy forces – armored and mechanized divisions equipped with Abrams tanks, Bradley fighting vehicles, Apache attack helicopters, and the Paladin field artillery system – are trained and equipped for operations against armies employing modern tanks and armored fighting vehicles. Light and heavy forces can operate independently or in combination, providing the mix of combat power needed for specific contingencies\*.

The divisions are formed by adding a varying number and mixtures of combat maneuver battalions – infantry, light infantry, mechanized infantry, tank, airborne, or

air assault – to a common division base. The division base, which is essentially the same in all types of divisions, includes the command and control, reconnaissance, combat support such as artillery, air defense, intelligence, aviation, signal, engineers, and combat service support elements.

The division headquarters provides command, control and supervision of operations of the division and attached units. Its main subdivisions are: a general staff consisting of G1, G2, G3, G4, and G5 sections and a special staff. Among the command and control elements are brigade headquarters which control the tactical operations of several attached maneuver battalions as determined by the division commander. The divHQ company provides logistical support for the divHQ.

The division artillery provides support for the division by delivery of nuclear and nonnuclear fire. The air defense artillery battalion includes four gun and guided missile batteries. The armored cavalry squadron performs ground and air reconnaissance. The engineer battalion provides engineer support for the division.

The signal battalion assists the division commander in controlling his units. Communications systems are essential for gathering and disseminating data. Personnel need them to plan and execute operations. Commanders use them to perform C2 functions and to supervise performance.

The aviation unit provides aviation support for the divHQ and divisional units without organic aircraft; besides performs aerial surveillance and reinforcement to divisional units with organic aircraft.

Combat service support is provided by a Division Support Command (DISCOM). It provides supply, transportation, field maintenance, medical support, and administrative services to the division. DISCOMs are organized differently to best satisfy the support needs of each division.

\*tailor – здел. специально подготавливать

\*inventory – здел. боевой состав

\*contingency – особая обстановка

## **TEXTS A, B**

## **ACTIVE TERMS AND EXPRESSIONS**

### **A**

headquarters (HQ, hq)	штаб, штабной
Army Staff	штаб сухопутных войск
General Staff (GS)	общий штаб; общая часть штаба; генеральный штаб
Special Staff (SS)	специальный штаб; специальная часть штаба

### **B**

Regular Army (RA)	регулярные [кадровые] сухопутные войска
volunteer	доброволец

station	гарнизон, база, место постоянного расквартирования
duty	служебные обязанности, служба; дежурство, наряд
Active Army	личный состав армии на действительной военной службе
active [fulltime military] duty	действительная военная служба
part-time military service	служба в резерве
military authority	военное руководство, военные власти

## EXERCISES

*Improve your skills in translating.*

### A. Make up sentences.

The US Army		the regular and reserve components.
The Army Staff	<b>consists of (is composed of; is made up of)</b>	the Regular Army, the Army National Guard, and the Army Reserve.
Each armed service		the Chief of Staff, the Army General Staff, and the Special Staff.

### B. Translate into English:

a) 1. Каждый вид вооруженных сил состоит из регулярных и резервных компонентов. 2. Сухопутные войска США состоят из регулярной армии, национальной гвардии и резерва сухопутных войск. 3. Штаб сухопутных войск состоит из начальника штаба, общего штаба и специального штаба.

b) 1. Из каких двух компонентов состоит каждый вид ВС? 2. Что включают в себя сухопутные войска США? 3. Каков состав штаба сухопутных войск?

### II. Give Russian equivalents to the following English phrases.

1. He is assisted by the Army Staff.
2. ...is responsible for preparing forces...
3. ...duty of members is as directed by mil authority.
4. ...complete units drawn from the Army National Guard...
5. ...to meet conditions of war or national emergency.
6. ...to be as fully engaged in mil affairs as members of the Regular service.
7. ...with the same hazards and the same rewards.

### **III. *Decipher the following abbreviations.***

CinC; DOD; SECDEF; CSUSAF; COCOM; CNO; RA; DA; ARNG; GS; DN; AR; SS; DAF; SA; HQ; SECNAV; CofS; SAF; CSUSA; CCDR.

### **IV. *Listen to the text and then render it in Russian.***

Under the Constitution of the United States the President is the Commander-in-Chief of the Armed Forces. In 1947 the NSC was formed by H. Truman. The NSC is the main center of planning the American foreign and mil policies. It includes the President, the Vice President, the Secretaries of State and Defense, and the Director of National Intelligence, as the non-voting member who coordinates the intel activities of the depts and agencies.

The US Armed Forces include the following three main armed services: Army, Navy and Air Force – each of them has its own Department – DA, DN, DAF – headed by a civilian Secretary – SA, SECNAV, SAF. The mil heads of the Departments are their Chiefs of Staffs – CSUSA, CNO, CSUSAF – who are principal advisers to the SECDEF. The basic functions of the US armed services are:

- the Army is responsible for preparing forces for combat operations on land;
- the Navy is responsible for preparing forces for combat operations at sea;
- the Air Force is responsible for preparing forces for combat operations in the air.

Each armed service consists of the regular and reserve components. The US Army is made up of the RA, ARNG, and AR.

### **V. *Translate as quickly as possible:***

headquarters, министерство сухопутных войск; Army Staff; регулярные сухопутные войска; Army General Staff; начальник штаба сухопутных войск; Secretary of the Army; боевые действия на суше; on active fulltime military duty; один из основных видов вооруженных сил; Army Reserve; рядовой и сержантский состав; professional force; национальная гвардия СВ; volunteers; личный состав армии на действительной военной службе; fulltime service; служба в резерве; duty; место постоянного расквартирования.

### **VI. *Translate into English.***

По конституции Российской Федерации верховным главнокомандующим вооруженными силами является президент. Он осуществляет руководство страной и вооруженными силами через Совет национальной безопасности и Министерство обороны. Президент назначает и распускает членов Совета национальной безопасности. Во главе министерства обороны стоит министр обороны. Он управляет деятельностью основных видов вооруженных сил.

Высшим органом оперативного управления вооруженными силами является Генеральный штаб под руководством Начальника Генерального штаба.

**VII. Answer the following questions.**

1. Where is Department of the Army housed?
2. Who is the head of the Army?
3. Whom is the Secretary of the Army assisted by?
4. What does the Army Staff consist of?
5. What is the US Army responsible for?
6. What is the Army?
7. What is the Army composed of?
8. What is the Regular Army?
9. What does the Active component include?
10. What is the Reserve component made up of?

**VIII. Be ready to retell Texts A, B.**

**IX. Two – way translation.**

1. *Какое министерство стоит во главе сухопутных войск?* – The Army is under the control of the Department of the Army.
2. *Кто возглавляет это министерство?* – This Department is headed by a civilian Secretary and the actual command of the Armed Service is exercised by the Chief of Staff, US Army.
3. *СВ США состоят из трех частей. Назовите их.* – The Regular Army, the Army National Guard and the Army Reserve. That part of the US Army which is in fulltime service is called the Active Army.
4. *Что такое регулярные СВ?* – The professional military force on duty at all times.
5. *Что включают резервные компоненты?* – The reserve components include the Army National Guard and the Army Reserve. Members of these components are called into active federal military service in time of war or national emergency.
6. *Каково предназначение резерва СВ?* – To act as a body of partially trained men to supplement the Regular Army and the National Guard.
7. *А что такое Национальная гвардия?* – The voluntarily organized militia of the several states, territories and the District of Columbia. It is composed of citizens who take part in military matters aside from their regular occupation.

**C**

branch (br)	род войск; служба
arm	род войск
service (svc)	служба
mission	задача
combat (cbt)	бой; боевой
combat support (cbt spt)	боевая поддержка; боевое (оперативное) обеспечение
combat service support (cbt svc spt)	тыловое обеспечение войск в бою
administration (admin)	[административно-хозяйственное] управление; управление тылом
combat arm	боевой род войск
Infantry (Inf)	пехота
Armor	бронетанковые войска
armored cavalry units (armd cav units)	бронекавалерийские (разведывательные) подразделения и части
Field Artillery (FA)	полевая артиллерия
Air Defense Artillery (ADA)	зенитная артиллерия, артиллерия ПВО
Army Aviation (AAVN)	армейская авиация
attack helicopter units	подразделения и части вертолетов огневой поддержки
Air Cavalry units	аэромобильные разведывательные подразделения и части
Special Operations Forces (SOF)	силы (войска) специальных операций
Corps of Engineers (CE)	инженерные войска
Combat Engineers	инженерно-саперные войска
Land Mine Clearance	разминирование
Route Clearance	разминирование маршрута
combat support arm	род войск боевой поддержки и непосредственного обеспечения боевых действий
Chemical Corps (CmlC)	химические войска
civil engineering units	части и подразделения инженерно-строительной службы
Military Intelligence Corps (MI)	военная разведка Армии США

Military Police Corps (MPC)	корпус военной полиции
Signal Corps (SigC)	войска связи
battlefield reconnaissance	разведка на поле боя, тактическая разведка
signal intelligence	радио и радиотехническая разведка (РРТР)
assault helicopters	транспортно-десантные вертолеты
supply (sup)	снабжение
maintenance (maint)	техническое обслуживание
combat service support branch (cbt svc spt br)	служба тылового обеспечения войск в бою
Transportation Corps (TC)	транспортные войска
Civil Affairs Corps	корпус гражданской администрации (по работе с местной администрацией и населением)
Ordnance Corps (OrdC)	артиллерийско-техническая служба
Quartermaster Corps	квартирмейстерская служба
Army Medical Corps	медицинская служба СВ США

## D

unit	подразделение, часть
Table of Organization and Equipment (TOE)	штатно-организационное расписание и таблицы имущества
organic means	штатные, табельные средства
rifle fire team	пехотная огневая секция
squad (sqd)	отделение
soldier	солдат
platoon (pl; plat)	взвод
section (sec)	секция
company (co)	рота
battery (btry)	батарея
cavalry units	Разведывательные подразделения и части
troop (trp)	рота (в развед. подразделениях)
battalion (bn)	батальон; дивизион
squadron (sqdn)	[разведывательный] батальон (в СВ)
brigade (bde)	бригада
regiment (regt)	полк
division (div)	дивизия
armored division (armd div)	бронетанковая дивизия



mechanized (infantry) division (mech div)	механизированная дивизия
infantry division (inf div)	пехотная дивизия
light infantry division (light inf div)	легко-пехотная дивизия
airborne division (abn div)	воздушно-десантная дивизия
air assault division (air aslt div)	воздушно-штурмовая дивизия
army corps (AC)	[армейский] корпус
field army (fld army)	общевойсковая [полевая] армия
army group (army gp)	группа армий
large unit	соединение, объединение
combined arms force	общевойсковое соединение [объединение]

\* \* \*

arm <i>n, v</i> armament to be armed with	оружие; вооружаться вооружение иметь на вооружении
to supply	снабжать
to maintain	обслуживать в техническом отношении
to assign assigned assigned mission	назначать; включать в состав; ставить задачу приданный (включенный в состав) поставленная задача
assignment	назначение; задача

## Attention!

### **corps**

1. при обозначении войсковых единиц

*army **corps** – армейский **корпус***

2. при переводе наименований родов войск и служб принимаются во внимание аналогичные традиционные наименования в русском языке – **войска** или **служба**

*Signal **Corps** – **войска** связи*

*Finance **Corps** – финансовая **служба***

3. при отсутствии в русском языке эквивалентных реалий используется термин **корпус**

*Military Police **Corps** – **корпус** военной полиции; военная полиция*

*Marine **Corps** – **корпус** морской пехоты; морская пехота*

**unit** – подразделение; часть; соединение; объединение в зависимости от звена подчинения по контексту

**units** – если не указана конкретная единица, – подразделения и части

**small unit** – имеет значение собственно подразделение, чаще в сопоставлении с частью

**large unit** – соединение или объединение по отношению к части

## EXERCISES

### I. Study these translations before reading Texts C, D.

#### C.

1. Troops that participate directly in combat are referred to as “arms” including the Infantry, Armor and Artillery. – родами войск называются войска, которые непосредственно принимают участие в боевых действиях. К родам войск относятся: пехота, бронетанковые войска и артиллерия.
2. The “services” exist to supply the Army or to serve it in other ways. – службы предназначены для снабжения сухопутных войск или их обслуживания различными другими способами.
3. The Corps of Engineers and the Signal Corps are listed as both arms and technical services. – инженерные войска и войска связи считаются одновременно и родами войск и техническими службами.
4. The Quartermaster Corps is charged with the procurement, storage, and issue of all supplies of standard manufacture. – квартирмейстерская служба отвечает за заготовку, хранение и выдачу всех предметов снабжения стандартного производства.

#### D.

1. **table of organization and equipment (TO&E; TOE)** The table setting out the authorized numbers of men and major equipments in a unit). – штатно-организационное расписание и таблицы имущества (Расписание, определяющее штатное количество личного состава и основной боевой техники в войсковой единице.)
2. **unit** (A military element whose structure is prescribed by competent authority, such as a table of organization and equipment). – соединение; часть; подразделение (Войсковая единица, структура которой установлена официальным лицом или документом, например, штатно-организационным расписанием и табелем имущества.)
3. A division is a tactical formation which combines in itself the necessary arms and services required for sustained combat, larger than a regiment or brigade and smaller than a corps. – Дивизия – тактическое соединение, включающее все

рода войск и службы, необходимые для ведения продолжительных боевых действий. По численности она больше полка или бригады, но меньше корпуса.

4. A brigade is a unit usually smaller than a division to which are attached battalions and smaller units tailored to meet anticipated requirements. – *Бригада – воинское формирование, численность которого меньше дивизии. Бригада формируется из батальонов и других более мелких подразделений, количество которых определяется предстоящими задачами.*
5. An army corps is an organization larger than a division and smaller than a field army, it usually consists of two or more divisions. – *Армейский корпус представляет собой организационную единицу по составу больше дивизии и меньше полевой армии; он обычно состоит из двух и более дивизий.*
6. A field army is an administrative and tactical organization composed of a variable number of corps and a variable number of divisions. – *Полевая армия – административное и оперативное формирование переменного состава, включающее различное количество корпусов и дивизий.*

## II. Improve your skills in *t r a n s l a t i n g*.

### A. Make up sentences:

The arms	<b>include</b> ( <i>comprise</i> , <i>consist of</i> )	the three main armed services.
The small units		Infantry, Artillery, Armor
The US Armed Forces		squad, section, platoon, company, battery.

### B. Translate into English.

- a) 1. ВС США включают три основных вида вооруженных сил.  
2. К родам войск относятся пехота, артиллерия и бронетанковые войска.  
3. К подразделениям относятся отделение, секция, взвод, рота, батарея.
- b) 1. Сколько основных видов вооруженных сил существует в вооруженных силах США?  
2. Что включают в себя рода войск?  
3. Что относится к подразделениям?

### C.

Companies	<b>is (are) grouped into</b>	large units, units, and small units.
Platoons		platoons, and sections.
Squads		companies, and batteries.
The personnel of the armed forces		battalions.

#### **D.**

- a)** 1. Личный состав вооруженных сил сводится в соединения, части и подразделения.  
2. Отделения объединяются во взвода и секции.  
3. Взвода сводятся в роты и батареи.  
4. Роты сводятся в батальоны.
- b)** 1. В какие единицы сводится личный состав ВС США?  
2. Во что объединяются отделения?  
3. Во что сводятся взвода?  
4. Во что сводятся роты?

#### **III. Translate into Russian.**

1. The US Army consists of the Regular Army, the Army National Guard, and the Army Reserve; 2. All these parts are made up of arms and services; 3. The arms of the Army are the Infantry, Artillery, Armor, Corps of Engineers, Special Operations Forces, Army Aviation, Chemical Corps, Military Intelligence Corps, Signal Corps, Military Police Corps; 4. The Ordnance Corps, the Finance Corps, the Army Medical Corps, the Transportation Corps, the Civil Affairs Corps, the Quartermaster Corps are services; 5. The small units are: squad, section, platoon, company, battery, troop; 6. The battalion, the regiment, the squadron, and the brigade all are units; 7. The large units include the division, the army corps, the field army, and the army group; 8. There are six types of combat divisions: infantry, armored, mechanized, light infantry, airborne and air assault.

#### **IV. Cipher and decipher.**

**A.** Infantry; division; Artillery; brigade; armored division; table of organization and equipment; Corps of Engineers; regiment; Signal Corps; combat service support; battery; mechanized division; administration; Ordnance Corps; battalion; Chemical Corps; company; supply; Transportation Corps; airborne division; platoon; Finance Corps; section; Army Medical Corps; squad; air assault division; combat support; Military Intelligence; combat.

**B.** RA; msn; ARNG; sup; AR; maint; Inf; admin; Arty; cbt svc spt; CE; mech div; SigC; cbt; OrdC; armd div; CmlC; cbt spt; TC; FC; AMEDS; MI, sqd; TOE; sec; pl (plat); co; abn div; bn; btry; air aslt div; regt; bde

## ***V. Translate without a dictionary.***

### **Typical Military Day**

It is difficult to describe a 'typical' military day, because schedules vary widely between different branches, job specialties and particular missions. Many military occupations, such as medical staff or military police, work in shifts (*носмешно*), and so they begin their work day early in the morning, in the afternoon or late at night. Nonetheless, the following schedule gives a general idea of the typical military day.

0530-0545: Wake up; make bed, shave, dress for PT (Physical Training)

0545-0630: Do morning PT; warm-up, a 4-5 mile run, push-ups, sit-ups, stretching exercises

0630-0700: Shower and dress

0700-0800: Go to breakfast and clean the barracks

0800-1200: Go to first formation; report for job duties (training units will report to classes)

1200-1300: Go to lunch

1300-1700: Continue job duties or training classes

1700: Formation; troops gather in formation to hear any special instructions for the next day, and to be officially released for the day

2030: Time for recruits to engage in personal activities, such as writing letters, doing laundry, showering, or simply relaxing. Recruits may also catch up on platoon duties during this time, such as barracks cleaning or wall locker (*стенной шкаф для одежды*) organization.

The afternoon may also include special ceremonies, drills, or additional training.

2300: Lights out.

### **Bugle Calls**

Military bases often use bugle calls to signal different points in the working day. There are more than 20 official bugle calls in the US Army, though most soldiers are only familiar with a few. The most common are:

Reveille: signals troops to wake up (though often troops are awake and beginning their day well before the call is sounded); it also accompanies the raising of the national flag

Retreat: signals the end of the official working day (this obviously doesn't apply to troops working in shifts)

Taps: signals 'lights out' in the barracks; the last call of the day - all noise should stop and unauthorised lights be turned out; also played at the end of a military funeral.

## **VI. Translate into English.**

### **C.**

1. Сухопутные войска США включают регулярную армию, национальную гвардию армии США и резерв армии США.
2. Сухопутные войска несут ответственность за боевые операции на суше.
3. Сухопутные войска включают различные рода войск и службы.
4. Основными родами войск Армии США являются: пехота, бронетанковые войска, артиллерия.
5. Инженерные войска, войска связи и корпус военной полиции относятся и к родам, и к службам, т.к. в них есть подразделения, которые могут принимать непосредственное участие в ведении боевых действий.
6. Службы: артиллерийско-техническая, медицинская служба армии, транспортные войска, финансовая служба, квартирмейстерская служба, служба военных священников и др.

### **D.**

7. Солдаты в отделении делятся на две или более пехотные огневые секции.
8. Отделение состоит из 8-11 человек под командованием унтер-офицера.
9. Отделения объединяются во взвод или секцию под командованием офицера.
10. Несколько взводов составляют роту или батарею (в артиллерии).
11. Батальон включает командира, его штаб, штабное подразделение и несколько рот.
12. Существует несколько типов дивизий: бронетанковые, механизированные, пехотные, легко-пехотные, воздушно-десантные и воздушно-штурмовые.
13. Дивизии СВ США сведены в армейские корпуса; армейские корпуса – в полевые армии; полевые армии – в группы армий.

## **VII. Translate without a dictionary.**

The US Army classifies the different branches of the Army as Combat Arms, Combat Support units and Combat Service Support branches.

The Combat Arms are directly involved in fighting. The Combat arms include Infantry, Armor, Air Defense Artillery, Field Artillery, Aviation, Special Operations Forces and the Corps of Engineers.

Combat Support units provide operational assistance to the Combat Arms and also help with logistics and administration. Combat Support units include the Signal Corps, Military Police Corps, Chemical Corps and Military Intelligence.

The Combat Service Support branches include Transportation, Civil Affairs, Quartermaster, Finance, Army Medical Corps and Ordnance.

### **VIII. Translate as quickly as possible:**

штаб сухопутных войск; Secretary of the Army; начальник штаба сухопутных войск; combat service support; род войск, служба; Infantry; общая часть штаба; Armor; военная разведка Армии США; special staff; инженерные войска; Artillery; войска связи; Army aviation; часть, подразделение; a table of organization and equipment; общевойсковое соединение; company; взвод; squad; дивизия; battalion; воздушно-десантная; field army; армейский корпус; air assault; группа армий; mechanized; бронетанковая; brigade; легкопехотная; troop; полк; squadron; техобслуживание; administration; задача; combat support; снабжение; arms and services

### **IX. Answer the following questions.**

#### **C.**

1. What are the basic branches of the Army?
2. What is Army Aviation?
3. What are the branches of the Army grouped into?
4. What are the arms of the Army? What is the main mission of the arms?
5. What services do you know? What are the services responsible for?

#### **D.**

1. What is a unit?
2. What units is the personnel of the US Army grouped into?
3. What is the smallest tactical unit?
4. What is the smallest and basic mil unit?
5. What are squads grouped into?
6. What is a platoon?
7. What do several platoons form?
8. What term is used in the artillery instead of company?
9. What does a battalion include?
10. How many battalions does a brigade consist of normally?
11. What types of combat divisions do you know?
12. What are divisions grouped into?
13. What units are referred to as units of the combined arms and services?

### **X. Two – way translation.**

#### **C.**

1. *Что входит в состав регулярной армии?* – The Regular Army is the permanent professional force and it consists of different branches.
2. *Имеются ли рода войск и службы в национальной гвардии?* – Yes, the Army National Guard has the same branches as the Regular Army.

3. Are there branches in the Army Reserve? – *Резерв личного состава сухопутных войск не отличается в этом отношении от регулярной армии и национальной гвардии СВ. В него входят те же рода войск и службы.*
4. Какие рода войск входят в состав СВ? – As you know the branches of the Army are grouped into arms and services. The basic arms are: Infantry, Artillery, and Armor.
5. Are there other arms in the Army? – *Да, есть. Это инженерные войска и войска связи.*
6. Какие службы Вы знаете? – The main services are: Ordnance Corps, Army Medical Service, the Corps of Engineers and the Signal Corps.
7. Вы назвали инженерные войска и войска связи и как рода войск, и как службы. Вы не ошиблись? – No mistake. The arms are those branches whose primary mission is combat and combat support. The services are those branches whose primary mission is combat service support, supply and administration to the army as a whole. Two branches the CE and the SigC, have primary mission in both fields and are considered to be both an arm and a service.
8. What other services do you know? – *Транспортные войска, финансовая служба, служба военных священников, квартирмейстерская служба и некоторые другие.*

#### **D.**

1. What units is the personnel of the US Army grouped into? – *Личный состав СВ США сводится в подразделения, части и соединения.*
2. Назовите подразделения. – They are rifle fire teams, squads, platoons, sections, companies, batteries, troops.
3. What are units? – *Батальоны, полки и бригады относятся к частям.*
4. Во что сводятся части? – Units are grouped into large units: divisions, army corps, field armies and army groups.
5. Каким документом устанавливается структура войсковой единицы? – The structure of a unit is prescribed by a table of organization and equipment.

#### **XI. S p e l l the names of the US Army locations for basic training using the military alphabet.**

The US Army has several locations for basic training, including:

1. Fort Jackson in South Carolina
2. Fort Knox in Kentucky
3. Fort Leonard Wood in Missouri
4. Fort McClellan in Alabama
5. Fort Sill in Oklahoma



**TEXTS E.****ACTIVE TERMS AND EXPRESSIONS**

attached units	приданные подразделения и части
forcible-entry operation	десантная операция (вторжения) с боем
infantry battalion (inf bn)	пехотный батальон
light infantry battalion	легко-пехотный батальон
mechanized (infantry) battalion (mech bn)	мотопехотный батальон
tank battalion (tk bn)	танковый батальон
airborne (infantry) battalion (abn inf bn)	парашютно-десантный батальон
air assault battalion	воздушно-штурмовой батальон
division base	дивизионная основа
command and control (comd and con) element	подразделение управления
combat element (cbt elm)	боевое подразделение [часть]
combat support element (cbt spt elm)	подразделение [часть] непосредственного обеспечения боевых действий на поле боя
combat service support element (cbt svc spt elm)	подразделение [часть] тыла
G1 - personnel section	отделение личного состава штаба дивизии
G2 - intelligence section	разведывательное отделение штаба дивизии
G3 - operations and training section	отделение оперативное и боевой подготовки штаба дивизии
G4 - logistics section	отделение тыла штаба дивизии
G5 - civil affairs/military government section	отделение администрации штаба дивизии
logistical support (log spt)	материально-техническое обеспечение
delivery of fire	ведение огня
air defense artillery battalion (ADA bn)	зенитный дивизион
gun	орудие, пушка
guided missile (GM)	управляемая ракета
armored cavalry squadron (armd cav sqdn)	разведывательный батальон
signal battalion (sig bn)	батальон связи
disseminate data	предоставлять (сообщать, доводить до сведения) информацию
organic	штатный, табельный

reconnaissance	разведка
surveillance (surv; survl)	наблюдение, разведка
reinforcement (reinf)	усиление; войска усиления, подкрепления
Division Support Command (DISCOM)	командование тыла [дивизии]
supply and transportation battalion (sup and trans bn)	батальон снабжения и транспорта
maintenance battalion (maint bn)	ремонтный батальон
headquarters and headquarters company (HHC)	штаб и штабная рота

\* \* \*

1. attach attached attachments and detachments (atchs and dets)	придавать (временно включать в состав) приданный приданные и выведенные из подчинения подразделения и части; средства усиления
2. detachment (det)	отряд

## EXERCISES

### I. Study these translations before reading Text E.

1. A division is formed by combining a division base and a varying proportion of combat battalions. – *Дивизия формируется путем сочетания дивизионной основы с боевыми батальонами, число которых может изменяться.*
2. The div HQ provides command, control, and supervision of operations of the division and attached units. – *Штаб дивизии осуществляет командование, управление, контроль и наблюдение за действиями дивизии и приданных частей и подразделений.*
3. The division artillery provides support for the division by delivery of nuclear and nonnuclear fire. – *Дивизионная артиллерия обеспечивает поддержку дивизии, ведя огонь ядерными и обычными боеприпасами.*
4. The signal battalion assists the division commander in controlling his units. – *Батальон связи помогает командиру дивизии в управлении подчиненными частями и подразделениями.*
5. The mechanized infantry battalion is the infantry's basic tactical unit and is organized with a HHC, combat support company and three mechanized infantry rifle companies. – *Мотопехотный батальон является основной тактической единицей пехоты и состоит из штаба и штабной роты, роты огневой поддержки и трех мотопехотных рот.*

## II. Improve your skills in *t r a n s l a t i n g*.

### A. Make up sentences.

The support command		different elements
The combat elements	<b>include(s)</b> <b>[consist (s)</b> <b>of; comprise(s);</b> <b>is (are)</b> <b>composed of;</b> <b>is (are) made up of ]</b>	the division and brigades headquarters and headquarters cos; a MP co
The combat support elements		the division artillery, the armored cavalry squadron, the ADA bn
The division base		the engineer battalion, the signal battalion, the avn bn
The command and control elements		the HHC, the sup and trans battalion, the maint bn, the med bn and the administration co

### B. Translate into English:

a)

1. Дивизионная основа состоит из различных элементов.
2. Управление дивизии включает штабы дивизий и бригад и их штабные роты и роту военной полиции.
3. Боевые подразделения включают дивизионную артиллерию, разведывательный батальон и зенитный дивизион.
4. Подразделения боевого обеспечения включают саперный батальон, батальон связи и батальон армейской авиации.
5. Командование тыла состоит из штаба, батальона снабжения и транспорта, ремонтного батальона, медицинского батальона и административной роты.

б)

1. Из чего состоит дивизионная основа?
2. Что включает управление дивизии?
3. Какие батальоны включают боевые подразделения?
4. Что включают подразделения боевого обеспечения?
5. Из каких элементов состоит командование тыла?

## III. *Cipher and decipher:*

A. infantry; attack; enemy; defense; division; battalion; mechanized infantry division; brigade headquarters; headquarters company; artillery; combat service support; supply; maintenance battalion; medical battalion; air defense artillery battalion; combat support

**B.** cbt div; mech div; abn inf bn; HHC; armd div; bde HQ; DISCOM; avn bn; armd cav sqdn; HQ co; ADA bn; MP co; air aslt div; sig bn; sup and trans bn; engr bn; maint bn; cbt spt co; en; div arty; cbt svc spt; tk bn; atk

**IV. Answer the questions using the given words and words combinations.**

1	What are the main six types of divisions?	(armored, mechanized, infantry, light infantry, airborne and air assault)
2	What are divisions composed of?	(a division base; combat battalions)
3	What elements is the division base made up of?	(command and control; combat; combat support, service support elements)
4	What do the comd and con elements include?	(div HHC, three bde HQ and HQ cos, MP co)
5	What do the combat elements contain?	(division arty, armored cavalry sqdn, ADA bn)
6	What do the cbt spt elms consist of?	(engineer bn, signal bn, avn bn)
7	What service support elements are found in the SUPCOM?	(sup and trans bn, maint bn, medical bn, administration company)

**V. Translate using a dictionary.**

The history of U.S. Army division is one of viability maintained. It should be noted that the Army divisions that existed at the end of the 20<sup>th</sup> century were very different from those that were in its early years. During the 20<sup>th</sup> century the division has generally been an independent unit commanded by a major general consisting of all the combat arms and combat support units necessary for sustained effort to destroy an enemy in ground combat. Today many criticize the division for being too large, heavy, and cumbersome to respond quickly to the nation's pressing needs.

Some experts consider that the Army should possess smaller, more deployable forces that could carry out the entire range of likely missions. Nevertheless, up to now the division structure is the capstone element of US Army. It includes three maneuver (armor or infantry) brigades as well as several combat support and service support brigades or battalions. There are currently 10 active divisions, each commanded by a major general (two-stars).

Has the division reached the end of its useful life? This question is reserved for more extensive study.

**VI. Translate into English.**

В настоящее время в составе сухопутных войск США существуют дивизии шести типов: легко-пехотная, пехотная, механизированная, бронетанковая, воздушно-десантная и воздушно-штурмовая. У всех американских дивизий

идентичная организационная структура. Дивизия состоит из двух основных элементов: дивизионной основы и различного сочетания боевых батальонов, определяющих тип дивизии. Каждая дивизия имеет три штаба бригад, в состав которых выделяется от двух до пяти боевых батальонов. Дивизионная основа включает штаб и штабную роту дивизии; три штаба бригад со штабными ротами; разведывательный батальон; батальон связи; саперный батальон; дивизионную артиллерию, зенитный дивизион; командование тыла и роту военной полиции. В дивизиях также имеются подразделения или части армейской авиации.

Дивизионный штаб подразделяется на *общую часть штаба*, состоящую из отделения личного состава, разведывательного отделения, отделения оперативного и боевой подготовки, отделения тыла и отделения администрации, и *специальную часть штаба*. Штабная рота дивизии осуществляет материально-техническое обеспечение дивизии.

## **VII. Translate as *q u i c k l y* as possible:**

air assault div; легко-пехотная; division base; механизированная; armored cavalry squadron; штаб и штабная рота; attached units; ПВО; command and control; отделение личного состава; support command; отделение тыла; reconnaissance; отделение оперативной и боевой подготовки; logistical support; разведывательное отделение; guided missile; отделение администрации; surveillance; усиление; airborne div; парашютно-десантный батальон; engineer battalion; зенитный дивизион; mechanized battalion; ремонтный батальон; organic; пехотная рота; service support elements; батальон снабжения и транспорта; combat support element; боевое подразделение; aviation battalion; войсковая единица

## **VIII. Answer the following questions.**

1. What is the division?
2. What types of cbt divs are there in the US Army?
3. What are divs composed of?
4. What types of cut bns do you know?
5. How many bde HQs does a division comprise?
6. How many bns are three bde HQs capable of controlling?
7. What elements does the division base include?
8. What do the comd and con elements contain?
9. What are the main subdivisions of the division HQ?
10. What do the combat elements include?
11. What is the primary mission of the div arty?

12. What is the mission of the armd cav sqdn?
13. What do the combat support elements comprise?
14. What are the missions of the engr bn; sig bn and avn bn?
15. What service support elms are found in the SUPCOM?
16. What is the mission of the SUPCOM?

### **IX. Be ready to retell Text E.**

### **X. Two – way translation.**

1. How many types of divisions do you know? – В СВ США существуют дивизии шести типов: бронетанковая, механизированная, пехотная, легко-пехотная, воздушно-десантная и воздушно-штурмовая.
2. Как эти дивизии формируются? – The divisions are formed by combining a division base with a varying proportion of combat battalions of different types.
3. What is the division base composed of? – Дивизионная основа включает подразделения управления, боевые подразделения, подразделения обеспечения боевых действий и командование тыла.
4. Какие батальоны входят в состав механизированной дивизии? – The mech inf div includes ten bns – seven mech inf bns and three tk bns.
5. Сколько батальонов в пехотной дивизии? – The total number of battalions in the inf div is the same as that of the mech inf div. But the inf div has only two tank battalions. It means that 8 bns are infantry.
6. На какие части подразделяется штаб дивизии? – The main subdivisions of the div HQ are a general staff and a special staff. The general staff consists of G1, G2, G3, G4 and G5.
7. What do the combat elements include? – Боевые подразделения включают дивизионную артиллерию, разведывательный батальон и зенитный дивизион.
8. What is the primary mission of the div arty? – Дивизионная артиллерия обеспечивает поддержку дивизии, ведя огонь ядерными и обычными боеприпасами.
9. Какие задачи выполняет разведывательный батальон дивизии? – The armd cav sqdn performs ground and air reconnaissance and provides security for the division.
10. What is the organization of the mechanized infantry bn? – Мотопехотный батальон является основной тактической единицей пехоты и состоит из штаба и штабной роты, роты огневой поддержки и трех мотопехотных рот.

## **REPEAT THE TERMS AND EXPRESSIONS OF UNIT I, II**

headquarters; министерство сухопутных войск; Army Staff; начальник штаба сухопутных войск; Secretary of the Army; один из основных видов вооруженных сил; on active fulltime military duty; рядовой и сержантский состав; Army Reserve; личный состав армии на действительной военной службе; Army General Staff; место постоянного расквартирования; volunteers; штаб сухопутных войск; duty; combat service support; род войск, служба; Infantry; разведка и контрразведка Армии США; special staff; войска связи; Armor; общевойсковое соединение; a table of organization and equipment; взвод; Artillery; воздушно-десантная; company; группа армий; field army; бронетанковая; squad; легко-пехотная; air assault; тех.обслуживание; troop; механизированная; squadron; штаб и штабная рота; arms and services; отделение личного состава; administration; division base; разведывательное отделение; armored cavalry squadron; усиление; attached units; парашютно-десантный батальон; command and control; зенитный дивизион; reconnaissance; пехотная рота; support command; батальон снабжения и транспорта; guided missile; служба в резерве; logistical support; национальная гвардия СВ; surveillance; боевые действия на суше; airborne div; снабжение; engineer battalion; армейский корпус; organic; общая часть штаба; combat support element; ремонтный батальон; mechanized battalion; отделение администрации; air assault div; отделение оперативной и боевой подготовки; light infantry div; ПВО; battalion.

## **REPEAT THE TOPICS OF UNIT I, II**

### **Var. 1.**

#### **I. Translate the text: Coast Guard.**

The Coast Guard does not fall under the Department of Defense. Until recently, the Coast Guard was under the Department of Transportation. Recent legislation has moved the Coast Guard to the newly created Department of Homeland Security. However, the Coast Guard is considered a military service, because, during times of war or conflict, the President of the United States can transfer any or all assets of the Coast Guard to the Department of the Navy. The Coast Guard is commanded by a 4-star admiral, known as the Coast Guard Commandant. The Coast Guard is the smallest military service, with about 7,000 officers and 29,000 enlisted on active duty. The Coast Guard is also supported by the Coast Guard Reserves, and a volunteer "Coast Guard Auxiliary" in times of need.

## **II. Translate the sentence and write the question using the words in brackets.**

There are the following types of divisions in the U.S. Army: armored, mechanized, light infantry, airborne and air assault. (What types of divisions ...)

### **Var. 2**

#### **I. Translate the text.**

##### **Air Force**

The Air Force is the youngest military service. It was created in 1947 under the National Security Act of 1947. Prior to 1947, the Air Force was a separate Corps of the Army. The primary mission of the Army Air Corps was to support Army ground forces. However World War II showed that air power had much more potential than simply supporting ground troops, so the Air Force was established as a separate service. The primary mission of the Air Force is to defend the United States (and its interests) through exploitation of air and space. There are about 69,000 commissioned officers on active duty in the Air Force, and about 288,000 enlisted members. Like the Army, the active duty Air Force is supplemented by the Air Force Reserves, and the Air National Guard.

## **II. Translate the sentence and write the question using the words in brackets.**

Any division consists of the div base and a number of combat battalions of different types. (What elements ...)

### **Var.3**

#### **I. Translate the text: The Army, Navy and Air Force.**

The three main services of the British armed forces are the British Army, the Royal Navy (RN) and the Royal Air Force (RAF). Traditionally, we think of the army as operating on land, the air force in the sky and the navy on the seas. However, with modernization of equipment and changing global politics, joint operations are becoming more and more common. All three services, for instance, have both air and ground units. In addition, special units, like the Joint Rapid Reaction Force and the Joint Helicopter Command, combine troops and resources from the different branches for more efficient operations. The British Army is the largest service of the British Defense Force and the major land component of NATO's rapid reaction forces.

## **II. Translate the sentence and write the question using the words in brackets.**

The div arty provides spt for the division by delivery of nuclear and nonnuclear fire. (What support ...)



## SUPPLEMENTARY TEXTS

### 1. RECRUIT TRAINING IN THE ARMED FORCES

**Basic training, or boot camp**, is a soldier's initiation into the army. It is where new recruits learn the basics of military life and how to be soldiers. Boot camp generally lasts a total of ten weeks in the US Army and twelve weeks in the UK. In both countries, soldiers are trained in:

- military organization, as well as military values or ethos\*
- **drill and ceremony** (marching in formation and parade practice)
- first aid
- map reading and compass use
- nuclear, biological and chemical (NBC) warfare
- basic rifle **marksmanship** (shooting practice at distances up to 300 meters)
- tactical field manoeuvres.

In addition to **skills training**, soldiers face tough physical conditioning, with daily running, push ups\* and sit ups\*, and weekly marches of up to ten kilometers. Another big challenge is the **obstacle course**, sometimes called the **assault course** or confidence course (US English). After basic training, team adventure sports\* like climbing and canoeing are often encouraged or incorporated into further training.

Probably the most difficult thing for new recruits is adjusting to the discipline. There are constant inspections of uniforms, barracks, weapons and equipment, and soldiers learn that good is rarely good enough. Recruits have little free time and in the first few weeks they can't even have books or radios. British soldiers are not allowed leave (vacation time) until six weeks into their course, while American soldiers can't leave the base until after basic training is finished.

At the end of basic training, there is a graduation ceremony that family members can attend. Soldiers are then ready for the next phase in their military career: **advanced training or trade training**, during which they will learn their particular job specialty, such as radar operator, tank crewman or infantry soldier.

#### Words which will help you to translate the text:

1. basic training, or boot camp – курс молодого бойца, начальная подготовка новобранцев
2. boot camp – курс молодого бойца, учебный центр для новобранцев
3. drill and ceremony – строевая подготовка
4. marksmanship – огневая подготовка
5. skills training – отработка навыков
6. obstacle course – учебная полоса препятствий; бег с препятствиями
7. assault course – штурмовая полоса

8. advanced training or trade training – специальная подготовка, обучение по специальности

**\*Notes:**

military values or ethos – смысл, ценности и идеалы военной службы

push ups – отжимания

sit ups – упражнения на качание пресса

adventure sports – экстремальные виды спорта

## **2. UNIFORMS AND INSIGNIA**

There are several types of summer and winter *uniforms*: *service*, *semidress*, *dress*, *field and work uniforms*.

Insignia worn on the Army's uniform identifies the wearer as to his status. Insignia denotes grade, branch, duty assignment, and prior \* Army service.

All insignia are worn on *shoulder boards*, *shoulder loops*, *headgear*, sleeves\*, collars\* and lapels\*. When awarded\*, members of the Army Forces are to wear *decorations* (*orders*, *crosses*, and *medals*), *service medals*, *service ribbons*, and *badges*.

There is an exact position for attaching each article of insignia and ornamentation of the uniform. Officers and WOs wear branch insignia on the coat\* lapels. The insignia is worn on the left collar of the shirt when the shirt is worn as an outer garment \*. The generals wear insignia of grade on both sides of the collar.

In the usual case, officers wear insignia of the branch to which assigned. The wear of *name plates* is a means of use of correct name without guessing, and the ready identification of individuals by name. These plates are worn on flap \* of the right breast pocket. *Identification tags*, two in number suspended from the neck, must be worn in the field, when traveling by air or when outside the continental United States.

### **Words which will help you to translate the text:**

1. uniform – форма

2. insignia – знаки различия

insignia of grade – знаки различия по воинскому званию

insignia of branch – знаки различия рода войск и службы

3. service uniform – повседневная форма одежды

4. semidress uniform – парадно-выходная форма одежды

5. dress uniform – выходная форма одежды

6. field uniform – полевая форма одежды

7. work uniform – рабочая форма одежды

8. shoulder board – жесткий погон

- 9. shoulder loop – мягкий вшивной погон
- 10. headgear – головной убор
- 11. decoration – боевая награда
- 12. order – орден
- 13. cross – крест
- 14. service medal – юбилейная (памятная медаль)
- 15. service ribbon – орденская лента
- 16. badge – нагрудный знак
- 17. name plate – табличка с фамилией
- 18. identification tag – личный знак

**\*Notes:**

prior – предшествующий  
sleeves – рукава  
collar – воротник  
lapel – лацкан  
award – награждать  
coat – китель  
garment – одежда  
flap – клапан

### **3. DAILY ROUTINE**

An Army unit has strict *daily routine* which starts with *reveille*, morning exercises, personnel hygiene and *morning inspection*. It ends with *evening roll call*, “taps” with “*light out*” signal. Daily routine stipulates\* three or four *meals* a day at the *unit’s mess* and time is also available to attend\* to the *maintenance of material*.

The working day is devoted to *military training* that includes *instructions and classes, drill and ceremonies, physical fitness program, range practice, map reading, tactics, field exercises*.

Field training is of special importance for both officers and men. It takes place in camp where there are all necessary facilities for combat training and service. Camp training provides realistic *combat environment* to conduct offensive and defensive combat exercises, master\* *new combat equipment*, study the fundamentals of tactics, stay on the *firing ground*, and coordinate actions of various arms and services.

Military training is based on *military regulations, field manuals, technical manuals*, and *orders*.

An important part of an Army unit’s life is an *interior guard duty*. Soldiers are *detailed for duty* according to a *duty roster*.

The guard is under the supervision of the *officer of the day*. The personnel of the interior guard consists of the *officer of the guard*, who performs the duties of the

*commander of the guard*, a *sergeant of the guard*, the *commanders of the relief*, and *privates of the guard*.

The sergeant of the guard is the senior noncom of the guard. If there is no officer of the guard he will perform the duties of the commander of the guard.

Commanding officer of the unit or the camp prescribes the size of the guard, the areas it is to *tour*, its *special orders*, the uniform, equipment and *tours of the duty*.

A tour of duty usually lasts 24 hours. At the end of the tour a new guard relieves\* the old.

The guard is composed of three reliefs. A relief consists of a noncom, designated as commander of the relief, or a corporal of the guard, and enough *sentinels* to man all *posts* of the guard at one time.

The posts are numbered, and a sentinel is placed in charge of each post. Each relief serves 2 hours and then rests for 4 hours while the other two reliefs are serving.

Relief of the old detail takes place after the *guard mounting*. Sentinels (sentries) on post and guards on duty are posted armed and equipped according to their particular duty.

An interior guard consists of a system of *patrols* and *fixed posts*. At appropriate time before sentinels go on post, the corporal assembles them, checks their appearance, fitness for duty and the condition of their *arms*. He *issues ammunition* and makes sure that they understand their instructions. The corporal then reports to the commander of the guard that his relief is ready to be posted.

The officer of the day 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.

### **Words which will help you to translate the text:**

1. daily routine – распорядок дня
2. reveille = first call – подъем
3. morning inspection – утренний осмотр
4. evening roll call – вечерняя поверка
5. taps = retreat – отход ко сну
6. “light out” signal – сигнал “отбой”
7. meals – прием пищи
8. unit’s mess – столовая личного состава
9. maintenance of materiel – обслуживание, уход за материальной частью
10. military training – боевая подготовка
11. instructions and classes – учебные занятия в классах

12. drill and ceremonies – строевая подготовка
13. physical fitness program – физическая подготовка
14. range practice – огневая подготовка
15. map reading – чтение карт, топография
16. tactics – тактика
17. field exercises – полевые учения
18. combat environment – боевая обстановка
19. new combat equipment – осваивать новое вооружение и технику
20. firing ground = range – стрельбище
21. military regulations – уставы
22. field manuals – полевые (боевые) уставы
23. technical manuals – технические наставления
24. order – приказ
25. guard – караул
26. interior guard duty – внутренняя караульная служба
27. detail – наряд
28. be detailed for duty – быть назначенным в наряд, на службу
29. duty roster – график нарядов
30. officer of the day – дежурный офицер, дежурный по части
31. officer of the guard – начальник караула (офицер)
32. commander of the guard – начальник караула
33. sergeant of the guard – сержант – помощник начальника караула; начальник сержантского караула
34. relief – смена (караула)
35. commander of the relief = corporal of the guard – разводящий
36. private of the guard – караульный
37. tour v. – совершать обход наряд, дежурство, очередность и продолжительность дежурства
38. special orders – обязанности часового по табелю постам
39. sentinel (sentry) – часовой
40. post n., v. – пост, выставлять на пост
41. guard mounting – развод караула (суточного наряда)
42. patrol – патруль
43. fixed post – неподвижный пост
44. arms – оружие
45. issue ammunition – выдавать боеприпасы
46. guardhouse – караульное помещение

**\* Notes:**

stipulate – оговаривать в качестве особого условия, предусматривать

master – осваивать  
attend – уделять внимание  
relieve – сменять

#### 4. ARMY LIFE

To attract and keep good people the Armed Forces have to provide for the personnel in personal as well as a professional way.

**Housing** is provided by the Armed Forces at all times, in all places. The most economical way to live is on **post**. If, however, there are more officers assigned than the post can accommodate, it is possible for one to find living off post. In this case the AF will provide an officer with a housing **allowance**.

Good and continually risen pays make military service attractive. In addition to off-post non-taxable housing allowance, there are allowances for **subsistence**. The **Post Exchange** (PX) and **Commissary** are two easy ways the AF help an officer's pay\* go further.

Medical care\* and hospitalization are provided for an officer and his or her family.

Active duty personnel earn 30 days paid leave\* every year and it can be accumulated for two years.

There are also theatres, libraries, arts and crafts\* centres. Most posts have comprehensive sports and recreational facilities. And all are available for the families too.

#### Words which will help you to translate the text:

1. housing – обеспеченность жильем
2. post – пост, гарнизон
3. allowance – компенсация, денежное пособие
4. subsistence – продовольствие; продовольственное обеспечение, довольствие
5. Post Exchange – гарнизонный магазин военно-торговой службы
6. Commissary – военный продовольственный магазин

#### \*Notes:

pay n., v. – денежное содержание, платить  
medical care – медицинское обслуживание  
leave – отпуск  
craft – ремесло

#### 5. DRILL AND CEREMONIES COMMANDS

- At my command! – Слушай мою команду!
- Fall in! – Становись!

- As you were! – Отставить!
- Rest! – Заправиться!
- **AT EASE! – ВОЛЬНО!** (разговаривать не разрешается)
- Parade, **REST!** – (в строю, принимается строевая стойка “вольно по-парадному”)
- Fall out! – Разойдись! (с места построения личный состав не уходит)
- Dismissed! – Разойдись! (можно покинуть место построения)
- Attention! – Смирно!
- Eyes **RIGHT (LEFT, FRONT)!** – Равнение на-**ПРАВО!** (на-**ЛЕВО**, на-**СРЕДИНУ**)
- Dress right (left), **DRESS! Ready FRONT!** – Направо (налево) **РАВНЯЙСЬ! СМІРНО!**
- Right (left), **FACE!** – Напра-**ВО!** (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)
- Count, **OFF!** – По порядку – **РАССЧИТАЙСЬ!**
- By twos, **NUMBER!** – На первый и второй – **РАССЧИТАЙСЬ!**
- Right shoulder, **ARMS!** – На правое пле-**ЧО!**
- Left shoulder, **ARMS!** – На пле-**ЧО!**
- Sling, **ARMS!** – На ре-**МЕНЬ!**
- Order, **ARMS!** – К но-**ГЕ!**
- Present, **ARMS!** – На кра-**УЛ!**
- Fix (unfix), **BAYONETS!** – **ПРИМКНУТЬ (ОТОМКНУТЬ)** штыки!
- Stand to! – В ружье!
- Stand Down! – Отбой!
- Extend, **MARCH!** – Разом-**КНИСЬ!**
- In single file, **MARCH!** – В колонну по-одному, **МАРШ!**

- Halt! Who goes there? Advance and be recognized! Pass sign? – Стой! Кто идет? Ко мне! Назови себя! Пароль? (отзыв – countersign)

### **ПРИМЕРЫ НЕКОТОРЫХ КОМАНД И ФОРМ ОБРАЩЕНИЯ**

- Column Left, Harch! – *Левое плечо вперед, марш!*
- Detail, Halt! – *Группа, стой!*
- Sir, sergeant N reporting as ordered. – *Сержант N по Вашему приказу прибыл.*
- Stand at ease, gentlemen. – *Стоять вольно!*
- Sir, with respect it is . . . – *Сэр, разрешите заметить . . .*
- Permission to speak, sir? – *Разрешите обратиться?*
- No excuse, sir. – *Виноват, сэр.*
- Double time! – *Быстро! (Бегом!)*
- Yes, Sir. – *Да, сэр.*
- Aye, aye, sir. – *Есть, сэр.*
- Sir, Staff Sergeant N reporting to lieutenant with a detail of one, sir! – *Старший сержант N прибыл с командой в составе одного человека.*
- Ten – Hut! Right shoulder, Harms! Right, face! Foh – wud, harch! – *Смирно! На правое пле – **ЧО!** Напра – **ВО!** Шагом – **МАРШ!***
- Aww – duh, harms! Puh – rade, rest! K no – **ГЕ!** Вольно!
- It – correction – he . . . – *Оно, отставить, он . . .*
- Permission to . . . – *Разрешите . . .* Permission granted! – *Разрешаю!*
- Smith! – *Смит!* Here (yo!) – *Я!*
- Over a top! – *В атаку!*
- Weapons platoon ready for inspection, Sir. – *Взвод оружия к проверке готов.*
- - Attention! Good afternoon, Sir! Jones, Fireman, First Class, sir, in charge Forward Pump Room. – *Смирно! Здравия желаю, сэр! Машинаст пожарных первого класса Джоунс. Отвечаю за первое отделение пожарных насосов [доклад при осмотре корабля].*
- Hand Salute! Good morning, sir, First Division ready for inspection, 80 men, no (or number of) unauthorized absentees.
- Two.
- Смирно! (с приложением руки к головному убору). – Здравия желаю, сэр. Первый дивизион к проверке готов. В строю 80 человек. Незаконно отсутствующих нет (или столько-то).
- Вольно!



## 6. PERSONAL PAPERS

US servicemen on active duty are *issued* a number of personal papers for various purposes, such as *identification cards*, *pay data cards*, *ration cards*, *liberty passes*, *operator's permits*, individual sick slips\* and so on.

Identification cards are issued to all personnel on duty. They contain all necessary data to identify the holder. Shown on the card are the name of the individual, his grade, arm (service), *service number*, station where the card was issued, birth date, height, weight, color of hair and eyes, race, sex, blood type, holder's fingerprints and signature of the issuing officer.

Pay data cards are *authorized* for each enlisted man as his personal record of his pay status\*.

Liberty passes are issued by CO s authorizing a soldier to be absent for more than 72 hours. Otherwise the absentee is listed AWOL (absence without official leave\*).

A US government operator's permit is issued by CO s to drivers of various vehicles who have passed the required examinations and tests.

When a serviceman is ill he reports to *Sick Call* held by a medical officer, is put on a Sick List and issued an individual sick slip authorizing his temporary exemption\* from duty.

When members of the uniformed services are authorized to travel, say, to a new permanent station (in case of change of station), or on leave, they are issued *travel orders* and *transportation requests*. *Meal tickets or rations in kind* furnish the *messing* en route\*.

*Identification tags* worn two in number suspended from the neck when in the field, traveling by air, or outside CONUS cannot be actually considered personal papers but they serve the same purpose – proper and positive identifying the wearer if need arises. Embossed\* on the tags are the wearer's last name, first name and middle initial, the service number, dates that tetanus toxoid\* injections were given, blood type, and religion.

### Words which will help you to translate the text:

1. issue – выдавать, отпускать
2. identification card – удостоверение личности
3. pay data card – расчетная книжка
4. ration card – продовольственный аттестат
5. liberty pass – увольнительная записка
6. operator's permit – удостоверение водителя
7. service number – личный номер
8. authorize – разрешать зд. выдавать
9. sick call – врачебный прием больных

10. travel order – предписание, отпускной билет
11. transportation request – требование на перевозку
12. meal ticket – талон на получение питания
13. ration in kind – сухой паек
14. messing – питание, котловое довольствие
15. identification tag – личный знак

**\* Notes:**

sick slip – освобождение по болезни

personal record of pay status – личный учет денежного содержания

leave – отпуск, увольнение

exemption – освобождение

en route – в поездке

emboss – выбивать, чеканить

tetanus toxoid – столбнячный анатоксин

## **7. A CAREER BIO**

Maj. Gen. Donald R. Infante was born in Youngstown, Ohio, on May 2, 1937. Upon completion of the Reserve Officers Training Corps curriculum and the educational course of study at Youngstown State University in 1958, he was commissioned a second lieutenant and awarded a Bachelor of Science degree in mathematics. He also holds a Master's degree in Operations Research and Statistics from Rensselaer Polytechnic Institute. His military schooling includes the *Air Defense School, the Field Artillery School*, the United States Army Command and general Staff College and the United States Army War College.

He has held a wide variety of important command and staff positions culminating in his assignment in August 1985 as commanding general, *United States Army Air Defense Artillery Center* and commandant, *United States Army Air Defense Artillery School*. Some of his other key assignments include commander, *69<sup>th</sup> AIR Defense Artillery Group* from June 1979 to April 1982; deputy commanding general, *32<sup>nd</sup> Army Air Defense Command* from April 1982 to September 1983; and *Patriot/Air Defense project manager, United States Army Missile Command* from October 1983 to July 1985.

Infante's career began as a *fire control and launcher platoon leader* with *C Battery, 4<sup>th</sup> Missile Battalion (Nike-Hercules), 1<sup>st</sup> Artillery*, at the Army Chemical Center, Md. In 1962, he joined *C Battery, 6<sup>th</sup> Missile Battalion (Hawk), 562<sup>nd</sup> Artillery*, at Fort Bliss as a platoon leader and deployed with the unit to Germany where he served as the *battery executive officer*.

In 1963, he joined *3<sup>rd</sup> Missile Battalion, 7<sup>th</sup> Artillery*, in Germany, serving consecutively as *battalion operations center commander, battery commander*,

**battalion S-4.** He served with *United States Military Assistance Command, Republic of Vietnam*, as an **adviser to G-3, III Corps**, in 1967.

In 1970, he assumed duties as a **staff officer in the Strategic Forces Division, Office of the Deputy Chief of Staff for Military Operations, Department of the Army**, Washington, D.C. One year later he was assigned as a **systems analyst, Strategic Programs Office**, for the **assistant secretary of defense (Systems Analysis)** in Washington.

In 1973 he assumed command of the **2<sup>nd</sup> Battalion, 71<sup>st</sup> Air Defense Artillery, and 38th Artillery Brigade** in Korea and remained in command for over two years. In 1976 he was appointed as the **director of the Studies and Concepts Division, United States Army Air Defense School**, Fort Bliss, Texas, after which he served as **Commander, Division Air Defense Artillery, 1<sup>st</sup> Cavalry Division**, at Fort Hood, Texas.

In February 1978, he was reassigned and appointed **co-chairman, Army-Air Force NATO Fire Support Study Group, Office of the Deputy Chief of Staff for Operations and Plans, United States Army**, Washington, D.C.

### **Words which will help you to translate the text.**

1. Air Defense School – училище ПВО
2. Field Artillery School – артиллерийское училище
3. US Army Air Defense Artillery Center – Центр боевой подготовки зенитной артиллерии СВ
4. US Army Air Defense Artillery School – зенитно-артиллерийское училище СВ
5. 69<sup>th</sup> Air Defense Artillery Group – 69-я зенитно-артиллерийская группа.
6. deputy commanding general, 32<sup>nd</sup> Army Air Defense Command – зам. командующего 32м командованием ПВО СВ
7. Patriot/Air Defense project manager, US Army Missile Command – руководитель программы ПВО “Патриот” ракетного командования СВ
8. fire control and launcher platoon leader – командир взвода управления и пуска
9. C Battery, 4<sup>th</sup> Missile Battalion (Nike-Hercules) – батарея С 4-го зенитно-ракетного дивизиона “Найк-Геркулес”
10. 1<sup>st</sup> Artillery – 1-й артиллерийский полк
11. Army Chemical Center – химический центр СВ
12. C Battery, 6<sup>th</sup> Missile Battalion (Hawk), 562<sup>nd</sup> Artillery – , батарея С, 6-го зенитно-ракетного дивизиона “Хок” 562-го артиллерийского полка
13. battery executive officer – заместитель командира батареи
14. 3d Missile Battalion, 7<sup>th</sup> Artillery – 3-й ракетный дивизион 7-го артиллерийского полка
15. battalion operations center commander – начальник центра управления дивизионом

16. battery commander – командир батареи
17. battalion S-4 – зд. офицер по вопросам тыла артиллерийского дивизиона
18. US Military Assistance Command, Republic Vietnam – командование ВС США по оказанию военной помощи Республике Вьетнам
19. adviser to G-3, III Corps – помощник начальника отдела оперативного и боевой подготовки штаба третьего армейского корпуса
20. a staff officer in the Strategic Forces Division , Office of the Deputy Chief of Staff for Military Operations, Department of the Army – офицер отдела стратегических сил управления заместителя начальника штаба по вопросам военных действий министерства Армии
21. systems analyst – системный аналитик
22. Strategic Programs Office – управление стратегических программ
23. Assistant Secretary of Defense (Systems Analysis) – помощник министра обороны по вопросам системного анализа
24. 2<sup>nd</sup> Battalion, 71<sup>st</sup> Air Defense Artillery, 38<sup>th</sup> Artillery Brigade – второй зенитно-артиллерийский дивизион 71-го зенитно-артиллерийского полка 38-й артиллерийской бригады
25. director of the Studies and Concepts Division, US Army Air Defense School – начальник отдела научных разработок и концепций училища ПВО СВ
26. Commander, Division Air Defense Artillery, 1<sup>st</sup> Cavalry Division – начальник дивизионной зенитной артиллерии 1-й кавалерийской дивизии
27. co-chairman, Army-Air Force NATO Fire Support Study Group, Office of the Deputy Chief of Staff for Operations and Plans, US Army – сопредседатель совместной аналитической группы СВ и ВВС по вопросам огневой поддержки сил НАТО при Управлении заместителя начальника штаба Армии по оперативному управлению и планированию

## **2.1. ΠΕΧΟΤΑ**

### **INFANTRY**

#### **A. General**

The Infantry is considered to be the basic arm of the Army. It must close with the enemy and defeat him, and maintain or capture the ground the enemy is trying to occupy.

The advent of nuclear weapons has not changed the role of Infantry on the battlefield. Infantry seizes, holds or controls the ground by physical occupation or by use of fire power. The primary mission of Infantry in attack is to close with the enemy, to destroy or capture him. In defense Infantry holds its positions and repels the hostile assaults. It fights by combining fire, movement, and shock action. Infantry can move almost over any difficult ground by day and by night, and in any weather. The limited fire power of Infantry is reinforced by artillery, tanks, aviation and other arms. The offensive power of Infantry decreases when its freedom of maneuver is limited that is why motorized and mechanized Infantry are brought to life. Mechanized Infantry units are transported, and fight from armed and armored combat vehicles. Motorized Infantry units are provided with organic means of transportation.

The rifle, machine gun, hand grenade and bayonet are the principal weapons of Infantry.

#### **B. US Infantry Weapons**

Infantry units may be armed with small arms, grenade launchers, hand grenades, wire guided and homing missiles, and mortars. Infantry weapons are classified as individual and crew-served. Individual weapons are carried, loaded and fired by one man, while crew-served weapons are carried, loaded and fired by more than one man.

Small arms are fire arms the caliber of which is below .60. These include pistols and revolvers or handguns; rifles, assault rifles, carbines, submachine guns, machine guns. Handguns are intended to be fired with one hand. The effective range of a pistol is about 50 yards. A rifle is a firearm which has a barrel cut with spiral grooves. The grooves make the bullet spin and so travel more accurately. A carbine has basic characteristics of a rifle but its barrel is shorter. A submachine gun is a lightweight automatic weapon designed to use pistol ammunition.

Machine guns are designed to support the infantry men with a heavy volume of accurate fire. They are usually air-cooled, gas-operated, belt-fed and can be fired from a bipod, a tripod mount or from the shoulder.

A grenade launcher is a weapon attached to a rifle or used separately to fire grenades at considerable ranges.

Hand grenades are used by an individual soldier to help him in his mission of closing and destroying the enemy. They are hand propelled bombs weighing about 1.5 pounds. The bursting radius is about 30 yards.

