

**ВОЕННО-КОСМИЧЕСКАЯ АКАДЕМИЯ
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ВОЕННО-ТЕХНИЧЕСКИЙ ПЕРЕВОД

**Учебное пособие
по английскому языку**

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ПРЕДИСЛОВИЕ

Настоящее учебное пособие предназначено для аудиторной и самостоятельной работы курсантов III курса (5-6 семестры).

Основная цель пособия – способствовать получению знаний, умений и навыков, необходимых для чтения военно-технической литературы по специальности на иностранном (английском) языке и ведения беседы военно-профессионального содержания в наиболее типичных ситуациях.

Основной единицей организации практической работы в учебном пособии является урок (UNIT). Пособие содержит 10 уроков, тексты для внеаудиторного чтения с относящимися к ним списком акронимов и глоссарием, словарь англо-русских военных терминов, встречающихся в пособии, а также приложение.

В приложение включены таблицы, в которых в обобщенном виде представлен материал большинства тем, английский фонетический алфавит, основные единицы измерения, а также воинские звания в вооруженных силах США.

Каждый урок состоит из основного текста, поурочного словаря, системы упражнений и дополнительных текстов соответствующей тематики.

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 уроков 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.

Для формирования умений и навыков, необходимых для чтения военной и военно-технической литературы по специальности, помимо упражнений используются как основные, так и дополнительные тексты разделов.

Дополнительные тексты, содержащиеся в каждом разделе пособия, могут использоваться как в аудиторной работе для обучения разным видам чтения, так и в качестве материала для внеаудиторного чтения.

Двусторонний перевод как сложный вид речевой деятельности осуществляется в данном курсе в основном с опорой на текст и проводится после прохождения основного материала темы.

UNIT I

US ARMED FORCES

GENERAL CONSIDERATIONS

A. 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 scety, the President is assisted by several agencies.

At the top of the US scety 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 mil policies relating to national scety. 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 intel activities of the Government depts 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 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 secy (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 depts 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 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 Joint Chiefs of Staff are the principal mil advisers to the President, the NSC, 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 with an authorized strength of not more than 400 offs, selected in approximately equal numbers from the Army, Navy, AF, and MC.

B. 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. 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. 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 North Command; US Central Command; US Strategic Command; US Special Operations Command; US Transportation Command; US Joint Forces 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 (CONUS) 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. 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 commanders (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 are commissioned second lieutenants and midshipmen of the US NA 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
secretary (secy)	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)
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
Armed Service	вид вооруженных сил
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)	комитет начальников штабов
Chairman	председатель
Commandant of the Marine Corps	командующий корпусом морской пехоты
Joint Staff (JS)	объединенный штаб
strength	численность, численный состав

1. to be responsible for responsibility responsible	быть ответственным за, отвечать за ответственность, обязанность ответственный
2. to assist assistant	помогать, содействовать помощник
3. to advise adviser advice	советовать, консультировать, рекомендовать советник, консультант совет, рекомендация
4. to advise the President <i>with respect</i> <i>to</i> foreign policy	помогать Президенту <i>по</i> <i>вопросам (что касается,</i> <i>относительно)</i> внешней политики
5. in all matters <i>relating</i> <i>to</i> the DOD	по всем вопросам, <i>касающимся</i> <i>(относящимся)</i> к МО
6. matters which directly <i>concern</i> the MC	вопросы, которые непосредственно <i>касаются</i> морской пехоты
7. to be composed of = to consist of	состоять из
8. to exercise = to perform, to carry out	осуществлять, выполнять
9. 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, использование 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; secy; comd; SECDEF; JCS; CSUSA; CNO;
CSUSAF; MC; offs; AF.

V. Translate into English

Вооруженные силы США состоят из сухопутных войск, военно-морских сил, военно-воздушных сил, корпуса морской пехоты, береговой охраны и составных

частей резерва. 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. Фактическими начальниками этих видов вооруженных сил являются начальники штабов, которые образуют КНШ, – консультативный орган президента по военным вопросам. Работу комитета начальников штабов обеспечивает объединенный штаб, который состоит из 400 офицеров, представляющих в равной пропорции три военных министерства и корпус морской пехоты. Командующий корпусом морской пехоты не является постоянным членом комитета начальников штабов, но присутствует на заседаниях комитета в качестве равноправного члена, когда рассматриваются вопросы, касающиеся корпуса морской пехоты.

VI. Translate as q u i c k l y 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. Try to keep your books closed*

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 командующий 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 личного состава сухопутных войск
Naval Reserve (NR; NRes)	военно-морской резерв
Marine Corps Reserve (MCR)	резерв (корпуса) морской пехоты
Air National Guard (Air NG)	национальная гвардия BBC
Air Force Reserve (AFRes)	резерв личного состава BBC

Coast Guard Reserve (CGRes)	резерв береговой охраны
troops (trps)	войска
reservist	резервист

* * *

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

Attention !

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

command	1. командование, управление 2. командовать, управляя 3. приказание, команда, подавать команду
control	1. управление 2. управлять, руководить
command and control (C ²)	командование и управление

supervision	контроль
supervise	контролировать
administer	осуществлять административное руководство
administration	тыл и снабжение; управление тылом; административно-хозяйственное управление

E X E R C I S E S

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

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 r e t e l l Text B

XI. T w o - w a y 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 составляющие 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	силы обороны
airlift force	силы воздушных перевозок
sealift force	силы морских перевозок
command (comd) and control (con) system (sys)	система командования и управления
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

1. to comprise = to include	включать, охватывать
2. to report to ... report	докладывать, давать отчет (о проделанной работе), находиться в подчинении донесение, рапорт
3. to be subdivided into ...	подразделяться на...
4. to be referred to as ...= to be known as ...	называться
5. to engage in combat = to be engaged in combat engagement	вести боевые действия, участвовать в боевых действиях бой, сражение
6. 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 North 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
перевозок ВС США

US Joint Forces Command (USJFCOM) – Объединенное
командование единых сил ВС США

E X E R C I S E S

1. *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, на которых 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 CINC 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. Answer 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?

TEXT D. ACTIVE TERMS AND EXPRESSIONS

grade (gr) other grades pay grade	воинское звание, категория рядовые разряд тарифной сетки денежного содержания
rank	воинское звание, чин
enlist	поступать на военную службу (добровольно)
enlistment (добровольное)	поступление на военную службу

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	унтер-офицер (в ВМС), старшина
man	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 (USAFA)	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	набор, вербовка,
recruit	комплектование новобранец
voluntary	добровольный
draft	призыв в армию, призывать на военную службу
conscript	призывать , призывник
conscription = draft system	призыв, воинская повинность

*

*

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1. to appoint = to assign to be appointed = to be assigned	назначать (кого-то на должность) назначаться (на должность кем-то)
2. to be in charge of	быть за старшего, командовать

3. to be recommended for promotion	быть представленным к очередному званию
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E X E R C I S E S

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 уходят в отставку.*

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 WO's hold positions as tech and admin supervisors.
5. WO's 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. WO's 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 BBC; in case of emergency; продолжать образование; company officers; начальник штаба BMC; 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 CO¹ of a battalion

may be a Lt Col or a Col. His **ExO**² 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.

¹*CO = commanding officer - командир части*
(подразделения)

²*ExO = XO = executive officer - начальник штаба*
(батальона, бригады); старший
помощник 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 уорент-офицеры в сухопутных войсках США? 7. Кто назначает на должность унтер-офицеров в сухопутных войсках США? 8. На какие группы подразделяются офицеры BBC, морской пехоты и сухопутных войск?

VIII. 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?

IX. Be ready to r e t e l l text D

X. T w o - w a y 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.

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

No. 1 THE UNITED STATES MILITARY ACADEMY

The US Military Academy at West Point is a college. More than 450 different courses are offered at West Point. It also offers one of the best extracurricular* programs in the country.

West Point exists to educate and train young Americans to become professional officers in the Active Army. The regiment* is designed to develop enlightened* and resourceful* military leaders. More than 40 courses are required for graduation. Cadets select their program of instruction from more than 40 fields of study, which include 16 optimal majors*. Majors and fields of study are about equally divided between the humanities and the sciences.

Small classes and personal attention are the rule. Usually there are only 12 to 16 cadets to a class.

While military courtesies and procedures* are part of a cadet's daily life, the bulk* of the actual military training occurs during the summer. Each cadet spends one summer month serving with an Active Army unit overseas or in the continental United States.

One of the goals at West Point is to see that cadets develop their athletic abilities to the fullest, to gain fortitude, self-control, courage, and mental, and physical ability so important to be the soldier. Every cadet is involved with intercollegiate* club or intramural* sports.

There are the traditional and popular intercollegiate sports such as football, basketball, baseball, hockey and

lacrosse, along with club-level competition in cycling, rugby, sailing, sport parachuting and many others.

Every year more than 12,000 young men and women apply for admission to West Point. About 1,400 are actually selected. All would-be cadets must be nominated* by one or more authorized sources: the Vice-President of the United States, Senators, District Congressmen. Nominations are also available to sons and daughters of career military people; enlisted soldiers, both Active and Reserve; sons and daughters of disabled* or deceased* veterans; sons and daughters of Congressional Medal of Honour Winners; honour students* in junior or senior ROTC.

The Honour Code of Military Academy simply states: "A cadet will not lie, cheat or steal, nor tolerate those who do it". This assumption and expectation of honesty and honour nourishes a quality of life at West Point which is rare in today's world.

*** Notes:**

extracurricular - дополнительный (факультативный)

regiment - система

enlightened – образованный, хорошо подготовленный

resourceful – творческий, находчивый

major - основной предмет специализации;

профилирующая дисциплина

courtesies and procedures - правила воинской вежливости

bulk - зд. большая часть

intercollegiate - между разными учебными заведениями

intramural - происходящий в стенах учебного заведения

nominate – выставлать, предлагать кандидатуру, зд.

рекомендовать

disabled - получивший увечье

deceased - покойный

honour student – отличник

No. 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 has enjoyed a reputation for academic excellence *, physical challenge* and preparation for Army leadership since leadership skills are stressed from the early years of officer service. It is worth mentioning that most US Army general officers are USMA graduates.

The curriculum* at the Military Academy combines tactical, physical and academic programs covering a period of 4 years.

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 :**

academic excellence - зд. прекрасное образование
 physical challenge - зд. блестящая физическая подготовка
 curriculum - учебный план, курс обучения
 Bachelor - бакалавр
 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

efficient – знающий свое дело

outfit - 3д. часть, подразделение

No. 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.

In the Navy

Condition I is general quarters* - full battle readiness. In Condition II, half the crew man their general quarters stations, while the rest try to eat, catch up on sleep, and perform the most vital maintenance tasks. You can keep it up for a lot longer than a general quarters, but “port and starboard”* was still hard* on sailors.

***Notes :**

alert - состояние боевой готовности, боевая тревога

imminent - надвигающийся, неизбежный

anticipation - ожидание

general quarters - боевая тревога

“port and starboard” - “левый борт и правый борт”
(условные наименования смен при двухсменной вахте)

to be hard at work - усердно работать (з.д. продолжать
нести вахту)

No. 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’m” 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 штатской жизни

unmounted troops - в пешем порядке

mounted troops - на машинах

anthem - гимн

make call = call on (upon) – представляться

UNIT II

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. He is assisted by the Army Staff. It consists of the Chief of Staff, the Army General Staff, and the Special Staff.

B. Organization by Components

The US Army is responsible for preparing forces for combat operations on land. The Army is one of the main armed services of the Armed Forces.

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 military 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 Army includes different branches.

The basic *branches* of the Army *are*: Infantry, Armor, Artillery, Corps of Engineers, Signal Corps, Army Intelligence and Security Branch.

Army Aviation is not a separate branch or corps within the Army. However, it operates in a manner similar to a branch.

The branches of the 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.

The main mission of Infantry, Artillery and Armor is combat that's why they are called *arms*. The Corps of Engineers, the Signal Corps and the Military Police Corps have important missions in combat support and in combat service support that's why they are referred to *both arms and services*. They have units with fighting duties.

The services are responsible for supply and maintenance of combat units. The main *services are*: Corps of Engineers, Signal Corps, Chemical Corps, Transportation Corps, Ordnance Corps, Army Medical Service, Military Police Corps, and others.

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 five types of combat

divisions: armored; mechanized 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. Organizational Structure of US Army Divisions

The division is the smallest unit of the combined arms and services. The div is the basic operational formation to maintain itself and to fight independently if need be. There are currently five types of cbt divs: armd div; mech div; light inf div; abn div and air aslt div. All US Army divisions have an identical organizational structure. Divisions are composed of two basic elements: a division base with a varying proportion of six to fifteen combat battalions (tk, inf, mech, abn inf, air aslt inf), the number and type of bns depending on the type of div and its mission. The division has three brigade headquarters, each capable of controlling from two to five cbt bns.

The division base includes the command and control elements; combat elements; combat support elements; and service support elements:

- the command and control elements of the division base are div HHC; and three bde HQ and HQ cos; and a MP co.
- the combat elements of the division base are div arty; the ADA bn; and the armd cav sqdn;

- the combat support elements of the division base are avn bn (or avn co); engr and sig bns;

- the service support elements of the division base are the SUPCOM which is organized with a HHC, sup and trans bn; maint bn; med bn and the administration co .

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. 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. 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.

The support command provides admin and logistical support through its elements.

The infantry (mechanized infantry) battalion is the infantry's basic tactical unit. It is organized with a HHC , three rifle cos and a cbt spt co.

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
Special Staff (SS)	специальный штаб;

	специальная часть штаба
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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
part-time military service	служба в резерве

EXERCISES**II. Improve your skills in translating****A. Make up sentences**

The US Army		the regular and reserve components.
The Army Staff	consists of <i>(is composed of; is made up of)</i>	the Regular Army, the 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.

б) 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
...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 translate it. Try to keep your books closed

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, являющийся гражданским лицом. Он управляет деятельностью основных видов вооруженных сил. Высшим органом оперативного управления вооруженными силами является Генеральный штаб под руководством Начальника 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.

TEXTS C, D. ACTIVE TERMS AND EXPRESSIONS

C

branch (br)	род войск; служба
Infantry (Inf)	пехота
Armor	бронетанковые войска
Artillery (Arty)	артиллерия
Corps of Engineers (CE)	инженерные войска
Signal Corps (SigC)	войска связи
Army Intelligence and Security Branch (AIS)	разведка и контрразведка армии США

Army Aviation (AAVN)	армейская авиация
arm	[боевой] род войск
service (svc)	служба
mission (msn)	задача
combat (cbt)	бой; боевой
combat support (cbt spt)	боевая поддержка; боевое (оперативное) обеспечение
Military Police Corps (MPC)	корпус военной полиции
supply (sup)	снабжение
maintenance (maint)	техническое обслуживание
Chemical Corps (CmlC)	химические войска
Transportation Corps (TC)	транспортные войска
Ordnance Corps (OrdC)	артиллерийско- техническая служба
Army Medical Service (AMEDS)	медицинская служба СВ США
combat service support (cbt svc spt)	тыловое обеспечение войск в бою
administration (admin)	[административно- хозяйственное] управление; управление тылом

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
brigade (bde)	бригада
regiment (regt)	полк
division (div)	дивизия
armored division (armd div)	бронетанковая дивизия
mechanized (infantry) division (mech div)	механизированная дивизия
light infantry division (light inf div)	легкопехотная дивизия
airborne division (abn div)	воздушнодесантная 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
unit of the combined arms and services = combined arms force	общевойсковое соединение [объединение]

*

*

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1. arm n,v to be armed with	оружие; вооружаться иметь на вооружении
--------------------------------	--------------------------------------------

2. to supply	снабжать
3. to maintain	обслуживать в техническом отношении
4. to assign assigned assigned mission	назначать; включать в состав; ставить задачу приданный (включенный в состав поставленная задача
assignment	назначение; задача

Attention !

corps

- при обозначении войсковых единиц
army **corps** - армейский **корпус**
- 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**
- 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
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. Give Russian equivalents to the following phrases

1. ...it operates in a manner similar to a branch.
2. ...troops that participate directly in combat.
3. ...are referred to both arms and services.
4. ...supply and administration to the Army as a whole.
5. ...whose structure is prescribed by TOE.
6. The company has been the appropriate command for a captain.
7. ...the term battery is used instead of company.
8. ... the term is more closely associated with the historical and heraldic meaning.

III. Improve your skills in translating

A. Make up sentences:

The arms	include (comprise, consist of)	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	is (are) grouped into	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?

IV. 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 Infantry, Artillery, Armor, Corps of Engineers, and the Signal Corps; 4. The Ordnance Corps, the Chemical Corps, the Corps of Engineers, the Signal Corps, the Army Intelligence and Security, the Finance Corps, and the Army Medical 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 five types of combat divisions: armored, mechanized, light infantry, airborne and air assault.

V. Cipher and decipher

- A.** 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; AIS; sqd; TOE; sec; pl (plat); co; abn div; bn; btry; air aslt div; regt; bde; div.
- B.** 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; administration; platoon; Finance Corps; section; Army Medical Corps; squad; air assault division; combat support; Army Intelligence and Security; combat.

VI. Translate without a dictionary **Russia's Space Shield**

In view of the ever-growing role of space systems in the defense capacity and security of Russia, the government has come to a decision to establish a new branch of the Armed Forces of the Russian Federation – the Space Forces.

The Russian President's Decree of March 28, 2001, appointed Anatoly Perminov Commander-in-Chief of the Space Forces. He was born in 1945. Upon graduation from the Perm Higher Command and Engineering School he served with the Strategic Missile Forces (RVSN), starting

as chief engineer of automated control systems all the way through the position of the RVSN Chief of Main Staff – First Deputy Commander-in-Chief.

The Space Forces are primarily designed to ensure a guaranteed input of comprehensive information to Russia's national political and military authorities, as well as military commands about potential enemy's peacetime intentions or wartime actions, foremost to reveal the facts of enemy's preparations of potential aggression and forestall its missile attack. Moreover, the Space Forces are to provide satellite navigation, communications, meteorological, topographical and geodetic support to military commands.

Thus, the new branch of the Armed Forces formed by the Presidential Decree in the spring of 2001 serves to warrant space activities in Russia, including the task of national security.

VII. *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. Армейская авиация не является отдельным родом войск Армии США.
6. 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.

7. Службы: артиллерийско-техническая, химические войска, медицинская служба армии, транспортные войска, финансовая служба, квартирмейстерская служба, служба военных священников и др.

D.

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

VIII. *Translate using a dictionary*

Army Aviation

Army Aviation exists to augment the capability of the Army to conduct prompt and sustained operations on land. By definition, it is aviation which is organic to the Army and is employed to increase its mobility, flexibility, firepower, and efficiency of ground forces. With the greater dispersion (распредоточение) of modern combat, in the light of nuclear weapons, the need for control and liaison (связь взаимодействия) becomes apparent, and the need for

AAVN as an integral part of units, thus becomes very clear. Army Aviation is not a separate branch or corps within the Army. It is integrated effort of personnel of many branches. Those which are authorized aviation are: Infantry, Armor, Engineer, Signal, Transportation, and Medical Service.

IX. 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; разведка и контрразведка 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; тех.обслуживание; administration; задача; combat support; снабжение; arms and services

X. 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. Why are the CE, the SigC and the MPC referred to both arms and services?
6. 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?

XI. 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 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 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, Chemical 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.

TEXT E. ACTIVE TERMS AND EXPRESSIONS

formation (fmn)	войсковая единица; строй, боевой порядок
division base	дивизионная основа
tank battalion (tk bn)	танковый батальон
infantry battalion (inf bn)	пехотный батальон
mechanized (infantry) battalion (mech bn)	мотопехотный батальон
airborne (infantry) battalion (abn inf bn)	парашютно-десантный батальон
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
service support element (svc spt elm)	подразделение [часть] тыла
headquarters and headquarters company (HHC)	штаб и штабная рота
air defense artillery battalion (ADA bn)	зенитный дивизион

armored cavalry squadron (armd cav sqdn)	разведывательный батальон
aviation battalion (avn bn)	батальон армейской авиации
engineer battalion (engr bn)	саперный батальон
signal battalion (sig bn)	батальон связи
support command (SUPCOM)	командование тыла
air defense (AD)	ПВО
supply and transportation battalion (sup and trans bn)	батальон снабжения и транспорта
maintenance battalion (maint bn)	ремонтный батальон
attached units	приданные подразделения [части]
G1 - personnel section	отделение личного состава штаба дивизии
G2 - intelligence section	разведывательное отделение штаба дивизии
G3 - operations and training section	отделение оперативной 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
gun	орудие, пушка
guided missile (GM)	управляемая ракета

reconnaissance (recon)	разведка
surveillance (surv; survl)	наблюдение, разведка
reinforcement (reinf)	усиление
organic	штатный, табельный
rifle company	пехотная рота

* * *

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

E X E R C I S E S

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 no nuclear 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	include(s) [consist (s) of; comprise(s); is (are) composed of; is (are) made up of]	different elements
The combat elements		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.

b.

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. cbt div; mech div; abn inf bn; HHC; armd div; bde HQ; SUPCOM; 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;

B. 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.

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

1. What are the main five types of divisions?	(armored, mechanized, 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 without a dictionary

The Division

The division is the smallest combined arms unit. There are the following types of combat divisions in the US Army: armored, light infantry, mechanized, airborne and air assault. The division is usually commanded by a major general.

Any division consists of the div base and a number of combat battalions of different types. The number of cbt bns depends on the type of the division and its mission.

Each div has its own characteristics. The armd div combines fast maneuver with great firepower. The mech div resembles the light inf div but has greater mobility and shock power. The abn div is for airborne assault, using parachutes and troop carrier aircraft. The air aslt div with its

helicopters has an ability to deliver firepower quickly anywhere.

VI. Translate into *E n g l i s h*

В настоящее время в составе сухопутных войск США существуют дивизии пяти типов: легкопехотная, 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 оперативной 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; легкопехотная; 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 пяти типов:

бронетанковая, механизированная, легкопехотная, 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 armed 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.*

SUPPLEMENTARY TEXTS

No.1 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

No. 2 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 - подъем
3. morning inspection - утренний осмотр
4. evening roll call - вечерняя поверка
5. taps - 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, выставять 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

No. 3 TRADITIONS AND RESPONSIBILITIES

Few careers combine a respect for tradition and responsibility for tomorrow as does the officer's. In fact, many of US most prominent leaders who have helped shape the course of world history, started out as officers.

Officers are expected to live by (and live up to) a strict code* of personal and professional conduct. This code is made up of written rules, unwritten traditions and a sworn oath*. A code of conduct must be adhered* to in the face of danger, even death. An Officer is a patriot, defined by the code as "one who exerts himself* to promote the well-being* of his country's freedom and rights".

In the AF the performance of duty to the best of one's ability is the first requirement. Missions must be accomplished up to standard and on time. There is little tolerance for slipshod* work or halfway measures. Performance, not excuses. An officer is expected to perform each duty as if his entire reputation depended upon its successful completion. An officer personifies the true art of leadership. He leads, does not drive. He must know his men, their problems, their needs - and get them all working together.

First and foremost he must be a leader. A real leader. He is motivated*, eager for challenges*, hungry for responsibility. Officers are well trained professionals willing to follow the leaders and contribute their success to the greater goal. This means a willingness to fight, enter areas of great personal danger, and accept the hazards of battle.

Officers look at the valued customs which accompany their position as priceless heritage* passed along to them by officers of the past. And they pledge* to preserve these customs for officers of the future.

