

Министерство сельского хозяйства
Российской Федерации

ФГБОУ ВО «Кубанский государственный
аграрный университет имени И.Т. Трубилина»

З. Ю. Басте, М. А. Батурьян, А. Г. Карипиди

АНГЛИЙСКИЙ ЯЗЫК ДЛЯ СТУДЕНТОВ УВЦ

Учебное пособие

Краснодар
КубГАУ
2018

УДК811. 111:355(075.8)

ББК 81.432.1

Б27

Р е ц е н з е н т ы :

И.Н.Сухомлина – доцент кафедры английской филологии
Кубанского государственного университета,
канд. филол. наук;

В. П. Лаврентьев – начальник цикла, старший преподаватель
автотехнического обеспечения Учебного военного центра,
подполковник

БастеЗ. Ю.

Б27 Английский язык для студентов УВЦ: учеб.пособие /
З.Ю. Басте, М.А. Батурьян, А.Г. Карипиди. – Краснодар:
КубГАУ, 2018. – 131 с.

ISBN 978-5-00097-517-6

Учебное пособие по английскому языку состоит из грамматических заданий, словаря и текстов для чтения, которые являются проверкой основных знаний изученного учебного материала.

Предназначено для студентов – специалистов учебного военного центра.

УДК 811.111:355(075.8)

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Карипиди А. Г., 2018

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университет имени
И. Т.Трубилина», 2018

ISBN978-5-00097-517-6

ПРЕДИСЛОВИЕ

Учебное пособие предназначено для студентов учебного военного центра, в соответствии с «Программой по иностранным языкам для вузов неязыковых специальностей».

Данное пособие содержит основные сведения по грамматике с закрепляющими упражнениями, и тексты для чтения на английском языке военной и технической тематики, для подготовки специалистов и бакалавров учебного военного центра. Лексические упражнения, направленные на расширение активного словаря и развитие языковой базы. Англо-русский технический словарь минимум (ок. 700 слов). Тексты для чтения могут быть использованы, в первую очередь, как вспомогательное пособие для самостоятельной подготовки студентов. Издание составлено в соответствии с требованиями программы по иностранным языкам для неязыковых ВУЗов и включает в себя лексику на английском языке по военной специальности, таблицы англо-американских единиц измерения и метрических мер, тематические аббревиатуры и лексику со значением императивности.

Пособие предназначено для аудиторных и внеаудиторных занятий по английскому языку. Все использованные тексты в пособии являются оригинальными. Оно представляет собой самостоятельное, структурно независимое пособие для развития навыков говорения, извлечения и обработки информации.

Учебный материал рассчитан как на базовый, так и на продвинутый уровень. Терминология соответствует программе обучения и максимально обеспечивает процесс усвоения основного материала.

UNIT 1

Organization of the Armed Forces

Grammar: VERBTENSES (Времена английского глагола.)

	Simple (Indefinite)	Continuous (Progressive)	Perfect
Present	I am given (мнедают)	I am being given (мнедают)	I have been given (мнедали)
Past	I was given (мнедали)	I was being given (мнедавали)	I had been given (мнедали)
Future	I will be given (мнедадут)	не существует	I will have been given (мнедадут)

Для выражения времени совершения действия - настоящего, прошедшего и будущего - английский глагол имеет своеобразную систему глагольных времен (Tenses). Глагольные времена делятся на четыре группы:

1. Группа «неопределенных» времен (Indefinite Tenses). Эта группа состоит из настоящего неопределенного времени (Present Indefinite Tense), прошедшего неопределенного времени (Past Indefinite Tense) и будущего неопределенного времени (Future Indefinite Tense):

PresentIndefinite	PastIndefinite	FutureIndefinite
I write a letter every day Я пишу письма каждый день.	I wrote a letter yesterday Я писал (написал) письмо вчера.	I will write a letter tomorrow. Я буду писать (напишу) письмо завтра.