Wire-guided missiles are designed mainly for antitank protection. Adopted in the US Army is also a portable, shoulder-fired homing missile having an air defense capability known as Stinger.

A mortar is a type of cannon used for high angle fire. It has a smooth bore, and is muzzle loading. Modern infantry mortars are usually light (60-mm) or heavy (81-mm). The range of the light mortar is about 1,800 yards. High explosive missiles which look like an aircraft bomb are used as ammunition for mortars.

### **C. Organization**

The smallest inf unit is a rifle squad, commanded by the squad leader – a noncommissioned officer. The most common rifle squad has nine to eleven soldiers. It fights as two fire teams. The squad has one squad leader, two fire team leaders, two automatic riflemen, two riflemen, and two grenadiers. The rifle squad is armed with M4 carbines, M16 automatic rifle, M249 light machine gun, M60 machine gun, M203 grenade launchers. In the United States usage the M249 light machine gun is commonly referred to as the Squad Automatic Weapon (SAW). Some sources refer to the SAW as a "Squad Assault Weapon" but, officially, that is an improper usage. The M203 is a single shot 40 mm under-barrel grenade launcher designed to attach to a rifle. It is intended to be used as close fire support against point and area targets.

The weapons squad – 11 men strong is armed with two M60 machine guns and two 3.5 in rocket launchers. Its mission is to give additional fire support to the rifle squads. The 7.62-mm M60 machine gun supports the rifleman in offense and defense. It provides the heavy volume of close and continuous fire the rifleman needs to accomplish his mission. The M60 is used to engage targets beyond the range of individual weapons, with controlled and accurate fire. The long-range, close defensive, and final protective fires delivered by the M60 form an integral part of a unit's defensive fires.

The rifle platoon consists of a headquarters, three rifle squads and one weapons squad.

Then comes the rifle company. It includes a HQ, three rifle platoons and a weapons platoon, with the mission of giving protection and fire support to the rifle platoons. It is organized with an antitank section, an 81 mm mortar section and a plat headquarters.

The inf battalion consists of a headquarters, a HQ Co, and three rifle companies. The bn HQ Co has a Co HQ, a bn HQ section and six platoons: mortar, antitank, reconnaissance, communication, support and medical. It is usually commanded by a lieutenant-colonel.

The inf division includes many units: 8 inf bns, two tank bns, div arty and other units. The division commander is a major general.

## **ACTIVE TERMS AND EXPRESSIONS**

### **A.**

defeat	поражение, нанести поражение
nuclear weapons	ядерное оружие
battlefield	поле боя
firepower	огневая мощь
attack (atk)	наступление, атака
assault (aslt)	атака; штурм
shock	удар
maneuver (mvr)	маневр
fire, movement and shock	огонь, маневр, удар
difficult ground	труднопроходимая местность
mechanized infantry = motorized infantry	моторизованная пехота; мотопехота, пехота механизированного соединения (части)
mechanized (infantry) division (mech inf div)	механизированная дивизия
mechanized (infantry) battalion (mech inf bn)	мотопехотный батальон
organic means	штатные средства
rifle	винтовка, пехотный
machine gun (mg)	пулемет
hand grenade	ручная граната
bayonet	штык

\* \* \*

1. to close with the enemy	сближаться с противником
2. to defeat the enemy	нанести поражение противнику
3. to maintain the ground [terrain] = to hold the ground [terrain]	удерживать местность
4. to capture the ground [terrain] = to seize the ground [terrain]	овладевать местностью

5. to occupy the ground [terrain]	занимать местность; оккупировать
6. to control the ground [terrain]	контролировать местность
7. to capture the enemy	захватывать противника в плен
8. to destroy the enemy	уничтожать противника
9. to repel the hostile assault	отражать атаку противника
10. to bring to life mechanized infantry	приводить к появлению мотопехоты

## **B.**

small arms (SA)	стрелковое оружие
wire guided missile	ракета, управляемая по проводам; противотанковая управляемая ракета (ПТУР)
homing missile	самонаводящаяся ракета
mortar (mort)	миномет
individual weapons	индивидуальное оружие
crew-served weapons	групповое оружие
firearm	огнестрельное оружие
caliber	калибр
pistol	пистолет
revolver	револьвер
handgun	личное огнестрельное оружие (пистолеты, револьверы)
assault rifle	автоматическая винтовка; автомат
carbine	карабин
submachine gun (SMG)	пистолет пулемет; автомат
effective range of fire	дальность действительного огня
barrel	ствол
groove	нарез (канала ствола)
bullet	пуля
characteristics (chars) = features = performance	тактико-технические характеристики (ТТХ)
ammunition (ammo)	боеприпасы; патроны
air cooled	воздушного охлаждения
gas operated	действующий на основе отвода газов из канала ствола
belt fed	с ленточной подачей; с подачей ленты, ленточного питания
bipod	сошка; двунога
tripod	тренога



mount	станок, лафет
grenade launcher	гранатомет
recoilless rifle (RR)	безоткатное орудие
range of fire	дальность огня
penetrating power	пробивная способность
antitank (AT) protection	противотанковая оборона
high angle fire = high trajectory fire	навесной огонь
bore	канал ствола
muzzle	дуло
muzzle loading	заряжающийся с дула
high-explosive (HE)	фугасный; осколочно-фугасный

\* \* \*

to be armed with	иметь на вооружении; быть вооруженным
to load	заряжать
to reload	перезаряжать
to fire	вести огонь, стрелять
to fire the rifle	стрелять из винтовки
to fire in bursts	вести огонь очередями
to fire in short [long] bursts	вести огонь короткими (длинными) очередями
to fire by single shots	вести огонь одиночными выстрелами
to fire from a bipod [tripod]	вести огонь с сошки (треноги)
to fire from the shoulder [hip]	вести огонь с упором в плечо (с бедра)
to fire from the shoulder in the prone position	вести огонь с плеча из положения лежа
to fight both armor and manpower	для борьбы с танками и живой силой
to be intended to be fired with one hand = to be intended for a single-hand use	предназначаться для ведения огня одной рукой
to adopt	принимать на вооружение
to attach	1. придавать; 2. прикреплять (к чему-либо); примкнуть (штык)
to be designed	предназначаться

### C.

rifle squad	пехотное отделение
fire team	огневая группа

grenadier	гранатометчик
automatic rifleman	стрелок, вооруженный автоматической винтовкой, автоматчик, пулеметчик
rifleman	стрелок, стрелок-пехотинец
point target	точечная цель, малоразмерная цель
area target	площадная цель
weapons squad	отделение оружия
3.5 in rocket launcher	реактивный гранатомет калибра 3.5 дюйма
controlled fire	контролируемая очередь огня (3-6 патронов)
close defensive fire	ближний заградительный огонь, огонь на близких подступах к оборонительной позиции
final protective fire	сплошной заградительный огонь перед районом обороны
rifle platoon	пехотный взвод
rifle company	пехотная рота
weapons platoon	взвод оружия
mortar section	минометная секция
* * *	
to be organized with ...	иметь в составе; состоять из...

## EXERCISES

### 1. Study these translations before reading texts A, C.

#### A.

- Mechanized infantry units are transported, and fight from armed and armored combat vehicles. – *Мотопехотные части и подразделения передвигаются и ведут бой на бронированных боевых машинах, оснащенных системами оружия.*
- Motorized infantry units are provided with organic means of transportation. – *Части и подразделения моторизованной пехоты оснащены штатными средствами передвижения.*
- The primary mission of infantry in attack is to close with the enemy, to destroy or capture him. – *Основная задача пехоты в наступлении – сблизиться с противником, уничтожить его или захватить в плен.*

4. The advent of nuclear weapons has not changed the role of infantry on the battlefield. – *Появление ядерного оружия не изменило роли пехоты на поле боя.*
5. In defense infantry holds its positions and repels the hostile assaults. – *В обороне пехота удерживает свои позиции и отражает атаки противника.*
6. Infantry seizes, holds or controls the ground by physical occupation or by use of fire power. – *Пехота овладевает, удерживает или контролирует местность, занимая ее войсками или воздействуя на нее своей огневой мощью.*
7. The basic infantry function is to close with and destroy the enemy by fire, maneuver and shock effect. – *Основной задачей пехоты является сближение с противником и уничтожение его огнем, маневром и ударом.*

**C.**

1. Individual weapons are carried, loaded and fired by one man, while crew-served weapons are carried, loaded and fired by more than one man. – *Индивидуальное оружие переносится, заряжается и используется в бою одним человеком, в то время как групповое оружие переносится, заряжается и используется в бою расчетом из двух и более человек.*
2. Small arms are firearms the caliber of which is below .60. – *Стрелковое оружие – огнестрельное оружие, калибр которого менее 0,6 дюйма (менее 15 мм).*
3. Handguns are arms intended to be fired with one hand. – *Личное огнестрельное оружие – это оружие, стрельба из которого ведется одной рукой.*
4. Modern rifles are capable of delivering full-automatic fire in short and long bursts or semiautomatic fire by single shots. – *Современные винтовки способны вести огонь короткими и длинными очередями или полуавтоматический огонь одиночными выстрелами.*
5. Machine guns are designed to support the infantrymen with a heavy volume of accurate fire. – *Пулеметы предназначены для поддержки пехотинцев точным огнем высокой плотности.*
6. Grenades are weapons used by individual soldiers to help in his mission of closing with and destroying the enemy. – *Гранаты – оружие, используемое отдельными солдатами при сближении с противником с целью его уничтожения.*
7. Wire guided missiles are designed mainly for antitank protection. – *Ракеты, управляемые по проводам, предназначены главным образом для борьбы с танками.*
8. Adopted in the US Army is also a portable, shoulder-fired homing missile having an air defense capability known as the Stinger. – *В армии США также принята*

*на вооружение переносная самонаводящаяся зенитная ракета для стрельбы с плеча под названием “Стингер”.*

## **II. Read these texts attentively.**

### **Text 1.**

Every infantry soldier is armed with a rifle. The rifle is a very effective weapon. Its most effective range is up to 450 yards. **Snipers** can **engage the enemy** at greater ranges. The rifle is used both in defense and attack. To shoot well the soldier must know perfectly well the parts of the rifle and their action.

One of the main parts of the rifle is the barrel. The barrel is designed to give a definite direction to the bullet.

The bayonet is attached to the barrel. The wooden part of the rifle is called the **stock**. The stock holds together all parts of the rifle. The rear part of the stock is called the **butt**. To aim and fire the rifle, it is necessary to press the butt against the shoulder. The **bolt** is used to load and reload the rifle. To fire a loaded rifle it is necessary to pull the **trigger**.

**Cartridges** are held in the **magazine**. The magazine contains 5 cartridges. **Sights** are used to aim the rifle.

### **Words to be remembered:**

1. sniper – снайпер
2. to engage the enemy – вступать в бой с противником; вести огонь по противнику
3. stock – ложа
4. butt – приклад
5. bolt – затвор
6. trigger – спусковой крючок
7. cartridge – патрон  
round – патрон; выстрел
8. magazine – магазинная коробка
9. sight – прицел, прицельное приспособление

### **Text 2.**

Officers and enlisted men who are not **issued** rifles are armed with pistols. The pistol is used in **close combat**. Its effective range is up to 50 yards.

The submachine gun (SMG) is an automatic weapon and has a high **rate of fire**. Its effective range is up to 200 yards. The submachine gun is mainly used in close combat. It may be effectively employed in wood and street fighting, in darkness and fog. Submachine gun fire is very effective against enemy personnel **in the open**.

Another effective weapon of the infantry is the **light machine gun**. It is an automatic weapon capable of **delivering fire** either in bursts or by single shots. The light machine gun can engage **open targets** at a range of up to 900 yards. It is air cooled and it has the same caliber as the rifle.

***Words to be remembered:***

1. issue – выдача; расход; выдавать, отпускать  
GI – Government Issue – казенного образца; казенный; военного образца; прозвище американского солдата
2. close combat – ближний бой
3. rate of fire – скорострельность  
rounds per minute ( r.p.m.) – выстрелов в минуту  
practical (service) rate of fire – практическая (боевая) скорострельность
4. in the open – на открытой местности
5. light machine gun (LMG) – ручной пулемет; в США – легкий станковый пулемет
6. deliver fire – вести огонь
7. open target – открытая цель

***III. Decipher the following a b b r e v i a t i o n s:***

hv wpns; equip; nuc wpns; mech; inf; abn; cbt divs; orgn; tk bns; chars; armd div; mvr; hels; HQ co; bde HQ; DISCOM; div arty; HHC; div HQ; G1; G2; G3; G4; G5; med; sec; elm; stf; avn; ADA bn; cbt spt; how; msn; atk; acft; armd cav sqdn; armd cav trp; engr bn; maint bn; sup; trans; pers; cbt msn; vehs; mov; tac elm; aslt acft; mort plat; wpn sqd; cbt spt co; recon; SMG; gnd survl; AD spt; AT plat; scty msns; LMG; tgt; lchr; msl; mort; in; cal; rd; mm; mg; ammo; en; TOW; lbs; gnd; traj; HE; MP co; std; rkt; SA; def; RR

***IV. Put q u e s t i o n s to the boldly typed parts of the sentences.***

1. The mission of infantry in attack is **to close with the enemy and destroy or capture him**.
2. Infantry fights **by combining fire, maneuver and shock**.
3. The smallest infantry unit is **the rifle squad**.
4. The rifle platoon is made up of **a HQ, three rifle squads and one weapons squad**.
5. The rifle company includes a HQ, **three rifle platoons** and a weapons platoon.
6. The infantry battalion consists of **a HQ, a HQ co and three rifle companies**.
7. The caliber of this machine gun is **7.62 mm**.

8. The weapon squad is armed **with two M60 machine guns and two 3.5 in rocket launchers**.
9. We are authorized **three rifle squads**.
10. There is **an antitank section** in the weapons platoon.

#### ***V. Translate in a written form.***

The first military rifle to fire the caliber .223 (5.56 mm) round was the AR-15. This rifle was designed in 1956. Since then the AR-15 has been taken by the US Air Force and US Army and designated the M16 and M16A1, respectively. This has led to the situation, where the US inf sqd has the M16 rifle as the individual wpn and retains the M60 GP (general purpose) mg as the sqd wpn. Since the M60 fires the 7.62mm round, an ammo mix occurs at the lowest tactical level – i.e., the inf sqd. A number of LMG's have been designed and produced in limited quantities in 5.56mm cal. All have had a very limited rate of sustained fire and none has been effective out to the required range.

However, the need still exists for the sqd LMG to fire the same round as the rifle. Among the various choices available was the Stoner 63A1 wpn system (система стрелкового оружия “Стоунер 63A1”).

The original Stoner concept was to have basic parts consisting of the body, breechblock and piston with return spring and a trigger group. To these could be added a choice of barrels, butts, and feed systems to produce a submachine gun, an assault rifle, a LMG, a MMG and a vehicle machine gun.

It originally was claimed that the wpns could be converted from one to another in the field as the tactical role changed, but there were certain fundamental fallacies in this concept. For example, the weight of breechblock and body required by a MMG was considerably in excess of that needed by an assault rifle. Thus, the system had a heavy rifle and an excessively light MMG.

The change from a submachine gun, required for the atk, to a LMG – essential for subsequent def – although readily carried out by a technician in a well-equipped workshop, was not easily performed by a soldier crouching in the water at the bottom of a hastily dug foxhole.

#### ***VI. Two-way translation. PART I.***

##### **Step One. Read the following sentences.**

1. What is the designation of your company?
2. Who is the commander of your company?
3. What is the rank of the company commander?
4. What is the strength of your company?

5. How many mortar sections is the weapons platoon authorized? = How many mortar sections are there in the weapons platoon?
6. How many mortars is each mortar squad equipped with?
7. What is the range of fire of the 81mm mortar?
8. What crew-served weapons does your battalion have?
9. Are there recoilless rifles in your battalion?
10. What is the caliber of these recoilless rifles?
11. What is the armament of the weapons squad of the rifle platoon?
12. What are the characteristics of the M60 machine gun?
13. How many machine guns is the rifle platoon authorized?
14. Are there rocket launchers in the weapons squad?
15. What is the mission of the weapons squad?

### **Step Two. Translate into English.**

1. Назовите номер вашей роты.
2. Кто командир роты?
3. В каком звании командир роты?
4. Какова численность вашей роты?
5. Сколько минометных секций во взводе оружия?
6. Сколько минометов в каждом минометном отделении?
7. Какова дальность стрельбы 81мм миномета?
8. Какое групповое оружие имеется в вашем батальоне?
9. Есть ли безоткатные орудия в батальоне?
10. Каков калибр этих безоткатных орудий?
11. Как вооружено отделение оружия пехотного взвода?
12. Каковы ТТХ пулемета М60?
13. Сколько пулеметов имеется во взводе?
14. Есть ли реактивные противотанковые ружья в отделении оружия?
15. Каковы задачи отделения оружия?

### **Step Three. Translate into Russian.**

1. Co "A", 6th bn, 38th Infantry
2. We've got three platoons.
3. I don't know the strength of our company now.
4. He is a 1<sup>st</sup> Lt.
5. We are authorized one section of three mortar squads.
6. Each squad is equipped with one 81mm mortar.
7. The range of the mortar is 3.6 kms and its rate of fire is 18 rounds per minute.
8. There are two recoilless rifles in the reconnaissance plat of the bn HQ Co.
9. The caliber is 106mm. They are mounted on 1/4 ton trucks.

10. The max range is more than 7,000 yards.
11. The weapons squad is armed with M60 machine gun and 3.5in rocket launchers.
12. The M60 machine gun weighs 23 pounds. Its range is 1100 meters. The rate of fire is 600 rounds per minute.
13. Its caliber is 7.62mm.
14. The authorized strength is 11 men.
15. There are two 88.9mm rocket launchers in the weapons squad.
16. The mission of the weapons squad is to give fire support to the rifle squads.

#### **Step Four. Do double-way translation.**

##### **A.**

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>– Назовите номер вашей роты.</li> <li>– Кто командир роты?</li> <li>– В каком он звании?</li> <li>– Какова численность вашей роты?</li> </ul> | <ul style="list-style-type: none"> <li>– Co “A”, 6<sup>th</sup> bn, 38<sup>th</sup> Infantry.</li> <li>– White is our company commander.</li> <li>– Captain, Infantry.</li> <li>– We’ve got three platoons, but we lost a number of men. I don’t know the strength of our company now.</li> </ul> |
|--|---|

##### **B.**

1. В каком звании командир взвода оружия?  
He is a 1<sup>st</sup> lt.
2. Сколько минометных секций во взводе оружия?  
We are authorized one section of three mortar squads.
3. Сколько минометов в каждом минометном отделении?  
Each squad is equipped with one 81mm mortar.
4. Какова дальность стрельбы этого миномета и его скорострельность?  
Its range is 3.6kms and its effective rate of fire is 18 rounds per minute.

##### **C.**

1. Какое групповое оружие имеется в вашем батальоне?  
In our battalion we have machine guns, rocket launchers and mortars.
2. Есть ли безоткатные орудия в вашем батальоне?  
There are two recoilless rifles in the recon plat of the bn HQ Co.
3. Каков калибр этих безоткатных орудий?  
Their caliber is 106 mm. They are mounted on 1/4 ton trucks.
4. Какова дальность их действительного огня?  
Their maximum effective range is more than 7,000 yards.

##### **D.**

1. Как вооружено отделение оружия пехотного взвода?  
The weapons squad of the rifle platoon is armed with M60 machine guns and 3.5in rocket launchers.



2. Каковы ТТХ пулемета М60?

The M60 machine gun weighs 23 pounds. Its effective range is 1100 meters. Its maximum rate of fire is 600 rounds per minute.

3. А каков его калибр?

Its caliber is 7.62mm.

4. Сколько пулеметов во взводе?

Each rifle squad has one, the weapons squads has two. So there are five machine guns in the rifle platoon.

**Е.**

1. Какова численность отделения оружия?

The authorized strength is 11 men.

2. Есть ли реактивные противотанковые ружья (гранатометы) в отделении оружия?

Yes, there are two 88.9mm (3.5 in) rocket launchers in the weapons squad.

3. Какова задача отделения оружия?

Its mission is to give additional fire support to the rifle squads.

4. А какова задача взвода оружия?

The mission of the weapons platoon is to give protection and fire support to the rifle platoons.

## **VII. Translate *the following texts from hearing.***

### ***Part I.***

#### **1**

The M60 machine gun weighs 23 pounds. Its effective range is 1100 meters. Its maximum rate of fire is 600 rounds per minute. Its caliber is 7.62 mm. This machine gun is a weapon of the rifle platoon. Each rifle squad has one. The wpns squad has two.

#### **2**

The M79 grenade launcher was a weapon of the rifle squad. It weighed only 6.45 pounds. It was 29 inches long. Its maximum range of fire was 400 meters. Its effective rate of fire was 3-4 rounds per minute. Its caliber was 40 mm. It was an individual weapon.

#### **3**

The M16 automatic rifle weighs 3.14 kilograms. Its caliber is 5.6 mm. It is 985 mm long. Its effective range of fire is only 275 meters and its rate of fire is 700 rounds per minute.

#### **4**

The M4 has selective fire options including semi-automatic and three-round burst (like the M16A2 and M16A4), while the M4A1 has the capability to fire fully

automatic instead of three-round burst (like the M16A1 and M16A3). They are also capable of mounting the M203 grenade launcher. The distinctive step in their barrel is for mounting the M203 with the standard hardware.

## 5

The M203 is a single shot 40 mm under-barrel grenade launcher designed to attach to a rifle. It uses the same rounds as the older stand-alone (*автономный, отдельный*) M79 break-action (*с переломным затвором*) grenade launcher, which utilizes the High-Low Propulsion System (*газовая система компенсации отдачи*) to keep recoil forces low. Though versatile, and compatible with many rifle models, the M203 was originally designed for the U.S. M16 and its variant, the M4 Carbine.

## **Part II.**

### 1

The rifle squad is 11 men strong. The strength of the weapons squad is also 11 men. The plat HQ is 3 men strong. The strength of the rifle platoon is 47 men.

### 2

The strength of the weapon plat is 36 men. The rifle platoon is authorized 47 men. The Co HQ is 9 men strong. The strength of the rifle company is 199 men.

### 3

The battalion HQ is 10 men strong. The bn HQ Co is 304 men strong. Each rifle co has 199 men. The strength of the infantry bn is 901 men.

### 4

I am an infantryman. I belong to the 71<sup>st</sup> infantry division. Our company has the usual armament, that is the organic armament. The riflemen are armed with M16 automatic rifles or M79 grenade launchers. There are M60 machine guns and 3.5 in rocket launchers in the weapons squad of each rifle platoon.

### 5

My name is Harries Dwight. Second Lieutenant. I am in command of a platoon. I belong to company Bravo, 3-d battalion, 2nd brigade, 30th Inf Div.

## **VIII. Translate into English.**

### **A.**

1. Пехота – это подвижный род войск, способный захватывать и удерживать местность.
2. Пехота может вести бой в самых различных условиях погоды и местности, как днем, так и ночью.
3. При наступательных действиях задача пехоты сблизиться с противником в целях его уничтожения или захвата в плен; при оборонительных – удержать свои позиции и отражать атаки противника.

4. Пехота ведет бой при поддержке артиллерии, танков, авиации и других родов войск.
5. Основным оружием индивидуального пользования пехоты является винтовка, пулемет, ручная граната и штык.
6. Пехотные подразделения ведут боевые действия, сочетая огонь, маневр и удар.
7. Отделение состоит из двух огневых групп.

## **В.**

1. На вооружении пехотных (мотопехотных) соединений имеется стрелковое оружие, гранатометы, ручные гранаты, безоткатные орудия, ПТУР и самонаводящиеся ракеты, и минометы.
2. Личное стрелковое оружие бывает двух основных типов: пистолеты и револьверы.
3. Автомат – это легкое автоматическое оружие, использующее патроны для пистолета.
4. Ракеты, управляемые по проводам, предназначены, главным образом, для противотанковой обороны.
5. На вооружении Армии США также имеется ракета Стингер. Это переносная самонаводящаяся ракета для осуществления противовоздушной обороны.
6. Минометы используются для ведения навесного огня. У них гладкий канал ствола, и они заряжаются с дула. Дальность стрельбы тяжелого миномета около 3600 метров. В качестве боеприпасов для минометов служат фугасные мины.

## **С.**

1. Отделение состоит из двух огневых групп и вооружено винтовками М16, карабинами М4, пулеметами М60, М249, гранатометами М203.
2. Взвод включает группу управления, три пехотных отделения и отделение оружия.
3. Задача отделения оружия – оказывать огневую поддержку пехотным отделениям.
4. Пехотная рота включает группу управления, три пехотных взвода и взвод оружия.
5. Взвод оружия имеет противотанковую секцию, секцию 81мм минометов и группу управления.
6. Пехотный батальон состоит из штаба, штабной роты и трех пехотных рот.
7. Штабная рота имеет группу управления, штабную секцию батальона и шесть взводов: минометный, противотанковый, разведки, связи, поддержки и санитарный.

## **IX. Translate as quickly as possible:**

the basic arm of the Army; сближаться с противником; to defeat the enemy; захватывать и удерживать местность; the advent of nuclear weapons; огневая мощь; to repel the hostile assaults; огонь, маневр, удар; to move over any difficult ground; моторизованная пехота; organic means; винтовка; machine gun; ручная граната; bayonet; гранатомет; small arms; самонаводящаяся ракета; wire-guided missile; калибр; mortar; автомат; handguns; боеприпасы; effective range; прикреплять к винтовке; can be fired from a bipod, tripod mount or from a shoulder; противотанковая оборона; at considerable ranges; переносной; an air defense capability; приводить к появлению мотопехоты; arm of close combat; предназначаться для ведения огня одной рукой; to be adopted; вести огонь длинными очередями; stock; приклад; bolt; ближний бой; rounds per minute, патрон, выстрел; to deliver fire; ручной пулемет; trigger; прицел; to engage the enemy; скорострельность, темп стрельбы; range of fire

## **X. Put in the necessary verbs:**

*to contribute; to provide; to accomplish; to exploit; to conduct; to monitor;  
to attack; to have; to neutralize; to search; to maneuver*

1. выполнять различные боевые задачи – ... a variety of combat missions
2. быть в состоянии в течение длительного времени двигаться на большой скорости – ...a sustained capability for rapid movement
3. осуществлять маневр, обладая высокой подвижностью на пересеченной местности – ...a high degree of cross-country mobility
4. использовать результаты применения оружия массового поражения – ... the effects of mass destruction weapons
5. обеспечивать поддержку огнем с закрытых позиций –... indirect fire support
6. выполнять задачи по боевому обеспечению – ... security missions
7. подавлять площадную цель – ... the area target
8. вести обстрел целей химическими боеприпасами – ...targets with chemical fires
9. вести наземное радиолокационное наблюдение в интересах батальона – ... ground radar surveillance for the battalion
10. вести наземное наблюдение (с помощью технических средств) за точечными целями – ...point targets
11. просматривать позиции противника – ... enemy positions
12. обеспечивать огневую мощь танко-пехотной группе – ...firepower to the tank-infantry team

## **XI. Answer the following questions.**

1. What is the mission of Infantry?
2. Has the role of Infantry changed with the advent of nuclear weapons?
3. Is Infantry the arm of close combat or long-range combat?
4. In what way does Infantry fight?
5. What is the infantry mission in attack?
6. What is the infantry mission in defense?
7. What other arms is Infantry reinforced by?
8. What are small arms?
9. What are the two basic types of handguns?
10. What are recoilless rifles characterized by?
11. What are wire guided missiles designed for?
12. What long-range wire guided missiles do you know?
13. What homing missile is adopted in the US Army?
14. What is the smallest infantry unit?
15. How is the weapons squad organized?
16. What units does the infantry battalion consist of?
17. What is the rank of division commander?

## **XII. Retell texts A, B, C.**

## **XIII. Two – way translation. PART 2.**

1. Какая винтовка находится на вооружении Армии США в настоящее время?  
– *The standard US Army infantry weapon is M16 rifle which is much lighter and smaller than its predecessor, M14. The M16 weighs 8.5 pounds. It can deliver semi or full automatic fire.*
2. Какой основной пулемет Армии США? – *The standard US Army machine gun is M60. It is actually derived from WW II German design, MG42. It weighs 23 pounds and is normally fired from bipod.*
3. Что такое **бронетранспортер** и для чего он предназначен? – ***Armored Personnel Carriers or APC** are vehicles designed to ferry infantry across the battlefield. Their armor provides protection against artillery fragments and small arms fire.*
4. Есть ли на вооружении пехоты **легкие противотанковые средства**? – *It is a **Light Antitank Weapon (LAW)** which is a 66mm rocket in a fiber-glass tube; this one-shot-throw-away weapon weighs about five pounds. It has a short range and limited penetrating power, but it gives the individual soldier a powerful one-time “punch” against lightly armored vehicles, bunkers, or buildings.*

5. Опишите **новый ПТУР «Джевелин»** – *The Javelin is a manportable, fire-and-forget, antitank missile employed by dismounted infantry to defeat current and future threat armored combat vehicles. Javelin is intended to replace the Dragon system in the Army and the Marine Corps. JAVELIN has significant improvements over DRAGON.*

*The Javelin's range of approximately 2,500 meters is more than twice that of its predecessor, the Dragon. The Javelin has secondary capabilities against helicopters and ground-fighting positions. It is equipped with an imaging infrared (I2R) system and a fire-and-forget guided missile. The Javelin's normal engagement mode is top-attack to penetrate the tank's most vulnerable armor. It also has a direct-attack capability to engage targets with overhead cover or in bunkers. Its "soft launch" allows employment from within buildings and enclosed fighting positions. The soft launch signature limits the gunner's exposure to the enemy, thus increasing survivability. JAVELIN is also much more lethal than DRAGON.*

6. На вооружении Армии США находится **ПТУР большой дальности типа «Той»**. Что это за ракета? – *TOW – Tube-launched, Optically-tracked, Wire-guided – is a large, long-range wire guided missile that first saw service in Vietnam and was a spectacular success. Since then it has been improved and is now the standard US heavy AT weapon. It has a range of 3,750 meters.*

## SUPPLEMENTARY TEXTS

### 1. INFANTRY

The Infantry forms the nucleus of the Army's fighting strength. Its mission is to maintain a state of readiness in preparation for combat worldwide.

The Infantry officer must be a real leader. Besides being platoon or company commanders, Infantry officers are able to perform a staff work, such as ***liaison officer***, supply officer, etc. At higher levels, the command responsibility increases, and the Infantry officer is continually given the opportunity to attend courses and prepare for the next level of responsibility.

Infantry is one of the biggest challenges the Army can offer. Whether for one term of service or a 30-year career.

**Fire team** is the smallest unit of tactical firepower. A fire team contains three or four men led by a corporal or sergeant. For instance, it might have three riflemen, one of whom has a grenade launcher, and a man with a light machine gun. Two or three fire teams make up a squad.

**Section** is a group of two *artillery pieces*, *missile launchers*, or other special vehicles that operate as a team on the battlefield. It is equivalent to an infantry fire team. Two or three sections make up a platoon or a battery.

**Squad** is led by a sergeant. It has two or three fire teams, totaling 10 to 14 men. Several squads make up a platoon

**Platoon** is a group of three or four squads, led by a first or second lieutenant, with about 30 or 40 troops. Tank platoon contains three to five armored vehicles. Several platoons make up a company.

**Company** is a group of three to four platoons, totaling 100 to 200 men. A company is commanded by a captain. Companies make up a battalion.

Consisting of three to five companies, a battalion generally contains between 800 and 1,200 men – with 50 or so tanks or *APC*'s if the unit is armored or mechanized. **Battalions** are usually commanded by a lieutenant colonel, who will have a major as his executive officer. Several battalions make up a brigade

**Brigade** is made up of three to four battalions and smaller, specialized units. A brigade is commanded by a colonel or a brigadier general. Several brigades make up a division.

In Western armies **divisions** are made up of several brigades. Divisions are commanded by major generals.

**Corps** is a group of two to four divisions. A corps is commanded by a lieutenant general and usually contains roughly 40,000 soldiers and more than 1,000 tanks and *APC*'s.

**Regimental system.** All US Army formations are based on regiments of three battalions. Some of these regiments have histories going back to the Revolutionary War, and soldiers identify themselves with their assigned regiment. Battalions from the regiment will be assigned on a long term basis to various divisions. For example, 3<sup>rd</sup> Brigade of the 101<sup>st</sup> Airborne Division is made up of all three battalions of the 187<sup>th</sup> Infantry Regiment.

Alpha Company of the 3<sup>rd</sup> Battalion of the 187<sup>th</sup> Infantry is one of three in the battalion. Together with an antitank and a headquarters company they give the 3<sup>rd</sup> of the 187<sup>th</sup> strength of almost eight hundred men. The 3/187<sup>th</sup> is one of three airmobile infantry battalions making up the 3<sup>rd</sup> Brigade. In turn, there were a total of three infantry brigades and one helicopter brigade in the 101<sup>st</sup> Airborne Division (Air Assault).

Several types of infantry units, airborne, airmobile, and Rangers among them, class themselves as “**light**” infantry. They do not have many armored vehicles, if any, or in most cases even trucks. This makes them less mobile on a modern battlefield, but in proper terrain, they can cause the enemy a great deal of trouble.

Because they are “**light**”, they are easily transported and are often the first units present in a conflict.

**Staff abbreviations.** Battalion and brigade commanders have staffs to assist them. US Army staffs are organized on uniform lines. The S1 is in charge of personnel, S2 is intelligence, S3 is operations, S4 is supply and S5 is civil affairs.

Divisional echelon and higher are designated as G1, G2, etc.

**Words which will help you to translate the text:**

1. liaison officer – офицер связи взаимодействия
2. artillery piece – артиллерийское орудие
3. missile launcher – пусковая ракетная установка
4. APC (Armored Personnel Carrier) – БТР

## **2. ARMY TRAINING**

The Army must develop soldiers who are proficient\* in battlefield skills, disciplined, physically tough, and highly motivated. The training of individual soldiers is a primary responsibility of noncommissioned officers.

Training of soldiers is focused primarily at home stations and concentrated on basics\* that is an unalterable prerequisite\* for higher level training in every military occupational specialty (*MOS*).

Well trained soldiers are, of course, not enough, they must be molded into\* cohesive\*, effective units from squad to corps, and in combat, combat support and combat service support units throughout the Army.

The centerpiece of collective proficiency\* at battalion and brigade levels resides in Combat Training Centers (CTCs), the National Training Center (NTC) at Fort Irwin, California, the Joint Readiness Training Center (JRTC) at Little Rock Air Force Base and Fort Chaffee, Arkansas, and the Combat Maneuver Training center (CMTC) at Hohenfels, Germany. They provide the indispensable capability to synchronize all elements of the combined arms team in an environment that comes as close to actual combat as the technology permits. A crucial element in achieving unit proficiency is the training of *battle staff*. Special mention must be made of the Battle Command Training Program (BCTP) which hones\* command and control skills at division and corps level. BCTP represents the top of the training pyramid that rests upon the foundation of individual soldier skills and forms an Army that is trained and ready to fulfill its strategic missions worldwide.

In the profession of arms there is no substitute for the leadership. That is why training of leaders is the primary focus of the Army’s leader development program that embraces officers and sergeants. It rests on institutional education, operational assignments and self-development and is embedded\* in a range of Army courses, regulations\*, *field manuals* and circulars\*.



### Words which will help you to translate the text:

1. MOS – военно-учетная специальность
2. battle staff – штаб боевой части
3. field manuals – боевой устав, полевой устав

#### \*Notes:

proficient – обученный, умелый, опытный

proficiency – подготовленность

basics – основные умения и навыки

prerequisite – предпосылка

to mold into – превращать, формировать

cohesive – зд. способный к совместной деятельности

hone – шлифовать, оттачивать

embed – воплощать

regulations – руководства, инструкции

circulars – циркуляры

### 3. INFANTRY WEAPONS

- **G3A.3**, the standard German infantry weapon, fires a large 7.62 mm round\* and weighs almost ten pounds. It has a 20-shot magazine. It has been widely exported.
- **G11**, futuristic-looking rifle, fires a 4.7 mm caseless\* round from a 50-round magazine and weighs just over eight pounds. It has an extremely high rate of fire and is very accurate.
- A Franco-German **HOT antitank missile** has a long range of about 4,000 meters and a large warhead and is in the same class as the American TOW.
- **Javelin antitank missile** has a range of 2,000 meters and can either attack the thin top armor of a main battle tank or the side armor of a lightly armored vehicle. Unlike its predecessor, the near-worthless\* Dragon, it does not use a wire, but carries its own “fire and forget” homing system. It takes a team of three men to carry the launcher and reload missile.
- **Milan** – A wire-guided Franco-German antitank missile in the same class as the American Dragon but much more effective, it has a range of 2, 000 meters and is used by many countries.
- **HUMVEE** – actually HMMWV, but pronounced “humvee”, this light utility truck\* replaced the US Army’s jeep, which was proving too small to carry many loads. The jeep’s gasoline engine was also a drawback, and the HMMWV uses a diesel.

- **AT-4** is a Swedish-designed, shoulder-fired antitank rocket purchased for the US Army. It weighs just over 23 pounds, and the rocket has a range of 300 meters.
- **TOW** – tube-launched, optically tracked, wire-guided missile. A long-range “heavyweight” antitank missile, the TOW has undergone several improvements and still an effective missile. It is fired from a ground-mounted tripod or from vehicles.
- One of the most compact Assault rifle ever designed, the **FA MAS** is the French Army’s standard infantry weapon. It uses a “bull pup” configuration\* with the trigger group in front of a 25-round magazine. Its unique appearance has earned it the nickname *Le Clarion* (the Bugle)\*.
- **P5** – Built in many different versions, the MP5 is a submachine gun firing a 9-mm round from a 15- or 30-shot magazine. It weighs about five pounds and is carried by armored vehicles crews and other troops whose duties prevent them from carrying a rifle.
- **M16** – The standard US Army infantry weapon, it is much lighter and smaller than its predecessor, the M14 rifle. The M16 weighs eight and a half pounds.

#### **Words which will help you to translate the text:**

1. round – патрон, выстрел
2. case – гильза

#### **\*Notes:**

near-worthless – почти не имеющий никакой ценности

utility truck – легкий грузовик, грузовик общего назначения

bull-pup configuration – действующий по схеме “утка” (булл-пап)

bugle – горн

#### **4. M60 MACHINE GUN**

The M60 machine gun, caliber 7,62 mm, is a lightweight general-purpose weapon that replaces all of the current caliber .30 machine guns (air-cooled M1919A4 and M1919A6 and water-cooled M1917A1). It weighs 23 pounds with its shoulder stock and bipod (compared to 32-42 pounds for those guns it replaces), is 43 inches long, and fires 600 rounds a minute. This gas-operated weapon has a rotary locking bolt \*similar to that in a Lewis machine gun, has an air-cooled barrel, and fires the NATO 7,62-mm cartridge (formerly designated US caliber .30, T65). The M60 has a quick-change barrel\* with integral gas system and it is fed by a disintegrating metallic link belt\*. It can be fired from shoulder or hip, from its bipod, or a new tripod mount. The barrel and the gas system can be replaced in seconds, and new metals used in making the barrels give it much longer firing life. Each unit includes a spare barrel.

The M60 is noted as the most reliable and durable GPMG used world wide. It is currently in use by most major armies.

**\*Notes:**

rotary locking bolt – затвор поворотного типа

quick-change barrel – быстро сменяемый ствол

disintegrating metallic link belt – рассыпная звенчатая патронная лента

## **5. EQUIPMENT AND TRAINING OF INFANTRY**

In the past infantrymen were just a mass of hastily trained conscripts hastily armed with whatever could be quickly provided. In modern times, the infantryman can be a highly trained and equipped specialist in his own right.

The equipment of infantry forces has evolved along with the development of military technology and tactics in general, but certain constants remain regarding the design and selection of this equipment. Primary types of equipment are weaponry, protective gear, survival gear\*, and special mission specific equipment. Infantry tactics have become much more involved, and yet must be learned and rehearsed until they become second nature when the infantry soldier is stumbling with fatigue and in the middle of the "fog of war." ***Spreading out***, making use of ***cover*** and ***concealment***, monitoring team-mates and leaders, and watching for the enemy must all become instinctive and simultaneous.

Infantry weapons have included all types of personal weapons, i.e., anything that can be handled by individual soldiers, as well as some light crew-served weapons that can be carried. During operations, especially in modern times, the infantry often scavenge\* and employ whatever weapons and equipment they can acquire from both friend and foe, in addition to those issued to them by their available supply chain.

Modern infantrymen may be trained to use equipment in addition to their personal rifles, such as hand guns or pistols, shotguns\*, machine guns, anti-tank missiles, anti-personnel mines, other incendiary and explosive devices, bayonets, GPS, map and compass, encrypted communications equipment, booby traps\*, surveillance equipment, night vision equipment, sensitive intelligence documents, classified weapon systems and other sensitive equipment.

### **Words which will help you to translate the text:**

1. spreading out – рассредоточение, рассеивание
2. cover – укрытие (от огня)
3. concealment – укрытие от наблюдения, маскировка

**\*Notes:**

survival gear – спасательное снаряжение

scavenge – зδ. использовать все, что попадется

shotgun – гладкоствольное ружье  
booby trap – мина-сюрприз, мина-ловушка

## STUDY THIS INFORMATION BEFORE PROCEEDING TO THE NEXT UNITS

1. *Тактико-технические характеристики (ТТХ), тактико-технические данные (ТТД) и тактико-технические элементы (ТТЭ) – важнейшие понятия, необходимые для описания различных видов оружия и военной техники.*

**ТТХ** применяются для оценки свойств (возможностей) стрелкового, ракетного, реактивного и др. видов оружия, бронетанковой техники, РЛС, ЭВМ и др.

**ТТД** – для оценки свойств самолетов, вертолетов и др. летательных аппаратов.

**ТТЭ** – для оценки свойств надводных кораблей и подводных лодок.

На английский язык все эти термины переводятся как ***characteristic(s) (a distinguishing feature or quality)***.

Показатели значения ТТХ (ТТД, ТТЭ), в большинстве случаев *количественные*, переводятся термином ***performance(s) (the degree to which a piece, unit of a weapon, equipment or other hardware functions as intended)***.

**Для огнестрельного оружия, бомб, торпед, ракет наиболее распространенными ТТХ являются:**

калибр	caliber
скорость	speed, velocity
дальность стрельбы	range of fire
скорострельность	rate of fire
точность	accuracy
надежность	reliability
вес (масса)	weight
габариты	dimensions

**Основные ТТХ бронетанковой техники:**

вес (масса)	weight
бронезащита	armor
мощность двигателя	horsepower
скорость передвижения	speed
возимый боекомплект	ammunition; unit of fire
запас хода	cruising range; endurance range

**ТТД самолетов и вертолетов** включают в себя основные характеристики показателей, определяющие возможности боевого применения летательного аппарата. К ним относятся:

скорость	speed
потолок	ceiling
дальность полета	range
продолжительность полета	endurance
время набора высоты	time of climb
взлетная масса	takeoff weight
бомбовая нагрузка	bomb load
длина разбега (взлетная дистанция)	takeoff distance
длина пробега (посадочная дистанция)	landing distance
скороподъемность	rate of climb
взлетная скорость	takeoff speed
посадочная скорость	landing speed

**ТТЭ кораблей и подводных лодок:**

водоизмещение	displacement
размерения: - длина - ширина - осадка	dimensions: - length; - beam; - draft ( <i>СИА</i> ), draught
скорость	speed
дальность плавания	cruising range; endurance
предельная глубина погружения	diving limit; maximum diving depth
автономность	sea endurance
тип энергоустановки	propulsion machinery; power plant
состав вооружения	armament
экипаж	complement ( <i>в военное время</i> ); allowance ( <i>в мирное время</i> )

**2. Перевод слова RANGE – дальность, дистанция; расстояние, радиус**

**A.**

дальность стрельбы ( <i>оружия, боевых ракет, артиллерии</i> )	range of fire
дальнобойность ( <i>орудия</i> )	range capability
дальнобойность; дальность стрельбы; радиус поражения	hitting range; striking range
дальность поражения	killing range

крейсерская дальность (ракет)	cruising range
дальность плавания (корабля)	cruising range
запас хода (танка, БТР по топливу)	cruising range
запас хода по дорогам	road operating range
дальность полета (самолета, ракеты)	range
дальность действия (прибора, формирования, устройства и т.п.)	range of operation range of action range capability
дальность обнаружения (РЛС, ГАС и т.п.)	detection range
дальность хода (напр., торпеды)	range
дальность видимости	range of visibility
дальность срабатывания взрывателя	actuation range; fuze range
прицельная дальность	aiming range; accuracy range
дальность поражения при взрыве	burst range
эффективная дальность; дальность действительного огня	effective range; decisive range
дальность прямого выстрела	danger range; point-blank range
дальность полета до цели	impact range
дальность полета ракеты	missile range
дальность захвата цели	lock-on range
дальность обнаружения	pick-up range
дальность применения огневых средств вне зоны досягаемости противника	stand-off range
дальность действительного поражения	vulnerable range
дальность целеуказания	target designation range

### ***В.(определения)***

short – range	на малой дистанции
	небольшой дальности стрельбы, полета, плавания
	малой дальности
	ближнего действия
	малоходный
	ближний
	ближнего боя
medium-range	средней дальности
	среднего радиуса действия

long-range	дальнего действия
	дальний
	с большим запасом хода
	с большой дальностью плавания
	дальнобойный
	большой дальности
	на дальних рубежах
	перспективный
	с большим радиусом действия
	стратегический

## 2.2 БРОНЕТАНКОВЫЕ ВОЙСКА

### ARMOR

Armor is a combined arms force designed to conduct highly mobile warfare primarily offensive in nature. The main task of Armor is to assist Infantry to carry out its tasks. As a rule, it is used for close support of Infantry in combat. But armor units can also execute a number of independent missions. The main characteristics of armor are great firepower, mobility, armor protection and shock effect.

Armor operates independently and in cooperation with other arms.

Being a combined arms force Armor includes tank units, armored cavalry units and mechanized infantry units. And all of them perform different missions in combat.

Tank units, in cooperation with other arms, support infantry in the breakthrough of the enemy defense, they move deep into his rear, capture his positions or important objectives and hold them until infantry comes up.

When in independent missions tanks pursue the retreating enemy, cut their lines of communication, destroy his command posts (CPs), strong points, missile sites, artillery positions and his reserves. They can participate in such types of maneuvers as deep penetration and wide envelopment.

Armored cavalry units are used for scouting, flank movements, fighting with the main forces, advance and rearguard actions. Besides that they provide security to those units to which they are organic or attached and perform delaying missions.

Mechanized infantry units close with the enemy to destroy or capture him or repel his assaults by fire, close combat and counterattack either in mounted or dismounted combat. To be highly mobile to carry out their missions mechanized infantry units are equipped with armored personnel carriers or infantry fighting vehicles.

A modern tank is a heavily armored combat vehicle with a gun (usually 90 mm to 120 mm), and two mgs, one (cal .30) mounted coaxially with the gun, and one (cal .50) installed on the turret roof and operated from inside the turret. The tank consists of three principal parts: the hull, the running gear, and the engine or power plant.

In addition to tanks, the US Army is equipped with self-propelled guns and self-propelled howitzers.

### **ACTIVE TERMS AND EXPRESSIONS**

combined arms force	общевойсковое соединение
highly mobile	высокоманевренный
mobility	подвижность, маневренность
armor protection	броневая защита



shock effect	ударное действие
cooperation	взаимодействие
armored cavalry units	разведывательные (бронекавалерийские) подразделения (части)
objective (obj)	объект, рубеж
breakthrough	прорыв
lines of communication	линии коммуникаций; линии связи
command post (CP)	командный пункт
strong point (pt)	укрепленный пункт
penetration	вклинение, прорыв
Envelopment	охватывающий маневр, охват, обход, окружение
scouting	разведка
flank	фланг
flank guard	боковое охранение; отряд бокового охранения
advance guard	авангард; головной отряд
rear	тыл
rearguard	арьергард
security (scty)	охранение (зд.)
delaying actions	сдерживающие действия
counterattack	контрудар; контратака
mounted or dismounted combat	бои на боевых машинах или в спешенных боевых порядках
armored personnel carrier (APC)	бронетранспортер (БТР)
infantry fighting vehicle (IFV)	боевая машина пехоты (БМП)
coaxial	соосный, спаренный
turret	башня
hull	корпус
running gear	ходовая часть
engine	силовая установка; двигатель
self-propelled (SP) guns (howitzers [how] )	самоходные орудия (гаубицы)

\* \* \*

to pursue pursuit (pur)	преследовать преследование
to conduct	проводить; вести
to retreat	отходить; отступать

retreat	отступление
to withdraw withdrawal	отходить; отступать; отводить (войска) отход, вывод войск
to break through	прорывать

### A t t e n t i o n !

1. **to assign** – назначать, вводить в штат, включать в состав; ставить (задачу)  
**assigned** – приданный, включенный в состав, назначенный (на должность, в штат)  
**assigned unit** – приданное подразделение (часть), т.е. переподчиняется командиру, которому придается; включается в штатный состав
2. **to attach** – придавать, временно включать в состав  
**attached** – приданный, временно включенный в состав, прикомандированный  
**attached unit** – приданное подразделение (часть), остающееся в подчинении своего прямого начальника
3. **attached, unassigned** – прикомандированный без должности; приданный без включения в штат
4. **attachments and detachments** – приданные и выведенные из подчинения подразделения и части; т.е. средства усиления и переподчинения
5. если **attached** и **assigned** несут значение действия или точнее его совершения, то термин **organic** означает состояние и переводится, следовательно, *штатный, табельный, входящий в состав*. Сочетание **organic unit** переводится как *штатное подразделение (часть)*.

## E X E R C I S E S

### I. *Carefully study these t r a n s l a t i o n s before reading the text.*

1. Armor conducts decisive highly mobile warfare, primarily offensive in nature. – *Бронетанковые войска ведут решительные высокоманевренные по своему характеру преимущественно наступательные боевые действия.*
2. The basic characteristics of a modern tank are great fire-power, mobility, cross-country capacity, heavy armor protection and shock effect. – *Основными тактическими и техническими характеристиками современного танка являются большая огневая мощь, подвижность, высокая проходимость, мощная броневая защита и ударная сила.*
3. Tank units close with and destroy enemy forces, using fire, maneuver and shock effect in coordination with other arms. – *Танковые части и подразделения*

*сближаются с противником и, используя огонь, маневр и удар, во взаимодействии с другими родами войск уничтожают его.*

4. Armored cavalry units perform reconnaissance and provide security for units. – *Разведывательные (бронекавалерийские) части и подразделения ведут разведку и обеспечивают охранение войск.*
5. Mechanized infantry units close with the enemy to destroy or capture him or repel his assault by fire, close combat and counterattack either in mounted or dismounted combat. – *Мотопехотные части и подразделения сближаются с противником с целью его уничтожения или захвата в плен или отражают его атаку огнем, в ближнем бою или путем проведения контратаки, ведя бой на боевых машинах или в спешенных боевых порядках.*

## II. *Read this text attentively.*

### The Design of a Tank

The tank has the following main parts: the hull, the running gear and the engine. The hull is built of **armored plates**. A turret that has an **all-round traverse** is mounted on the upper part of the hull. The running gear consists of **tracks, driving sprockets, idlers** and **rollers**. Tracks enable the tank to move over almost any ground. The tank has, therefore, a very great **cross-country performance**. The armor plates protect the **crew** from bullets and **splinters** while the tank closes with the enemy.

The hull is usually divided into three **compartments**:

- the **engine compartment** which contains the engine and is separated from the other compartments;
- the **fighting compartment** which **accommodates** the crew, **armament**, ammunition and the **wireless set**. The tank commander is usually in the turret from where he observes the battlefield and controls the movement and fire of his tank.
- the **driver's compartment** has all the mechanisms necessary **to drive** the tank.

The tank is usually armed with a gun and several machine guns.

### **Words to be remembered:**

1. armor plates – броневая плита; броневой лист
2. all-round traverse – круговой ход вращения (в горизонтальной плоскости)
3. track – гусеница, гусеничная лента
4. driving sprocket – ведущее колесо
5. idler – «ленивец»
6. roller – каток
7. cross-country performance (capacity) – вездеходность, проходимость
8. crew – экипаж
9. splinter – осколок

10. compartment – отделение, отсек
11. engine compartment – моторное отделение
12. fighting compartment – боевое отделение
13. to accommodate – вмещать, размещать
14. wireless set – рация
15. armament – вооружение
16. driver's compartment – отделение механика-водителя
17. to drive – вести, управлять

### **III. Put the sentences into the interrogative form.**

1. The main task of Armor is to support infantry.
2. The armored division consists of a division base, 6 tank battalions and 5 armored inf battalions\*.
3. The total strength of the armored div is 15,000-17,000.
4. The armored div is usually commanded by a major general.
5. Each tank battalion consists of a bn HQ, a H & S Co\*, a medical detachment, and three tank companies.
6. One tank Co has 17 tanks.
7. The tank Co consists of three tank platoons.

\* *headquarters & service co.* – рота штабная и обслуживания

\* *armored inf battalion* – мотопехотный батальон бронетанковой дивизии

### **IV. Translate in a written form.**

Armor is the arm of speed and violence. Armor units are fast, highly mobile in action, have great firepower and produce shock effect. Modern armor is a combined arms force designed to conduct decisive, highly mobile and mounted combat in any ground environment, which is primarily offensive in its nature.

Armor units employ armor-protected vehicles as a primary means of accomplishing a ground combat mission through the use of both ground and air vehicles.

Armor usually operates within a force structure that may include tks, mech inf, arty, engrs, armd cav, and Army Avn, supported on the battlefield by a flexible and rapid comm sys, and a mbl log sys.

Armor units fight normally as a combined arms force of two or more arms, each complementing the other and aiding the forward movement of the force by employing its special capabilities.

## **V. *Two – way translation. PART I.***

### **Step One. Read the questions.**

1. What is the designation of your tank battalion?
2. What are the designations of your company and bn?
3. What is the caliber of the tank gun?
4. What is the weight of the tank?
5. What is the speed of the tank?
6. What is the crew strength?
7. What is the armament of this tank? / How is the tank armed?
8. What is the usual mission of your company in offensive?
9. What was the mission of your company?
10. How many tank platoons are there in each tank company? / How many tank platoons is each company authorized?
11. How many tanks are there in each platoon? / How many tanks is each tank platoon authorized?
12. How many tanks are there in each tank company? / How many tanks is each tank company authorized?
13. How many tank companies are there in each tank battalion?
14. Are there any tanks in the headquarters company?
15. Are there swimming tanks in your unit? / Are you equipped with swimming tanks?
16. Are there self-propelled guns in your unit? / Do you have self-propelled guns in your unit?
17. What types of tanks are there in your unit? / What types of tanks do you have? / What types of tanks is your unit equipped with?
18. How many guns is the tank equipped with?
19. Where and when were you taken prisoner?
20. What arm or service do you belong to?
21. How many tanks have you lost?
22. Have you taken part in the last battle?
23. Have you received new tanks?
24. How many new tanks have you received?

### **Step Two. Translate into English.**

1. Назовите номер вашего танкового батальона.
2. Назовите номера вашей роты и батальона.
3. Каков калибр пушки танка?
4. Каков вес танка?
5. Какова скорость танка?
6. Какова численность экипажа?

7. Какое вооружение у танков?
8. Какова обычно задача вашей роты в наступлении?
9. Какова была задача вашей роты?
10. Сколько танковых взводов в каждой танковой роте /по штату/?
11. Сколько танков в каждом взводе (по штату)?
12. Сколько танков в каждой роте (по штату)?
13. Сколько танковых рот в каждом танковом батальоне?
14. Имеются ли танки в штабной роте?
15. У вас есть плавающие танки?
16. У вас есть самоходные артиллерийские установки?
17. Какой тип танка имеете вы на вооружении?
18. Сколькими пулеметами оснащен танк?
19. Где и когда вы были взяты в плен?
20. К какому роду войск вы принадлежите?
21. Сколько танков вы потеряли?
22. Вы принимали участие в последнем бою?
23. Вы получили новые танки?
24. Сколько новых танков вы получили?

### **Step Three. Do double-way translation.**

#### **A.**

1. Назовите номер вашего танкового батальона.  
It's the 2 nd Bn, 39<sup>th</sup> Armored Division.
2. Сколько танков в вашем батальоне? Сколько танков вы потеряли?  
Before the last battle there were 54 tanks in our Bn.
3. Сколько танковых рот в каждом танковом батальоне? Сколько танков в каждой роте?  
The Bn is authorized three companies of 17 tanks each.
4. Имеются ли танки в штабной роте?  
To my mind each platoon is authorized 5 tanks.

#### **B.**

1. Какой тип танка имеется у вас на вооружении?  
We've got the M-1A2 tank.
2. Каков калибр пушки танка?  
This tank is equipped with a 105 mm gun.
3. Сколькими пушками оснащен танк?  
*This tank has one gun as usual. But it is also equipped with a machine-gun. Its fire power is very heavy.*
4. Каков вес танка?  
I know that the weight of the tank is about 47 tons.

5. Какова скорость танка?

The speed is about 60 km per hour on roads and the road operating range (*запас хода по дорогам*) is about 400 km.

6. Какова численность экипажа?

The M-1A2 has got the crew of three men: **tank commander, driver, gunner** (*наводчик, башенный стрелок*).

C.

1. Вы принимали участие в последнем бою?

Yes, we have.

2. Сколько танков вы потеряли?

To my mind we have lost 4 or 5 tanks.

3. Вы получили новые танки?

Yes, this week we have received a new type of a tank, but I don't know its type.

4. Сколько новых танков вы получили?

I think we have received about 10 new tanks.

D.

1. Ваша фамилия, звание, должность.

I'm Captain John Campbell commander of a tank Co.

2. Где и когда вы были взяты в плен?

My tank was damaged at hill 252.6 two days ago and I was taken prisoner there.

3. Какова была задача вашей роты?

Our tank was to counterattack in the direction of hill 252.6.

4. Какова обычно задача вашей роты в наступлении?

Our Co usually has the task of breaking through the enemy positions and to support the infantry in offensive.

5. Назовите номера вашей роты и батальона.

I was in command of Charlie Co, 28<sup>th</sup> tank Bn.

E.

1. Какими подразделениями вы командуете?

A tank Co.

2. Ваша танковая рота придана какой-либо части?

No, it is not attached to any unit. It belongs to the 2/67, 1<sup>st</sup> Armored Division.

3. Какую задачу выполнила ваша танковая рота?

It was taking part in envelopment. Our tank company was to attack your unit from the forest 2 km south of the inhabited locality of D.

4. Где ваши танки были остановлены?

When we reached the edge of the forest your antitank guns opened heavy fire on us and destroyed 4 tanks. Your tanks and self-propelled guns attacked us too and we had to retreat.

5. Какие потери понесла ваша рота?

It is difficult for me to answer this question. I only know that 4 tanks were destroyed by your antitank guns. And then I was wounded.

## **VI. Translate the following texts from hearing.**

### **1**

The armored division comprises a headquarters and headquarters company, six armored battalions, five infantry battalions, one armored cavalry squadron, division artillery, an armored signal battalion and an armored engineer battalion. The tank battalion is equipped with M-1A2 main battle tanks. This is armed with a 120 mm smoothbore gun, one caliber .50 heavy machine gun, and one caliber .30 machine gun and it has a crew of three.

### **2**

The rifle platoon is armed with highly effective Javelin antitank guided missile. The Javelin system consists of the CLU (command launch unit) and the round. With a carry weight of 6.4kg, the CLU incorporates a passive target acquisition and fire control unit with integrated day sight and thermal imaging capabilities. It is used against enemy tanks and other armored vehicles. It may also be used against pill-boxes\* and other shelters.

\* *pill-box* – ДОС (долговременное огневое сооружение)

### **3**

I'm Howard John Lockwood, captain, commander of an armored infantry company of the 16th Armored Division. The rifle company of the armored infantry battalion consists of three rifle platoons and a mortar platoon which has three 81 mm mortar squads. This company has seventeen armored personnel carriers, two 2-ton trucks, four half-ton trucks.

### **4**

The first and the second platoon of our tank company are attached to companies A and B. The two other platoons are in the battalion reserve and occupy positions somewhere in the defense area of the 3rd Battalion. The observation post of our tank company commander is in the church. The primary mission of the tank company in the defense is to provide antitank protection to the battle position. Tanks also may take part in counterattacks.

### **5**

I'm Jack Juilman, tankman, loader. I was in the 1st plat, Bravo Co, 2nd Tk Bn. We have MBT (*main battle tank*) M-1A2 Abrams. This tank is equipped with 2 machine guns, one 7.62 mm and another 12.7 mm and one gun. The caliber of this gun is 120 mm. The crew of this tank is 3 men strong: tank commander, driver,



and gunner. Its maximum speed is over 60 km per hour on the road and 40 km per hour off the road, weight 68 tons, operating range 426 km.

## 6

The 1<sup>st</sup> bn of the 11 Inf Div has the mission to advance to the river and take up defensive positions near W. The troops in this area have about 25 tanks and several self-propelled guns. Heavy mortars support the advance of two companies on the left flank. The attack will begin at 3 hours.

## 7

There were tanks, trucks and self-propelled guns in this village M. There were also many infantry men. They were armed with submachine guns and automatic rifles. They were transported with armored personnel carriers. There were about 50 tanks and 20 self-propelled guns. The tank left the village and moved into the wood west of the neighboring village G.

## 8

Companies which will make the main attack are concentrated in the wood north of V. Their strength is about 400 men. Tanks will support this operation. They are mainly used to break through enemy positions and to exploit the success. Tanks are concentrated south of L. and after penetration they must immediately advance in the direction of G.

### VII. *Decipher the following abbreviations:*

op; cbt; comdr; en; comm.; ldr; mbl; recon; scty; mvr; atk; con; def; def ops; catk; armd div; nuc wpns; res; armd cav; gnd; gnd cbt; gd; tk bn; elm; msn; bde; HHC; intel off; hv mort plat; spt plat; gnd survl sec; XO; maint plat; admin sec.

### VIII. *Put in the necessary words:*

A.