* * *

Here are some principles and practical recommendations on how to become a good leader:

- soldiers are grown not born;
- in the Army one can expect to be told what to do, but not how to do, in other words you'll be receiving orders, not commands;
- practise what you preach* ;
- if it is not fun, we are doing it wrong;
- lead, do not drive;
- face the future with head up and chin out;
- it is the man behind the gold braid* who counts;
- good men with poor ships are better than poor men with good ships;
- do the best you can with what you have;
- whatever happens, however grim* the circumstances keep cheerful;
- don't worry about the water that is under the bridge;
- the difficulty is something that it's your business to overcome;
- avoid "don't do as I do, do as I say" style of leadership and being motivated by the materialistic viewpoint of "What's in it for me?";
- whatever you do don't bluff* ;
- think before you speak;
- Know your job! Be on the job! Carry out your orders! Be a leader! And have a little "Navy blue and gold" in your outlook*!

***Notes:**

code - кодекс, принципы (чести, морали)

swear an oath - давать клятву

adhere to - твердо держаться

exert oneself - прилагать усилия, стараться

well-being - процветание

slipshod - небрежно выполненный
 motivated - заинтересованный
 eager for challenges - жадный до дел, требующих
 напряжения сил
 heritage - наследие
 pledge - давать торжественное обещание
 preach - проповедовать
 gold braid - золотой галун
 grim - неприятный, суровый
 bluff - блефовать
 outlook - вид

No. 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 - продовольственный паек
- 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!** - **ИДИ 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 прибыл по Вашему приказу.
- 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! К но - **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! Машинист пожарных первого класса Джоунс. Отвечаю за первое отделение пожарных насосов.

- - 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!

No. 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

UNIT III

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

TEXTS A, B, C. 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
wing (wg)	крыло (организационная единица; аэродинамическая поверхность)
air division (air div)	авиационная дивизия
air force	воздушная армия
air command	авиационное командование
Air Force base (AFB)	авиа база
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)	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	дальность 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 р/л 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	наземное базирование
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	дроссель, 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, атаки 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 использования 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 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

III. Translate *w i t h o u t* 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.

IV. Find Russian equivalents

to bomb enemy targets	доставлять термоядерные боевые части к отдаленным целям
weapon of vast destructive power	вне пределов досягаемости
to deliver thermonuclear warheads on the distant targets	атаковать наземные цели противника
to launch air-to-surface missiles	действовать над районами боевых действий
beyond the reach of	наносить удары по различным целям
to search out enemy sea targets	перехватывать самолеты
to attack enemy land targets	обнаруживать цели
close air support mission	вести поиск морских целей противника
to operate over battle area	оружие огромной разрушительной силы
to carry tactical nuclear weapons	запускать ракеты класса “воздух-земля”
to attack a variety of targets	бомбардировать цели противника
to outfly enemy fighters	задача по непосредственной авиационной поддержке
to intercept aircraft	нести тактическое ядерное оружие
to fire at enemy aircraft	обеспечивать точность прицеливания
to ensure accuracy of aim	позволять пилотам летать выше
to spot targets	вести самолеты противника
to enable the pilots to fly higher	заправка самолетов топливом в воздухе
to locate enemy aircraft	летать лучше, чем истребители противника
to track enemy aircraft	вести огонь по самолетам противника
in-flight refueling of aircraft	определять местоположение самолета противника

V. Improve your skills in *q u e s t i o n- m a k i n g*

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
 'ces)

Model 2: *How many flights* constitute (make up; form; compose) a squadron?

Two or more flights.

How many	{	planes	{	constitute	{	a flight?	{	(two or more)
		flights				a squadron?		
		squadrons				a group?		
		groups		compose	{	a wing?	{	
	wings	make up	an air division?					
		divisions		form	{	an air force?	{	
		air forces				an air command?		

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 actf; opns; msn; msl; wpn; mil; equip; AFRes

VII. 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.

VIII. 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?

IX. Be ready to retell texts A, B, C

X. Two - way 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 авиа крыло? - *Tactical Fighter Wing is made up of 3 squadrons.*
3. *What is the strength of a fighter squadron?* - На вооружении авиаэскадрильи 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.*

SUPPLEMENTARY TEXTS

No. 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 command during peacetime. The MAJCOM's* 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:**

MAJCOM's (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

No. 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**O bombs. The former type of munition is used in 500, 2000 and 3000 lb. categories and the HOB O 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.

Words which will help you to translate the text:

air superiority – превосходство в воздухе

interdiction – изоляция района боевых действий
 HOBO (Homing Optical Bomb) - авиац. бомба с
 ОПТИЧЕСКИМ САМОНАВЕДЕНИЕМ
 stabilizer fins - блок стабилизаторов
 seeker - головка самонаведения (ГСН)
 lock-on - захват цели

No. 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 linescanner 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.

***Notes:**

RAF (Royal Air Force) - Британские ВВС
 thermal imager – визуализатор

No. 4 USAF B-2

The Northrop Grumman B-2 is more than satisfying the operational and maintenance demands placed on it by the US Air Force during the first months of flying.

The first B-2 was accepted by the Air Force's Air Combat Command on Dec.17,1993, and the 509th Bomb Wing launched its first training sortie* five days later on Dec.22.

Whiteman AFB will be the home of all 20 B-2's to be assigned to the 509th Bomb Wing. If an additional 20 B-2's are funded, they also most likely would be based here and

assigned to the same wing. The base's support infrastructure has been sized to handle 40 aircraft.

The B-2 is a big step forward in the modernization of the US Air Force's bomber force. The new technology embodied in the B-2 is reflected in the two-person crew, half that of the B-1 and later models of the B-52. The stealth characteristics of the B-52, combined with its range and payload capabilities, add yet another dimension to operational combat missile flexibility.

From a pilot's view point, Northrop has given the Air Force an aircraft that is not only reliable, but easy and enjoyable to fly.

*** Notes:**

sortie - самолетовылет

No. 5 THE B-1B STRATEGIC BOMBER

The US Air Force's new B-1B bomber is extremely difficult to detect and track. In fact its low electronic silhouette plus its super tough* airframe are perfectly matched to its primary mission: high-speed, low-altitude penetration.

The B-1B is much more than a manned strategic nuclear attack aircraft. It can seek out moving targets. It may be used to make a demonstration of force. This bomber can deliver both conventional and nuclear weapons and it can work in the maritime* as well as land-attack roles, dropping mines* or hunting* enemy ships. It can be re-used after the first attack.

The B-1B is able to deliver nuclear Short Range Attack Missiles (SRAM), Air-launched Cruise Missiles (ALCM), two types of free-falling nuclear bombs, the MK82 conventional bomb or the MK36 sea mine. Many other weapons can be added, including the anti-airfield

Medium Range Air-to-Surface Missile (MRASM). The three 15 ft-long (4.5 m) weapon bays can each accommodate 82 28MK conventional bombs, making a combined load of 42,000 lb (19,050 kg), or an equivalent load of mines. The nuclear loads include 24 B-61 nuclear bombs or 24 SRAMs.

The B-1B has a longer unrefueled range than the B-52 and carries a larger weapon load. It has a smaller crew and can operate from shorter and less strong runways. It is able to threaten or attack virtually all the areas of potential conflict from the continental USA, many of them without flight refueling. It is designed to be able to penetrate front line air defenses, either alone or supported by other aircraft.

The principal innovation in the offensive avionics system is *the forward-looking radar*. The offensive radar system is used for navigation, *terrain following* and weapon delivery.

Words which will help you to translate the text:

1. forward-looking radar – РЛС переднего обзора
2. terrain following – полет на малых высотах с огибанием рельефа местности

*** Notes:**

tough – жесткий

maritime - морской

mine - мина

hunt – искать, охотиться

No. 6 THE F-15 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 оповещения “свой-чужой”

UNIT IV

US NAVY

A. Organization, Composition and Formations of the US Navy

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 avn, and the res 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 belong to the type of capital ships. They 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. They can develop speeds in excess of 30 knots. Nowadays they are armed with a number of missile systems including cruise missiles.

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.

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, they put up smoke screens in order to hide their own ships from view when the situation changes for the worse, they attack the enemy with their guns, torpedoes and missiles.

Submarines are vessels capable of running on or below the surface of the sea. 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.

TEXT A, B. ACTIVE TERMS AND EXPRESSIONS

A

Department of the Navy = Naval Establishment	ВМС США; министерство ВМС (ведомство ВС)
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; 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

В

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 (флагманский) 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

A t t e n t i o n !

Обратите внимание на значение и перевод терминов **Department of the Navy, Naval Establishment** и **Navy Department**.

Department of the Navy министерство *ВМС* (ср. **Department of the Army, Department of the Air Force**) и *военно-морские силы*, в целом, как вид вооруженных сил. В этом значении термин **Department of the Navy** синонимичен термину **Naval Establishment**.

Термин **Navy Department** *военно-морское министерство*, т.е. штаб, орган управления военно-морскими силами страны.

E X E R C I S E S**I. Study these translations before reading Texts A, B**

1. **cruiser** (Cruisers are the big-gun ships of the fleet engaging enemy ships and shore installations with their main batteries) - **крейсер** (*Крейсеры являются кораблями флота, вооруженными орудиями крупных калибров и предназначенными для поражения кораблей и береговых объектов артиллерией главного калибра*).
2. **destroyer** (The destroyer is a high-speed warship designed to operate offensively with strike forces, with hunter-killer groups and in support of amphibious assault operations) - **эсминец** (*Эсминец – быстроходный военный корабль, предназначенный для участия в наступательных боевых действиях в составе ударных соединений, поисково-ударных 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 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 взрывчатым веществом головной частью, снабженный устройством для его удержания на заданном курсе в подводном положении).

II. *Translate as quickly 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.

III. *Translate without 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 ships¹, mine layers² and mine sweepers); patrol and escort vessels and amphibious ships (amphibious assault ships³, tank landing ships⁴, 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; tenders⁵ 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 base⁶. They are the fuel and water barges, stores and cargo barges, tugs, floating workshops and derricks⁷.

Geographically, and organizationally, the Naval Establishment consists of three principal parts: the Operating Forces, including naval aviation, the Navy Department and Shore Establishment.

¹mine countermeasure ship - противоминный корабль

² mine layer - минный заградитель

³amphibious assault ship - (универсальный) десантный корабль

⁴tank landing ship - танко-десантный корабль

⁵tender - плавучая база

⁶advanced base - передовая база

⁷derrick - деррик-кран, ворот для подъема тяжестей, подъемная стрела

IV. 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.

V. Translate into English

A.

1. BMC 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.

VI. 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?

VII. Be ready to retell texts A, B

VIII. 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 msns. 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 = Multiple launch Rocket System (MLRS) – реактивная система залпового огня*
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* (airborne warning and control system - самолетная система дальнего радиолокационного обнаружения и управления АВАКС) aircraft and a number of "Sea King" helicopters. They all form a carrier air wing.*

SUPPLEMENTARY TEXTS

No. 1

The USN has three components: the Navy Department, the Operating Forces and Shore Establishment.

The Navy Department which is the central executive authority is located in Washington, D.C. It comprises various commands, boards and officers of the Navy; United States Marine Corps; the Headquarters; United States Coast Guard, when assigned to the Navy.

The Operating Forces consist of several fleets, fleet Marine Forces, Sea Frontier Forces, District Forces, Military Sea Transportation Service, and certain assigned shore activities.

The Shore Establishment include air stations, shipyards, supply depots and other shore activities of the US Navy and USMC

No. 2

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.

No. 3 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

USS - US Ship

secure - зд. нанести

wreckage – обломки

No. 4 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.

***Notes:**

AWACS (Airborne Warning and Control System) -

самолетная система дальнего

радиолокационного наблюдения и наведения

No. 5 CRUISER

Modern cruisers are divided into “heavy” and “light”. The difference between them is not only in their size, but also in their main batteries. Heavy cruisers are armed with 8-inch guns, light cruisers - with 5 or 6-inch guns.

There are also guided missile cruisers which differ from heavy and light cruisers by their armament: they carry launchers for guided missiles. These launchers are mounted on in the forward or in the after part of the ship. Cruisers can be nuclear powered.

Cruisers can operate alone or in groups. They are often used for patrol as they have speed, long cruising radius and powerful armament. They may also provide protective screen against destroyers, lead attacks, provide air defense screen, carry out scouting missions and support operations.

The displacement of cruisers ranges from 6,000 to 21,000 tons, speed - from 31 to 33 knots. The complement of heavy cruisers is more than 1,000 men and of light cruisers - more than 800 men.

No. 6 DESTROYERS

Very fast and well-armed for her relatively small size, the destroyer can carry out different jobs: she protects

aircraft-carriers, battleships, cruisers, cargo vessels and other ships from enemy aircraft, submarine or surface vessels.

Destroyers can also escort convoys and perform patrol and scouting missions. They are also used as high-speed mine sweepers and mine layers, transports and submarine-killers.

There are some classifications of destroyers according to their missions and armament: destroyer-leaders, antisubmarine destroyers, radar picket destroyers, frigates (the latter can be guided missile and nuclear powered).

Modern destroyers are unarmored vessels from 1,650 to 4,400 tons carrying different armament and having speed of over 30 knots (the newest can develop over 55 knots).

Because of its small size, high speed and maneuverability the destroyer is a difficult target. The same qualities make her ideal for antisubmarine warfare (ASW): she can turn quickly, rush at top speed to a place where a submarine has just been detected by submarine detector and drop depth charges before the submarine can change its position.

No. 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.

* * *

A submarine is a vessel capable of being submerged and propelled under water. Submarines have torpedoes and missiles as their main armament weapons designed to destroy deep-water targets as well as surface targets. A Fleet Ballistic Missile Submarine SSB(N) is armed with 16 or 24 ballistic missiles. She also has a torpedo firing system for attacking surface and subsurface ships.

Since these ships remain on station for two months at a time and remain there submerged - there are two crews for each ship, a Blue crew and a Gold one.

* * *

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.

No. 8 SUBMARINE - WARSHIP OF THE FUTURE

In any future war the submarine will be the weapon that dictates terms of the battle for control of the high seas.

The fragility of modern surface warships was made apparent by losses inflicted on British vessels by Exocet missiles in the Falklands war and more recently, by the near sinking of the USS "Stark" in the Persian Gulf.

Because of this a new generation of subs is being built that are quieter and stronger. The SSN-21* "Seawolf" is said to be the deadliest and stealthiest when it finally puts to sea at the end of 1994. The Navy plans the Seawolf design to serve US submarine needs well into the 21st century, as it will incorporate new technological breakthroughs with new hull* materials that permit deeper dives and polymer hull coatings that increase speed.

Along with submarine development ASW technology is being improved and antisub tactics are being devised.

The basic sub hunting tool now is a sonar, active or passive, the latter using hydrophones that simply listen for submarine sounds while contacts appear on a screen or a paper graph. The ranges at which subs can be detected have considerably decreased at present. There is now heavy pressure on the Navy to look for a breakthrough in nonacoustic sub detection such as through satellite technology.

With some of such innovations, tactics is still believed to be the deciding factor in any conflict.

*** Notes:**

SSN - атомная подводная лодка

hull - корпус корабля

UNIT V

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. Winged msls are in essence pilotless aircraft. This group includes the so-called **cruise missiles**. A cruise missile is an unmanned 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.

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.

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):** antiaircraft 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.

TEXTS A.B. 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

Multiple Independently targetable Re-entry Vehicle (MIRV)	кассетная боевая часть МИРВ с индивидуальным наведением поражающих элементов
airfoil	аэродинамическая поверхность

* * *

1. to be directed to a target by commands originating from outside the weapon - наводиться на цель командами, вырабатываемыми вне ракеты

В.

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
medium-range ballistic missile (MRBM)	баллистическая ракета средней дальности
short-range ballistic missile (SRBM)	баллистическая ракета ближнего действия
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

* * *

1. to have a range of 3,000 n mi	обладать дальностью действия в 3000 морских миль
2. to be used as aircraft-to-aircraft weapon	использоваться как оружие воздушного боя

3. for use on the battlefield	для применения на поле боя
4. 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 *r o c k e t* 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 *m i s s i l e* 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 *r o c k e t* или *s p a c e c r a f t*.
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. **silos** (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 *w i t h o u t* a dictionary or translate them from *h e a r i n g*

No. 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.

No.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

No.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.

No.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

No.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 *a b b r e v i a t i o n s*

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 Титан II? Какова максимальная скорость ракеты Минитман? Каков диаметр ракеты Томагавк? Какова длина ракеты Трайдент? Каков стартовый вес ракеты МХ?
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. *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.

IX. 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 msls are there according to the propellants they use?
6. What is the guidance system?
7. What warheads may be used in guided msls?
8. What is the design of a guided msl airframe?
9. What classifications of guided msls do you know?
10. What is a ballistic msl?
11. What group does a cruise msl belong to?

X. Retell texts A and B

XI. T w o - w a y t r a n s l a t i o n

1. Известно, что были развернуты первые ракеты MX.
Что вы знаете о новом методе их размещения? - *I know they are being deployed in silos of Titan II msls, but according to a new method recommended by the Pentagon they will be installed on railway platforms. It will make them more mobile.*
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 какова точность других МБР США? - *You may compare. The accuracy of Titan II msl was about 1,000 meters, of Minuteman II – 600 meters and of Minuteman III about 250 meters.*
4. Какова дальность ракеты MX? - *More than 11,000 km.*
5. А что вы можете сказать о мощности этой ракеты? - *It has 10 warheads of 600 kilotons each. You may again compare: Minuteman III msl has only 3 warheads.*
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

No. 1 **MIRV**

Multiple Independently Targeted Reentry Vehicles (MIRVs) tip* the Navy’s Trident and the Air Force’s Minuteman III and MX 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

No. 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 exit 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. Targeting data provided by shipboard systems is interfaced with the missile through this common and launch system. 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:

anti-ship missile – противокорабельная ракета

encapsulated – заключенный в контейнер

maritime patrol aircraft – самолеты базовой патрульной авиации

ship-borne version – корабельный вариант

homing system – система самонаведения

terminal (phase) – конечный участок полета

ECCM=electronic counter-countermeasures – меры борьбы
с радиопротиводействием

lock – захват цели

*** Notes:**

designation - обозначение

compatibility – совместимость

No. 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 msIs 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 submarine (Fleet Ballistic Missile) – 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)

No. 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)

UNIT VI

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 Air Defense. The headquarters of NORAD is located in Colorado-Springs, Colorado.

TEXTS A. B. C. 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

* * *

1. to deny aerospace	не допустить в воздушное пространство
2. to achieve air superiority	достигать превосходства в воздухе
3. to maintain	удерживать, сохранять
4. to warn	оповещать, предупреждать (о приближении неопознанных самолетов; ракетном нападении)
5. units on the alert	подразделения и части в боевой готовности

В.

sensor	средство обнаружения
signature	признак, свойство; отличительное качество;

	характеристика
acquisition	определение местоположения; обнаружение, захват и сопровождение (цели)
acquisition radar	РЛС обнаружения цели
phased-array radar	РЛС с фазированной решеткой

C.

hostile intent	намерения противника
targeting	целеуказание

* * *

1. to detect a target	обнаружить цель
2. to track a target	сопровождать цель
3. to engage a target	вести огонь по цели
4. to acquire a target	обнаруживать цель
5. to intercept a target	перехватывать цель
6. guns and missiles	ствольная и реактивная артиллерия

EXERCISES

I. Study these translations 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.*

3. HAWK (homing, all-the-way killing). A mobile, surface-to-air guided missile system designed to defend against enemy aircraft flying at low altitudes. - *ракета "Хок" (самонаводящаяся, уничтожающая цели в любой точке зоны поражения). Мобильная зенитная ракетная система, предназначенная для защиты от самолетов противника, летящих на низких высотах.*
4. The Vulcan system has two major units: the automatic gun, caliber 20 mm with linkless ammunition feed system, fire control system and one-man turret, and an armored personnel carrier. - *Установка "Вулкан" состоит из двух основных компонентов: 20-мм автоматической пушки с беззвенчатой системой подачи снарядов, системой управления огнем, башней на одного человека и бронетранспортера.*

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. R e a d these texts attentively

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.

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.

Words to be remembered:

1. assets - оборудование; ценные качества, преимущества; средства
2. air traffic - воздушное движение; полеты самолетов
3. friendly traffic - движение своих средств; полеты своих самолетов
4. identification - опознавание; принадлежность
5. Identification Friend-or-Foe (IFF) - система опознавания "свой – чужой"
6. radar traffic - фактическое движение средств, наблюдаемые на экране РЛС
7. traffic - зд. объект
8. aloft - в воздухе

2.

The final element of the air defense system is the Army's new surface-to-air missile, called SAM-D (for D – Development).

SAM-D can be deployed as a battery to provide **circular defense coverage***. A SAM-D battery will normally include four firing sections, thus giving each

battery a total of 32 missiles. Such a field battery would be mounted on approximately twelve vehicles and would include these main elements: fire control, launchers, battery control, and communications group.

Characteristics:

- Type: land-mobile; surface-to-air guided weapon system.
- Guidance principle: command guidance and semi-active homing.
- Propulsion: single-stage, solid-propellant rocket motor.
- Warhead: nuclear or high-explosive.

**Notes:*

circular defense coverage - круговая оборона

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. 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.

V. 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”.**

VI. 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. Deterring 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.

VII. 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?

VIII. Retell the texts

IX. 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 missile 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 Vulcan automatic gun 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

No. 1

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

No. 2

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

No. 3 BATTLE AREA AIR-DEFENSE SYSTEM

The Vulcan system has two major units: the M61A1 automatic gun, caliber 20-mm, with *linkless ammunition feed system*, fire control system and one-man *servo-controlled* turret and the self-propelled vehicle – a modified M113A1 armored personnel carrier. Although intended mainly for defense against low-flying *subsonic* aircraft, Vulcan can engage ground targets. The vehicle's armament will fire without interfering with maneuverability, and will provide a steady, high rate of about 3,000 rounds a minute and a slower rate of not more than 1,000 rounds a minute while the vehicle is *emplaced* or moving. The self-propelled fire unit can be moved by truck, rail, ship, *fixed-wing aircraft* and internal or external helicopter lift. When fully serviced and combat-loaded with stored ammunition and its equipment and four-man crew, it can swim across lakes and streams.

Words which will help you to translate the text:

1. linkless ammunition feed system – беззвенчатая система подачи снаряда
2. servo-controlled – с дистанционным управлением
3. subsonic – дозвуковой
4. emplace – устанавливать на огневой позиции
5. fixed-wing aircraft – зд. самолет (в отличие от rotary-wing aircraft – вертолет)

No. 4	PATRIOT (XMIM-104)
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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 serve 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

No. 5 HAWK

HAWK, a surface-to-air missile can travel at supersonic speed at altitudes as low as 100 feet and as high as 38,000 feet. It has a solid-propellant, two-stage propulsion system, a homing device and a conventional warhead. HAWK (homing-all-the-way killer) weighs 1,295 pounds at launch, is 16.8 feet long, 14 inches in diameter, and wing spread is 48 inches

The missile uses an advanced *continuous-wave radar* homing guidance system to discriminate against ground *clutter* and make effective intercepts against the lowest flying aircraft. *Acquisition radars* sweep the battery defense area and when a target is detected, relay the position to the *illuminator radars*. These “light” the target with a beam of radio waves that bounce* back to a receiver in the missile. The missile tracks the target by following this bounced radar beam.

HAWK and its ground equipment can be airlifted by helicopters and medium-sized airplanes.

Three self-propelled launchers comprise the firing platoon: one tows the continuous-wave acquisition radar, another the high-power illuminator, the third the battery control center.

HAWK development began in 1954 and the system entered into service in 1959. A European consortium produced HAWK missiles in Belgium, France, Italy, Netherlands and Germany.

A new guidance package, larger warhead and improved motor propellant were installed under the improvement program begun in late 60s. The ground electronics equipment, including an improved continuous-wave acquisition radar, was also modified.

HAWK and Improved HAWK missile systems are widely deployed throughout the world, and in the US Army and USMC it will remain the mainstay* of *field air defense* until the replacement by the PATRIOT M1M-104.