Времена группы **Indefinite** употребляются, в отличие от времен других групп, только для констатации факта совершения действия в настоящем, прошедшем и будущем, без указания на его длительность, законченность и безотносительно к какому-либо другому действию или моменту. В русском языке этим временам соответствуют времена глагола как несовершенного, так и совершенного вида, в зависимости от смысла предложения.

2. Группа «длительных» времен (ContinuousTenses). Эта группа состоит из настоящего длительного времени (PresentContinuousTense), прошедшего длительного времени (PastContinuousTense) и будущего длительного времени (FutureContinuousTense):

PresentContinuous	PastContinuous	FutureContinuous
I am writing a letter (at the present moment). Я пишу письмо (в настоящий момент).	I was writing a letter at five o'clock. Я писал письмо в пять часов.	I will be writing a letter at five o'clock. Я буду писать письмо в пять часов.

Времена группы **Continuous** употребляются для выражения длительного действия, которое началось до определенного момента в настоящем, прошедшем или будущем и которое все еще совершается, совершалось или будет совершаться в этот момент. Они описывают действие в процессе его совершения, выражая, таким образом, незаконченное длительное действие» В русском языке этим временам соответствуют времена глагола несовершенного вида.

3. Группа «совершенных» времен (Perfect Tenses). Эта группа состоит из настоящего совершенного времени (Present Perfect Tense), прошедшего совершенного времени (Past Perfect Tense) и будущего совершенного времени (Future Perfect Tense):

Present Perfect	Past Perfect	Future Perfect
<p><i>I have written the letter.</i></p> <p>Я (уже) написал письмо (к настоящему моменту).</p>	<p><i>I had written the letter by five o'clock.</i></p> <p>Я (уже) написал письмо к пяти часам.</p>	<p><i>I will have written the letter by five o'clock.</i></p> <p>Я (уже) напишу письмо к пяти часам.</p>

Времена группы Perfect выражают действие, совершенное к определенному моменту в настоящем, прошедшем или будущем. В русском языке этим временам соответствуют времена глагола совершенного или несовершенного вида, в зависимости от смысла предложения.

4. Группа «совершенных длительных» времен (Perfect Continuous Tenses). Эта группа состоит из настоящего совершенного длительного времени (Present Perfect Continuous Tense), прошедшего совершенного длительного времени (Past Perfect Continuous Tense) и будущего

совершенного длительного времени
(Future Perfect Continuous Tense):

Present Perfect Continuous	Past Perfect Continuous	Future Perfect Continuous
<p>I have been writing the letter for an hour. Я пишу письмо (уже) час.</p>	<p>I had been writing the letter for an hour when he came. Я писал письмо (уже) час, когда он пришел.</p>	<p>I shall have been writing the letter for an hour when he comes. Я буду писать письмо (уже) час, когда он придет.</p>

Времена группы **Perfect Continuous** употребляются для выражения длительного действия, начавшегося до определенного момента в настоящем, прошедшем или будущем и длившегося известный период времени, включая этот момент. Времена этой группы могут выражать длительное действие, продолжавшееся известный период времени и закончившееся непосредственно перед определенным моментом в настоящем, прошедшем или будущем. В русском языке этим временам соответствуют времена глагола несовершенного вида.

Кроме этих форм имеются четыре формы «будущего времени в прошедшем» (Future in the Past), а именно, будущее неопределенное в прошедшем (Future Indefinite in the Past), будущее длительное в прошедшем (Future Continuous in the Past), будущее совершенное в прошедшем (Future Perfect in the Past) и будущее совершенное длительное в прошедшем (Future Perfect Continuous In the Past). Эти формы, в отличие от обычных форм будущего времени, служат для выражения будущего не по отношению к моменту речи, а к прошедшему моменту, т. е. для выражения будущего действия, о котором речь шла в прошедшем.