*in mass; combat operations; knowledge of the enemy; enemy forces; combat power; a given task; the enemy; heavy damage; an estimate*

1. выполнять поставленную задачу – to accomplish ...
2. применять массированно – to employ ...
3. получать сведения о противнике – to gain ...
4. производить оценку – to make ...
5. подавлять силы противника – to neutralize ...
6. наносить большой урон – to inflict ...
7. вести боевые действия – to conduct ...
8. уничтожать противника – to destroy ...
9. сосредотачивать боевые средства борьбы – to mass ...

10. рассредоточивать боевые средства борьбы – to disperse ...

**B.**

*to conduct; to close with; to interfere with; to assign; to destroy; to seize*

1. сближаться с противником – ... the enemy
2. уничтожать противника огнем – ... the enemy by fire
3. препятствовать передвижению противника – ... enemy movement
4. вести боевые действия – ... combat operations
5. ставить задачу – ... a mission
6. овладевать объектом в глубине обороны – ... a deep objective

### **IX. Translate into English.**

1. Бронетанковые войска – это общевойсковые соединения и части, предназначенные для проведения высокоманевренных боевых действий, в основном наступательного характера.
2. В состав бронетанковых войск входят танковые подразделения, разведывательные части и моторизованная пехота.
3. В задачи танковых подразделений при взаимодействии с другими родами войск входит сближение с противником и его уничтожение, используя огонь, маневр и удар.
4. При выполнении самостоятельных задач танки преследуют отступающего противника, разрушают его командные и укрепленные пункты, ракетные стартовые площадки и линии связи, а также могут осуществлять прорыв в глубину обороны противника и выполнять охватывающие маневры.
5. Задачами разведывательных частей являются: ведение разведки, сдерживание противника, ведение боевых действий с основными силами, а также головное, боковое и тыловое охранение частей и подразделений, куда они входят по штату или которым они приданы.
6. Моторизованная пехота ведет бой с противником на боевых машинах или в спешенных боевых порядках. Ее задача – сближение с противником в целях его уничтожения или захвата или отражение атаки противника огнем, контратакой и в ближнем бою.
7. Современный танк – это тяжелая бронированная машина, оснащенная, как правило, пушкой и двумя пулеметами.
8. Танк состоит из следующих основных частей: корпуса, ходовой части и двигателя или силовой установки.
9. Кроме танков на вооружении СВ имеются самоходные пушки и гаубицы.

## **X. Translate as quickly as possible:**

modern armor; общевойсковой род войск; to conduct mobile warfare; бронированная машина; combat mission; разведывательные подразделения; mechanized infantry units; сближаться с противником; fire, maneuver and shock; вести разведку; to provide security for units; отражать атаки противника; close combat; бои на боевых машинах; the US Army is equipped with; самоходные орудия; highly mobile; броневая защита; shock effect; взаимодействие; breakthrough; линии связи; hull; охватывающий маневр; command post; фланг; scouting; укрепленный пункт; delaying actions; вклинение, прорыв; counterattack; соосный, спаренный; rear; ходовая часть; dismounted combat; преследовать противника; armored personnel carrier; отходить, отступать; turret; боевая машина пехоты; rearguard; прорывать оборону противника; advance guard; боевое охранение; cross-country performance; экипаж; compartment; вооружение; gunner; двигатель, мотор; loader

## **XI. Answer the following questions.**

1. What is Armor?
2. What is the main task of Armor?
3. What are the main characteristics of Armor?
4. What units does Armor include being a combined arms force?
5. What is the mission of tank units in cooperation with other arms?
6. What is the task of tank units in independent missions?
7. What is the mission of armored cavalry units?
8. What is the mission of mechanized infantry units?
9. What is a modern tank?
10. What is the armament of a tank?
11. What are its three principal parts?
12. What is the US Army equipped with besides tanks?

## **XII. Retell the text.**

## **XIII. Two-way translation. PART 2.**

1. Что собой представляет танк? – *It is an armored vehicle with caterpillar tractor armed with a gun and two machine guns.*
2. Каковы основные характеристики танка? – *They are protection to its personnel in the form of armor; mobility and armament such as machine guns and a cannon.*
3. Какова скорость современного танка? – *Modern tanks have an average speed from 30 to 35 miles per hour. This speed is of course greatly reduced on an incline.*

4. Чем вооружен современный танк? – *For example, the primary armament of the M 1A2 main battle tank is a smoothbore gun, caliber 120 mm, besides, a machine gun, caliber .30 is coaxially mounted and on the turret it features caliber .50 machine gun.*
5. Для чего предназначены бронетанковые войска? – *In its way since it is a component of the Army it is equipped to be capable of much independent action. Being highly mobile and tremendously powerful, the Armor is used for rapid offensive and deep penetration into hostile rear areas, pursuit, etc.*
6. Какие задачи решают разведывательные бронекавалерийские части? – *They are used for scouting, flank movements, fighting with the main forces, advance and rearguard actions.*

## SUPPLEMENTARY TEXTS

### 1. THE LEOPARD 2 GERMAN TANK

The Leopard 2 is a main battle tank developed by Krauss-Maffei in the early 1970s for the West German Army. The tank first entered service in 1979 and succeeded the earlier Leopard 1 as the main battle tank of the German Army. Various versions have served in the armed forces of Germany and twelve other European countries, as well as several non-European nations. More than 3,480 Leopard 2s have been manufactured. The Leopard 2 first saw combat in Kosovo with the German Army and has also seen action in Afghanistan with the Danish and Canadian contributions to the International Security Assistance Force (*командование международными силами содействия безопасности в Афганистане*).

There are two main *development batches*\* of the tank, the original models up to Leopard 2A4, which have *vertically faced turret armor*\*, and the "improved" batch, namely the Leopard 2A5 and newer versions, which have *angled arrow-shaped turret appliqué armor*\* together with other improvements. All models feature digital fire control systems with laser rangefinders, a fully stabilized main gun and coaxial machine gun, and advanced night vision and sighting equipment (first vehicles used a low-light level TV system or LLLTV; thermal imaging was introduced later on). The tank has the ability to engage moving targets while moving over rough terrain.

*Specification:*

- Weight: 2A6: 62.3 tonnes (61.3 long tons; 68.7 short tons)
- Crew : 4
- Armour: 2A6: 3rd generation composite; including high-hardness steel, tungsten and plastic filler with ceramic component
- Main armament: 1× 120 mm Rheinmetall L55 smoothbore gun (42 rounds)

- Secondary armament: 2× 7.62 mm MG3A1[1] (4,750 rounds)
- Engine: MTU MB 873 Ka-501 liquid-cooled V-12 Twin-turbo diesel engine, 1,479 hp, 1,103 kW at 2,600 rpm
- Operational range: 550 km (340 mi) (internal fuel)
- Speed: 72 km/h (45 mph)

**\*Notes:**

development batch – опытная партия (изделий)

vertically faced turret armor – вертикально установленные броневые плиты броневой защиты башни танка

angled arrow-shaped turret appliqué armor – броневая защита с накладными элементами для башни, которая имеет форму, напоминающую форму наконечника стрелы, с наклонно установленными броневыми плитами.

## 2. T-72M1 MAIN BATTLE TANK

The standard T-72 M1 weighs around 43 tons and is powered by V-46-6 diesel developing 780 hp which gives a maximum road speed of 60 km/h with speed on a dirt road being 36 to 40 km/h.

The 125mm smooth bore tank gun and the enhanced fire-control system allows the tank to fire laser-guided missiles to a maximum range of 5,000 m. The latest version of this missile has **a tandem high-explosive anti-tank warhead** to defeat MBTs fitted with **explosive reactive armor**. **The thermal imager** has a detection range of 5,000 m and an identification range of 3,000 to 3,500 m.

The gunner has a two-axis stabilized sight that combines **day/thermal** and laser **guidance** channels, and a **standby** laser sight as a backup. The tank commander has a day/night sight that is stabilized in the vertical plane only. The daytime identification range for the tank commander sight is 4,000 m while under night conditions this is reduced to 1,200 m. In addition the T-72 M1 MBT is fitted with an automatic target **tracking** device and active **jamming** device which includes the optical jamming system and the 8mm **smoke grenade launching system** that can jam ground and air-launched laser antitank guided missiles.

Improved radio set, a receiver and global positioning system complete the picture.

### Words which will help you to translate the text:

1. tandem high-explosive anti-tank warhead – противотанковая боевая часть с двойным боевым зарядом
2. explosive reactive armor – реактивная броня
3. thermal imager – тепловизор
4. day/thermal guidance – оптическое, инфракрасное наведение

5. standby – резервный
6. tracking – слежение, сопровождение
7. jam – оказывать противодействие; подавлять  
active jamming – зд. активное подавление
8. smoke grenade launching system – дымовая гранатометная система

### 3. M113 ARMORED PERSONNEL CARRIER

The M113 series of armored personnel carriers can lay claim to being the most widely used vehicle of its type.

The basic M113 is an *amphibious tracked armored box* carrying a crew of two and up to 11 men, who enter via a powered *ramp* at the rear and are seated along each side wall. It is a simple vehicle that has proved reliable and sturdy\* and is also adaptable. The basic M113 is not armed but can have various types of machine guns mounted by\* the commander's cupola on the roof and more weapons can be mounted by the roof *hatch*. The engine is at the right-hand front.

The M113 has been used as the basis for just about every armored vehicle function imaginable. M113 variants include reconnaissance vehicles, anti-tank missile carrier, *mortar carrier*, Vulcan air defense gun carrier, *fire support vehicle*, *fitters vehicle*, *ambulance*, *flame thrower*, and so on.

*Specification:*

- Weight: 11,261 kg
- Powerplant: GMC Detroit Diesel 6V-53 diesel developing 215 hp (160kw)
- Dimensions: length 4,863m, height (overall) 2,58m, width 2,686m
- Performance: maximum road range 596 km, fording amphibious, *gradient* 60 percent, vertical obstacle 0,61m, *trench* 1,68m.

#### Words which will help you to translate the text:

1. amphibious tracked armored (box) – плавающий гусеничный БТР
2. ramp – откидная дверь
3. hatch – люк, крышка люка
4. mortar carrier – минометный транспортер
5. fire support vehicle – средство огневой поддержки
6. fitters vehicle – ремонтная машина
7. ambulance – санитарный транспорт
8. flame thrower – огнеметная машина
9. fording amphibious – преодоление водных преград вплавь
10. gradient – наклон, крутизна препятствия
11. trench – траншея, ширина рва, преодолеваемого машиной

**\*Notes:**

sturdy – прочный

by – зд. около, рядом

#### **4. MODERN TRACKED INFANTRY VEHICLES**

Modern Infantry plays a key part in the combined arms concept of mechanized warfare that also includes tanks and reconnaissance vehicles, artillery, anti-tank systems, engineers, logistic support and army aviation. In order to keep up and operate with tanks the infantry has to be carried in tracked or wheeled armored vehicles. The latter are cheaper to build and operate, and have greater strategic mobility as they can travel at high speeds on roads. The full-tracked vehicles on the other hand normally have much improved armor protection, greater cross-country mobility and heavier armament than their wheeled counterparts\*.

Modern mechanized infantry fighting vehicle (or infantry fighting vehicle as it is also called) not only has improved armor protection but is usually fitted with a turret-mounted weapon that can range from 20 mm right up to 73 mm. It also has a co-axial machine-gun to engage softer targets, and some even have anti-tank guided weapons on their turrets so that they can also engage enemy tanks. In addition embarked\* infantrymen are provided with **firing ports** and **vision devices** to enable them to engage unprotected infantry as the vehicle crosses the battlefield, although the actual value of this feature is open to debate. The modern personnel carrier of whatever type also has a full range of night-vision equipment for the commander, gunner, and an **NBC** system to enable it to operate on a contaminated\* battlefield, and in many cases it is fully amphibious.

In a number of recent conflicts tanks have tried to fight alone without the use of mechanized infantry. In almost every case they have failed without the infantry, tanks cannot always take their objective, and moreover (perhaps even more important) if they do take it they cannot subsequently hold it against an all-arms counterattack.

**Words which will help you to translate the text:**

1. tracked infantry vehicle – гусеничная боевая машина
2. firing port – отверстие для стрельбы (в боевой машине)
3. vision device – прибор наблюдения
4. NBC system = nuclear biological and chemical system

**\* Notes:**

counterpart – вариант

embark – производить посадку

contaminated – зараженный, загрязненный

## 5. MECHANIZED INFANTRY FORCES IN COMBAT

Mechanized forces include mechanized infantry units, tank units and a multitude of armored cavalry units. The types of operations and missions that may be assigned to mechanized units can be seen from the following list:

- *movement to contact*;
- reconnaissance in force;
- *coordinated attack*;
- pursuit;
- *cordon and search*;
- *mobile reaction force*;
- *base camp, field defensive position, landing zone, pick up and work party security*;
- *link up with airmobile assault*;
- combat in buildup areas\*;
- attack of fortified positions and village complexes;
- *road clearing and convoy escort* .

The methods of employing mechanized forces and accomplishing the tasks above are essentially the same in each division, separate brigade, and armored cavalry regiment. Mechanized infantry, armor, and armored cavalry units are employed as independent forces, in conjunction with or in support of ground or airmobile forces.

The armored personnel carriers of the mechanized infantry are primarily employed as an infantry carrier and weapons platform.

When mechanized infantry is operating independently in an offensive operation, the APC's initially recon by fire. Upon contact riflemen dismount and conduct a search of the area, while the APC's are used to screen, block, or support by fire.

When operating in support of or in conjunction with ground forces, mechanized infantry is generally used in a reserve, blocking, or screening force role. In this instance, airmobile infantry is used as the maneuvering element and attempts are made to "push" the enemy into the firepower of the mechanized units. When they are used as a reserve, the commander has a highly mobile element with which to influence the contact made by his other forces.

In the defense, dismounted infantry prepare fighting positions and then APC's and tanks are positioned between the dismounted infantry and assigned sectors of fire.



Mechanized infantry and armor units are ideally suited for cordon and search operations. These forces first quickly seal an area and then the dismounted infantry search, covered by tanks and APC's.

The effectiveness of mechanized and armor forces is dependent upon a sound appreciation of time and distance limitations imposed by the difficult terrain.

The tanks and APC's of armor and armored cavalry units are often used as transporters of infantry. Additionally, the APC is an effective resupply, medical evacuation, and command post vehicle.

**Words which will help you to translate the text:**

1. movement to contact – сближение с противником
2. coordinated attack – одновременное скоординированное наступление
3. cordon and search – действия по оцеплению района и поиску противника
4. mobile reaction force – мобильный резерв
5. base camp security – охранение района сосредоточения воздушного десанта
6. field defensive position security – охранение полевых оборонительных позиций
7. landing zone security – охранение района высадки воздушного десанта
8. pick-up zone security – охранение района погрузки на вертолеты
9. work party security – охранение рабочих команд
10. link up with airmobile assault – соединение с силами десанта
11. road clearing and convoy escort – расчистка дорог и сопровождение транспортных конвоев

**\* Notes:**

buildup areas – населенные пункты

## **6. ARMORED CAV**

Armored Cavalry units are used for **scouting**, flank movements, fighting with the main forces, advance and rearguard actions.

The division cavalry squadrons are the principal ground recon units nowadays. Owing to the high speeds of advance, more radical and quicker changes in the situation their role has greatly increased.

The organization of cavalry squadrons in all divisions is nearly the same. It includes **HHT**, three Armd Cav troops and an **Air Cav troop**. Each of the squadrons is equipped with at least 18 light tanks, 52 APCs and Cavalry Fighting Vehicles, 27 helicopters, 8 radars and about 200 radio sets.

M3 Cavalry Fighting Vehicle is the main reconnaissance scout vehicle in the armored cavalry units. M3 is almost identical to the M2 Bradley Infantry Fighting Vehicle, except that the former has no firing port, carries a total of five men (compared with 10 in the M2) and is provided with much more ammunition.

Besides recon the cav units are assigned security missions acting as advance, rear and flank guards. The squadron of the division provides the main element of the covering force. Sometimes it is reinforced with aviation, armor, infantry and engineers. The covering force normally operates under division control at considerable distance in front of the main body.

**Words which will help you to translate the text:**

1. scout – вести разведку
2. HHT = headquarters and headquarters troop
3. air cavalry troop – разведывательная аэромобильная рота

**7. M2 BRADLEY INFANTRY FIGHTING VEHICLE**

The M2 Bradley Infantry Fighting Vehicle is the answer to the US Army requirement for a mechanized infantry vehicle. It has been designed to operate alongside of the M1 Abrams MBT on modern battlefield.

The hull of the M2 is of welded aluminium armor with an additional layer of spaced laminate armor fitted to the hull front, sides and rear to give much increased protection against most battlefield weapons. The driver is at the front of the hull on the left with the power pack\* to his right. The two-man power-operated turret is in the center of the hull with the commander on the right and gunner on the left. The main armament is a 25-mm gun which can defeat light armored vehicles when firing armor-piercing ammunition, there is also a 7,62mm co-axial machine-gun and a twin launcher on the left side of turret for the TOW\* anti-tank guided weapon, which gives the Bradley a significant anti-tank capability.

A stabilization system is fitted which allows the gunner to aim and fire the 25-mm cannon while moving at speed across country. The troop compartment is at the rear and provided with six firing ports and periscopes to allow the embarked men to fire their 5,56mm weapon from within the vehicle. A full range of night-vision equipment is fitted for the commander, gunner and driver, and there is an NBC system.

The Bradley is a highly effective vehicle and plays a key role in the US Army's combined arms concept. It has many critics though, who can say that it is too large, expensive and difficult to maintain, and will be unable to operate with the M1 tank as it has much inferior armor protection to the MBT.

*Specification M2 Bradley:*

- Crew: 3+7
- Power plant: one VTA 903T 8-cylinder diesel developing 600 hp
- Dimensions: length 6.463m, width 3.20m, height (overall) 2.972m.
- Performance: maximum road speed 66 km/h; maximum range 483 km; fording amphibious; gradient 60 per cent; vertical obstacle 0.914m; trench 2.54m.

**\* Notes:**

power pack – модуль электропитания, силовой модуль

TOW (Tube-launched, Optically-tracked, Wire-guided) anti-tank guided weapon – противотанковая ракетная система TOW (запускаемая из трубчатого контейнера, с оптическим сопровождением, управляемая по проводам)

## **8. M1 ABRAMS MAIN BATTLE TANK**

The hull and turret of the M1 are of advanced type armor and provide the greatest degree of protection ever incorporated into an American MBT. Main armament comprises the proven 105mm M68 gun with a much improved fire-control system including a laser rangefinder and thermal imaging system that allows the tank to engage targets by both day and night. The gun is fully stabilized in both **elevation** and **traverse**, and so can be aimed and fired while the vehicle is moving across country. A total of 55 rounds of 105-mm ammunition is carried, of which 52 are compartmentalized\*. Of the latter 44 are in the turret bustle\* (22 on each side) and separated from the crew by slicing doors. A 7.62mm machine-gun is mounted co-axially with the main gun, and a similar weapon is mounted at the loader's hatch. The commander has a 12.7mm machine-gun that can be traversed through 360 degrees and elevated to +68 degrees. Mounted on each side of the turret is a bank\* of six smoke dischargers\*.

The M1 Abrams MBT is the first such vehicle to be powered by a gas turbine engine which takes up much less room than a diesel, and is easier to service or replace in the field if it breaks down, but it uses more fuel than a diesel engine.

An improved version of M1 with 120-mm smoothbore gun was accepted for service as the M1A1 Abrams, with ammunition including armor-piercing fin-stabilized discarding-sabot-tracer\* and high explosive anti-tank-multipurpose-tracer\*. In addition to the 120-mm gun the M1A1 has a number of other improvements including increased armor protection and an integrated NBC system which not only provides the four-man crew with conditioned air for breathing but also supplies cooling or heating as long as the crew are wearing their protective suits and masks. Many other improvements are under development, including a new and safer laser rangefinder, an improved commander's weapon station\* with panoramic sight, and a rapid refueling capability.

The combination of 120-mm gun-power, advanced armor protection and gas-turbine powered mobility allied to advanced electronics and computerized fire-control makes the M1A1 Abrams one of the most formidable\* of modern battlefield weapon systems.

*Specification:*

- Crew: 4

- Weight: 54.432 tons
- Engine: Avco Lycoming AGT-1500 gas turbine developing 1,500 hp.
- Dimensions: length with gun forward 9.766m, hull length 7.918m; width 3.655m; overall height 2.885m.
- Performance: maximum road speed 72.4 km/h; max road range 460 km; fording 1.219m; gradient 60%; vertical obstacle 1.244m; trench 2.743m.

**Words which will help you to translate the text:**

1. elevation – вертикальная наводка
2. traverse – горизонтальная наводка

**\* Notes :**

compartmentalized ammunition – размещение боеприпасов в изолированных отсеках

turret bustle – отсек башни

bank – зд. запас

smoke discharger – установка для метания дымовых боеприпасов

fin-stabilized discarding-sabot-tracer – стабилизируемый в полете трассирующий подкалиберный снаряд

anti-tank-multipurpose-tracer – противотанковый трассирующий снаряд многоцелевого назначения

weapon station – пульт управления огнем

formidable – зд. опасный

## **2.3.АРТИЛЛЕРИЯ**

### **ARTILLERY**

#### **A. General**

The artillery is a supporting arm. It acts by fire alone and is not capable of independent action. The primary mission of arty is to support the ground arms with its fire. Only arty can deliver indirect fire on ground targets. It, as a rule, provides neutralizing and destructive fires. AA protection is another primary mission of arty.

Supporting the offensive of friendly troops, artillery covers the deployment of the attacking units and their movement to the enemy FEBA.

In the defense the concentration of fire and barrages are very important as they help to stop the enemy troops and inflict the enemy heavy losses in manpower and materiel.

Artillery is also effectively used to fight enemy artillery (counter-battery fire).

Artillery is organized into batteries and battalions. Batteries are the smallest administrative and tactical units while artillery battalions are primarily tactical units.

There are two types of arty: field artillery (FA) and air-defense artillery (ADA).

Field artillery is the principal means of gnd spt and can deliver either nuclear or nonnuclear fire on gnd tgts. It is equipped with cannons, msls, and equipment required for fire con, movement, obsn and survl, and comm. FA cannons are classified according to caliber as light (120 mm and less), medium (greater than 120 mm but less than 160 mm), and heavy (greater than 160 mm). FA cannons may be towed and self-propelled.

ADA provides AA protection for both gnd forces and such important civil and mil objs as airfields, railway junctions, ammunition dumps and many others. It is equipped with guns, guided msls and equipment required for tgt acquisition, fire distribution, communication and movement, and is characterized by its ability to place timely effective fire on fast moving aerial targets. All ADA guns are classified according to caliber as light (under 90 mm), medium (90 mm or larger), heavy (larger than 120 mm) and according to their mobility as fixed, towed, self-propelled, or portable. ADA guns and some air defense artillery guided msls are capable of operating as FA wpns.

#### **B. Artillery Materiel**

In accordance with their design and principle of operation arty pieces may be referred to as tube arty and rocket arty, the former category including guns, howitzers and mortars.

A gun is a cannon with relatively long barrel, operating with a comparatively low angle of fire and possessing a high muzzle velocity, long range and relatively flat trajectory. Guns fire shrapnel and armor piercing shells or high explosive (HE) shells and are widely used for direct fire, i.e. against tgts visible from the gun position.

A howitzer is a cannon with medium length barrel, operating with a relatively high angle of fire, moderately curving trajectory, and using a medium muzzle velocity. Hows use mainly high explosive shells and insure successful delivery of indirect fire on targets screened by hills and other obstacles.

A mortar operates with a higher angle of fire, a sharply curved trajectory, and has a shorter range and a lower muzzle velocity. HE msls which look like aircraft bombs are used as ammunition for mortars. Morts can be used to shell the enemy on steep reverse slopes and in trenches. They are not employed by FA.

Rocket arty includes pieces which fire jet-propelled projectiles. Principal advantages of such pieces are their lack of recoil and light weight.

The most essential part of an artillery piece is the barrel which consists of the tube, the jacket and the breech mechanism.

The hollow part of the tube is the bore the rear portion of which is a chamber to hold the ammunition. The bore has a number of spiral grooves designed to make the projectile turn on its flight. The barrel is placed in or on the cradle. The cradle also holds the recoil mechanism which cushions the shock created by firing. The principal part of the breech mechanism is the breech block which closes the back end of the barrel.

All the parts of the piece are mounted on the carriage. The carriage has the elevating gear, the traversing gear and the gun sight. The elevating mechanism elevates or depresses the barrel to a desired angle. The traversing mechanism is a device for making lateral changes in the direction of the axis of the barrel, i.e. to turn the barrel right or left. The gun sight is used to lay the piece on the target.

## ***ACTIVE TERMS AND EXPRESSIONS***

### **A.**

indirect fire	огонь с закрытых позиций; огонь не прямой наводкой
neutralizing fire	огонь на подавление
destructive fire	огонь на уничтожение (разрушение)
antiaircraft (AA)	зенитный
antiaircraft protection	противовоздушная оборона (ПВО)
antiaircraft artillery (AAA)	зенитная артиллерия
friendly troops	свои войска
cover	укрытие; прикрывать

deployment	развертывание; перегруппировка; переброска
forward edge of the battle area (FEBA)	передний край обороны
barrage fire	заградительный огонь; огневая завеса
materiel	материальная часть и имущество, (боевая) техника
counterbattery fire	огонь на подавление артиллерии противника, контрбатарейный огонь
artillery battalion (bn)	дивизион (в артиллерии)
field artillery (FA)	полевая артиллерия
air-defense artillery (ADA)	зенитная артиллерия
nuclear fire	огонь ядерными боеприпасами
cannon	артиллерийское орудие
fire control	управление огнем
surveillance (survl)	наблюдение; разведка наблюдением
towed	на механической тяге; буксируемый
self-propelled (SP)	самоходный; самодвижущийся
airfield	аэродром
junction	железнодорожный узел; узловая станция, транспортный узел
ammunition dump	полевой склад боеприпасов
gun	пушка (в артиллерии)
guided missile (GM)	управляемая ракета (УР)
target acquisition	обнаружение цели; разведка цели
fire distribution	разделение (рассредоточение) огня
aerial	воздушный
fixed	неподвижный; стационарный
portable	переносный; носимый

\* \* \*

to deliver fire on targets	вести огонь по целям
to inflict heavy losses (casualties) on...	нанести тяжелые потери
to suffer heavy losses	нести тяжелые потери

## **B.**

artillery piece	артиллерийское орудие
tube artillery	ствольная артиллерия
rocket artillery	реактивная артиллерия

angle of fire	угол возвышения
muzzle velocity	начальная скорость; дульная скорость
flat trajectory	настильная траектория
shrapnel shell	шрапнель
armor-piercing shell	бронебойный снаряд
high explosive (HE) shell	осколочно-фугасный снаряд
direct fire	огонь прямой наводкой
moderately	умеренно
curving (curved) trajectory (traj)	навесная траектория
sharply	резко
barrel	ствол
tube	ствол, труба; трубчатая направляющая
jacket	кожух
breech mechanism	казенник; казенная часть ствола
breechblock	затвор; запирающий механизм
hollow	внутренний, полый
bore	канал ствола
cradle	люлька
recoil mechanism	механизм поглощения отдачи; тормозной механизм
carriage	лафет
elevating gear	подъемный механизм; механизм вертикальной наводки
traversing gear	поворотный механизм; механизм горизонтальной наводки
gun sight	прицел

\* \* \*

to elevate	поднимать, придавать угол возвышения
to traverse	поворачивать (в горизонтальной плоскости)
to lay the piece	наводить орудие
to lay the piece on the target	наводить орудие по цели

### **A t t e n t i o n !**

**cannon, piece, gun**

1. **cannon** – любое артиллерийское орудие.

В собирательном значении термин **cannon** означает *ствольная артиллерия* в отличие от **missiles** *реактивной артиллерии*.

**cannons and missiles** переводится как *ствольная и реактивная артиллерия*



Синонимом сочетания **cannon artillery** *ствольная артиллерия* будет **tube artillery**.

2. **piece** означает любое огневое средство: *артиллерийское орудие, миномет, пулемет, винтовка* и т.п. Чаще всего используется в сочетаниях *artillery piece, piece of artillery, piece of ordnance*, которые переводятся как *артиллерийское орудие*.
3. **gun** – в разговорной речи любое огнестрельное оружие. Для специалиста **gun** означает *пушка* в отличие от гаубицы – **howitzer** и миномета – **mortar**.
4. сравните термины: **ammunition, munitions**  
**ammunition** означает только **боеприпасы** (ни в коем случае не *амуниция*);  
**munitions** – *военное имущество* (оружие, боеприпасы, снаряжение и все прочие виды имущества, необходимые для ведения войны).

## EXERCISES

### I. Study these translations before reading texts A, B:

#### A.

1. **direct fire** (Fire directed at a target which is visible to the aimer.) – **огонь прямой наводкой** (Огонь по цели, видимой наводчиком).
2. **indirect fire** (Fire delivered at a target which is not itself used as a point of aim for the weapons and cannot be seen by the aimer.) – **огонь с закрытых огневых позиций** (Огонь по цели, которая не является точкой наводки и не видна наводчику).
3. Artillery prepared to fire under either nuclear or nonnuclear conditions. – Артиллерия способна вести огонь как в условиях применения ядерного, так и обычного оружия
4. Artillery acts by fire alone and is not capable of independent action. – Артиллерия воздействует на противника только огнем. Вести самостоятельные боевые действия артиллерия не может.
5. The mission of artillery is to support the ground arms by fire, to attack hostile reserves, to restrict a freedom of movement and to disrupt command system. – На артиллерию возлагаются задачи: поддерживать огнем сухопутные войска, наносить удары по резервам противника, ограничивать свободу его маневра и нарушать систему управления.

#### B.

1. Field artillery weapons are classified as cannons or missiles. – Вооружение полевой артиллерии подразделяется на ствольное и реактивное.

2. Cannons are classified according to caliber as light, medium and heavy. – По калибру артиллерийские орудия подразделяются на орудия малого калибра, среднего и большого.
3. A gun is a cannon possessing a long range of fire and relatively flat trajectory. – Пушка – это артиллерийское орудие, которое обладает большой дальностью стрельбы и придает снаряду относительно отлогую траекторию.
4. A howitzer is a cannon with a medium length barrel operating with a relatively high angle of fire, moderately curving trajectory. – Гаубица – это артиллерийское орудие со стволом средней длины, способное вести огонь при относительно большом угле возвышения и придающее снаряду умеренно крутую траекторию.
5. All guns and howitzers consist of the barrel assembly with the breech mechanism and the carriage. – Все пушки и гаубицы состоят из ствола в сборе с запирающим механизмом и лафета.
6. The hollow part of the tube is the bore the rear portion of which is a chamber to hold the ammunition. – Пустотелая часть ствола называется каналом ствола, задняя часть которого составляет зарядную камеру для помещения в ней боеприпаса.
7. The principal part of the breech mechanism is the breechblock which closes the back end of the barrel. – Основной частью запирающего механизма является затвор, который служит для запираания казенной части ствола.
8. The cradle supports the barrel and houses the recoil mechanism. – На люльке размещается ствол, а в самой люльке смонтировано противооткатное устройство.
9. The traversing mechanism is a device for making lateral changes in the direction of the axis of the barrel, the elevating mechanism consists of devices for elevating or depressing the barrel to a desired angle. – Поворотный механизм служит для изменения направления оси канала ствола в горизонтальной плоскости, а подъемный механизм – для придания стволу нужного угла возвышения или склонения.
10. The recoil mechanism with recoil brake and counterrecoil mechanism cushions the shock created by firing and gradually checks the rearward movement of the recoiling parts to avoid displacement of the carriage. – Противооткатное устройство состоит из тормоза отката и накатника. Оно предназначено для смягчения удара, создаваемого выстрелом, и постепенного сдерживания откатывающихся частей, чтобы предотвратить смещение лафета.

## II. Read and translate this text paying attention to the abbreviations.

### Artillery, Its Missions and Weapons

Arty is an arm of long range cbt. Arty fire is more powerful than infantry fire. There are two types of arty: FA and ADA. The main msn of arty is to support other arms providing ground fire spt and AA protection. Arty is equipped with different cannons such as guns, hows, mort, rkt and msls. It usually provides barrage, neutralizing and destructive fires on gnd tgts. According to the location of the cannon and the tgt arty can deliver direct and indirect fires. The main chars of arty are long range, mblty and great fire power.

There are three tactical msns: **DS\***, **GS\*** and **reinforcing\***. Arty provides spt for friendly trps under all conditions of combat: nuc, cml and biological. Artillery is subdivided into tube and roket arty.

In the offensive arty covers the deployment of the attacking units and their mvmt to the en FEBA. It also delivers preparation fire before an atk destroying enemy firing positions, strong pts, areas of resistance and so on.

In the defense barrages help to stop the en trps and inflict the enemy heavy losses in manpower and materiel. ADA provides protection by firing on aerial tgts.

Arty is organized into btries and bns.

\*direct support (DS) – непосредственная поддержка

\*general support (GS) – общая поддержка

\*reinforcing – усиление (поддержка)

## III. Decipher the following a b b r e v i a t i o n s:

arty; nuc; msn; spt; cbt; atk; res; mvmt; comm sys; AA; FA; ADA; AAA; msl; equip; con; obsn; survl; tgt; log spt; cal; veh; sp; wpn; rkt; gm; km; max; br; en; ops; CONUS; div; mil; mblty; obj; org; pers; btries; bn; admin; tac; mvr; tac msn; nuc wpn; comdr; how bn; ammo; mort; armd; mech; inf; stf; comd; svc; traj; HE

## IV. Put q u e s t i o n s to the boldly typed parts of the sentences.

1. Artillery is **an arm of long-range combat**.
2. Modern arty can fire **under either nuclear or non-nuclear conditions**.
3. Air defense arty provides **air defense of ground forces**.
4. Artillery units support **the other arms** under all conditions of combat.
5. Howitzers can be used for indirect fire **at targets screened by hills**.
6. There are **some strongly fortified positions** in the enemy FEBA.
7. The main advantages of rkt arty pieces are **their light weight and lack of recoil**.
8. Depending on its mission Artillery in the US Army is classified as **field arty and air defense arty**.

9. **Guns** are widely used for direct fire.
10. One missile battalion has **a headquarters and headquarters battery and two missile batteries.**

***V. Translate the text without a dictionary.***

**M109 HOWITZER**

The M109 is an American 155mm self-propelled howitzer, first introduced in the early 1960s. It has been upgraded a number of times, most recently to the M109A7. The M109 family is the most common Western indirect-fire support weapon of maneuver brigades of armored and mechanized infantry divisions.

The M109 has a crew of six: the section chief, the driver, the gunner, the assistant gunner and two ammunition handlers. The gunner aims the cannon left or right (deflection\*), the assistant gunner aims the cannon up and down (quadrant\*). The M109A6 Paladin needs only a crew of four: the commander, driver, gunner and ammunition loader.

The British Army replaced its M109s with the AS-90. Several European armed forces have or are currently replacing older M109s with the German PzH 2000. Upgrades to the M109 were introduced by the U.S. and by Switzerland (KAWEST). With the cancellation of the U.S. Crusader and Non-Line-of-Sight Cannon\*, the Paladin will remain the principal self-propelled howitzer for the U.S. for the foreseeable future.

*Specifications*

- Weight- 27.5 tons
- Length – 30 ft (9.1 m)
- Width – 10 ft 4 in (3.15 m)
- Height – 10 ft 8 in (3.25 m)
- Crew – 6 (2 Loaders, Gunner, Assistant Gunner, Commander, Driver)
- Shell – separate loading\*, bagged charge\*
- Caliber – 155 mm L/39 caliber
- Traverse – 360°
- Rate of fire, maximum: 6 rpm\*
- Rate of fire, sustained: 3 rpm
- Effective firing range, conventional: 18 km (11 mi)
- RAP\*: 30 km (19 mi)

\*deflection – корректура целика

\*quadrant – арт угол возвышения

\*Non-Line-of-Sight Cannon – орудие для стрельбы не прямой наводкой

\*separate loading – раздельного заряжания

\*bagged charge – заряд картузного заряжания

\*Rpm – rounds per minute

\*RAP – rocket assisted projectile – активно-реактивный снаряд

## VI. Find English equivalents:

1. полевая артиллерия,	a) aerial target
2. вооружение	b) forward edge of the battle area
3. передний край обороны	c) field artillery
4. усиление	d) equipment
5. полевой склад боеприпасов	e) ground troops
6. непосредственная поддержка	f) reinforcement
7. зенитная артиллерия	g) general support
8. заградительный огонь	h) indirect fire
9. вести огонь на подавление	i) to deliver neutralizing fire
10. огонь на уничтожение	j) direct support
11. огневая позиция	k) air defense artillery
12. общая поддержка	l) destructive fire
13. огонь с закрытых позиций	m) barrage
14. наземные войска	n) firing position
15. воздушная цель	o) ammunition dump

## VII. Translate into English.

1. Какие рода войск вы знаете? На какие типы делится артиллерия? Может ли огонь артиллерии повлиять на ход боя? Какова основная задача артиллерии?
2. Ваш дивизион будет поддерживать наступление? Когда он должен открыть огонь? Где будет поставлен заградительный огонь? Какие дивизионы будут использованы для непосредственной поддержки наступающих частей?
3. Где находятся огневые позиции вашей батареи? Каков калибр ваших орудий? Орудия в вашей батарее самоходные? В состав какого дивизиона входит ваша батарея? Какова задача вашей батареи?

\* \* \*

1. Основная задача артиллерии поддерживать огнем наземные войска.
2. Артиллерия может вести огонь не прямой наводкой по наземным целям.
3. Она ведет огонь на уничтожение и на подавление.
4. Артиллерия прикрывает развертывание наступающих частей и их продвижение к переднему краю обороны противника.
5. Для того, чтобы остановить наступление противника, используется заградительный огонь.
6. Артиллерия ведет огонь на подавление артиллерии противника.

7. Основными частями и подразделениями артиллерии являются батареи и дивизионы.
8. Существует два типа артиллерии: полевая и зенитная.
9. Полевая артиллерия – это основное средство оказания огневой поддержки наземным войскам. Она может вести огонь по целям в условиях применения ядерного оружия или обычных видов оружия.
10. Полевая артиллерия оснащена артиллерийскими орудиями, ракетами и имеет на вооружении средства для управления огнем, маневра, наблюдения и разведки, и связи.
11. Орудия полевой артиллерии могут быть буксируемыми и самоходными.
12. Зенитная артиллерия – это основное средство противовоздушной обороны наземных войск.
13. Зенитная артиллерия оснащена артиллерийскими орудиями, управляемыми ракетами и средствами для обнаружения цели, распределения огня по целям, связи и передвижения.
14. Зенитная артиллерия ведет огонь по быстро движущимся воздушным целям.
15. Орудия зенитной артиллерии подразделяются на стационарные, буксируемые, самоходные и переносные.
16. Пушки и гаубицы состоят из ствола в сборе, затворного механизма и лафета.
17. По своим огневым характеристикам артиллерийские орудия делятся на пушки, гаубицы и минометы.
18. Пушка – это вид орудия, имеющего относительно длинный ствол, сравнительно малый угол возвышения, высокую начальную скорость снаряда, большую дальность действия и почти настильную траекторию
19. Гаубица имеет ствол средней длины, относительно большой угол возвышения, умеренно крутую траекторию и среднюю начальную скорость снаряда.
20. У миномета по сравнению с гаубицей большой угол возвышения, более крутая траектория, более короткая дальность действия и более низкая начальная скорость снаряда.

#### **VIII. Translate as *q u i c k l y* as possible:**

to be not capable of independent action; оказать огневую поддержку; attack hostile reserves; полевая артиллерия; perform counterbattery fire; зенитная артиллерия; to deliver fire on ground targets; наблюдение и разведка; fire control; обнаружение цели; towed and self-propelled cannons; легкое (малокалиберное) орудие, орудие среднего калибра, тяжелое

(крупнокалиберное) орудие; fire distribution; поддерживать другие рода войск; portable; вести огонь с закрытых позиций; an arm of long range combat; быть оснащенным различными арт.орудиями; to inflict heavy losses in manpower and materiel; при любых условиях боя; to cover the deployment of friendly troops; подразделяться на ствольную и реактивную; the main mission of air defense arty; полевые склады боеприпасов; to move to the FEBA; настильная траектория; to be organized into batteries and battalions; бронебойный снаряд; direct fire; прицел; HE shell; начальная скорость; curved trajectory; угол возвышения; barrel assembly; лафет; recoil mechanism; люлька; elevating mechanism; затворный механизм; traversing mechanism; заградительный огонь; neutralizing and destructive fire

### **IX. Answer the following questions:**

1. What is artillery? How does it act?
2. What is the primary mission of arty?
3. What is the role of arty in the offensive and in the defense?
4. In what way is arty organized?
5. What types of arty do you know?
6. What is FA? What is FA equipped with?
7. What kinds of FA cannons do you know?
8. What is the mission of ADA? What is ADA equipped with?
9. What is the classification of ADA guns?

\* \* \*

1. How can arty pieces be referred to according to their design and principle of operation?
2. What groups are cannons divided into according to their firing characteristics?
3. What is a gun? Where are they used?
4. What is a howitzer? What are they used for?
5. What is a mortar? Where can they be used?
6. What are principal advantages of rocket arty?
7. What is the most essential part of an arty piece?
8. How do we call the hollow part of the tube?
9. Where is the barrel placed?
10. What does the cradle hold besides the barrel?
11. What is the principal part of the breech mechanism?
12. Where are all the parts of the piece mounted?
13. What does the carriage contain?

### **X. Retell texts A and B.**

## **XI. Two –way translation.**

1. Каков состав дивизионной артиллерии? – *Division artillery consists of a division artillery headquarters and headquarters battery and units organic to div arty.*
2. Кому подчиняется дивизионная артиллерия? – *Division artillery is placed under command of the division artillery commander.*
3. От чего уязвима артиллерия? – *Artillery is vulnerable to enemy air attack and nuclear fire.*
4. Что включает в себя гаубичная батарея? – *Each howitzer battery usually includes a battery HQ, a firing battery, a liaison section and an ammunition section.*
5. А что такое гаубица? – *A howitzer is a cannon with a medium length barrel operating with a relatively high angle of fire, moderately curved trajectory.*
6. Объясните, что такое подкалиберный снаряд. – *Sabot is the name for an armor piercing tank shell. A small superheavy tungsten alloy or depleted-uranium penetrator is fixed to a larger boot or sabot, which is the same size as the tank's main gun barrel. When the round is fired, the sabot falls away as it leaves the barrel freeing the penetrator for its flight to the target.*

\* \* \*

1. В какой части вы служите? – *In the artillery battalion attached to the 3 rd Brigade.*
2. Где находятся артиллерийские позиции вашего дивизиона? – *They are west of the separate hill which is about 3-3,5 km south of the inhabited locality of N.*
3. Вы видели позиции ракетных установок? – *No, I haven't, but I have heard that the rockets were concentrated in the area of wood "Green".*
4. Кто сказал вам об этом? – *Major Irving has. He commands the 155 mm howitzer battalion.*
5. Знаете ли вы, когда должно начаться наступление? – *No, I don't.*

## **S U P P L E M E N T A R Y   T E X T S**

### **1. ARTILLERY TECHNIQUES**

In artillery technique the difference between “direct” and “indirect” fire is substantial. “Direct” fire means that each gun crew makes its own **adjustments** on a target which it can see by sighting down or along the tube of the piece or by the use of a simple aiming device. The “indirect” fire mode places the guns in four- or six-gun batteries behind a hill or other protection where they cannot see or be seen by the target. Their fire is adjusted by forward **observers**, who can see the target through a



battery **fire direction center** near the guns. Normally, “indirect” fire is far superior to “direct” fire in that it is more flexible, it offers more protection to the guns and crews, and above all, it permits the quick fires of a number of guns. “Indirect” fire requires good **signal communication** and well-trained observers and **fire-direction personnel**.

**Words which will help you to translate the text:**

1. adjustment – корректировка
2. observer – наблюдатель, корректировщик огня
3. fire-direction center – пункт управления огнем
4. quick fire – беглый огонь
5. signal communication – связь
6. fire-direction personnel – личный состав, управляющий огнем

## **2. A TYPICAL TARGET ENGAGEMENT OF THE VULCAN AIR-DEFENSE SYSTEM**

The gunner first observes the target visually or the system may be tied into a radar that alerts the gunner to the approximate **heading** and altitude of the target. The gunner then acquires the target in his sight and starts to track the target using a **gun-sight**.

The **I-band pulse-Doppler radar** mounted on the right side of the turret is **served** to the optical line of the sight and provides target range and **range rate** data to the right generator. With other information the sight automatically computes the future position of the target and then adds **super-elevation** required to hit the target. When the target is within range a green range light appears in the sight optics thus informing the gunner not only that the radar has acquired the target and is performing its functions but also that the target is within the effective range of the 20-mm cannon so avoiding the waste of valuable ammunition.

**Words which will help you to translate the text:**

1. heading – направление движения, курс
2. gun-sight – стрелковый прицел
3. I-band pulse-Doppler radar – доплеровская РЛС, работающая в I-диапазоне (от 8 до 10 ГГц)
4. servo – дистанционно управлять
5. range rate – скорость изменения дальности
6. super-elevation – любые большие углы вертикального наведения

## **3. ANTI-AIRCRAFT ARTILLERY**

Most countries today employ a mix of guns and missiles to defend their

forward units in the field. Anti-aircraft guns employ sophisticated tracking and fire-control systems, making them a serious threat to ground attack aircraft. Guns and missiles are complementary\*, the missile taking care of the longer ranges and the guns providing close-in defense.

Anti-aircraft guns may be self-propelled and towed, the latter are not only much cheaper than their self-propelled counterparts but are easier to maintain and operate. In most cases, moreover, they may be rapidly transported by aircraft or helicopters to where they are most needed. Towed anti-aircraft guns are also widely used to defend static areas such as supply **dumps**, airfields and command centers. In these cases they are often integrated into an overall air-defense system.

The standard anti-aircraft gun in US Army service is the Vulcan available in tracked self-propelled (M163) and wheeled towed (M167) forms. The M163 is deployed in battalions each of which has two batteries of 12 guns. The towed M167 is used mainly by airborne divisions.

The M163 consists of a standard M163 chassis on top of which an electrically-operated turret fitted with a 20-mm six-barreled M61 cannon has been mounted. The turret can be traversed through 360 degrees at a speed of 60 degrees per second and the gun elevated from – 5 degrees to + 80 degrees at 45 degrees per second. The gunner can select rates of fire of 1,000 or 3,000 round per minute for use with ground or airborne targets and he can select bursts of 19, 30, 60 or 199 rounds.

Ammunition types that can be fired include **armor piercing tracer, high explosive incendiary, high explosive incendiary-tracer**. All have a muzzle velocity of 1030 m per second. Maximum effective range in the anti-aircraft role is 166m and in the ground role 3000m. 1,100 rounds of ready-use ammunition are carried with a further 1,000 rounds in reserve.

#### **Words which will help you to translate the text:**

1. dump – полевой склад
2. armor piercing tracer – бронебойно-трассирующий снаряд
3. high explosive incendiary – фугасно-зажигательный снаряд
4. high explosive incendiary-tracer – бронебойно-зажигательный трассирующий снаряд

#### **\* Notes:**

complementary – дополняющие друг друга

#### **4. THE M270 MULTIPLE LAUNCH ROCKET SYSTEM (V270 MLRS)**

The M270 Multiple Launch Rocket System (M270 MLRS) is an armored, self-propelled, multiple rocket launcher; a type of rocket artillery.

The weapon can fire guided and unguided projectiles up to 42 km (26 mi). Firing ballistic missiles, such as the U.S. Army Tactical Missile System—ATACMS, it can hit targets 300 km (190 mi) away; the warhead in such shots reaches an altitude of about 50 km (164,000 ft). The M270 can be used in *shoot-and-scoot* tactics, firing its rockets rapidly, then moving away to avoid counter-battery fire. The M270 MLRS weapons system is collectively known as the M270 MLRS Self-propelled **Loader**/Launcher (SPLL). The SPLL is composed of 3 primary subsystems: the M269 Loader Launcher Module (LLM), which also houses the electronic Fire Control System, is mated to the M993 Carrier Vehicle. The M993 is a derivative of the Bradley Fighting Vehicle chassis. The rockets and ATACMS missiles are contained in interchangeable *Pods*. Each pod contains six standard rockets or one guided ATACMS missile; the two types cannot be mixed. The LLM can hold two pods at a time, which are hand-loaded using an integrated winch\* system. All twelve rockets or two ATACMS missiles can be fired in under a minute. One launcher firing twelve rockets can completely blanket one square kilometer with *submunitions*. For this reason, the MLRS is sometimes referred to as the "Grid Square Removal System" (metric maps are usually divided up into 1 km grids). A typical MLRS cluster salvo consisted of three M270 vehicles each firing all 12 rockets. With each rocket containing 644 M77 grenades, the entire salvo would drop 23,184 grenades in the target area. However, with a two percent *dud* rate, that would leave approximately 400 undetonated bombs scattered over the area that would endanger friendly troops and civilians.

### **Words which will help you to translate the text:**

1. multiple launch rocket system (MLRS) – реактивная система залпового огня
2. shoot-and-scoot – «выстрелил – сменил позицию»
3. loader – транспортно-заряжающая машина, погрузчик
4. pod – контейнер, контейнерная пусковая установка
5. submunitions – суб-боеприпасы
6. dud – неразорвавшийся боеприпас, отказавшее оружие

### **\* Notes:**

winch – лебедка

## **5. GUNS AND HOWITZERS**

Guns and howitzers are an essential part of the modern battlefield scene. As one of the vital components of the combined arms concept with armor, infantry, engineers and helicopters, self-propelled artillery has a vast array of fire control aids and types of ammunition available in order to produce exactly the amount of fire to suit any situation.

Modern armies have become increasingly mechanized and as towed guns could

not be expected to keep up with these units self-propelled guns and howitzers were developed and deployed on a large scale. These are mostly of 203-mm (8in), 155-mm (6,1in) and 105-mm (4,13in) calibers, the most effective being the 155-mm weapon which can also fire a nuclear projectile.

The introduction of artillery- and mortar-locating systems such as the American AN/TPQ-36 and AN/TPQ-37 has meant that artillery weapons can now easily be located and identified and counter-battery fire quickly brought to bear\*. This means that in future conflicts artillery will fire only for a short period before moving off to a new fire position, for static location will surely entail\* neutralization.

Despite all these advantages of self-propelled artillery the towed weapon still has an important part in modern armies. There are still, even in the United States, a number of basic infantry divisions that rely on trucks to transport much of their personnel.

For this type of unit, and for reserve units, towed systems have been developed and deployed. Towed weapons are also much cheaper to produce, maintain and operate than their self-propelled counterparts. While most of the Western systems are of 155-mm (6.1-in) caliber, light 105-mm caliber and **pack howitzers** are widely used for airborne, **commando**, marine and **alpine** units, the 155-mm systems often being too heavy for deployment in the terrain encountered by such units.

Artillery weapons are of little use without the full range of fire-control aids that now include surveillance and locating radars, **sound-ranging equipment**, battalion and battery computers, **position and azimuth determining systems**, RPVs and surveillance aircraft/helicopters, laser rangefinders and meteorological stations, to name just a few.

### **Words which will help you to translate the text:**

1. pack howitzer – выючная (горная) гаубица
2. commando – диверсионно-десантный
3. alpine – горный (альпийский)
4. sound-ranging equipment – оборудование звуковой разведки
5. position and azimuth determining systems – системы определения местоположения и азимута
6. RPV = remotely-piloted vehicles – беспилотные летательные аппараты

### **\* Notes:**

bring to bear – пускать в ход, применять

entail – повлечь за собой, вызывать

## **2.4 ВОЗДУШНО-ДЕСАНТНЫЕ ВОЙСКА**

### **AIRBORNE TROOPS**

#### **A. General**

Airborne troops are designed to perform airborne operations. Usually they are not committed on missions that can be performed by other cbt forces.

The mission assigned to abn forces determines the type of an operation to be conducted. As to their duration the abn operations can be of short- and long-duration. An abn raid is normally a short-duration operation while a large-scale operation conducted deep in the enemy's rear is usually a long- duration operation that requires a buildup by airlines of comm and a linkup between two forces.

Abn forces are airlifted from bases by AF aircraft to conduct abn assault operations. Abn assault can be performed in two ways: by prcht and in air-landing mode. Prcht elms normally make the initial aslt. Air-landed units then move into protected landing areas. When required, abn ops can be conducted entirely by prcht. Air-landed units can conduct aslt ops without having been preceded by a prcht aslt if the landing area is undefended, lightly defended, or neutralized.

The abn force is most vulnerable to en atk, particularly armd and mech forces, immediately after landing. Cbt elms land on their objects or as close to them as possible. They are organized to execute gnd tac plan and to avoid presenting profitable tgts. Individuals carry only essential cbt equipment. Additional equipment and supplies are dropped as separate load or are landed by aslt acft.

#### **B. Airborne Operations**

Abn trps are those gnd units whose primary mission is to make aslt landing from the air.

The abn div is a combined arms team consisting of a common div base, nine abn inf bns and one 90 mm SP antitank bn.

An abn op involves the air mvmt into an objective area of cbt forces and their logistic spt for execution of a tac or strat msn.

There are three principal phases of an abn op: mounting phase, air movement phase, and assault phase. A locality where assigned forces of an abn op, with their equip, are assembled, prepared and loaded in acft, is referred to as a mounting area.

Air movement comprises air transport of units, personnel, supplies, and equip including airdrops and air landings.

Airdrop or unloading of personnel or materiel from aircraft in flight is exercised upon a specified area called drop zone (DZ). A specified zone within an obj

area used for the landing of acft is referred to as a landing zone (LZ). The area seized in the aslt phase of an abn op is called airhead.

An aslt phase begins with delivery by air of the aslt echelon of the abn force into the obj area and extends through atk of aslt objectives and consolidation of the initial airhead.

## **ACTIVE TERMS AND EXPRESSIONS**

### **A.**

airborne troops (abn trps)	воздушно-десантные войска
airborne operation (abn op)	воздушно-десантная операция
airborne raid	воздушный налет (нападение); воздушный десант
short-duration airborne operation	кратковременная воздушно-десантная операция
long-duration abn op	продолжительная воздушно-десантная операция
buildup	наращивание, сосредоточение ( <i>сил и средств</i> )
airlines of communication	воздушные коммуникации
linkup	соединение ( <i>воздушного десанта с наземными войсками</i> )
airlift	перевозка по воздуху
airborne assault operation (abn aslt op)	операция по высадке воздушного десанта
initial assault	выброска (высадка) первого эшелона
parachute element (prcht elm)	парашютно-десантное подразделение
air-landed unit	посадочно-десантное подразделение (часть)
parachute assault (prcht aslt)	выброска парашютного десанта
vulnerable to	уязвимый от
ground tactical plan (gnd tac plan)	план действия воздушного десанта после десантирования
assault aircraft (aslt acft)	транспортно-десантный самолет(ы)

### **B.**

assault landing	высадка (выброска) воздушно-посадочного десанта
airborne division (abn div)	воздушно-десантная дивизия
air assault division (air aslt div)	воздушно-штурмовая дивизия
airborne (infantry) battalion (abn inf bn)	парашютно-десантный батальон

objective area (obj area)	район десантирования
mounting phase	этап сосредоточения и подготовки войск (для десантной операции)
air movement phase	этап переброски (десанта) по воздуху
assault phase	этап выброски (высадки) воздушного десанта
mounting area	район сосредоточения и подготовки войск; исходный район
drop zone (DZ)	район выброски (парашютного) десанта
landing zone (LZ)	район высадки (воздушно-посадочного) десанта
airhead (ahd)	плацдарм десантирования
assault echelon (aslt ech)	первый эшелон
airborne force	воздушный десант, силы воздушного десанта
assault objective	объект высадки (выброски) воздушного десанта
initial airhead	исходный плацдарм десантирования
* * *	
to drop	выбрасывать (десант)
to land	высаживать (десант)

## EXERCISES

### I. Study these translations before reading texts A and B.

#### A.

1. Airborne troops are those ground units whose primary mission is to make assault landings from the air. – *Воздушно-десантные войска включают в себя наземные соединения, части и подразделения, главной задачей которых является высадка десантов с воздуха.*
2. The airborne division is a combined arms team consisting of a common division base, nine airborne infantry battalions and one 90 mm SPAT battalions. – *Воздушно-десантная дивизия представляет собой общевойсковой соединение, состоящее из обычной дивизионной основы, девяти парашютно-десантных батальонов и одного дивизиона самоходных 90-мм противотанковых орудий.*
3. An airborne operation involves the air movement into an objective area of combat forces and their logistic support for execution of a tactical or strategic mission. – *Воздушно-десантная операция включает переброску по воздуху в район*

высадки десанта боевых сил и средств материально-технического обеспечения для выполнения тактической или оперативно-стратегической задачи.

4. **airmobile operations** (Operations in which combat forces and their equipment move about the battlefield in air vehicles under the control of a ground force commander to engage in ground combat) – **аэромобильные боевые действия** (*Боевые действия, в которых боевые части и подразделения с техникой и вооружением под управлением командира наземной группировки перебрасываются по воздуху на поле боя с целью использования их в наземном бою.*)

## **В.**

1. There are three principal phases of an airborne operation: mounting phase, air movement phase, and assault phase. – *Воздушно-десантная операция включает в себя три основных этапа: сосредоточение и подготовка войск, переброска их по воздуху, выброска и ведение боевых действий по захвату плацдарма десантирования.*
2. An assault phase begins with delivery by air of the assault echelon of the airborne force into the objective area and extends through attack of assault objectives and consolidation of the initial airhead. – *Этап выброски (высадки) и ведения боевых действий начинается с момента доставки по воздуху первого (атакующего) эшелона воздушного десанта в район десантирования и охватывает период боя по захвату исходного плацдарма десантирования и закрепления на нем.*
3. A general locality where assigned forces of an airborne operation, with their equipment, are assembled, prepared and loaded in aircraft preparatory to an assault, is referred to as a mounting area. – *Общий район, где войска, выделенные для проведения воздушно-десантной операции, со своей техникой и вооружением сосредотачиваются, подготавливаются и грузятся в самолеты перед десантированием, называется районом сосредоточения и подготовки войск.*
4. Air movement comprises air transport of units, personnel, supplies, and equipment including airdrops and air landings. – *Воздушные перевозки представляют собой перевозки по воздуху подразделений, личного состава, предметов снабжения, вооружения и техники, включая их выброску с воздуха или доставку посадочным способом.*
5. **airdrop** (The unloading of personnel or materiel from aircraft in flight) – **выброска с воздуха** (*Выброска личного состава или боевой техники с самолета, находящегося в полете.*)



6. **drop zone (DZ)** (A specified area upon which airborne troops, equipment, or supplies are airdropped) – **район выброски** (*Назначенный район, в который выбрасываются воздушно-десантные войска, вооружение, техника или предметы снабжения.*)
7. **landing zone (LZ)** (A specified zone within an objective area used for the landing of aircraft) – **район высадки (воздушного десанта)** (*Место, выбранное в районе десантирования, для совершения посадок самолетов.*)
8. **airhead** (The area seized in the assault phase of an airborne operation) – **плацдарм десантирования** (*Район, захваченный на этапе выброски или высадки десанта при проведении воздушно-десантной операции.*)

## II. Decipher the following *a b b r e v i a t i o n s*:

abn ops; mov; cbt; log spt; en; obj; tac msn; strat msn; inf; mech inf div; spting arty; acft; abn cbt ops; sups; aslt; cbt svc spt; cbt spt; gnd cbt; trps; comm.; AF acft; abn aslt ops; nuc; biol; cml; atk; org; FA; comdr; prcht; aslt; catk; armd; armd hel; arty; abn div; aslt ech; tgt; cbt equip; aslt acft

## III. Translate into *E n g l i s h*.

1. Воздушно-десантные войска предназначены для выполнения воздушно-десантных операций.
2. Воздушный налет (нападение) является кратковременной воздушно-десантной операцией.
3. Воздушный десант перевозится по воздуху с баз ВВС.
4. Высадка первого эшелона осуществляется парашютно-десантными подразделениями.
5. Посадочно-десантные подразделения могут проводить операции по высадке десанта без помощи парашютно-десантных подразделений, если район десантирования не укреплен, слабо укреплен или это нейтральная территория.
6. Воздушный десант наиболее уязвим для атаки противника сразу же после приземления.

\* \* \*

1. Основная задача воздушно-десантных войск – высадка воздушно-посадочного десанта.
2. Воздушно-десантная операция включает переброску по воздуху в район десантирования боевых подразделений и их материально-техническое обеспечение для выполнения тактической или стратегической задачи.

3. Существуют три основных этапа воздушно-десантной операции: этап сосредоточения и подготовки войск, этап их переброски по воздуху и этап выброски.
4. Местность, где собираются, готовятся и грузятся на самолеты боевые подразделения для воздушно-десантной операции, называется районом сосредоточения и подготовки войск.
5. Этап переброски включает перевозку по воздуху людей, оборудования, боеприпасов и т.п., включая выброску парашютного десанта и его высадку.
6. Этап выброски воздушного десанта – это доставка по воздуху первого эшелона воздушного десанта в район десантирования, атака объекта высадки и закрепление на плацдарме десантирования.

#### ***IV. Translate as quickly as possible:***

воздушно-десантные войска; airborne raid; кратковременная воздушно-десантная операция; buildup; воздушно-десантная операция; long-duration airborne operation; воздушные коммуникации; airlift; выброска первого эшелона; airborne assault operation; парашютно-десантное подразделение; ground tactical plan; транспортно-десантный самолет; to drop; район десантирования; assault landing; район сосредоточения и подготовки войск; air movement phase; район выброски парашютного десанта; assault phase; плацдарм десантирования; landing zone; объект высадки десанта; airborne force; соединение воздушного десанта с наземными войсками; airborne division; уязвимый; airborne (infantry) battalion; первый эшелон; air assault division; исходный плацдарм десантирования

#### ***V. Answer the following questions.***

1. What are abn troops designed for?
2. What is a short-duration operation?
3. What is meant by a long-duration operation?
4. Where are abn forces airlifted from?
5. What is the difference between parachute elements and air-landed units?
6. What is the abn force most vulnerable to?
7. What are cbt elements organized for?
8. In what way are additional cbt equip and supplies delivered to the cbt elms?