Words which will help you to translate the text:

1. continuous-wave radar – РЛС с непрерывным излучением
2. clutter – отражение
3. acquisition radar – РЛС обнаружения и сопровождения цели
4. illuminator radar – РЛС подсвета цели
5. field air defense – ПВО войск

***Notes:**

bounce – отскакивать, рикошетирировать

mainstay – оплот, главная поддержка

UNIT VII

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).

TEXTS A, B, C. 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

В.

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 (одиночный 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; camouflaging; 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 нервно-паралитического 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. *T w o - w a y 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 st 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 (SWEEO)	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 Russian 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 English equivalents

1. распоряжения командира; 2. ядерный взрыв;

3. применение ядерного оружия; 4. указания определяют; 5. подлежит уничтожению; 6. подлежит подавлению; 7. поражать взрывом; 8. выпадение радиоактивных осадков; радиоактивное заражение;
9. желательный уровень радиоактивного заражения;
10. благоприятствовать наступающему; 11. высокий уровень радиоактивного заражения; 12. наземный взрыв; 13. вид взрыва; 14. воздушный взрыв;
15. воздушный взрыв вызывает; 16. минимальный уровень радиоактивного заражения; 17. зона радиоактивного заражения; 18. пересекать зону радиоактивного заражения; 19. офицер по применению оружия массового поражения; 20. прогнозирование уровней радиоактивного заражения; 21. подготавливать прогноз радиоактивного заражения; 22. уровень радиоактивного заражения; 23. граница зоны радиоактивного заражения; 24. подготавливать оценку;
25. **косвенные поражения**; 26. пожар; 27. лесной завал; 28. препятствие; 29. передвижение войск; 30. свои войска; 31. ядерное оружие; 32. доставлять ядерный боеприпас; 33. ядерный боеприпас, доставляемый по воздуху; 34. артиллерийские снаряды с ядерным зарядом; 35. мощность ядерного боеприпаса;
36. очередность целей; 37. **время начала ядерной подготовки**; 38. время взрыва; 39. район цели, цель;
40. поражать взрывом.

III. Match Russian words with English equivalents

A.

1. ядерный удар	target
2. план ядерной подготовки	reserve echelon
3. цель	priority
4. очередность	atomic fire
5. пользоваться преимуществом	may be delivered by air
6. первоочередность	atomic fire support plan
7. наносить ядерные удары	enjoy priority
8. второй эшелон	A1 priority
9. закончено	has been completed
10. стартовая позиция	place atomic fires
11. могут доставляться по воздуху	missile site

B.

1. ракетная часть (подразделение)	nuclear ammunition
2. доставлять ядерные боеприпасы	air-delivered
3. стартовая позиция	missile unit
4. доставляемые по воздуху	special ammunition supply point (SASP)
5. ядерные боеприпасы	deliver the nuc wpn
6. пункт снабжения специальными (ядерными) боеприпасами	missile site

C.

1. мощность ядерного боеприпаса	air burst
2. высота	additional instructions
3. воздушный взрыв	weapons yield
4. наземный взрыв	use of atomic fires
5. дополнительные указания	height

6. использование ядерных ударов	atomic burst
7. точное время	surface burst
8. ядерный взрыв	exact time
9. выбирать	be burst
10. взрываться	select

D.

1. время начала ядерной подготовки	friendly troops
2. отвод	provide for
3. свои войска	order for
4. минимальное безопасное расстояние	is coded
5. средство связи	minimum safe distance
6. приказ на	withdrawal
7. предусматривать	A-hour
8. закодирован	transmit

E.

1. уточнять	destroy
2. распоряжение командира	neutralize
3. уничтожать	define
4. подавлять	has been selected
5. поражение цели	fallout
6. выбрано	has been completed
7. эпицентр взрыва	ground zero
8. желаемый эпицентр взрыва	prediction
9. выпадение радиоактивных осадков	desired ground zero
10. прогнозирование	target coverage
11. закончено	commander's guidance

IV. Translate into English**A.**

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

A.

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?

B.

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?

C.

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.

D.

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?

E.

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. Two - way 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 th Field Artillery.*
4. Какие ракетные комплексы будут использованы? - *The 3 d Missile Artillery Battalion, 27 th Field Artillery employs the Lance missile. It's a tactical missile of the surface-to-surface category.*
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

No. 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

No. 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)

No. 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

No. 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

No. 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

No. 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

UNIT VIII

SIGNAL CORPS

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.

TEXTS A, B. 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

* * *

1. to install (establish) communications networks	развертывать (устанавливать) сети связи
2. to operate communications networks (signal centers)	обслуживать (эксплуатировать) сети связи (узлы связи)
3. to maintain communications networks	поддерживать сети связи в эксплуатационном состоянии
4. to provide communications	обеспечивать связь

В.

communications means	вид связи; средство связи
message (msg)	донесение, сообщение; телефонограмма, телеграмма, радиogramма
messenger communications (msgrr 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 (transceiver)	приемопередатчик
beam antenna	лучевая антенна
telescopic rod antenna	телескопическая штыревая антенна
earphone	головной телефон

* * *

1. Operations- Intelligence Net	оперативно-разведывательная сеть связи
2. Administrative Logistics Net	сеть связи административных и технических служб тыла
3. General Purpose Net	сеть связи общего пользования
4. Division Air Request Net	сеть связи для подачи заявок на авиационную поддержку
5. Division Warning Broadcast Net	радиосеть оповещения дивизии
6. Division CG (Commanding General) Command Net	командная радиосеть командира дивизии

A t t e n t i o n !

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

No. 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.

No. 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

No. 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. amplify - усиливать (сигнал)
4. pip - отметка цели на экране индикатора

No. 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

No. 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 written form

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 *q u i c k l y* 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.

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”)

Bravo 01 - позывной вызывающей радиостанции

РАДИОГРАММА:

1. Номер радиограммы: *msg nr (message number)* ...

2. Инструкция к передаче: *relay to ...*
3. Категория срочности: *flash* (молния)
4. *immediate* (немедленная)
5. *priority* (срочная)
6. *routine* (обыкновенная)
7. Группа “дата-время”: *dtg* (*date, time group*) ...
8. Отправитель: *fm* (*from*)...
9. Адресат – исполнитель: *to ...*
10. Информировуемый адресат: *info ...*
11. Исключенный адресат: *xmt* (*exempt*)...
12. Указатель количества групп: *grc* (*group count*)
13. Гриф секретности.
14. Текст радиогаммы.
15. Пароль: *auth* (*authentication*) ...

КОНЦОВКА СЕАНСА:

Over - прием

Out - КОНЕЦ СВЯЗИ

How copied? - как принята радиограмма?

Roger - понял, ясно

В конкретных радиограммах могут присутствовать не все указанные элементы.

Пример сеанса связи:

Golf 22 this is Jumbo 01

msg fls

msg nr 07

relay to Golf 11

o dtg 160101 z

fm 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).

Лексические 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
zulu (Z)	время по Гринвичу (16.45 zulu)
a	среднеевропейское время (16.45 a)
aig (address indicating group)	адресно-индикаторная группа

условные обозначение категории срочности

z	<i>flash (молния)</i>
o	<i>immediate (немедленная)</i>
p	<i>priority (срочная)</i>
r	<i>routine (обыкновенная)</i>
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” (<i>в телеграфном радиообмене</i>)
Loud and clear	хорошая слышимость (<i>оценка</i>)
1. <i>Quick brown fox jumped over a lazy dog</i> 2. <i>ryryry...</i>	<i>служебные тестовые фразы (группы) для проверки качества канала связи</i>
kilocycle (kcs)/megacycle (mcs)	килогерц/ мегагерц
QSY	указание о смене частоты (<i>международный телеграфный Q- код</i>)
QSL	прием радиограммы (<i>международный телеграфный Q- код</i>)

Грамматические особенности :

- 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

No. 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 – световая коммутация
3. ISDN=Integrated Services Digital Network – цифровая сеть с единым сервисом

***Notes:**

assets – имущество, зд. узлы связи

No. 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:

- Automatic Voice Network (*AUTOVON*)
- Automatic Secure Voice Communication (*AUTOSEVOCOM*)
- *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 evolving from existing AUTOVON and AUTOSEVOCOM systems and incorporates Defense Commercial Telecommunications Network (DCTN), Defense Digital Network (DDN), local *C³I switches*, domestic and international commercial long distance telecommunications networks, Federal Telecommunications System. 39 DSN switches are operational overseas: 34 in Europe and 5 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. AUTOVON – автоматизированная система связи МО США
3. AUTOSEVOCOM – автоматизированная система закрытой телефонной связи МО США
4. Automatic Digital Network – автоматизированная система цифровой связи МО США
5. DSCS – система спутниковой связи МО США
6. DSN = Defense Switched System – автоматизированная система телефонной связи МО США
7. C³I = Command, Control, Communication and Intelligence – управление, связь и разведка
8. switch – коммутатор, коммутационный центр
9. packet switching network – сеть (система) пакетной коммутации

*** Notes:**

theater/tactical systems – оперативные/тактические
системы

**No. 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 14 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 AUTOVON/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 – однопольный
4. SLFCS=Survivable Low Frequency Communications System – резервная ДВ/СДВ система связи
5. PACCS=Post Attack Command and Control System – резервная система объявления тревог стратегических сил США
6. GWEN=Ground Wave Emergency Network – резервная система ДВ связи (ГВЕН)
7. NCA=National Command Authorities – Президент США, верховное главное командование ВС
8. signaling – связь, передача сигналов, вызов
9. interconnectivity – зд. коммутация

No. 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

*** Notes:**

“Take Charge and Move Out”- прими сигнал и передай его
tight turn – крутой поворот

No5 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-42s, B-1s. 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 BBC
3. transponder – ретранслятор
4. host satellite - платформа Satellite Data system = SDS –

спутниковая система связи и ретрансляции данных

5. SHF – сверхвысокая частота, частота сантиметрового диапазона волн
6. EHF – чрезвычайно высокая частота, частота миллиметрового диапазона волн
7. survivable – живучий, резервный
8. secure – закрытый, безопасный
9. minimum essential communications – связь в условиях чрезвычайной обстановки
10. cross links – различные способы коммутации
11. multiple spot beams – множество узких лучей

**Notes:*

burgeoning – зд. возрастающий

No. 6 WORLD-WIDE MILITARY COMMAND AND CONTROL SYSTEM (WWMCCS)

The system provides the operational and technical administrative support involved in the function of command and control of US military Forces world-wide.

Within WWMCCS there are a number of unified commands which exercise primary staff responsibility for telecommunications matters.

There are a number of commands which are primarily concerned with the development and operation of communications within their areas.

Bringing them together within WWMCCS 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 WWMCCS 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 WWCCS 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 enable the NCA to direct a retaliatory strike.

Words which will help you to translate the text:

1. WWCCS – глобальная система оперативного управления ВС США (ГСОУ)
2. NMCS – система управления ВС США
3. NMCC – основной командный центр КНШ
4. NMIC – национальный командный центр ВР
5. ANMCC – запасной командный центр КНШ
6. MEECN – система связи для управления ВС в чрезвычайной обстановке
7. NEACP – воздушный командный пост КНШ
8. AABNCP – усовершенствованный командный пост КНШ

UNIT IX

INTELLIGENCE

A. General

Experience has shown that a nation will be able to prepare and win a war only having full knowledge of its enemies. The same is true with regard to the operation of armies on the battlefield. The victory in a battle will go to that army whose commander has the more accurate and complete information of the strength, position, plans and intentions of the other.

In a general way the Military Intelligence Service is charged with gaining all information of the power and limitations of actual or possible enemy nations or armies.

The most common sources of information for intelligence purposes are enemy activity, prisoners of war, local civilians, recovered military personnel, captured enemy documents, enemy materiel, enemy signal communications and other electromagnetic emissions, shell and missile fragments, chemical and biological agents or residual nuclear radiations, nuclear bursts, photographs, maps, weather forecasts, studies and reports, civilian agencies, secret agents and other individuals.

B. Intelligence Cycle

US national intelligence effort is a cyclic process involving three elements – collection, processing and reporting or dissemination which correspond to the three fundamental functions of the Intelligence service.

Collection of Information

The more common means to collect information are interrogation, examination, observation, reconnaissance in force, radiological monitoring and survey, interception of electromagnetic radiation and communications, listening, direction finding.

The human intelligence collection (HUMINT) is the oldest area of activity. In the United States intel establishment there are five elements involved in working with human sources of information: CIA, DIA and three armed services. The sources from which humint is gained are as follows: agents, visitors and travelers, military attaches, consular and diplomatic personnel and other individuals, DIA being the only agency having to do with military attaches.

Intelligence officers and staff in the field are all covert with various forms of cover.

Collection effort dominated by technology is regarded as technical intelligence (TECHINT). The most lucrative source of techint is signal intelligence (SIGINT), including communication intelligence (COMINT), electronics intelligence (ELINT) and telemetric intelligence (TELINT). Other branches of the techint are photo-intelligence (PHOTINT), radar intelligence (RADINT), laser intelligence (LASINT).

COMINT means all forms of intelligence that can be secured by listening in to the radio communications, intercepting foreign messages or establishing the positions of radio stations.

ELINT is collected from foreign noncommunications electromagnetic radiations, such as radars.

TELINT is gained from telemetric signals of missiles or various space-related systems. RADINT is collected by means of radars and LASINT – by lasers. PHOTINT and

other imagery intel constitute the largest share of technical intel collection and are produced by high-altitude strategic recon aircraft, tactical acft and helos and satellites.

The data collected is fed into analytical process through the chain of command, SIGINT – to NSA, headquarters at Fort Meade, Maryland, and imagery intelligence – to the National Imagery Agency (NIA) at Washington.

Processing of Information

Processing is the critical and systematic analysis of information of the enemy to determine its truth, value and importance. The process consists of comparing the information with previously determined facts and of converting this information into intelligence.

The object of processing is to gain a complete picture of the situation of the enemy. All info is recorded, evaluated and catalogued for distribution and for file. The whole process is computerized and based on the state-of-the-art technology. Intelligence should be so filed and indexed as to insure that it can readily be found when necessary.

Dissemination of Intelligence

The third element of the intel cycle is dissemination or distribution of intelligence. It includes all measures taken to put the classified intelligence in the hands of those who need it. The distribution of intelligence is performed according to the character of the resulting intelligence and the situation.

It is not practicable to distribute intelligence bit by bit as received because much of it is routine in character and much of it when considered alone is of trivial nature. That is why there must be a regular and systematic routine for its distribution. This is accomplished by issuing periodic reports at prescribed hour. When the intelligence is of a

particularly important nature, there must be some means of delivering it directly and at once to its destination.

TEXTS A, B. ACTIVE TERMS AND EXPRESSIONS

A.

intelligence (intel)	разведка; разведсведения; разведданные
intention	намерение
military intelligence (MI; mil int)	военная разведка; разведывательные данные (<i>военного характера</i>)
prisoner of war (POW)	военнопленный
study	справка
report	донесение

B.

collection of intelligence	добывание (сбор) разведсведений
processing of intelligence	обработка разведсведений
dissemination of intelligence	доклад, рассылка, представление разведданных
interrogation	допрос
examination	изучение, проверка, контроль
reconnaissance in force	разведка боем
radiological monitoring	дозиметрический контроль
radiological survey	инструментальная разведка, осмотр
direction finding	радиопеленгация
human intelligence (HUMINT)	агентурная разведка; данные агентурной разведки
Central Intelligence Agency (CIA)	Центральное Разведывательное Управление (ЦРУ)

Defense Intelligence Agency (DIA)	Разведывательное Управление Министерства Обороны (РУМО)
technical intelligence (TECHINT)	разведка техническими средствами; данные технической разведки
lucrative source of intel	зд. информативный источник разведсведений
signal intelligence (SIGINT)	радио и радиотехническая разведка (РРТР); данные РРТР
communication intelligence (COMINT)	радиоразведка; данные радиоразведки
electronic intelligence (ELINT)	радиотехническая разведка; данные радиотехнической разведки
imagery intelligence (IMINT)	видовая разведка; данные видовой разведки
National Security Agency (NSA)	Агентство Национальной Безопасности (АНБ)
National Imagery Agency (NIA)	национальное агентство видовой информации
classify	засекретить
periodic report	срочное донесение (<i>т.е. имеющие срок предоставления</i>)

* * *

1. to evaluate information value	оценивать (анализировать) информацию ценность; значение
2. to disseminate (to distribute) intelligence	рассылать (предоставлять, сообщать) разведданные

3. to issue periodic reports	издавать (разрабатывать, предоставлять) срочные донесения
4. to deliver the intelligence to its destination	доставлять (рассылать) разведданные по месту назначения (по соответствующим разведорганам)

A t t e n t i o n !

1. intelligence

а) разведывательные данные

в) разведка

Наиболее общий термин, применяется ко всем видам разведки.

2. reconnaissance

а) разведка; целенаправленные, активные действия сил и средств по добычанию информации о противнике, его действиях, условиях местности и т.д. с применением и без применения специальных технических средств.

Предполагает ведение боевых действий, для обеспечения, которых предназначена (например, войсковая разведка). Не имеет отношения к агентурной разведке, ее методам, силам и средствам.

в) рекогносцировка

3. surveillance

а) наблюдение, разведка противника, местности, воздушного, морского и космического пространства методом наблюдения.

Чаще применяется в отношении тактической и оперативной разведки (например, наблюдение за полем боя). Отражает пассивный характер действий сил и средств разведки.

в) контроль, осмотр

E X E R C I S E S

- I. *Study these translations before reading texts A and B*
1. **combat intelligence (cmbt int; cbti)** (The knowledge of the enemy, weather, and geographical features required by a commander in the planning and conduct of combat operations) - **тактическая разведка; данные тактической разведки** (*Сведения о противнике, погоде и географических условиях, необходимых командиру при планировании и ведении боевых действий*)
2. **strategic intelligence** (Intelligence which is required for the formation of policy and military plans at national and international levels) - **стратегическая разведка; данные стратегической разведки** (*Данные разведки, необходимые для выработки политики и военных планов в масштабе страны и на международном уровне*)
3. **counterintelligence (CI, ci)** (Counterintelligence denies information to the enemy, increases the security of the command and aids in achieving surprise). - **контрразведка** (*Контрразведка лишает противника возможности получить сведения, обеспечивает безопасность своей группировки и способствует достижению внезапности*).
4. **dissemination (of information)** (The conveyance of intelligence in suitable form (oral, graphic, or written) to agencies needing it) - **рассылка (разведданных)** (*Передача разведданных в удобной форме (устно, графически или письменно) заинтересованным в них органам*)
5. **intelligence cycle** (The steps by which information is assembled, converted into intelligence, and made

available to users) - **разведывательный цикл** (*Этапы, в процессе которых получаемые сведения собираются, преобразуются в разведданные и доводятся до сведения заинтересованных лиц*)

6. **collection (of information)** (The exploitation of sources of information by collection agencies and the delivery of this information to the proper intelligence processing units for use in the production of intelligence) - **сбор (сведений)** (*Сбор сведений от источников информации и рассылка этих сведений по соответствующим разведорганам для их обработки и извлечения данных, представляющих ценность для разведки*)
7. **processing (of information)** (The step of the intelligence cycle whereby information becomes intelligence through evaluation, analysis, integration, and interpretation) - **обработка (сведений)** (*Этап разведывательного цикла, при котором сведения после их оценки, анализа, обобщения и окончательного отбора, приобретают форму разведданных*).
8. **integration** (The process of forming an intelligence pattern through the section and combination of evaluated information) - **обобщение** (*Процесс формирования разведданных путем отбора и комплектования сведений после их оценки*).
9. **interpretation (of information)** (The act of determining the significance of info in relation to the current body of knowledge pertaining to the subject studied) - **интерпретация [толкование значения смысла фактов]** (*Работа по определению степени важности сведений по отношению к уже имеющимся текущим сведениям об интересующем разведку объекте изучения*).

10. **agency** [**collecting/collection agency; intelligence agency**] (An agency is any individual, or organization which collects or processes information or does both) - **разведывательный орган; средство разведки** (*Разведывательный орган – личность или организация, которая собирает или обрабатывает сведения, или занимается тем и другим*)

II. *Decipher the following abbreviations*

intel; mil ops; HUMINT; div; info; tac; en; SIGINT; wea; wpn; recon; IMINT: armd cav sqdn; cbt bn; avn; NSA; spt; elms; COMINT; acft; msns; DIA; arty bn; POW; scty; co; TECHINT; equip; CBTI; mil int; comd; gnd; tgt; con; CIA; ELINT; CI

III. *Translate into English*

1. Иметь полную и точную информацию о боевом составе, дислокации, планах и намерениях противника.
2. Задачей военной разведки является добывание информации о реальном или вероятном противнике.
3. Источниками информации для разведки являются военнопленные, документы противника, излучение радиоэлектронных средств, фотоснимки, тайные агенты и др.

* * *

1. Ведение разведки представляет собой циклический процесс.
2. Основными способами добывания информации являются: допрос, наблюдение, перехват электромагнитных излучений, пеленгование и т.д.
3. Наиболее информативным источником разведки с применением технических средств являются радио и радиотехническая разведка.

4. Процесс обработки заключается в сопоставлении информации с ранее добытыми фактами.
5. Цель обработки состоит в преобразовании информации о противнике в разведданные и получение полной картины о состоянии противника.
6. Информация учитывается, оценивается и распределяется для последующего доклада и хранения.
7. Разведданные докладываются в соответствии с их характером и условиями обстановки.
8. В большинстве случаев разведданные носят рутинный характер.
9. Разведданные, рассматриваемые отдельно друг от друга, часто тривиальны по своему содержанию.
10. Разведданные могут докладываться сразу или периодически в установленное время в зависимости от их важности.

IV. Translate as quickly as possible

точные и полные данные о противнике; plans and intentions of the enemy; военная разведка; responsible for dealing with intelligence; источники информации; to be charged with gaining (collecting) information; захваченные документы противника; prisoners of war; бывшие военнопленные; enemy materiel; связь противника; secret agents; справки и донесения; responsible for counterintelligence operations; координировать мероприятия разведки; evaluate information; добывать информацию; classify information as to its reliability; ЦРУ; to be responsible for coordinating intelligence activities; Агентство Национальной Безопасности (АНБ); Defense Intelligence Agency; область внешней разведки; to monitor the communications of other nations; перехват электромагнитных излучений; to collect, process and

disseminate intelligence; допрос военнопленного; the means to collect information; радио и радиотехническая разведка; humint; дозиметрический контроль; reconnaissance in force; преобразовывать информацию о противнике в разведданные; photint; рутинный по содержанию; systematic analysis of information; важные разведданные; to compare the info with previously determined facts; орган разведки; to integrate the information; разведывательный цикл; to issue periodic reports; доставлять (рассылать) разведданные по соответствующим разведорганам (по месту назначения); to interpret information; видовая разведка; combat intelligence; данные стратегической разведки; direction finding

V. Translate the following text from hearing

Signal Intelligence

Signal Intelligence (SIGINT) is traditionally considered to be one of the most important and **sensitive** forms of intelligence. The interception of foreign signals can produce data on a nation's diplomatic, scientific, and economic plans or events as well as the characteristics of radars, spacecraft and weapons systems.

SIGINT can be broken down into five components:

- communications intelligence (COMINT);
- electronics intelligence (ELINT);
- radar intelligence (RADINT);
- laser intelligence (LASINT);
- **non-imaging infra-red intelligence.**

As its name indicates, COMINT is intel obtained by the interception, processing, and analysis of the communications of foreign governments or groups, excluding radio and television broadcast. The communications may take a variety of forms – voice, Morse

code, radio-teletype or facsimile. The communications may be encrypted, or transmitted in the clear. The most traditional COMINT target is diplomatic communications.