Формы Future in the Past

Indefinite	Continuous	Perfect	PerfectContinuous
<p>I said that I should write a letter to him.</p> <p>Я сказал, что я напишу ему письмо.</p>	<p>I said that I should be writing a letter at 5 o'clock.</p> <p>Я сказал, что я буду писать письмо в пять часов.</p>	<p>I said that I should have written the letter by 5 o'clock.</p> <p>Я сказал, что я (уже) напишу письмо к пяти часам.</p>	<p>I said that I would have been writing the letter for an hour when he came.</p> <p>Я сказал, что я (уже) буду писать это письмо час, когда он придет.</p>

Из всех глагольных времен только два, а именно Present Indefinite и Past Indefinite являются простыми формами, т. е. образуются без вспомогательных глаголов (и то только в утвердительной форме). Все остальные времена являются сложными формами, т. е. образуются с помощью вспомогательных глаголов:

1. Future Indefinite (единственная сложная форма из группы Indefinite) образуется с помощью вспомогательных глагола **will** и формы инфинитива смыслового глагола.

2. Времена группы Continuous образуются с помощью вспомогательного глагола **to be** и формы причастия настоящего времени смыслового глагола.

3. Времена группы Perfect образуются с помощью вспомогательного глагола **to have** и формы причастия прошедшего времени смыслового глагола.

4. Времена группы PerfectContinuous образуются с помощью времен группы Perfect вспомогательного глагола **be** формы причастия настоящего времени смыслового глагола.

5. Все формы Future in thePast образуются аналогично соответствующим формам Future с заменой **will** формой **would**.

Таблица времен глагола *write* в изъявительном наклонении действительного залога

	Indefinite	Continuous	Perfect	PerfectContinuous
Present	I write Я пишу	I am writing Я пишу	I have written Я написал (писал)	I have been writing Я пишу
Past	I wrote Я писал (написал)	I was writing Я писал	I had written Я написал (писал)	I had been writing Я писал
Future	I shall write Я буду писать (напишу)	I shall be writing Я буду писать	I will have written Я напишу	I will have been writing Я буду писать
Future in the Past	I should write Я буду писать (напишу)	I should be writing Я буду писать	I would have written Я напишу	I would have been writing Я буду писать

1. Open the brackets.

1. He (know) several foreign languages.
2. I (learn) English at school.
3. Usually the train (leave) at 10 o'clock.
4. Our grandparents (live) now in Moscow.
5. He (visit) them regularly last year.
6. As a rule I (go) to my Academy by bus.
7. She (work) abroad next year.
8. She (not like) poems.
9. Your children usually (ask) many questions.
10. At present he (work) at school.

2. Put the verb to write in the appropriate form.

1. We often ... letters to our parents.
2. What ... you ... now?
3. Yesterday they ... tests from 10 till 12 o'clock.
4. Who ... this letter tomorrow?
5. I ... some letters last week.
6. What ... you ... tomorrow at 10?
7. When I came in she ... a letter.
8. Do you often ... letters to your parents?
9. I ... not ... this article now. I ... it in some days.
10. ... he ... his report at the moment?

3. Put the verbs in brackets in the right form.

1. Peter and Ann (go) away five minutes ago. 2. I (write) the letter but I (not send) it. 3. He just (go) away. 4. She already (answer) the letter. 5. She (answer) it on Tuesday. 6. I just (tell) you the answer. 7. I (read) that book in my summer holidays. 8. The greengrocer (sell) now all his vegetables. 9. He (sell) all of them

half an hour ago. 10. I (not see) him for three years. I (be) glad to see him again some time.

4. Translate into English.

1. Он писал письмо, когда я пришел к нему. 2. Он делал свою работу, пока его братья играли в футбол. 3. Я упал, когда бежал за автобусом. 4. Мы делали уроки, когда пошел дождь. 5. Когда учитель давал урок, новая ученица вошла в класс. 6. Когда зазвонил телефон, я работал в саду. 7. Я увидел своих одноклассников, когда я шел по улице. 8. Начался дождь, когда мы наблюдали за игрой.

5. Put the verbs in brackets in the right form. Use Past Tenses.

1. When I (arrive) the lecture already (start). 2. Peter (sit) in a dark room with a book. I told him that he (read) in very bad light. 3. Mother (make) a cake when the light (go) out. She had to finish it in the dark. 4. When I arrived Jenny (leave), so we only had time for a few words. 5. John (have) a bath when the phone rang. He (get) out of the bath and (go) to answer it. 6. When we (come) to the airport, the plane already (land). 7. He suddenly (realize) that he (travel) in the wrong direction. 8. You looked very busy when I saw you last night. What you (do)? 9. I (call) Paul at 7.00 but it wasn't necessary because he already (get) up. 10. When I (see) him he (cross) the street.