\* \* \*

1. What is the primary mission of abn troops?
2. What elms does an abn div consist of?
3. What does an abn operation involve?
4. What are the principal phases of an abn op? Characterize them.

5. What is a mounting area?
6. What is called a drop zone (DZ)?
7. What is referred to as a landing zone (LZ)?
8. What is an airhead?

## **VI. *R e t e l l   t e x t s   A   a n d   B.***

## **VII. *T w o – w a y   t r a n s l a t i o n.***

1. Какова организация воздушно-десантной дивизии? – *The abn division is a combined arms team consisting of a common div base, nine abn infantry battalions and one 90 mm SPAT battalion.*
2. Поясните термин “посадочно-десантный”. – *An air-landed unit is moved by air and disembarked, or unloaded, after the aircraft has landed or while a helicopter is hovering.*
3. Что включает в себя воздушно-десантная операция? – *An airborne operation involves the air movement into an objective area of combat forces and their logistic support for execution of a tactical or strategic mission.*
4. А что такое аэромобильные боевые действия? – *An operation in which combat forces and their equipment move about the battlefield in air vehicles under the control of a ground force commander to engage in ground combat.*
5. Чем отличаются аэромобильные операции от других наземных операций? – *Airmobile operations are similar to other ground combat operations, but differ in that they are usually executed in lightly defended areas or after a preassault nuclear or nonnuclear preparation with the advantage of initial tactical surprise.*
6. Когда воздушно-десантные войска являются наиболее уязвимыми? – *Abn forces are particularly vulnerable during landing and assembly. Especially to enemy armor.*
7. Воздушно-десантные войска способны совершать рейды или налеты. Что это такое? – *An operation, usually small scale, involving a swift penetration of hostile territory to secure information, confuse the enemy, or destroy his installations, is referred to as a raid.*
8. От чего зависит выбор вида воздушного десанта? – *The type of assault depends on the mission, terrain and weather in the objective area, enemy capabilities, forces available, and planned time of unit linkup, reinforcement, or withdrawal.*

## SUPPLEMENTARY TEXTS

### 1. US ARMY DIVISIONS

Currently there are two basic types of forces in the active duty inventory\*: “heavy” and “light”. The heavy forces are mechanized and armored divisions in the inventory such as the 4th Infantry Division (Mechanized), the 1st Cavalry Division, the 1st Armor Division, and so on.

These divisions are similarly equipped with tanks (M1As) and armored personnel carriers (M113) or mechanized infantry fighting vehicles (M2/3 Bradley). The “heavy” forces are so heavy that they are incapable of being rapidly deployed by air in significant numbers. For example, the C-5A/B can carry two M1s or four M2/3s. A C-17 can carry one M1 and one M2/3. It would take approximately 25 C-17s or 19 C-5s just to fly the M1s and M2/3s to move just one M1 and M2/3 battalion *task force*. The light forces are the 82d, 101st and Infantry Divisions (Light).

The 82d is the only airborne division in the inventory. The greatest value of 82d and its subordinate units lies in their ability to conduct “*forces entry*” operations and in catching the enemy unprepared at a place and time of our choosing. The 82d is not expected to be involved in protracted\* ground operations; rather it is supposed to be used to conduct airborne assaults to facilitate the introduction of other forces.

Similarly, 101st is essentially a traditional infantry division with one notable difference. Its unique asset\* is the large number of helicopters it possesses. Organizationally, the primary difference between 82d and 101st is that the 82d has a battalion of light tanks whereas the 101st has many more helicopters. As such, the tactical employment of the infantry battalions of the 101st in ground is not dramatically different from that of the battalions of the 82d.

The Infantry Division (Light), or ID(L), is a relatively new design. The ID(L) can be deployed by air much easier than any other division formation in the inventory. The current table of organization and equipment (TOE) of ID(L) gives the impression that it must respond to the 500-*sortie*-requirement (to keep the division rapidly deployable); fight in “low-intensity conflict” situations, provide for a “leg” infantry force to complement existing heavy forces in tactical operations, and get back to being real “infantrymen” after the advent of the “armored infantry” as typified\* by the M2-clad\* infantrymen. Like all units, the ID(L) has a specific TOE which calls for rifle squads of nine men instead of 11-men squad of other divisions. This means a cumulative loss of 486 infantrymen to an ID(L). Each company has a six-men 60mm mortar section, a 13-men anti-armor weapon section of six “Dragon” M47 anti-armor rocket launchers. Individual infantrymen are issued the light anti-armor weapon (LAW). Each rifle platoon is assigned two M60 machine-guns, six squad automatic weapons and six M203 grenade launchers. The ADA battalion has

two Stinger batteries. The division's general support artillery battery has two platoons of four 155mm guns.

**Words which will help you to translate the text:**

1. task force – оперативная (тактическая) группа, оперативное соединение
2. “forces entry” operations – операции по силовому вторжению войск при противодействии противника
3. sortie – (самолето) вылет

**\*Notes:**

inventory – боевой состав

protracted – длительный, затяжной

asset – ценное качество

typify – служить типичным примером, олицетворять

clad – эд. оснащенный

## **2. ACCURATE PARACHUTE ASSAULT**

Division elements work with a new system that allows accurate parachute assaults during bad weather. The system – called Adverse Weather Air Delivery System (AWADS) – enables the division to release units onto drop zones (DZ) that are obscured by fog or haze and in other conditions which otherwise preclude\* parachute operations. The benefits of his method of deployment include strategic and tactical **surprise**, **deception** and flexibility.

Recently, selected artillery and reconnaissance units of the division have begun testing a new tri-dimensional parachute assault concept made possible by several technological achievements. The tri-dimensional concept drops elements of the assault brigade from different altitudes. The first combat elements that are to **secure** the airhead are dropped at altitudes of 700 to 1,000 feet above the DZ. The use of the ballistic reserve parachute, attached by a **cartridge** firing it into a slipstream\*, will enable troopers to drop at altitudes lower than 900 feet. Once the DZ is cleared heavy drop platforms are lowered from an altitude of 1,500 feet. Added 500 feet insure opening of the third G11 parachute, which many loads require. These weapons and vehicles are color-coded with brilliant panels on top to make them readily identifiable from the air.

Following the heavy drop by about five minutes and from an altitude of 2,000 feet, weapons crews and vehicles operators drop by using the MC1-1 **steerable** parachute which gives the jumper a forward thrust of six to eight knots on a calm day. Using simple **toggles** hanging from the **suspension lines** the jumper can steer his parachute in any direction towards his load. He can avoid air and ground obstacles and turn into wind for a nearly vertical landing. This lateral aerial movement clearly

saves valuable assembly time, so critical in the early stages of a parachute assault. Other troopers, from an adjusted computed air-released point, and jumping from 2,500 feet, also use the MC1-1 to land on or near selected critical areas. Examples of these specialized units and groups are reconnaissance teams to seize an observation post or to establish a **roadblock** at critical **avenues of approach** into the airhead; **demolition** teams to rapidly seize bridge sites and prepare to blow them should the need arise; other special teams to land near POL (petroleum, oil, lubricants) storage or other critical facilities to prevent their destruction by the enemy.

**Words which will help you to translate the text:**

1. surprise – внезапность
2. deception – введение в заблуждение
3. secure – захватывать, «зачистить»
4. cartridge – пиропатрон
5. steer – управлять
6. toggle – фал
7. suspension lines – стропы
8. roadblock – заграждение на дороге
9. avenue of approach – подступ
10. demolition – подрывные работы

**\*Notes:**

preclude – мешать, препятствовать  
slipstream – воздушный поток

## **2.5 ВОЙСКА СВЯЗИ**

### **SIGNAL CORPS. COMMUNICATIONS**

#### **A. General**

The success of modern warfare depends largely on adequate signal communication.

The Signal Corps is a combat support branch with the mission of planning, installing, operating and maintaining the Army's worldwide communication system.

The Army depends upon the Signal Corps to provide the communication required by the Army commander for his operational needs. To meet this requirement there are two kinds of communication systems in the US Army. They are the command communication system and the area communication system.

A field army signal brigade is the signal organization which provides an area comm sys and a command comm sys for a field army. The brigade includes the various organic sig bns to plan, install, maintain and operate the network of the command comm sys serving from the field army HQ down to each combat brigade. Also, at each cbt bde there is a Signal Corps officer who serves as the bde Communication-Electronics Officer. Every battalion placed under the cbt bde has its own C-E off in charge of organic communications and in command of the bn comm plat.

#### **B. Communications Means**

The means of signal communication fall into four groups: messengers, sound signals, visual signals, and electrical/electronic signals.

Messenger communication is the most secure of the means used by infantry units and the best means for transmission of long messages over short distances.

Sound signals are any signals received by the unaided ear and transmitted by whistles, bugles, weapons and other noise-making devices.

A visual signal is any signal received by eye regardless of how it is transmitted.

Means of electrical/electronic communications are of two kinds – wire and radio. Wire comm embraces the use of telephones, switchboards, teletypes and other equipment. Radio comm is maintained by means of sending and receiving stations. The main components of a typical radio set include a receiver, a transmitter (or a receiver-transmitter unit), an antenna (usually a beam or a telescopic rod antenna), dry batteries or a generator to furnish power for the set, a microphone and an earphone.

## ACTIVE TERMS AND EXPRESSIONS

### A.

communication system (comm sys)	система связи
command communication system (comd comm sys)	командная система связи
area communication system (area comm sys)	районная система связи
field army signal brigade	бригада связи полевой армии
command communications (comd comm)	связь командования
network	сеть
Communications-Electronics officer (C-E off)	офицер по связи и электронике; начальник связи

\* \* \*

to install (establish) communications networks	развертывать (устанавливать) сети связи
to operate communications networks (signal centers)	обслуживать (эксплуатировать) сети связи (узлы связи)
to maintain communications networks	поддерживать сети связи в эксплуатационном состоянии
to provide communications	обеспечивать связь

### B.

communications means	вид связи; средство связи
message (msg)	донесение, сообщение; телефонограмма, телеграмма, радиограмма
messenger communications (msgr comm)	связь посыльными
sound communications (snd comm)	акустическая (звуковая) связь
visual communications (vis comm)	зрительная связь
electrical/electronic communications (elec/elct comm)	связь при помощи электрических и электронных средств
wire (cable) communications	проводная связь
radio communications	радиосвязь
switchboard	коммутатор
radio set	радиопередатчик; радиоприемник; радиостанция
receiver (rcvr)	приемник



transmitter (xmtr)	передатчик
receiver-transmitter unit ( <b>transceiver</b> )	приемопередатчик
beam antenna	лучевая антенна
telescopic rod antenna	телескопическая штыревая антенна
earphone	головной телефон

\* \* \*

Operations-Intelligence Net	оперативно-разведывательная сеть связи
Administrative Logistics Net	сеть связи административных и технических служб тыла
General Purpose Net	сеть связи общего пользования
Division Air Request Net	сеть связи для подачи заявок на авиационную поддержку
Division Warning Broadcast Net	радиосеть оповещения дивизии
Division CG (Commanding General) Command Net	командная радиосеть командира дивизии

### Attention!

Термин **communications** является формой множественного числа термина **communication** в значениях *сообщение, путь сообщения (подвоза), коммуникация*. Во всех остальных случаях термины **communications** и **communication** являются синонимами и определяются как *a method or means of conveying information of any kind from one person or place to another*. В функции определения эти термины также взаимозаменяемы. Сравните, **communication system** и **communications system** (*система связи*), **communication personnel** и **communications personnel** (*связисты*), причем существует четко выраженная тенденция замены слова **communication** словом **communications** везде, где они используются как синонимы. Отметим также, что термин **communications** может употребляться в значении *средства связи*.

## EXERCISES

### I. Study these translations before reading texts A and B:

1. **signal communication** (In the US Army the establishment of signal communication between subordinate and superior units is the responsibility of the superior commander) – **связь** (*В сухопутных войсках США установление связи между подчиненными и вышестоящими частями и подразделениями является обязанностью старшего командира.*)

2. **communications system** (Each commander is responsible for installation, operation and maintenance of his unit's communications systems.) – **система связи** (*Каждый командир ответственен за развертывание, обслуживание и содержание в исправности системы связи своей части или подразделения.*)
3. **Signal center (SIGCEN)**. The signal center is a combination of signal communications facilities operated by the Army in the field and consisting of a **communications center**, telephone switching central and other equipment. – *Узел связи – это комплекс средств связи, используемых сухопутными войсками в полевых условиях. Он включает в себя оперативную часть узла связи (центр связи), центральный коммутатор и другое имущество.*
4. Messenger communication is the most secret of the means used by infantry units and the best means for transmission of long messages over short distances. – *Связь посыльными (подвижными средствами) является наиболее скрытым способом передачи информации, используемым пехотными частями и подразделениями, и самым лучшим средством для передачи длинных сообщений на короткие расстояния.*

## II. Read these texts attentively and try to translate some of them from hearing.

### 1.

The mission of the Signal Corps is to provide **signal communication** at all levels of command from the Department of the Army down to frontline units. The Signal Corps is both a combat arm and a technical service. As a combat arm, it provides the communications network for controlling all military operations. As a technical service, the Signal Corps develops, provides, and maintains communication, electronic and meteorological equipment for the Army.

### 2.

The **signal center** is a combination of signal communications facilities operated by the Army in the field and consisting of a **communications center**, **telephone switching central**, and other equipment.

An agency charged with the responsibility for receipt, transmission, and delivery of messages is termed communications center.

Normally the communications center contains a **message center**, a **cryptographic section** and messengers.

The message center is responsible for transmission, receipt, acceptance, processing and distribution of incoming and outgoing messages.

### Words to be remembered:

1. signal communication – связь
2. signal center (SIGCEN) – узел связи
3. communications center – оперативная часть узла связи; центр связи

4. telephone switching central – центральный коммутатор (узла связи)
5. message center – пункт сбора и отправки донесений
6. cryptographic center – шифровальная секция

### 3.

#### **Radar**

Radar is an abbreviation of the phrase “radio detection and ranging”. Every radar consists of six principal components: transmitter, receiver, directional antenna, **timer**, indicator and power supply unit.

The transmitter takes electricity from the power supply and by means of a directional antenna sends out very intense pulses of energy in a narrow beam with intervals between them. The receiver is active during these intervals and receives **echoes** from the objects. The elapsed time between sending pulse and receiving echoes enables us to determine the range to the target while the fact that the antenna is directional permits the determination of azimuth and **elevation** of the target.

The received weak echoes are then **amplified** and converted into the form of bright patterns (**pips**) on an indicator screen. The timer serves to synchronize the operations of separate components of the radar set.

#### ***Words to be remembered:***

1. timer – синхронизатор
2. echo – отраженный сигнал
3. elevation – угол места цели, угол прицеливания
4. amplify – усиливать (сигнал)
5. pip – отметка цели на экране индикатора

### 4.

#### **Radio Transmitter**

The transmitter must perform three functions – generate a radio frequency signal, amplify that radio frequency signal and provide a means of placing intelligence on a signal.

The transmitter contains an **oscillator**, circuit to generate the radio frequency signal, **amplifier circuit** to increase the output of the oscillator to the power level required for proper operation, and the modulator circuits which add voice intelligence to the radio frequency signal.

The **modulator** uses the radio signal to vary the amplitude (**AM**), or frequency (**FM**), or phase (**PM**) of the radio frequency signal.

#### ***Words to be remembered:***

1. oscillator – гетеродин
2. amplifier circuit – усилительный контур; контур усилителя
3. modulator – модулятор

4. amplitude modulation (AM) – амплитудная модуляция
5. frequency modulation (FM) – частотная модуляция
6. phase modulation (PM) – фазовая модуляция

## 5

### Radio Receiver

The receiver selects radio frequency signals of the proper frequency, converts the intelligence contained on these signals into a usable form and amplifies signals.

Specially designed circuits readily pass signals of a particular frequency, while rejecting the others.

The receiver uses a **demodulator circuit** to remove the voice intelligence. If the demodulator circuit is sensitive to amplitude changes, it is used in AM sets and is called a **detector**. A demodulator circuit which is sensitive to frequency changes is used for FM reception. This circuit is called a **discriminator**.

The receiver contains amplifiers to amplify the weak radio signals picked up by the antenna into signals of sufficient strength for proper operation of the modulator. In addition, there are amplifiers to amplify the demodulated audio signal to a power level which will operate the **headset** or loudspeaker properly.

Many radio stations employ transceivers. A transceiver is a transmitter and a receiver contained in the same physical unit.

#### ***Words to be remembered:***

1. demodulator circuit – контур демодулятора
2. detector – детектор
3. discriminator – дискриминатор; различитель
4. headset – наушники, головной гарнитур

### ***III. Decipher the following a b b r e v i a t i o n s:***

svc spt; cbt spt br; tac ops; strat comm.; GZ; elct equip; cbt survl; TOE; sig orgn; sig pers; comd comm. sys; biol agt; sig bn; bde; nuc explo; HQ; C-E off; comm. plat; co; SIGCEN; FM; msn; stf; info; tac comm.; elec; msg; vis comm.; vis sig; acft; tgt; gnd; trps; snd comm.; snd sig; en; fwd; msgr; xmsn; PM; xmit; rcvr; AM; cml agt; A-hour

### ***IV. Translate in w r i t t e n f o r m.***

In modern warfare the success of any operation on a battlefield is determined largely by the effectiveness of the control which the commander has over his troops. In short, victory or defeat depends, to a large degree, upon the communications system that the commander has at his disposal.

Each commander is responsible for the installation, operation and maintenance of his unit's communication system and for its functioning as a part of the system of

the next higher unit. He must be familiar with the capabilities and limitations of the means of communication available to him and he should know how these facilities are used to set up a flexible communication system.

The commander has assistants to advise him on communication matters and to install, operate and maintain the unit communication system. The commander exercises both tactical and technical supervision over the unit communication system, including the communication system of all elements of his command. In this way he assures himself that communication is efficiently operated and that it is adequate.

Since adequate communication is very important to a commander, he exercises close supervision over the training of communication personnel. In infantry units, many communication tasks are performed by personnel whom a commander normally designates to receive communication training; they are used as required to augment assigned communication personnel.

#### ***V. Translate into English.***

1. Успех в современном бою во многом зависит от состояния связи.
2. Войска связи – это род войск, осуществляющий боевое обеспечение.
3. Основной задачей войск связи является развертывание и обслуживание сетей связи.
4. Войска связи обеспечивают развертывание двух систем связи: системы связи командования и районной системы связи.
5. Бригада связи полевой армии обеспечивает командную и районную системы связи.
6. В штабе каждой бригады имеется офицер связи.
7. Виды связи делятся на связь посыльными, звуковыми и зрительными сигналами, а также при помощи электрических и электронных средств.
8. Звуковые сигналы передаются с помощью свистка, горна и других звуковых средств.
9. Радиосвязь применяется для управления войсками. Это самый надежный вид связи.
10. Связь посыльными – это лучшее средство для передачи длинных сообщений на короткие расстояния.

#### ***VI. Translate as quickly as possible:***

signal corps; развертывание сети связи; to provide communication; командная система связи; area communication system; батальон связи; frequency modulation; поддерживать связь; organic signal company; начальник связи; messenger communication; узел связи; transmitter; приемник; sound signal; зрительные сигналы; receiver-transmitter; радиостанция; transmission of

long messages; самое безопасное средство связи; telescopic rod antenna; средство электрической связи; communication center; коммутатор; earphone; лучевая антенна; amplifying circuit; приемопередатчик; to operate communications network.

## **VII. Answer the following questions.**

1. What does the success of modern warfare depend on?
2. What is the Signal Corps and what is its mission?
3. What two kinds of communications systems are there in the US Army?
4. What is a field army signal brigade formed and employed for?
5. What function does a Signal Corps officer perform at each combat brigade?
6. What means of signal communication do you know?
7. What is the main feature of messenger communication?
8. What devices are sound signals transmitted by?
9. What is meant by visual signals?
10. What are two kinds of electrical/electronic communication?
11. What are the main components of a typical radio set?
12. What kind of equipment is used in wire communication?

## **VIII. Retell texts A and B**

### **IX. Two – way translation**

1. Вы проходили службу в центре связи. Каково его назначение? – *Communication center is an agency charged with the responsibility for receipt, transmission and delivery of messages. It is a part of a signal center.*
2. Что такое радиомолчание? – *Radio silence is a period during which all or certain radio equipment capable of radiation is kept inoperative. Sometimes it is called emission control (EMCON) period.*
3. А что такое **позывной**? – *The **call sign** is any combination of characters or pronounceable words which identifies a communication facility.*
4. Каков порядок установления и поддержания связи между частями и подразделениями? – *Installation and maintenance of communication between units is governed by three general rules:*
  - *the higher unit is responsible for establishing and maintaining communication to the lower unit;*
  - *a unit supporting another by fire is responsible for establishing and maintaining communication to the support unit;*
  - *and lateral communication between adjacent units is established and maintained by the next higher commander. As a rule it is established from left to right.*

5. Кто отвечает за установление и поддержание связи в части или подразделении? – *Each commander is responsible for installation, operation and maintenance of his unit's communications systems.*
6. Кто отвечает за восстановление связи в случае ее потери? – *In this case, its reestablishment is sought by all units affected.*
7. Назовите основные радиосети дивизии СВ США. – *Recommended internal radio nets for operation within the division are:*
- *the Operations-Intelligence Net ;*
  - *the Administrative Logistics Net;*
  - *the General Purpose Net;*
  - *the Division Air Request Net;*
  - *the Division Warning Broadcast Net;*
  - *the Division CG Command Net.*

\* \* \*

### **Radio Communicating** **(Establishing and Maintaining Radio Communication)**

Radio communication is established and maintained by transmitting and receiving messages through sending and receiving stations. Radio stations are organized into radio nets. Radio net is a group of radio sets in direct communications with each other on one or several frequencies in simplex or duplex modes. One of them is the **Net Control Station (NCS)** designated to control circuit discipline. Usually it is the radio station of the superior commander.

In order to identify a radio station when it operates call signs are used. They may be a group of letters, numerals or combination of both, one or more words. **Net call sign** is a collective call sign which represents all stations within a net. Call signs fall into two main categories: confidential and international, the latter being assigned civil and military radio stations of all countries according to international agreement. It is worth mentioning that the first letter or the first two letters of the international call sign indicate the nationality of the radio station.

As to the signals used the radio nets are classified as AM-, FM-, CW-, **Voice-, RATT** nets. The channels may be secure or scrambled and non-secure or clear.

The div comm system has the following internal radio nets: Operations-Intelligence Net (RATT net); Administrative Logistics Net (RATT net); General Purpose Net (RATT net); Division CG Command Net (FM); **Division TOC Net (SSB-Voice).**

All messages transmitted form radio traffic. It includes tactical orders, coordination, intelligence, reports, instructions and so on.

Communicating comprises the establishment of the contact, the transmission of the message and the ending. The call sign of the station being called goes first, then that of the calling station. The words “over”, “out” serve as the ending of the transmission.

### Words to the text:

1. Net Control Station (NCS) – главная радиостанция радиосети
2. net call sign – групповой позывной
3. CW (continuous wave) – телеграфия, телеграфный
4. Voice – телефонный
5. RATT (radio teletypewriter) – радиотелетайп; буквопечатающий
6. Division TOC (Tactical Operations Center) Net – дивизионная сеть связи управления текущими боевыми действиями
7. SSB (single sideband) – ОБП – одна боковая полоса; однополосный
8. “over” – “прием”
9. “out” – “конец связи”

### Структура СЕАНСА СВЯЗИ

Сеанс радиосвязи включает в себя *вызов*, саму *радиограмму* и *концовку* сеанса.

#### **ВЫЗОВ:**

*Alpha 21 this is Bravo 01*, где:

- Alpha 21 – позывной вызываемой радиостанции
- this is = de (в телеграфном радиообмене) – служебное слово “я”, (от такого-то)
- Bravo 01 – позывной вызывающей радиостанции

#### **РАДИОГРАММА:**

1. Номер радиограммы: *msg nr (message number)* ...
2. Инструкция к передаче: *relay to* ...
3. Категория срочности (порядок отправки сообщений) = Message precedence:
  - *flash* (молния)
  - *immediate* (немедленная)
  - *priority* (срочная)
  - *routine* (обыкновенная)
4. Группа “дата-время”: *dtg (date, time group)* ...
5. Отправитель: *frm (from)* ...
6. Адресат – исполнитель: *to* ...
7. Информлируемый адресат: *info* ...
8. Исключенный адресат: *xmt (exempt)* ...
9. Указатель количества групп: *grc (group count)*
10. Гриф секретности.



11. Текст радиогаммы.

12. Пароль: *auth* (*authentication*) ...

**КОНЦОВКА СЕАНСА:**

Over – прием

Out – конец связи

How copied? – как принята радиогамма?

Roger – понял, ясно

В конкретных радиогаммах могут присутствовать не все указанные элементы.

**Пример сеанса связи:**

Golf 22 this is Jumbo 01

msg flws

msg nr 07

relay to Golf 11

o dtg 160101 z

frm JCS

to CINCUSAFE

info CINCUSAREUR

xmt AIG 920

grc 3

unclas

nmi k7l roj – кодированный текст

auth lp

This is Jumbo 01 out

**Особенности языка радиообмена**

Язык радиообмена характеризуется кратким телеграфным стилем, лексическими, грамматическими и фонетическими особенностями (для радиотелефонного обмена).

**Л е к с и ч е с к и е особенности** обуславливают применение специальных слов и выражений, основными из которых являются:

Affirmative	Да, понял, разрешаю
Negative	Нет, не понял, не разрешаю
Break	Разделение (между сообщениями)
Read back	Повторите полученное сообщение
Wilco	Выполняю, понял
Words twice	Передавайте, повторяя слова дважды
Charlie-Charlie	Поняли правильно
Stand by one	Подождите одну минуту

diagonal/slant/ slant-bar/slash/slash-bar	знак дробной черты
z (zulu) = Zulu Time Zone = UTC±0	время по Гринвичу (16.45 <i>zulu</i> )
a (alpha) = Alpha Time Zone = UTC+1	среднеевропейское время (16.45 <i>a</i> )
aig (address indicating group)	адресно-индикаторная группа
условные обозначение категории срочности: z o p r	<i>flash</i> (молния) <i>immediate</i> (немедленная) <i>priority</i> (срочная) <i>routine</i> (обыкновенная)
blank/item/line/ point/part	обозначение пункта как элемента текста формализованной радиограммы
real world traffic	реальный радиообмен
user	абонент
voice	телефонный
copy/read	принимать (радиограмму)
radio check	проверка связи
TOR (time of reception)	время приема
K	служебное слово; “прием” (в телеграфном радиообмене)
Loud and clear	хорошая слышимость (оценка)
1. <i>Quick brown fox jumped over a lazy dog</i> 2. <i>ryryry...</i>	служебные тестовые фразы (группы) для проверки качества канала связи
kilocycle (kcs)/megacycle (mcs)	килогерц/ мегагерц
QSY	указание о смене частоты (международный телеграфный Q-код)
QSL	прием радиограммы (международный телеграфный Q-код)

### ***Г р а м м а т и ч е с к и е о с о б е н н о с т и :***

- при устойчивой радиосвязи некоторые понятные элементы могут опускаться (например, служебное слово *this is* в вызове);
- опускаются вспомогательные глаголы; подлежащие, выраженные личными местоимениями: *will engage (I will engage)*;

- в повелительном наклонении используется инфинитив без частицы *to*: *Proceed psn A (Proceed to psn A)*;
- применение полной отрицательной формы повелительного наклонения: *...Do not answer...*;
- опускаются артикли;
- отсутствие придаточных предложений;

**Фонетические особенности** представлены в следующих примерах:

- произношение цифр 3 [tri:] три; 4 [fouer] фой-эр; 5 [faiver] файв-эр; 7 [seven] сев-эн; 9 [nainer] найн-эр;

**Чтение чисел:**

243	two four three
90	nine zero
at 15.45	at one five four five
700	seven hundred
2,600	two six hundred
7,000	seven thousand
18,000	one eight thousand
17,500	one seven thousand five hundred
236.2	two three six decimal (point) two
411	four double one /four one one
5,666	five triple six/five six six six
2,010	twenty ten
1,730	seventeen thirty
1 1/8	one and one eighth
5/8	five eighths
1/2	one half или half
1/4	one quarter или quarter
0.5	decimal five или point five

Применение фонетического алфавита, т.е. условных обозначений каждой буквы алфавита определенным словом, начинающимся с этой буквы. Передача букв с помощью фонетического алфавита называется **бухштабированием**. При приеме и записи фонетическим алфавитом следует иметь в виду, что в условиях слабой слышимости и помех возможно фонетическое совпадение следующих букв:

*f – o (foxtrot – oscar)*

*p – a (papa – alpha)*

Использование бухштабирования в радиообмене обозначается словом *spell*:

*I spell...; Spell it...*

Слово, написание которого передается бухштабированием, сначала произносится целиком, затем оно передается буквами фонетического алфавита, после чего оно еще раз произносится полностью:

*Clark I spell charlie lima alpha romeo kilo Clark*

При записи слов, передаваемых бухштабированием, буквы должны выделяться:

*f.l.i.g.h.t. или f-l-i-g-h-t*

## S U P P L E M E N T A R Y T E X T S

### 1. THE NATIONAL COMMUNICATIONS SYSTEM

**NCS** is charged with providing necessary communication for the Federal Government under all conditions ranging from a normal situation to national emergencies and international crises including nuclear attack. It incorporates the communications assets\* from the Department of State, Department of Defense, Federal Aviation Administration, National Aeronautics and Space Administration (NASA) and other departments and agencies.

NCS evolved as an answer to the idea of unified government telecommunications capable of responding to any national emergency or crisis situations. These situations include major disasters, national mobilization, intelligence activities, diplomacy, conventional war, protracted nuclear war and postwar recovery.

Such state-of-the-art technologies and services as fiber optics, **photonic switching**, mobile satellite communications, Integrated Services Digital Network (**ISDN**) and network management protocols will be key to developing survivable system.

#### **Words which will help you to translate the text:**

1. NCS=National Communications System – Федеральная система связи США
2. photonic switching – оптическое, фотонное переключение
3. ISDN= Integrated Services Digital Network – цифровая сеть с единым сервисом

#### **\*Notes:**

assets – имущество, зд. узлы связи

## 2. DEFENSE COMMUNICATIONS SYSTEM

**DCS** provides communication to meet world-wide military command and control requirements. The baseline of DCS consists of several interrelated subsystems and facilities. It includes:

- **Defense Switched Network (DSN)**
- **Automatic Digital Network**
- Defense Satellite Communication System (**DSCS**)

DCS supports Command and Control, Intelligence and Logistics. It also must interface with **theater/tactical systems** including naval forces at sea, joint Task Forces and the communication systems of allied nations. The Defense Switched Network (DSN) is a primary information transfer network for the Defense Information Systems Network (DISN). The DSN provides the worldwide non-secure voice, secure voice, data, facsimile, and video teleconferencing services for DOD Command and Control (C2) elements. DSN evolved from old **AUTOVON** and **AUTOSEVOCOM** systems and incorporates Defense Commercial Telecommunications Network (DCTN), Defense Digital Network (DDN), local **C<sup>3</sup>I switches**, domestic and international commercial long distance telecommunications networks, Federal Telecommunications System. DSN switches are operational overseas: in Europe and in the Pacific regions. DDN is the **packet switching network** implemented to meet DoD data transmission requirements. Long-range plans provide for transition to an integrated services digital network providing improved service, security and survivability.

### Words which will help you to translate the text:

1. DCS – система связи МО США
2. DSN = Defense Switched Network – автоматизированная система связи МО США
3. Automatic Digital Network – автоматизированная система цифровой связи МО США
4. DSCS – система спутниковой связи МО США
5. theater/tactical systems – оперативные/тактические системы
6. AUTOVON – автоматизированная система открытой телефонной связи МО США
7. AUTOSEVOCOM – автоматизированная система закрытой телефонной связи МО США
8. C<sup>3</sup>I = Command, Control, Communication and Intelligence – управление, связь и разведка
9. switch – коммутатор, коммутационный центр
10. packet switching network – сеть (система) пакетной коммутации

### 3. STRATEGIC FORCES COMMUNICATIONS SYSTEM

Key elements include the Primary Alerting System (*PAS*) of Strategic Command, a *voice system* whose prime function is to alert and launch orders to Strategic forces; Giant Talk, an HF/*SSB* radio system for positive control of StratCom airborne forces operated through stations world-wide; Green Pine, an early-warning UHF radio network for communication between aircraft flying in the Arctic region and the STRATCOM command post; a Survivable Low Frequency Communications System (*SLFCS*) and a Post Attack Command and Control System (*PACCS*).

The Ground Wave Emergency Network (*GWEN*) is a major program to provide a survivable communications network for the US Command and Control of strategic forces in times of national emergency. The network provides connectivity via low frequency broadcast-type relay stations throughout the US. If a portion of the network is inoperable or destroyed, messages will be routed to surviving stations.

The US Air Force has initiated a multiphase Scope Signal program to upgrade all HF ground-station radio facilities currently in US Air Force inventory. The Scope Signal network permits under the direction of a single alert panel command the automatic service of up to 12 transmitters at each of 12 stations world-wide within 30 seconds and subsequent voice transmission of Emergency Action Messages from National Command Authorities (*NCA*) to StratCom airborne forces. The network interfaces with the DSN/DCS system and utilizes dual-tone multiple-frequency (dtmf) *signaling* for control and *interconnectivity* of assets.

#### Words which will help you to translate the text:

1. PAS = Primary Alerting System – основная система объявления тревог стратегических сил США
2. voice system – система (радио) телефонной связи
3. SSB = single-side band – однополосный
4. SLFCS= Survivable Low Frequency Communications System – резервная ДВ/СДВ система связи
5. PACCS=Post Attack Command and Control System – резервная система управления стратегических сил США
6. GWEN= Ground Wave Emergency Network – резервная система ДВ связи (ГБЕН)
7. NCA = National Command Authorities – Президент США, верховное главное командование ВС
8. signaling – связь, передача сигналов, вызов
9. interconnectivity – зд. Коммутация

#### 4. TACAMO NAVAL COMMUNICATIONS SYSTEM

The TACAMO system is designed to provide an around-the-clock VLF communications relay system to ensure that the Commander-in-Chief will always be able to communicate with his deployed strategic submarine forces. The name is an acronym derived from the challenge to "*Take Charge and Move Out*"\*. The system is incorporated in a specially modified Lockheed EC-130.

TACAMO is a manned communication relay link for strategic forces generally passing communications only one way from the National Command Authority to other sources to the submarines and other strategic forces. TACAMO is a component of the Minimum Essential Emergency Communication Network (*MEECN*). At present, a complete communications center in the TACAMO aircraft permits simultaneous receive and transmit throughout the frequency range from VLF to UHF. TACAMO receives multiple-frequency low-level signals while simultaneously transmitting at high power in a stressed environment. The vertically-polarized signal is transmitted to the submarines with EC-130 flying in a continuous *tight turn*\*. This allows the antennas to hang vertically from the aircraft.

EC-130 TACAMO aircraft are being replaced by E-6A aircraft. The E-6A is based on the E-3A nuclear-hardened *AWACS* airframe and carries the US Navy's airborne VLF communications system. It's faster and longer-range aircraft than propeller-driven EC-130.

#### Words which will help you to translate the text:

1. MEECN = Minimum Essential Emergency Communication Network – система связи для управления ВС в чрезвычайной обстановке
2. AWACS=Airborne Warning and Control System – самолетная система дальнего радиолокационного обнаружения и управления

#### \* Notes:

“Take Charge and Move Out” – принцип «Прими сигнал и передай его»  
tight turn – крутой поворот

#### 5. SATELLITE COMMUNICATIONS

Satellite communications networks provide voice and data links with US forces around the globe. The US DoD operates four satellite systems: the Defense Satellite Communications System (DSCS), the Fleet Satellite Communications (FLTSATCOM), *Leased Satellite System* (LEASAT) and Military Strategic, Tactical and Relay (Milstar) System.

The US Air Force flies *AFSATCOM transponders* packages on several *host satellites* including the *Satellite Data System* (SDS), FLTSATCOM and DSCS satellites among others.

DSCS satellite system consists of DSCSII and DSCSIII satellites. The latter have anti-jam and nuclear hardened capabilities along with a 10 year lifespan, enhanced super high frequency (**SHF**) and extremely high frequency (**EHF**) capabilities. EHF capability allows the satellite to interact with the Milstar system. The telemetry and ground links are encrypted.

The Milstar system is the cornerstone of a **survivable**, jam-resistant and **secure**, world-wide two-way communications network. It is used to support the strategic and tactical forces of all US services and provides the **minimum essential communications** needed at all potential levels of conflict. The Milstar system places satellites in both high and low inclination geosynchronous orbits. **Cross links** allow messages to be relayed globally without the need for intermediate ground terminals.

In addition to a basic SHF/EHF channels, Milstar has a limited UHF capability to provide service to existing UHF terminals. They provide **multiple spot beams**. Operating frequencies include the upper portion of the SHF band (20GHz) and the lower portion of the EHF band (44 GHz) and provide only narrow-band voice (2.4 kbit/sec) and data (75bits/sec) *for strategic and nuclear critical command and control\**.

The USAF Satellite Communications Program (AFSATCOM) consists of transponder packages. These transponders relay high priority messages between nuclear capable forces such as Strategic Command B-52 bombers and national command authorities.

The FLTSATCOM and LEASAT satellites operate in UHF spectrum. Strategic and nuclear critical command and control services are provided by them. They have a seven-year design life, 12 UHF channels and one Navy Fleet Broadcast channel.

\* \* \*

The DoD currently uses both military and commercial systems to meet its burgeoning\* demand for satellite communications. Military systems operate in the UHF (240-400 MHz) and SHF (8/7 GHz) bands with diverse mix of fixed, mobile, and transportable terminals. Additional communications are provided through leased circuits on commercial C (6/4 GHz) and Ku (14/11 GHz) band satellites. Commercial systems augment military systems in two ways: they provide additional communications channels for routine day-to-day service and offer an alternative transmission path in case of loss or disruption of links over military systems.

\* \* \*

AFSATCOM is survivable satellite command and control communications system for strategic forces. It uses UHF ground terminals which are being installed at Strategic Command posts, intercontinental ballistic missile launch centers and in a number of aircraft, including E-4s, B-52s, B-2s. The space segment uses single channel transponders carried on host satellites.



### **Words which will help you to translate the text:**

1. Leased Satellite System= LEASAT – система арендуемых ВМС спутников связи “Лисэт”
2. AFSATCOM = Air Force Satellite Communications (System) – система спутниковой связи ВВС
3. transponder – ретранслятор
4. host satellite – платформа
5. Satellite Data system = SDS – спутниковая система связи и ретрансляции данных
6. SHF – сверхвысокая частота, частота сантиметрового диапазона волн
7. EHF – чрезвычайно высокая частота, частота миллиметрового диапазона волн
8. survivable – живучий, резервный
9. secure – закрытый, безопасный
10. minimum essential communications – связь в условиях чрезвычайной обстановки
11. cross links – различные способы коммутации
12. multiple spot beams – множество узких лучей

### **\*Notes:**

for strategic and nuclear critical command and control – для обеспечения управления и связи в условиях применения обычного и ядерного оружия  
burgeoning – зд. возрастающий

## **6. GLOBAL COMMAND AND CONTROL SYSTEM GCCS)**

*Global Command and Control System (GCCS)* is the United States' armed forces DoD joint command and control (C2) system used to provide accurate, complete, and timely information for the operational chain of command for U.S. armed forces. "GCCS" is most often used to refer to the computer system, but actually consists of hardware, software, common procedures, standards, and numerous applications and interfaces that make up an “operational architecture” that provides worldwide connectivity with all levels of command. GCCS incorporates systems that provide situational awareness, support for intelligence, force planning, readiness assessment, and deployment applications that battlefield commanders require to effectively plan and execute joint military operations.

GCCS systems comprise various data processing and web services which are used by many applications supporting combat operations, troop/force movements, intelligence analysis and production, targeting, ground weapons and radar analysis, and terrain and weather analysis. Some next generation applications designed for

GCCS may support collaboration using chat systems, newsgroups and email.

GCCS supports six mission areas (operations, mobilization, deployment, employment, sustainment, and intelligence) through eight functional areas: threat identification and assessment, strategy planning aids, course of action development, execution planning, implementation, monitoring, risk analysis, and a common tactical picture.

Within GCCS is *the National Military Command System (NMCS)* which consists of the national level command centers and the communications system which links them to intelligence systems and other subordinate communication centers. *The National Military Command Center (NMCC)* is in the Pentagon linked to *the National Military Intelligence Center (NMIC)*. As a back-up there is *an Alternative National Military Command Center (ANMCC)* which is fully interconnected with the NMCC and which can if necessary take full control of operations.

Also within GCCS is *the Minimum Essential Emergency Communications Network (MEECN)*, a system which provides survivability, security, interoperability and anti-jam capabilities to the Armed Forces.

An important feature of GCCS is *the National Emergency Airborne Command Post (NEACP)*. The three E-4 *Advanced Airborne Command Posts (AABNCP)* equipped with sophisticated command, control and communications (C3) capability are the key elements of NEACP. It is designed to provide National Command Authorities (NCA) with a survivable capability to direct and control military forces in all levels of conflict including nuclear war. Unlike ground-based command sites that are vulnerable to attack, the Airborne Command Post has the mobility to escape direct assault. Its communications system is hardened to withstand the massive electromagnetic pulse of a nuclear burst so that the communication network will function following an enemy attack and will enable the NCA to direct a retaliatory strike.

#### **Words which will help you to translate the text:**

1. GCCS – глобальная система оперативного управления ВС США (ГСОУ)
2. NMCS – система управления ВС США
3. NMCC – основной командный центр КНШ
4. NMIC – национальный командный центр военной разведки
5. ANMCC – запасной командный центр КНШ
6. MEECN – система связи для управления ВС в чрезвычайной обстановке
7. NEACP – воздушный командный пункт КНШ
8. AABNCP – усовершенствованный воздушный командный пункт КНШ (зд. на основе одного самолета)

## ГЛАВА 3

### ВОЕННО-ВОЗДУШНЫЕ СИЛЫ

#### US AIR FORCE

##### A. US Air Force Organization

*Department of the Air Force.* The DAF is administrated by a civilian Secretary appointed by the President, and is supervised by the Chief of Staff, US Air Force. To assist the Secretary and the CSUSAF, the Air Staff functions in the Pentagon at Washington.

*US Air Force Mission.* US Air Force is one of the three main armed services and is charged with the responsibility of organizing, training and equipping AF units for the conduct of all operations in the air. The major combat missions of the AF are to execute strategic air warfare, to provide for Air Defense of the CONUS, to conduct tactical air operations in cooperation with ground forces and the Navy, and to provide air transport for the armed forces and carry out specialized missions such as aerial reconnaissance. The AF units are armed with various aircraft and missiles.

The USAF also provides the major space research and development supports for the DOD and assists the NASA in conducting the US space program.

*Organization by Components and Units.* The United States Air Force is made up of the *Regular Air Force*, the *Air Force Reserve* and *Air National Guard*.

The basic element of the Air Force is the individual airplane and its crew.

Two or more airplanes or missiles make up *a flight*, which is a basic tactical unit in the Air Force and a functional subdivision of a flying squadron.

Two or more flights may be organized into *a squadron*, the composition of which depends on the type of a plane it operates and nature of its mission. It is tactically comparable to an inf battalion.

Next to a squadron comes *a group*. All squadrons in a particular group fly the same type of aircraft.

Two or more groups constitute *a wing*, a mobile self-supporting unit capable of completely independent operations.

Above the wing is the *air division*, then comes the *air force* and next above the air force comes the *air command*. All the commands directly report to the CSUSAF.

The US Air Force possesses a wide net of air bases to support air operations. Each *Air Force* base is an establishment comprising *an airfield* (its installations, facilities, personnel) and activities for the flight (operation, maintenance, and supply of aircraft and air organizations).

## **B. Types of Military Aircraft**

According to their functions modern military planes are classified as fighters, bombers, attack, reconnaissance, transport, tanker planes and helicopters.

Fighters are designed to intercept and destroy enemy aircraft or missiles and for ground support. They possess high ceiling, supersonic speed and very high rate of climb and are armed with air-to-air missiles, guns, air-to-surface missiles and bombs.

Attack aircraft are designed to search out, attack and destroy enemy land or sea targets using conventional or special weapons. They are also used for close air support missions.

Bombers are the offensive component of the Air Force designed for the attack of ground targets with a variety of both conventional and nuclear cruise missiles and bombs. They are large planes. The main characteristics and performance of bomber include a great take off weight, heavy bomb load, large maximum range and high cruising speed.

Reconnaissance aircraft are designed to perform tactical and strategic reconnaissance role.

Long-range airlift role is fulfilled by specially developed transport aircraft.

Tanker aircraft are used for in-flight refueling of strategic bombers, reconnaissance planes, cargo and tactical aircraft of the Air Force, the US Navy and the Marines.

The military application of helicopters has a wide range of uses: heavy transport, anti-submarine warfare, air-sea rescue, battlefield evacuation, tactical reconnaissance, visual observation, fire-support in the battlefield.

Beyond this general classification there are other kinds of military aircraft designed for special purposes: airborne early-warning aircraft (AEW), interceptors, airborne command post (ABCP), electronic warfare aircraft and other special-duty planes.

## **C. Aircraft Nomenclature**

There are many parts which are common to all types of aircraft. The main body of plane is the fuselage, which houses the crew, passengers or cargo, weapons and to which the wings, the tail unit, the landing gear and the powerplant are attached.

The aircraft may be powered by piston, turboprop, turbojet and other jet engines.

The modern high-performance aircraft may have swept wings, delta wings or variable-shape wings.

Land-based planes take off and land by the use of wheeled retractable landing gear. Seaplanes are equipped with pontoons and floats.

The tail unit consists of the fin, the rudder and the elevators. These surfaces are used for moving the aircraft about its three axes. The control surfaces are generally operated from the cockpit by a control stick (or a control wheel) and by foot pedals.

Engine control (any control for regulating the power and speed of an engine) is performed by throttle

## **ACTIVE TERMS AND EXPRESSIONS**

### **A.**

Air Defense (AD)	ПВО
to provide air transport	обеспечивать воздушные перевозки
reconnaissance (recon)	разведка
crew	экипаж
flight (flt)	звено
squadron (sqdn)	эскадрилья
group (gp)	авиационная группа (зд.)
airwing (air wg) wing	крыло (организационная единица); крыло (аэродинамическая поверхность)
air division (air div)	авиационная дивизия
air force	воздушная армия, военно-воздушные силы
air command	авиационное командование
Air Force base (AFB)	авиабаза
airfield	аэродром

### **B.**

fighter (ftr)	истребитель
bomber (bmr)	бомбардировщик
attack plane (atk acft)	штурмовик
reconnaissance aircraft (recon acft)	самолет-разведчик
transport aircraft	транспортный самолет
tanker (aircraft), refueling aircraft	самолет-заправщик
helicopters (hels)	вертолеты
ground support	поддержка наземных войск
ceiling	потолок
supersonic	сверхзвуковой
rate of climb	скороподъемность
air-to-air missile (msl)	ракета класса “воздух-воздух”
air-to-surface missile	ракета класса “воздух-поверхность”
conventional weapons	обычное вооружение

nuclear weapons	ядерное оружие
close air support	непосредственная авиационная поддержка
cruise missile	крылатая ракета
characteristics = performance(s)	тактико-технические данные (для самолетов и вертолетов)
to take off	взлетать
bomb load	бомбовая нагрузка
range	зд. дальность полета (действия)
cruising speed	крейсерская скорость
airlift	воздушные переброски, перевозки по воздуху
air (in flight) refueling	дозаправка в воздухе
air-sea rescue	поиск и спасение потерпевших аварию на море и в воздухе
airborne early-warning aircraft (AEW)	самолет ДРЛО (дальнего радиолокационного обнаружения)
interceptor	перехватчик
airborne command post (ABCP)	воздушный командный пункт
electronic warfare aircraft	самолет РЭБ

### C.

fuselage	фюзеляж
tail unit	хвостовое оперение
landing gear	шасси
powerplant	силовая установка, двигатель
piston engine	поршневой двигатель
turboprop engine	турбовинтовой двигатель
turbojet engine	турбореактивный двигатель
swept wings	стреловидные крылья
delta wings	дельтовидные крылья
variable-shape wings	крылья изменяемой геометрии
land based	наземного базирования
seaplane	гидросамолет
fin	вертикальный стабилизатор
rudder	руль
elevators	рули высоты
cockpit	кабина летчика
control stick	ручка управления
control wheel	штурвал

foot pedals	ножные педали
throttle	дрессель, сектор газа

## EXERCISES

### I. Study these translations before reading Texts A, B, C.

1. The US Air Force is made up of the Regular Air Force, the Air Force Reserve, and the Air National Guard. – *Военно-воздушные силы США состоят из регулярных ВВС, резерва ВВС и национальной гвардии ВВС.*
2. **air division** (A unit composed of two or more combat wings.) – **авиационная дивизия** (*Соединение, состоящее из двух или более боевых крыльев.*)
3. **wing** (An Air Force unit composed normally of one primary mission group and the necessary supporting organizations (supply, maintenance, etc). Primary mission group may be functional, such as combat, training, transport, or service.) – **крыло** (*Авиационная часть, состоящая обычно из одной основной боевой группы и необходимых подразделений обеспечения (снабжения, ремонта и т.д.) Основная боевая группа может быть боевой, учебной, транспортной или обслуживания.*
4. The squadron is composed of a HQ and two or more flights. It is the basic tactical and admin unit of the Air Force. – *Эскадрилья состоит из штаба и двух или более звеньев. Она является основным тактическим и административным подразделением ВВС.*
5. Two or more aircraft or missiles make up a flight which is a basic tactical unit in the Air Force, and a functional subdivision of a flying squadron. – *Два или более самолета или ракеты составляют звено, которое является основным тактическим подразделением летной эскадрильи.*
6. **fighter** (Aircraft designed to intercept and destroy aircraft or missiles, also including multi-purpose aircraft designed for ground support.) – **истребитель** (*Самолеты, предназначенные для перехвата и уничтожения самолетов или ракет, включая также многоцелевые самолеты, предназначенные для поддержки наземных войск.*)
7. **attack aircraft** (Attack aircraft are designed to search out, attack, and destroy enemy land or sea targets, using conventional or special weapons. Also used for close air support missions.) – **штурмовик** (*Штурмовики предназначены для обнаружения, нанесения ударов и уничтожения наземных и морских целей противника обычным и специальным оружием. Они также используются для выполнения задач по оказанию непосредственной авиационной поддержки.*)

8. **reconnaissance aircraft** (Reconnaissance aircraft have equipment permanently installed for photographic or electronic recon missions). – **разведывательный самолет** (*Разведывательные самолеты оснащены стационарным оборудованием для выполнения задач по разведке путем проведения фотографирования или применения электронных средств.*)
9. **tanker** (Tanker aircraft have special equipment to provide in-flight refueling of other aircraft). – **самолет-заправщик** (*Самолеты-заправщики имеют специальное оборудование для дозаправки других самолетов в воздухе.*)

## ***II. Translate the text to get more information on the topic.***

### **US Air Force**

The USAF is the aerial warfare branch of the United States Armed Forces. The USAF is one of the largest and one of the most technologically advanced air force in the world with about 6,000 manned aircraft, 160 unmanned combat air vehicles, 2,700 air launched cruise missiles and 580 intercontinental ballistic missiles. Administrative organization of the USAF is responsible for the peacetime organization, equipping and training of aerospace units for operational units. When required to support operational missions the **National Command Authority (NCA)** places these units under a Regional Combatant Commander's authority. The top-level structure of these forces is the **Air and Space Expeditionary Task force**. The USAF operates the following types of aircraft as to their missions: attack, bomber, electronic warfare, fighter, reconnaissance, trainer, transport aircraft. All of them are named in accordance with a United State Department of Defense aerospace vehicle designation system.

1. **National Command Authority (NCA)** – соответствует *Верховному Главному Командованию в России, в США – это Президент и Министр Обороны*
2. **Air and Space Expeditionary Task force** – *Воздушно-Космическое Экспедиционное Оперативное соединение*

## ***III. Translate as q u i c k l y as possible:***

to carry out missions; обеспечивать воздушные перевозки; Regular Air Force; министерство ВВС; squadron; резерв ВВС; crew; звено; Air National Guard; крыло; air command; авиабаза; air division; самолеты; tail unit; перехватчик; airborne early-warning aircraft; бомбардировщик; air-sea rescue; очень высокая скороподъемность; conventional and nuclear missiles; штурмовик; to be powered by piston, turboprop, turbojet and other jet engines; воздушные переброски; swept wings, delta wings, and variable-shape wings; основные тактико-технические данные; reconnaissance aircraft; самолет-заправщик; close air support mission; самолет РЭБ; fighter; максимальная



дальность действия; supersonic speed; крылатая ракета; bomb load; вертолет; airborne command post; потолок; cruising speed; взлетная масса

#### **IV. Translate without a dictionary.**

##### **Types of Combat Planes**

The Air Force may be charged with numerous combat missions for the performance of which various types of aircraft are required.

The main types of combat planes are:

- 1) fighters;
- 2) bombers;
- 3) attack planes;
- 4) reconnaissance planes.

The main task of fighters is to fight enemy bombers. They may also be used to destroy ground targets. Fighters are generally single-seaters. They are armed with cannons (пушка), machine guns (пулемет) and rockets and possess a very high speed and ceiling.

The bomber is an offensive weapon. The basic mission of bombers is to attack various enemy objectives. Sometimes they may be used for distant reconnaissance. The defensive armament of bombers consists of machine guns; besides, they carry a great load of bombs.

Attack planes are designed for low-level attacks against enemy tanks, troop concentrations and communication lines.

Reconnaissance planes obtain information of the enemy.

#### **V. Find Russian equivalents:**

1. to bomb enemy targets	а) доставлять термоядерные боевые части к отдаленным целям
2. weapon of vast destructive power	б) вне пределов досягаемости
3. to deliver thermonuclear warheads on the distant targets	с) атаковать наземные цели противника
4. to launch air-to-surface missiles	д) действовать над районами боевых действий
5. beyond the reach of	е) наносить удары по различным целям
6. to search out enemy sea targets	ф) перехватывать самолеты
7. to attack enemy land targets	г) обнаруживать цели
8. close air support mission	и) вести поиск морских целей противника
9. to operate over battle area	ж) оружие огромной разрушительной силы
10. to carry tactical nuclear	к) запускать ракеты класса "воздух-земля"

weapons	
11. to attack a variety of targets	l) бомбардировать цели противника
12. to outfly enemy fighters	m) задача по непосредственной авиационной поддержке
13. to intercept aircraft	n) нести тактическое ядерное оружие
14. to fire at enemy aircraft	o) обеспечивать точность прицеливания
15. to ensure accuracy of aim	p) позволять пилотам летать выше
16. to spot targets	q) вести самолеты противника
17. to enable the pilots to fly higher	r) заправка самолетов топливом в воздухе
18. to locate enemy aircraft	s) летать лучше, чем истребители противника
19. to track enemy aircraft	t) вести огонь по самолетам противника
20. in-flight refueling of aircraft	u) определять местоположение самолета противника

#### VI. Decipher the following abbreviations:

br; mech div; DAF; HQ; ADA; atk acft; cbt spt; sqdn; abn div; air div; EW acft; armd cav sqdn; SAF; cbt svc spt; pers; ftr; AFB; bmr; CSUSAF; Air NG; JCS; recon actf; NCO; AEW acft; opns; msn; msl; wpn; mil; equip; AFRes

#### VII. Improve your skills in question-making.

**Model 1:** What is the composition (the make up) of a flight?

*It consists of (is made up of; is composed of) two or more planes.*

What is the composition of  
What is the make up of

a squadron? (two or more flights)  
a group? (two or four squadrons)  
a wing? (two or more groups)  
air division? (two or more wings)  
air force? (two or more divisions)  
air command? (two or more air forces)

**Model 2:** How many flights constitute (make up; form; compose) a squadron?

Two or more flights.

How many

planes  
flights  
squadrons  
groups  
wings  
divisions  
air forces

constitute  
compose  
make up  
form

a flight?  
a squadron?  
a group?  
a wing?  
an air division?  
an air force?  
an air command?

(two or more)

### **VIII. Translate into English.**

#### **A.**

1. ВВС отвечают за ведение военных действий в воздухе.
2. Самолеты выполнили задачу военной разведки.
3. Министерство ВВС возглавляется гражданским министром.
4. Звено состоит из одного или нескольких самолетов.
5. Основным подразделением ВВС является эскадрилья.
6. Авиакрыло способно вести самостоятельные боевые действия.
7. ВВС обеспечивает воздушные перевозки в интересах вооруженных сил.
8. Командования ВВС непосредственно подчиняются начальнику штаба ВВС.

#### **B.**

1. Штурмовик предназначен для нанесения ударов по наземным целям.
2. Бомбардировщик имеет большую бомбовую нагрузку и большую дальность действия.
3. Самолеты-заправщики обеспечивают действия стратегических бомбардировщиков.
4. Дальние воздушные переброски осуществляются транспортными самолетами.
5. Вертолеты широко используются для эвакуации на поле боя.
6. Бомбардировщики представляют собой наступательный компонент ВВС.
7. Самолеты-разведчики выполняют задачи тактической и стратегической разведки.
8. Истребитель был сбит зенитной ракетой.
9. Вооружение штурмовика состоит из пушки и бомб.

#### **C.**

1. Морская цель уничтожена гидросамолетами.
2. Основными частями всех типов самолетов являются: фюзеляж, хвостовое оперение, шасси и двигатель.
3. Основными авиационными двигателями являются: поршневой, турбовинтовой, турбореактивный и др.
4. Управление рулевыми поверхностями осуществляется из кабины летчика с помощью ручки управления или ножных педалей.

### **IX. Answer the following questions.**

#### **A.**

1. Who heads the DAF?
2. Whom is the DAF supervised?
3. What staff assists the SAF and the CSUSAF?
4. Where is the DAF housed?

5. What is the Air Force?
6. What is the Air Force responsible for?
7. What are the main functions of the USAF?
8. What are the major components of the USAF?
9. What is the basic element of the AF?
10. What is the AF organization by units?
11. How many aircraft make up a flight?
12. What is a squadron?
13. What does a composition of a squadron depend upon?
14. What AF unit is self-supporting and capable of independent operations?
15. Whom do all the air commands directly report?
16. What is an AFB?

**B.**

1. What are the main types of military aircraft?
1. What are fighters designed for?
2. What are the most important characteristics and performance of military aircraft?
3. What are attack aircraft designed for?
4. What are strategic bombers armed with?
5. What is the military role of recon aircraft?
6. What type of an aircraft carries out long-range airlift?
7. What are tankers used for?
8. What is the military application of helicopters?
9. What other types of military aircraft do you know?

**C.**

1. What are the principal structural units of an aircraft?
2. What types of aircraft power plants do you know?
3. What is the construction of an aircraft wing?
4. What does the tail unit consist of?
5. What are the control surfaces operated by?

**X. Be ready to r e t e l l texts A, B, C**

**XI. T w o – w a y translation.**

1. Где дислоцируется авиакрыло, в которое входит ваша эскадрилья, и каков его номер? – *The 49-th Tactical Fighter Wing is based on Holloman AFB, N.M.*
2. Из скольких авиаэскадрилий состоит авиакрыло? – *Tactical Fighter Wing is made up of 3 squadrons.*

3. *What is the strength of a fighter squadron?* – На вооружении авиаэскадрильи находится обычно 24 самолета.
4. *What are the missions of your squadron?* – Насколько я знаю, самолеты нашей эскадрильи выполняли задачи по обеспечению непосредственной авиационной поддержки и превосходства в воздухе.
5. Какие типы самолетов находятся на вооружении Вашей эскадрильи? – *The squadron is composed of F-15 fighters.*
6. Какое вооружение несет истребитель F-15 для выполнения задач непосредственной авиационной поддержки? – *F-15 employs gravity bombs, air-to-ground missiles and guns to destroy ground targets.*
7. Какого типа эти ракеты? – *These are television-guided AGM-65 Maverick missiles.*
8. Каковы основные ТТХ этой ракеты? – *It's of relatively small size carrying a warhead of 59 kg. Its range reaches up to 50 km.*
9. Есть ли модификации этой ракеты? – *The original Maverick is now being followed by the B, C and D versions.*
10. А что такое крылатая ракета? – *The cruise missiles are unique in that they are low-radar cross-sectional aerodynamic vehicles. They are capable of flying at very low altitudes for hundreds of miles according to a preplanned course.*

## **S U P P L E M E N T A R Y   T E X T S**

### **1. AIR NATIONAL GUARD**

The Air National Guard (ANG), with both federal and state missions, is unique among the world's reserve military forces. It provides an effective and economical military force for national defense and a trained, equipped, disciplined force to protect life and property during natural disasters, civil disorders, and other emergencies.

ANG units may be called for federal service (federalized) by the President, by Congress, or when otherwise authorized by law. All Air Guard units are assigned to Air Force major commands during peacetime. The MAJCOMs\* establish training standards, provide advisory assistance, and evaluate unit training, readiness, and safety programs.

The Air Guard force includes a number of wings, flying squadrons and nonflying units.

The Air National Guard provides 100 percent of the Air Force's defense system evaluation capability, sixty percent of the interceptor force, fifty percent of the reconnaissance force, forty percent of tactical air support, thirty percent of the tactical airlift, twenty five percent of the fighters. The ANG *has an air defense alert*

mission\*. Air refueling units are now performing a twenty-four-hour-per-day alert mission and continue to participate in *European Tanker Task Force\** operations.

\* *Notes:*

## MAJCOMs (Major Commands) – основные командования

to have an air defense alert mission –нести боевое дежурство с задачами ПВО  
European Tanker Task Force – силы заправочной авиации в Европе

**2.**

The E-3A *AWACS (Airborne Warning and Control System) aircraft* is equipped with extensive radar, communication and navigational devices.

The system has a dual use. It is used for airborne surveillance and as a command post. The E-3A provides long range low level surveillance of all air vehicles in all weather and above all kinds of terrain. As a command post this aircraft is able to command and control all kinds of air actions: strike, air *superiority*, support, aircraft reconnaissance and *interdiction*.