Electronic intercept operations are intended to produce ELINT by intercepting the noncommunication signals of military and civilian hardware, excluding those signals resulting from atomic detonations. The earliest of ELINT targets were WWII air defense radar systems. RADINT is the intelligence obtained from the use of non-imaging radar. Information that can be obtained from RADINT includes the missile's flight paths, velocity, maneuvering, trajectory, and angle of descent.

Words to be remembered:

1. sensitive – связанный с важной правительственной информацией или гостайной; секретный
2. non-imaging infra-red intelligence - информация, сведения, данные, полученные ИК-приборами без формирования изображения

VI. Answer the following questions

1. What should a commander know to win a battle?
2. What are the most common sources of information for intelligence purposes?
3. What are the elements of the intel cycle?
4. What are the common means to collect info?
5. What is HUMINT?
6. What sources does TECHINT include?
7. Where are collected sigint and imint directed to for processing?
8. What does processing consist of?
9. What is the process of dissemination of intelligence based on?

10. Why is it not practical to distribute intel bit by bit as received?

VII. *Retell texts A, B.*

VIII. *Translate in written form*

No. 1

The U.S.-British military alliance in WWII necessitated a high degree of cooperation with respect to intelligence activities. It was imperative that the United States and Britain, as the main Allied combatants in the European and Pacific theaters, establish a coordinated effort in the acquisition of worldwide intelligence and its evaluation and distribution. Of all areas of intelligence collaboration, it was in the area of signals intelligence that the most important and vital cooperation took place.

Bilateral intelligence relations between the United States and the United Kingdom include HUMINT, SIGINT, and radio and television broadcast monitoring. The British-U.S. Communications Intelligence Agreement of 1943 is still in force and regulates the bilateral part of the British-U.S. SIGINT relationship.

A second arrangement consists of an agreement to divide up, geographically, the responsibility for monitoring public radio and television broadcasts – mainly news and public affairs broadcasts. The specific organizations involved are the BBC Monitoring Service and the CIA's Foreign Broadcast Information Service (FBIS). Together, those two organizations monitor most of the world's most significant news and other broadcasts and have a network of overseas stations, operated with varying degrees of secrecy to gather their raw material.

No.2 Space Collection

Since 1962 the US has been operating low-earth orbiting satellites whose mission has been to intercept the signals emitted by Soviet, Chinese, and other nations' air defense, ABM, and early-warning radars. The satellites, known as "ferrets"* in the popular literature, are actually referred to as "balls" within the US intelligence community.

The first ferret was launched by a Thor-Agenda B on May 15, 1962, into an orbit with a 190-mile perigee and 392-mile apogee. Between the first launch and July 16, 1971, seventeen satellites of the initial type were launched, about one to three satellites being launched each year. Switches to new boosters in June 1963 and October 1968 may have indicated new generations of ferrets coming into operation.

A second class of ferret satellites was put into operation beginning in August 1963. Unlike the first class, which were launched as the only payload on the rocket, the new class served as the secondary payload to imaging satellites. By 1972, launches no longer* placed just ferret satellites in orbit. From 1972 to the present only ferret subsatellites have been launched. In general, the satellites were launched as the secondary payload on launches of the KH-9 imaging satellite. If subsatellite launches are to continue once* the presently operational ferrets expire, they will have to be piggybacked* with a different primary payload.

The exact number of ferrets within each class is not publicly known. What is known is that the code names for the satellites have had a common theme – they were all named after female sex symbols. Two of the satellites operating in the late 1970s were code-named BRIDGET and MARILYN.

***Notes**

“ferret” – спутник радиотехнической разведки

no longer – больше не

once – когда, как только

piggyback – дополнительная полезная нагрузка; монтаж
«поверх»

IX. Two - way translation

1. Какова организация разведки в ВС США? - *The intel organization of the DOD falls into two groups: one is under JCS, the other is composed of the services within the three military departments.*
2. А каковы задачи роты военной разведки? - *The military intel company has the mission of performing specialized intelligence functions including POW interrogation, imagery interpretation, which require the employment of foreign languages or special skills.*
3. Сколько человек обычно выделяется в разведывательный дозор? - *The minimum size of the reconnaissance patrol is two men, there is no maximum.*
4. Что вы можете сказать о способах действия дозора? - *A recon patrol tries to reach its objective without being discovered. If it encounters an enemy personnel or outposts it attempts to withdraw and go around it.*
5. В чем заключается разведка боем? - *A reconnaissance in force is a limited objective operation by a considerable force to discover and test the enemy's disposition and strength or to develop other intelligence.*

6. Какие меры предусмотрены при непосредственном соприкосновении с противником ночью? - *When in close contact with the hostile outposts, the establishment of listening posts at night is advisable.*
7. Применяют ли разведподразделения **приборы ночного видения**? - *Yes, they use **night-vision instruments**, first of all, infrared image equipment.*
8. Объясните, как работают активные инфракрасные приборы. - *Active infrared equipment requires three elements to produce a visible image: a source of infrared radiation, a target that reflects the infrared radiation and an electronic telescope that converts the infrared light into a visible image.*

X. Read this text, find answers to the questions below the text and be ready to make a report on this topic

Organization of US National Intelligence

The structure of national intelligence is called "***the Intelligence Community***". It includes a dozen of federal departments and agencies conducting a variety of intelligence that compose the total US national intelligence effort.

At the top of the pyramid sits ***the President*** and his ***National Foreign Intelligence Board (NFIB)*** reviewing and assessing executive departments or agencies in the foreign intel fields. Below them sits ***the National Security Council (NSC)*** playing an important overseer role in intel matters.

The United States has reorganized its intelligence operations in an attempt to reflect the new world order, following the end of the Cold War, and to meet

Congressional pressure for the agencies that analyze and exploit information to be separated from those that gather it.

The National Security Act of 1992 established a new position, ***Director of National Intelligence (DNI)***, to act as the principal intelligence advisor to the President and head of the intelligence community. The DNI, a civilian, is a non-voting member of the NSC. He or she is responsible for all components of the National Foreign Intelligence Program. The DNI is also responsible for ensuring that intelligence from all sources is supplied to the SECDEF, the Chairman of the JCS, and component commanders during periods of crisis or conflict.

The DNI has *two Deputy Directors of National Intelligence (DDNIs)*, each nominated by the President and confirmed by the Senate. One is responsible for the intelligence community, and the other for intelligence estimates and analyses. Personnel assigned to both DDNIs is located in a *new National Intelligence Center*.

The DDNI for the Intelligence Community, a general or admiral with active status, is responsible for the collection of human (HUMINT), signals (SIGINT) and imagery (IMINT) intelligence, and for operating *an Office of Warning and Crisis Support* that assists policymakers responsible for contingency planning. This DDNI is also responsible for the administration of the intelligence community.

The act has created two new organizations *within the DOD*. *The National Imagery Agency (NIA)* coordinates the collection, analysis and dissemination of IMINT. *The Reconnaissance Support Activity (Office)* launches and operates the collection platforms – satellites and aircraft – needed to supply information to the NIA and the NSA, the code-breaking arm of the intel structure, which is responsible for SIGINT operations. Thus, under the DoD

there are now the DIA, the NSA, Army Intelligence, Navy Intelligence, Air Force Intelligence, Marine Corps Intelligence, the NIA and the Reconnaissance Support Office.

The act also has reduced the role and scope of the CIA, which in the past has acted as the primary source of IMINT. Under the DNI's direction, the CIA is now responsible for collecting HUMINT and for carrying out covert actions authorized by the President. For this purposes two agencies have been organized under the CIA Director: *the Directorate of Operations* and *the Clandestine Operations Support*.

The DDNI for Estimates and Analysis is responsible for producing national intelligence estimates, preparing current and other finished intelligence material, and managing activities relating to the collection and exploitation of information available from open sources.

The State Department's intel activities are carried on in *the Bureau of Intelligence and Research (INR)*. They produce intel studies and reports for the Secretary of State.

The Department of Energy is a consumer and producer of intel in the critical field of nuclear energy.

The direct role of *the Federal Bureau of Investigation (FBI)* in the production of foreign intel is limited. It is responsible for counterintelligence operations which often turn up information of great value.

1. Intelligence Community (IC)	Разведывательное Сообщество
2. National Foreign Intelligence Board (NFIB)	Национальный Совет по внешней разведке
3. Director of National Intelligence (DNI)	Директор Национальной Разведки

4. Deputy Director of National Intelligence (DDNI)	Заместитель Директора Национальной Разведки
5. DDNI for the Intelligence Community	Заместитель Директора Национальной Разведки по оперативной работе
6. Office of Warning and Crisis Support	Управление предупреждения и обеспечения чрезвычайного планирования
7. National Imagery Agency (NIA)	Национальное Агентство видовой информации
8. Reconnaissance Support Activity (Office)	Управление разведывательных аэрокосмических систем
9. Directorate of Operations	Оперативное Управление (ЦРУ)
10. Clandestine Operations Support	Управление специальных операций (ЦРУ)
11. DDNI for Estimates and Analysis	Заместитель Директора Национальной Разведки по информационно-аналитической работе
12. Bureau of Intelligence and Research (INR)	Бюро разведки и исследований Госдепартамента
13. Federal Bureau of Investigation (FBI)	Федеральное Бюро Расследований (ФБР)

Questions to the text

1. What is meant by the term “Intelligence Community”?
2. Who is at the top of the IC?
3. What Board reviews and assesses depts and agencies in the foreign intel field?

4. What Council plays an important overseer role in intel matters?
5. Who is the head of the IC according to the National Security Act of 1992?
6. What is the DNI responsible for?
7. How many and what Deputies does the DNI have?
8. What is the DDNI for the IC responsible for?
9. What are the responsibilities of the DDNI for Estimates and Analysis?
10. What new organizations have been created within the DOD?
11. What are their functions?
12. What intel agencies are now within the DOD?
13. What is the role of the CIA in the intelligence now?
14. What agencies have been organized under the CIA's Director?
15. Where are intel activities of the State Department carried on?
16. What is the role of the Department of Energy in the intel field?
17. What is the role of the FBI in the foreign intel field?

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

No. 1 COMBAT INTELLIGENCE

Combat Intelligence is that knowledge of the enemy, the weather, and geographical features which is used in the planning and conduct of tactical operations within a given area.

The Intelligence Divisions of the General Staff with the headquarters of various commands in the field provide the machinery* through which Combat Intelligence is gained and prepared for use in time of war. The activity of

Combat Intelligence service personnel with troops in time of peace is confined* to the training of its personnel with a view to having it proficient* in active military operations.

*** Notes:**

machinery – система, механизм

confine - ограничивать

proficient – опытный, умелый, компетентный

No. 2 STRATEGIC INTELLIGENCE

Strategic Intelligence is of great importance in peacetime. It provides information on the military strength, economic policies and posture*, agricultural yields and natural resources availability and use. Strategic intelligence is an important part of the basis for force structure sizing and foreign policies. The strategic arms limitations talks and agreements would not be possible were it not for accurate intelligence estimates of foreign military weaponry quantities and capabilities.

Another intelligence category is *indications and warning* which answers questions like the following: Is there a sequence of events taking place in the world, which indicate a significant change in the status quo? Will there be a revolution in country X? Is country Y preparing to attack? If an attack comes, will we have sufficient warning so we might counterattack?

An important subset of indications and warning is current intelligence. This is a snapshot* of the world scene, up to the minute with significant changes noted since the last update*.

Scientific and technological intelligence is of increasing importance in today's high technology world. What are the characteristics of a new radar? How accurate are missiles? How fast can an airplane fly and how far?

What are the precise parameters of a piece of electronic equipment? Answers to these questions and hundreds more like them are needed so we may develop countermeasures to hostile weapons and electronic systems.

Finally, should conflict start, military commanders in the field must have immediately available accurate descriptions of their environment, hostile force strength and disposition, location of weapons systems, and knowledge of hostile plans which are all essential to successful prosecution* of conflict.

All of these categories of intelligence are supported today by advanced technology. Modern technology permits a wide variety of sensor systems capable of ferreting out* even closely guarded information. Analytic capabilities are greatly enhanced by judicious* use of automatic data processing equipment to analyze, sort, file and retrieve the large quantities of data collected. Data come from a variety of sources. A significant part of it comes from so-called open sources. Careful review of newspapers, magazines and books can reveal much about the general direction of a nation's technical and political evolution. Our use of technology allows monitoring of radio broadcasts, radar systems, and so on, which provide partial answers to our questions. And of course, even in a high technology world, there is still room for traditional methods using humans to collect intelligence.

Words which will help you to translate the text:

1. indications – признаки, симптомы
2. warning - предостережение

*** Notes:**

posture – состояние дел, текущая ситуация

snapshot – моментальный снимок

update – обновление данных, корректировка

prosecution – осуществление, ход

ferret out - разведывать

judicious - разумный

No. 3

Two separate information-handling systems are effective within Intelligence Community, the first being the warning and indications network established to avoid another Pearl Harbor and the second being the routine flow of information between the collector in the field and the Washington agency charged with that particular collection program.

The National Indications Center (NIC) in Pentagon sits atop the vast warning and indications network which includes a number of warning centers at the major area unified commands. At this level analysts screen* all intelligence produced in their area of responsibility and earmark* any unusual items for the NIC, which in its turn sifts* all the raw reports that come in during a twenty-four-hour period and selects eighty to a hundred of the most significant. The NIC provides the warning centers with an elaborate* check list of items to look for - items which might serve as preliminary indicators that a nation intends to take hostile action against the United States.

The routine flow of information between collectors in the field and the Washington agencies is a multistage system. In the imagery field, for example, the satellite programs are the only ones that go direct to Washington for processing, to the National Imagery Agency (NIA). All other imagery*, mostly photographic intelligence is processed through the many layers of military command that exist between the field and Washington. All collecting units are obliged* to give initial assessment of every roll* of film.

In SIGINT field the NSA maintains a multileveled processing structure too. It is noteworthy that as in the case with the imagery intelligence in the SIGINT field the satellite programs are the only ones that go direct to NSA Headquarters, Fort Meade, Maryland, for processing using relay and direct satellite communication links.

The processing of HUMINT reports is far less empirical and sophisticated than that of TECHINT. They are not processed in any set pattern.

*** Notes:**

screen=sift – просеивать, сортировать

earmark – зд. выделять

elaborate – подробный, доскональный

imagery – зд. видовые материалы

oblige - обязывать

roll - катушка

No. 4 THREE TYPES OF INTELLIGENCE

Military Intelligence, as information of the enemy, may be considered according to its use as of three types.

The first type is Intelligence utilized by and of interest to the Defense Department. It consists of information of every character which may affect the prosecution of war including information pertaining to* the military, political, geographic and economic situation and the psychology of the people of every country in the world. It is the broadest kind of National Intelligence of strategic nature for use in war.

The second type may be described as Intelligence utilized by and of interest to the general headquarters* of the armies in the theater of operations. It has to do with Intelligence required for the preparation and execution of plans for major military operations.

The third type is Intelligence utilized by and of interest to commanders of tactical units and carrying on military operations in the field. It may be called Combat Intelligence. It has to do more particularly with Intelligence required by tactical commanders for combat operations and generally is gathered by front line troops. It includes information concerning the strength, disposition, movements, armaments, equipment, and activity of enemy troops as well as that pertaining to the topography of the territory within the theater of operations and of enemy installations therein.

*** Notes:**

pertain to – относиться, иметь отношение к
general headquarters – ставка, главное командование

No. 5 PRISONERS

Prisoners constitute one of the most valuable sources for securing information of the enemy. The individual prisoner may have little information, probably confined to the organization, location and activity of his immediate command. But the data received from a number of prisoners when put together will frequently give a picture of the situation of larger commands and may be of great value.

Information from prisoners is gained through interrogation. As to the general purpose of the interrogation there are two main points to be borne constantly in mind:

1. The enemy order of the battle and the location of his units should be established as soon as possible
2. Information of all other types should be classified as intelligence of the immediate use and that of a general nature not directly affecting the immediate operation.

Therefore interrogation may be a) brief or initial and b) complete. The initial questioning is conducted where the

prisoner is captured by the front line unit along the following lines:

- the identity* of the prisoner, his position, grade, name, service number, etc.;
- the organizations to which the prisoner belonged;
- the area occupied by the enemy unit;
- the location of the headquarters, communications centers, depots, command and observation posts, fire means, reserves;
- the neighboring units;
- the field fortifications;
- the missions of the enemy unit, and other questions on items of information in which the chief of the intelligence section of this command is particularly interested.

It might be said that these questions correspond to the essential elements of information (EEI) designated by the commander. He indicates a priority of importance of these questions too.

*** Notes:**

identity – личность

No. 6

In the early 1970s, the United States began operating a set of geosynchronous satellites which were given the code name RHYOLITE. According to the most recent account, a total of five RHYOLITE spacecraft were placed into orbit, with one launch failure. All were launched from Cape Canaveral, Florida using an Atlas-Agena D booster.

By the time the fourth satellite was in orbit, a two-station arrangement had emerged. Two of the satellites were stationed near the Horn of Africa*, at 45 degrees east, to receive telemetry signals transmitted from liquid-fueled ICBMs. Another two spacecraft were stationed farther east, over Borneo, at 115 degrees east, to monitor solid-propellant

missiles such as the SS-16 and the SS-20 IRBM. The respective satellite footprints* provided coverage of almost all the USSR and Africa, Europe, Asia and the Middle East.

In addition to the telemetry signals from missile tests, RHYOLITE satellites reportedly* also engaged in a variety of COMINT activities. The satellites apparently were used to intercept telephone and radio communications across VHF, UHF, and microwave frequency bands.

Walkie-talkie* traffic generated by Soviet military exercises which fall in the VHF-UHF range, also was regularly monitored by RHYOLITE satellites. Beyond the Soviet Union, RHYOLITE satellite intercepted communications from China, Vietnam, Indonesia, Pakistan, and Lebanon.

The RHYOLITE program suffered a serious setback* in 1975 and in accordance with standard security practice, RHYOLITE's code name was changed to AQUACADE*.

The first satellite of a follow-on generation, code-named MAGNUM, was launched from the space shuttle *Discovery* on January 25, 1985. The satellite is reported to have two huge parabolic antennas, one of which is intended to intercept communications and telemetry signals.

Exactly how much MAGNUM is an improvement over RHYOLITE/AQUACADE is not known publicly. One possibility is that Magnum will be able to pick up lower powered signals than RHYOLITE. MAGNUM's increased power might come from bigger antennas, and the satellite's potential is suggested by a project being undertaken for the NASA by Lockheed's Missile and Space company. The project involves unfurling* an antenna in space from the space shuttle's cargo bay*. The antenna, resembling an umbrella will be nearly twice the size of a football field, and so sensitive to low-powered signals from earth that it would pick up broadcasts from radios the size of a wristwatch. In

addition, MAGNUM may have some stealth or spoofing* capabilities that make it harder to find and jam* its signals.

On June 10, 1978, the first of another class of geosynchronous SIGINT satellites was launched. Originally code-named CHALET, it was renamed VORTEX* after its original code name was revealed in the press.

VORTEX's original mission was strictly COMINT-related. Later, however, VORTEX was modified to intercept telemetry. The primary targets of VORTEX were in the Soviet Union. At the height of VORTEX operations at least three VORTEX satellites were operational.

Unlike AQUACADE, MAGNUM, or VORTEX, the other class of SIGINT satellites is neither in geosynchronous orbit nor are launched from Cape Canaveral. Rather, this class – known as JUMPSEAT* – has been launched into sixty-three-degree inclined, highly elliptical orbits with Titan 3B-Agena D boosters from Vandenberg AFB, California. Approximately four JUMPSEATs have been launched since the first launch on March 5, 1975. Its primary mission was to monitor ABM radars.

There appears to be several new generations of SIGINT satellites in development, probably including JUMPSEAT and VORTEX follow-ons.

Satellite operations are supported by a worldwide network of ground control systems, stations that conduct housekeeping* operations as well as receive information from the satellites. The stations perform basic housekeeping functions – communicating commands to the satellites, altering orbits, checking the equipment on board. The stations also receive ELINT data from the JUMPSEAT and ferret* satellites.

RHYOLYTE/AQUACADE and MAGNUM satellites have been controlled since the beginning of their programs from a facility in Alice Springs, Australia, commonly known

as Pine Gap. The facility consists of seven large radomes*, a huge computer room, and about twenty other support buildings.

The two other major control stations for SIGINT satellites are located in Europe (Germany, United Kingdom). Information received at either location can be transmitted directly via DSCS satellite to Ft. Meade.

*** Notes:**

Horn of Africa –Африканский Рог (неофициальное название полуострова Сомали в Восточной Африке
footprint – зона охвата

reportedly – по сообщениям

walkie-talkie – переноснаярация, портативная
радиостанция, воки-токи

setback – неудача, отступление

aquacade – водная феерия

unfurl – развертывать, раскрывать

cargo bay – грузовой отсек

spoofing – радиодезинформация

jam – заглушать; создавать активнее помехи;
осуществлять радиоэлектронное подавление

vortex – водоворот, воронка

jump-seat – откидное сиденье

housekeeping operations – служебные, вспомогательные
операции

ferret satellites – спутники радиотехнической разведки

radome – обтекатель или защитный купол антенны РЛС

No. 7 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.

Words which will help you to translate the text:

1. jamming - создание активных помех
2. electronic support measures (ESM) - радио и радиотехническая разведка (РПТР в РЭБ)
3. electronic countermeasures (ECM) - радиоэлектронное противодействие
4. electronic counter-countermeasures (ECCM) - меры борьбы с радиопротиводействием
5. chaff - дипольный отражатель
6. corner reflector - уголковый отражатель
7. stealth techniques - меры по снижению радиолокационной заметности

No. 8 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 одноразового действия
8. 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 – зд. безопасный
 collocate – размещать
 evasive – неуловимый, ускользающий

UNIT X

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.

TEXTS A, B. 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)

В.

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

* * *

1. to win the battle	выиграть бой
to lose the battle	проиграть бой
2. to destroy (to defeat) the enemy	уничтожить противника

3. to exploit successes to exploit a nuclear burst	развивать успех использовать результаты ядерного удара
4. to pursue the enemy	преследовать противника
5. to concentrate forces	сосредотачивать силы
6. to seize (to occupy) the terrain to seize the initiative from the enemy	захватывать (занимать) местность перехватывать инициативу у противника
7. to accomplish offensive missions	выполнять задачи наступления
8. to surprise the enemy	нанести внезапный удар
9. to sustain the attack	непрерывно вести наступление
10. to repulse (to repel) the attack	отразить (отбить) наступление (атаку)
11. to inflict heavy losses to suffer heavy losses	нанести тяжелые потери понести тяжелые потери
12. to deny an enemy force entry to an area	не допускать выхода группировок противника в определенный район
13. to retain (to hold) the terrain	удерживать территорию (позиции)
14. to accept a tactical disadvantage	лишить тактических преимуществ
15. to defend	оборонять(ся)
16. 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 a b b r e v i a t i o n s

cbt; en; bat; tac; psn; opns; recon; atk; div; elms; mvr;
msns; nuc; objs; tgts; spt; cml; comms; res; bde; comdr;
reinft; 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. *F i n d Russian equivalents to the English phrases*

- | | |
|-----------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. to gain a tactical advantage | 1. дезорганизовывать работу тыла противника |
| 2. to accomplish offensive missions | 2. переходить в наступление |
| 3. to exploit the effects of friendly nuclear fires | 3. наносить максимальные потери войскам противника |
| 4. to disrupt enemy rear areas | 4. отражать наступление противника |
| 5. to execute the attack | 5. достигать внезапности |
| 6. to launch the attack | 6. достигать тактического преимущества |
| 7. to disrupt en spt and reinf actions | 7. непрерывно вести наступление |
| 8. to gain fire superiority | 8. выполнять задачи наступления |
| 9. to maintain fire superiority | 9. вести наступление |
| 10. to exploit successes | 10. прорывать район |
| 11. to commit all nec resources | 11. расстраивать действия противника направленные на поддержку и усиление своих войск |
| 12. to deny the en respite from bat | 12. достигать огневого превосходства |
| 13. to gain surprise | 13. использовать результаты ядерных ударов своих войск |
| 14. to sustain the attack | 14. вводить в бой все необходимые силы и средства |
| 15. to repulse enemy attack | 15. сохранять огневое превосходство |
| 16. to inflict max destruction on the en forces | 16. не давать противнику передышки в бою |
| 17. to penetrate the area | 17. 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

B.