\* \* \*

There are two types of smart bombs currently in use by the USAF – the laser-guided bomb and electro-optical or ***HOB*** bombs. The former type of munition is used in 500, 2000 and 3000 lb. categories and the HOB bomb is produced in 2000 and 3000 lb. sizes.

The laser-guided type consists of a conventional bomb to which *stabilizer fins* and a guidance module with a laser *seeker* are added. The electro-optical bomb has control surfaces at the rear with a TV guidance module at the front. The weapon is released after *lock-on* by the bomb's camera. The guidance module steers the bomb to the target automatically.

\* \* \*

The air-to air missile is an important type of modern aircraft armaments. Modern missiles of this type are usually guided by radar or infrared homing device, or sometimes a combination of the two.

An important thing about the air-to-surface missile is that it enables a bomber to release its weapon before reaching the most heavily defended part of an enemy's territory.

\* \* \*

Here is a definition of air superiority as it is understood by US AF experts. A power is said to have air superiority within a given airspace when: (a) its aircraft of all types can operate without serious interference from the enemy, and (b) it can limit the enemy's aircraft to shallow penetrations of the airspace.

\* \* \*

A search-radar is switched on in danger zone so that when an attacking fighter shows itself on the screen, it is automatically tracked and engaged by the gun when it approaches within a range. Any equipment used to assist the pilot, bombardier\* or gunner to bring the aircraft, guns or launcher in proper relation to a target is considered to be fire-control equipment.

**Words which will help you to translate the text:**

1. AWACS (Airborne Warning and Control System) aircraft – самолетная система дальнего радиолокационного наблюдения и наведения
2. air superiority – превосходство в воздухе
3. interdiction – изоляция района боевых действий
4. HOBO (Homing Optical Bomb) – авиационная бомба с оптическим самонаведением
5. stabilizer fins – блок стабилизаторов
6. seeker – головка самонаведения (ГЧН)
7. lock-on – захват цели
8. bombardier – оператор системы самонаведения самолета

**3. RECONNAISSANCE TORNADO**

The Tornado are to replace Jaguars and provide NATO's day / night all-weather reconnaissance capability.

The RAF\* Tornado electrical-optical reconnaissance system uses an infrared line scanner for *horizon-to-horizon coverage*, together with two *sideways-looking thermal imagers*. All three electro-optical *sensors* can be monitored by the Tornado navigator using one of the aircraft's two video-cassette recorders. Tactical information can then be relayed to a ground station by radar.

**Words which will help you to translate the text:**

1. horizon-to-horizon coverage – наблюдение за всем окружающим пространством
2. sideways-looking thermal imager – визуализатор бокового обзора тепловизорного типа
3. sensor- средство обнаружения

**\*Notes:**

RAF (Royal Air Force) – Британские ВВС

**4. USAF B-2**

The B-2 Spirit is a multi-role bomber capable of delivering both conventional and nuclear munitions. A dramatic leap forward in technology, the bomber represents a major milestone in the U.S. bomber modernization program. The B-2 brings

massive firepower to bear, in a short time, anywhere on the globe through previously impenetrable defenses.

The B-2 provides the penetrating flexibility and effectiveness inherent in manned bombers. Its low-observable, or "stealth," characteristics give it the unique ability to penetrate an enemy's most sophisticated defenses and threaten its most valued, and heavily defended, targets. Its capability to penetrate air defenses and threaten effective retaliation provides a strong, effective deterrent and combat force well into the 21st century.

The revolutionary blending of low-observable technologies with high aerodynamic efficiency and large payload gives the B-2 important advantages over existing bombers. Its low-observability provides it greater freedom of action at high altitudes, thus increasing its range and a better field of view for the aircraft's sensors. Its unrefueled range is approximately 6,000 nautical miles (9,600 kilometers).

The B-2's low observability is derived from a combination of reduced infrared, acoustic, electromagnetic, visual and radar *signatures*\*. These signatures make it difficult for the sophisticated defensive systems to detect, track and engage the B-2. Many aspects of the low-observability process remain classified; however, the B-2's composite materials, special coatings and flying-wing design all contribute to its "stealthiness."

The B-2 has a crew of two pilots, a pilot in the left seat and mission commander in the right, compared to the B-1B's crew of four and the B-52's crew of five.

#### *General Characteristics:*

- Primary function: Multi-role heavy bomber
- Contractor: Northrop Grumman Corp. and Contractor Team: Boeing Military Airplanes Co., Hughes Radar Systems Group, General Electric Aircraft Engine Group and Vought Aircraft Industries, Inc.
- Power Plant: *Four* General Electric F118-GE-100 engines
- Thrust: *17,300 pounds each engine*
- Wingspan: *172 feet (52.12 meters)*
- Length: *69 feet (20.9 meters)*
- Height: *17 feet (5.1 meters)*
- Weight: *160,000 pounds (72,575 kilograms)*
- Maximum Takeoff Weight: *336,500 pounds (152,634 kilograms)*
- Fuel Capacity: *167,000 pounds (75,750 kilograms)*
- Payload: *40,000 pounds (18,144 kilograms)*
- Speed: *High subsonic*
- Range: *Intercontinental*
- Ceiling: *50,000 feet (15,240 meters)*



- Armament: *Conventional or nuclear weapons*
- Crew: *Two pilots*
- Unit cost: *Approximately \$1.157 billion (fiscal 98 constant dollars)*
- Inventory\*: *Active force: 20 (1 test); ANG: 0; Reserve: 0*

**\*Notes:**

inventory – зѦ. вооружение, общее количество

signature – сигнатура, отличительная характеристика, заметность, опознавательные признаки, демаскирующие признаки

## **5. F-35 LIGHTNING II**

The Lockheed Martin F-35 Lightning II is a single-seat, single-engine, all-weather stealth multirole fighter. The fifth generation combat aircraft is designed to perform ground attack, aerial reconnaissance, and air defense missions. The F-35 has three main models: the F-35A *conventional takeoff and landing* (CTOL)\* variant, the F-35B *short take-off and vertical-landing* (STOVL)\* variant, and the F-35C carrier-based *Catapult Assisted Take-Off Barrier Arrested Recovery* (CATOBAR)\* variant. The F-35 variants are intended to provide the bulk of the manned tactical airpower of the U.S. Air Force, Navy, and Marine Corps over the coming decades. Deliveries of the F-35 for the U.S. military are scheduled to be completed in 2037. Lockheed Martin states the F-35 is intended to have close- and long-range air-to-air capability second only to that of the F-22 Raptor. The F-35 has the advantage over the F-22 in basing flexibility and "*advanced sensors and information fusion*". It could replace the USAF's F-15C/D fighters in the air superiority role and the F-15E Strike Eagle in the ground attack role with integrated avionics and sensor fusion that combine information from off- and on-board sensors to increase the pilot's situational awareness and improve target identification and weapon delivery, and to relay information quickly to other command and control (C2) nodes.

The F-35 features two internal weapons bays, and external *hardpoints*\* for mounting up to four underwing pylons and two near wingtip pylons. The two outer hardpoints can carry pylons for the AIM-9X Sidewinder and AIM-132 ASRAAM short-range air-to-air missiles (AAM) only. The other pylons can carry the AIM-120 AMRAAM AAM, Storm Shadow cruise missile, AGM-158 Joint Air to Surface Stand-off Missile (JASSM) cruise missile, and guided bombs. The external pylons can carry missiles, bombs, and external fuel tanks at the expense of increased *radar cross-section*\*, and thus reduced stealth. An air-to-air missile load of eight AIM-120s and two AIM-9s is possible using internal and external weapons stations; a configuration of six 2,000 lb (910 kg) bombs, two AIM-120s and two AIM-9s can also be arranged.

**\*Notes:**

the F-35A, *conventional takeoff and landing* (CTOL) – истребитель с обычной системой взлета и посадки

the F-35B, *short take-off and vertical-landing* (STOVL) – истребитель с укороченным взлетом и вертикальной посадкой

the F-35C carrier-based *Catapult Assisted Take-Off Barrier Arrested Recovery* (CATOBAR) – палубный истребитель, взлетающий с помощью катапульты и производящий посадку с помощью барьерного аэрофинишера

sensors and information fusion – сбор и обобщение данных от средств обнаружения

hardpoint – узел наружной подвески

radar cross-section – эффективная площадь рассеяния (радиолокационная)

## **6. THE MCDONNELL DOUGLAS F-15 EAGLE FIGHTER**

The United States pay much attention to increasing the striking capabilities of the tactical air force.

Tactical aircraft are designed for air-to-air as well as air-to-surface roles. These aircraft are able to perform such missions as air superiority, *air-to-ground strikes*, close air support of combat troops and Navy, tactical air reconnaissance, *electronic defense suppression*, tactical airlift, etc.

The F-15 Eagle is USAF's primary air-superiority aircraft. The original single-seat F-15A and two-seat F-15B were followed by the F-15C and F-15D respectively.

USAF selected the F-15E as the USAF's new dual-role fighter for all-weather air-to-air and deep *interdiction* missions. It can carry out long-range missions such as *escorting* US attack aircraft into enemy territory. The F-15 can be equipped with *conformal fuel tanks* (CFT). It is powered by two turbojet engines, each developing 25,000 lb or 28,000 lb of thrust. The aircraft is armed with 20-mm M-61 cannon, four advanced AIM-7 Sparrow medium-range msls and up to four shorter-range AIM-9 Sidewinder infrared msls. It has a maximum speed of Mach 2.5.

The F-15 aircraft, developed by McDonnell Douglas, is the first USAF fighter to use a long-range *acquisition radar*, the identification of the enemy target being made by means of the airborne *IFF* system.

### **Words which will help you to translate the text:**

1. air-to-ground strike – бомбоштурмовой удар
2. electronic defense suppression – подавление радиоэлектронных средств
3. interdiction – блокирование действий противника, заграждение
4. escort – сопровождать, конвоировать, эскортировать
5. conformal fuel tank – конформный топливный бак

6. acquisition radar – РЛС обнаружения цели

7. IFF = identification friend-or-foe – система опознавания “свой-чужой”

## 7. BOEING B-52 G/H STRATOFORTRESS

*Primary Mission: Strategic Bombing / Sea Surveillance*

Boeing planned to build 193 B-52Gs as the last in a run\* of 603 aircraft supporting 11 45-aircraft wings. They had double the fuel capacity of the B-52A. But this ‘G’ run was extended, bringing the total aircraft in our inventory\* to 642, not including the 102 new B-52Hs that were already being built.

These new B-52Hs could go to 30% farther than even the formidable B-52G. This new range of 12,5000 miles again doubled the range of earlier versions of the aircraft. In 1972, there were about 275 Boeing B-52G/Hs left. Despite constant updating, this is still the same basic plane that was developed in the 1950s.

- Crew: Two pilots, one navigator, one electronic warfare officer, one gunner
- Powerplant: 8 Pratt and Whitney J57-P-443WB turbojets, each rated at 13,750 lbs
- Max Level Speed\* : 630 mph (at high altitude)
- Range: 10,130 miles (max internal fuel, internal load only)
- Armament: 0,50 caliber guns in tail
  - 8 SRAMs and free-fall bombs internally
  - 12 AGM\*-86B ALCMs\* internally
  - G models can carry 8-12 Harpoons in underwing clusters

\* *Notes:*

run – партия (изделий)

level speed – горизонтальная скорость

AGM = Air-to-Ground Missile – ракета класса “воздух-земля”

ALCM = Air-Launched Cruise Missile – крылатая ракета воздушного базирования

## 8. THE LOCKHEED MARTIN F-22 RAPTOR

The Lockheed Martin F-22 Raptor is a single-seat, twin-engine, all weather stealth tactical fighter aircraft developed for the United States Air Force (USAF). The F-22 Raptor is a fifth generation fighter that is considered fourth generation in stealth aircraft technology by the USAF. It is the first operational aircraft to combine *supercruise\**, supermaneuverability, stealth, and sensor fusion in a single weapons platform. The Raptor has large *shoulder-mounted trapezoidal wings\**, *four empennage surfaces\**, and a retractable tricycle landing gear. Flight control surfaces include *leading and trailing-edge flaps*, ailerons, rudders on the canted vertical stabilizers, and all-moving horizontal tails; these surfaces also serve as speed brakes.

The Raptor has three internal weapons bays: a large bay on the bottom of the fuselage, and two smaller bays on the sides of the fuselage, aft of the *engine intakes*\*. The main bay can accommodate six LAU-142/A launchers for beyond-visual-range missiles and each side bay has an LAU-141/A launcher for short-range missiles. Four of the launchers in the main bay can be replaced with two *bomb racks*\* that can each carry one 1,000 lb (450 kg) or four 250 lb (110 kg) bombs. Carrying armaments internally maintains the aircraft's stealth and minimizes additional drag. Missile launches require the bay doors to be open for less than a second, during which hydraulic arms push missiles clear of the aircraft; this is to reduce vulnerability to detection and to deploy missiles during high speed flight. The F-22 can also carry air-to-surface weapons such as bombs with *Joint Direct Attack Munition (JDAM) guidance*\* and the Small-Diameter Bomb, but cannot *self-designate*\* for laser-guided weapons. Internal air-to-surface ordnance is limited to 2,000 lb. An internally mounted M61A2 Vulcan 20 mm cannon is embedded in the right *wing root*\* with the muzzle covered by a retractable door to maintain stealth. The radar projection of the cannon fire's path is displayed on the *pilot's head-up display*\*.

**\* Notes:**

supercruise fighter – истребитель с увеличенным крейсерским полетом

shoulder-mounted trapezoidal wings – средне расположенные крылья в форме трапеции

four empennage surfaces – четыре аэродинамические поверхности хвостового оперения

leading and trailing-edge flaps – передние и задние закрылки

engine intakes – воздухозаборники

bomb racks – бомбодержатели

Joint Direct Attack Munition (JDAM) guidance – система наведения единого авиационного боеприпаса

self-designate – зд. способность самостоятельного целеуказания, лазерной подсветки целей

wing root – корень крыла

pilot's head-up display – система индикации на лобовом стекле кабины экипажа

## **9. GENERAL DYNAMICS F-16 FIGHTING FALCON**

### ***Primary Mission: Counter Air / Ground Attack***

Starting as a small technology demonstrator, the F-16 swiftly matured into a brilliantly capable multirole fighter. In January 1975 the F-16 was selected as a major type for the USAF inventory, suddenly transforming it from a mere demo program to a 2,795 aircraft program for worldwide deployment. The largest user of the F-16 is the 388<sup>th</sup> Tactical Fighter Wing at Hill AFB, Thunderbirds demonstration team.

- Crew: pilot (A and C models)  
pilot and co-pilot (B and D models)
- Powerplant: 1 Pratt and Whitney F-100-200 turbofan rated at 23,840 lbs of thrust
- Max Level Speed: Mach 2.05
- Range: 340 miles (tactical radius)
- Design G limits: +9/-3
- Armament: 1 M61AI 20 mm gun  
Mk 82 bombs  
Mk 84 GP bomb (2000 lbs.)  
AIM-9L / J Sidewinder  
AIM-12A AMRAAM\*

**\* Notes :**

AMRAAM = Advanced Medium Range Air-to-Air Missile – усовершенствованная ракета класса “воздух- воздух” средней дальности

## **10. THE RC-135V/W RIVET**

The RC-135V/W Rivet *Joint reconnaissance aircraft*\* supports theater and national level consumers with near real time on-scene intelligence collection, analysis and dissemination capabilities. The Rivet Joint's modifications are primarily related to its on-board sensor suite, which allows the mission crew to detect, identify and geolocate signals throughout the electromagnetic spectrum. The mission crew can then forward gathered information in a variety of formats to a wide range of consumers via Rivet Joint's extensive communications suite.

The interior seats more than 30 people, including the cockpit crew, electronic warfare officers, intelligence operators and in-flight maintenance technicians.

The Rivet Joint fleet was re-engined with CFM-56 engines with an upgraded flight deck instrumentation and navigational systems to FAA/ICAO standards. These standards include conversion from analog readouts to a digital "glass cockpit" configuration.

All Rivet Joint airframe and mission systems modifications are overseen by L-3 Communications (previously Raytheon), under the oversight of Air Force Materiel Command.

All RC-135s are assigned to Air Combat Command. The RC-135 is permanently based at Offutt Air Force Base, Neb., and operated by the 55th Wing, using various forward deployment locations worldwide.

### *General Characteristics*

- Primary Function: *Reconnaissance*
- Contractor: *L-3 Communications*

- Power Plant: *Four CFM International F108-CF-201 high bypass turbofan engines\**
- Thrust: *21,600 pounds each engine*
- Wingspan: *131 feet (39.9 meters)*
- Length: *135 feet (41.1 meters)*
- Height: *42 feet (12.8 meters)*
- Weight: *173,000 pounds (78,743 kilograms)*
- Maximum Takeoff Weight: *297,000 pounds (133,633 kilograms)*
- Fuel Capacity: *130,000 pounds (58,967 kilograms)*
- Speed: *500+ miles per hour (Mach.66)*
- Range: *3,900 miles (6,500 kilometers)*
- Ceiling: *50,000 feet (15,240 meters)*
- Crew: *(flight crew) five (augmented) – three pilots, two navigators; (mission flight crew) 21-27, depending on mission requirements, minimum consisting of three electronic warfare officers, 14 intelligence operators and four inflight/airborne maintenance technicians*
- Inventory: *Active force, 17; Reserve, 0; Guard, 0*

**\* Notes:**

Joint reconnaissance aircraft – единый самолет-разведчик (межвидовой), то есть самолет, ведущий разведку в интересах всех видов ВС

high bypass turbofan engines – турбовентиляторный двигатель с большой степенью двухконтурности

## **11. THE MQ-1B PREDATOR**

The MQ-1B Predator is an armed, multi-mission, medium-altitude, long-endurance remotely piloted aircraft that is employed primarily as an intelligence-collection asset and secondarily against *dynamic execution targets\**. Given its significant *loiter time\**, wide-range sensors, multi-mode communications suite, and precision weapons, it provides a unique capability to perform strike, coordination and reconnaissance (SCAR) against *high-value, fleeting, and time-sensitive targets\**. Predators can also perform the following missions and tasks: intelligence, surveillance, reconnaissance, close air support, combat search and rescue, precision strike, convoy/raid overwatch, route clearance, target development, and terminal air guidance. The MQ-1's capabilities make it uniquely qualified to conduct irregular warfare operations in support of combatant commander objectives. The basic crew for the Predator is a rated pilot to control the aircraft and command the mission, and an enlisted aircrew member to operate sensors and weapons as well as a mission coordinator, when required. The crew employs the aircraft from inside the ground

control station via a line-of-sight data link or a satellite data link for beyond line-of-sight operations. The aircraft can employ two laser-guided missiles, Air-to-Ground Missile-114 Hellfire, that possess highly accurate, low-collateral damage, and anti-armor, anti-personnel engagement capabilities. The Predator carries the Multi-Spectral Targeting System, which integrates an infrared sensor, color/monochrome daylight TV camera, image-intensified TV camera, laser designator and laser illuminator. The full-motion video from each of the imaging sensors can be viewed as separate video streams or fused. The primary concept of operations, remote split operations, employs a *launch-and-recovery ground control element*\* for take-off and landing operations at the forward operating location, while the crew based in the continental United States executes command and control of the remainder of the mission via *beyond-line-of-sight links*\*.

**\* Notes:**

dynamic execution targets – подвижные цели, которые должны быть оперативно уничтожены

loiter time – время пребывания в ожидании команды на выполнение задачи

high-value, fleeting, and time-sensitive targets – особо важные уклоняющиеся цели с небольшим временем предупреждения

launch-and-recovery ground control element – зд. наземная подсистема запуска и приема летательного аппарата

beyond-line-of-sight links – линии связи вне прямой видимости

## **12. THE C-17 GLOBEMASTER III**

The C-17 Globemaster III is the newest, most flexible cargo aircraft to enter the airlift force. The C-17 is capable of rapid strategic delivery of troops and all types of cargo to main operating bases or directly to forward bases in the deployment area. The aircraft can perform tactical airlift and airdrop missions. Reliability and maintainability are two outstanding benefits of the C-17 system. The C-17 measures 174 feet long (53 meters) with a wingspan of 169 feet, 10 inches (51.75 meters). The aircraft is powered by four, *fully reversible*\*, Federal Aviation Administration-certified F117-PW-100 engines (the military designation for the commercial Pratt & Whitney PW2040), currently used on the Boeing 757. Each engine is rated at 40,440 pounds of thrust. The *thrust reversers*\* direct the flow of air upward and forward to avoid ingestion of dust and debris. Maximum use has been made of commercial off-the-shelf equipment, including Air Force-standardized avionics.

The aircraft is operated by a crew of three (pilot, co-pilot and *loadmaster*\*), reducing manpower requirements, risk exposure and long-term operating costs. Cargo is loaded onto the C-17 through a large aft door that accommodates military vehicles

and palletized cargo. The C-17 can carry virtually all of the Army's air-transportable equipment.

Maximum payload capacity of the C-17 is 170,900 pounds (77,519 kilograms), and its maximum gross takeoff weight is 585,000 pounds (265,352 kilograms). With a payload of 169,000 pounds (76,657 kilograms) and an initial cruise altitude of 28,000 feet (8,534 meters), the C-17 has an unrefueled range of approximately 2,400 nautical miles. Its cruise speed is approximately 450 knots (.74 Mach). The C-17 is designed to airdrop 102 paratroopers and equipment.

The design of the aircraft allows it to operate through small, *austere airfields*\*. The C-17 can take off and land on runways as short as 3,500 feet (1,064 meters) and only 90 feet wide (27.4 meters). Even on such narrow runways, the C-17 can turn around using a *three-point star turn*\* and its *backing*\* capability.

The C-17 is operated by Air Mobility Command, The Air National Guard, and The Air Force Reserve Command.

**\* Notes :**

fully reversible engine – двигатель с полным реверсом тяги

thrust reversers – устройство реверса тяги

loadmaster – старший по погрузке

austere airfields – аэродромы в условиях минимального МТО, слабо оборудованные аэродромы

a three-point turn – поворот ЛА в трехточечном положении (с пробегом по ВПП на трех опорах шасси)

backing capability – задний ход



## ГЛАВА 4

### ВОЕННО-МОРСКИЕ СИЛЫ США

#### US NAVY

##### **A. Organization, Composition and Formations of the US Navy**

The mission of the Navy is to maintain, train and equip combat-ready Naval forces capable of winning wars, deterring aggression and maintaining freedom of the seas.

*The term “Department of the Navy”* means the Navy Department; the United States Marine Corps; the entire Operating Forces of the US Navy, including naval aviation, and the reserve components of such forces; all HQ, forces, bases and installations under the control or supervision of the Secretary of the Navy; the US Coast Guard when operating as part of the Navy.

The Department of the Navy has three principal parts: *the Navy Department, the Operating Forces* (the Fleet) and the *Shore Establishment*.

*The Navy Department*, which is the central executive authority of the DN comprises the Office of the SECNAV (a civilian appointed by the President); the Naval Staff headed by the Chief of Naval Operations; and the HQ of the USMC. The top Marine Corps officer is the Commandant of the Marine Corps (a four-star general).

*The Operating Forces* are the seagoing part of the Naval Establishment. They are composed of the several fleets, district forces, task forces, marine forces and other forces as may be assigned to them by the President or the SECNAV.

*The Shore Establishment* comprises the shore activities of the Naval Establishment designed for maintaining, supplying, repairing, and rendering similar services in support of operating forces. These activities include air stations, training stations, shipyards, supply depots and other shore activities of the US Navy and USMC.

The Coast Guard, which is a part of the Armed Forces, operates under the Department of Homeland Security in peacetime and under the Navy in wartime.

The US Navy has two different organizational systems: *Type and Fleet Organization* for administrative control (administrative organization) and *Task Organization* for specific operations and missions (operational organization).

Under the *administrative system* of organization there are two fleets: *the Atlantic Fleet* and *the Pacific Fleet*. They comprise various *commands* whose titles are self-explanatory: Amphibious Command, Destroyer Command, Mine Command, Submarine Command, Air Command, etc. Each type command contains further administrative subdivisions such as *flotillas, squadrons, divisions*. The fleet usually consists of several formations of battleships, aircraft carriers, cruisers, destroyers, etc.

and a fleet marine force. Aircraft carriers of different types and cruisers are organized into divisions. Destroyers, mine sweepers, submarines are grouped into flotillas. The flotilla consists of three squadrons of two divisions each.

*Task Organization (operational organization)* provides flexibility to perform specific or relatively short-lasting missions. Under this system a *Task Fleet* is formed. It is divided into *Task Forces*. For example a group of aircraft carriers with supporting cruisers and destroyers forms a Carrier Task Force. A *Task Group* is a subdivision of a Task Force. A *Task Unit* is a subdivision of a Task Group; and a *Task Element* is a subdivision of a Task Unit.

## **B. Classification of ships**

According to the official US Navy classification of naval ships and service craft, the US Navy includes combatant ships, auxiliary ships and service craft.

COMBATANT SHIPS include:

- warships, such as battleships, cruisers, aircraft carriers, frigates and destroyers, submarines;
- amphibious warfare ships;
- mine warfare ships;
- patrol and escort vessels;
- command ships

Battleships are large, heavily armored, and have great offensive and defensive strength. They carry the largest gun afloat in their main battery and heavy anti-aircraft (AA) batteries and are armed with a number of missile systems including cruise missiles. They can develop speeds in excess of 30 knots. Nowadays battleships are not present in the navies.

Aircraft carriers are warships that strike their offensive blows not through the guns and torpedoes but through aircraft. They can operate large numbers of aircraft far out of seas.

Cruisers are all-purpose ships providing air defense screens and aircraft-carrier guard, performing scouting missions, and supporting amphibious landings. In the later 20th century, the obsolescence of the battleship left the cruiser as the largest and most powerful surface combatant.

Destroyers and frigates are the largest among the smaller ships in navies. No ships surpass destroyers in the varied number of combat jobs they can handle. They do duties as escorts, scouts, they screen capital ships against torpedo attacks from subs, attack the enemy with their guns, torpedoes and missiles.

A submarine is a watercraft capable of independent operation underwater. Submarines have one of the widest ranges of types and capabilities of any vessel.

They are used for attacks, anti-submarine warfare (ASW), and various special missions.

AUXILIARY SHIPS are, generally speaking, “supporting ships” rather than “fighting ships” – though most of them carry some armament. Their jobs differ greatly. The hospital ship, the icebreaker, the surveying ship, the degaussing ship, the repair ship, the tanker, the tug, the satellite launching ship – each is a specialist, and is designed and equipped to do its special job.

SERVICE CRAFT include floating dock, floating crane, fuel oil barge, etc.

## ***ACTIVE TERMS AND EXPRESSIONS***

### ***A.***

deter	сдерживать (противника), устрашать (противника)
deterrence	сдерживание путем устрашения, силы и средства сдерживания (устрашения)
Department of the Navy	министерство ВМС (ведомство ВС); ВМС США
Navy Department (ND)	министерство ВМС (центральный орган управления ВМС)
Operating Forces (OF)	боевые силы (ВМС США), действующие силы (ВМС США)
naval aviation	авиация ВМС
Shore Establishment	береговые части и учреждения тыла ВМС США
fleet (flt)	флот
Office of the SECNAV	секретариат министра ВМС
Naval Staff	штаб ВМС США
seagoing forces	корабельный состав флота
district forces	вооруженные силы военно-морского района
task force	оперативное соединение
shore activities	береговые части и учреждения ВМС
air station	авиационная станция ВМС
training station	учебный пункт
shipyard	судостроительная верфь
supply depot	склад снабжения
Department of Homeland Security (DHS)	министерство национальной безопасности США (Департамент собственной внутренней безопасности США)
Type Organization	организация однородных сил флота
Task Organization	оперативная организация

Atlantic Fleet	Атлантический флот
Pacific Fleet	Тихоокеанский флот
amphibious	амфибийный; десантный
destroyer	эсминец; эскадренный миноносец
mine	мина, минно-тральный
mine sweeper	тральщик
submarine	подводная лодка
flotilla (flot)	флотилия
squadron (sqn)	эскадра
division (div)	дивизия (авианосцев, крейсеров); дивизион (эсминцев, тральщиков); дивизион (подразделение на корабле)
battleship	линкор
aircraft carrier	авианосец
cruiser	крейсер
Fleet Marine Force	силы морской пехоты флота
Task Fleet	оперативный флот
Task Force	оперативное соединение
Task Group	оперативная группа
Task Unit	оперативный отряд
Task Element	оперативный элемент

## **B.**

service craft	суда обслуживания; базовые плавучие средства
combatant ship	боевой корабль
auxiliary ship	вспомогательное судно
warship	военный корабль, боевой корабль основного класса
frigate	фрегат; лидер эскадренных миноносцев
patrol ship	дозорный (патрульный) корабль
escort ship	эскортный корабль, сторожевой корабль
command ship	штабной корабль
main battery	главная артиллерия; артиллерия главного калибра
knot	узел
vessel (ves)	судно, корабль
antisubmarine warfare (ASW)	противолодочная оборона

surveying ship	гидрографическое судно
degaussing ship	плавучая станция размагничивания кораблей
tug	буксир; буксирное судно

### Attention!

The Department of the Navy consists of all elements of the United States Navy and the United States Marine Corps. According to Navy Regulations, the term "Navy Department" refers only to the executive offices at the seat of government.

## EXERCISES

### I. Study these translations before reading Texts A, B:

1. **cruiser** (Cruisers are the big-gun ships with missiles of the fleet engaging enemy ships and shore installations with their main batteries and missiles) – **крейсер** (*Крейсеры являются кораблями флота, вооруженными орудиями крупных калибров и ракетами, предназначенные для поражения кораблей и береговых объектов артиллерией главного калибра и ракетами*).
2. **destroyer** (The destroyer is a high-speed warship designed to operate offensively with strike forces, with ASW groups and in support of amphibious assault operations) – **эсминец** (*Эсминец – быстроходный военный корабль, предназначенный для участия в наступательных боевых действиях в составе ударных соединений, противолодочных групп и для поддержки морских десантных операций*).
3. **strike force** (A force composed of appropriate units necessary to conduct strikes, attacks or assault operations) – **ударное соединение** (*Соединение, состоящее из соответствующих единиц, необходимых для проведения ударных, наступательных и десантных операций*).
4. **flotilla** (An administrative or tactical organization consisting of two or more squadrons of destroyers or smaller types) – **флотилия** (*Административная или тактическая организационная единица, состоящая из двух или более эскадр эсминцев или кораблей более мелких классов*).
5. **squadron** (An organization consisting of two or more divisions of ships. It is normally, but not necessarily, composed of ships of the same type) – **эскадра** (*Организационная единица, состоящая из двух или более дивизионов кораблей. Она, обычно, но не всегда, включает корабли одного класса*).
6. According to an official US Navy classification all ships and vessels are organized into three major groups: combatant ships, auxiliary ships and service craft. – *В соответствии с официальной классификацией ВМС США все корабли и суда*

делятся на три главные группы: боевые корабли, вспомогательные суда и суда обслуживания (базовые плавучие средства.)

7. Aircraft carriers are warships that strike their offensive blows not through guns or torpedoes but through aircraft. – *Авианосцы – боевые корабли основного класса, которые наносят удары по целям не артиллерийским или торпедным вооружением, а палубной авиацией.*
8. A submarine is a vessel capable of being submerged and propelled under water. – *Подводная лодка – это корабль, способный совершать плавание в погруженном состоянии.*
9. The amphibious assault ship is designed to transport and land troops, equipment, and supplies by means of embarked helicopters. – *Десантный вертолетоносец предназначен для перевозки и высадки войск, техники и предметов снабжения при помощи вертолетов, базирующихся на корабле.*
10. The minelayers usually lay minefields to block shipping channels or to protect harbors; the minesweepers clear areas already mined. – *Минные заградители обычно ставят минные поля с целью блокады судоходных путей или защиты портов; тральщики очищают от мин заминированные районы.*
11. **main battery** (The “heavy” and “light” do not refer only to the weight of the cruiser, but also to the caliber of their main batteries – 8 inch (203mm) for the former and 6 inch (152.4 mm) or 5 inch (127 mm) for the latter.) – **артиллерия главного калибра** (Слова “тяжелый” и “легкий” относятся не только к массе крейсера, но и к мощи артиллерии главного калибра – 8 дюймов (203 мм) для тяжелого крейсера и 6 дюймов (152,4 мм) или 5 дюймов (127 мм) для легкого крейсера.)
12. **mine** (A mine is an explosive weapon placed in a planned position to await the arrival of a target) – **мина** (*Мина – устройство взрывного действия, устанавливаемое в месте предполагаемого появления цели.*)
13. **torpedo** (A torpedo is a self-propelled underwater missile which carries an explosive warhead, having a mechanism within the weapon which serves to guide it on its underwater course) – **торпеда** (*Торпеда – самодвижущийся подводный снаряд с начиненной взрывчатой вещью головной частью, снабженный устройством для его удержания на заданном курсе в подводном положении.*)

## **II. Translate the text to get more information on the topic.**

### **The U.S. Navy Ships**

The names of commissioned ships of the U.S. Navy (*состоящий на вооружении военный корабль ВМС США*) are prefixed with the letters "USS," designating "United States Ship". Non-commissioned (*корабль ВМС, как правило, не имеющий вооружения и относящийся к Military Sealift Command*), civilian-

manned vessels of the Navy have names that begin with "USNS," standing for "United States Naval Ship". The names of ships are officially selected by the Secretary of the Navy, often to honor important people or places. Additionally, each ship is given a letter-based hull (*корпус корабля*) classification symbol (for example, CVN – атомный авианосец or DDG – ракетный эсминец ) to indicate the vessel's type and number. All ships in the Navy inventory are placed in the Naval Vessel Register, which tracks data such as the current status of a ship, the date of its commissioning, and the date of its decommissioning (*списание, перевод в резерв*). The Navy also maintains a reserve fleet of inactive vessels that are maintained for reactivation in times of need.

The U.S. Navy was one of the first to install nuclear reactors aboard naval vessels; today, nuclear energy powers all of U.S. active aircraft carriers and submarines. In the case of the *Nimitz*-class carrier, two naval reactors give the ship almost unlimited range and provide enough electrical energy to power a city of 100,000 people. The U.S. Navy previously operated nuclear-powered cruisers and destroyers, but all have been decommissioned.

### **III. Translate as *q u i c k l y* as possible:**

штаб ВМС; to include active and reserve components; министерство ВМС; Office of the SECNAV; оперативное соединение; shore activities; крейсер; aircraft carriers; силы Морской пехоты флота; mine sweeper; эсминец; Naval Establishment; авиация ВМС; Operating Forces; десантный; Task Organization; линкор; squadron; судно обслуживания; auxiliary ship; в соответствии с; main battery; дозорный корабль; degaussing ship; противолодочная оборона; knot; военный корабль; vessel; принадлежать к классу; tug; развивать скорость; shipyard; оперативный отряд; surveying ship; сторожевые корабли и катера; command ship.

### **IV. Translate *w i t h o u t* a dictionary.**

Control on the seas is essential in wartime to protect the shores from enemy bombardment and invasion, and to provide surface transport for delivering fighting forces overseas. Control of the seas is also needed to protect own seaborne commerce and to destroy the enemy's sea commerce. In addition, ships of various kinds are used to launch amphibious assaults and sometimes to support land operations. So the navy has defensive and offensive uses which are sometimes indistinguishable.

The ships of the US Navy may be listed under three main classifications: combatant, auxiliary, service.

The combatant ships are the fighting ships: battleships, aircraft carriers, cruisers, destroyers, submarines, mine warfare ships (mine countermeasures ships\*,

mine layers\* and mine sweepers); patrol and escort vessels and amphibious ships (amphibious assault ships\*, tank landing ships\*, etc).

The auxiliary ships make the supply line from rear bases to the front. They are tankers; cargo ships, transports that move men, fuel, ammunition, tanks, vehicles, provisions; hospital ships; tenders\* and repair ships that keep combatant ships serviced and in operation.

Service ships are small vessels used for local delivery and housekeeping tasks at an operating base or advanced base\*. They are the fuel and water barges, stores and cargo barges, tugs, floating workshops and derricks\*.

Geographically, and organizationally, the Naval Establishment consists of three principal parts: the Operating Forces, including naval aviation, the Navy Department and Shore Establishment.

\* mine countermeasure ship – противоминный корабль

\* mine layer – минный заградитель

\* amphibious assault ship – (универсальный) десантный корабль (УДК)

\* tank landing ship – танко-десантный корабль

\* tender –плавучая база

\* advanced base –передовая база

\* derrick –деррик-кран, ворот для подъема тяжестей, подъемная стрела

## ***V. Decipher the following abbreviations:***

offs; pers; svc; avn; res; con; SECNAV; USMC; Comdr; CDR; cmdr; admin con; opns; msn; comd; admin; CINC; ASW; comm.; dept; ves; acft; sys; equip; ftr; sqdn; recon; atk; ECM acft; AEW acft; def; en; HQ; OF; ND; mil; spt; AA; msl; tgt.

## ***VI. Translate into English.***

### **A.**

1. ВМС США включает военно-морское министерство, береговые части и учреждения тыла и флот.
2. В ВМС США также входят морская пехота и авиация ВМС.
3. Военно-морское министерство включает в себя секретариат министра ВМС; главный морской штаб, возглавляемый начальником штаба ВМС, и штаб морской пехоты, возглавляемый командующим корпусом морской пехоты.
4. Береговые части и учреждения ВМС включают авиастанции, учебные пункты, судостроительные верфи, склады снабжения и т.д.
5. ВМС США имеют две различные организационные системы: административную и оперативную.



6. В соответствии с административной организацией ВМС США включают в себя Атлантический и Тихоокеанский флоты.
7. Они состоят из различных командований, названия которых говорят сами за себя, например командование десантных сил, миноносных сил, подводных сил, командование минно-тральных сил, авиационное командование и т.д.
8. Флот состоит из нескольких формирований линкоров, авианосцев, крейсеров, эсминцев и т.д. и сил морской пехоты флота.
9. Оперативный флот включает в себя несколько оперативных соединений.

#### **В.**

1. Согласно принятой в ВМС США классификации корабли подразделяются на боевые, вспомогательные и служебные корабли и суда.
2. К боевым кораблям относятся:
  - боевые корабли основного класса: авианосцы, подводные лодки, крейсера, фрегаты и эсминцы;
  - десантные корабли и суда;
  - минно-тральные корабли;
  - патрульно-эскортные корабли (сторожевые корабли и катера);
  - штабные корабли.
3. Линкоры могут развивать скорость свыше 30 узлов.
4. Крейсера выполняют чрезвычайно разнообразные задачи.
5. Ни один корабль не может превзойти эсминец в количестве разнообразных задач, которые он может решить.

### **VII. Answer the following questions.**

#### **A.**

1. What does the term "Naval Establishment" mean?
2. What is meant by the Navy Department?
3. What is the composition of the US Navy Operating Forces?
4. What does the Shore Establishment comprise?
5. When does the Coast Guard operate as part of the Navy?
6. What are two organizational systems of the US Navy?
7. What is the Fleet Organization of the US Navy?
8. What are their further administrative subdivisions?
9. What are the principal Type Commands of the US Navy?
10. What fleet is under Task Organization?
11. What is a Task Fleet subdivided into?

#### **B.**

1. What is the official US Navy classification of naval ships and service craft?
2. What types of combatant ships do you know?

3. What are battleships?
4. What kind of warships are aircraft carriers?
5. What are the missions of cruisers?
6. What can you say about destroyers? What are their combat jobs?
7. What kind of vessels are submarines?
8. What auxiliary ships do you know?
9. What are service craft?

### **VIII. Be ready to retell texts A, B.**

### **IX. Two – way translation.**

#### **1**

1. Каковы по мнению вашего командования основные задачи ВМС США? – *According to the USN leadership the primary functions of the USN are the following: to organize, train and equip the Navy for the conduct of prompt and sustained operations at sea.*
2. Вы сказали командование ВМС, а что вы имели в виду? Известно, что организация ВМС США довольно сложная. Не могли бы вы в общих чертах обрисовать ее? – *As far as I know the Department of the Navy consists of three principal parts: the Operating Forces of the Navy, the Navy Department and the Shore Establishment; the USMC and the USCG.*
3. Что вы имеете в виду, когда говорите о действующих силах ВМС? – *They are the Pacific Fleet and the Atlantic Fleet.*
4. Какова организация этих флотов? – *Their organization is different, it depends on the mission assigned. But each of them is subdivided into several Task Forces of any composition of ships. The backbone of any fleet is a Carrier Task Force.*
5. Какие основные классы кораблей существуют в ВМС США? – *The ships of the US Navy may be listed under three main classifications: combatant ships, auxiliary ships and service craft. The principal types of warships are: aircraft carriers, submarines, cruisers and destroyers.*
6. Каковы основные особенности применения боевых кораблей? – *Usually, ships of different types are grouped into Task Forces for executing assigned missions. The most powerful of these Task Forces is the Carrier Task Force which may include up to 8 carriers, 5 cruisers, 30 destroyers and hundreds of bombers and fighters.*

#### **2**

1. Кто командир Вашей оперативной группы? – *Captain Grieves, US Navy, is the Commander of the Carrier Task Group.*
2. А какой корабль является флагманским? – *It seems to me aircraft carrier "Nimitz" is the flag ship of the CTG. She is the biggest ship of the group.*

3. Что Вам известно об авианосце “Нимиц”? – *She is a nuclear-powered carrier, launched on 13 May, 1972. The Nimitz joined the Pacific Fleet. Her full load displacement is 91,000 tons. The air wing is about 100 acft. Her own armament consists of three **multiple** Sea Sparrow point defense **missile launchers**\**.  
\***multiple rocket (missile) launcher** = многоствольная ракетная пусковая установка (здесь – зенитных ракет).
4. Что Вы можете сказать о боевом составе оперативной группы? – *Besides carrier “Nimitz” the CTG includes a guided missile cruiser and two “Spruense” class destroyers, as far as I know.*
5. Какие задачи выполняла группа? – *We were assigned a patrol duty mission in Eastern Mediterranean in full readiness to deliver a blow against certain targets ashore through carrier based aircraft and cruise missiles.*
6. А какие корабли несут крылатые ракеты? – *Most cruisers and destroyers are armed with this kind of weapon.*
7. Какие еще задачи выполняли крейсер и эсминцы? – *They protected the aircraft carrier against possible attacks of light surface craft. They also provided air defense and antisubmarine screen.*
8. Что Вы можете сказать о подразделениях морской пехоты на борту Ваших кораблей? – *There is a small Marine Detachment on board ships of the CTG, but it is not capable of any amphibious operation.*
9. Знаете ли Вы ТТЭ атомного авианосца? – *Only as far as the “Jane’s Fighting Ships” is concerned.*
10. Назовите известные Вам ТТЭ авианосца. – *Her displacement is of 95,000 tons. Dimensions – length is of 330 m, draught of 10.9 m. She has four reactors and her speed is about 30 knots, if I am not mistaken.*
11. А каково вооружение корабля? – *I haven’t got a good idea on the matter. I know she carries a squadron of A-6 attack planes, two or three squadrons of F-14 and F/A-18 fighters, S-3 “Viking” ASW planes, E-2C **AWACS**\* aircraft and a number of “Sea King” helicopters. They all form a carrier air wing.*  
\***AWACS aircraft** – (Airborne Warning And Control System) – самолетная система дальнего радиолокационного обнаружения и управления АВАКС

## SUPPLEMENTARY TEXTS

### 1.

The ships of the US Navy may be listed under three main classifications: combatant ships, auxiliary ships and service craft. The principal types of warships are: aircraft-carriers, submarines, cruisers and destroyers.

Usually ships of different types are grouped into Task Forces for executing assigned missions. The most powerful of these Task Forces is the Carrier Task Force

which may include up to 8 carriers, 5 cruisers, 30 destroyers and hundreds of bombers and fighters.

The most important event in the US Navy in the post war period was the development of nuclear-powered subs capable of delivering nuclear attacks against enemy strategic objectives.

## **2. SEA-DART TAKES OUT SILKWORM ATTACK**

The British Aerospace Sea Dart missiles from Royal Navy Destroyer HMS\* Gloucester shot down an Iraqi Silkworm anti-ship missile fired at the USS Missouri on 25 February. This is the first time that the Sea Dart system has destroyed a missile in combat.

The Silkworm was within 30s (seconds) of the Missouri when intercepted. According to the royal Navy one Sea Dart secured\* a direct hit on the Silkworm at a range of 7.4 km (4 nm) and the second exploded after flying through the wreckage\*.

Initially, two Silkworms were fired, although one ditched into the sea shortly after being launched. At the time of the attack the US Navy Battleship was east of the Faylaka island bombarding Iraqi shore positions. The incident was the first Iraq had fired Chinese-made anti-ship missile in the Gulf War. After the Silkworm attack, US Navy aircraft destroyed the missile launching site. Silkworm is a relatively unsophisticated missile. It is based on the Soviet SS-N-2 Styx anti-ship missile with a range of 80 km.

*\* Notes:*

HMS (Her Majesty Ship) – английский военный корабль

secure – зδ. нанести

wreckage – обломки

## **3. AIRCRAFT CARRIERS**

Aircraft carriers are warships that strike their offensive blows not through guns or torpedoes but through aircraft and thus may be considered as floating airdromes possessing all the advantages in mobility and seagoing capacity of the large warships and all the advantages inherent in the use of aircraft.

Aircraft carriers continue to serve as a primary means of projecting US air power overseas with emphasis being on their providing combat sorties in areas of operations, reconnaissance missions over those areas and maintaining a force in readiness to support marine and other land forces. The aircraft on carriers have four main functions:

- to locate and observe enemy forces;
- to launch long-range attack against enemy forces;
- to provide friendly ships with air protection against enemy aircraft;

- to perform hunter-killer operations.

The carrier's main purpose, then, is to carry, launch and handle aircraft quickly and effectively. The carrier is complete as a base of operation for her aircraft. She has the same equipment as a naval shore base providing a flight deck or runway and a hangar deck for hangars. Two or four powerful steam catapults in the bow of the ship serve to launch aircraft and strong arresting gear in the aft part of the flight deck are used to recover the planes. It provides for "field" repairs, maintenance, servicing even to changing wings, engines, landing gear, radios, radars and so on.

Carriers range in size from about 20,000 tons to 100,000 tons of displacement, the speed range is from 16 to 35 knots. The length varies from 500 to more than 1,000 feet. The US Navy has only nuclear powered aircraft carriers (CVNs) in its inventory.

Standard carrier air wing is composed of attack planes (A-6s), fighters (F-14s), fighter/attack aircraft (F/A-18s), ASW aircraft (S-3As), AWACS planes (E-2Cs) and helicopters of various types. But the make up of the air wing based on an aircraft carrier varies according to the missions to be performed.

When operating, aircraft carriers must have accompanying cruisers, destroyers, frigates and even submarines as a screen forming a carrier task group (CTG) or carrier battle group.

#### 4. CRUISERS – CG

Cruisers – CG – large combat vessel with *multiple target response capability*.

Modern U.S. Navy guided missile cruisers perform primarily in a Battle Force role. These ships are multi-mission [Air Warfare (AW), Undersea Warfare (USW), Naval Surface Fire Support (NSFS) and Surface Warfare (SUW)] surface combatants capable of supporting carrier battle groups, amphibious forces, or of operating independently and as flagships of surface action groups. Cruisers are equipped with Tomahawk cruise missiles giving them additional long range Strike Warfare (STRW) capability. Some Aegis Cruisers have been outfitted with a Ballistic Missile Defense (BMD) capability. Technological advances in the Standard Missile coupled with the Aegis combat system in the Ticonderoga class cruisers have increased the Anti-Air Warfare (AAW) capability of surface combatants *to pinpoint accuracy from wave-top to zenith\**. The addition of Tomahawk in the CG-47 has vastly complicated unit target planning for any potential enemy and returned an offensive strike role to the surface forces that seemed to have been lost to air power at Pearl Harbor.

*General Characteristics, Ticonderoga Class*

- Builder: Ingalls Shipbuilding: CG 47-50, CG 52-57, 59, 62, 65-66, 68-69, 71-73
- Bath Iron Works: CG 51, 58, 60-61, 63-64, 67, 70.
- Date Deployed: 22 January 1983 (USS Ticonderoga)

- Unit Cost: About \$1 billion each.
- Propulsion: 4 General Electric LM 2500 gas turbine engines; 2 *shafts*\*, 80,000 *shaft horsepower* total.
- Length: 567 feet.
- Beam: 55 feet.
- Displacement: 9,600 long tons (9,754.06 metric tons) full load.
- Speed: 30 *plus knots*.
- Crew: 30 Officers, 300 Enlisted.
- Armament: MK41 vertical launching system Standard Missile (MR); Vertical Launch ASROC (VLA) Missile; Tomahawk Cruise Missile; Six MK-46 torpedoes (from two triple mounts); Two MK 45 5-inch/54 caliber lightweight guns; Two Phalanx *close-in-weapons systems*.
- Aircraft: Two SH-60 Seahawk (LAMPS III).

### **Words which will help you to translate the text:**

2. multiple target response capability – возможность нанесения ответного удара по нескольким целям, способность уничтожать различные типы целей
3. 30 plus knots – зд. более 30 узлов
4. close-in-weapons system – зенитно-артиллерийский комплекс самообороны, зенитно-артиллерийский комплекс ближнего действия

### **\*Notes:**

to pinpoint accuracy from wave-top to zenith – высокая точность поражения цели, обеспечиваемая по высоте от поверхности моря до зенита

shaft – гребной вал

shaft horsepower – мощность на валу

## **5. DESTROYERS- DDG**

DDG 51 and DDG 1000 destroyers are warships that provide multi-mission offensive and defensive capabilities. Destroyers can operate independently or as part of *carrier strike groups, surface action groups, amphibious ready groups, and underway replenishment groups*.

Guided missile destroyers are multi-mission [Anti-Air Warfare (AAW), Anti-Submarine Warfare (ASW), and Anti-Surface Warfare (ASUW)] surface combatants. The destroyer's armament has greatly expanded the role of the ship in strike warfare utilizing the MK-41 Vertical Launch System (VLS). Technological advances have improved the capability of modern destroyers culminating in the Arleigh Burke (DDG 51) class replacing the older Charles F. Adams and Farragut class guided missile destroyers. Like the larger Ticonderoga-class cruisers, DDG 51's combat capability centers around the Aegis Weapon System (AWS). AWS is composed of

the SPY-1D multi-function phased array radar, advanced AAW and ASW systems, VLS, and the Tomahawk Weapon System. These advances allow the Arleigh Burke-class to continue the revolution at sea.

Like most modern U.S. surface combatants, DDG 51 utilizes gas turbine propulsion. Employing four General Electric LM 2500 gas turbines to produce 100,000 total shaft horsepower via a dual shaft design, Arleigh Burke-class destroyers are capable of achieving 30 plus knot speeds in open seas.

Developed under the DD(X) destroyer program, the Zumwalt-class destroyer (DDG 1000) is the lead ship of a class of next-generation multi-mission surface combatants tailored for land attack and littoral dominance with capabilities that defeat current and projected threats. DDG 1000 will triple naval surface fires coverage as well as tripling capability against anti-ship cruise missiles. DDG 1000 has a 50-fold **radar cross section** reduction compared to current destroyers, improves strike group defense 10-fold and has 10 times the operating area in shallow water regions against mines. For today's warfighter, DDG 1000 fills an immediate and critical naval-warfare gap, meeting validated Marine Corps fire support requirements.

#### **Words which will help you to translate the text:**

1. carrier strike group – авианосная ударная группа
2. surface action group – боевая группа надводных кораблей, корабельная ударная группа
3. amphibious ready group – амфибийно-десантная дежурная группа
4. underway replenishment group – группа пополнения запасов кораблей на ходу в море
5. radar cross section – ЭПР, эффективная поверхность рассеяния цели

#### **6. LITTORAL COMBAT SHIP CLASS – LCS**

LCS is a fast, **agile**, focused-mission platform designed for operation in near-shore environments yet capable of open-ocean operation. It is designed to defeat *asymmetric "anti-access" threats*\* such as mines, quiet diesel submarines and fast surface craft.

The LCS class consists of two variants, the Freedom variant and the Independence variant – designed and built by two industry teams. The Freedom variant team is led by Lockheed Martin (for the odd-numbered hulls, e.g. LCS 1). The Independence variant team is being led by General Dynamics, Bath Iron Works (LCS 2 and LCS 4) and Austal USA (for the subsequent even-numbered hulls).

The LCS seaframes will be outfitted with reconfigurable payloads, called mission modules (made up of mission systems and support equipment), which can be changed out quickly. These modules combine with crew detachments and aviation

assets to become complete mission packages, which will deploy manned and unmanned vehicles and *sensors* in support of mine countermeasures, anti-submarine warfare, or surface warfare missions.

**Words which will help you to translate the text:**

1. agile – гибкий, маневренный
2. sensor – средство обнаружения целей, разведывательное оборудование

**\*Notes:**

asymmetric "anti-access" threats – асимметричные угрозы, препятствующие высадке морского десанта, проведению морской десантной операции

**7.**

A special type of antisubmarine homing torpedo is used by both ship and aircraft to attack and kill submarines. On being fired it goes down to the estimated depth of the submarine on which it homes. A rocket-assisted torpedo is also available. A rocket propels the torpedo on firing through the air to the estimated position of the submarine, and a parachute opens when the rocket is jettisoned to lessen the impact as the torpedo enters the water.

Then the parachute is discarded, and the torpedo searches for and homes on the submarine.

**8. FLEET BALLISTIC MISSILE SUBMARINES – SSBN**

Since the 1960s, strategic deterrence has been the SSBN's sole mission, providing the United States with its most survivable and enduring nuclear strike capability.

The Navy's ballistic missile submarines, often referred to as "boomers," serve as an undetectable launch platform for intercontinental missiles. They are designed specifically for stealth and the precise delivery of nuclear warheads.

Each of the 14 Ohio-class SSBNs can carry up to 24 submarine-launched ballistic missiles (SLBMs) with multiple, independently-targeted warheads. However, under the New Strategic Arms Limitation Treaty, each submarine will have four of its missile tubes permanently deactivated in the coming years. The SSBN's strategic weapon is the Trident II D5 missile, which provides increased range and accuracy over the now out-of-service Trident I C4 missile.

SSBNs are specifically designed for extended deterrent patrols. On average, the submarines spend 77 days at sea followed by 35 days in-port for maintenance. Each SSBN has two crews, *Blue\** and *Gold\**, which alternate manning the submarines and taking them on patrol. This maximizes the SSBN's strategic



availability, reduces the number of submarines required to meet strategic requirements, and allows for proper crew training, readiness, and morale.

#### *General Characteristics, Ohio Class*

- Builder: General Dynamics Electric Boat Division.
- Date Deployed: Nov. 11, 1981 (USS Ohio)
- Propulsion: 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).
- Crew: 15 Officers, 140 Enlisted.
- Armament: 24 tubes for Trident II submarine-launched ballistic missiles, MK48 torpedoes, four torpedo tubes.

#### *\*Notes:*

Blue crew – второй расчет, второй экипаж

Gold crew – сменный экипаж (АПЛ)

## **9. ATTACK SUBMARINES – SSN**

Attack submarines are designed to seek and destroy enemy submarines and surface ships; project power ashore with Tomahawk cruise missiles and *Special Operation Forces (SOF)*; carry out Intelligence, Surveillance, and Reconnaissance (ISR) missions; support battle group operations; and engage in mine warfare.

With the number of foreign *diesel-electric/air-independent propulsion submarines\** increasing yearly, the United States Submarine Force relies on its technological superiority and the speed, endurance, mobility, stealth and payload afforded by nuclear power to retain its preeminence in the undersea battlespace.

The Navy has three classes of SSNs in service. Los Angeles (SSN 688)-class submarines are the backbone of the submarine force with 41 now in commission. Thirty Los Angeles-class SSNs are equipped with 12 Vertical Launch System tubes for firing Tomahawk cruise missiles.

The Navy also has three Seawolf-class submarines. Commissioned on July 19, 1997, USS Seawolf (SSN 21) is exceptionally quiet, fast, well-armed, and equipped with advanced sensors. Though lacking Vertical Launch Systems, the Seawolf class has eight torpedo tubes and can hold up to 50 weapons in its torpedo room.

The third ship of the class, USS Jimmy Carter (SSN 23), has a 100-foot hull extension called the multi-mission platform. This hull section provides for additional

payloads to accommodate advanced technology used to carry out classified research and development and for enhanced warfighting capabilities.

The Navy is now building the next-generation attack submarine, the Virginia (SSN 774) class. The Virginia class has several innovations that significantly enhance its warfighting capabilities with an emphasis on littoral operations. Virginia class SSNs have a *fly-by-wire ship control system*\* that provides improved shallow-water ship handling. The class has special features to support SOF, including a reconfigurable torpedo room which can accommodate a large number of SOF and all their equipment for prolonged deployments and future off-board payloads. The class also has a large lock-in/lock-out chamber for divers. In Virginia-class SSNs, traditional periscopes have been supplanted by two *photonics masts*\* that host visible and infrared digital cameras atop telescoping arms. With the removal of the *barrel periscopes*\*, the ship's control room has been moved down one deck and away from the *hull's curvature*\*, affording it more room and an improved layout that provides the commanding officer with enhanced *situational awareness*. Additionally, through the extensive use of modular construction, open architecture, and commercial off-the-shelf components, the Virginia class is designed to remain state-of-the-practice for its entire operational life through the rapid introduction of new systems and payloads.

#### *General Characteristics, Virginia class*

- Builder: General Dynamics Electric Boat Division and Huntington Ingalls Industries Inc. – Newport News Shipbuilding.
- Date Deployed: USS Virginia commissioned October 3, 2004
- Propulsion: One nuclear reactor, one shaft
- Length: 377 feet (114.8 meters)
- Beam: 33 feet (10.0584 meters)
- Displacement: Approximately 7,800 tons (7,925 metric tons) submerged
- Speed: 25+ knots (28+ miles per hour, 46.3+ kph)
- Crew: 132: 15 officers; 117 enlisted
- Armament: Tomahawk missiles, twelve VLS tubes, MK48 ADCAP torpedoes, four torpedo tubes.

#### *General Characteristics, Seawolf class*

- Builder: General Dynamics Electric Boat Division.
- Date Deployed: USS Seawolf commissioned July 19, 1997
- Propulsion: One nuclear reactor, one shaft
- Length: SSNs 21 and 22: 353 feet (107.6 meters)
- SSN 23: 453 feet (138.07 meters)
- Beam: 40 feet (12.2 meters)
- Displacement: SSNs 21 and 22: 9,138 tons (9,284 metric tons) submerged;

- SSN 23 12,158 tons (12,353 metric tons) submerged
- Speed: 25+ knots (28+ miles per hour, 46.3+ kph)
- Crew: 140: 14 Officers; 126 Enlisted
- Armament: Tomahawk missiles, MK48 torpedoes, eight torpedo tubes.

*General Characteristics, Los Angeles class*

- Builder: Newport News Shipbuilding Co.; General Dynamics Electric Boat Division.
- Date Deployed: Nov 13, 1976 (USS Los Angeles)
- Propulsion: One nuclear reactor, one shaft
- Length: 360 feet (109.73 meters)
- Beam: 33 feet (10.06 meters)
- Displacement: Approximately 6,900 tons (7011 metric tons) submerged
- Speed: 25+ knots (28+ miles per hour, 46.3 +kph)
- Crew: 16 Officers; 127 Enlisted
- Armament: Tomahawk missiles, VLS tubes (SSN 719 and later), MK48 torpedoes, four torpedo tubes.

**Words which will help you to translate the text:**

1. attack submarine – многоцелевая ПЛ, ударная ПЛ, ракетный подводный крейсер
2. Special Operation Forces (SOF) – силы специального назначения, силы специальных операций
3. situational awareness – осведомленность об обстановке, ситуативная информированность

**\*Notes:**

diesel-electric/air-independent propulsion submarines – дизель-электрические/воздухонезависимые подводные лодки

fly-by-wire ship control system – электронная система дистанционного управления кораблем

photonics masts – оптоэлектронные мачты, выдвижное устройство

barrel periscope – традиционный выдвижной перископ (телескопический)

hull's curvature – изгибы корпуса ПЛ, форма корпуса ПЛ

## **10. GUIDED MISSILE SUBMARINES – SSGN**

Ohio-class guided-missile submarines (SSGN) provide the Navy with unprecedented strike and special operation mission capabilities from a stealthy, clandestine platform. Armed with tactical missiles and equipped with superior communications capabilities, SSGNs are capable of directly supporting Combatant Commanders strike and Special Operation Forces (SOF) requirements.

Each SSGN is capable of carrying up to 154 Tomahawk land-attack cruise missiles. The missiles are loaded in seven-shot ***Multiple-All-Up-Round Canisters (MACs)*** in up to 22 missile tubes. These missile tubes can also accommodate additional ***stowage canisters*** for SOF equipment, food, and other consumables to extend the submarines' ability to remain forward deployed in support of combatant commanders' tasking. The missile tubes are also able to accommodate future payloads such as new types of missiles, unmanned aerial vehicles, and unmanned undersea vehicles.

The SSGNs have the capacity to host up to 66 SOF personnel at a time. Additional berthing was installed in the missile compartment to accommodate the added personnel, and other measures have been taken to extend the amount of time that the SOF forces can spend deployed aboard the SSGNs. The two forward most missile tubes were permanently converted to ***lock-out chambers*** that allow clandestine insertion and retrieval of SOF personnel. Each lock-out chamber can also accommodate a Dry Deck Shelter (DDS), enhancing the SSGNs' SOF capabilities.

During conversion, each SSGN received the Common Submarine Radio Room and two High-Data-Rate antennas for significantly enhanced communication capabilities. These additions allow each SSGN to serve as a forward-deployed, clandestine Small Combatant Joint Command Center.

The SSGN is a key element of the Navy's future fighting force. With its tremendous payload capacity, dual crew deployment concept, and inherent stealth, each SSGN brings mission flexibility and enhanced capabilities to the warfighter.

#### *General Characteristics, Ohio Class*

- Builder: General Dynamics Electric Boat Division.
- Propulsion: 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).
- Crew: 15 Officers, 144 Enlisted.
- Armament: Up to 154 Tomahawk missiles, Mk48 torpedoes; 4 torpedo tubes.

#### **Words which will help you to translate the text:**

1. Guided Missile Submarine – ПЛАРК, атомная подводная лодка с крылатыми ракетами
2. Multiple-All-Up-Round Canisters (MACs) – кассетная вертикальная пусковая установка контейнерного типа
3. stowage canisters – контейнеры для хранения

#### 4. lock-out chambers – шлюзовые камеры

### 11.

Minefields are usually laid to block shipping channels or to protect harbors. The mine sweepers clear areas already mined. They keep channels open for friendly ships and clear the way for landing craft during assault landings.

Numerous wooden-hulled mine sweepers have been built in recent years.

\* \* \*

The mine's job is to create underwater and internal damage to an enemy ship. Modern mines are of the "influence" type, being set off by a sound wave or magnetic influence. Pressure mines are set off by the change in the water pressure when a ship passes over them. Mines can be carried by submarines, aircraft and some surface ships.

### 12. AMPHIBIOUS ASSAULT SHIPS – LHA/LHD/LHA(R)

The largest of all amphibious warfare ships; resembles a small aircraft carrier; capable of Vertical/Short Take-Off and Landing (V/STOL), Short Take-Off Vertical Landing (STOVL), Vertical Take-Off and Landing (VTOL) *tilt-rotor and Rotary Wing (RW) aircraft* operations; contains a *well deck*\* to support use of *Landing Craft, Air Cushioned (LCAC)* and other watercraft (with exception of the first two LHA(R) class ships, LHA 6 and LHA 7, which have no well deck). LHA 8 will feature a well deck.

Modern U.S. Navy Amphibious Assault Ships project power and maintain presence by serving as the cornerstone of the *Amphibious Readiness Group* (ARG) / *Expeditionary Strike Group* (ESG). A key element of the Seapower 21 pillars of Sea Strike and Sea Basing, these ships transport and land elements of the Marine Expeditionary Unit (MEU) or Marine Expeditionary Brigade (MEB) with a combination of aircraft and landing craft.

*General Characteristics, LHA(R) Class LHA*

- Builder: Huntington Ingalls Industries Inc., Ingalls Operations, Pascagoula, Miss.
- Date Deployed: Delivered to the fleet in on April 10, 2014.
- Propulsion: Two marine gas turbines, two shafts, 70,000 total brake horsepower, two 5,000 horsepower auxiliary propulsion motors.
- Length: 844 feet (257.3 meters).
- Beam: 106 feet (32.3 meters).
- Displacement: Approximately 43,745 long tons full load (44,449 metric tons).
- Speed: 20+ knots.
- Crew: 1,059 (65 officers)
- Load: 1,687 troops (plus 184 *surge*).

- Armament: Two RAM launchers; two NATO Sea Sparrow launchers (with Evolved Sea Sparrow Missile (ESSM)); two 20mm Phalanx CIWS mounts; seven twin .50 cal. machine guns.
- Aircraft: A mix of: F-35B Joint Strike Fighters (JSF) STOVL aircraft; MV-22 Osprey VTOL tiltrotors; CH-53E Sea Stallion helicopters; UH-1Y Huey helicopters; AH-1Z Super Cobra helicopters; MH-60S Seahawk helicopters.

*General Characteristics, Wasp Class*

- Builder: Northrop Grumman Ship Systems Ingalls Operations, Pascagoula, MS.
- Date Deployed: July 29, 1989 (USS Wasp)
- Propulsion: (LHDs 1-7) two boilers, two *geared steam turbines\**, two shafts, 70,000 total brake horsepower; (LHD 8) two gas turbines, two shafts; 70,000 total shaft horsepower, two 5,000 horsepower auxiliary propulsion motors.
- Length: 844 feet (253.2 meters).
- Beam: 106 feet (31.8 meters).
- Displacement: LHDs 1-4: 40,650 tons full load (41,302.3 metric tons)
- LHDs 5-7: 40,358 tons full load (41,005.6 metric tons)
- LHD 8: 41,772 tons full load (42,442.3 metric tons).
- Speed: 20+ knots (23.5+ miles per hour).
- Crew: Ships Company: 66 officers, 1,004 enlisted
- LHD 8: 65 officers, 994 enlisted
- Marine Detachment: 1,687 troops (plus 184 surge).
- Armament: Two RAM launchers; two NATO Sea Sparrow launchers; three 20mm Phalanx CIWS mounts (two on LHD 5-8); four .50 cal. machine guns; four 25 mm Mk 38 machine guns (LHD 5-8 have three 25 mm Mk 38 machine guns).
- Aircraft: 12 CH-46 Sea Knight helicopters; 4 CH-53E Sea Stallion helicopters; 6 AV-8B Harrier attack aircraft; 3 UH-1N Huey helicopters; 4 AH-1W Super Cobra helicopters. (planned capability to embark MV-22 Osprey VTOL tilt-rotors) and F-35B Joint Strike Fighters (JSF) STOVL aircraft).
- Landing/Attack Craft: 3 LCACs or 2 LCUs.

*General Characteristics, Tarawa Class*

- Builder: Ingalls Shipbuilding, Pascagoula, MS.
- Date Deployed: May 29, 1976 (USS Tarawa)
- Propulsion: Two boilers, two geared steam turbines, two shafts, 70,000 total shaft horsepower.
- Length: 820 feet (249.9 meters).
- Beam: 106 feet (31.8 meters).
- Displacement: 39,400 tons (40,032 metric tons) full load.
- Speed: 24 knots (27.6 miles per hour).

- Crew: Ships Company: 82 officers, 882 enlisted
- Marine Detachment 1,900 plus.
- Armament: Two RAM launchers; two Phalanx 20 mm CIWS mount; three .50 cal. machine guns; four 25 mm Mk 38 machine guns.
- Aircraft: 12 CH-46 Sea Knight helicopters; 4 CH-53E Sea Stallion helicopters; 6 AV-8B Harrier attack aircraft; 3 UH-1N Huey helicopters; 4 AH-1W Super Cobra helicopters.
- Landing /Attack Craft: 4 LCUs or 2 LCUs and 1 LCAC.

**Words which will help you to translate the text:**

1. amphibious assault ship – УДК, универсальный десантный корабль, десантный вертолетоносец
2. tilt-rotor – летательный аппарат с поворотными двигателями, конвертоплан
3. Rotary Wing (RW) aircraft – вертолет ( в отличие от fixed wing aircraft – самолет)
4. Landing Craft, Air Cushioned (LCAC) – десантно-высадочное средство на воздушной подушке
5. Amphibious Readiness Group (ARG) – дежурная амфибийно-десантная группа
6. Expeditionary Strike Group (ESG) – экспедиционная ударная группа
7. surge – зд. усиление, дополнительный личный состав

**\*Notes:**

well deck – палуба доковой камеры

geared turbine – турбина с турбозубчатым агрегатом

# ГЛАВА 5

## ПАКЕТНОЕ ОРУЖИЕ

### GUIDED MISSILES

All missiles are subdivided into two categories: **free rockets** which contain no guidance mechanisms and **guided missiles** that can be directed to a target by commands originating from a guidance mechanism within the vehicle itself or from outside the vehicle. They are capable of changing their course to hit any target despite its evasive movements.

#### A. Design of a Guided Missile

A guided missile contains the following main parts: the propulsion system, the guidance system, the warhead, the fuze, and the airframe.

Missiles are usually equipped with one of the following jet engines, which must produce large quantities of gas under high pressure and temperature, and must provide a means of converting its heat energy into kinetic energy: rocket engines consisting of an oxidizer and fuel mixture and atmospheric jets which use atmospheric oxygen and carry fuel only. According to *the propellants they use*, all msls are usually referred to as either **solid-propellant** or **liquid-propellant** msls.

The guidance system directs the movement of a guided missile in flight.

Conventional, chemical, biological and nuclear warheads may be used in guided missiles. Modern strategic msls carry Multiple Independently targetable Re-entry Vehicles (MIRV).

The airframe of a guided msl consists of the body of the weapon and the airfoils which stabilize it in flight and affect its path.

#### B. Classification of Guided Missiles

There are various systems of rockets and missiles classification.

1. According to their *cbt msns and range* all msls and rkts of the US Armed Forces are classified as **battlefield** (short-range) missiles, **tactical** (midrange) msls and **strategic** (long range) msls.

2. According to *the principle of flight* the msls fall into two groups: **ballistic** and **winged** missiles.

A ballistic msl is controlled in the upward part of its trajectory, but becomes a free falling body, subject to ballistic reactions, in the descent from its apex.

Ballistic msls include **intercontinental ballistic msls** (ICBM), **intermediate-range ballistic missiles** (IRBM), **medium-range ballistic missiles** (MRBM), and **short-range ballistic missiles** (SRBM). ICBMs have a range of at least 5,000 nautical miles, ballistic missiles with a range between 1,500 and 3,000 n mi belong to



IRBMs. MRBMs may have a range of between 600 and 1,500 n mi. The range of SRBMs may be up to 600 n mi.

Winged msls are in essence pilotless aircraft. This group includes the so-called **cruise missiles**. A cruise missile is an unmanned guided vehicle that sustains flight through aerodynamic lift for most of its flight path and whose primary mission is to place an ordnance or special payload on a target. They fly within the earth's atmosphere and use jet engine technology. These vehicles vary greatly in their speed and ability to penetrate defenses. Cruise missiles can be classified by size, speed (subsonic or super sonic), range and whether launched from land, air, surface ship or submarine. A cruise missile is a weapon system which has a warhead, either conventional or nuclear, is propelled by an air-breathing engine and uses wings for lift like an airplane.

3. According to *the launcher and tgt positions* there are four general categories of msls and rkts:

- a. air-to-air msls (AAM):** used as aircraft-to-aircraft weapons;
- b. air-to-surface msls (ASM):** a larger category, which includes stand-off msls, antiradiation msls as well as ordinary ASMs;
- c. surface-to-air msls (SAM):** anti-aircraft msls from the portable Stinger to the antimissile msls. Surface-to-air msls are effective in destroying high-speed acft at all altitudes.
- d. surface-to-surface msls (SSM):** non-ballistic msls and ballistic msls. This category also includes quite small non-nuclear antitank msls for use on the battlefield, and naval msls. The majority of operational msls, from the small antitank ones to ICBMs belong to this type. SSMs can be fired from land against troop concentrations, comm centers or industrial areas.

Besides, there are underwater-to-surface msls (USM), underwater-to-underwater msls (UUM), air-to-underwater msls (AUM) and surface-to-underwater msls (SUM).

Other designations are the guided aircraft missiles, air defense missiles, etc.

## ACTIVE TERMS AND EXPRESSIONS

### A.

guidance mechanism	устройство наведения
guided missile	(управляемая) ракета
guided missile design	конструкция управляемой ракеты
warhead (whd)	боевая часть (ракеты)
fuze	взрыватель
airframe	корпус (ракеты)
jet engine	реактивный двигатель

air-breathing engine	воздушно-реактивный двигатель
oxidizer	окислитель
atmospheric jet	воздушно-реактивный двигатель
<b>Multiple Independently targetable Re-entry Vehicle (MIRV)</b>	кассетная боевая часть с индивидуальным наведением поражающих элементов (МИРВ)
airfoil	аэродинамическая поверхность

\* \* \*

1. to be directed to a target by commands originating from outside the weapon –  
наводиться на цель командами, вырабатываемыми вне ракеты

## **B.**

battlefield (short-range) missile	тактическая ракета (ближнего действия)
tactical (midrange) missile	тактическая ракета (средней дальности)
strategic missile	стратегическая ракета
cruise missile	крылатая ракета
intercontinental ballistic missile (ICBM)	межконтинентальная баллистическая ракета, МБР
intermediate-range ballistic missile (IRBM)	баллистическая ракета средней дальности, баллистическая ракета промежуточной дальности
medium-range ballistic missile (MRBM)	баллистическая ракета средней дальности
short-range ballistic missile (SRBM)	баллистическая ракета ближнего действия, баллистическая ракета малой дальности
launcher (lchr)	пусковая установка, ПУ
air-to-air missile (AAM)	ракета класса “воздух-воздух”
air-to-surface missile (ASM)	ракета класса “воздух-поверхность”
stand-off missiles	ракеты, запускаемые с самолета вне пределов зоны ПВО противника
antiradiation missile	противорадиолокационная ракета
surface-to-air missile (SAM)	ракета класса “поверхность-воздух”; зенитная ракета
antiaircraft missile	зенитная ракета
antimissile missile	противоракета
antiballistic missile (ABM)	противоракета для борьбы с баллистическими ракетами
surface-to-surface missile (SSM)	ракета класса “поверхность [земля, вода]

	– поверхность [земля, вода] ”
underwater-to-surface missile (USM)	ракета класса “подводная лодка – поверхность [земля, вода] ”
underwater-to-underwater missile (UUM)	ракета класса “подводная лодка – подводная цель ”
air-to-underwater missile (AUM)	ракета класса “воздух – подводная цель”
surface-to- underwater missile (SUM)	ракета класса “поверхность [земля, вода] – подводная цель”
guided aircraft missile	авиационная управляемая ракета
air defense missile (ADM)	зенитная ракета

\* \* \*

to have a range of 3,000 n mi	обладать дальностью действия в 3000 морских миль
be used as aircraft-to-aircraft weapon	использоваться как оружие воздушного боя
for use on the battlefield	для применения на поле боя
to be launched toward the target	запускаться в направлении цели

## EXERCISES

### I. Study these translations before reading texts A and B

1. The term “**rocket**” has two quite different meanings: (1) a projectile, pyrotechnical device or flying vehicle propelled by a rocket engine, and (2) the rocket engine itself. – Термин *rocket* имеет два совершенно различных значения: (1) снаряд, пиротехническое устройство или летательный аппарат, приводимый в движение ракетным двигателем, и (2) сам ракетный двигатель.
2. A **missile** is any object thrown, dropped, fired, launched or otherwise projected with the purpose of striking a target, a short for “ballistic missile”, “guided missile”. “Missile” should not be used loosely as a synonym for rocket and spacecraft. – Термин *missile* обозначает любой объект, выведенный на траекторию силой броска, путем сбрасывания, выстреливания, пуска или другим путем для поражения цели. Это сокращенный вариант терминов “баллистическая ракета”, “управляемая ракета”. Его не следует свободно употреблять в качестве синонима терминов *rocket* или *spacecraft*.
3. A **cruise missile** is an unmanned weapon system which has a warhead, is propelled by an air-breathing engine and uses wings for lift like an airplane. – **Крылатая ракета** – это беспилотная система оружия, оснащенная боевой головкой.

*Полет ракеты осуществляется с помощью воздушно-реактивного двигателя, а подъемная сила, как и на самолете, образуется благодаря наличию крыльев.*

4. The US Air Force has developed the **air-launched cruise missile (ALCM)** designed for internal carriage on B1 and external carriage on B52. – *BBC США разработали авиационную крылатую ракету, которая предназначена для вооружения бомбардировщиков B1 и B52. На бомбардировщике B1 они будут размещаться внутри, а на B52 – на внешней подвеске.*
5. **The submarine-launched cruise missile (SLCM)** is to be fired from a standard submarine torpedo tube and when the missile has been forced clear of the submarine a boost rocket is fired and propels the missile to the water surface and some distance into the air. – *Лодочная крылатая ракета запускается из обычного торпедного аппарата подводной лодки, а при выходе ракеты из подводной лодки запускается ракетный ускоритель, который выбрасывает ракету из воды на некоторое расстояние.*
6. **The IRBM** is a missile with a range capability from about 1,500 to 3,000 nautical miles. – *Баллистическая ракета средней дальности способна преодолевать расстояния от 1500 до 3000 морских миль.*
7. **launch complex** (The site, facilities and equipment used to launch a rocket vehicle. The term sometimes considered to include the launch crew) – *стартовый комплекс (Стартовая позиция, оснащение и оборудование, которые используются для запуска ракеты. В это понятие иногда включают и стартовый расчет.)*
8. **launch site** (A defined area from which a rocket vehicle is launched) – *стартовая позиция (Определенный район, из которого производится запуск ракеты)*
9. **launch pad** (The load-bearing base or platform from which a rocket vehicle is launched) – *стартовый стол (Основание или платформа, с которых производится пуск ракеты.)*
10. **silo** (A missile shelter that consists of a hardened vertical hole in the ground with facilities for direct launch from the shelter) – *стартовая позиция шахтного типа (Укрытие для ракеты, представляющее собой вертикальную оборудованную в противоядерном отношении шахту, которая оснащена всем необходимым для производства пуска из нее ракеты.)*
11. **Homing guidance** is a system by which a missile steers itself towards a target by means of mechanism which is activated by some distinguishing characteristics of the target. – *При самонаведении используется система, оснащенная блоком наведения. Блок, чутко реагируя на отличительные признаки цели, направляет ракету на цель.*

## **II. Read these texts without a dictionary or translate them from hearing**

### **1. Missiles and Rockets**

Rockets are unguided. They follow the ballistic trajectory.

Missiles are guided rockets. They are equipped with special guidance systems which guide the vehicles in their flight. The guidance systems may be radio, inertial or homing. Usually a missile is equipped with a combination of these.

The rocket or the missile is characterized by its thrust (in pounds), its length (in feet), its weight (in pounds), its range (in miles), its power plant, its speed (in miles per hour), its guidance system and type of fuel the rocket burns.

All missiles and rockets are divided into 2 large classes. Class one: missiles and rockets equipped with solid propellant engines; class two: missiles and rockets equipped with liquid propellant engines.

There are the following four general categories of the missiles and rockets: SAM, ASM, AAM, and SSM.

According to their combat employment all missiles and rockets are divided into tactical, strategic and air defense groups. Antitank msls come under the tactical group.

Antimissile msls are included in the air space defense group.

### **2. Classification of Artillery Missiles**

Arty msls are classified according to type as rockets and guided missiles.

A rkt is aimed by orienting the launcher. It has no guidance system within or out and therefore cannot be further guided once it is fired. The rocket motor burns until it is *exhausted*.

An arty msl whose traj or flight path may be altered or corrected after firing by a guiding mechanism within or without the msl is called a Guided Missile.

The term Ballistic Missile (or Ballistic Guided Missile) means a guided msl which is powered only during the early stages of flight. Thereafter it follows a high, curving trajectory similar to that of an arty shell.

A guided msl whose flight path may be altered by electrical signals received through *trailing wires* as it heads for target is known as remote-controlled, wire-guided missile, generally antitank (AT).

#### **\*Notes:**

exhaust – истощать

trailing wire – сигнальный провод; провод управления

### 3. Classification of Guided Missiles

All missiles are subdivided into two categories: free rockets which contain no guidance mechanisms and guided missiles that can be directed to a target by commands originating from outside the weapon or by instruments built into it.

A guided missile may be defined as an unmanned vehicle, designed as a weapon, which travels above the earth's surface along a trajectory that can be altered by a mechanism within the vehicle itself; this vehicle destroys itself in carrying out its mission. A guided missile usually contains all or most of the following items: (a) propulsion system, (b) guidance and control system, (c) warhead, (d) fuze, and (e) aerodynamic configuration.

### 4. Launchers

The purpose of a launcher is to aim the rocket, that is, fix the direction of flight by controlling the motion of center of gravity until the rocket leaves the launcher. The two general types are launcher tubes and *launcher rails*\*. *Multiple launchers*\* are groups of tubes or *rails*\* to provide more rapid rate of fire than it can be done from single launchers.

The US Army uses the M91 multiple rocket launcher cal 155 mm, capable of delivering chemical ammunition at ranges up to 9,000 meters. The M91 launcher consists of a *cluster*\* of 45 aluminum tubes, mounted on a *trailer carriage*\*, towed by a 2.5-ton truck. It is also helicopter-transportable.

Rockets and guided missiles are as much a part of the Army firepower as the howitzer or the gun, the rifle or the machine-gun.

#### **\*Notes:**

launcher rail – направляющая пусковой установки

multiple launcher – реактивная установка залпового огня

rail – рельсы; рельсовая направляющая

cluster of tubes – пакет трубчатых направляющих

trailer carriage – прицеп, трейлер, лафет

### 5. Homing Guidance

Homing guidance is a system by which a missile steers itself towards a target by means of the mechanism which is activated by some distinguishing characteristics of the target.

Homing may be active, semiactive or passive.

In passive homing the missile carries apparatus which enables it to home on to a source of energy radiated by the target such as infrared radiation.

In active homing the missile itself sends out radio energy which is reflected back from the target.

In semiactive homing the firing ship or aircraft keeps a radar beam locked on to the target and the missile homes on the reflection of this beam.

The disadvantage of active over passive or semipassive homing is the extra weight of the transmitter which the missile has to carry.

The control of the missile in flight is normally achieved by the use of an autopilot computer unit.

### **III. Decipher the following abbreviations:**

tgt; wpn; veh; tj; msn; cbt; msl; ICBM; IRBM; MRBM; SRBM; n mi; AAM; ASM; SAM; SSM; acft; ABM; USM; MIRV; SRAM; UUM; AUM; ADM; ULMS; ALCM; whd; lchr; rkt; sys; tac; equip; cal; strat; comm.; con; sup; spt; elm; info

### **IV. Put questions using the words in brackets.**

1. All missiles are subdivided into two categories free rockets and guided missiles. **(What categories ...)**
2. Guided missiles are directed to a target by commands. **(In what way ...)**
3. Ballistic missiles include ICBMs, IRBMs, MRBMs and SRBMs. **(What missiles ...)**
4. The launching point of surface-to-air msls is on the surface and the target is in the air. **(Where ...)**
5. According to their combat missions all msls and rkts are classified as battlefield msls, tactical msls and strategic msls. **(How ...)**
6. The conventional classification of msls includes two categories: ballistic msls and non-ballistic msls. **(How many ...)**

### **V. Translate these questions into English.**

1. Это управляемая ракета? Это неуправляемая ракета? Это баллистическая ракета? Это ракета класса “воздух – воздух”? Это межконтинентальная баллистическая ракета? Это ракета ближнего действия? Это ракета класса “подводная лодка – подводная цель”?
2. Какова максимальная дальность ракеты Минитман? Какова максимальная скорость ракеты Минитман? Каков диаметр ракеты Томагавк? Какова длина ракеты Трайдент? Каков стартовый вес ракеты MX?
3. Для чего применяются межконтинентальные баллистические ракеты наземного базирования? Для чего предназначены ракеты класса “поверхность – воздух”? Для чего используются ракеты класса “воздух – подводная лодка”? Для чего предназначены противорадиолокационные ракеты? Для чего используются крылатые ракеты?

## **VI. Translate as *q u i c k l y* as possible:**

система наведения; is capable of changing its course; управляемая ракета; fuze; команды, вырабатываемые вне ракеты; warhead; воздушно-реактивный двигатель; solid propellant rocket engine; ракета класса “поверхность – воздух”; airfoil; корпус (ракеты); intermediate-range ballistic missile; авиационная управляемая ракета; MIRV; обычная или ядерная боевая часть; a pilotless aircraft; межконтинентальная баллистическая ракета; cruise missile; пусковая установка; air defense missile; противоракета; antiradiation missile; зенитная ракета; surface-to-underwater missile

## **VII. Translate into Russian in *w r i t t e n* form.**

### **Strategic missiles**

Strategic missiles represent a logical step in the attempt to attack enemy forces at a distance. As such, they can be seen as extensions of either artillery (in the case of ballistic missiles) or manned aircraft (in the case of cruise missiles). Ballistic missiles are rocket-propelled weapons that travel by momentum in a high, arcing trajectory after they have been launched into flight by a brief burst of power. Cruise missiles, on the other hand, are powered continuously by air-breathing jet engines and are sustained along a low, level flight path by aerodynamic lift.

Although experiments were undertaken before World War II on crude prototypes of the cruise and ballistic missiles, the modern weapons are generally considered to have their true origins in the V-1 and V-2 missiles launched by Germany in 1941-45. Both of those Vergeltungswaffen, or “Vengeance Weapons”, defined the problems of propulsion and guidance that have continued ever since to shape cruise and ballistic missile development.

Given the extremely long ranges required of strategic weapons, even the most modern guidance systems cannot deliver a missile’s warhead to the target with consistent, pinpoint accuracy. For this reason, strategic missiles have almost exclusively carried nuclear warheads, which need not strike a target directly in order to destroy it. By contrast, missiles of shorter range (often called tactical- or battlefield-range) have been fitted with both nuclear and conventional warheads.

For example, the SS-1 Scud, a ballistic missile with ranges of up to 185 miles (300 kilometers), was fielded with nuclear warheads by Soviet troops in eastern Europe from the 1950s through the 1980s; but in the “war of the cities” during the Iran-Iraq conflict of the 1980s, many SS-1s armed with conventional warheads were launched by both sides, killing thousands of civilians.



## VIII.

### A. Read two texts and find at least two English equivalents (partial or full) to the Russian words below:

самолет-снаряд, планирующая бомба – *flying bomb*

беспилотный –

беспилотник –

бомбардировать, забрасывать –

крылатая ракета –

оружие возмездия –

аппарат однократного запуска –

The V-1 German “Buzz Bomb”	The V-1 German Rocket
<p>On June 13, 1944, Nazi Germany unleashed a new type of weapon: The Fieseler Fi 103 “flying bomb,” a small, pilotless, medium-range unguided winged missile. Launched from bases in northern France, the Netherlands, and western Germany, the Fi 103 enabled the German Luftwaffe to bombard Belgium, England, and France when the Allied air forces possessed air superiority over Western Europe. Because the Fi 103 could thus “avenge” Allied bombing raids on Germany, the German Propaganda Ministry called the Fi 103 Vergeltungswaffe Eins (“Vengeance Weapon 1”), or “V-1” for short, and V-1 is the name by which it is best remembered.</p> <p>The entire V-1 was a disposable vehicle powered by a primitive yet powerful “pulsejet” engine which gave the V-1 a loud, raucous noise that could be heard from more than ten miles (sixteen kilometers) away. This rasping sound earned the V-1 the nickname “Buzz Bomb.”</p> <p>Germany built some 30,000 V1s and launched approximately 22,400 – most from ground-based ramps (наклонная ПУ), but nearly 2,000 from modified Heinkel He 111 bombers. The Museum’s V-1 was restored from parts salvaged from the notorious</p>	<p>The V-1 was an unmanned, unguided, expendable flying bomb. Although primitive by today's standards, it was the first of what we now call a "cruise missile." It was designed by the Fiesler company and designated the FZG-76. The Germans called it "Vergeltungswaffe" or "retaliation weapon." Since it was the first such weapon, it was designated the V-1.</p> <p>The V-1 was a liquid fuelled, pulse-jet drone aircraft that could carry a 2,000 lb warhead. There was no navigation system, so it was simply pointed in the direction of its target. Simple gyrocompasses kept it level and range was controlled by the fuel supply. Its typical target was a city in southern England.</p> <p>The first V-1 flew in 1942 at Peenemunde on the southern Baltic coast. A series of fixed launching sites were constructed in France, Holland, Denmark and Germany to allow the Germans to shower V-1s on any part of southern England.</p> <p>However, German planning did not take into account a strong bomber and fighter-bomber offensive against the V-1 launch sites. This forced the Germans into creating mobile launch sites and launching some</p>

Mittelwerk factory at Nordhausen, Germany, where slave laborers from Concentration Camp Dora built V-1s and V-2 ballistic missiles.	from Heinkel 111 bombers.
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### ***B. And now render this text in English:***

**Крылатая раке́та** – беспилотный летательный аппарат однократного запуска, траектория полёта которого определяется аэродинамической подъёмной силой крыла, тягой двигателя и силой тяжести.

Крылатые ракеты – это быстродвижущиеся управляемые бомбы, которые могут перемещаться на предельно малых высотах параллельно земле. Они отличаются от обычных ракет, прежде всего тем, что они могут лететь на очень дальние расстояния. От беспилотных самолетов они отличаются тем, что у них нет наземных пилотов – они движутся по заранее заданной траектории – а также тем, что их можно использовать только один раз. Германия применила первые крылатые ракеты во время Второй мировой войны. Они назывались «Фау-1», сокращенно от немецкого слова *Vergeltung*, означающего «возмездие». Впервые их запустили с военных баз на севере Франции для нанесения удара по Великобритании. Основным преимуществом ракет «Фау-1», а также всех крылатых ракет, появившихся позже, является возможность атаковать, находясь на далеком расстоянии от противника и без пилота.

Устаревшее название сконструированной по самолётной (классической) схеме крылатой ракеты – **самолёт-снаряд** (термин вышел из употребления, поскольку им же называли планирующие авиабомбы, что приводило к путанице). Нередко термин путают с англоязычным термином **cruise missile**, однако последняя является управляемой ракетой, у которой большая часть полёта к цели проходит с постоянной скоростью под воздействием подъёмной силы крыла и силы тяги для компенсации сопротивления воздуха.

### ***IX. Translate into English.***

1. Все ракеты делятся на две категории: неуправляемые ракеты, у которых нет устройства наведения, и управляемые, которые наводятся на цель командами.
2. Управляемая ракета содержит силовую установку, систему наведения, боевую часть, взрыватель и корпус.
3. При помощи силовой установки тепловая энергия газа преобразуется под действием высокого давления и температуры в кинетическую энергию.
4. Корпус управляемой ракеты состоит из тела ракеты и аэродинамических поверхностей, которые стабилизируют ракету в полете и изменяют ее траекторию.

5. Крылатые ракеты имеют боевую часть либо ядерную, либо неядерную, приводятся в движение воздушно-реактивным двигателем и используют крылья для полета подобно самолету.
6. Все баллистические ракеты подразделяются на межконтинентальные баллистические ракеты, баллистические ракеты средней дальности и баллистические ракеты ближнего действия.
7. Ракеты класса “воздух – воздух” используются как оружие воздушного боя.
8. Ракеты класса “поверхность – воздух” предназначены для уничтожения самолетов противника на любой высоте.

**X. Answer the following questions.**

1. What are the two main categories all missiles are subdivided into?
2. What parts are the guided missiles composed of?
3. What jet engines are usually mounted in guided missiles?
4. What is the function of the propulsion plant?
5. What classes of msIs are there according to the propellants they use?
6. What is the guidance system?
7. What warheads may be used in guided msIs?
8. What is the design of a guided msl airframe?
9. What classifications of guided msIs do you know?
10. What is a ballistic msl?
11. What group does a cruise msl belong to?

**XI. Prepare a report on the topic using the text below.**

***Classification of Missiles***

**Type:** Cruise missiles and Ballistic missiles

**Launch Mode:** surface-to-surface missiles

surface-to-air missiles  
surface (coast)-to-sea missiles  
air-to-air missiles  
air-to-surface missiles  
sea-to-sea missiles  
sea-to-surface (coast) missiles  
anti-tank missiles

**Range:** short range missiles, medium range missiles, intermediate-range ballistic missiles, intercontinental ballistic missiles.

**Propulsion:** solid, liquid, hybrid

**Warhead:** conventional or strategic

**Guidance System:** wire guidance

command guidance  
terrain guidance (по рельефу местности)  
inertial guidance  
laser guidance  
beam rider guidance (по лучу)  
RF and GPS reference guidance (радиочастотное и спутниковое наведение)

## **XII. Two-way translation**

1. Известно, что на вооружении ВВС США состоят на вооружении межконтинентальные баллистические ракеты «Минитмен III». Что вы знаете о них? – *The LGM-30G Minuteman intercontinental ballistic missile, or ICBM, is an element of the nation's strategic deterrent forces under the control of the Air Force Global Strike Command. The "L" in LGM is the Department of Defense designation for silo-launched; "G" means surface attack; "M" stands for guided missile, the 30 stands for the Minuteman series of missile and the G after "30" is the current Minuteman III.*
2. Что вы можете сказать о точности этой ракеты? – *Oh, this missile is very accurate. It is the most accurate of all US ICBMs. Its accuracy is 90 meters.*
3. А что Вы можете сказать о размещении этих ракет? – *Missiles are dispersed in hardened silos to protect against attack and connected to an underground launch control center through a system of hardened cables. Launch crews, consisting of two officers, perform around-the-clock alert in the launch control center.*
4. Какова дальность ракеты? – *More than 6,000 miles.*
5. А что вы можете сказать о мощности этой ракеты? – *Minuteman III msl has only 3 warheads. As for their yield I have no idea.*
6. Какие типы ракет “воздух – воздух” вам известны? – *The two most common types are infrared, or heat-seeking, systems, such as the AIM-9L Sidewinder, and radar-guided systems, such as the AIM-7M Sparrow. Essentially, radar-guided missiles home in on a target “painted” by a friendly radar.*
7. Есть ли какие-нибудь тактические преимущества у ракет “воздух – воздух” с системой наведения по радару? – *Yes, there are. The radar-guided missiles are longer-ranged than heat-seeking missiles and could usually attack from any angle. But they are more complex and cost more to build.*
8. Поясните, что означает термин “система наведения с отслеживанием рельефа местности”. – *In terrain contour matching (TERCOM) an altitude profile of the terrain directly under the missile is periodically compared with a “map” stored in the system memory of the missile.*

## SUPPLEMENTARY TEXTS

### 1. MIRV

Multiple Independently Targeted Reentry Vehicles (MIRVs) tip\* the Navy's Trident and the Air Force's Minuteman III missiles. Rather than increasing the number of land-based missiles or building additional *Nuclear-Powered Fleet Ballistic Missiles Submarines*, the United States decided to increase *nuclear delivery capability* with the MIRV system.

Using MIRV-technique, a single Minuteman III or Trident could place several missiles on targets hundreds of miles apart. With addition of *decoys*, MIRV also is expected to be better able to penetrate antiballistic missile defenses and saturate a target area to the point that antiballistic missile defenses would be limited in their effectiveness.

While no official figures have been released by the DOD, reports have been widely published that the Minuteman III carries three warheads while the Trident carries up to 15.

#### Words which will help you to translate the text:

1. nuclear-powered fleet ballistic missiles submarines – атомная ракетная подводная лодка с баллистическими ракетами (ПЛАРБ)
2. nuclear delivery capability – возможности нанесения ядерных ударов
3. decoy – ложная цель (ЛЦ), средство отвлечения

#### \*Notes:

tip – зд. быть установленным в головной части ракеты

### 2. HARPOON (AGM-84A and RGM-84A)

Air-, surface ship- and submarine-launched versions of the Harpoon tactical *anti-ship* missiles have been developed. The designations AGM-84A and RGM-84A refer to the first two models, respectively, and the last is also known as *Encapsulated* Harpoon. Harpoon is officially regarded as the principal American anti-ship weapon and has been designed for launch from all classes of USN surface ships, the S-3 Viking and P-3 Orion *maritime patrol aircraft*, USN A-6 and A-7 attack aircraft. Other nations that have or are expected to place orders for either version of Harpoon are: Australia, Saudi Arabia, Turkey, Iran, Israel, South Korea, Netherlands, Norway, Denmark, West Germany and the United Kingdom.

The *ship-borne version* is common to all modifications of the missile. The main body of the missile with its cruise-phase propulsion and guidance systems, homing and *terminal* maneuvering systems, *ECCM* facilities, and warhead is

common to all models: the aerodynamic surfaces of the system exist in several forms for compatibility\* with various aircraft, ship-board and submarine launchers.

The weapon control system for Harpoon AN/SWY-I(Y) is produced by McDonnell Douglas, with Sperry as subcontractor. The Harpoon Data Processor digital computer receives targeting and altitude data from standard ship-borne equipment and computes the necessary missile and launcher orders. Terminal guidance is achieved by means of a Texas Instruments DSQ-28 active radar homing system, which maintains its *lock* until final impact. The radar homing system coupled with extensive on-board computer logic circuitry, provides considerable ECCM capability to the missile in the terminal phase.

The weapon system development contract was awarded in July 1973 and entry into service began in 1977.

*Type:* air-to-surface and surface-to-surface anti-ship missile; submarine-launched version also in development

*Length:* 3.84 m; 4.57 m with booster

*Diameter:* 34 cm

*Span (max):* 83 cm

*Weight:* 500 kg; 635 kg with booster

*Propulsion:* solid booster; Teledyne CAE J402 turbojet cruise motor

*Range:* 110 km

*Guidance:* programmed inertial plus radio altimeter cruise; active radar terminal homing

*Warhead:* high-explosive 227 kg

*Main Contractor:* McDonnell Douglas Astronautics Company

### **Words which will help you to translate the text:**

1. anti-ship missile – противокорабельная ракета
2. encapsulated – заключенный в контейнер
3. maritime patrol aircraft – самолеты базовой патрульной авиации
4. ship-borne version – корабельный вариант
5. homing system – система самонаведения
6. terminal (phase) – конечный участок полета
7. ECCM=electronic counter-countermeasures – меры борьбы с радиопротиводействием
8. lock – захват цели

### **\* Notes:**

compatibility – совместимость

### 3. TOMAHAWK MISSILES

This system, also known as the Sea-Launched Cruise Missile (**SLCM**), is to provide US submarines with an underwater-launched cruise msls for both strategic and tactical purposes. The possibility of its use in a land-based form for coastal defense or as a mobile battlefield support weapon is also under consideration. This program is paralleled by the **ALCM** (Air-Launched Cruise Missile) project of the USAF and both armed services have been instructed to ensure maximum similarity between the two weapons.

Both tactical and strategic versions of Tomahawk are to be suitable for launching from standard size **torpedo tubes**. The tactical model will have a range of 555 km or more and will be armed with a conventional warhead for anti-ship and **shore bombardment** missions. The present warhead is of sufficient size (454 kg) to provide a high single-shot **kill probability**. The strategic version's maximum range is to be about 3,700 km and a nuclear warhead will be available. The tactical version of Tomahawk will use many sub-systems of the Harpoon msl, although the former will have a heavier warhead and a much greater **stand-off range**.

After launch Tomahawk will descend to a height of a few meters for its low-level cruise to the target area under **inertial guidance**. A pre-programmed climb will bring it to an altitude at which a programmed descent is initiated. Subsequently **re-acquisition of the target** occurs and the msl climbs again to make an attack. The strategic version will follow a low-level flight path under an inertial navigation system updated by a **TERCOM system**. The target data are stored on magnetic tapes aboard the submarine carrying Tomahawk and there are provisions for reading this data into msls before launch.

#### Words which will help you to translate the text:

1. SLCM – крылатая ракета морского базирования
2. ALCM – крылатая ракета воздушного базирования
3. torpedo tube – торпедный аппарат
4. shore bombardment – нанесение ударов по береговым целям
5. kill probability – вероятность поражения
6. stand-off range – расстояние за пределами досягаемости ПВО противника
7. inertial guidance – инерциальное наведение
8. climb – подъем, набор высоты
9. target acquisition – обнаружение, разведка цели
10. TERCOM system (Terrain Countour Matching) – система наведения с отслеживанием рельефа местности

### 4. TRIDENT STRATEGIC WEAPON SYSTEM

The USM-93A Trident I missile is three-stage ballistic missile powered by

solid-fuel motors and guided by a self-contained inertial guidance system, with a range approximately 7,000 km. It can be launched from submerged or surfaced **FBM submarines** and is ejected by the pressure of expanding gas within the missile **launching tube**. After the missile has attained sufficient acceleration and reached a specific distance from the submarine, the first-stage motor is ignited, the “Aerospike” (an **extendable spike** at the nose of the missile to improve aerodynamic performance) is deployed, and the boost phase begins. When the first-stage motor **burns out**, it and the **interstage** are separated from the missile, the second-stage motor is ignited, and the boost stage continues. As acceleration decreases because of second-stage motor burn-out, the second-stage motor is separated and the third-stage motor ignites to continue the boost phase. Third-stage burn-out completes the boost-phase after which the post-boost control system provides equipment section thrust and control until all the **RVs** have been deployed. The payload of the missile is Mk4 with 8 XW 76 100 kt MIRVs, **CEP** is 460 m.

More powerful Trident II is in full-scale production. It has the following characteristics:

*Length:* 13.42 m

*Diameter:* 2.11 m

*Weight:* 59,090 kg

*Payload:* Mk5 RV with 8 to 12 RVs each with 300-475 kt warheads

*Range:* 12,000 km

*Guidance:* Mk6 stellar-inertial

*CEP:* 120 m

### Words which will help you to translate the text:

1. FBM (Fleet Ballistic Missile) submarine – подводная лодка – носитель баллистических ракет; ракетная подводная лодка
2. launching tube – трубчатая пусковая направляющая
3. extendable spike – выдвижной аэродинамический штыревой наконечник
4. interstage – промежуточный отсек между ступенями ракеты
5. burn-out – выжигание (выгорание) топлива
6. RV = Reentry Vehicle – боевой элемент головной части ракеты
7. CEP = Circular Error, Probable – круговая (радиальная) вероятная ошибка (отклонение)

## 5. THE US MINUTEMAN ICBMs

Of the four versions of Minuteman, which have been developed, two are now in service, Minuteman II and Minuteman III. Both versions are about the same size but the Minuteman III is heavier. It is equipped with the MK12 MIRV warhead, as



opposed to Minuteman II's single payload. Both versions are the subject to the Minuteman Force Modernization Program that has been in progress for several years and which involves updating electronics and the provision of additional operational facilities. Also included is the development of a new higher *yield* warhead, the MK12A.

MsIs are stored ready for launch in individual *launch sites*, each having a surface area of 2 to 3 acres. The individual *launch silo* is nearly 25 m deep and nearly 4 m in diameter. The flight-*launch control center* is situated some 15 m underground and is operated by two officers. The missile launch sites are unmanned, each being so deployed as to be 5 km from a launch control center and at least 9 km from any other launch site.

In the Minuteman II eight targets are stored in the missile's computer, one of which is the primary target. Any of the remaining seven can be selected by a crew member in a launch control center. To change the target data stored in the msl computer requires re-programming, which could take 36 hours. All Minuteman II msIs are of this type.

Minuteman III is a three-stage, solid-propellant second-generation ICBM. MIRV capability enables this version to place warheads on three targets with a high degree of accuracy. Minuteman III also increases the possibility of penetrating enemy defense systems. The missile is provided with *Command Data Buffer System* that permits rapid missile retargeting. Recent R&D has provided improved command control and communication and MK-12A reentry vehicle which increases the yield of the Minutemen III warhead and its accuracy.

**Words which will help you to translate the text:**

1. yield – мощность (ядерного боеприпаса)
2. launch site – стартовая позиция
3. launch silo – стартовая шахта
4. launch control center – центр (пункт) управления пуском ракеты
5. Command Data Buffer System (CDBS) – система дистанционного ввода команд МБР (для перенацеливания)

## ГЛАВА 6

### ПРОТИВОВОЗДУШНАЯ, ПРОТИВОРАКЕТНАЯ И ПРОТИВОКОСМИЧЕСКАЯ ОБОРОНА

#### AEROSPACE DEFENSE

The Aerospace Defense has three primary missions.

The first mission is to deny airspace to hostile aircraft as well as to achieve and maintain air superiority (**Air Defense**).

The second mission is to protect the country against missiles (**Ballistic Missile Defense**).

And the third task is the protection against space weapons (**Space Defense**).

#### A. Air Defense

Air Defense (AD) covers a multitude of tasks, both strategic and tactical. It can be active and passive.

The active air defense includes the use of such means as aircraft, antiaircraft guns, electronic countermeasures and surface-to-air guided missiles to defend areas or objectives against air attacks. It suggests the destruction of enemy air targets.

The passive air defense is aimed at minimizing the effects of hostile air attack and includes the use of cover, concealment, camouflage, deception, dispersion and protective construction.

Active Air Defense of a large area is termed “general air defense”. Air Defense of a small area or an isolated objective is called “local air defense”.

Strategic aim of air defense is to protect a whole country or a group of allied countries against all hostile aircraft. Although the primary strategic threat to the United States is from ballistic missiles, warning of bomber attack is still an important function. The current system to provide bomber warning is the Distant Early Warning Line (DEW Line) of radars across the top of the continent and the Pine Tree Line running along the US-Canadian border. It is a combat as well as warning line.

The continent is divided into air defense force regions, of which there are three in the United States: Eastern, Central and Western, with an air defense force for each. The air defense force regions are divided into air defense areas made up of several air defense sectors. The sector is an area containing all of the air defense weapons and resources needed to detect and destroy an airborne target. All the weapons within the air defense sector are controlled from the air defense direction center. The radars of the direction center control the interceptors by guiding them towards the unidentified plane. If it should prove to be hostile, then the direction center commander would give units on the alert the order to attack.

The rise in tactical air power has added a new dimension to the modern battlefield. Aircraft can now deliver sophisticated, accurate weaponry in high-speed

low-level attacks, and defenses have to meet the threat. To most armies that means missile defenses, but an important component in battlefield air defenses is provided by gun systems. Guns and missiles are complementary, the missiles taking care of the longer ranges and the guns providing close-in defense. So most countries today employ a mix of guns and missiles to defend the units in the field.

## **B. Ballistic Missile Defense**

The main function of ballistic missile defense today is warning of a missile attack, its objective being to cover all potential ICBM and SLBM approach corridors with different types of sensors. This mission is performed by the early warning satellite system which senses infrared missile signature characteristics and a number of radar early warning systems such as: Ballistic Missile Early Warning System (BMEWS), Perimeter Acquisition Radar Attack Characterization System (PARCS), coastal phased-array radars (the PAVE PAWS program).

## **C. Space Defense**

The task of protecting against space weapons (Space Defense) is limited by only surveillance/warning function which involves the detection, tracking and identification of all objects in space to determine potential hostile intent or for targeting of anti-satellite systems. This is done by radar-based Space Detection and Tracking System (SPADATS) and Ground-based Electro-Optical Deep Space Surveillance System (GEODSS), the former consisting of the US Navy's information gathering system SPASUR and the US Air Force's Space Tracking System (STS).

In order to integrate the total defense resources of the US and Canada for the Aerospace Defense of the North American Continent a joint US-Canadian Command was established. It's official title is NORAD which stands for North American Aerospace Defense. The headquarters of NORAD is located in Colorado-Springs, Colorado.

## **ACTIVE TERMS AND EXPRESSIONS**

Aerospace Defense	воздушно-космическая оборона (ПВО, ПРО, ПКО)
air superiority	превосходство в воздухе
Air Defense (AD)	противовоздушная оборона
Ballistic Missile Defense (BMD)	противоракетная оборона
Space Defense	противокосмическая оборона

### **A.**

active AD	активная ПВО
passive AD	пассивная ПВО
antiaircraft guns	зенитные орудия

electronic countermeasures (ECM)	радиоэлектронное противодействие
air attack	воздушное нападение
cover	укрытие (от огня)
concealment	укрытие от наблюдения; маскировка
camouflage	камуфляж, маскировка
deception	введение в заблуждение
dispersion	рассредоточение
general (area) AD	общая ПВО; ПВО района
local (point) AD	местная ПВО; ПВО объекта
early warning	дальнее обнаружение; раннее предупреждение
air defense region (sector)	район (сектор) ПВО
air (airborne) target	воздушная цель
interceptor	истребитель-перехватчик

\* \* \*

to deny aerospace	не допустить в воздушное пространство
to achieve air superiority	достигать превосходства в воздухе
to maintain	удерживать, сохранять
to warn	оповещать, предупреждать (о приближении неопознанных самолетов; ракетном нападении)
units on the alert	подразделения и части в боевой готовности, на боевом дежурстве

## **B.**

sensor	средство обнаружения
signature	признак, свойство; отличительное качество; характеристика; сигнатура
acquisition	определение местоположения; обнаружение, захват и сопровождение (цели)
acquisition radar	РЛС обнаружения цели
phased-array radar	РЛС с антенной типа фазированная решетка

## **C.**

hostile intent	намерения противника
targeting	целеуказание, получение данных о цели, оценка вероятности поражения цели

\* \* \*

o detect a target	обнаружить цель
to track a target	сопровождать цель
to engage a target	вести огонь по цели
to acquire a target	обнаруживать цель
to intercept a target	перехватывать цель
guns and missiles	ствольная и реактивная артиллерия, артиллерийские орудия и ракеты (управляемые)

## E X E R C I S E S

### I. Study these *t r a n s l a t i o n s* before reading texts A, B and C.

1. The active air defense includes the use of such means as aircraft, antiaircraft guns, electronic countermeasures, and surface-to-air guided missiles. – *Активная ПВО включает в себя применение таких средств, как самолеты, зенитные артиллерийские установки, средства электронного противодействия и зенитные управляемые ракеты класса “земля-воздух”.*
2. The passive air defense includes the use of cover, concealment, camouflage, deception, dispersion and protective construction. – *Пассивная ПВО включает в себя использование убежищ, укрытий от огня и наблюдения, средств маскировки, проведения мероприятий по введению противника в заблуждение, рассредоточению и строительству защитных сооружений.*

### II. Decipher the following *a b b r e v i a t i o n s*.

AF; atk; msls; US; acft; AD; ECM; info; wpn; sys; tgt; survl; div; msl  
sys; HAWK; def; en; mbl; equip; mblty; mvmt; con; mph; gnd tgt; veh; mech;  
bat; APC; rpm; log; bn

### III. Read these texts to get more information on the topic.

#### 1.

**SAGE System.** The heart of the entire defense system and of NORAD's command and control apparatus is the Semi-Automatic Ground Environmental system known as SAGE. It combines the **assets** of radar high-speed communications and electronic computers, providing the Commander with the information he needs to run the air battle. SAGE was a system of large computers and associated networking equipment that coordinated data from many radar sites and processed it to produce a single unified image of the airspace over a wide area. SAGE directed and controlled the NORAD response to an air attack threat, operating in this role from the late 1950s into the 1980s.

To perform its functions SAGE is provided with information on weather, status of weapons, flight plans of all **air traffic** and radar observations. It compares data from radar with known **friendly traffic (Identification Friend or Foe)**. If the **radar traffic** and the flight plan coincide, the **traffic** is identified. Otherwise, there is an unknown target **aloft**. SAGE provides the information needed to intercept the target at the most distant point as quickly as possible.

SAGE can successfully intercept the targets employing countermeasures. SAGE was the backbone of NORADs air defense system into the 1980s, by which time the tube-based FSQ-7 computers were increasingly costly to maintain and completely outdated. Today the same command and control task is carried out by microcomputers, based on the same basic underlying data.

***Words to be remembered:***

1. **SAGE** system (semiautomatic ground environmental) – система «Сейдж» (полуавтоматическая система наземного управления активными средствами ПВО)
2. assets – оборудование; ценные качества, преимущества; средства
3. air traffic – воздушное движение; полеты самолетов
4. friendly traffic – движение своих средств; полеты своих самолетов
5. identification – опознавание; принадлежность
6. Identification Friend-or-Foe (IFF) – система опознавания “свой – чужой”
7. radar traffic – фактическое движение средств, наблюдаемых на экране РЛС
8. traffic – зд. объект
9. aloft – в воздухе

**2.**

The U.S. Army has begun a plan to upgrade and extend the service life of its Stinger Block 1 missiles, service officials at the McAlester Army Ammunition Plant said recently.

The portable infrared heat-seeking surface-to-air missiles, first produced in the 1980s, will have their expected service life extended by an additional ten years after workers replace aging components, an Army statement said.

The Stinger service life improvement extension program will upgrade 850 Army missiles and 1,155 for the Marine Corps. The \$11 million project is being done by Redstone Arsenal, Huntsville, Ala.

In addition to extending the service life, the Stinger upgrade program will install a warhead section equipped with a **proximity fuze**, Army officials said in a statement.

The proximity fuze is designed to increase the weapon’s effectiveness against unmanned aerial systems.

The new upgraded Stinger missile will be redesignated as the FIM-92J. Work is expected to continue through 2016, Army officials said.

*\*a proximity fuze – неконтактный взрыватель*

### 3.

The proposed replacement for the ground-based radars and control stations are the airborne warning and control system aircraft (**AWACS**). The AWACS radar is installed in a modified version of the Boeing 707 commercial jet liner.

The range of the ground-based radar is limited by the curvature of the earth to about 200 miles. The AWACS aircraft flying at 30,000 ft is believed to be able to survey the sky from ground level to about 60,000 ft and has a range double that of the ground-based radars.

In addition to extending the range of aerial surveillance, the AWACS aircraft provides more reliable tracking of bombers flying in **terrain avoidance**. The **identity**, altitude and velocity as well as the position of all aircraft within the range of the AWACS radar can be indicated. AWACS will carry a flight crew of four and an additional crew of 13 to operate the **surveillance radar** and command equipment.

The AWACS aircraft could survive a missile attack simply by staying aloft. With an endurance of at least seven hours, it could probably remain airborne long enough to meet the incoming enemy bombers. If necessary, it could be refueled in flight.

The **utility** of AWACS would be increased, according to the DOD, by the deployment of a new long-range ground-based radar, the over-the-horizon back-scatter (OTH-B) system. **Over-the-horizon forward-scatter radar** already forms a part of the US early-warning network. Two units are planned: one looking east, and the other west. OTH-B could give at least 30 minutes warning of an attack, which would allow AWACS aircraft on the ground alert to be launched and which thus would improve the chance that a radar and command station for antibomber defenses would survive.

#### ***Words to be remembered:***

1. AWACS – самолетная система дальнего радиолокационного обнаружения и управления АВАКС
2. terrain avoidance – полет на малой высоте с огибанием рельефа местности
3. identity – принадлежность
4. surveillance radar – обзорная РЛС
5. utility – эффективность, полезность
6. over-the-horizon forward-scatter radar – загоризонтная РЛС; РЛС прямого рассеивания

#### ***IV. Decipher the names of the following aerospace defense systems.***

1. DEW (D – E – W) system
2. BMEWS (B – M – E – W – S)
3. SPADATS (SPA –D – a – T –S)
4. GEODSS (G – E – O –Deep – S – S)
5. STS (S – T – S)
6. SPASUR (SPA – SUR) system
7. AWACS (A –W –a – C – S)
8. NORAD (NOR – A – D) command

#### ***V. Translate into English.***

1. Противовоздушная оборона бывает активной и пассивной.
2. Активная ПВО включает использование таких средств, как самолеты, зенитные артиллерийские установки, средства электронного противодействия и зенитные управляемые ракеты класса “земля-воздух”.
3. Пассивная ПВО включает использование убежищ, укрытий от огня и наблюдения, средств маскировки, проведение мероприятий по введению противника в заблуждение, рассредоточению и созданию защитных сооружений.
4. В сентябре 1957 было учреждено Командование воздушно-космической обороны Североамериканского континента в целях защиты США и Канады от воздушного нападения.
5. Система ПВО СЕЙДЖ включает средства по передаче данных о воздушной обстановке в районе ПВО от источников сбора информации к центрам управления.
6. НОРАД имеет три основные задачи: не допустить самолеты противника в воздушное пространство, а также достичь и удержать превосходство в воздухе; защитить страну от ракетного нападения и космического оружия.

#### ***VI. Put questions to the boldly typed parts of the sentences.***

1. Patriot has required a **huge** investment.
2. There are **two** main criteria according to which Patriot system was to be developed.
3. Patriot can fulfil **the roles of both systems**.
4. The Patriot missile has a two to three times better **kill capability**.
5. The missile carries a modular digital **guidance system** which replaced the previous analog system **in 1978**.
6. The Patriot missile, parts of which were developed by **Martin Marietta in cooperation with Raytheon**, weighs **1,000 kg**.



7. To perform its functions SAGE is provided **with info on weather, status of weapons, flight plans of all air traffic and radar observations.**
8. Radars cannot track **aircraft flying close to the ground in the maneuver called “terrain avoidance”.**

**VII. Read the texts in the following manner: the English part – in Russian, the Russian part – in English**

**1.**

An (противоракета для борьбы с баллистическими ракетами) is a (поверхность-воздух) missile designed to counter (баллистические ракеты). (Баллистические ракеты) are used to (доставлять ядерные, химические, биологические и неядерные боевые части) in a ballistic flight trajectory. The term "(противоракета для борьбы с баллистическими ракетами)" describes any antimissile system designed to counter BM. However, the term is used more commonly for systems designed to counter (межконтинентальные баллистические ракеты).

**2. Ground-Based Midcourse Defense (GMD)**

*(Основная американская система для перехвата межконтинентальных баллистических ракет на среднем участке траектории)*

GMD is the (американская система борьбы с баллистическими ракетами) for (перехвата) incoming warheads in space, during the (полет на среднем участке траектории, маршевый полет) of ballistic trajectory flight. It is a major component of the American (стратегия ПРО) to counter BM, including ICBMs carrying (ядерные, химические, биологические и неядерные боевые части). GMD is administered by the U.S. Missile Defense Agency (MDA), while the operational control and execution is provided by the (американскими сухопутными войсками), and support functions are provided by the (американские ВВС). Previously known as **National Missile Defense (NMD)**, the name was changed in 2002 to differentiate it from other U.S. (ПРО) programs, such as (программы перехвата баллистических ракет космического и морского базирования), or *defense targeting the boost phase\* and reentry flight phases\**.

\*defense targeting the boost phase – ПРО (перехват ракет) на активном участке траектории  
\*defense targeting reentry flight phases – ПРО (перехват ракет) на участке входа в атмосферу

**3. Terminal High Altitude Area Defense system (THAAD)**

*(Система ПРО, которая сбивает ракеты меньшей и средней дальности за несколько минут до поражения цели)*

THAAD, formerly Theater High Altitude Area Defense, is a (американские сухопутные войска) anti-ballistic missile system designed to shoot down

(баллистические ракеты малой, средней и промежуточной дальности) in their (конечный участок полета) using a *hit-to-kill approach*\*. (Ракета не несет боевой части) but relies on the kinetic energy of the impact to destroy the incoming missile. A kinetic energy hit minimizes the risk of exploding (баллистические ракеты с обычной БЧ), and nuclear tipped ballistic missiles won't explode upon a kinetic energy hit, although chemical or biological warheads may disintegrate or explode and pose a risk of contaminating the environment. THAAD was designed to hit Scuds (the Soviet SS-1 Scud, a ballistic missile with (дальностью) of up to 185 miles (300 kilometers) with nuclear warheads) and similar weapons, but has a limited capability against ICBMs.

Although originally a U.S. Army program, THAAD has come under the umbrella of the (Агентство ПРО США). The Navy has a similar program, the (система ПРО морского базирования) Aegis, which now has a land component as well ("Aegis ashore").

\*a hit-to-kill or kinetic energy technology – технология применения кинетической энергии для поражения целей

### **VIII. *Translate in written form.***

Air defenses can complicate or discourage an attack. Since they are defensive, an air defense system doesn't have to destroy aircraft to be effective. Detering an attack all together would be an unmitigated success. Short of deterrence, forcing an attacker to choreograph an attack in a less efficient way, or forcing him to employ extensive assets to defeat radars and interceptors would also be measures of air defense success.

Modern air defense systems rely primarily on high velocity surface-to-air (SAM) interceptor missiles to destroy attacking enemy aircraft. At the small end of the scale are man-portable, short-range SAMs such as the Russian Strela-2 (SA-7 Grail) and the US Stinger. All are about 1.5 meters long and weigh less than 16 kg. These systems have ranges against aircraft typically less than 4 km. Although limited by their short range, this class of weapons has proved effective against aircraft. Since these systems are so small, aircraft often are surprised, and thus, the advantage swings to the SAM.

While accuracy, speed and invulnerability to counter-measures is obviously important, the primary measure of merit for air defenses is range. The longer the range of the defensive system, the larger the "foot print" attacking aircraft need to defeat or avoid. While the 4 km radius of a man-portable system may seem quite large, an aircraft attacking at Mach 1 would travel this 4 km from the weapon's range to the defender in 11,6 seconds. And a Stinger operator would have 11.6 seconds to survey, identify, and fire at an attacking aircraft dropping a standard "dumb-bomb".

By contrast, a system with a 100 km range – such as the Nike Hercules – would have almost 10 minutes to engage an incoming target in a best case scenario.

**IX. Answer the following questions.**

1. What are three primary missions of the Aerospace Defense?
2. What types of AD do you know?
3. What does active AD include?
4. What is the passive AD?
5. What are the US current systems to provide bomber warning?
6. What is the objective of the missile attack warning?
7. What does the task of protecting against space weapons mean?
8. What was the NORAD Command established for?

**X. Retell the texts**

**XI. Two – way translation**

1. Какие задачи возложены на НОРАД? – *NORAD is responsible for general and local air defense as well as for Ballistic Missile and Space Defense of the USA and Canada.*
2. Какие системы применяются для решения задач ПВО? – *The air defense systems include DEW (for Distant Early Warning) and Pine Tree Lines of radar systems running across the top of the continent and along the US-Canadian border respectively.*
3. А какие системы решают задачи ПРО и ПКО? – *These are BMEWS (Ballistic missile Early Warning System), comprising phased-array radar sites; Defense Support Program satellite system capable of detecting missiles launches; SPADATS with mission of tracking all objects in orbit. The latter has two components: the US Navy's SPASUR, an electronic fence across the southern US, and the US AF's STS system (SPACETRACK), composed of radar stations and optic sites.*
4. Как известно, континент разделен на районы и секторы ПВО. Откуда осуществляется управление ситами и средствами ПВО сектора? – *All the weapons within the air defense sector are controlled from the air defense direction center.*
5. Какова роль системы СЕЙДЖ? – *It consists of the facilities to transmit air-surveillance data from gathering sources to direction centers.*
6. Какие средства ПВО дивизии СВ США вам известны? – *I don't know much about it. As is known, air defense means of an Army division are short-range*

*Avenger air defense system and Stinger shoulder-fired missiles. They can shoot down only low-flying targets.*

7. Как известно, наиболее современным ЗРК США является Патриот. Что собой представляет его система наведения? – *I have only a general idea of it. Once launched, the Patriot is guided by the control station, using information from both the ground-based radar and a radar receiver in its nose. The Patriot's fragmentation warhead detonates near the enemy aircraft or missile.*
8. Какова наиболее важная тактическая характеристика ЗРК Патриот? – *To my mind, the most important tactical feature of the anti-aircraft Patriot system is its capability to engage several air targets simultaneously.*

## SUPPLEMENTARY TEXTS

### 1. NORAD/USNORTHCOM

The NORAD agreement between Canada and the U.S. was signed in 1958 at a time when the Soviet Union was making rapid advancements in both Long Range bomber Aviation (LRA) and nuclear weaponry. The requirement for both Canada and the U.S. to defend against this threat resulted in the establishment of the binational North American Air Defense Command. At its stand-up, NORAD's air defense capabilities relied upon radar chains built in the mid-1950s that stretched from coast to coast, and provided for the detection of aircraft entering North American airspace. The first radar chain was the Pinetree Line of 33 stations built across southern Canada, and completed in 1954. This line provided continuous warning and intercept control but low altitude gaps in the line, and its *shallow\** coverage, necessitated the establishment of two more radar networks.