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*

No. 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

encirclement - окружение

line of departure (LD) - исходный рубеж для наступления

No. 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.

No. 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 quickly 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. *R e t e l l texts A and B*

X. *T w o - w a y 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 52nd 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

No. 1

On 15 January the 1st 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 308th 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

No. 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

logistic support – материально-техническое обеспечение

anchorage – якорная стоянка, убежище

search planes – самолеты-разведчики

demolition – подрывные работы

No. 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 helicopter 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, Linx/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.

*** Notes:**

thrust – нападение, атака

audacious – дерзкий, смелый

FOB – передовая оперативная база

with fighter barrier combat air patrol – зд. с

использованием воздушного патрулирования

choke point – “удавка”

to take one's pool – взять свою долю

geographical box - квадрат местности

re-assignment – изменение функций, переключение
retreat - отступление

№. 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.

*** Notes:**

herald – возвещать, предвещать

attack helicopter – боевой вертолет

ferry – перевозить, транспортировать

rubber bladder fuel holder – мягкий (эластичный)
топливный контейнер

sling - подвешивать

No. 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.

No. 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*.

*** Notes:**

frontal attack – фронтальное наступление

continuity – целостность

reconstitute – восстанавливать

assailable – уязвимый

favor – благоприятствовать

preponderance – превосходство, перевес

turning movement – обход

out of mutual support distance – на расстоянии,

исключая возможность оказать взаимную помощь

No. 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:

distribution of forces – размещение сил и средств

allocation – выделение, размещение

laterally – горизонтально (в линию)

formation – строй, боевой порядок

column – колонна

line – построенные по фронту

No. 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.

*** Notes:**

organic elements – штатные части и подразделения

assigned elements – приданные, включенные в состав
части и подразделения

attached elements – приданные части и подразделения
(временно включенные в состав)

ВНЕАУДИТОРНОЕ ЧТЕНИЕ

DOD Teleport System. Concept of Operations Version 1.1 (Generation Two)

**21 February 2003, Prepared by Chief of Naval
Operations (exempt)**

1. Purpose

The purpose of the Department of Defense (DOD) Teleport system is to provide deployed forces multi-media Radio Frequency (RF) interoperability among multiple military and commercial communications systems and continuous global access to Defense Information System Network (DISN) and legacy Command and Control, Communications, Computers, and Intelligence (C4I) services. The multi-media RF includes existing Military Satellite Communications (MILSATCOM) systems (i.e. Super High Frequency (SHF), Ultra High Frequency (UHF), and Extremely High Frequency (EHF)), future military Ka, as well as commercial satellite systems in the L, C, Ku and Ka bands. High Frequency (HF) will also be incorporated. The enhancement of RF capabilities is being implemented in a phased approach starting in Fiscal Year (FY) 03 and continuing through Full Operational Capability (FOC) in FY10.

The purpose of the DOD Teleport System Concept of Operations (CONOPS) is to provide C4I support system planners and operational users a baseline understanding of the DOD Teleport configuration, capabilities, and system employment concepts for the second generation deployment of the Teleport system.

2. Teleport Generation Two

Teleports are critical nodes in the transformation of DOD communications. Teleport Generation Two expands on the design of Teleport Generation One to provide combat support on military X/Ka-band (Wideband Gapfiller System), EHF LDR/MDR, L-band (International Maritime Satellite (Inmarsat)) and HF. Generation Two will also be capable of providing 100% of the projected year 2006 required DISN services and SATCOM throughput to support day-to-day operations and one Major Combat Operation (MCO). Generation Two will see the site architecture expand to six fully operational Teleport sites. The six core Teleport sites will, as with Generation One, be created from existing core of STEP sites and associated facilities at Ft. Buckner, Okinawa, Japan; Wahiawa, Hawaii; Camp Roberts, California; Northwest, Virginia; Lago Di Patria, Italy; and a split core site between Landstuhl and Ramstein, Germany.

3. Threat

To fulfill its mission of providing critical protected, wideband and narrowband communications support to operating forces around the world, a Teleport must exist and survive in a complex threat environment. There are four categories of threats to telecommunications systems: Information Warfare (IW), nuclear weapon effects, physical destruction, and environmental effects.

Information Warfare (IW) Threats - IW threats include electronic attack (jamming, intrusion, and deception), electronic support (exploitation, detection, interception, and geo-location), and Computer Network Attack (CNA) directed against automated information systems (e.g., malicious code). The principal concern is electronic attack directed against satellite systems and up-

links other than those with inherent protection (EHF). The Telemetry, Tracking, and Controlling (TT&C) link implementation of satellite communications systems on which Teleports depend should be capable of ensuring sustained spacecraft control in the face of up-link jamming or physical destruction of one or more of the control sites. IW threats will be mitigated or negated through application of defensive measures within operational software and computer networks, electronic support systems, and control systems in accordance with current Defense Department and Service policies and directives.

Effects of Nuclear Weapons and Other Physical Destruction - There will be no deliberate measures taken to mitigate direct or collateral nuclear weapon threats (interference, scintillation, blackout, radiation, blast, heat, and electromagnetic pulse) to the Teleport site unless existing safeguards are breached as a result of Teleport installation. Other types of physical destruction include direct threats to the terminal, control, and/or space-based segments of associated systems. Physical threats to the ground-based systems will be mitigated or negated through existing practices at the Defense Department's SATCOM control sites, terminals, and related facilities.

Environmental Effects - Teleport terminals will be designed to operate in their intended ambient environments and will be protected against the expected hazards associated with those environments in accordance with the best commercial practices for their specified design life.

4. RF Spectrum Coverage

The legacy (существующие до сих пор) communications systems and infrastructure (e.g., STEP) lack the capacity, interoperability, responsiveness and connectivity to adequately support joint operations. The Teleport system is an enabler of the current and next

generation space-to-ground, ground-to-space, space-to-space, and ground systems infrastructure promoting interoperable wideband, narrowband, protected, broadcast, and relay communications for national, military strategic, military tactical and civil government users. Teleport provides a common interface point for, among other things, gateway access to or from the following RF systems/mediums:

Military Systems. Military satellite systems provide assured access and full time support of critical C4I communications networks. Each of the military SATCOM systems has unique operating characteristics that support both strategic and tactical force requirements and their need for reliable and interoperable communications networks.

Defense Satellite Communications System (DSCS) – DSCS is the existing satellite system operating in X-band (7.25-8.4 GHz). It is a multi-channel transponder system that consists of five primary and five residual satellites placed in geo-synchronous orbit providing worldwide coverage from 65 degrees North to 65 degrees South latitude. An initiative called the Service Life Enhancement Program (SLEP) upgrades the last four DSCS satellites launched (through FY 03) to improve the constellation's tactical support to disadvantaged user terminals (small dish antennas).

Wideband Gapfiller System (WGS) - The follow-on to the DSCS satellite system will be WGS. Each satellite will provide high capacity coverage to forces operating anywhere within earth field of view from 65 degrees North to 65 degrees South latitude. Each WGS satellite will provide two-way X-band (7.25-7.75 GHz & 7.9-8.4 GHz), two-way Ka-band (20.2-21.2 GHz & 30.0-31.0 GHz), and broadcast Ka-band services. The X-band connectivity will be fully compatible with existing DSCS service and the Ka-

band broadcast capability will be fully compatible with existing Global Broadcast Service (GBS). Military two-way Ka-band services will be a new capability provided by WGS. The first satellite will be deployed to the theater with the greatest demand for additional capacity. The three WGS satellites are tentatively (предположительно) scheduled for launch in FY 04-05.

The WGS satellites will provide both earth coverage and selective footprint coverage and is expected to support a wide range of capacity density from high capacity small areas to low capacity large areas. Each of the WGS satellite's coverage areas except earth coverage will be independently steerable to any location within the satellite's field of view and will accommodate the overlapping of coverage areas. WGS is essentially a switch in the sky employing a digital channelizer (аппаратура каналообразования, объединитель каналов) that supports point-to-point (прямая связь, без переприемов), multi-cast (многоабонентская), and broadcast operation. The channelizer is used to employ frequency reuse (spatial diversity) within each band (X/Ka) as well as cross banding between the bands.

Extremely High Frequency (EHF) - The satellite systems operating within the military EHF band are Milstar, UHF Follow-On with EHF (UFO/E), UHF Follow-On with EHF Enhanced (UFO/EE), Fleet-satellite EHF Package (FEP) and the Interim Polar EHF Package (PEP). Each provides robust (устойчивый), survivable, command and control communications to strategic and tactical users. With the exception of PEP, each EHF satellite communications system is in geo-synchronous orbit providing coverage to users from 65 degrees South to 65 degrees North latitude. One PEP satellite in a Molniya orbit (inclined elliptical) provides part-time polar coverage (two seven-hour

communication periods each day) for users at 65 degrees to 90 degrees north latitude.

Ultra High Frequency (UHF) - UHF satellite communication systems provide unprotected tactical communications for joint air, ground and maritime forces and shore stations. The UHF satellites operate in geosynchronous orbits, providing worldwide coverage from 70N to 70S latitude, and consist of FLTSAT 4, 7 & 8 and UHF Follow-On (UFO F2-F10). The satellites are configured with multiple 5 KHz and 25 KHz channels that may be operated as Demand Assigned Multiple Access (DAMA – многостанционный доступ с предоставлением каналов по требованию) channels, Demand Assigned Single Access (DASA) channels or non-DAMA channels. FLTSAT satellites also are configured with a 500 KHz wideband channel sub-divided into 21 - 25 KHz sub-channels.

In addition to the EHF packages discussed above, a number of UFO satellite payloads also support the Ka-band GBS service (UFO F8-F10) as well as an EHF package. A new UFO (F11) is scheduled to be launched in FY 04 and will serve as a “gapfiller” satellite leading to the MUOS that deploys in FY 08. UFO-11 is packaged the same as the previous UFO/EE satellites.

High Frequency (HF) - HF systems operate in the frequency band of 2-32 MHz and provide long haul (дальняя), over the horizon voice and data services at low data rates (up to approximately 19.2 Kilobits per second).

Commercial Systems. Commercial SATCOM is used to augment MILSATCOM systems where MILSATCOM cannot fully support capacity requirements and where protected system features such as those afforded by DSCS and EHF, are not required.

5. Teleport Services

Teleport will provide the interface between the space and terrestrial segments of the GIG. The terrestrial interface includes access to DISN service delivery nodes, non-DISN services and transport of legacy C4I services.

DOD's three-pillared network-centric warfare strategy (Global Information Grid Bandwidth Expansion (GIG-BE), advanced wideband SATCOM systems and Horizontal Fusion (слияние данных)) will pave the way for a new construct known as Tasking (организация прохождения задачи), Posting (запись и отправка информации), Processing, and Use (TPPU). The key to this strategy is the timely distribution of information directly to the warrior before it is assessed (horizontal posting). This will be aided through GIG-BE and future advanced wideband systems that will eliminate bandwidth as a constraint. Information will be available to everyone authorized via the GIG; however, posting before processing is not possible without greatly expanding the level of bandwidth at critical military installations and service delivery nodes.

The overall vision is to remove bandwidth as a constraint by creating high-capacity backbone transport capability to top DOD installations. This backbone will be capable of transporting vast quantities of information, including intelligence data, on a massive fiber-optic network, thereby allowing multiple examinations and interpretations of the content. Through this ubiquitous (повсеместный, общий) process, users at all levels will have access to all the information they need, when they need it.

The GIG-BE is the DOD's effort aimed at creating this high-capacity backbone transport by significantly expanding communications capabilities at military installations worldwide. DOD expects to provide high priority locations

with 10 to 40 gigabits per second in bandwidth capacity by the end of fiscal year 2004 through the GIG-BE.

The second and third elements to the network-centric strategy are advanced wideband SATCOM that will be served by Teleport and horizontal fusion, which through Teleport technology insertion, will focus on improving hardware and software to make information sharing and processing timely and seamless.

6. Teleport Site Terminals

Each Teleport site will have a core complement of terminals to support tactical user requirements. The following terminal types will be available at Teleport sites:

X-band - The Teleport X-band terminal requirement will be satisfied by the existing STEP assets with planned modifications (e.g., frequency converters, modems and new installs) and additional assets supplied by other programs or the Services. No additional specifications for these terminals are required. The terminals supporting DOD Teleport X-band are: AN/FSC-78, AN/GSC-52 and AN/GSC-39.

C-band - Each C-band terminal will be capable of either circular polarization or linear polarization that is remotely switchable. When configured for circular polarization, the C-band transmit and receive functions will be capable of operation on both right-hand circular and left-hand circular polarization simultaneously. When configured for linear polarization, the C-band terminal transmit and receive functions will support both vertical and horizontal polarization simultaneously.

Ku-band - Each Ku-band terminal will be configured for linear polarization and be capable of transmitting on both polarizations (vertical and horizontal) simultaneously.

Each Ku- and C-band terminals will be capable of supporting multiple carriers simultaneously on both transmit polarizations to disadvantaged mobile users. Each terminal will accommodate up to eight on-line up- and down-converter pairs, and the required redundant units. RF combiner/divider configuration and patching (коммутация) will support any combination of up- and down-converters to be simultaneously connected to either polarization.

Ultra High Frequency (UHF). The UHF satellite terminal provides access to UHF military satellite systems. The UHF Teleport terminal is expected to be the ViaSat RT-1828(P)/G. Each Teleport site will have sufficient numbers of these terminals to be capable of supporting a minimum of twenty-one accesses on eight RF channels. It should be noted that the true access requirement at any given time is scenario dependent and based on Service/COCOM UHF requirements. The UHF terminal at DOD Teleports will be Joint Tactical Radio System (JTRS) compliant (совместимый) and interoperable with all legacy UHF SATCOM terminals at data rates and modulation modes contained in the Military Standards.

Ka-band - Ka-band has both a military and commercial segment. In Generation Two, Teleport will support military Ka-band frequencies operating on WGS satellites. The range of frequency support is 30-31 GHz uplink and 20.2-21.2 GHz downlink. Ka-band operation on WGS will use spatial and polarized (left hand/right hand circular) frequency reuse. The terminal that will be installed at Teleport sites supporting Ka-band operation is the Ka Satellite Earth Terminal (Ka-SET). The terminal comes in four variants (V1 (9.1m reflector), V2 (7.3m reflector), V3 (3.8m reflector), and V4 (2.6m reflector)) and can support throughputs up to 150 Mbps. The V1 terminal will be configurable up to 48 up- and 56 down-converters and each

terminal will be provided with eight modems. Six Ka-SET (V1) terminals are being procured and installed by the Army to support WGS at Teleport sites located at CP Roberts, Wahiawa, Landstuhl (2), Lago Di Patria, and Northwest. Installation of terminals will coincide with the launch and deployment of WGS satellites.

WGS is also expected to augment the GBS currently on UFO satellites via either X- or Ka-band. Teleport may be required to support a number of uplinks via WGS in support of the GBS transition from Asynchronous Transfer Mode (ATM) to IP.

Extremely High Frequency (EHF). The EHF terminal that will be installed at Teleport sites is the Navy's EHF shore terminal version – AN/USC-38(V)10 EHF Follow-On Terminal (FOT). The terminal provides simultaneous LDR and MDR access with one asynchronous T-1 port, one 16 Kbps Digital Subscriber Voice Terminal (DSVT) port, and 14 multi-use LDR/MDR ports, each capable of operating at all EHF data rates from 75 Bps up to 1544 Kbps. This terminal operates with a 10-ft diameter antenna.

High Frequency (HF). HF communications support by the Teleport system is an objective requirement and falls outside the capability of all designated Teleport and STEP sites. HF terminals will not reside at any Teleport site although a requirement to support the cross connection between satellite networks and HF networks shall be provided. HF support to the Teleport System will be provided by an extension of the Air Force's High Frequency Global Communications System (HFGCS) assets to Teleport sites.

7. Terminal Equipment Modernization

The satellite terminal configuration for Generation Two will include all military X-band terminals available at STEP sites. The X-band terminal requirements will be satisfied through these existing DSCS assets and a planned program upgrade. No new X-band satellite terminals will be procured as part of the Teleport Program. The AN/GSC-52 modernization program will extend the life cycle of these terminals an additional 15 years. The modernization plan will also upgrade AN/FSC-78 and AN/GSC-39 terminals to a common integrated support package as well as expand the link capacity of each terminal to a maximum of 48 up- and 56 down-converters.

Modulators/Demodulators (Modems) - The satellite modems tactical users will employ in Generation Two support C, X, Ka, Ku, UHF band communications and consist of the following: X, C, Ka, and Ku-bands - MD-1352(P)/U (EF Data SLM-7650 Bandwidth Efficient Modulation (BEM)), OM-73, Harris MD-1030B, SLM-3650, CDM-550T, and the Enhanced Bandwidth Efficient Modem (EBEM, the standard modem for strategic fixed station and Army and Navy tactical terminals beginning in FY 04); UHF – Time Division Multiplexer (TDM)- 1271, (DAMA). EHF uses its own modulation format and the terminal includes the modem functions.

Multiplexers/Processors - The Multiplexer Integration and Digital Communications Satellite Subsystem (DCSS) Automation System (MIDAS - AN/USC-63) is the prime Teleport communications system that provides multiplexing, electronic patching, and analog-to-digital conversions through the use of programmable software configurable via the Operator Interface Unit (OIU). A Teleport operator can program MIDAS dual multiplex/demultiplex circuit cards to software-emulate

(имитировать) any of the following multiplexer functions (FCC-100, LRM, TSSP, ETSSP, T1/E1, FT1, HSM) thus eliminating the need for these external multiplexers. Teleport will support and MIDAS will interface with other external proprietary (фирменный, запатентованный) commercial-off-the-shelf (COTS) multiplexers used by the warfighter such as Promina 800, Switch Multiplexer Unit (SMU), Nextira ST-1000 and Timeplex Link 2+ Smart Multiplexer; external encryption devices such as KIV-19, KIV-7HSB; and external modems such as OM-73, BEM, EBEM, SLM-3650, CDM-550T, and MD-1030B via MIDAS analog and digital I/O interfaces.

Using MIDAS as the electronic patching system, a Teleport operator can easily setup any circuit that requires interface to any combinations of baseband equipment from a single console (via OIU) location, thus eliminating the need for operators to perform time consuming task such as manual patching. Circuits exiting MIDAS can access DISN services by routing to either existing DISN networks (i.e., IDNX, DSN, DVS-G) or with the use of Teleport ATM concentrators (PSAX 2300 and DNE TAC 900) that can access a single network (DATMS). MIDAS will support X, C, Ku, Ka, UHF, EHF, and L band links.

8. Transmission Security (TRANSEC)

Each Teleport will support the full range of bulk encryption (TRANSEC) devices used by the tactical forces. Teleport sites will also separate bundled (связанную, объединенную) encrypted information in preparation for transport to and decryption by end users or service delivery nodes. TRANSEC devices that will be used by the tactical forces are: AN/KG-194, AN/KG-194A, AN/KIV-7 HS, AN/KIV-19, AN/KIV-19A, AN/KG-75 (FASTLANE),

AN/KG-175 (TACLANE), AN/KIV-7 HSB, and AN/KY-99.

9. Timing

The existing DSCS earth terminal sites provide timing with Stratum One Cesium beam that have a reference traceable to Universal Time Coordinated (UTC) standard. All modems, multiplexers, TRANSEC and other baseband equipment timing must be supported by a common time reference source. This is critical to the performance of high capacity, low bit-error-rate sensitive systems. Teleport requires a reliable state-of-the-art timing distribution system with redundancy that supports all required data rates. The Teleport program shall establish an architecture that considers redundancy, robustness, single-point failure mitigation, complexity, primary timing source life cycle, timing accuracy and above all an open architecture solution.

10. Commercial Satellite and Terrestrial Service Support

The Teleport system provides the interface between the space and terrestrial segments of the GIG. Teleports will be a focal point for access to and between commercial satellite leases and DISN backbone service.

Commercial Satellite Services. A 1992 congressional-directed DOD study on the use of commercial SATCOM to support military operations recommended DOD establish a private network on commercial satellites based on a strategy of leased transponders, DOD network management, and COTS earth terminals. An office within DISA was set up and after a number of name changes has become known as the Commercial Satellite Branch (CSB). In response to Office of the Assistant Secretary of Defense (OASD) policy, DISA awarded (сдать подряд на производство) two contract vehicles for commercial SATCOM access, the Managed Transponder Contract

(MTC) and the DISN Satellite Transmission Services-Global (DSTS-G) contract. These transponder leases and bandwidth management contracts are for general-purpose fixed satellite service (FSS) using C- and Ku-band commercial (domestic and international) satellites. These contracts provided the government the option to procure a number of Bandwidth Management Centers (BMCs) or Network Operations Centers (NOCs). A BMC/NOC provides a real-time capability for establishing and managing the operation of DOD terminals on commercially leased transponders. The BMC and NOC combine network planning functionality with monitoring and control functionality similar to that of the Regional SATCOM Support Center (RSSC) and Wideband Satellite Operations Center (WSOC). The management of CSB resources is a complex task that calls for precise communication among the customer, the BMC/NOC, CSB management office, RSSC, Regional Network Operations and Security Center (RNOSC) and DISA field offices.

Terrestrial Services. The DISN is the core terrestrial network of DOD. It is managed and operated by DISA. A large portion of the DISN rides an ATM backbone referred to as the DISN ATM Services (DATMS) network. The DATMS network supports the existing pre-positioned services (e.g., NIPRNET, DSN) connectivity to STEP sites including those designated as Teleport sites.

11. C4I Support

Command, Control, Communications, Computer and Intelligence (C4I) support provided through the Teleport system has a core complement of pre-positioned, seamless DISN services. Teleport must also support other legacy and special interest networks not residing in the DISN core of services.

The Six DISN Services. The DISN supports a standardized set of joint voice, data and video services. These services are SIPRNET, NIPRNET, JWICS, DRSN, DSN and DVS-G and are described below:

Secure Internet Protocol Network (SIPRNET).

SIPRNET is the worldwide network of IP routers (коммутатор-маршрутизатор) that support secret applications. The SIPRNET connection is provided at the Teleport through the Integrated Tactical Strategic Data Network (ITSDN) router port, an Information Assurance (IA) router that connects to an exterior router through Fast Ethernet, or ITSDN ATM DS-3.

Non-secure Internet Protocol Network (NIPRNET).

NIPRNET is the primary unclassified but sensitive network supporting the deployed forces. NIPRNET is a worldwide network of unclassified IP routers that support unclassified applications. The NIPRNET connection is provided at the Teleport through the ITSDN router port, an IA router that connects to an exterior router through Fast Ethernet, or ITSDN ATM DS-3.

Joint Worldwide Intelligence Communications System (JWICS).

JWICS is a worldwide network that provides video teleconferencing and data at the Sensitive Compartmented Information (SCI) level. The data port of JWICS supports applications such as the Joint Deployable Intelligence Support System (JDISS) and the Enhanced Tactical User Terminal (ETUT). JWICS is managed by the Defense Intelligence Agency. JWICS support will not be enhanced above STEP capabilities to meet Teleport throughput and access requirements. Therefore, Teleport will for the time being only support 3 Mbps (two T1s) to four primary users and four secondary users using Promina multiplexers. Augmentation of JWICS user links and capacity may,

however, develop in parallel with existing implementation of JWICS conversion to ATM.Defense Red Switch Network (DRSN).