By 1957, a Mid-Canada Line, or “McGill Fence\*,” was completed about 300 miles north of the Pinetree Line, generally along the 55<sup>th</sup> parallel of latitude. It consisted mainly of Doppler radars which created a microwave “fence” for the detection, but not tracking, of low flying aircraft. The third and most *challenging\** joint air defense undertaking of the 1950s was the construction of a transcontinental line across the 70th parallel, roughly 200 miles north of the Arctic Circle. This network of 57 stations, completed in July 1957, was called the Distant Early Warning (DEW) Line. In order to tie all these radar networks together and to provide a complete picture for NORAD decision-makers, a new technology called Semi-Automatic Ground Environment (SAGE) was developed. By the early-1960s, some 250,000 personnel were employed within NORAD operating a multi-layered and *interlocking\** complex of sites, control centers, manned interceptors, and surface-to-air missiles throughout North America, which constituted a formidable defense against a potential bomber attack. Among all the associated sites, the base at Goose

Bay, Labrador, was the busiest and most strategic, equipped with tankers, bombers, interceptors, aircrews, maintainers, and support personnel.

With the emergence of Intercontinental Ballistic Missile technology (both land-based [ICBM] and submarine-launched [SLBM]), NORAD was faced with a new threat that could *literally*\* “jump” over the air defense network. NORAD now had to adapt and expand its focus from simple air-breathing threats to include ICBM threats. In order to mitigate this new threat in a time of decreasing budgets, NORAD *decommissioned*\* radar chains and reduced alert forces, investing the resulting savings in a space surveillance and missile warning systems which, in concert with SAGE, would now provide worldwide air and space detection, tracking, and identification. Additionally, hardened command centers were constructed inside Cheyenne Mountain just southwest of Colorado Springs, and 600 feet beneath the Canadian Shield in North Bay.

This refinement of focus from “LRA-centric,” air-breathing threats, to aviation and space threats in the mid-1960s is illustrative of the adaptability that NORAD has demonstrated throughout its 54 years, in light of ever-changing threats to North American defenses. As the SAGE system aged and computer technology improved, a new system called the Joint Surveillance System (JSS) replaced SAGE in the early-1980s. In the United States, implementation of the JSS meant that NORAD and the Federal Aviation Agency (FAA – Федеральное Агентство гражданской авиации) would, for the first time, share radar data. In Canada, implementation of the JSS meant that Canada for the first time had full control of her sovereign air space. As well, the “A” in NORAD’s *moniker*\* was changed from “Air” to “Aerospace” to better represent its expanded areas of operation and interest.

In the early-1990s, the DEW Line’s long range radars were modernized, and short range radars were commissioned. A digital information link between Airborne Warning and Control System (AWACS) aircraft and the Sector Operations Control Centre (SOCC) was designed and implemented for the transfer of track, command, and intelligence information. New *forward operating locations* (FOLs) and *deployed operational bases* (DOBs) across Canada were identified and developed for the northern deployment of fighters, and to increase aircraft mobility and survivability. Finally, the upgrade of several Pinetree Line radars provided a coastal extension of the North Warning System (NWS), and an overall communications upgrade was installed. These upgrades were complete by the early-1990s, and they provided a system which forms the basis of what NORAD uses today.

The end of the Cold War brought about more changes for NORAD. North American perimeter security now began to shift focus to include the growing importance of counter-drug operations in the North American *psyche*\*. NORAD’s

sensors and interceptors were envisioned to play a role in this new *law enforcement mission\**, furnishing support to law enforcement agencies.

Responding to the attacks of 9/11, NORAD was again faced with *refining\** its missions to include the identification and monitoring *of*, and reaction *to*, airborne threats originating within sovereign territory. NORAD was now not only responsible for its traditional military defense role for air-breathing threats and ballistic missiles, but it became a partner with other national agencies and departments in the security of Canada and the U.S. NORAD would now monitor and intercept flights of interest within continental U.S. and Canadian territory, and defend National Special Security Events (NSSEs) such as G8 Summits, North American Leadership Summits, political national conventions, the Olympics, and large sporting events, such as the Super Bowl. It also assumed responsibility for conducting city and critical infrastructure air patrols, and for the integrated air defense over National Capital Regions.

The 9/11 attacks also represented the catalyst behind the creation of new commands to focus upon the security of the Canadian and American homelands. U.S. Northern Command (USNORTHCOM) was established in Colorado Springs in 2002, and Canada Command (CANADACOM) in Ottawa in 2006. It was decided that the Commander of USNORTHCOM would be 'dual-hatted' as the Commander of NORAD, and that the command structures of the two commands would be *amalgamated\**. Additionally, in 2008, the NORAD Command Centre at Cheyenne Mountain was joined with the USNORTHCOM Command Centre at Peterson AFB, Colorado Springs, and renamed the NORAD-NORTHCOM Command Centre, or N2C2 for short.

NORAD's mission, while it has evolved significantly since its inception 54 years ago, still has at its core the defense of North America. What has changed are the means that adversaries have developed to attack the continent. Today, NORAD's mission is defined in the following manner:

In close collaboration with homeland defense, security, and law enforcement partners, prevent air attacks against North America, safeguard the sovereign airspaces of the United States and Canada by responding to unknown, unwanted and unauthorized air activity approaching and operating within these airspaces, and provide aerospace and maritime warning for North America.

### **Words which will help you to translate the text:**

1. forward operating locations (FOLs) – передовые оперативные базы
2. deployed operational bases (DOBs) – базы передового развертывания

### **\* Notes:**

shallow – зд. ограниченное

fence – зд. рубеж РЛ обнаружения

challenging – зδ. смелый, перспективный  
interlocking – взаимосвязанный с общим командным центром  
literally – в буквальном смысле  
decommission – списать личный состав, вывести из эксплуатации  
moniker – моникер, никнейм, название  
psyche= psychological warfare – психологическая война  
law enforcement mission – обеспечение соблюдения законности  
law enforcement agencies – органы правопорядка  
refining – зδ. корректировка  
amalgamate – зδ. объединять

## 2.

At least one Defense Support Program satellite is parked over designated area and scans it at all times from its stationary position 36,000 km above the equator. Its infrared telescope can detect the heat from a missile's exhaust\* within seconds of launch.

Upon detection, the satellite sends its data simultaneously to an Air Force ground station in Woomera, Australia, and to the US Space Command's Missile Warning Center near Colorado Springs. Computers in Colorado instantly sort through the information, identify individual missile, assess threat and *sound alert\**, if any.

This system provides sufficient warning time to initiate defensive measures.

### \* *Notes:*

exhaust – факел работающего ракетного двигателя  
to sound alert – давать сигнал тревоги

## 3. OVER-THE-HORIZON (OTH) RADAR SYSTEM

The continental over-the-horizon radar (CONUS OTH-B) system has been developed *under the auspices\** of the USAF Electronic System Division. The system is designed primarily as a defense against hostile aircraft and low-flying cruise missiles and will increase the warning of an air attack by extending US surveillance coverage from the American coast. It provides all-altitude capability.

### \* *Notes:*

under the auspices – при содействии

## 4. BATTLE AREA AIR-DEFENSE SYSTEM

The fully automated, short-range Avenger air defense system is the Army's premier shoot-on-the-move air defense weapon. It is a lightweight, highly mobile, easily transportable surface-to-air missile fire unit with eight Stinger missiles in two

missile pods. It acquires, identifies, tracks and engages targets (low-flying helicopters or fixed-wing aircraft) from a stationary or moving position.

Mounted on a high-mobility, multipurpose wheeled vehicle, the Avenger can operate in extreme weather conditions. Its infrared system, computer, communications equipment and laser range finder locate targets in daylight and at night.

The Avenger turret can be easily adapted to different combat vehicles, such as trucks, trailers and track vehicles, or employed as a remotely operated autonomous unit. Its system is highly automated to rapidly and efficiently assist the gunner with target location, identification, tracking and missile lock-on. Total system performance is optimized by the automatic insertion of *lead angle* \* and *superelevation*\* at missile launch. Avengers can be airlifted by helicopter and, when pallet-mounted, dropped from tactical aircraft.

**\* Notes:**

lead angle – угол упреждения

superelevation – дополнительная поправка угла прицеливания на угол места цели

## **5. PATRIOT (XMIM-104)**

Patriot (XMIM-104) is an advanced surface-to-air missile system. It can be deployed as a battery to provide circular defensive coverage or as a fire section to provide coverage over a sector. A fire section consists of one fire control group and one or more (normally two) launcher groups, and may be detached\* from the major control elements for autonomous operations. A battery normally includes four firing sections, and each launcher group contains six missiles, thus giving each battery a total of 48 missiles. Such a field battery is mounted on approximately 12 vehicles and includes three main elements: fire control, launchers, battery control, and communications groups.

The fire control group contains the *phased array radar*, a radar/weapons control computer communications and power equipment mounted on a single tracked or wheeled vehicle. It also houses the operators, controls and displays for the firing section. The radar/weapons control computer controls the phased array radar in its search, *acquisition*, track and engage functions. The phased array radar antenna has an eight ft diameter face made up of 5,240 *phase shifters*. This radar is capable of performing all the functions for which several radars are needed in some other systems.

The battery control group coordinates firings within a battery and serves as *a communication center*. It houses a computer for handling high data-rates and processes and coordinates information between radars.



*Type:* surface-to- air, land mobile

*Length:* 5.18 m

*Diameter:* 41 cm

*Propulsion:* single-stage solid TX-486

*Guidance:* command with TVM (Tracking Via Missile) homing

*Warhead:* nuclear or high-explosive

*Main Contractors:* Martin Marietta, missile

**Words which will help you to translate the text:**

1. phased-array radar – РЛС с фазированной антенной решеткой
2. acquisition – обнаружение, опознавание и определение местоположения цели
3. phase shifter – фазовращатель
4. communications center – оперативная часть узла связи

**\* Notes:**

detach – разделять, отделять

## **6. PATRIOT PAC-3**

The Phased Array Tracking to Intercept of Target (PATRIOT) Advanced Capability-Three (PAC-3) program is an air-defense, guided missile system with long-range, medium- to high-altitude, all-weather capabilities. It is designed to counter tactical ballistic missiles, cruise missiles, and advanced aircraft. The combat element of the PATRIOT missile system is the fire unit, which consists of the following: a phased array radar set; an engagement control station; a battery command post; an electric power plant; an antenna mast group; a communications relay group; and launching stations with missiles.

The radar set provides the tactical functions of airspace surveillance, target detection, identification, classification, tracking, missile guidance, and engagement support. The ECS provides command and control. Depending upon configuration, the LS provides the platform for PAC-2 or PAC-3 missiles, which are sealed in canisters that serve as shipping containers and launch tubes.

The PAC-3 primary mission is to engage TBMs, and advanced cruise missile and aircraft threats. The PAC-3 missile uses hit-to-kill technology for greater lethality against TBMs armed with weapons of mass destruction. The PAC-3 system upgrades have provided improvements that increase performance against evolving threats, meet user requirements, and enhance Joint interoperability.

PATRIOT's fast-reaction capability, high firepower, ability to track numerous targets simultaneously, and ability to operate in a severe environment make it the U.S. Army's premier air defense system. The PAC-3 Missile Segment Enhancement,

currently in development, is planned to be used with the PAC-3 system and is the interceptor for the Medium Extended Air Defense System.

# **ГЛАВА 7**

## **ОРУЖИЕ МАССОВОГО ПОРАЖЕНИЯ**

### **WEAPONS OF MASS DESTRUCTION**

#### **A. Nuclear and Radiological Weapon**

In a nuclear explosion the energy is produced as a result of the formation of different atomic nuclei by the redistribution of the protons and neutrons within the interacting nuclei. The kinds of nuclear interactions are known as “fission” and “fusion”. To produce nuclear explosion by fission the nucleus of the fissionable atom of uranium or plutonium must be split by a free neutron, causing chain reaction and releasing large amount of energy. To bring about chain reaction the amount of uranium or plutonium must exceed the critical mass.

In nuclear fusion a pair of light nuclei unite together to form a nucleus of a heavier atom with the release of energy. Nuclear fusion reactions can be brought about by means of very high temperatures and they are thus referred to as thermonuclear processes.

The power of a nuclear weapon (or yield) is expressed in terms of the energy release when it explodes compared with the energy liberated by explosion of TNT.

Among the principal effects produced by a nuclear explosion are: blast or shock wave, thermal radiation, nuclear radiation, radioactive contamination, electromagnetic pulse and neutron radiation.

There are three types of explosions classified according to height of burst: the air burst when the fireball does not touch the ground, the surface burst when the fireball touches the ground, and subsurface burst when the weapon is exploded beneath the surface of the ground or water.

The area contamination with the intent to producing casualties can be achieved through the use of radiological agents which are radioactive isotopes used deliberately for this purpose. To be effective, a radiological agent must emit gamma radiation which penetrates the body in the same manner as X-ray radiation.

#### **B. Chemical Agents**

Chemical agents may be classified by physical state (solids, liquids, gases), by tactical use (casualty gases, riot gases, screening smokes, signaling smokes, incendiaries) and by physiological action (nerve gases, choking gases, tear gases). Casualty gases may be persistent or nonpersistent.

Chemical agents may be disseminated by bursting-type munitions (artillery and mortar shells, rockets, bombs, grenades and land mines), generating-type equipment and munitions which employ heat to vaporize and disseminate chemical agents.

### **C. Biological Agents**

Biological agents are germs (bacteria, viruses, fungi, and reckettsia) or their toxic products or toxins that can cause disease. Biological agents may be delivered to enemy targets by rockets, guided missiles, aircraft or vectors and can be disseminated as aerosols to infect man by inhalation or by vectors to infect man through skin.

### **D. Nuclear Weapons Employment**

Nuclear weapons are employed to provide fire support for ground troops both in the offense and defense.

Corps and division commanders issue special guidance for the employment of nuc wpns. Commander's guidance is quite detailed.

The guidance defines the target to be attacked and states whether the target is to be destroyed or neutralized.

It also defines the requirements for the desired fallout. Radioactive fallout makes it dangerous for the attacking forces to operate and therefore favors the defender. The fallout is heaviest with a surface burst, which is employed in defense. When employed by the attacker the nuc wpn is burst high in the air. This type of burst (the air burst) produces minimum fallout and the area covered by the fallout, can be crossed by the attacking forces.

A special procedure makes it possible to predict the levels of radioactivity and the limits of the area of radioactive contamination (fallout pattern). The intensity of radiation inside the fallout pattern is greatest around ground zero. Fallout predictions are prepared by unit special weapons employment officer (SWEO). It is also the duty of this officer to prepare estimates of the accompanying effects such as fires and tree blowdown which may create obstacles to the movements of friendly troops.

Commander's guidance specifies the means of delivery of nuclear weapons. A nuclear weapon can be delivered by a rocket or a missile; it can be air delivered, that is dropped by a bomber aircraft; or fired by a gun or a howitzer.

Commander's guidance specifies the weapons yield. At the divisional level they vary from 10 to 100 kilotons.

On the basis of Commander's guidance division (or corps) G3 and his assistant (SWEO) prepare the atomic fire support plan. Such plan lists the targets for atomic fires, states the priority of each target, gives the weapons yield and provides for a suitable means of delivery. The atomic fire support determines the time for the weapon to go off (A-hour).

## ACTIVE TERMS AND EXPRESSIONS

### A.

nuclear explosion (nuc explo)	ядерный взрыв
fission	расщепление; деление ( <i>ядер</i> )
fusion	синтез ( <i>ядер</i> )
mass destruction weapon	оружие массового поражения
chain reaction	цепная реакция
critical mass	критическая масса
thermonuclear process	термоядерная реакция
nuclear weapon	ядерное оружие; ядерный боеприпас
yield	мощность ( <i>ядерного боеприпаса</i> ); тротиловый эквивалент
TNT (trinitrotoluene)	тринитротолуол; тротил
effect	действие; влияние; результат; pl поражающие факторы ( <i>ядерного взрыва</i> )
blast	взрыв; ударная волна
blast wave	ударная волна; взрывная волна
shock wave	ударная волна; взрывная волна
thermal radiation	световое излучение
nuclear radiation	ядерное излучение
initial nuclear radiation	проникающая радиация
residual nuclear radiation	остаточная радиация
radioactive contamination	радиоактивное заражение
electromagnetic pulse	электромагнитный импульс
neutron radiation	нейтронное излучение
burst	взрыв
air burst	воздушный взрыв
fireball	светящаяся область ( <i>ядерного взрыва</i> ); огненный шар
surface burst	наземный [надводный] взрыв
subsurface burst	подземный [подводный] взрыв
contamination	заражение
casualties	потери ( <i>на войне</i> )
agent	вещество; боевое вещество

### B.

chemical agent (cml agt)	боевое химическое вещество
casualty gas	ОВ поражающего действия
riot gas	ОВ для полицейских действий

screening smoke	маскирующий дым; дымообразующее вещество
incendiary agent	зажигательное вещество
nerve gas	ОВ нервно-паралитического действия
choking gas	ОВ удушающего действия
tear gas	ОВ слезоточивого действия
munitions	военное имущество (оружие, боеприпасы, снаряжение и пр. имущество, необходимое для ведения войны)
bursting-type munitions	(химические) боеприпасы взрывного действия
generating-type munitions	боеприпасы курящегося типа
casualty gas	ОВ поражающего действия, смертельные ОВ
persistent	стойкий

### C.

biological agent (biol agt)	бактериальный возбудитель болезни (БВБ); средство биологической войны
germ	микроб
vector	переносчик заразы
inhalation	вдыхание

\* \* \*

to disseminate – распространять (ОВ)

## E X E R C I S E S

### I. *R e a d these texts attentively.*

#### 1.

Chemical weapons work fast, then disappear. They were used during Iran-Iraq war, sometimes with devastating consequences for combatants, but with almost none for the environment.

Biological agents such as typhoid, cholera and botulin toxins could be a different problem. In open air most of those die within hours, so does **anthrax** (*сибирская язва*), an infectious sporeforming bacterium. But if spores of anthrax penetrate the ground, they can survive in a dormant state for decades, waiting for new victims.

#### 2.

There are the following types of atomic devices: air bombs, artillery projectiles, missile or rocket warheads, torpedoes and **depth charges**.

The **atomic weapon** is based upon two processes: fission and fusion.

According to the type of burst atomic explosions are classified as surface bursts, subsurface bursts (underwater and underground) and air bursts.

The main effects of the atomic explosion are: air blast, thermal radiation and nuclear radiation.

As a result of nuclear (atomic) explosion structures (buildings) and materiel will be burnt, or destroyed by the air blast. Personnel exposed to nuclear radiation will be affected by **radiation sickness**.

The first element of the atomic defense is **radiation detection, monitoring and survey**.

Protection against the effects of the atomic explosion may be individual or collective. Means of individual protection are **foxholes, gasmasks** and protective clothing. Means of collective protection are different types of **dugouts** and **shelters**. Unit protection against nuclear attack includes **dispersion, warning**, reconnaissance and camouflage.

***Words to be remembered:***

1. depth charges – глубинные бомбы
2. atomic weapon – ядерное оружие; ядерный боеприпас
3. radiation sickness – лучевая болезнь
4. radiation detection – дозиметрическая разведка
5. radiation monitoring – дозиметрический контроль
6. radiation survey – инструментальная разведка; осмотр
7. foxhole – стрелковая ячейка (одионочный окоп)
8. gasmask – противогаз
9. dugout – блиндаж
10. shelter – бомбоубежище; укрытие
11. dispersion – рассредоточение
12. warning – предупреждение; оповещение

***II. Translate the following text from hearing.***

All means of warfare may be divided into means of destruction (destructive means), means of protection (protective means), and means of combat support (combat support means).

The destructive means include weapons of mass destruction, rockets and missiles, aviation, artillery, armor, infantry weapons and small arms.

The weapons of mass destruction are nuclear weapons, chemical weapons, bacteriological or biological weapons.

A-bomb and H-bomb belong to the category of nuclear weapons. The nuclear weapons have the following effects: blast, heat prompt radiation, and residual radiation known as radiation contamination of ground.

The means of protection include protective shelters, protective clothing, protective masks etc. Trenches, foxholes, minefields and other obstacles are called field fortifications.

The means of combat support include engineer equipment, radio and radio-technical means, radio-electronic equipment, motor-transport means etc.

### **III. Translate as *quickly as possible*:**

произвести ядерный взрыв; to cause chain reaction; высвобождение энергии; fusion; мощность ядерного оружия; shock wave; ядерный взрыв; chemical agents; распространять ОВ; nerve gas; заражать людей; critical mass; взрывная волна; mass destruction weapon; стойкие ОВ; vector; подземный взрыв; thermal radiation; радиоактивное заражение; air burst; электромагнитный импульс; fireball; наземный взрыв; casualty gas; зажигательные вещества; germ; удушающее ОВ; tear gases; маскирующий дым; biological agents; полицейские ОВ; radiation sickness; ядерное оружие; foxhole; противогаз; dispersion; бомбоубежище; camouflage; блиндаж; warning; дозиметрический контроль; radiation detection; разведка; anthrax; эпицентр ядерного взрыва

### **IV. Translate in *written form*.**

#### **Effects of Nuclear Explosions**

When a nuc wpn 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. From this fireball, a pulse of intense light and heat is radiated in all directions, generally referred to as “thermal radiation”.

Whatever the size or nature of a nuc burst the material in the fireball is highly radioactive, emitting radiations in various forms, such as alpha and beta particles, gamma rays, and neutrons. The range of alpha and beta particles in air is so small that from the point of view of the immediate danger they can be disregarded. On the other hand, when beta and alpha particles enter the human body through wounds, the mouth or the nose, they can be a long-term hazard. Neutrons are uncharged particles but very penetrating. These particles travel outwards from the explo at great speed, reaching the ground almost at once. They have the ability to induce radioactivity in other substances. This “induced radioactivity” may be quite strong in the area immediately around **GZ\***.

*\*ground zero (GZ) – эпицентр ядерного взрыва*



## **V. Translate into English.**

1. Оружие массового поражения предназначено для уничтожения большой массы людей. Оно может быть ядерным, химическим, биологическим и радиологическим.
2. Ядерное оружие – самое мощное средство массового поражения.
3. К поражающим факторам ядерного взрыва относятся: ударная волна, световое излучение, проникающая радиация и радиоактивное заражение.
4. Ядерные взрывы подразделяются на воздушные, наземные и подземные.
5. Мощность ядерного боеприпаса (оружия) определяется количеством выделяемой энергии, сравнимой с энергией взрыва эквивалентного количества тротила.
6. По физиологическому воздействию боевые химические вещества делятся на ОВ нервнопаралитического действия, ОВ удушающего действия и ОВ слезоточивого действия.

## **VI. Answer the following questions.**

1. How is the power of a nuclear weapon expressed?
2. What are the principal effects produced by a nuclear explosion?
3. What are three types of explosions according to the height of burst?
4. What is the general classification of chemical agents?
5. What are the main methods of chemical agents dissemination?
6. What biological agents do you know?
7. How can biological agents be delivered to enemy targets?

## **VII. Two-way translation**

### **1.**

1. Ваше имя, звание и должность.

*I'm Howard John Lockwood, sergeant, squad leader.*

2. К какому роду войск вы принадлежите?

*I'm sapper.*

3. Какова ваша задача?

*We must clear the passage through the minefield tomorrow by 03.00 hrs.*

4. Готовится ли химическое нападение?

*I don't know anything about any preparation for a chemical attack. But we were ordered to check our gasmasks and protective clothing.*

5. Знаете ли вы что-нибудь о применении радиоактивного вещества?

*All the personnel in the unit knows how to use radiological weapons. But radiological weapons are used only by special teams at division orders.*

## 2.

1. Какие оборонительные сооружения имеются в этом районе?

*There are pillboxes (долговременное огневое сооружение, ДОС), trenches, minefields and other obstacles.*

2. Где участки заражения?

*There is one contaminated area near the bridge across the Seeriver. Another contaminated area covers the left flank of the 1<sup>st</sup> bn defense area.*

3. Какого рода заражение на этих участках?

*The area near the bridge is radioactively contaminated. The flank area is chemically contaminated.*

4. Как обозначены участки заражения?

*Contaminated areas are marked with tapes and luminous signs.*

## 3.

1. Какое атомное устройство было взорвано?

*It was a bomb.*

2. Какой это был вид взрыва?

*I think it was a surface burst. Everything around was badly burnt.*

3. Это был наземный или воздушный взрыв?

*I have told you it was a surface burst, and now I am sure of it.*

4. Укажите на карте эпицентр взрыва.

*I don't know your map very well. I think it is somewhere round here.*

5. Какие сооружения пострадали от ударной волны?

*All the structures were destroyed, houses and other buildings.*

### TEXT D.

### ACTIVE TERMS AND EXPRESSIONS

commander's guidance	указания командира
fallout	выпадение радиоактивных осадков; радиоактивные осадки; радиоактивное заражение
heavy fallout	высокий уровень радиоактивного заражения
fallout pattern	зона радиоактивного заражения
limit of the fallout area	граница зоны радиоактивного заражения
special weapons employment officer (SWEO)	офицер по применению оружия массового поражения
atomic fire support plan	план ядерной подготовки
A-hour	время начала ядерной подготовки

## E X E R C I S E S

### I. Give *R u s s i a n* equivalents:

1. commander's guidance; 2. nuclear explosion; 3. employment of nuc wpns; 4. guidance defines; 5. to be destroyed; 6. to be neutralized; 7. to cover by an explo; 8. fallout; 9. desired fallout; 10. favor the attacker; 11. heavy fallout; 12. surface burst; 13. type of burst; 14. air burst; 15. air burst produces; 16. minimum fallout; 17. fallout pattern; 18. cross the fallout pattern; 19. special weapons employment officer; 20. fallout prediction; 21. prepare a fallout prediction; 22. level of radioactivity; 23. limit of fallout area; 24. prepare an estimate; 25. **accompanying effects**; 26. fire; 27. tree blowdown; 28. obstacle; 29. movement of troops; 30. friendly troops; 31. nuclear weapons; 32. deliver a nuclear weapon; 33. air- delivered nuc wpn; 34. gun-fired nuc wpn; 35. weapons yield; 36. priority of the target; 37. **A-hour**; 38. time of burst; 39. target area; 40. cover by an explosion.

### II. Give *E n g l i s h* equivalents:

1. применение ядерного оружия; 2. подлежит подавлению; 3. выпадение радиоактивных осадков; радиоактивное заражение; 4. благоприятствовать наступающему; 5. наземный взрыв; 6. распоряжения командира; 7. вид взрыва; 8. указания определяют; 9. минимальный уровень радиоактивного заражения; 10. подлежит уничтожению; 11. зона радиоактивного заражения; 12. ядерный взрыв; 13. офицер по применению оружия массового поражения; 14. передвижение войск; 15. прогнозирование уровней радиоактивного заражения; 16. подготавливать прогноз радиоактивного заражения; 17. артиллерийские снаряды с ядерным зарядом; 18. уровень радиоактивного заражения; 19. поражать взрывом; 20. граница зоны радиоактивного заражения; 21. воздушный взрыв; 22. подготавливать оценку; 23. **время начала ядерной подготовки**; 24. **косвенные поражения**; 25. желательный уровень радиоактивного заражения; 26. пожар; 27. высокий уровень радиоактивного заражения; 28. лесной завал; 29. воздушный взрыв вызывает; 30. препятствие; 31. свои войска; 32. район цели, цель; 33. поражать взрывом; 34. время взрыва; 35. доставлять ядерный боеприпас; 36. пересекать зону радиоактивного заражения; 37. ядерный боеприпас, доставляемый по воздуху; 38. мощность ядерного боеприпаса; 39. очередность целей; 40. ядерное оружие

### III. *M a t c h* Russian words with English equivalents:

A.

1. ядерный удар	a) target
2. план ядерной подготовки	b) reserve echelon

3. цель	c) priority
4. очередность	d) atomic fire
5. пользоваться преимуществом	e) may be delivered by air
6. <b>первоочередность</b>	f) atomic fire support plan
7. наносить ядерные удары	g) enjoy priority
8. второй эшелон	h) <b>A1 priority</b>
9. закончено	i) has been completed
10. стартовая позиция	j) place atomic fires
11. могут доставляться по воздуху	k) missile site

#### **B.**

1. ракетная часть (подразделение)	a) nuclear ammunition
2. доставлять ядерные боеприпасы	b) air-delivered
3. стартовая позиция	c) missile unit
4. доставляемые по воздуху	<b>e) special ammunition supply point (SASP)</b>
5. ядерные боеприпасы	f) deliver the nuc wpn
6. <b>пункт снабжения специальными (ядерными) боеприпасами</b>	g) missile site

#### **C.**

1. мощность ядерного боеприпаса	a) air burst
2. высота	b) additional instructions
3. воздушный взрыв	c) weapons yield
4. наземный взрыв	d) use of atomic fires
5. дополнительные указания	e) height
6. использование ядерных ударов	f) atomic burst
7. точное время	g) surface burst
8. ядерный взрыв	h) exact time
9. выбирать	i) be burst
10. взрываться	j) select

#### **D.**

1. время начала ядерной подготовки	a) friendly troops
2. отвод	b) provide for
3. свои войска	c) order for
4. минимальное безопасное расстояние	d) is coded
5. средство связи	e) minimum safe distance

6. приказ на	f) withdrawal
7. предусматривать	g) A-hour
8. закодирован	i) transmit

#### **Е.**

1. уточнять	a) destroy
2. распоряжение командира	b) neutralize
3. уничтожать	c) define
4. подавлять	d) has been selected
5. поражение цели	e) fallout
6. выбрано	f) has been completed
7. эпицентр взрыва	g) ground zero
8. желаемый эпицентр взрыва	h) prediction
9. выпадение радиоактивных осадков	i) desired ground zero
10. прогнозирование	j) target coverage
11. закончено	k) commander's guidance

#### **IV. Translate into English.**

##### **А.**

1. Закончено ли составление плана ядерной подготовки? 2. Какие цели предполагается поразить в первую очередь? 3. Предполагается ли нанесение ядерных ударов по батальонам второго эшелона? 4. Предусматривает ли план ядерной подготовки нанесение ударов по стартовым позициям? 5. Планируется ли нанесение ядерных ударов батареями 155-мм гаубиц?

##### **В.**

1. Какое ракетное подразделение будет выделено для нанесения ядерных ударов? 2. Какие ракетные комплексы будут использованы? 3. Где расположены стартовые позиции? 4. Будет ли использоваться авиация для доставки ядерных боеприпасов? 5. Когда планируется доставка ядерных боеприпасов с пунктов снабжения на стартовые позиции?

##### **С.**

1. Какова мощность заряда? 2. На какой высоте предполагается взорвать это устройство? 3. Почему выбран воздушный, а не наземный вид боя? 4. Какие были даны дополнительные указания по нанесению ядерных ударов? 5. Назовите точное время планируемого ядерного взрыва.

##### **Д.**

1. Когда начинается ядерная подготовка?

2. Предусмотрен ли отвод своих войск на безопасные позиции? 3. Когда предполагается начать отвод войск? 4. Какими средствами связи будет передан приказ об отводе войск? 5. Как будет закодирован приказ об отводе войск?

**Е.**

1. Уточните, какая задача была поставлена командиром соединения – уничтожить обороняющиеся части или временно вывести их из строя? 2. Какой процент выбранной цели предполагается поразить? 3. Почему предполагается поразить именно 10 % цели? 4. Укажите на карте эпицентр планируемого взрыва. 5. Закончено ли прогнозирование зон радиоактивного заражения?

#### ***V. Translate into Russian.***

**А.**

1. Has the atomic fire support plan been completed? 2. What targets enjoy A1 priority? 3. Will any atomic fires be placed on the infantry battalions of the reserve echelon? 4. Are any atomic fires planned against the missile sites? 5. Will any atomic fires be delivered by 155 mm howitzers?

**В.**

1. What missile unit will deliver the nuclear weapon? 2. What type of missiles will be used? 3. Where are the missile sites situated? 4. Will any of the atomic strikes be air delivered? 5. When will the nuclear ammunition be distributed from the special ammunition supply points to the missile sites?

**С.**

1. What is the weapons yield? 2. At what height will the weapon be exploded? 3. Why have you selected the air burst and not the surface one? 4. What additional instructions on the use of atomic fires did you receive? 5. Give the exact time determined for the atomic burst.

**Д.**

1. What is the A-hour? 2. Is the withdrawal of friendly troops at the minimum safe distance provided for? 3. When do you plan to begin the troop withdrawal? 4. What means of communication will be used to transmit the order for the withdrawal? 5. How will the order be coded?

**Е.**

1. Define the commander's guidance. Must the defender's units be destroyed or neutralized? 2. What target coverage has been selected? 3. Why has the 10 % coverage been selected? 4. Show the desired ground zero on the map. 5. Has the fallout prediction been completed?

## VI. *T w o –w a y translation*

1. Закончено ли составление плана ядерной подготовки? – *Yes. All plans've been completed. We're all set for attack.*
2. Планируется ли нанесение ядерных ударов батареями 155-мм гаубиц? – *Not that I know of. The atomic fire support plan doesn't provide for atomic strikes by howitzer artillery battalions.*
3. Какое ракетное подразделение выделено для нанесения ядерных ударов? – *The atomic fires will be delivered by the division rocket artillery battalion, that is by 3 d Missile Artillery Battalion, 27<sup>th</sup> Field Artillery.*
4. Какие ракетные комплексы будут использованы? – *The 3 d Missile Artillery Battalion, 27<sup>th</sup> Field Artillery employs the ATACMS missile. It's a tactical missile of the surface-to-surface category, but I am not sure whether it is nuclear capable.*
5. Где расположены стартовые позиции? – *I'm unable to give the exact location of the missile sites. I know that the missile battalion is located at the edge of the wood about two miles NW of K.*
6. Будет ли использоваться авиация для нанесения ядерных ударов? – *Well, the plan provides for the air delivery of the weapons designated to attack the defender's missile sites.*
7. Какова мощность ядерного боеприпаса? – *The weapon which they plan to use against Target Area "Alpha" has the TNT equivalent of 20 kilotons.*
8. На какой высоте предполагается взорвать это устройство? – *I don't know exact height. All I can say is that it will be burst high enough to make it an air burst.*
9. Назовите точное время планируемого взрыва ядерного устройства? – *That's something I can't do. I've no information on this. The weapon will be exploded within few seconds after the A-hour, but I don't know the exact time.*
10. Когда начнется ядерная подготовка? – *The A-hour is 0630 (ou-six-thirty). It's possible that it may be changed.*

## S U P P L E M E N T A R Y T E X T S

### 1.

Nuclear weapon is a device in which the explosion results from the energy released by reactions involving atomic nuclei: either fission or fusion, or both.

A weapon in which very high temperatures are used to bring about the fusion of light nuclei such as those of hydrogen isotopes with the accompanying release of energy is called thermonuclear weapon.

An item of materiel which projects, disperses, or disseminates a biological agent is referred to as biological weapon.

Nerve agents are quick-acting chemical agents that in liquid or vapor form produce casualties by paralyzing respiratory muscles of exposed\* personnel.

The point on the surface of the earth at, or vertically below or above, the center of a nuclear detonation is called ground zero (GZ).

**\*Notes:**

expose – подвергать воздействию

## **2. FFF – NUCLEAR WEAPONS**

FFF, or fission-fusion-fission device, is a ten-kiloton weapon, one of the smallest and most efficient of its kind, with a plutonium-239 implosion\* device surrounding a deuterium fuel cell core all surrounded by a uranium-235 shell. The initial implosion of the plutonium creates a fission reaction which burns the uranium causing to produce a sustaining fission reaction.

**\*Notes:**

implosion – взрыв (направленный внутрь)

## **3. CHEMICAL AND BIOLOGICAL AGENTS AT WORK**

Today the various chemical agents that have been evolved are mostly colorless, tasteless. First indications that they were being used would probably be the actual appearance of casualties. And if chemicals are difficult to detect, biological agents that are now available are even more so. In both cases surprise is more readily achieved whereas the earlier gases were comparatively easy to detect.

While both are difficult to detect and have other common characteristics, chemicals and biologicals should not be lumped\* together in considering the entire field. As for the common characteristics:

- both are primarily area weapons that will travel around corners or permeate\* woods, or penetrate dugouts\* and more complex fortifications;
- both offer a wide gradation of effects ranging from mild temporary incapacities\* to death;
- both work without destroying physical facilities –thus they can be used without causing damage to military or civilian installations that would be useful to the conquering country.

If all these are common characteristics, what then are the differences- and what is the significance of these differences? The answer lies quite apparently in the very names of the two agents.

Chemicals are agents which can be manufactured, stored, moved about, disseminated in exact quantities according to the type and effects desired to be produced which may range from irritants\* through incapacitating to lethal effects.

Biological agents are living microorganisms that cause disease in man, or in his foods whether animals or crops. They may range from incapacitating to lethal. All



are subject to a delay of a few days after exposure\* before the effects are apparent. They can be disseminated to cover thousands of square miles. Because of all these factors, biological warfare is usually considered strategic rather than tactical although under certain circumstances biological agents may have application to theater land warfare.

**\* Notes:**

lump – смешивать, рассматривать в целом

permeate – проникать сквозь

dugout – блиндаж

incapacity – недомогание, нетрудоспособность

incapacitate – выводить из строя, делать неспособным

irritant – раздражающий

exposure – воздействие

#### **4. PREVENTIVE MEASURES**

The Army keeps its scientists and laboratories busily at work developing defensive equipment while at the same time developing various toxic agents and studying strategic and tactical doctrine for employing them as a necessary adjunct\* to understanding the defensive problems.

Detection, protection, treatment are the main phases of individual defense.

To detect chemical agents the Army has recently developed a portable automatic chemical detector and alarm, light enough to be carried on a soldier's back. Laboratories also are working to develop alarms that will detect the presence of biological agents which are much more difficult to identify and detect.

Protective masks and clothing afford reliable protection against both chemical and biological agents, if they are donned\* in time. This is where intensive training pays off \*on a battlefield.

Treatment for nerve agents must be administered quickly to counter their quick reaction. Atropine syrettes\* can be effective against some types of the aerosols if used promptly. Artificial respiration\* also can be effective in countering reaction to the agents – again if used in time.

For protection against biological agents immunization\* is available for many micro-organisms that might be employed. However, it is relatively simple to provide biological agents for which immunization is not readily available. Principal problem in this area is to discover just which type of biological agent is being used so that appropriate medical treatment be provided.

The Army produced a Chemical Biological Pod which can be carried on a light truck and pumped up ready for use in less than half an hour. It comes complete with filtered air pumps to provide a sort of all-encompassing gas mask for several men

who can work without wearing their own cumbersome protective equipment. Such pods would be useful as aid stations\*, headquarters, communications centers and so on – but obviously the individual fighting man in the field would still have to wear his individual gear.

**\* Notes:**

adjunct – дополнение

don – надевать

pay off – окупиться

syrette – шприц-тюбик

artificial respiration – искусственное дыхание

immunization – вакцинация

pod –отсек, контейнер

pump – накачивать; насос

aid station – медицинский пункт

## **5. BIOLOGICAL, CHEMICAL AND NUCLEAR DEFENSE**

Under the Army Regulations the Armed Forces should be equipped and trained to continue to fight despite casualties and contamination. As in military terms the common factor is the human target, the primary aim of NBC\* defense must be the survival of the manpower. To ensure survival the individual must be protected against the immediate weapons effects at the time of attack. To permit continued operations after the attack the individual must be protected against the residual hazard and effects. These requirements are met by the provision of personal protection equipment. Protection is provided by over-garments\* for naval and ground personnel and undergarments\* for aircrew. Such garments in conjunction with gloves, over boots, and respirator or mask provide excellent protection against biological or chemical agents. They cannot provide protection against the effects of immediate nuclear radiation but do offer protection against thermal effects and reduce risk or residual radiation.

To operate successfully in a contaminated environment after an attack the presence, or absence, of the residual hazards must be ascertained\*. Configuration as to type of attack will permit removal of protection or establish that continued protection is necessary. Thus casualties can be minimized.

There exist a requirement for immediate and local warning, assessment of degree of hazard, determining the area of potential risk and arrival time of hazard.

Collective protection arrangements provide a toxic free environment in which individual protective measures are not necessary or can be relaxed. Collective protection can be achieved by sealing\* an internal area, the provision of a filtered air supply, maintenance of an over-pressure within and control of exit and entry.

Collective protection is provided by buildings, military vehicles, armored vehicles, mobile command posts, personnel shelters and so on.

Contaminated ground, vehicles, equipment, weapons, material and structures are hazardous to personnel who come into contact with such items. The hazard can be reduced by various means:

- weathering\*
- avoidance\*
- removal\*

Natural deterioration\* is a long-term proposition\*. Weathering by the elements of temperature, wind and rain hastening\* deterioration is similarly a long-term activity. Avoidance of known areas of contamination or use of contaminated material, though very practical may not be possible. Therefore the removal of the hazard may be the only option open. The basic method of removal, termed decontamination\* is by washing down. Decontaminant materials must be capable of removing by absorption or solution\* and ideally should achieve chemical action which destroys the chemical agent's properties.

Surprise attack against unprotected or badly trained troops will result in a mass casualty situation. First aid rendered promptly to the chemical casualty is effective. In combination with pre-treatment the first-aid measure required is antidotal treatment to combat nerve agent poisoning.

The effects of radiation on human target are delayed and result from the amount of radiation received. This medical condition is not really attenuated\* by first aid.

**\* Notes:**

regulations – устав

NBC = nuclear, biological and chemical

over-garment – верхняя одежда

undergarment – нижнее белье

ascertain – устанавливать, выяснять

seal – зд. плотно закрывать, блокировать

weathering – естественная дегазация; выветривание

avoidance – обход, предотвращение (избежание) столкновений

removal – устранение, ликвидация

deterioration – зд. уменьшение (заражения)

proposition – дело, задача

hasten – ускорять

decontamination – дезинфекция

solution – растворение

attenuate – ухудшать

## 6. CHEMICAL ALARM

The Army has achieved a breakthrough in chemical warfare defense with a new chemical field alarm system.

The new portable chemical agent alarm (XM8) provides US field forces, for the first time, with automatic means of detection and warning of presence of nerve agents.

The need for the accurate detection and alarm system has increased in recent years as major world powers stockpile\* nerve agents in their chemical warfare arsenals. The various nerve agents are odorless and colorless, and very small doses are lethal.

The XM8 contains an electronic cell which samples air continuously. The presence of nerve agents causes the cell to produce electric energy which triggers the alarm. It is extremely sensitive and will detect minute amounts of nerve agents vapor in below-lethal concentrations.

The alarm can be man packed, vehicle mounted or used in fixed emplacements. Complete with its battery power pack, which can operate the detector and alarm for a minimum of 12 hours, it weighs less than 18 pounds.

The detector will not respond to normal pollutants found in air or to smoke, dust, and motor vehicle exhaust in concentrations normally encountered on the battlefield.

### \* *Notes:*

stockpile – накапливать, запас

## **ГЛАВА 8**

### **ОБЕСПЕЧЕНИЕ ДЕЙСТВИЙ ВОЙСК**

#### **SECURITY**

##### **A. General**

According to US views security is a number of measures taken by a military unit, an activity or installation to protect itself against all acts designed to impair its effectiveness. It includes tactical support, intelligence support, combat security and electronic warfare.

Under the US Field Manuals tac spt incorporates fire spt, AD spt, engr spt, sig spt, Army avn spt, cml spt, trans spt and psychological warfare spt.

Intel spt is a basic requirement for the successful planning and conduct of mil ops.

Cbt scty measures comprise troop scty against nuc atk, CBR atk, scty in troop movement, scty at the halt, scty in the offense, scty in defense, and scty in retrograde operations.

EW is the mil use of electronic devices and techniques to prevent or reduce effective en use of radiated electromagnetic energy while ensuring own effective use of such energy.

##### **B. Combat Security**

The purpose of the scty in the offense is to preserve secrecy to avoid unexpected interference by the enemy, to maintain the integrity of the formation, and to gain and maintain freedom of action.

The scty in defense is provided by aviation, general covering forces, general outpost, combat outpost and local scty.

The scty in troop movement, or scty on the march, is provided by recon elms which operate in front of mil force on march and by advance, rear and flank guards.

The scty at the halt is provided by outposts consisting of portions of the command disposed to cover its front, flank and rear.

In modern warfare the best scty against nuc atk is the detection and destruction of the en source and delivery systems of nuc wpns. Scty measures against CBR atk include speed of movement, cover and concealment, dispersion, deception, and protection of armored vehicles, protective clothing, and fortifications including foxholes.

Deception measures may include the injection of deception story in the enemy's intel channels, feints, ruses, demonstrations, control of radio communications, disposition of simulation devices, camouflage, decoys.

### C. Electronic Warfare

EW activities can jam en radio nets; prematurely detonate enemy proximity fuzes; direct en acft or msls into harmless areas; blind, or present false info to en electronic detection and fire con devices.

EW contains three main and essential parts: electronic support measures (ESM), electronic countermeasures (ECM), and electronic counter-countermeasures (ECCM).

ESM are that division of EW involving actions taken to search for, intercept, locate, and immediately identify radiated electromagnetic energy.

ECM involve actions taken to prevent or reduce the enemy's effective use of the electromagnetic means. Passive ECM include the use of chaff, decoys, corner reflectors, radar absorbing and other stealth techniques. Active ECM are narrow and wide band jamming, false signals, repeaters, transponders and so on.

ECCM involve actions taken to ensure friendly effective use of the electromagnetic equipment despite the enemy's use of electronic warfare.

### ACTIVE TERMS AND EXPRESSIONS

#### A.

security (scty)	безопасность; сохранение тайны; обеспечение действий войск; охранение
tactical support (tac spt)	тактическая поддержка; боевое обеспечение действий войск
intelligence support (intel spt)	разведка (как вид боевого обеспечения)
combat security (cbt scty)	боевое охранение
Electronic Warfare (EW)	радиоэлектронная борьба (РЭБ)
US Field Manuals	полевые уставы (боевые уставы) США
fire support	огневая поддержка
air defense support (AD spt)	обеспечение средствами ПВО
engineer support (engr spt)	инженерное обеспечение
signal support (sig spt)	обеспечение (боевых действий) средствами связи
aviation support (army avn spt)	авиационная поддержка
chemical support (cml spt)	химическое обеспечение
transportation support (trans spt)	обеспечение транспортными средствами
psychological warfare support	психологическое обеспечение

security in troop movement = security on the march	походное охранение
security against nuclear attack	противоатомная защита, ПАЗ
security against CBR attack	защита от ХБР оружия
security at the halt	сторожевое охранение
security in the offense	охранение в наступлении
security in defense	охранение в обороне
security in retrograde operations	охранение при отступательных действиях

## **В.**

general covering forces	войска общего прикрытия
outpost	сторожевое охранение, аванпост
general outpost	общее охранение
combat outpost	боевое охранение
local security	непосредственное охранение
advance guard	авангард; головной отряд
rear guard	арьергард; группа прикрытия; заслон (при отходе), тыльное охранение
flank guard	боковое охранение; боковой отряд
cover	прикрывать (огнем); укрытие (от огня)
concealment	укрытие от наблюдения; маскировка
dispersion	рассредоточение
deception	введение противника в заблуждение
foxhole	стрелковая ячейка; одиночный окоп
feint	ложная атака; отвлекающий удар
ruse	военная хитрость; введение противника в заблуждение
demonstration	демонстративные действия; отвлекающий удар
simulation device	имитационное средство
camouflage	маскировка
decoy	макет, ловушка

## **С.**

proximity fuze	неконтактный (дистанционный) взрыватель
jamming	создание активных помех
electronic support measures (ESM)	радио и радиотехническая разведка (РПТР в РЭБ)

electronic countermeasures (ECM)	радиоэлектронное противодействие (РЭП)
electronic counter-countermeasures (ECCM)	меры борьбы с радиопротиводействием (РЭЗ)
chaff	дипольный отражатель
corner reflector	угловой отражатель
stealth techniques	меры по снижению радиолокационной заметности

## E X E R C I S E S

### I. Study these translations before reading texts A, B and C.

- security** (Measures taken by a military unit, an activity or installation to protect itself against all acts designed to impair its effectiveness) – **боевое обеспечение** (*Меры, предпринимаемые воинской частью или подразделением, учреждением или объектом для того, чтобы защитить себя от всех действий со стороны противника, направленных на уменьшение эффективности их работы и боевой деятельности*).
- security in the offense** (The purpose of the scty in the offense is to avoid unexpected interference by the enemy) – **охранение в наступлении** (*Цель охранения в наступлении – исключить возможность внезапного нападения противника*).
- security in defense** (The scty in defense is provided by aviation, general covering forces, general outpost, combat outpost and local security) – **охранение в обороне** (*Охранение в обороне обеспечивается авиацией, войсками общего прикрития, общим охранением, боевым охранением и непосредственным охранением*).
- security on the march** (The scty on the march is provided by recon elms which operate in front of a mil force on march and by advance, rear and flank guards) – **походное охранение** (*Походное охранение на марше обеспечивается разведывательными подразделениями, которые действуют впереди группировки войск, совершающей марш, а также авангардом, арьергардом и боковым охранением*).
- security at the halt** (Scty at the halt is provided by outposts consisting of portions of the command disposed to cover its front, flanks and rear) – **сторожевое охранение** (*Сторожевое охранение обеспечивается подразделениями охранения, которые выделяются войсками с целью их прикрития с фронта, тыла и флангов*).



6. **security against nuclear attack** (In modern warfare the best scty against nuc atk is the detection and destruction of the en source and delivery systems of nuc wpns) – **противоатомная защита, ПАЗ** (*В современной войне наилучшим способом противоатомной защиты является обнаружение и уничтожение ядерного оружия противника и средств их доставки*).
7. **security against CBR attack** (Providing scty against CBR atk is one of the primary responsibilities of each commander on the battlefield) – **защита от ХБР оружия** (*Обеспечение защиты от ХБР оружия является одной из основных обязанностей каждого командира на поле боя*).
8. **outpost** (Outposts are the detachments thrown out to the front and flanks of a resting force to protect the main body from being surprised and to ensure its uninterrupted rest) – **сторожевое охранение** (*Сторожевое охранение – подразделения, высылаемые в сторону фронта и на фланги находящихся на отдыхе войск с целью прикрытия главных сил от внезапного нападения и обеспечения безопасности их отдыха*).

## **II. Decipher the following a b b r e v i a t i o n s.**

US; spt; AD; intel spt; engr spt; sig spt; avn spt; cml spt; trans spt; comdr; arty; div; G2; CP; G3; wpn; acft; msn; msl; HQ; FEBA; bn; cbt; scty; nuc; ECCM; atk; CBR atk; en; survl; veh; cav sqdn; equip; recon; def; gnd; EW; mil; ECM; tac; con; tgt; ops; strat; ESM; cbt scty

## **III. Translate these texts f r o m h e a r i n g.**

### **Engineer Support**

The primary msn of the engr Bn is to increase the cbt effectiveness of the div by means of general engineer work. The secondary msn is to undertake and carry out infantry cbt msns when required.

The additional engr spt provided to the div may range from reinforcing the cbt strength to the provision of such spt as bridging, construction, mapping, camouflage, and deception.

### **Army Aviation Support**

The msn of the div aviation co is to increase the cbt effectiveness of the inf div by providing the div and its elements with aviation spt. The general msn of Army aviation is to augment the Army's capability of conducting prompt and sustained cbt ops on land. It is employed to enhance the mobility, flexibility, and cbt efficiency of gnd cbt forces.

## **Tactical Ground Transportation**

The nuclear battlefield increases the requirement for efficient day and night movement. To provide the surface mobility required, the div has a pool of transportation in the trans bn. In addition to the divisional bn, the field army has trans truck units and tac carrier battalions that may be used to support div ops. The light truck companies may be used in tactical movements, and the tac carriers may be used to mechanize div inf units for cbt ops.

### **IV. *Translate this text in a written form.***

#### **Covering Force**

Missions assigned the covering force are broad in nature. They may include development of the situation, destruction of en resistance, seizure of key terrain or containment of en forces.

The composition and size of the covering force are tailored to accomplish its msns. It normally operates at considerable distances in front of the main body. A highly mobile force such as the cavalry squadron or an airmobile, motorized or mechanized battle group provides the basic elm of the task force. As appropriate it is reinforced with aviation, armor, infantry, cavalry, and engineers. The covering force is supported by tac airforce acft for long-range recon and offensive strikes, and by Army acft for short-range recon and con. Nuc fires support the covering force as required.

The covering force normally operates under div con. However, terrain considerations may require that its control be decentralized to commanders of the column, marching on certain routes.

When the div is marching as part of a larger force, the covering force is frequently furnished and controlled by the higher HQ. The leading elements of the div are then the contact forces between the div advance guard and the covering forces.

### **V. *Translate as quickly as possible:***

security; боевое обеспечение действий войск; electronic warfare; боевое охранение; fire support; противовоздушная оборона; intelligence support; авиационная поддержка; engineer support; походное охранение; security in the offense; сторожевое охранение; security in retrograde operations; охранение в обороне; security against CBR attack; химическое обеспечение; deception; психологическое обеспечение; simulation device; маскировка; demonstration; охранение; decoy; радиоэлектронное противодействие; ESM; дипольный отражатель; jamming; меры борьбы с радиопротиводействием; corner reflector; меры по снижению радиолокационной заметности; advance guard; полевые

уставы США; covering force; огневая поддержка; feint; непосредственное охранение; concealment; боковое охранение; rear guard; введение противника в заблуждение; ruse; укрытие (от огня); foxhole; рассредоточение; general outpost.

## VI. Translate into English.

1. Боевое обеспечение включает боевое обеспечение действий войск, разведку, боевое охранение и радиоэлектронную борьбу.
2. Согласно полевым уставам США тактическая поддержка включает огневую поддержку, противовоздушную оборону, инженерное обеспечение, связь, авиационную поддержку, химическое обеспечение и психологическое обеспечение.
3. Боевое охранение включает защиту войск от ядерного, химического, бактериологического и радиологического оружия, походное охранение, сторожевое охранение, охранение в наступлении и обороне и при отступательных действиях.
4. Охранение в обороне обеспечивается авиацией, войсками общего прикрытия, общим охранением, боевым охранением и местным охранением.
5. Походное охранение обеспечивается подразделениями разведки, головными отрядами (авангардом), арьергардом и отрядами бокового охранения.
6. Радиоэлектронная борьба состоит из трех основных частей: радио и радиоэлектронной разведки; радиоэлектронного противодействия и мер борьбы с радиопротиводействием противника.

## VII. Two – way translation

1. Кто отвечает за организацию огневой поддержки в дивизии СВ США? – *The senior artillery officer is responsible for fire support. He directs the fire support through fire support coordination center.*
2. Что включает в себя борьба с просочившимся противником? – *Specific measures to aid in controlling **infiltration** include extensive **counter reconnaissance**, combat **patrols**, antipersonnel obstacles, warning devices, and electronic surveillance devices.*  
counterreconnaissance – борьба с разведкой противника на поле боя; контрразведка  
patrol – дозор, патруль, подвижный пост  
infiltration – просачивание, проникновение через боевые порядки
3. А каковы требования к организации противотанковой обороны? – *The antitank defense is established in depth throughout the defended area.*

4. Каковы задачи артиллерии дивизии в рамках химического обеспечения? – *The division artillery normally delivers chemical agents, can also establish smoke screen and blind observation posts, use smoke ammunition for signaling.*
5. Кем обеспечивается походное охранение? – *The security on the march is provided by reconnaissance elements.*
6. Каковы задачи авангарда в походном охранении? – *The advance guard is a detachment sent ahead of the main body to ensure its uninterrupted advance; to protect the main body against surprise; to cover the deployment of the main body when it is committed to action.*
7. Что такое охранение? – *Outposts are the detachments posted out to the front and flanks of a resting force to protect the main body from being surprised and to ensure its uninterrupted rest.*
8. Что включает в себя радиообман как одно из мероприятий радиоэлектронной борьбы? – *An electronic deception comprises deliberate radiation, reradiation or reflection of electromagnetic radiation in a manner intended to mislead an enemy, or to present false identification to electronic systems.*
9. Какие виды помех может ставить этот комплекс? – *This system can generate noise and pulse interference, **spot**, and **barrage** to jam radars and UHF communications systems.*  
spot jamming – прицельные (радио)помехи  
barrage jamming – заградительные (радио)помехи
10. Поясните значение термина ESM. – *It's an abbreviation. It stands for Electronic Support Measures. This meaningless term is the name for a type of sensor carried on warships and some aircraft. It is used to detect the radar transmissions of other ships and aircraft, and to determine their nature and direction.*
11. В чем смысл режима ограничения работы РЭС на излучение? – *Emission Control is used to restrict transmissions and reduce a chance of being detected since radar and radio send out active signals, emissions, that can be detected.*

## SUPPLEMENTARY TEXTS

### 1. TACTICAL SUPPORT

Prior to making a decision to employ nuclear weapon the commander considers the expecting advantages, troop safety, effects on adjacent commands.

Air defense of the division is provided by organic, attached or supporting artillery units, individual and crew served automatic weapons.

The employment of the toxic chemical agents is executed to destroy the enemy personnel, to establish smoke screens, to blind observation posts.

The primary mission of the engineer support is to increase the combat effectiveness of the unit by means of general engineer work.

The mission of the Army aviation units is to increase the combat effectiveness of the infantry by providing responsive aviation support.

Tactical Ground Transportation provides the surface mobility on the battlefield.

One *loudspeaker and leaflet company*\* is organic to a field army to perform Psychological Warfare support. A detachment from the *radio broadcasting and leaflet battalion*\* may be attached to the company.

**\* Notes:**

loudspeaker and leaflet company – пропагандистская рота

radio broadcasting and leaflet battalion – батальон радиовещания и распространения листовок

## **2. ALLIES EMPLOY DECEPTION TECHNIQUES**

The Iraqi Army in Kuwait and southern Iraq *was hampered*\*, not only by the bombing of its command, control and communications (C<sup>3</sup>) network, but by Allied disinformation.

Early on the second day of the ground war, Iraqi troops heard on Iraqi-controlled Radio Kuwait that Kuwait City had been liberated by Allied airborne landings.

Several Iraqi formations, believing themselves in danger of being cut off, began leaving their positions and the rout\* gathered pace\* as the story spread. The broadcast was actually a fake\* from an Allied transmitter in Saudi Arabia.

The remnants\* of the Iraqi radio network were either heavily jammed or used to pass false messages to the Iraqis.

\* \* \*

The Coalition dropped leaflets on members of the Iraqi armed forces showing a picture of a B-52 dropping a long *stick of bombs*\* along with the date and the time of the next B-52 attack. These were aimed at having a demoralizing effect when the *timings were followed up to the second*.\*

**\*Notes:**

hamper – препятствовать, затруднять

rout – беспорядочное бегство

pace – темп

fake – обман, подлог, фальшивка

remnants – остатки

stick of bombs – серия бомб

timings were followed up to the second – время соблюдалось до секунды (очень точно)

### 3. DECOYS: TANKS BUT NO TANKS

Dupery\* is a war trick at least as old as the legend of the Trojan horse. In WWII, the US created an entire dummy\* army unit in southern Britain to convince the Germans that the Normandy invasion would be directed toward the Pas-de-Calais, and it worked.

In addition to the ersatz\* launchers, Iraq employed mock\* tanks, airplanes bunker and artillery. The preferred materials: plywood\*, aluminum and fiber glass. Baghdad was hiding missiles in importable mosques\* sized to the task of concealment. The Iraqis painted craters onto repaired airfields, so allied bombers won't retarget them. They could also be fixing up\* decimated\* installations to make them look partly destroyed so their enemies would return to waste bombs on useless structures.

Counterfeit\* armaments can easily fool pilots zipping\* overhead who may not have time to analyze infrared images of their targets, which reveal the wooden husks\* below for what they are. Except, when the decoys include heaters to simulate the infrared signature of, say, a tank engine, and perhaps transmitters to produce radar signals.

#### \*Notes:

dupery – обман, подделка, надувательство

dummy – ложный, фиктивный

ersatz – заменитель, эрзац

mock – поддельный, фальшивый

plywood – клееная фанера

mosque – мечеть

fix up – ремонтировать, приводить в порядок

decimate – уничтожать

counterfeit – поддельный, фальшивый

zip – пролетать

husk – оболочка

### 4. COMMUNICATIONS ELECTRONIC WARFARE

Communications EW techniques can be split into two groups. What might be termed "hostile" EW includes jamming, *signal surveillance* and analysis and *direction finding*. Defensive EW has a more varied repertoire, and includes the selection of intrinsically\* secure\* media, frequency *hopping*, passive counter-countermeasures, *encryption* and *TEMPEST shielding*.

Jamming is a deliberate disruption of an enemy's signal traffic. Systems capable of this are often used with monitoring and direction finding equipment to locate enemy networks for selective destruction.

The direction finding role is particularly important for lower-powered *spot jammers* operating in the highly crowded radio environments envisaged in future conflicts.

Modern technology allows all of above functions to be collocated\* without mutual interference within a single vehicle. This arrangement obviously pays dividends in terms of operational efficiency, but placing all these EW assets in one "basket" has its risks in the event of enemy's location of the source of jamming.

The alternative approach, which splits the active jamming part from the passive surveillance and direction finding parts, is more survivable, but the necessary intercommunication between the two is itself vulnerable to hostile action.

In recent years the idea of small expendable *jammers*, which can be deployed behind enemy lines has attracted some interest. Hand-emplaced versions of these can be left in particular locations as troops withdraw, or positioned by Special Forces operating behind enemy lines. Expendable jammer may also be delivered by artillery or by *a remotely piloted vehicle (RPV)*.

Signal surveillance and analysis systems can be used against such evasive\* techniques as high speed and *burst transmission*, and frequency hopping.

Among the most important operational parameters of direction finding systems are the duration of signal required to allow *bearings* to be taken, and accuracy of the bearings. If the first is sufficiently fast, the system can be used with some effect against fast frequency hopping systems. In operation, the direction finder sits on a frequency in the most likely sector of the spectrum, and waits for the *hopper* to come to it. The accuracy of the result can be increased by the use of multiple direction finders at different sites and by repeated listening on other frequencies in the assumed hop set.