DRSN is the primary secure voice network supporting DOD secure voice requirements. Tactical DRSN support is provided through Teleport from a remote DRSN switch with up to twelve 56 Kbps drops and a T-1 for trunking to a deployed red switch. While not being provided by Teleport in Generation Two, the ability to transfer or switch secure/non-secure (Red/Black) voice and data between DSN/Public Switched Telephone Network (PSTN) and DRSN is possible with a Radio Wireline Interface (RWI) such as located at the NCTAMS.

Defense Switch Network (DSN).

DSN is the digital, military closed system version of the PSTN with added features such as Multi-Level Precedence and Preemption (MLPP). DSN also provides a bridging capability between PSTN and DSN subscribers. It provides voice, video and data services, end-to-end common user and dedicated telephone service, voice-band data, and dial-up Video Teleconference (VTC) service. Access to DSN is via one of two methods: Extended Local Loops or Digital Trunking Group (DTG) on a digital Private Branch Exchange (PBX) or SMU via a Tactical Switching System (TSS). The Switch Multiplexer Unit at the Teleport acts as a multi-functional DSN switch.

DISN Video Service – Global (DVS-G).

DVS-G is a VTC system that will provide dedicated service to the tactical user. Each Teleport site will have up to 5 T-1s with each T-1 supporting 5 dedicated links to a serving DVS-G hub resulting in an overall VTC support capability of 25 user ports.

Other Services

The six DISN services will be the only services pre-positioned at the Teleport. Other required combat networks and services will be provisioned through either GIG transport or a Community of Interest Service (CoIS). CoIS is expected to provide Quality of Service (QoS) through GIG bandwidth expansion, interconnection to an Internet Service Provider (ISP), interoperability to emerging coalition networks, and support rapid provisioning of new services. A number of CoISs will be required in Generation Two and include the Joint Service Intelligence Processing System – Navy (JSIPS-N) Combined Architecture (JCA), Interim Secure Voice Network (ISVN), Coalition Enterprise Tactical Information Exchange System (CENTRIXS) and Defense Message System (DMS) Transition Hub (ядро сети) (DTH) legacy messaging system.

12. Operations Concepts

Joint Operations Support - Military operations take place in a global threat environment of regional conflicts that are unpredictable in location, time, duration, and intensity. Teleports must support the operations of all components of a JTF and those other forces operating independently. Teleports will also support day-to-day operational, administrative, logistic and Joint/Service level training requirements.

Joint Task Force Operations - Executing Joint Force command poses significant problems in information management, as it does in carrying out other difficult and complex combat tasks. The fundamental objective of JTF communications systems is to get the critical and relevant information to the right place in time to allow forces the opportunity to meet the objectives of assigned missions across a range of military operations. Teleport will provide

a pivotal (главный) role in providing C4I support to the JTF and its components. The medium and high-capacity Command and Control (C2), intelligence, combat support, and logistics networks, circuits, and trunks (межстанционные магистральные соединительные линии) that support JTF elements, and provide connectivity to their sustaining base(s) will be provisioned through Teleport. Key aspects of JTF connectivity will be to provide reach back into the DISN via Teleport for access to DISN services, legacy networks or connectivity to coalition networks.

Army Operations - Army forces are the decisive component of land warfare in joint and multinational operations. As articulated in the Army Vision («Перспективы развития Армии»), "The spectrum of likely operations describes a need for land forces in joint, combined and multinational formations for a variety of missions extending from humanitarian assistance and disaster relief to peacekeeping and peacemaking to major theater wars, including conflicts involving the potential use of mass destruction. They will provide to the Nation an array of deployable (своевременное развертывание в районы оперативного предназначения), agile (высокая маневренность на всех уровнях действий), versatile (универсальность применения войск/сил), lethal (достаточная для ведения любого рода действий поражающая сила формирований), survivable (значительная живучесть на поле боя), and sustainable (способность к ведению длительных действий) formations, which are affordable and capable of reversing the conditions of human suffering rapidly and resolving conflicts decisively." To meet the challenges of the future, the Army will transform to an objective force («целевые силы») that is strategically responsive (быстрого

реагирования на изменения обстановки) and dominant at every point on the spectrum of operations.

The Objective Force (CB США нового типа, после проведения реформирования) must be responsive, deployable, agile, versatile, lethal, survivable, and sustainable. The Objective Force will be responsive from the perspective of time, distance, and sustained momentum. This unprecedented level of responsiveness increases strategic options and may facilitate shutting down crisis before they cross the irreversible thresholds of war. It will be capable of quickly and rapidly concentrating combat power in an operational area. The Army goal is to deploy a brigade combat team anywhere in the world in 96 hours after liftoff, a division on the ground in 120 hours, and five divisions in theater in 30 days. The Objective Force will be mentally and physically agile to quickly transition among the various types of operations. It will possess the inherent versatility to operate effectively anywhere on the spectrum of military operations without substantial augmentation to perform diverse missions within a single campaign. The Objective Force will be capable of generating lethal combat power and contributing decisively to the fight, whenever deployed and from every element in the warfighting formation. It will be linked to its inherently offensive orientation, as well as its speed and lethality, virtually always operating on the move. It will take advantage of technologies that provide maximum protection at the individual soldier level, on or off platforms. The Objective Force will organically sustain itself for 3 days of high tempo operations without replenishment from external sources in continuous combat in mid to high intensity conflict or be self-sustained for up to 7 days in low-end conflict and peacetime military engagement. This means that the Objective Force will deploy fewer vehicles and leverage

combat service support reach capabilities that allow commanders to reduce stockpiles in theater while relying on technology to provide sustained velocity management and real time tracking of supplies and equipment.

Objective Force units will conduct operational maneuver from strategic distances, creating diverse, manifold (многочисленный) dilemmas for adversaries by arriving at multiple unimproved points of entry (не используемые ранее районы прорыва позиций противника), forcibly if necessary, rapidly overwhelming (подавлять) any anti-access defenses and decisively attacking and defeating the center of gravity of any adversary. Objective Force units will arrive in the theater of operations immediately capable of conducting simultaneous, distributed and continuous, decisive combined arms operations, day and night, in open, close, complex, and all other terrain and environmental conditions, throughout the battlespace. Objective Force operations will be characterized by developing situations out of contact; maneuvering to positions of advantage; engaging enemy forces beyond the range of their weapons; destroying them with precision fires and, when necessary, by tactical assault at times and places of our choosing. To achieve these results, Objective Force formations must *see first, understand first, act first and finish decisively*.

The Objective Force is an information-based force whose success depends on the ability to achieve information superiority and decision superiority. The ability to maneuver from strategic distances, operate rapidly over large areas, employ precision effects, and sustain the force from great distances are all based on the ability to move information in which the Army will rely on the Warfighter Information Network – Tactical (WIN-T).

WIN-T will be the integrating communications network for the Objective Force, optimized for offensive and joint operations, while providing the theater combatant commander the capability to perform multiple missions simultaneously with campaign quality. WIN-T is the Objective Force high-speed and high-capacity communications network of which Teleport will play a major role. It will be focused on moving information in a manner that supports commanders, staffs, functional units, and capabilities-based formations—all mobile, agile, lethal, sustainable, and deployable. WIN-T will be modular in design, scaleable (гибкий, приспособляемый) to users' requirements, and capable of adapting (task reorganization) to the evolution of the war fight. WIN-T will make the most effective use of bandwidth and adventitious use of spectrum. WIN-T interfaces with a combination of terrestrial, airborne, and satellite-based transmission systems to provide robust (устойчивый) multi-layer connectivity supporting operational maneuver from strategic distances. WIN-T will be a Joint Technical Architecture (JTA)-compliant, commercial standards-based network capability that is easy to upgrade (insert new technologies), operate, maintain, manage, and train. WIN-T is comprised of network infrastructure (e.g., integrated and/or embedded switching, routing, and transmission systems), network operations (Network Management (NM), IA, IDM), network services (e.g., naming, addressing, and user profiles), and user interfaces that provide voice, video, and data services throughout the battlespace. WIN-T will be interoperable with Army legacy, Interim Force (переходные силы в ходе реформы), Joint, Allied, and Coalition systems. WIN-T is the Army's deployed tactical portion of the GIG connected through DOD Teleports providing connectivity to the DISN, SIPRNET, NIPRNET, JWICS, VTC, DSN, Integrated

Services Digital Network (ISDN), etc., services. WIN-T is capable of transporting Top Secret/Sensitive Compartmented Information (TS/SCI), information previously supported by TROJAN SPIRIT (SATCOM system), with modernized, state-of-the-art equipment. WIN-T is capable of transporting unclassified information and will be the replacement architecture for logistical communication systems (e.g., Combat Service Support Automated Information Systems Interface [CAISI] or web-based logistics).

Navy Operations - A new doctrine, *Sea Power 21* (SP21) will rely on information superiority and dispersed, networked maritime forces to deliver unprecedented offensive power, defensive assurance, and operational independence to future maritime and joint force commanders. SP21 consists of three fundamental concepts: Sea Strike, Sea Shield, and Sea Basing. Sea Strike is the ability to project (бросать вперед) precise and persistent offensive power from the sea. Sea Shield extends defensive assurance throughout the world. Sea Basing enhances operational independence and support for the maritime or joint force.

The operational construct and architecture for binding Sea Strike, Sea Shield, and Sea Basing into a network-centric warfare capability is FORCEnet (Fn). Fn is expected to integrate warriors, weapons, sensors, networks, decision aids, and platforms into a highly adaptive, fully netted combat force. The successor to the Navy's initial attempt at afloat networking, Information Technology for the 21st Century (IT-21), Fn will continue the process of linking afloat C4I systems with supporting applications ashore. In concert with the Navy – Marine Corps Intranet (NMCI), Fn is expected to become a major contributor to the GIG. Teleport is vital to Fn and its overarching doctrine, SP21, as

they provide the seamless (непрерывный, легко интегрируемый) bridge between maritime forces, joint forces, and tactical decision support centers ashore.

Marine Corps Operations - Marine Corps operating forces are organized into Marine Air-Ground Task Forces (MAGTF) such as Marine Expeditionary Forces (MEF), Marine Expeditionary Brigades (MEB), or Marine Expeditionary Units (MEU). The MAGTF conducts expeditionary operations across the full spectrum of conflict. Expeditionary Maneuver Warfare (EMW) (боевые действия на удаленном ТВД) is the capstone operational concept (документ, регулирующий действия Корпуса Морской Пехоты) of the Marine Corps. It consists of two main components: Operational Maneuver from the Sea and Sustained Operations Ashore. *Operational Maneuver From The Sea* (OMFTS) is the concept of deploying an expeditionary force from an amphibious strike force (десантные ударные силы). Marines operating from a sea base will move to their objective area in accordance with the Marine Corps' *Ship To Objective Maneuver* (STOM) concept. *Sustained Operations Ashore* (SOA) is the concept that describes operations that are a component of a sustained land campaign. These operations are characterized by a build-up phase (стадия наращивания, сосредоточения сил и средств) and may require significant reach-back support through the GIG as the force is deployed. When engaged in operations, the Marine Corps prosecutes the campaign at a high tempo, requiring flexible and reliable support to the GIG to access and share critical information, as well as conduct command and control. Major commands conducting SOA will have the requirement to access the Teleport in the RF bands available to them: for the MAGTF Command Element – SHF and EHF; for the Marine Air Wing – SHF; for the Marine Division – EHF and SHF; and

for the Force Service Support Group (FSSG) – SHF. As a highly mobile force, Marine communications and information systems must be robust, flexible and expeditionary (высокоскоростной, быстрый). When embarked (находясь в море), Marine Corps units will receive C4I support from sea based support ship(s). Marine Corps implementation of C2, based on a ground maneuver warfare philosophy, demands a flexible C2 system that can support rapid decision-making and execution to create and maintain high tempo operations.

Air Force Operations - Command and control of Air Expeditionary Forces (AEF) depends on the exploitation of information. Achieving information superiority mandates universal connectivity between garrison and deployed forces, combatant commands, supporting elements and coalition forces. This universal connectivity requires redundant and diverse communication links for survivability. The objective of the Air Force's AEF concept is to present relevant force packages that are tailored to meet a wide range of potential contingencies anytime, anywhere.

Airborne platforms will require sufficient communications to support en-route planning and re-targeting. AEF will deploy ground and air command elements and weapons systems with the ability to maintain battle space and situational awareness, disseminate commander's courses-of-action, conduct en-route mission planning and dynamic re-tasking, and maintain continual and secure communications for collaboration with higher headquarters, lateral units and C4ISR entities. Air Force will use Teleport to provide both initial entry and sustaining operations communications to support in-theater and en-route operations and to provide crucial diverse and redundant reach-back to deployed and distributed (split-based) operations. The AEF will use a combination of

interconnecting Theater Deployable Communications (TDC), TRI-TAC, and Integrated Communications Access Package (ICAP) switching nodes for voice, data and video service. The Air Force common user network and command and control architecture requires Air Operations Centers and other deployed command and control centers to be connected to at least two Teleport sites in a MTW or SSC down to a force size not capable of supporting multiple links.

Joint Communication Support Element (JCSE) -

The JCSE is controlled and managed by the Joint Force Command (JFCOM) and is trained, organized and equipped to provide communications support to a deployed JTF/Joint Special Operations Task Force (JSOTF) headquarters. The Combatant Commander (CC), Commander Joint Task Force (CJTF) or JSOTF request JCSE support from the Joint Staff for contingencies and JFCOM for exercises. JCSE provides the JTF/JSOTF headquarters tactical connectivity to Teleport system gateways as well as connectivity to the communications nodes of deployed component forces.

Special Operations Forces (SOF) -

SOF elements operate independently or in conjunction with conventional forces in a variety of missions. Each element relies on satellite communications and in joint operations requires multi-service integration and, when applicable, coalition force integration. It is the mission of USSOCOM to provide special operations forces to the national authorities, regional combatant commanders, and American ambassadors and their country teams for successful conduct of worldwide special operations, civil affairs, and psychological operations during both peace and war.

SOF units provide a rapid power projection (бросать вперед) capability. As such, their mission planning timeline is often reflected in hours versus days. SOF planners at

multiple levels and locations need instant access to common intelligence and mission planning data repositories, and the ability to collaboratively share this information while developing operational plans. Planners at multiple dispersed locations need the ability to interact verbally and visually (graphic display, touch screens, whiteboards, video teleconferencing). Future decision support systems will help planners quickly analyze, prioritize, and act on information in the planning data repositories (банк данных). As operational plans evolve, SOF planners need rehearsal tools to accurately evaluate developed plans. Future 3-D multi-sensory virtual environment technologies will enhance mobile rehearsal realism. For extremely short-fused missions, special operators require the capability for planning, analysis and rehearsal while en-route with immediate execution on arrival to the target area.

Special operations teams and aircraft must be able to dominate in limited time and space, faster and smarter than any potential adversary. USSOCOM execution forces need real/near real-time situational awareness, reach-back connectivity to supporting headquarters for support and mission direction, and effective inter-team coordination. SOF personnel need seamless integrated intelligence information. Uninterrupted and secure information flow should be bi-directional from highest levels to the deployed SOF teams or aircrews. Instant access to the common operational picture, target imagery, threat databases, and national intelligence sensors are vital to assure mission success. SOF aircrews and ground teams must have the capability of receiving finished (обработанный, готовый) intelligence products from national, strategic and tactical systems through all phases of an operation in real/near real-time fashion. In some cases, raw data feeds from national systems may be required. The intelligence information must

be tailored in a useable form that can be manipulated and allow for full exploitation, use, and further dissemination, if required. Tailoring intelligence to operator requirements will prevent overloading the operator and the communication links with needless information. Interlocking base stations provide a robust support system for operational elements that must tie into the DISN through Teleport. The design provides for a team to deploy anywhere in the world and always be connected to at least two base stations.

Homeland Defense - As a Combatant Commander, USNORTHCOM will leverage the transformational doctrine and systems provided by all Services into a cohesive approach applicable to the unique challenges of Homeland Defense (HLD). For HLD, it is critical that the transformed forces of each individual service are fully interoperable and interconnected, cohesive, always available, and able to conduct rapid and decisive operations with distributed combined, allied, or joint forces. USNORTHCOM total force includes the Active Force structure, Reserves and National Guard (both as Title 10/Title 32). Those parts of Service force structure and doctrine that are developed to support global warfighting must easily translate to support homeland defense throughout USNORTHCOM's theater of operations.

HLD forces, made up of air, land and maritime components, must operate in a joint and interagency (межведомственный) environment across a diverse range of operations. USNORTHCOM must have a C4ISR architecture that integrates and allows interoperability between traditional DOD (active and reserve forces), the National Guard (54 states and territories), Homeland Security (HLS) inter-agencies, Federal, State and Local Agencies, and First Responders (экстренная служба

спасения 911). Such diversity requires a C4ISR architecture that is responsive, deployable, scalable, agile, versatile, survivable and sustainable. The HLD force, whether a two person LNO (liaison officer) contingent or a full Joint Task Force (JTF)/Response Task Force (RTF) must arrive in the area of operations ready to conduct simultaneous, distributed, continuous, and decisive operations, day and night, in open, close, complex terrain and environmental conditions, while able to freely exchange information horizontally and vertically. Such real time information sharing will enable collaborate planning, improved situational awareness and pattern development across the area of responsibility. USNORTHCOM must have robust net-centric connectivity among all elements of the Combined or Joint Force, supporting data bases, and other resources that provides the dissemination of commander's intent, shared situational knowledge, feedback and assessment. USNORTHCOM will move information through a combination of terrestrial, wired or wireless systems, airborne, and satellite-based transmission systems to provide robust multi-layer connectivity supporting operational maneuver from strategic distances.

Communications support must be dynamic and seamlessly integrated to ensure continuity of mission support regardless of the communications system being used by individual elements (terrestrial, wireless, commercial satellite communications, satellite based narrowband, protected or wideband). Data rates must support the range of operations from voice to data to ISR support. Communication systems such as Teleport must link the operator in the field, to the operator or commander moving from scene to scene, whether on air, land, or sea. At the Combatant Commander level, USNORTHCOM will have a mobile communications platform, serving as a deployable

HQ. This platform must have continuous communications connectivity while moving from location to location. Communications support must include high data rate exchanges for situational awareness, ISR, classified/unclassified connectivity, voice and video networks. Homeland Defense forces will use Service systems, air, ground, and maritime, which are multi-band capable, enable communications on-the-move, both LOS and BLOS, enable seamless bridging to terrestrial, wireless or satellite systems. It is critical for HLD forces (including Title 10/32 National Guard) to have the ability to be fully integrated and interoperable with active duty DOD forces.

13. Global Connectivity

DOD Teleport System will provide the user worldwide access to the global information infrastructure for connectivity to DISN and non-DISN network services (e.g., CoIS). The operating forces require high-quality, specialized support anywhere in the world to any size or type of force. In addition, joint and combined task force operations require full horizontal and vertical communications support. Users must be provided access to voice, data, and video service without regard to geographic location (fixed, mobile, or deployed), organizational placement or shore node capacity. Small, light, and very reliable telecommunications and processing equipment, such as commercial mobile satellites services using low, medium, and high-earth orbiting satellites, must be accessible from and through Teleport.

In conjunction with Teleport providing global connectivity to a variety of satellites systems, there is the requirement for the GIG to provide on-demand seamless connectivity to both fixed and deployed users. Mobile systems must maintain connectivity on the move to meet

Service and JTF requirements in all combat environments. As a major component of the GIG, the Teleport system must support seamless intra and inter regional communications on the move. In order to provide this service, adequate communications planning support must be provisioned, with the goal of reducing the burden on the operational user.

Cross-linking between bands is a priority for Teleport, especially in the EHF band. The on orbit cross-link capability of Milstar can be further enhanced with the relay (a form of M-Hop) of satellite cross-link bandwidth through Teleports to fill an existing or unplanned gap in the constellation.

Glossary

Access. An individual, one-way transmission of a signal carrying user information through a communications satellite. As an example, a full duplex transmission between two individual sites would be two accesses. A simplex broadcast from a central location to multiple receive locations would be a single access. Also, the right to enter a SATCOM network and make use of communications payload resources.

Allocation. The operational real-time assignment of SATCOM communications payload resources to an approved user to activate a communications link or network.

Availability. Availability is the measure of the degree to which a system is operable and capable of initiating a mission at an unknown (random) time. Availability defines the percentage of time that a system or item of equipment is operational in accordance with a minimum set of prescribed operational or functional specifications or criteria. Space segment availability reflects the space segment's ability to

meet the threshold set of communications requirements as a function of the connectivity key parameter.

Broadcast. One-way transmission from a single, uplink source to an area or earth coverage downlink listening area.

Capacity. (1) A transport throughput or (2) the number of accesses that a communications system is capable of providing.

C band. The portion of the radio frequency spectrum between 4 and 8 Gigahertz (GHz)

Combatant Command. One of the unified or specified commands established by the President.

Commercial Satellite Communications. The satellite communications resources provided by commercial entities using commercial frequencies.

Compatibility. Capability of two or more items or components of equipment or material to co-exist or function in the same system or environment without mutual interference.

Connectivity. The ability to provide the requisite magnitude of the demanded types of protected and unprotected throughput communications services to the target user terminal populations as dispersed and/or concentrated within the deployed geographic areas. Connectivity encompasses coverage in terms of the physical geometry between the satellite, the earth, and the user terminal population and capacity in terms of the relative data throughput.

Control. Control of a network resource implies an ability to monitor the resource, but also includes the ability

to manipulate the functioning of that resource or to allocate it to a specific use.

Coverage. The portion of the earth's surface over which SATCOM services are provided.

Crossband. The practice of transmitting a signal to a satellite in one frequency band (e.g., SHF) and re-transmitting the signal to a terminal in another frequency band (e.g., Ka). Crossband should not be confused with the normal frequency translation performed by communications satellite transponders.

Demand Assigned Multiple Access (DAMA). A practice of multiple users sharing common bandwidth and interface to service delivery nodes ashore. Primary application of DAMA is in the UHF spectrum. UHF DAMA, through the use of TDMA, enables many users to efficiently time-share a common UHF SATCOM channel.

Defense Information System Network (DISN). A network of communications paths that support information transfer within the DOD.

Distant Component. A component (i.e. earth terminal) of the TELEPORT System separated geographically from the TELEPORT core site.

Distributed Common Ground System (DCGS). An ISR system of systems that connects geographically separated fixed and deployable ISR ground stations. The DCGS will simultaneously task, receive, process, exploit, and disseminate data from national, theater, tactical, and commercial collection assets in a distributed environment. The DCGS will support national, joint, combined, and AF operations.

EHF. Extremely High Frequency. The portion of the radio frequency spectrum between 30 and 300 Gigahertz (GHz).

Gateway. A ground station that acts as a relay between satellites in a system.

Global Coverage. Coverage of all latitudes and longitudes.

Global Information Grid (GIG). A globally interconnected, end-to-end set of information capabilities, associated processes, and personnel for collecting, processing, storing, disseminating, and managing information on demand to warriors, policy makers, and support personnel. The GIG includes all owned and leased communications and computing systems and services, software (including applications), data, security services, and other associated services necessary to achieve Information Superiority.

HF (High Frequency). The portion of the radio frequency spectrum between 3 and 30 Megahertz (MHz).

High Data Rate (HDR). Rates greater than 2.048 Mbps.

High Frequency Global Communications System (HFGCS). HFGCS is a worldwide HF communications network consisting of a Central Network Control Station at Andrews AFB remotely operating 15 worldwide HF stations. It provides 24/7 voice and data services support to all authorized US government, DOD and Allied users on a priority basis. The system uses the SCOPE Command platform to provide Automatic Link Establishment (ALE), secure narrowband voice, Dual Tone Modulated Frequency-Remote Access (DTMF-RA), NOVA and AUTODIN injection, and both classified and unclassified HF email

(NOTE: SCOPE is the nickname for HF USAF programs usually connected with communications).

Interoperability. The condition achieved among communications-electronics systems or items of communications-electronics equipment when information or services can be exchanged directly and satisfactorily between them and/or their users. The degree of interoperability should be defined when referring to specific cases.

Joint Technical Architecture (JTA). The JTA provides DOD systems with the basis for the needed seamless interoperability. The JTA defines the service areas, interfaces, and standards (JTA elements) applicable to all DOD systems, and its adoption is mandated for the management, development, and acquisition of new or improved systems throughout DOD. The JTA consists of two main parts: the JTA core, and the JTA Annexes. The JTA core contains the minimum set of JTA elements applicable to all DOD systems to support interoperability

Ka band. The portion of the radio frequency spectrum between 27 and 40 Gigahertz (GHz).

Ku band. The portion of the radio frequency spectrum between 12 and 18 Gigahertz (GHz).

L band. The portion of the radio frequency spectrum between 1 and 2 Gigahertz (GHz).

Legacy Systems. Systems that are being replaced by modern common user functional systems.

Link. A general term used to indicate the existence of communications between two points.

Low Data Rate (LDR). Data rates falling between 75 Bps and 19,200 Bps.

Medium Data Rate (MDR). Rates greater than 19,200 Bps up to and including 2.048 Mbps (E1) including voice grade circuits.

Military Satellite Communications. The satellite communications resources that are owned and operated by DOD primarily in the government frequency bands.

Multiple-Hop (M-Hop). also referred to as **relay**, is the practice of receiving a transmitted signal from one segment of a satellite system and transmitting it on another segment of the same satellite system. Relay within the same band will allow a deployed user to communicate with other users on the same satellite system on different satellites. The need to provide M-Hop service could be the result of end user locations, satellite coverage limitations, or equipment limitations in the field. M-Hop relay will be accomplished within the DOD Teleport at the baseband and/or IF levels.

Narrowband. Encompasses data rates less than 64 kilobits per second.

North Atlantic Treaty Organization (NATO) Wide Area Network. IP network used to support NATO releasable information between U.S. forces and NATO in support of exercises, operations and contingency planning.

Network Control. Network control is the ability to plan and effectively manage user accesses to satellite communications capabilities. It encompasses the techniques and procedures over networks, terminals, satellites, and up/downlinks to effectively plan, monitor, control, and configure/reconfigure those assets in dynamic response to user needs while optimizing the overall throughput of the satellite.

Network Manager. A combatant command, component, or other organization that uses or manages a SATCOM apportionment and allocation. The network manager has operational control over the communications payload as defined by the CJCS-provided apportionment.

Network. A communications service of terminals connecting users to provide a particular communication function.

On-call. Links in which the capability to transfer information is not continuously provided throughout the day. Rather, telecommunications sessions supporting information transfer sessions are activated and released on-demand as needed throughout the day.

Point-to-Multipoint. Service from a hub or other location to multiple remote sites, which select and acknowledge data.

Point-to-Point. Uni-directional or bi-directional transmission from one point to another.

Reachback. A satellite link from a deployed location to an RF Entry (i.e. STEP, Teleport, NCTAMS) that provides access to base or post voice, video or data services.

Relay. The retransmission of a received signal in the same information format in which it was received.

Satellite Communications (SATCOM). The term SATCOM includes military satellite communications, and DOD use of commercial, allied and civil satellite communications.

SATCOM Command and Control (C2) Centers. The operations centers responsible for satellite control and payload control execution.

Simplex. One-way transmission through the satellite. Consists of the uplink signal, actions of the satellite on the signal and the downlink.

Terminal. When referring to X- and Ka-band ground SATCOM terminals operating over the WGS satellites, includes all system and subsystem components including modems and antennas.

UHF. The portion of the radio frequency spectrum between 0.3 and 3 Gigahertz (GHz). Also a portion of the frequency spectrum between 225 and 399.95 Megahertz (MHz) assigned to the U.S. military.

Voice over Internet Protocols (VoIP). The practice of transporting digital voice channels over networks using Internet Protocols.

Wideband. Encompasses data rates greater than 64 Kbps per second.

Worldwide Coverage. Coverage between 65 degrees North and 65 degrees South latitude and at all longitudes.

X band. The portion of the radio frequency spectrum between 8 and 12 GHz although in military satellite systems it's the frequency spectrum between 7.25 and 8.49 GHz.

Acronyms

ADNS - Automated Digital Network System

AEF - Air Expeditionary Forces

AEHF - Advanced Extremely High Frequency

AF/XOIR - Air Force/Surveillance and Reconnaissance

AOC - Air Operations Center

AOR - Area of Responsibility

ARSPACE - Army Space Command

AS - Autonomous System

ASD/C3I - Assistant Secretary of Defense/Command, Control, Communications, and Intelligence

ATM - Asynchronous Transfer Mode

AUTODIN - Automatic Digital Network

AWS - Advanced Wideband System

AWT - Advanced Wideband Terminal

BDA - Battle Damage Assessment

B-GAN - Broadband Global Area Network

BLOS - Beyond Line of Sight

C2 - Command and Control

C3I - Command and Control Communications and Intelligence

C4 - Command and Control Communications and Computers

C4I - Command and Control Communications, Computers, and Intelligence

C4ISR - Command and Control Communications, Computers, Intelligence, Surveillance, and Reconnaissance

CJCS - Chairman of the Joint Chiefs of Staff

CJTF - Commander, Joint Task Force

COE - Common Operating Environment

CoIS - Community of Interest Service

CONEX - Contingency and Exercise

COTS - Commercial-Off-The-Shelf

DAMA - Demand Assigned Multiple Access

DCGS-A - Distributed Common Ground System-Army

DCSS - Digital Communications Satellite System

DISN - Defense Information System Network

DMS - Defense Message System

DRSN - Defense Red Switched Network

DSCS - Defense Satellite Communications System

DSN - Defense Switched Network

DVS - DISN Video Service

DVS-G - DISN Video Service-Global
DWTS - Digital Wideband Transmission System
FAB-T - Family of Advanced BLOS Terminals
FEP - Fleet-satellite EHF Package
FOC - Full Operating Capability
FOT - Follow On Terminal
FY - Fiscal Year
GBS - Global Broadcast Service
GCS - Ground Control Station
GIG - Global Information Grid
GIG-BE - Global Information Grid Bandwidth Expansion
GMF - Ground Mobile Forces
GOTS - Government-Off-The-Shelf
GSSC - Global SATCOM Support Center
HDR - High Data Rate
HEMP - High Altitude Electromagnetic Pulse
HSD - High Speed Data
IA - Information Assurance
ICAP - Integrated Communications Access Package
IDM - Information Dissemination Management
IF - Intermediate Frequency
Inmarsat - International Maritime Satellite
INMS - Integrated Network Management System
IO - Information Operations
IP - Internet Protocol
ISR - Intelligence, Surveillance and Reconnaissance
ITSDN - Integrated Tactical to Strategic Data Network
JCSE - Joint Communication Support Element
JFC - Joint Force Commander
JFCOM - Joint Force Command
JROC - Joint Requirements Oversight Council
JSIPS-N - Joint Service Intelligence Processing System -
 Navy
JSOTF - Joint Special Operations Task Force

JTA - Joint Technical Architecture
JTF - Joint Task Force
JTRS - Joint Tactical Radio System
JWICS - Joint Worldwide Intelligence Communication System
KPP - Key Performance Parameter
LMA - Link Multiplex Assembly
LMST - Lightweight Multi-band Satellite Terminal
LDR - Low Data Rate
M&C - Management and Control
MAGTF - Marine Air Ground Task Force
MCO - Major Combat Operation
MDR - Medium Data Rate
MDU - Mission Data Update
MEB - Marine Expeditionary Brigade
MEF - Marine Expeditionary Force
MEU - Marine Expeditionary Unit
M-Hop - Multiple Hop
MILDEPS - Military Departments
MILSATCOM - Military Satellite Communications
MTW - Major Theater War
MUOS - Mobile User Objective System
NCTAMS - Naval Computer and Telecommunications Area Master Station
NIPRNET - Unclassified-but-Sensitive Internet Protocol (IP) Router Network
NOC - Network Operations Center
OMFTS - Operational Maneuver from the Sea
PAC - Pacific
PEP - Polar EHF Package
PEP - Performance Enhancing Proxy
PIP - Planned Improvement Program
PIP - Primary Injection Point
PoP - Point of Presence

PSTN - Public Switched Telephone Network
QoS - Quality of Service
RFS - Request For Service
RNOSC - Regional Network Operations and Security Center
RSSC - Regional SATCOM Support Center
SAA - Satellite Access Authorization
SAR - Satellite Access Request
SATCOM - Satellite Communications
SBCT - Stryker Brigade Combat Team
SCI - Sensitive Compartmented Information
SDN - Service Delivery Node
SIPRNET - Secret Internet Protocol (IP) Network
SOCOM - Special Operations Command
SOF - Special Operations Forces
SP21 - Sea Power 21
SSC - Small-Scale Contingency/Conflict
SSC - SATCOM Support Center
STEP - Standardized Tactical Entry Point
STOM - Ship to Objective Maneuver
SYSCON - System Control
TDMA - Time Division Multiple Access
TDC - Theater Deployable Communications
TDN - Tactical Data Network
TOC - Tactical Operations Center
TPPU - Tasking, Posting, Process and Use
TRANSEC - Transmission Security
TRI-TAC - Tri-Service Tactical
TT&C - Telemetry, Tracking and Control
TUAV - Tactical Unmanned Aerial Vehicle
UA - Units of Action
UAV - Unmanned Aerial Vehicle
UE - Units of Employment
UFO - UHF Follow-On

USSPACECOM - United States Space Command
USSTRATCOM - United States Strategic Command
VCI - Virtual Circuit Indicators
VoIP- Voice over Internet Protocol
VS - Video Services
VTC - Video Teleconference
WAN - Wide Area Network
WGS - Wideband Gapfiller System
WIN-T - Warfighter Information Network-Tactical

APPENDIX

№1 АНГЛИЙСКИЙ ФОНЕТИЧЕСКИЙ АЛФАВИТ

A	Alpha	Альфа	N	November	Новембер
B	Bravo	Браво	O	Oscar	Оскар
C	Charlie	Чарли	P	Papa	Папа
D	Delta	Дельта	Q	Quebec	Квебек
E	Echo	Экоу	R	Romeo	Ромео
F	Foxtrot	Фокстрот	S	Sierra	Сьерра
G	Golf	Гольф	T	Tango	Танго
H	Hotel	Хоутел	U	Uniform	Юниформ
I	India	Индия	V	Victor	Виктор
J	Juliet	Джультет	W	Whiskey	Уиски
K	Kilo	Кило	X	X-ray	Экстрэй
L	Lima	Лима	Y	Yankee	Янки
M	Mike	Майк	Z	Zulu	Зулу

№2 ОСНОВНЫЕ ЕДИНИЦЫ ИЗМЕРЕНИЯ

acre	ac	акр	4047 кв.м
barrel	bbl	баррель	115,6 л (США)
barrel (oil)	bbl (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; lgt	тонна (большая, длинная)	1016 кг
ton (net, short)	shtn;s.t,	тонна (малая, короткая)	907,2 кг
yard	yd	ярд	0,914 м

№3 ВОИНСКИЕ ЗВАНИЯ В ВООРУЖЕННЫХ СИЛАХ США

Офицерский состав

ARMY	AIR FORCE	NAVY	MARINE CORPS
General of the Army – генерал армии (wartime)	General of the Air Force - генерал BBC (wartime)	Fleet Admirall - 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 - командер	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 Lieutenant - второй лейтенант	Second Lieutenant - 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
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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 1класса	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 авиации	Petty Officer, Third Class - старшина 3 класса	Corporal - капрал
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

АНГЛО – РУССКИЙ СЛОВАРЬ ВОЕННЫХ ТЕРМИНОВ

acquisition	определение местоположения; обнаружение, захват и сопровождение (цели)
acquisition radar	РЛС обнаружения цели
active [fulltime military] duty	действительная военная служба
active air defense (AD)	активная ПВО
Active Army	личный состав армии на действительной военной службе
active federal service	действительная служба в федеральных войсках
administration (admin)	[административно- хозяйственное] управление; управление тылом
advance guard	авангард; головной отряд
aerial	воздушный
aerospace defense	воздушно-космическая оборона (ПВО, ПРО, ПКО)
agent	вещество; боевое вещество
A-hour	время начала ядерной подготовки
air (airborne) target	воздушная цель
air (in flight) refueling	дозаправка в воздухе
air assault division (air aslt div)	воздушно-штурмовая дивизия
air attack	воздушное нападение
air burst	воздушный взрыв
air command	авиационное командование
Air Component Command	Командование объединенных ВВС (ОВВС)
air cooled	воздушного охлаждения
air defense artillery battalion (ADA bn)	зенитный дивизион
air defense (AD)	противовоздушная оборона

air defense missile (ADM)	зенитная ракета
air defense region (sector)	район (сектор) ПВО
air defense support (AD spt)	обеспечение средствами ПВО
air division (air div)	авиационная дивизия
air force	воздушная армия
Air Force base (AFB)	авиа база
Air Force (AF)	военно-воздушные силы, BBC
Air Force Reserve (AFRes)	резерв личного состава BBC
air movement phase	этап переброски (десанта) по воздуху
Air National Guard (Air NG)	национальная гвардия BBC
air station	авиационная станция BMC
air superiority	превосходство в воздухе
airborne (infantry) battalion (abn inf bn)	парашютно-десантный батальон
airborne assault operation (abn aslt op)	операция по высадке воздушного десанта
airborne command post (ABCP)	воздушный командный пункт
airborne division (abn div)	воздушно-десантная дивизия
airborne early-warning aircraft (AEW)	самолет ДРЛО (дальнего р/л обнаружения)
airborne force	воздушный десант
airborne operation (abn op)	воздушно-десантная операция
airborne raid	воздушный налет (нападение); воздушный десант
airborne troops (abn trps)	воздушно-десантные войска
airborne warning and control system (AWACS)	самолетная система дальнего радиолокационного обнаружения и управления (АВАКС)
air-breathing engine	воздушно-реактивный двигатель
aircraft carrier	авианосец
air-defense artillery (ADA)	зенитная артиллерия
airfield	аэродром
airfoil	аэродинамическая поверхность
airframe	корпус (ракеты)
airhead (ahd)	плацдарм десантирования
air-landed unit	посадочно-десантное подразделение (часть)

airlift	воздушные переброски, перевозки по воздуху
airlift force	силы воздушных перевозок
airlines of communication	воздушные коммуникации
air-sea rescue	поиск и спасение потерпевших аварию на море и в воздухе
air-to-air missile (AAM)	ракета класса “воздух-воздух”
air-to-surface missile (ASM)	ракета класса “воздух-поверхность”
air-to-underwater missile (AUM)	ракета класса “воздух – подводная цель”
alliance	союз, альянс
Allied Command Operations (ACO)	Оперативное Объединенное Командование объединенных вооруженных сил (ОВС) НАТО
Allied Command Transformation	Объединенное Командование по реформированию ОВС НАТО
alternate command post	запасный командный пункт (КП)
ammunition (ammo)	боеприпасы; патроны
ammunition dump	полевой склад боеприпасов
amphibious	амфибийный; десантный
angle of fire	угол возвышения
antiaircraft (AA)	зенитный
antiaircraft missile	зенитная ракета
antiaircraft artillery (AAA)	зенитная артиллерия
antiaircraft guns	зенитные орудия
antiaircraft protection	противовоздушная оборона (ПВО)
antiballistic missile (ABM)	противоракета для борьбы с баллистическими ракетами
antimissile missile	противоракета
antiradiation missile	противорадиолокационная ракета
antisubmarine warfare (ASW)	противолодочная оборона
antitank (AT) protection	противотанковая оборона
area defense	оборона района
Area of Responsibility (AOR)	зона ответственности
arm	[боевой] род войск
armament	вооружение

Armed Forces	вооруженные силы США (включая резервные формирования)
Armed Service	вид вооруженных сил
Armor	бронетанковые войска
armor protection	броневая защита
armored division (armd div)	бронетанковая дивизия
armored cavalry squadron (armd cav sqdn)	разведывательный (бронекавалерийский) батальон
armored cavalry units	разведывательные (бронекавалерийские) подразделения (части)
armored personnel carrier (APC)	бронетранспортер (БТР)
armored, infantry and mechanized divisions (AIMS divs)	бронетанковая, пехотная и механизированная дивизии
armor-piercing shell	бронебойный снаряд
Army	сухопутные войска, армия
Army Aviation (AAVN)	армейская авиация
army corps (AC)	[армейский] корпус
army group (army gp)	группа армий
Army Intelligence and Security Branch (AIS)	разведка и контрразведка армии США
Army Medical Service (AMEDS)	медицинская служба СВ США
Army National Guard (ARNG)	национальная гвардия сухопутных войск
Army Reserve (ARes)	резерв личного состава сухопутных войск
Army Staff	штаб сухопутных войск
Artillery (Arty)	артиллерия
artillery piece	артиллерийское орудие
assault (aslt)	атака; штурм
assault aircraft (aslt acft)	транспортно-десантный самолет(ы)
assault echelon (aslt ech)	первый эшелон
assault landing	высадка воздушно-посадочного десанта

assault objective	объект высадки (выброски) воздушного десанта
assault phase	этап выброски (высадки) воздушного десанта
assault rifle	автоматическая винтовка; автомат
Atlantic Fleet	Атлантический флот
Atlantic war theater	Атлантический театр войны
atmospheric jet	воздушно-реактивный двигатель
atomic fire support plan	план ядерной подготовки
attached units	приданные подразделения [части]
attack (atk)	наступление
attack plane (atk acft)	штурмовик
auxiliary ship	вспомогательное судно
aviation battalion (avn bn)	батальон армейской авиации
aviation support (army avn spt)	авиационная поддержка
Ballistic Missile Defense (BMD)	противоракетная оборона
barrage	заградительный огонь; огневой вал
barrel	ствол
battalion (bn)	батальон; дивизион (в артиллерии)
battery (btry)	батарея
battle area	район боевых действий
battlefield	поле боя
battlefield (short-range) missile	тактическая ракета (ближнего действия)
battleship	линкор
bayonet	штык
beam antenna	лучевая антенна
belt fed	с ленточной подачей; с подачей ленты
biological agent (biol agt)	бактериальный возбудитель болезни (БВБ); средство биологической войны
bipod	сошка; двунога
blast	взрыв; ударная волна

blast wave	ударная волна; взрывная волна
bomb load	бомбовая нагрузка
bomber (bmr)	бомбардировщик
bore	канал ствола
branch (br)	род войск; служба
branch service school	курсы усовершенствования офицерского состава рода войск (службы)
breakthrough	прорыв
breech mechanism	казенник; казенная часть ствола
breechblock	затвор; запирающий механизм
brigade (bde)	бригада
buildup	наращивание, сосредоточение (сил и средств)
bullet	пуля
burst	взрыв
bursting-type munitions	(химические) боеприпасы взрывного действия
cadet	курсант, слушатель, кадет
caliber	калибр
camouflage	камуфляж, маскировка
cannon	артиллерийское орудие
carbine	карабин
carriage	лафет
casualties	потери (на войне)
casualty gas	ОВ поражающего действия, смертельные ОВ
cavalry units	разведывательные подразделения и части
ceiling	потолок
Central Intelligence Agency (CIA)	Центральное Разведывательное Управление (ЦРУ)
chaff	дипольный отражатель
chain reaction	цепная реакция
chairman	председатель
characteristics (chars) = features = performance	тактико-технические характеристики (ТТХ)
chemical agent (cml agt)	боевое химическое вещество
Chemical Corps (CmlC)	химические войска
chemical support (cml spt)	химическое обеспечение

Chief of Naval Operations (CNO)	начальник штаба ВМС
Chief of Staff (CofS)	начальник штаба
Chief of Staff, United States Air Force (CSUSAF)	начальник штаба ВВС
Chief of Staff, United States Army (CSUSA)	начальник штаба сухопутных войск
choking gas	ОВ удушающего действия
close air support	непосредственная авиационная поддержка
Coast Guard (CG)	береговая охрана
Coast Guard Reserve (CGRes)	резерв береговой охраны
coaxial	соосный, спаренный
cockpit	кабина летчика
collection of intelligence	добывание (сбор) разведсведений
combat (cbt)	бой; боевой
combat element (cbt elm)	боевое подразделение [часть]
combat outpost	боевое охранение
combat power	боевая мощь; силы и средства; боевые средства борьбы
combat security (cbt scty)	боевое охранение
combat service support (cbt svc spt)	тыловое обеспечение войск в бою
combat support (cbt spt)	боевая поддержка; боевое (оперативное) обеспечение
combat support element (cbt spt elm)	подразделение [часть] непосредственного обеспечения боевых действий на поле боя
combatant command (COCOM)	объединенное командование (ОК)
combatant commander (CCDR)	командующий ОК
combatant ship	боевой корабль
Combined Air Operations Center (CAOC)	Объединенный Центр управления боевыми действиями (УБД) в воздухе
combined arms force	общевойсковое соединение

combined arms force	общевойсковое соединение [объединение]
Combined Joint Task Forces (CJTFs)	Объединенные оперативные формирования
command and control (comd and con) element	подразделение управления
command (comd) and control (con) system (sys)	система командования и управления
command artillery radio relay company	рота радиорелейной связи командования с артиллерией
command communications (comd comm)	связь командования
command operations company (comd opn co)	рота обеспечения связи командования
command post (CP)	командный пункт (КП)
command radio relay and cable company	рота радиорелейной и проводной связи командования
command ship	штабной (флагманский) корабль
command structure	структура командования; военная организация
Commandant of the Marine Corps	командующий корпусом морской пехоты
commander (comdr, cmdr, cdr)	командир, начальник
Commander US European Command (ACT)	ГК вооруженными силами США в Европе
commander's guidance	указания командира
Commander-in-Chief (CINC)	главнокомандующий
commission	производство в офицеры, присваивать первичное офицерское звание
commissioned officer (ComO)	офицер
communication intelligence (COMINT)	радиоразведка; данные радиоразведки
communications center	оперативная часть узла связи ⁴ центр связи
communications means	вид связи; средство связи

Communications-Electronics officer (C-E off)	офицер по связи и электронике; начальник связи
company (co)	рота
company officer (CoOff)	младший офицер
component (comp)	составная часть, контингент, формирование (вооруженных сил)
concealment	укрытие от наблюдения; маскировка
conscript	призывать, призывник
conscription = draft system	призыв, воинская повинность
contamination	заражение
continental United States (CONUS)	континентальная часть США
control stick	ручка управления
control wheel	штурвал
conventional weapons	обычное вооружение
cooperation	взаимодействие
coordinated attack	наступление с хорошо организованным взаимодействием
corner reflector	угловой отражатель
Corps of Engineers (CE)	инженерные войска
counterattack	контрудар; контратака
counterbattery fire	огонь на подавление артиллерии противника
cover	укрытие(<i>от огня</i>); прикрывать
cradle	люлька
crew	экипаж
crew	экипаж
crew-served weapons	групповое оружие
critical mass	критическая масса
cruise missile	крылатая ракета
cruiser	крейсер
cruising speed	крейсерская скорость
current assessment	оценка текущего момента
curving (curved) trajectory (traj)	навесная траектория
deception	введение противника в заблуждение

deception operations	действия, рассчитанные на введение (противника) в заблуждение
decoy	макет, ловушка
defeat	поражение, нанести поражение
defender	обороняющийся
defense (def)	оборона
Defense Intelligence Agency (DIA)	Разведывательное Управление Министерства Обороны (РУМО)
Defense Planning Committee (DPC)	Комитет военного планирования
defensive force	силы обороны
defensive operations (def opns)	оборонительные действия
degaussing ship	плавучая станция размагничивания кораблей
delaying actions	сдерживающие действия
delivery of fire	ведение огня
delta wings	дельтовидные крылья
demonstration	демонстративные действия; отвлекающий удар
department (dept)	министерство, департамент
Department of the Air Force (DAF)	министерство ВВС
Department of the Army (DA)	министерство сухопутных войск
Department of the Navy (DN)	министерство ВМС
Department of the Navy = Naval Establishment	ВМС США; министерство ВМС;
deployment	развертывание; перегруппировка
deputy secretary	заместитель министра
destroyer	эсминец; миноносец
destructive fire	огонь на уничтожение (разрушение)
detente	ослабление напряжения (в отношениях между государствами)
deterrence	сдерживание; устрашение
difficult ground	труднопроходимая местность
direct fire	огонь прямой наводкой
direction finding	радиопеленгация