### **Words which will help you to translate the text:**

1. signal surveillance – поиск сигнала
2. direction finding – радиопеленгация
3. frequency hopping – перескок частоты
4. encryption – кодирование, шифрование
5. TEMPEST shielding – экранирование с целью обеспечения электронной совместимости
6. spot jammer – передатчик прицельных преднамеренных помех
7. expendable jammer – передатчик преднамеренных помех однократного действия
8. a remotely piloted vehicle (RPV) – беспилотный летательный аппарат
9. burst transmission – передача сигнала с предварительным сжатием во времени
10. bearing – пеленг
11. hopper – радиостанция с перескоком частот

**\* *Notes:***

intrinsically – по сути, в действительности

secure – зδ. безопасный

collocate – размещать

evasive – неуловимый, ускользающий



## **ГЛАВА 9**

### **БОЕВЫЕ ДЕЙСТВИЯ ВОЙСК**

#### **FORMS OF COMBAT**

##### **A. Offense**

Offense is a basic form of combat in which all means and methods available are used to win the battle. Offensive action is necessary to achieve decisive results.

The primary consideration and ultimate purpose of offensive operations is the destruction of enemy forces.

According to US Field Manuals there are five general types of offensive operations: movement to contact, reconnaissance in force, coordinated attack, exploitation, and pursuit.

Offensive action requires the concentration of superior combat power at the decisive point and time. This is achieved by selecting the decisive objective the seizure of which best facilitates the accomplishment of the mission. Priority of combat power is given to the main attack against the decisive objective.

In offense surprise is always sought. It may be gained by choosing an unexpected time, place, direction, form of maneuver or strength of attack and is always enhanced by cover and deception operations.

The plan of offensive operations must provide for the combat service support required to sustain the attack.

##### **B. Defense**

Defense is an action to repulse or destroy enemy attack. It is adopted only as a temporary measure until such time as the defender can go to the offensive. All resources are employed to inflict maximum losses on the enemy force. The main objectives of the defense may be as follows:

- to develop more favorable conditions for subsequent offensive operations;
- to economize forces in one area to apply decisive force elsewhere;
- to destroy or trap a hostile force;
- to deny an enemy entry to an area;
- to reduce enemy capability with minimum losses to friendly forces.

The defender takes every opportunity to seize the initiative by selecting the battle area, forcing the enemy to react in conformity with the defensive plan.

The two basic forms of defense are the area defense and the mobile defense. The area defense is oriented toward the retention of specific terrain or toward forcing the enemy to accept a tactical disadvantage. The mobile defense is based on the use of fires and maneuver to destroy the enemy and normally conducted by division or

higher echelon. Often the most suitable form of defense in a given situation incorporates elements of both forms.

## **ACTIVE TERMS AND EXPRESSIONS**

### **A.**

offense ( attack)	наступление
offensive	наступление; наступательный
US Field Manual (FM)	боевой устав США
movement to contact	сближение с противником
reconnaissance in force	разведка боем
coordinated attack	наступление с хорошо организованным взаимодействием
exploitation (xplt)	развитие успеха
pursuit (pur)	преследование
combat power	боевая мощь; силы и средства; боевые средства борьбы
objective (obj)	объект, рубеж, задача
priority	преимущество в обеспечении
main attack	главный удар; группировка главного удара
surprise	внезапность
maneuver (mvr)	маневр; осуществлять маневр
form of maneuver	вид маневра
cover	зд. маскировка
deception operations	действия, рассчитанные на введение (противника) в заблуждение
sustainable operations	долговременные, непрерывные действия (операции)

### **B.**

defense (def)	оборона
defensive operations (def opns)	оборонительные действия
defender	обороняющийся
friendly forces	свои войска
battle area	район боевых действий
area defense	оборона района
mobile defense (mbl def)	мобильная оборона
retention of terrain	удерживание занятых позиций
echelon (ech)	эшелон; звено; инстанция; орган

\* \* \*

to win the battle	выиграть бой
to lose the battle	проиграть бой
to destroy (to defeat) the enemy	уничтожить противника
to exploit successes	развивать успех
to exploit a nuclear burst	использовать результаты ядерного удара
to pursue the enemy	преследовать противника
to concentrate forces	сосредотачивать силы
to seize (to occupy) the terrain to seize the initiative from the enemy	захватывать (занимать) местность перехватывать инициативу у противника
to accomplish offensive missions	выполнять задачи наступления
to surprise the enemy	нанести внезапный удар
to sustain the attack	непрерывно вести наступление
to repulse (to repel) the attack	отразить (отбить) наступление (атаку)
to inflict heavy losses	нанести тяжелые потери
to suffer heavy losses	понести тяжелые потери
to deny an enemy force entry to an area	не допускать выхода группировок противника в определенный район
to retain (to hold) the terrain	удерживать территорию (позиции)
to accept a tactical disadvantage	лишить тактических преимуществ
to defend	оборонять(ся)
to coordinate an attack	организовывать взаимодействие в наступлении

## EXERCISES

### I. Read these texts attentively.

#### Offensive

There are two main types of the attack maneuver in the US Army. They are the **penetration** and the **envelopment**.

The penetration is carried out when the situation makes it possible to direct the main blow of the attacking troops against the enemy **forward defense area (FDA)**. Before the breakthrough the units are to get as much information about the enemy as possible. At the same time arty is used for neutralizing and destructive fires. Having made gaps in AT mine-fields, antipersonnel mine-fields and other **obstacles**, mech inf units supported by tanks **launch an attack**. They break through the enemy **forward edge of the battle area (FEBA)** and disorganize the FDA, repulse the counterattacks of the enemy **reserves** and defeat them. To exploit the success of the advancing troops the **rear echelon** is usually brought into action.

As for the envelopment the main blow is directed against the flank or the rear of the enemy that's why the attacking units **bypass** the enemy positions and capture an objective in the enemy rear. Having captured the given objective, the attacking units usually **disrupt** the enemy lines of communication and cut the routes of his possible **retreat**. If the enemy leaves his positions and begins **withdrawing**, the forward troops and tanks are to pursue him. The pursuing troops will try to destroy the enemy or make him **surrender**.

***Words to be remembered:***

1. penetration (breakthrough) (pent) to penetrate (to break through) enemy lines – прорыв; прорывать линию обороны противника
2. envelopment – охватывающий маневр; охват
3. forward defense area (FDA) – передовой район обороны; район обороны первого эшелона
4. obstacle – препятствие; заграждение
5. to launch an attack – перейти (начать) в наступление
6. forward edge of the battle area (FEBA) – передний край обороны
7. reserve – резерв, второй эшелон  
rear echelon – второй эшелон
8. to bypass the enemy positions – обходить позиции противника
9. to disrupt the en lines of comm. – нарушать линии связи противника
10. retreat – отступать; отступление  
to withdraw – отступать; отводить войска  
withdrawal – отступление; отвод войск
11. to surrender – сдаваться

### **Defensive**

In defense as well as in attack the most important role is played by the infantry. The strength of the defensive position is based upon proper **organization of ground**. This includes the construction of various shelters for personnel and positions for fire weapons, such as fox-holes, **rifle trenches**, **weapon emplacements** for machine guns, mortars, arty pieces, etc. All defensive works should be tank-proof and invulnerable to enemy fire.

A defensive position usually consists of **defense areas organized in depth**. The forward edge of these areas is called **the main line of resistance (MLR)**. The MLR is usually occupied by the forward troops while the main forces hold **strong points** within the defense areas.

The area in front of the MLR is usually occupied by combat outposts.

Defensive fighting may be classified as **position defense** and **delaying action**. In position defense the main task of the troops is to hold their ground at all costs. In

case the attacking troops penetrate into the defense, the defender, as a rule, will deliver counterattacks. In delaying action the principal mission of the troops to conserve their fighting power at the sacrifice of territory. As soon as the attacker has deployed for attack, the defending troops move to a new position in the rear.

**Words to be remembered:**

1. organization of ground – инженерное оборудование местности
2. rifle trench – стрелковый окоп
3. weapon emplacement – огневая позиция; огневая точка
4. defense areas organized in depth – оборонительный район, эшелонированный в глубину
5. main line of resistance (MLR) – передний край
6. strong point (strong pt) – опорный пункт
7. position defense – позиционная оборона
8. delaying action – маневренная оборона; сдерживающий бой

**II. Decipher the following abbreviations:**

cbt; en; bat; tac; psn; opns; recon; atk; div; elms; mvr; msns; nuc; objs; tgts; spt; cml; comms; res; bde; comdr; reinf; pt; xplt; trps; pur; con; obsn; scty; cbt svc spt; wea; ech; bns; coord; sit; FEBA; mov; frd; aslt; intel; reorg; def; mbl def; FDA; catk; strat; gnd obsn; info; survl; inf; tk; AD; stf; pent

**III. Find Russian equivalents to the English phrases:**

1. to gain a tactical advantage	a) дезорганизовывать работу тыла противника
2. to accomplish offensive missions	b) переходить в наступление
3. to exploit the effects of friendly nuclear fires	c) наносить максимальные потери войскам противника
4. to disrupt enemy rear areas	d) отражать наступление противника
5. to execute the attack	e) достигать внезапности
6. to launch the attack	f) достигать тактического преимущества
7. to disrupt en spt and reinf actions	g) непрерывно вести наступление
8. to gain fire superiority	h) выполнять задачи наступления
9. to maintain fire superiority	i) вести наступление
10. to exploit successes	k) прорывать район
11. to commit all nec resources	l) расстраивать действия противника, направленные на поддержку и усиление своих войск
12. to deny the en respite from bat	m) достигать огневого превосходства

13.to gain surprise	н) использовать результаты ядерных ударов своих войск
14.to sustain the attack	о) вводить в бой все необходимые силы и средства
15.to repulse enemy attack	р) сохранять огневое превосходство
16.to inflict max destruction on the enforces	q) не давать противнику передышки в бою
17.to penetrate the area	г) развивать успех

#### ***IV. Translate using a dictionary.***

##### **Defensive Operations (the US Army Concept)**

The division conducts defensive operations alone or as a part of a corps.

The purpose of defensive operations is to kill enough men and vehicles to convince the enemy that his attack is too costly and that he must break it off. From time to time defensive operations are conducted for other reasons – to concentrate forces elsewhere on the battlefield, to gain time, to preserve forces, facilities or installations, or to control essential terrain.

One important task of the defender, especially when fighting outnumbered\*, is to defeat the attacker and survive with a force that is able to continue a coherent military operation. Ideally, this means the defender should destroy each echelon in turn and be able to engage the next with an effective fighting force. If the defender is fixed by the enemy and subsequently destroyed; or if the defending force is so degraded by successive losses as to become ineffective, the battle will be lost.

In order to slow the attack so there will be more time to engage large numbers of targets, the defender may need to occupy certain terrain for extended periods of time. In such cases, strong points may be established by companies or battalions. In a well-prepared strong point, a unit must hold onto terrain around which the battle pivots, while other units fight mutually supporting battle positions nearby.

\*outnumber – превосходить численностью

#### ***V. Translate into English:***

##### **A.**

ведение наступательных действий; концентрация превосходящих сил; основная форма военных действий; определение основного объекта; обеспечить выполнение задачи; план наступления; мероприятия тылового обеспечения; перейти в наступление; отбить наступление; создать более благоприятные условия; минимальные потери своих сил; захватить инициативу; вынудить противника; план обороны; оборона района;

удержание определенного района; не допускать выхода группировок противника в определенный район; развивать успех; преследовать противника; уничтожить противника; отводить войска; сдаваться; прорывать линии обороны противника; нарушать связь; нанести внезапный удар

## **В.**

1. Наступление началось на рассвете.
2. Танковый батальон прорвал линию обороны противника.
3. Армейский корпус был окружен.
4. Воздушно-десантная дивизия была вынуждена отступить.
5. Резервы были введены в бой на правом фланге.
6. Механизированная бригада была отведена в тыловой район после того, как она понесла тяжелые потери.
7. Подкрепления прибыли в район боевых действий вовремя.
8. Артиллерия нанесла удар по переднему краю обороны противника.
9. Оборонительные позиции были усилены.
10. Пехотная дивизия перешла в контрнаступление.
11. Город был занят после ожесточенных боев.
12. Штурмовики нанесли удар по правому флангу механизированной дивизии.
13. Противник был уничтожен на своих позициях ядерными средствами поражения.
14. Танковая атака была отбита с помощью ПТУР.
15. Парашютно-десантный батальон был десантирован в тыл противника.
16. Причиной поражения является потеря управления.
17. Механизированная дивизия наступала во взаимодействии с бригадой морской пехоты.

## **VI. Translate the following texts from hearing**

### **1.**

To destroy or capture the enemy it is necessary to attack him. The side which attacks the enemy with the aim of destroying him in close combat or hand-to-hand fighting is said to fight an offensive battle.

The attacker fights by combining fire, movement and bayonet assault. He may engage the enemy from the front, flanks or from his rear.

A frontal attack must result in the penetration of the enemy defenses. Besides the frontal attack, the attacking troops may perform an outflanking or wide enveloping movement which, if successful, may end in the complete **encirclement** of the enemy.

Success in attack may be ensured by:

1. centralized control throughout the battle;

2. selection of the direction of the main effort;
3. cooperation of all arms.

The initial stage of the attack may be the approach march (i.e. movement to contact) the aim of which is to close and gain contact with the enemy. The approach march begins when the troops are at a distance from the enemy and ends when the troops gain contact with hostile forces and occupy **the line of departure (LD)**.

***Words to be remembered:***

1. encirclement – окружение
2. line of departure (LD) – исходный рубеж для наступления

**2.**

Withdrawal. Troops withdraw only on orders of the higher commander. Their tactics is similar to that used in delaying action.

In most cases troops break contact with the enemy by night. Often strong covering units are left at the previously occupied positions. Their task is to mislead the enemy, delay him thus gain time.

**3.**

Sometimes troops have to fight by night and in fog. In most cases night fighting takes the form of fire fight. At night the troops have to overcome many difficulties because it is more difficult to keep proper direction of movement, carry out reconnaissance and organize security. Under such conditions the decision for the attack must be well thought out. Firing data should be prepared before dark.

Very often, in the hours of darkness, troops undertake demonstrations and raids. During the attack some illuminating means are used. Constant illumination of the ground helps to maintain proper direction and control the troops in combat.

Fighting in fog is even more difficult than night fighting since illumination of ground is impossible.

**VII. Translate as *q u i c k l y* as possible:**

наступление; to launch offense; уничтожить противника; to penetrate enemy lines; оборона; assault; передний край обороны; to surprise the enemy; окружать; objective; подкрепления; to withdraw (to retreat); район боевых действий; reserve; нанести удар по; to lose the battle; боевой устав; to inflict heavy losses; свои войска; pursuit; выиграть бой; to repulse the attack; захватить инициативу; rear; контратака; to suffer heavy losses; фланг; coordination of fire; разведка боем; movement to contact; развитие успеха; main attack; сдаваться; area defense; позиционная оборона; to exploit a nuclear burst; боевая мощь; to deny an enemy entry to a area; обороняющийся; retention of positions; сдерживающий бой; sustainable operations; мобильная оборона; deception operations; удерживать территорию; envelopment; перейти в наступление; to disrupt the lines of



communications; второй эшелон; weapon emplacement; исходный рубеж для наступления; strong point; район обороны первого эшелона; to maintain fire superiority; выполнять задачи наступления

### **VIII. Answer the following questions.**

1. What is the purpose of offensive actions?
2. What are the general types of offensive operations?
3. What does offensive action require?
4. What is the role of surprise in the offense?
5. What is defense?
6. What are the main objectives of defense?
7. What are the two basic forms of defense?
8. What is the area defense?
9. What is the mobile defense?

### **IX. Retell texts A and B**

### **X. Two-way translation**

1. Каков был замысел боя? – *The concept of the battle was to launch an offensive in northwestern direction, destroy the enemy who was still occupying the left bank of the Red River, thus liberating the whole Northwest of the country.*
2. Какова была задача вашего соединения? – *As the enemy's action was not yet clearly seen our immediate mission was to post two mechanized brigades at the village of N, completely conceal them and keep ourselves ready for action.*
3. На чем основывался ваш командир, оценивая обстановку? – *The commander based his estimates on a radio intercept ordering engineers to prepare brigade and ferry crossings for 600 troops per night over the Red River.*
4. Какие подготовительные мероприятия были проведены в вашей дивизии перед боем? – *The division took more artillery and heavy mortars, additional antiaircraft units were formed and trained, training became more realistic, discipline was tightened.*
5. А каков был состав резерва? – *The reserve consisted of an enforced infantry brigade.*
6. Кто осуществлял авиационную поддержку? – *The 52<sup>nd</sup> Tactical Air Wing aircraft performed the air support missions together with helicopter gunships.*
7. Каковы, по вашему мнению, причины поражения? – *Hard to say. I think the distance from the airbases seriously limited the air support available over the battlefield. Besides, the coordination between the combat elements was completely*

*disrupted due to the extremely efficient jamming and heavy and accurate artillery fire.*

## **S U P P L E M E N T A R Y   T E X T S**

### **1.**

On 15 January the 1<sup>st</sup> Mobile Group moved into the Battle, taking Hill 157 in the afternoon. On 16 January the French began their counterattack to retake the hills covering the town. Their assault met only light opposition as the enemy pulled back before them. By mid-afternoon the French had reoccupied Hills 101, 210, and 47.

Suddenly, after a day and a half of inaction the Vietminh struck. At 17.00 hours, 16 January, the entire 308<sup>th</sup> Division, 10,000 strong in an attack threw themselves at the hastily\* dug-in\* French. The attacks went on through the night and into the next day. In the heavy fighting the French lost the hills in the middle of their defensive positions, but held on the hills 210 and 157 which controlled the flanks.

The French air force used every plane available, poured napalm, bombs, and gunfire with high effectiveness into the massed Vietminh attackers.

#### **\* Notes:**

hastily – поспешно

dig in – окапываться

### **2. THE OKINAWA OPERATIONS**

The capture of Okinawa was the most difficult operation undertaken by the Pacific Forces. The scene was relatively close to the Home Islands (Japan) where the remaining strength of the Japanese Naval and Air Forces were concentrated. Intelligence information indicated that Okinawa would be defended by approximately 60.000 troops established in well prepared defensive positions. A large native population would make the operation particularly difficult. Meanwhile the Japanese, realizing the serious implications\* of the loss of Okinawa were determined to make an all-out effort to hold this island.

Pre assault operations against aircraft and aircraft installations on the Home Islands were carried out by the US Task Carrier Force. The operations of this force were then directed against Okinawa on 23 March 1945, in preparation for the assault. The fast carriers operated continuously in the Okinawa area providing direct air support and cover for the US amphibious forces. Before the assault on Okinawa the islands in Kerama Retto, 15 miles to the westward were seized on 26 March. They provided a base for logistic support, a protected anchorage\*, and a seaplane base for the operation of search\* and antisubmarine patrol planes. Before the main landings extensive mine sweeping, surface bombardment, beach reconnaissance, and

underwater demolition\* were carried out.

**\* Notes:**

implications – последствия

anchorage – якорная стоянка, убежище

search planes – самолеты-разведчики

demolition – подрывные работы

### **3. LAND OFFENSIVE RESULTS IN RAPID COLLAPSE OF IRAQI GROUND FORCES**

The long-awaited ground offensive was launched just before dawn with massive armored thrusts\* into southern Iraq and Kuwait and audacious\* airmobile attacks deep into southern Iraq.

Air mobility played a major part in the swift advance of Allied ground forces and the cutting off of the Iraqi Army.

A French armored thrust and an assault by the US 82nd Airborne Division captured As Salman airbase in the first few hours of the offensive.

The US 101st Airborne was deployed by helicopters to set up a *forward operating base (FOB)* dubbed Cobra. The 101st was moved in by a 300 helicopter force of CH-47 Chinooks and UH-60 Black Hawks escorted by AH-64 Apaches, *with fighter barrier combat air patrols\** protecting the flanks.

An air assault from FOB Cobra later took the Iraqi Air Force's Tallil AB. An armored thrust linked to the air drop and cut off the main highway from Kuwait to Baghdad.

Other Coalition members such as Syria, Egypt and several Gulf states, along with Kuwaiti and US Marines, attacked up the coast towards Kuwait city.

The principal aim of US and British armored attacks was to cut off Iraqi positions in Kuwait and southern Iraq then to engage and destroy the Iraqi armored reserves.

The Iraqis were left with one way out of Kuwait, via Basra, and the two roads rapidly developed into a *choke point\** because the surrounding land is marshy.

Several large tank battles developed. Allied antitank helicopters also *took their pool\** of Iraqi armor and artillery, with the combinations of Cobra/TOW, Apache/Hellfire, Lynx/TOW and Gazelle/Hot proving effective. The two latter systems made their combat debut.

British Army Air Corps Lynx helicopters destroyed at least four tanks and three other armored fighting vehicles, with a number of other probable hits.

Some 3,000 of Iraq's 4,700 main battle tanks were destroyed, as were 2,100 artillery pieces and about 18,000 armored vehicles, the majority by air attack. Tactical fixed-wing aircraft attacked troop and armored formations which had at last

emerged from their dug-in positions. Each attack formation was assigned to a **geographical box**, but the situation was so fast-moving that airborne re-assignment\* was the norm. A US Air Force F-16 was shot down on the last day of the war. The pilot ejected and a pair of US Army UH-60s diverted to pick him up, one of them was also shot down.

Most of the combat sorties were in support of the ground offensive, but the strategic air campaign continued in Iraq with strikes against airfields, ammunition and military hardware factories and storage areas, road and communications sites and Scuds. The bombing rolled back from the front line ahead of Allied troops. The other 20% consisted mainly of RAF Tornado and Buccaneer and US Air Force F-111s re-attacking Iraqi airfields and hitting pontoon bridges to cut off lines of retreat from Kuwait.

### **Words which will help you to translate the text:**

1. forward operating base (FOB) – передовая оперативная база
2. geographical box – квадрат местности

#### **\* Notes:**

thrust – нападение, атака

audacious – дерзкий, смелый

with fighter barrier combat air patrol – зод. с использованием воздушного патрулирования

choke point – “удавка”

to take one’s pool – взять свою долю

re-assignment – изменение функций, переключение

## **4. HELICOPTER ASSAULT HERALDS \* GROUND WAR**

Dawn on 24 February saw the largest helicopter assault in history launched deep into Iraq, to set up Cobra, a forward operating base for **attack helicopters**.

More than 300 US Army McDonnell Douglas AH-64 Apache and Bell AH-16 Huey Cobras were finally operated from the base, which was established in less than a day.

The operation started by placing 2,000 US troops from the 101st Airborne Division (Screaming Eagles) 80 km (43 nm) inside Iraq. They were ferried\* in by 118 helicopters flying in constant rotation.

The objective was to set up a refueling and logistics base for the US Army's attack helicopters supporting the allied armored thrust. *Rubber bladder fuel holders\** slung\* under the Chinooks brought in 22,000 liters.

A total of 50 vehicle-mounted TOW anti-tank systems and two artillery battalions of 105 mm howitzers were also flown in. Only minimal Iraqi fire was

encountered.

A further 2,000 troops from the 101st Airborne arrived during the day in a column of more than 700 trucks. The convoy brought in a further 2,000 liters of aviation fuel and 30 more anti-tank weapons.

Cobra base finally measured 32 km across. As well as acting as a refueling base, Cobra also served as a staging area for the Division's other two brigades in their subsequent attacks, made to the north-east.

### **Words which will help you to translate the text:**

1. attack helicopter – боевой (ударный) вертолет, вертолет огневой поддержки

#### **\* Notes:**

herald – возвещать, предвещать

ferry – перевозить, транспортировать

rubber bladder fuel holder – мягкий (эластичный) топливный контейнер

sling – подвешивать

## **5. MANEUVER OF FORCES**

A maneuver is a movement to place ships, troops, materials, or fire in a better location with respect to the enemy. A successful maneuver achieves a tactical advantage over the enemy. Movement is made toward or away from an enemy or against his flanks or rear to place the force where the enemy is at a relative disadvantage. The character of a maneuver is different in the attack and defense. The attacker performs his maneuver so that he can close with the enemy at the time and place chosen by him. On the other hand, the defender makes his maneuver prior to the battle in a place which facilitates his bringing maximum fires to bear on the enemy.

In the offensive, a commander can move his forces in either of two directions: to the front or to the flanks (or rear) of his opponent as the two face each other. The frontal maneuvers are the frontal attack and the penetration.

The flanking maneuvers are the envelopment and turning movement.

## **6. FORMS OF MANEUVERS**

The forms of maneuver are methods of moving and placing forces to gain a tactical advantage over the enemy.

The *frontal attack* is a form of maneuver which strikes the enemy all along his front by the most direct route. It is used to overrun and destroy a weaker enemy or to fix the enemy in position to support another form of maneuver. The frontal attack is seldom a decisive maneuver, and it is not employed unless overwhelming combat power is available or no other form of maneuver can be employed to

accomplish the mission.

The penetration is a form of maneuver which breaks through an enemy position, widens the gap created and destroys the continuity\* of the position. The intent of the penetration is to disrupt the continuity of the enemy position so that the enemy cannot reconstitute his defense and to defeat the enemy in detail. The penetration is a decisive form of maneuver which is used when the situation is fully developed and there is no assailable\* flank. Strong fire support favors\* the penetration.

The envelopment is an offensive form of maneuver which is directed at the enemy flank or rear towards an objective behind his forces. The purpose of the envelopment is to cut off the enemy escape routes, disrupt his communications, cause him to fight in two directions simultaneously, and to destroy him in his present position. As in the case of the penetration force the enveloping force contains the preponderance\* of the combat power. The envelopment must have adequate control means, and it is facilitated by superior firepower, mobility and surprise. When a choice of maneuver is available, the envelopment is favored over the penetration because it applies the available combat power to the best advantage. There are two variations of the envelopment: aerial (vertical) envelopment and the double envelopment.

The **turning movement** is an offensive form of maneuver which passes the major portion of the force around or over the enemy force to seize a vital objective deep in the enemy rear. The intent of the turning movement is to force the enemy to abandon his position or to divert a major portion of his force to face the threat. To conduct the turning movement the enemy must have an assailable flank. It is facilitated by superior mobility, firepower, adequate control means, and secrecy and deception. The turning movement is used when there is an opportunity to seize vital areas in the enemy rear before he can withdraw his main force or support or reinforce the area. The turning force normally operates independently and *out of the mutual support distance*\*.

### **Words which will help you to translate the text:**

1. frontal attack – фронтальное наступление
2. turning movement – обход, обходной маневр

### **\* Notes:**

continuity – целостность

assailable – уязвимый

favor – благоприятствовать

preponderance – превосходство, перевес

out of mutual support distance – на расстоянии, исключая возможность

## 7. DISTRIBUTION OF FORCES

*Distribution of forces* is the arrangement of troops for any purpose such as battle, maneuver, or march. It is the **allocation** and arrangement of the available elements of a force **laterally** and in depth on the battlefield. The purpose of the troop distribution is to be sure that all tasks vital to the accomplishment of the mission have been **allocated** resources.

Distribution of forces is closely related to two principles of war: economy of force and mass.

A force which has been distributed either laterally or in depth or both laterally and in depth is by definition in a **formation**. The two basic formations are the **column** and **line**. All other formations are variations of these two. The column is strong to the flanks, has great depth, is more flexible, and relatively weak to the flank and rear. The line is strong to the front and rear, weak to the flanks, has little depth and is relatively inflexible.

### Words which will help you to translate the text:

1. distribution of forces – размещение сил и средств
2. allocation – выделение, размещение
3. laterally – горизонтально (в линию)
4. formation – строй, боевой порядок
5. column – колонна
6. line – построены по фронту

## 8. ORGANIZATION OF FORCES

Organization of forces is the unification and consolidation of the various means available within a force under a subordinate commander who can effectively direct their effort towards a common goal. It is a result of the detailed planning. Organization of forces is based upon an established mission. Subordinate elements of a force may be organic, assigned, attached under the operational control of, in support of, or within the area of responsibility of another unit.

# **ТЕКСТЫ ДЛЯ АУДИРОВАНИЯ**

## **Глава 1. U.S. Armed Forces. General**

### **UNIFIED COMBATANT COMMAND**

A Unified Combatant Command (UCC) is a United States joint military command composed of forces from two or more services. It is organized either on a geographic basis (known as “Area of Responsibility”, AOR) or on a functional basis. All UCC are commanded by either a four star general or admiral. UCCs are formally known as “COCOMs” (for “combatant commands”) and are lead now by Combatant Commanders (CCDRs), formerly known as regional “Commanders-in-Chief”. In 2002 Secretary of Defense announced that the title of “Commander-in-Chief” would be reserved for the President only, in accordance with the United States Constitution, and the heads of the Unified Combatant Commands would be known as “combatant commanders”. The Unified Command Plan is updated annually and can modify AORs or combatant command assignments.

## **Глава 2. U.S. Army Organization**

### **ARMY**

The United States Army is the largest and oldest branch of the Armed Forces of the USA. It is responsible for land-based military operations. The US Army is made up of the Regular Army and two reserve components, the Army National Guard and the Army Reserve. Reservists train once a month and conduct two to three weeks of annual training each year. The Army is currently undergoing a period of transformation. When it is finished there will be five Unified Combatant Commands organized on a geographic basis and the Army will be transformed from the division-based into brigade-based force. The central part of this plan is that each brigade will be modular, that is all brigades of the same type will be exactly the same, and thus any brigade can be commanded by any division. Divisions will be retained but the divisional HQ will be able to command any brigade.

### **2.1 Infantry**

#### **INFANTRY**

Infantry are very highly disciplined and trained soldiers who fight primary with small arms, but are trained to use everything from their bare hands to missile systems in order to neutralize and kill the enemy in close personal combat. Modern-day mechanized infantry is supported by armored fighting vehicles, artillery, and aircraft. Along with light infantry, which does not use armored fighting vehicles, it is still the only kind of military force that can take and hold terrain of various types. The most important role of the infantry has been as the primary force of an Army. It is the



infantry which ultimately decides whether ground is held or taken, and it is the presence of infantry that assures control of territory. While the tactics of employment in battle have changed, the basic missions of the infantry have not. Life in an active duty infantry unit is rigorous: forced marches, carrying in excess of 36 kg of equipment upwards of 25 miles, is not uncommon.

## **2.2 Armor**

### **MODERN MAIN BATTLE TANKS**

By the 1960s the idea of having three types of tanks (light, medium and heavy) had lost *ground*\* and all industrialized countries built one type of tank which become known as the Main Battle Tank (MBT). Most first-generation MBTs weighed about 40 tons. Second-generation MBTs are much heavier and also have much more powerful engines. For example the Leopard 2 weighs just over 56 tones, has 1,500-hp diesel and therefore much improved cross-country mobility and greater survivability as it is able to move from one fire position to another more quickly and is in direct line of fire with enemy weapons for a shorter period. All tanks now have a weapon-stabilization system which enables them to fire the main armament while the vehicle is moving across country. Fire-control system now always include a laser rangefinder and a ballistic computer which guarantees a first-round hit on both stationary and moving targets at most battlefield ranges.

*\*ground – обоснование, основания*

## **2.3 Artillery**

### **M109 155mm SP HOWITZER**

The M109 155mm SP Howitzer is the most widely used self-propelled artillery weapon in the world today. It is powered by diesel engine for greater operating range. In the U.S. Army the M109 is issued on the scale of 54 per armored and mechanized division (three battalions each of 18 vehicles, each battalion has 3 battaries of six M109s). Normally rate of fire is one round per minute. The weapon can fire a wide range of projectiles including high explosive, illuminating, tactical nuclear, chemical, smoke. A total of 28 rounds of 155 mm is carried. Maximum range of fire is 14,000-15,000 yards. A 12.7mm machine gun is mounted on the commander's cupola for anti-aircraft defense, and 500 rounds are provided for this weapon.

## **2.4 Airborne Troops**

### **AIRBORNE FORCES**

Airborne forces are military units, usually light infantry, set up to be moved by aircraft and "dropped" into battle, typically by parachute. Thus, they can be placed behind enemy lines, and have the capability to deploy almost anywhere with little

warning. The formations are limited only by the number and size of their aircraft. A huge force can appear "out of nowhere" in minutes. This action is referred to as *vertical envelopment*\*.

Airborne forces typically *lack*\* the supplies and equipment for prolonged combat operations, and are therefore more suited for airhead operations than for long-term occupation; furthermore, parachute operations are particularly sensitive to *adverse*\* weather conditions. Advances in helicopter technology since World War II increased the flexibility of airborne operations, and air assaults have largely replaced large-scale parachute operations. Airborne forces are generally composed of infantry and light, non-armored vehicles and guns.

\*vertical envelopment – вертикальный охват, воздушный десант

\*lack – испытывать недостаток, не иметь

\*adverse – неблагоприятный

## 2.5 Signal Corps. Communications

### NEW RADIO SYSTEMS

Army units have replaced their older VRC-12 series FM radios for the new SINCGARS ("Single-Channel Ground-Air Radio Systems") family of equipment. Rather than\* sending a signal along one signal frequency, the SINCGARS radios sent its signals across many frequencies, "hopping" from one frequency to another at lightning speed. This allowed many channels of talk to share an already-crowded frequency spectrum. Later generations of these radios combined the communications security (COMSEC) encryption devices with the receiver/transmitter, making a single easier-to-program unit. Most significant, the SINCGARS radios could send and receive digital traffic with great fidelity. The SINCGARS radios have a failure rate\* in extreme heat of once every 7,000 hours compared to the VRC-12 series' failure rate of 2–300 hours.

\* rather than – вместо того, чтобы

\* failure rate – частота отказов

\* \* \*

The Signal Corps is currently fielding the Warfighter Information Network – Tactical (WIN-T). It will eventually provide "On-The-Move"\* down to the Company level for Maneuver, Fires and Aviation Brigades, and will fully support the Future Combat Systems (FCS) program; and also provide protected Satellite Communications "On-The-Move" capability against jamming, detection and intercept and will be aligned with the Telecommunications Satellite (TSAT) program.

\* on-the-move communication – связь в движении, мобильная связь

## **Глава 3. US Air Force**

### **C – 5A GALAXY TROOP-CARRYING AIRCRAFT**

The C-5A Galaxy is a jet cargo transport aircraft designed to carry troops and huge amounts of Army equipment to any place in the world. It is capable of airlifting all the equipment issued to an Army division and support units, including heavy tanks, helicopters, and missiles. Being capable of carrying nearly 350 troops in one load the C – 5A is 246 feet long, has a wing span of 223 feet. The cargo compartment is 121 feet long, 19 feet wide and 13.5 feet high. It has large loading doors in the nose and at the end of aircraft to permit quick and easy loading and unloading of large cargo, thus shortening turnaround time\*.

Powered by four jet engines, the C – 5A can airlift 265,000 pounds over a range of 2,500 nautical miles at speed up to 530 miles per hour.

\*turnaround time – время на подготовку к обратному рейсу

## **Глава 4. U.S. Navy**

### **COMBAT SHIPS**

“Arleigh Burke”-class destroyer is a general-purpose ship carrying a smaller version of “Aegis” system, a moderate number of missiles. She also has good sonars and carries surface-to-surface missiles. Their only disadvantage is that they do not carry a helicopter. They have a pad\* on the fantail\* but no hangar.

Although “Iwo Jima”- class assault carrier\* looks like aircraft-carrier she does not carry jet aircraft. Instead these ships carry large helicopters and up to a battalion of marines.

As far as submarines are concerned “Los-Angeles”- class sub is the principal US attack submarine. These boats carry a powerful sonar suite and four torpedo tubes. Many years after entering service they are still among the most effective subs in existence.

To perform escort duties O.H. Perry-class frigate is designed. They have a good mix of antisubmarine, antiaircraft and antisurface weapons. But their relatively small size prevents them from carrying a heavy armament.

\* pad – взлетно-посадочная площадка (для вертолетов)

\* fantail – корма

\*assault carrier – десантный, авианесущий корабль

## **Глава 5. Guided Missiles**

### **The MGM-140 ARMY TACTICAL MISSILE SYSTEM**

The MGM-140 Army Tactical Missile System (ATacMS) is a surface-to-surface missile (SSM) manufactured by Lockheed Martin. It had a range of over 160 kilometres (100 mi), with solid propellant, and is 4,0 metres (13 ft) high and 610 millimetres (24 in) in diameter.

The ATACMS can be fired from multiple rocket launchers, including the M270 MLRS, and HIMARS.

The first use of the ATACMS in a combat capability was during Operation Desert Storm, where a total of 32 were fired from the M270 MLRS. During the Operation Iraqi Freedom more than 450 missiles were fired. As of early 2015, over 560 ATACMS missiles had been fired in combat. The new Block IVA (MGM-140E) variant was designed to carry a 230 kilograms (500 lb) unitary HE warhead\* instead of the M74 bomblets\*. It uses GPS/INS guidance. The range has been increased to some 300 kilometres (190 mi), limited more by the legal provisions of the Missile Technology Control Regime (MTCR) than technical considerations.

\* *unitary HE warhead* – унитарная фугасная БЧ

\* *bombulet* – бомба малого калибра, поражающий элемент кассетного \*боеприпаса

## **Глава 6. Aerospace Defense**

### **AIR DEFENSE**

Air defense is defined by NATO as "all measures designed to nullify or reduce the effectiveness of hostile air action." They include ground- and air-based weapon systems, associated sensor systems, command and control arrangements and passive measures (e.g. barrage balloons). It may be used to protect naval, ground, and air forces in any location. NATO refers to air defense as anti-aircraft warfare. Missile defense is an extension of air defense to the task of intercepting any projectile in flight.

In some countries ground based air defense and air defense aircraft are under integrated command and control. Forces in the field, wherever they are, always deploy their own air defense capability if there is an air threat. A surface-based air defense capability can also be deployed offensively to deny the use of airspace to an opponent.

Until the 1950s, guns firing ballistic munitions ranging from 20 mm to 150 mm were the standard weapon; guided missiles then became dominant, except at the very shortest ranges.

## **Глава 7. Weapons of Mass Destruction**

### **WEAPONS OF MASS DESTRUCTION**

A weapon of mass destruction is a nuclear, radiological, chemical, biological or other weapon that can kill and bring significant harm to a large number of humans or

cause great damage to human-made structures, natural structures (e.g. mountains), or the biosphere.

The first use of the term was made by Archbishop\* of Canterbury, in 1937 in reference to the aerial bombardment of Guernica, Spain.

During the Cold War, the term "weapons of mass destruction" was mainly a reference to nuclear weapons.

The only country to have used a nuclear weapon in war is the United States, which dropped two atomic bombs on the Japanese cities of Hiroshima and Nagasaki during World War II. There are eight countries that have declared they possess nuclear weapons and are known to have tested a nuclear weapon, only five of which are members of the non-proliferation treaty. The eight are China, France, India, North Korea, Pakistan, Russia, the United Kingdom, and the United States.

\*Archbishop – архиепископ

## **Глава 8. Security**

### **COMBAT SUPPORT**

(Tactical Support)

In the United States Army, Combat Support is a military term which refers to units which provide fire support and operational assistance to combat elements. Combat Support units provide specialized support functions to combat units in the areas of chemical warfare, intelligence, security and communications. Combat Support shouldn't be confused with Combat Service Support, which are units which primarily provide logistical support by providing supply, maintenance, transportation, health services, and other services required by the soldiers of combat units to continue their mission in combat. Expressed another way, Combat Support are focused on providing operational support to combat units, while Combat Service Support units are focused on logistical support to combat units. Actual combat units are collectively referred to as Combat Arms units; hence, all army units fall into the category of either Combat Arms, Combat Support, or Combat Service Support. Within the US Army, the traditional Combat Support branches are the Chemical Corps, Military Intelligence Corps, Military Police Corps and Signal Corps.

## **Глава 9. Forms of Combat**

### **STABILITY AND SUPPORT OPERATIONS**

First it was Small Wars, then it became Low Intensity Conflict. Then the Army moved to operations other than war. The joint community agreed upon Military Operations Other Than War\* which is the term currently in use. Support operations provide essential supplies and services to assist designated groups. It relieves suffering and helps civil authorities respond to crises, man-made or natural disasters. Support operations\* fall into two categories: humanitarian assistance and

environmental assistance. Stability operations\* apply military power to influence the political and civil environment to facilitate diplomacy and to interrupt specific illegal activities. Stability operations may complement and reinforce the offense, defense and support, or they may themselves constitute the main effort. They may take place before, during and after offensive, defensive, and support operations.

\*Military Operations Other Than War (MOOTW) – войсковые операции, проводимые вне условий войны (BOBYB)

\*Stability and Support Operation (SASO) – операция по поддержанию стабильности и оказанию поддержки

## Дополнительный материал к главе 2

### ПОРЯДОК РАДИООБМЕНА

#### *RADIO VOICE PROCEDURE*

<i>WORDS</i>	<i>MEANING</i>
1. Affirmative	Yes
2. Roger	I understand /I received your transmission
3. Negative	No
4. Wilco	I will comply; I will do what you have asked
5. Standby	Wait
6. Over	I'm finished speaking and waiting for a reply
7. Out	I'm finished speaking and don't expect a reply
8. Go ahead	Please send your next transmission
9. Say again	Repeat the last transmission
10. You're breaking up	I cannot hear you / your voice

**Ex.1 Complete the conversation with appropriate words or phrases from the word bank.**

*negative wilco say again over out*

1. D77: Echo one-three, I didn't hear your last transmission. Please (1)...
2. E13: I repeat, please advise. Is air reconnaissance available for this area? (2)...
3. D77: (3)... We do not have air recon at this time. Please wait for further instructions.
4. E13: (4)... I will wait your next transmission. (5) ...

**Ex.2 Complete the word or short phrase that is similar in meaning to the underlined part.**

1. I understood your last transmission. I am moving toward the objective now.
2. Yes. All units have reported back to base.
3. You're going to have to repeat the last transmission, soldier. I couldn't understand you.
4. This is Delta Actual. Please proceed with your transmission.
5. I'm verifying that information for you now. Please wait until my next transmission.

**Ex.3 Translate this short radio exchange.**

- a. D 13, D 13, я T 50.
- в. T 50, слушаю тебя (говорите).
- a. Вызываю огонь не прямой наводкой по координатам 621213. Прием
- в. 50, повторите. Вас плохо слышно. Повторите координаты.

а. Квадрат 621213.

в. 50, вас понял. Выполняю. Конец связи.

### FONETIC ALPHABET

(adopted by Armed Forces 1 March 1956)

<b>A</b>	<i>ALPHA</i>	<i>AL FAR</i>
<b>B</b>	<i>BRAVO</i>	<i>BRAH VOH</i>
<b>C</b>	<i>CHARLIE</i>	<i>CHAR LEE</i>
<b>D</b>	<i>DELTA</i>	<i>DELL TAH</i>
<b>E</b>	<i>ECHO</i>	<i>ECK OH</i>
<b>F</b>	<i>FOXTROT</i>	<i>FOKS TROT</i>
<b>G</b>	<i>GOLF</i>	<i>GOLF</i>
<b>H</b>	<i>HOTEL</i>	<i>HOH TELL</i>
<b>I</b>	<i>INDIA</i>	<i>IN DEE AH</i>
<b>J</b>	<i>JULIET</i>	<i>JEW LEE ETT</i>
<b>K</b>	<i>KILO</i>	<i>KEY LOH</i>
<b>L</b>	<i>LIMA</i>	<i>LEE MAH</i>
<b>M</b>	<i>MIKE</i>	<i>MIKE</i>
<b>N</b>	<i>NOVEMBER</i>	<i>NO VEMBER</i>
<b>O</b>	<i>OSCAR</i>	<i>OS CAH</i>
<b>P</b>	<i>PAPA</i>	<i>PAH PAH</i>
<b>Q</b>	<i>QUEBEC</i>	<i>KEH BECK</i>
<b>R</b>	<i>ROMEO</i>	<i>ROW ME OH</i>
<b>S</b>	<i>SIERRA</i>	<i>SEE AIR RAH</i>
<b>T</b>	<i>TANGO</i>	<i>TANG GO</i>
<b>U</b>	<i>UNIFORM</i>	<i>YOU NEE FORM</i>
<b>V</b>	<i>VICTOR</i>	<i>VIK TAH</i>
<b>W</b>	<i>WHISKEY</i>	<i>WISS KEY</i>
<b>X</b>	<i>X-RAY</i>	<i>ECKS RAY</i>
<b>Y</b>	<i>YANKEE</i>	<i>YANG KEY</i>
<b>Z</b>	<i>ZULU</i>	<i>ZOO LOO</i>

### NUMERICAL ALPHABET

<b>0</b>	<b>ZERO (ноль)</b>	<b>ZE-RO зироу</b>
<b>1</b>	<b>ONE (один)</b>	<b>WUN ван</b>
<b>2</b>	<b>TWO (два)</b>	<b>TOO ту</b>
<b>3</b>	<b>THREE (три)</b>	<b>TREE три</b>
<b>4</b>	<b>FOUR (четыре)</b>	<b>FOUR-er фоуэр</b>



<b>5</b>	<b>FIVE (пять)</b>	<b>FIFE файив</b>
<b>6</b>	<b>SIX (шесть)</b>	<b>SIX сикс</b>
<b>7</b>	<b>SEVEN (семь)</b>	<b>SEV-en севен</b>
<b>8</b>	<b>EIGHT (восемь)</b>	<b>AIT эйт</b>
<b>9</b>	<b>NINE (девять)</b>	<b>NINE-er найнер</b>

Числительные передаются по одной цифре, за исключением передачи круглых тысяч. Например, **84** передаётся как "**AIT FOW ER**", **2500** как "**TOO FIFE ZE-RO ZE-RO**", **16000** как "**WUN SIX THOUSAND**". Группы числительных, обозначающие дату и время, передаются также по одной цифре в следующем формате: **число/часы/минуты/индикатор временной зоны**. Например, 29 число 12 часов 5 минут зона Z (**291205Z**) передаётся как "**TOO NIN-ER WUN TOO ZE-RO FIFE ZOO-LOO**".

### **PROCEDURE WORDS (служебные слова)**

<b>ACTUAL (лично)</b>	Добавляется к позывным, если на связи непосредственно командир подразделения, чей позывной используется при связи.
<b>AUTHENTICATE</b>	Прошу идентификацию
<b>I AUTHENTICATE</b>	Подтверждаю идентификацию
<b>BREAK</b>	Раздел (я обозначаю отделение данного текста от других частей сообщения) (служебное слово используется, когда трудно разграничить основной текст и другие составные части сообщения).
<b>CORRECT</b>	Правильно (служебное слово применяется при поправке сообщения)
<b>CORRECTION</b>	Исправляю (В сообщении допущена ошибка. Правильный вариант ..... )
<b>I COPY</b>	На связи; понял, принимаю (радиограмму)
<b>HOW COPY</b>	Как понял
<b>I SPELL</b>	Я произношу следующее слово фонетически (по буквам)
<b>PRIORITY (приоритет)</b>	Степень важности данного сообщения (обозначается числами или словами: ROUTINE – «срочно» в течение 6 часов; IMMEDIATE – «передать немедленно», FLASH – «молния»).
<b>RADIO CHECK</b>	Проверка связи (используется для проверки устойчивой связи)

READ BACK	Повтори мне (принятое сообщение для проверки)
GREEN (зелёный)	Безопасно (степень опасности- см.RED, YELLOW)
RED (красный)	Опасно
YELLOW (жёлтый)	Опасность не установлена
SPEAK SLOWER	Говори медленно (при плохой слышимости)
THAT IS CORRECT	Ваше сообщение верно
THIS IS (это)	Передаёт станция с позывными: .....
WAIT (пауза)	Я должен прерваться на несколько секунд
WAIT OUT (перерыв)	Я должен прерваться на неопределённое время
WRONG (ошибка)	Ваше последнее сообщение не правильно. Правильно ...

### **DIRECTIONS** (направления)

NORTH (север)	N	NOVEMBER
NORTHEAST (северо-восток)	NE	NOVEMBER ECHO
NORTHWEST (северо-запад)	NW	NOVEMBER WHISKEY
SOUTH (юг)	S	SIERRA
SOUTHWEST (юго-запад)	SW	SIERRA WHISKEY
SOUTHEAST (юго-восток)	SE	SIERRA ECHO
WEST (запад)	W	WHISKEY
EAST (восток)	E	ECHO

### ***Примеры радиообмена:***

#### **Установление связи**

1. ALPHA MIKE ONE THIS IS ALPHA MIKE SIX DO YOU READ ME, OVER?
2. ALPHA MIKE SIX THIS IS ALPHA MIKE ONE, GO AHEAD, OVER!

#### **Проверка связи**

1. ALPHA MIKE ONE THIS IS ALPHA MIKE SIX RADIO CHECK, OVER?
2. ALPHA MIKE SIX THIS IS ALPHA MIKE ONE I COPY, OVER!

#### **Проверка сообщения**

1. ALPHA MIKE ONE THIS IS ALPHA MIKE SIX HOW COPY, OVER?
2. ALPHA MIKE SIX THIS IS ALPHA MIKE ONE I COPI , OVER! (OK)
3. ALPHA MIKE SIX THIS IS ALPHA MIKE ONE YOUR MESSAGE IS GARBLED, SAY AGAYN, OVER! (NOT OK)

#### **Информация о противнике**

ALPHA MIKE ONE THIS IS ALPHA MIKE SIX CAN YOU VERIFY NUMBER OF HOSTILES AT YOUR POSITION, OVER?

**Степень опасности**

1. ALPHA MIKE SIX THIS IS ALPHA MIKE ONE, CONDITION RED, WE ARE SURROUNDED, OVER
2. ALPHA MIKE SIX THIS IS ALPHA MIKE ONE, CONDITION GREEN, THE VILLAGE IS CIVILIAN, OVER?
3. ALPHA MIKE SIX THIS IS ALPHA MIKE ONE, CONDITION YELLOW, POSSIBLE ENEMY'S ATTACK, OVER?

**Отмена сообщения**

ALPHA MIKE SIX THIS IS ALPHA MIKE ONE, DISREGARD, THERE ARE NO ENEMYS IN THIS VILLAGE

**Перерыв, пауза**

1. ALPHA MIKE ONE THIS IS ALPHA MIKE SIX, WAIT, OVER (short break)
2. ALPHA MIKE ONE THIS IS ALPHA MIKE SIX, WAIT ONE, OVER, (longer break)
3. ALPHA MIKE ONE THIS IS ALPHA MIKE SIX, WAIT OUT (longer break and shut radio)

**Вызов артиллерийской поддержки**

FLASH! 7-6-5-0 THIS IS 2-4. WE ARE UNDER FIRE, CONDITION RED, REQUEST FIRE MISSION, SAY AGAIN, CONDITION RED REQUEST FIRE MISSION, OVER? –

ROGER, 2-4, FIRE MISSION AT YOUR DISCRESSION, OVER

**Translate this short radio exchanges:**

1. – Foxtrot-6, this is Lima-1-actual, come in, over
2. –Hello 22, this is 2, confirm that you are at the RV (rendezvous), over  
– 2, roger, copy, over.
3. – Hello 22, this is 2, move now, over.  
–2, roger, wilco, out.
4. –This is Navy two five nine three six sighted formation of six jet bombers configuration is swept wing with eight jet engines two hundred miles east of Urkas on thirteen May at one three five zero zulu altitude three five thousand heading two seven zero degrees no markings observed over
5. – Bravo Four Five this is Mike Eight Eight Spot report. Over.
  - M 88 this B 45. Send it. Over.
  - This is M 88. 20 trucks with three BRDM escorting moving south along the highway at grid 465985 and one air-defense unit located at 396980. Time now. Request permission to engage. Over.

## **6. Радиообмен с боевым охранением**

- CHARLIE PAPA THIS IS GOLF DELTA (nickname), DO YOU READ ME, OVER?
- GOLF DELTA THIS IS CHARLIE PAPA (nickname), GO AHEAD, OVER!
- CHARLIE PAPA THIS IS GOLF DELTA (nickname), CONDITION GREEN, OVER?
- GOLF DELTA THIS IS CHARLIE PAPA, ROGER, OUT!

## **7. При встрече с противником**

CHARLIE PAPA THIS IS GOLF DELTA (nickname), CONTACT, OVER!  
ALPHA MIKE SIX THIS IS ALPHA MIKE ONE, CONTACT, SAY AGAYN,  
CONTACT, REQUEST FIRE MISSION, OVER!

## **8. Выход из боя**

ALPHA MIKE ONE THIS IS ALPHA MIKE SIX, SHOT OUT AND ON THE  
RUN, WILL CONTACT YOU IN 30 MIKES, OUT

## **9. Вызов артиллерийской поддержки**

- REDLEG, REDLEG, THIS IS ALPHA MIKE SIX, FIRE MISSION, OVER?
- ALPHA MIKE SIX THIS IS REDLEG, GO AHEAD, OVER!
- REDLEG THIS IS ALPHA MIKE SIX, REQUESSTING FIRE MISSION AT  
MAP COORDINATES 31440 25700 , DROP ONE ROUND HE AND I WILL  
ADJUST, OVER? – – – ALPHA MIKE SIX THIS IS REDLEG, SHOT IS OUT,  
PLEASE ADJUST, OVER
- REDLEG THIS IS ALPHA MIKE SIX, ADJUST FIRE UP 20, RIGHT 10 AND  
FIRE 5 ROUNDS HE FOR EFFECT, OVER
- ALPHA MIKE SIX THIS IS REDLEG, ROGER THAT, OVER
- REDLEG THIS IS ALPHA MIKE SIX, GREAT SHOOTING, CEASE FIRE AND  
STAND BY, OVER
- REDLEG THIS IS ALPHA MIKE SIX, THANKS FOR THE ASSIST, YOU  
WERE RIGHT ON TARGET, ALPHA MIKE SIX OUT!

## ПРИЛОЖЕНИЯ

Таблица 1

### АНГЛИЙСКИЙ ФОНЕТИЧЕСКИЙ АЛФАВИТ

<b>A</b>	Alpha	Альфа	<b>N</b>	November	Новембер
<b>B</b>	Bravo	Браво	<b>O</b>	Oscar	Оскар
<b>C</b>	Charlie	Чарли	<b>P</b>	Papa	Папа
<b>D</b>	Delta	Дельта	<b>Q</b>	Quebec	Квебек
<b>E</b>	Echo	Экоу	<b>R</b>	Romeo	Ромео
<b>F</b>	Foxtrot	Фокстрот	<b>S</b>	Sierra	Сьерра
<b>G</b>	Golf	Гольф	<b>T</b>	Tango	Танго
<b>H</b>	Hotel	Хоутел	<b>U</b>	Uniform	Юниформ
<b>I</b>	India	Индия	<b>V</b>	Victor	Виктор
<b>J</b>	Juliet	Джюльет	<b>W</b>	Whiskey	Уиски
<b>K</b>	Kilo	Кило	<b>X</b>	X-ray	Эксерэй
<b>L</b>	Lima	Лима	<b>Y</b>	Yankee	Янки
<b>M</b>	Mike	Майк	<b>Z</b>	Zulu	Зулу

Таблица 2

### ОСНОВНЫЕ ЕДИНИЦЫ ИЗМЕРЕНИЯ, ПРИНЯТЫЕ В США

acre	ac	акр	4047 кв.м
barrel	bbbl	баррель	115,6 л (США)
barrel (oil)	bbbl (oil)	баррель (нефтяной)	159 л
cable	cbl, cab	кабельтов	185,2 м
caliber	cl'	калибр	0,254 мм
fathom	fath	мор.сажень	1,829 м
foot	ft	фут	0,305 м
gallon	gal	галлон	4,546 л (Бр.)
gallon (dry)	gal (dry)	галлон (сухой)	4,404 л (США)
gallon (liquid)	gal (liq)	галлон (жидкостный)	3,785 л
horsepower	hp	лошадиная сила	736 Вт
inch	in	дюйм	2,54 см
knot	kn	узел	1,852 км/ч
line	l	линия	2,117 мм
line (great)	gr.l	линия (большая)	2,54 мм
Mach	M	М-число	
mile (nautical)	n.mile, n.mi	миля морская	1852 м
mile (statute)	mile, mi	миля (уставная или английская)	1609,3 м

ounce	oz	унция	28,35 г
pint	pt	пинта	0,568 л (Бр)
pint (dry)	pt (dry)	пинта (сухая)	0,550 л (США)
pint (liquid)	pt (liq)	пинта (жидкостная)	0,473 л (США)
pound	lb	фунт	0,454 кг
pound per square inch	psi	фунт/кв. дюйм	1,136 л (Бр)
quart (dry)	qt (dry)	кварта (сухая)	1,101 л (США)
quart (liquid)	qt (liq)	кварта (жидкостная)	0,946 л (США)
quintal	cwt	центнер	50,8 кг (США), 45,36 кг (Бр)
register ton	reg.t	регистрационная тонна	2,83 куб.м
Revolution per second	rps	оборот в секунду	
rounds per minute	rpm	выстрелов в минуту	
ton (gross, long)	gr.t; g.t; lgtn	тонна (большая, длинная)	1016 кг
ton (net, short)	shtn;s.t,	тонна (малая, короткая)	907,2 кг
yard	yd	ярд	0,914 м

**Таблица 3**

### **ВОИНСКИЕ ЗВАНИЯ В ВООРУЖЕННЫХ СИЛАХ США**

#### **Офицерский состав**

<b>ARMY</b>	<b>AIR FORCE</b>	<b>NAVY</b>	<b>MARINE CORPS</b>
General of the Army – генерал армии (wartime)	General of the Air Force –генерал BBC (wartime)	Fleet AdmiralI – адмирал флота (wartime)	No
General – генерал	General – генерал	Admiral – адмирал	General – генерал
Lieutenant General – генерал-лейтенант	Lieutenant General – генерал – лейтенант	Vice Admiral – вице-адмирал	Lieutenant General – генерал-лейтенант
Major General – генерал-майор	Major General – генерал-майор	Rear Admiral Upper Half – контр-адмирал (two-star)	Major General – генерал-майор
Brigadier General – бригадный генерал	Brigadier General – бригадный генерал	Rear Admiral Lower Half – контр-адмирал (one-star)	Brigadier General – бригадный генерал

Colonel- полковник	Colonel- полковник	Captain, USN- кэптен	Colonel – полковник
Lieutenant Colonel – подполковник	Lieutenant Colonel – подполковник	Commander – коммандер	Lieutenant Colonel – подполковник
Major – майор	Major – майор	Lieutenant Commander – лейтенант- коммандер	Major – майор
Captain – капитан	Captain – капитан	Lieutenant, USN – лейтенант флота	Captain – капитан
First Lieutenant – первый лейтенант	First Lieutenant – первый лейтенант	Lieutenant, Junior Grade – младший лейтенант флота	First Lieutenant – первый лейтенант
Second Lieute- nant – второй лейтенант	Second Lieute – nant – второй лейтенант	Ensign – энсин	Second Lieutenant – второй лейтенант

### Уорент – офицерский состав

ARMY	AIR FORCE	NAVY	MARINE CORPS
Chief Warrant Officer-5 – старший уорент- офицер 5 класса	No	No	Chief Warrant Officer-5 – старший уорент- офицер 5 класса
Chief Warrant Officer-4 – старший уорент- офицер 4 класса	Chief Warrant Officer-4 – старший уорент- офицер 4 класса	Chief Warrant Officer-4 – старший уорент- офицер 4 класса	Chief Warrant Officer-4 – старший уорент- офицер 4 класса
Chief Warrant Officer-3 – старший уорент- офицер 3 класса	Chief Warrant Officer-3 – старший уорент- офицер 3 класса	Chief Warrant Officer-3 – старший уорент- офицер 3 класса	Chief Warrant Officer-3 – старший уорент- офицер 3 класса
Chief Warrant Officer-2 – старший уорент- офицер 2 класса	Chief Warrant Officer-2 – старший уорент- офицер 2 класса	Chief Warrant Officer-2 – старший уорент- офицер 2 класса	Chief Warrant Officer-2 – старший уорент- офицер 2 класса
Warrant Officer-1 – уорент-офицер 1 класса	Warrant Officer-1 – уорент-офицер 1 класса	Warrant Officer-1 – уорент-офицер 1 класса	Warrant Officer-1 – уорент-офицер 1 класса

## Рядовой и сержантский состав

ARMY	AIR FORCE	NAVY	MARINE CORPS
Sergeant Major of the Army – сержант-майор СВ (главный сержант СВ)	Chief Master Sergeant of the Air Force – главный мастер-сержант BBC	Master Chief Petty Officer of the Navy – мастер-главный старшина BMC	Sergeant Major of the Marine Corps – сержант-майор МП (главный сержант МП)
Sergeant Major/Command Sergeant Major – сержант – майор/команд-сержант-майор (главный сержант формирования)	Chief Master Sergeant – главный мастер-сержант	Master Chief Petty Officer – мастер-главный старшина	Sergeant Major/Master Gunnery Sergeant – сержант-майор/мастер-комендор-сержант (мастер – орудийный сержант)
First Sergeant/ Master Sergeant – первый сержант/мастер-сержант	Senior Master Sergeant – старший мастер-сержант	Senior Chief Petty Officer – первый Главный старшина	First Sergeant/ Master Sergeant – первый сержант/мастер-сержант
Platoon Sergeant/ Sergeant First Class – взводный сержант / сержант 1 класса	Master Sergeant – мастер сержант	Chief Petty Officer – главный старшина	Gunnery Sergeant – комендор-сержант (орудийный сержант)
Staff Sergeant – штаб-сержант	Technical Sergeant – техник-сержант	Petty Officer, First Class – старшина 1 класса	Staff Sergeant – штаб-сержант
Sergeant – сержант	Staff Sergeant – штаб-сержант	Petty Officer, Second Class – старшина 2 класса	Sergeant – сержант
Corporal / Specialist – капрал / специалист	Senior Airman-старший рядовой	Petty Officer, Third Class –	Corporal – капрал



	авиации	старшина 3 класса	
Private, First Class – рядовой 1 класса	Airman, First Class – рядовой авиации 1 класса	Seaman – матрос	Lance Corporal –младший капрал
Private (E-2) –рядовой	Airman –рядовой авиации	Seaman Apprentice – младший матрос	Private, First Class – рядовой 1 класса
Private (E-1) (Recruit) – рядовой новобранец	Airman, Basic – рядовой авиации (необученный)	Seaman Recruit –матрос- новобранец	Private – рядовой

### СПИСОК ЛИТЕРАТУРЫ

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