Director of National Intelligence (DNI)	Директор Национальной Разведки
dispersion	рассредоточение
dispersion	рассредоточение
dissemination of intelligence	доклад, рассылка, представление разведданных
district forces	вооруженные силы военно-морского района
division (div)	дивизия (авианосцев, крейсеров); дивизион (эсминцев, тральщиков); дивизион (подразделение на корабле)
division (div)	дивизия
division base	дивизионная основа
draft	призыв в армию, призывать на военную службу
drop zone (DZ)	район выброски (парашютного) десанта
dugout	блиндаж
duty	служебные обязанности, служба; дежурство, наряд
early warning	дальнее обнаружение; раннее предупреждение
earphone	головной телефон
echelon (ech)	эшелон; звено; инстанция; орган
effect	действие; влияние; результат; pl поражающие факторы (ядерного взрыва)
effective range of fire	дальность действительного огня
electrical/electronic communications(elec/elct comm)	связь при помощи электрических и электронных средств
electromagnetic pulse	электромагнитный импульс
electronic counter-countermeasures (ECCM)	меры борьбы с радиопротиводействием
electronic countermeasures (ECM)	радиоэлектронное противодействие
electronic intelligence (ELINT)	радиотехническая разведка; данные радиотехнической

	разведки
electronic support measures (ESM)	радио и радиотехническая разведка (РПТР в РЭБ)
electronic warfare (EW)	радиоэлектронная борьба (РЭБ)
electronic warfare aircraft	самолет РЭБ
element (elm)	составная часть; подразделение, часть
elevating gear	подъемный механизм; механизм вертикальной наводки
elevators	рули высоты
engine	силовая установка; двигатель
engineer battalion (enr bn)	саперный батальон
engineer support (enr spt)	инженерное обеспечение
enlist	поступать на военную службу (добровольно)
enlisted man (EM)	военнослужащий рядового <i>или</i> унтер-офицерского состава
enlisted personnel (pers)	военнослужащие рядового и унтер-офицерского состава
enlistment	поступление (добровольное) на военную службу
envelopment	охватывающий маневр, охват
escort ship	эскортный корабль, сторожевой корабль
Euro-Atlantic Partnership Council (EAPC)	Евро-Атлантический Совет по партнерству
European war theater	Европейский театр войны
examination	изучение, проверка, контроль
exploitation (xplt)	развитие успеха
fallout	выпадение радиоактивных осадков; радиоактивные осадки; радиоактивное заражение
fallout pattern	зона радиоактивного заражения
feint	ложная атака; отвлекающий удар
field officer (FO)	старший офицер
field army (fld army)	общевойсковая [полевая] армия
field artillery (FA)	полевая артиллерия
Field Manuals (FM)	полевые уставы (боевые уставы)

	США
fighter (ftr)	истребитель
fin	вертикальный стабилизатор
finished report	обработанное (готовое) донесение
fire control	управление огнем
fire distribution	разделение (рассредоточение) огня
fire support	огневая поддержка
fire team	огневая группа
fire, movement and shock	огонь, маневр, удар
firearm	огнестрельное оружие
fireball	светящаяся область (<i>ядерного взрыва</i>); огненный шар
firepower	огневая мощь
fission	расщепление; деление (<i>ядер</i>)
fixed	неподвижный; стационарный
flag officer	высший офицер, адмирал (ВМС)
flank	фланг
flank guard	боковое охранение; боковой отряд
flat trajectory	настильная траектория
fleet (flt)	флот
Fleet Marine Force	силы морской пехоты флота
flight (flt)	звено
flotilla (flot)	флотилия
foot pedals	ножные педали
form of maneuver	вид маневра
formation (fmn)	войсковая единица; строй, боевой порядок
forward communications company (fwd comm co)	передовая рота связи
forward edge of the battle area (FEBA)	передний край обороны
foxhole	стрелковая ячейка; одиночный окоп
friendly troops	свои войска
frigate	фрегат; лидер эскадренных миноносцев

fuselage	фюзеляж
fusion	синтез (<i>ядер</i>)
fuze	взрыватель
G1 - personnel section	отделение личного состава штаба дивизии
G2 - intelligence section	разведывательное отделение штаба дивизии
G3 - operations and training section	отделение оперативной и боевой подготовки штаба дивизии
G4 - logistics section	отделение тыла штаба дивизии
G5 - civil affairs/military government section	отделение администрации штаба дивизии
gas operated	действующий отводом газов
gasmask	противогаз
general officer (GO)	высший офицер, генерал (CB, BBC, МП)
general war	всеобщая война
general (area) AD	общая ПВО; ПВО района
general covering forces	войска общего прикрытия
general outpost	общее охранение
General Staff (GS)	общий штаб; общая часть штаба
generating-type munitions	боеприпасы курящегося типа
germ	микроб
grade (gr) other grades pay grade	воинское звание, категория рядовые разряд тарифной сетки денежного содержания
grenade launcher	гранатомет
groove	нарез (канала ствола)
ground support	поддержка наземных войск
ground tactical plan (gnd tac plan)	план действия воздушного десанта после десантирования
ground zero	эпицентр ядерного взрыва
group (gp)	авиационная группа
guidance mechanism	устройство наведения
guided aircraft missile	авиационная управляемая ракета
guided missile (GM)	управляемая ракета (УР)
guided missile design	конструкция управляемой ракеты

gun	орудие, пушка (в артиллерии)
hand grenade	ручная граната
handgun	личное огнестрельное оружие
headquarters (HQ, hq)	штаб, штабной
headquarters and headquarters company (HHC)	штаб и штабная рота
heavy fallout	высокий уровень радиоактивного заражения
helicopter (hel)	вертолет
high angle fire = high trajectory fire	навесной огонь
high explosive (HE) shell	осколочно-фугасный снаряд
high-explosive (HE)	фугасный; осколочно-фугасный
highly mobile	высокоманевренный
hollow	внутренний, полый
homing missile	самонаводящаяся ракета
hostile intent	намерения противника
hull	корпус (танка)
human intelligence (HUMINT)	агентурная разведка; данные агентурной разведки
imagery intelligence (IMINT)	видовая разведка; данные видовой разведки
incendiary agent	зажигательное вещество
indirect fire	огонь с закрытых позиций; огонь не прямой наводкой
individual weapons	индивидуальное оружие
Infantry (Inf)	пехота
infantry battalion (inf bn)	пехотный батальон
infantry fighting vehicle (IFV)	боевая машина пехоты (БМП)
inhalation	вдыхание
initial airhead	исходный плацдарм десантирования
initial assault	выброска (высадка) первого эшелона
initial nuclear radiation	проникающая радиация
intelligence (intel)	разведка; разведсведения; разведданные
intelligence officer (IO, G2 officer)	начальник разведки; начальник разведывательного отделения;

	офицер разведки
intelligence report	разведывательное донесение
intelligence service	разведывательная служба
intelligence summary (ISUM)	разведывательная сводка
intelligence support (intel spt)	разведка (как вид боевого обеспечения)
intention	намерение
interceptor	перехватчик, истребитель-перехватчик
intercontinental ballistic missile (ICBM)	межконтинентальная баллистическая ракета (МБР)
intermediate-range ballistic missile (IRBM)	баллистическая ракета средней дальности
interrogation	допрос
issue	выдача, расход; выдавать, отпускать; издавать (приказ)
jacket	кожух
jamming	создание активных помех
jet engine	реактивный двигатель
Joint Chiefs of Staff (JCS)	комитет начальников штабов
<i>Joint Force Command (JFC)</i>	<i>Командование ОВС НАТО</i>
<i>Joint Force Component Command (JFCC)</i>	<i>Объединенное Командование видов ОВС НАТО</i>
<i>Joint Forces Command (USJFCOM)</i>	<i>Объединенное Командование единых сил ВС США</i>
<i>Joint Headquarters (JHQ)</i>	<i>объединенный штаб ОВС НАТО</i>
Joint Staff (JS)	объединенный штаб
junction	железнодорожный узел; узловая станция, транспортный узел
knot	мор. узел (единица скорости)
land based	наземное базирование
<i>Land Component Command</i>	<i>Командование ОСВ</i>
landing gear	шасси
landing zone (LZ)	район высадки (воздушно-посадочного) десанта
large unit	соединение, объединение
launcher (lchr)	пусковая установка (ПУ)
leader (ldr)	командир подразделения (до роты)

length of service	выслуга лет
length of service in grade	выслуга лет в звании
light infantry division (light inf div)	легкопехотная дивизия
limit of the fallout area	граница зоны радиоактивного заражения
limited war	ограниченная война
lines of communication	линии коммуникаций; линии связи
linkup	соединение (<i>воздушного десанта с наземными войсками</i>)
local air defense (AD)	местная ПВО; ПВО объекта
local security	непосредственное охранение
logistical support (log spt)	материально-техническое обеспечение
long-duration abn op	продолжительная воздушно-десантная операция
machine gun (mg)	пулемет
main battery	главная артиллерия; артиллерия главного калибра
main attack	главный удар; группировка главного удара
maintenance battalion (maint bn)	ремонтный батальон
maintenance (maint)	техническое обслуживание, эксплуатация
man	нижний чин: рядовой, матрос
maneuver (mvr)	маневр; осуществлять маневр
Marine Corps (MC)	корпус морской пехоты
Marine Corps Reserve (MCR)	резерв (корпуса) морской пехоты
<i>Maritime Component Command</i>	<i>Командование ОБМС</i>
mass destruction weapon	оружие массового поражения
materiel	материальная часть и имущество, (боевая) техника
mechanized (infantry) battalion (mech inf bn)	мотопехотный батальон
mechanized (infantry) division (mech inf div)	механизированная дивизия

mechanized infantry = motorized infantry	моторизированная пехота; мотопехота
medium-range ballistic missile (MRBM)	баллистическая ракета средней дальности
message (msg)	донесение, сообщение; телефонограмма, телеграмма, радиограмма
messenger communications (msgrr comm)	связь посыльными
midshipman	гардемарин, курсант военно-морского училища
<i>Military Committee</i>	<i>Военный Комитет НАТО</i>
military intelligence (MI; mil int)	военная разведка; разведывательные данные <i>(военного характера)</i>
Military Police Corps (MPC)	корпус военной полиции
mine	мина, минно-тральный
mine sweeper	тральщик
mission (msn)	задача
mobile defense (mbl def)	мобильная оборона
mobility	подвижность, маневренность
moderately	умеренно
mortar (mort)	миномет
mortar section	минометная секция
mount	станок, лафет
mounted or dismounted combat	бои на боевых машинах или в спешенных боевых порядках
mounting area	район сосредоточения и подготовки войск; исходный район
mounting phase	этап сосредоточения и подготовки войск <i>(для десантной операции)</i>
movement to contact	сближение с противником
Multiple Independently targetable Re-entry Vehicle (MIRV)	кассетная боевая часть МИРВ с индивидуальным наведением поражающих элементов
multiple launcher rocket system (MLRS)	реактивная установка залпового огня

munitions	военное имущество (оружие, боеприпасы, снаряжение и пр. имущество, необходимое для ведения войны)
muzzle	дуло
muzzle loading	заряжающийся с дула
muzzle velocity	начальная скорость; дульная скорость
National Guard (NG)	Национальная гвардия
National Security Agency (NSA)	Агентство Национальной Безопасности (АНБ)
National Security Council (NSC)	Совет национальной безопасности
naval aviation	авиация ВМС
Naval Reserve (NR; NRes)	военно-морской резерв
Naval Staff	штаб ВМС США
Navy	военно-морские силы (ВМС)
Navy Department (ND)	военно-морское министерство
nerve gas	ОВ нервно-паралитического действия
neutralizing fire	огонь на подавление
neutron radiation	нейтронное излучение
noncommissioned officer (NCO; noncom)	унтер-офицер (в Армии и BBC), сержант
<i>North Atlantic Council (NAC)</i>	<i>Совет НАТО</i>
<i>North Atlantic Treaty Organization (NATO)</i>	<i>Североатлантический союз (НАТО)</i>
nuclear explosion (nuc explo)	ядерный взрыв
nuclear fire	огонь ядерными боеприпасами
<i>Nuclear Planning Group (NPG)</i>	<i>Группа ядерного планирования</i>
nuclear radiation	ядерное излучение
nuclear weapon	ядерное оружие; ядерный боеприпас
objective (obj)	объект, рубеж, задача
objective area (obj area)	район десантирования
offense (attack)	наступление
offensive	наступление; наступательный
offensive force	наступательные силы

Office of the SECNAV	секретариат министра ВМС
Operating Forces (OF)	боевые силы (ВМС США), действующие силы (ВМС США)
Ordnance Corps (OrdC)	артиллерийско-техническая служба
Organic	штатный, табельный
organic means	штатные, табельные средства
outpost	сторожевое охранение
Overseas	заморский, заграничный
oxidizer	окислитель
Pacific Fleet	Тихоокеанский флот
parachute assault (prcht aslt)	выброска парашютного десанта
parachute element (prcht elm)	парашютно-десантное подразделение
<i>Partnership for Peace (PfP)</i>	<i>Партнерство во имя мира</i>
part-time military service	служба в резерве
passive air defense (AD)	пассивная ПВО
patrol ship	дозорный (патрульный) корабль
penetrating power	пробивная способность
penetration	вклинение, прорыв
periodic report	срочное донесение (<i>m.e. имеющие срок предоставления</i>)
persistent	стойкий
petty officer	унтер-офицер (в ВМС), старшина
phased-array radar	РЛС с фазированной решеткой
pistol	пистолет
piston engine	поршневой двигатель
platoon (pl; plat)	взвод
portable	переносный; носимый
position vacancy	вакантная должность
Powerplant	силовая установка, двигатель
prisoner of war (POW)	военнопленный
processing of intelligence	обработка разведсведений
professional force	регулярные войска
Promotion	присвоение (очередного) звания, продвижение по службе

psychological warfare support	психологическое обеспечение
pursuit (pur)	преследование
radio communications	радиосвязь
radio set	радиопередатчик; радиоприемник; радиостанция
radioactive contamination	радиоактивное заражение
radiological monitoring	дозиметрический контроль
radiological survey	инструментальная разведка, осмотр
range	дальность действия
range of fire	дальность огня
rank	воинское звание, чин
rate of climb	скороподъемность
rate of fire	скорострельность
rear	тыл
rear guard	арьергард; группа прикрытия; заслон (при отходе)
receiver (rcvr)	приемник
receiver-transmitter unit (transceiver)	приемопередатчик
recoil mechanism	механизм поглощения отдачи; тормозной механизм
recoilless rifle (RR)	безоткатное орудие
reconnaissance (recon)	разведка
reconnaissance in force	разведка боем
recruit	новобранец
recruiting	набор, вербовка, комплектование
regiment (regt)	полк
regular (reg)	регулярный, кадровый
Regular Army (RA)	регулярные [кадровые] сухопутные войска
reinforcement (reinf)	усиление
report	донесение
reserve (res)	резерв, запас, резервный, запасный
reservist	резервист
residual nuclear radiation	остаточная радиация
resign	уходить (подавать) в отставку без пенсии

retention of terrain	удерживание занятых позиций
retire	уходить в отставку (на пенсию)
revolver	револьвер
rifle	винтовка
rifle company (platoon, squad)	пехотная рота (взвод, отделение)
rifle fire team	пехотная огневая секция
riot gas	ОВ для полицейских действий
rocket artillery	реактивная артиллерия
rocket launcher (caliber 3,5 in)	реактивный гранатомет калибра 3.5 дюйма
round	патрон, выстрел
rounds per minute (r.p.m.)	выстрелов в минуту
rudder	руль
running gear	ходовая часть
ruse	военная хитрость; введение противника в заблуждение
scouting	разведка
screening smoke	маскирующий дым; дымообразующее вещество
seagoing forces	корабельный состав флота
sealift force	силы морских перевозок
seaplane	гидросамолет
secretary (secy)	министр
<i>Secretary General of NATO</i>	<i>Генеральный секретарь НАТО</i>
Secretary of Defense (SECDEF)	министр обороны
Secretary of State	Госсекретарь, министр иностранных дел
Secretary of the Air Force (SAF)	министр ВВС
Secretary of the Army (SA)	министр сухопутных войск
Secretary of the Navy (SN; SECNAV)	министр ВМС, военно-морской министр
section (sec)	секция
security (scty)	безопасность; сохранение тайны; боевое обеспечение; охранение
security against CBR attack	защита от ХБР оружия
security against nuclear attack	противоатомная защита, ПАЗ
security at the halt	сторожевое охранение

security in defense	охранение в обороне
security in retrograde operations	охранение при отступательных действиях
security in the offense	охранение в наступлении
security in troop movement = security on the march	походное охранение
self-propelled (SP)	самоходный; самодвижущийся
self-propelled guns (howitzers [how])	самоходные орудия (гаубицы)
sensor	средство обнаружения
service (svc)	служба
service craft	суда обслуживания; базовые плавучие средства
service support element (svc spt elm)	подразделение [часть] тыла
shelter	бомбоубежище, укрытие
shipyard	судостроительная верфь
shock	удар
shock effect	ударное действие
shock wave	ударная волна; взрывная волна
Shore Establishment	береговые части и учреждения тыла ВМС США
shore activities	береговые части и учреждения ВМС
short-duration airborne operation	кратковременная воздушно-десантная операция
short-range ballistic missile (SRBM)	баллистическая ракета ближнего действия
shrapnel shell	шрапнель
sight	прицел
signal center (SIGCEN)	узел связи
Signal Corps (SigC)	войска связи
signal intelligence (SIGINT)	радио и радиотехническая разведка (РПТР); данные РПТР
signal support (sig spt)	обеспечение (боевых действий) средствами связи
signal support operations company (sig spt opn co)	рота обеспечения связи командования тыла
signature	признак, свойство; отличительное качество;

	характеристика
simulation device	имитационное средство
small arms (SA)	стрелковое оружие
soldier	солдат
sound communications (snd comm)	акустическая (звуковая) связь
Space Defense	противокосмическая оборона
Special Staff (SS)	специальный штаб; специальная часть штаба
special weapons employment officer (SWEO)	офицер по применению оружия массового поражения
specialist (sp)	специалист
squad (sqd)	отделение
squadron (sqdn)	эскадрилья, эскадра, [разведывательный] батальон
staff (stf)	штаб, личный состав штаба
stand-off missiles	ракеты, запускаемые с самолета вне пределов зоны ПВО противника
station	гарнизон, база, место постоянного расквартирования
stealth techniques	меры по снижению радиолокационной заметности
strategic missile	стратегическая ракета
strength	численность, численный состав
strong point	укрепленный пункт
study	справка
submachine gun (smg)	пистолет пулемет; автомат
submarine	подводная лодка
subsurface burst	подземный [подводный] взрыв
supersonic	сверхзвуковой
supply (sup)	снабжение
supply and transportation battalion (sup and trans bn)	батальон снабжения и транспорта
supply depot	склад снабжения
support command (SUPCOM)	командование тыла
<i>Supreme Allied Commander Europe (SACEUR)</i>	<i>Верховный Главнокомандующий (ГК) ОВС НАТО в Европе</i>

<i>Supreme Allied Commander Transformation (SACT)</i>	<i>Верховный ГК по реформированию ОВС НАТО</i>
<i>Supreme Headquarters Allied Power Europe (SHAPE)</i>	<i>штаб Верховного ГК ОВС НАТО в Европе</i>
surface burst	наземный [надводный] взрыв
surface-to- underwater missile (SUM)	ракета класса “поверхность [земля, вода] - подводная цель”
surface-to-air missile (SAM)	ракета класса “поверхность-воздух”; зенитная ракета
surface-to-surface missile (SSM)	ракета класса «поверхность [земля, вода] - поверхность[земля, вода]»
surprise	внезапность
surveillance (survl)	наблюдение; разведка наблюдением
surveying ship	гидрографическое судно
sustainable operations	долговременные, непрерывные действия(операции)
swept wings	стреловидные крылья
switchboard	коммутатор
Table of Organization and Equipment (TOE)	штатно-организационное расписание и таблицы имущества
tactical (midrange) missile	тактическая ракета (средней дальности)
tactical support (tac spt)	тактическая поддержка; боевое обеспечение действий войск
tail unit	хвостовое оперение
take off	взлетать
tank battalion (tk bn)	танковый батальон
tanker (aircraft)	самолет-заправщик
target acquisition	обнаружение цели; разведка цели
targeting	целеуказание
Task Element	оперативный элемент
Task Fleet	оперативный флот
task force	оперативное соединение
Task Force	оперативное соединение
Task Group	оперативная группа
Task Organization	оперативная организация
Task Unit	оперативный отряд

tear gas	ОВ слезоточивого действия
technical intelligence (TECHINT)	разведка техническими средствами; данные технической разведки
telescopic rod antenna	телескопическая штыревая антенна
theater of operations = area of operations	фронт, ТВД, операции в масштабе всего ТВД
theater of war = area of war	театр войны
thermal radiation	световое излучение
thermonuclear process	термоядерная реакция
throttle	дрессель, сектор газа
TNT (trinitrotoluene)	тринитротолуол; тротил
towed	на механической тяге; буксируемый
training (tng)	подготовка, обучение
training station	учебный пункт
transmitter (xmtr)	передатчик
transport aircraft	транспортный самолет
Transportation Corps (TC)	транспортные войска
transportation support (transpt)	обеспечение транспортными средствами
traversing gear	поворотный механизм; механизм горизонтальной наводки
tripod	тренога
troop (trp)	рота (в развед. подразделениях)
troops (trps)	войска
tube	ствол, труба; трубчатая направляющая
tube artillery	ствольная артиллерия
tug	буксир; буксирное судно
turbojet engine	турбореактивный двигатель
turboprop engine	турбовинтовой двигатель
turret	башня
Type Organization	организация однородных сил флота
underwater-to-surface missile (USM)	ракета класса “подводная лодка поверхность [земля, вода] ”
underwater-to-underwater missile	ракета класса “подводная лодка подводная цель ”

(UUM)	
unified combatant command (UCC) = combatant command (COCOM)	объединенное командование
unit	подразделение, часть
US Air Force Academy (USAFA)	военное авиационное училище США
US Military Academy at West Point (USMA)	военное училище США в Уэст-Пойнте
US Naval Academy (USNA)	военно-морское училище США
variable-shape wings	крылья изменяемой геометрии
vector	переносчик заразы
vessel (ves)	судно, корабль
visual communications (vis comm)	зрительная связь
voluntary	добровольный
volunteer	доброволец
vulnerable to	уязвимый
warhead (whd)	боевая часть (ракеты)
warning	предупреждение, оповещение
warrant officer (WO)	уорент-офицер
warship	военный корабль, боевой корабль основного класса
weapons squad (platoon)	отделение (взвод) оружия
wing (wg)	крыло (организационная единица; аэродинамическая поверхность)
wire (cable) communications	проводная связь
wire guided missile	ракета, управляемая по проводам; противотанковая управляемая ракета, ПТУР
yield	мощность (<i>ядерного боеприпаса</i>); тротиловый эквивалент
zone of interior (ZI)	внутренняя зона