6. Define the Tense and translate into English.

1. Вчера в 9 часов вечера я смотрел телевизор. 2. Она сказала, что еще не выполнила домашнее упражнение. 3. Когда пришел мой друг, я еще не закончил завтракать. 4. Когда я встретил ее впервые, она работала в школе. 5. Все студенты выполнили упражнение правильно после того, как преподава-

тель рассказал им, как его делать. 6. Когда мы вышли на улицу, ярко светило солнце. 7. Мой друг сказал, что его брат уже приехал. 8. Я читал книгу, когда услышал телефонный звонок. 9. После того, как врач осмотрел больного, он поговорил с его родственниками. 10. Когда мы приехали на остановку, автобус уже ушел.

7. Put in the appropriate words from the list.

before the Institute, by Tuesday, during October, every day, just, last week, now, recently, usually, when we met, when he comes home, already.

- 1 ... I go to the Institute by bus.
2. I do my morning exercises ...
3. We shall have invited you ...
4. Who has seen him ...?
5. He had worked here ...
6. ... the plant was producing new machines.
7. We have ... done our work.
8. What are you doing ...?
9. He was going home
10. Will you have read the book ...?

8. Read and translate Text A from English into Russian.

Text A

Organization of the Armed Forces of the Russian Federation.

The Armed Forces of the Russian Federation consist of three armed services: the Russian Ground Forces (Army, the Russian Navy, and the Russian Aerospace Forces. There are also two independent branches: Strategic Missile Troops and the Airborne Troops. The constitutional Supreme Commander-in-Chief of the Armed Forces is the President of the Russian Federation. The Pres-

ident is assisted by the Security Council of Russian Federation and the Ministry of Defence. The Ministry of Defence of the Russian Federation exercises administrative and operational leadership of the Armed Forces of the Russian Federation. Ministry of Defence is headed by the Minister of Defence General of the Army Sergey Shoygu. The General Staff, the executive body of the Ministry of Defence, implements the defence minister's operational instructions and orders. Each armed service is controlled by its department: The Main Command of the Ground Forces (Army), the Main Command of the Navy and the Main Command of the Aerospace Forces. The departments are headed by service arm Commanders-in-Chief. The Ground Forces (Army), the Aerospace Forces and the Navy are distributed among four Military Districts: Western Military District, Southern Military District, Central Military District and the Eastern Military District which also constitute four Joint Strategic Commands – West, South, Central and East.

9. Read and mark each statement as true or false. Correct the false statements.

1. The Armed Forces of the Russian Federation consist of five armed services
2. The President is assisted by the Ministry of Defence and the Security Council.
3. Each armed service is controlled by itself.
4. The Ground Forces (Army), the Aerospace Forces and the Navy are distributed among six Military Districts.
5. The constitutional Supreme Commander- of the Armed Forces is the government of the Russian Federation.

10. Choose the correct answers.

1. Which of the words means the union of several provinces, states', etc .
A country **B** federation **C** chief .
2. Which of the words means "All of a nation's warships"

A defence B army C navy

3. Which of the words means "a person or group having administrative or managerial authority in an organization"

A leadership B executive C command.

4. Which of the words means "The capacity to do work or cause physical change; energy, strength, or active power"

A. service B department C force.

11. Read and translate Text B.

Text B

The armed forces of the Russian Federation consist of three principal armed services (виды ВС): The Army (Ground forces), the Navy and the Aerospace Forces. There are also two independent branches: Strategic Missile Troops and Airborne Troops. Each armed service is divided into several arms and services. The Russian Army (Ground forces) includes different arms and services. There are about twenty arms and services in the Army. Arms are those troops that directly participate in combat. Arms are: Motorized Infantry, Rocket and Artillery Forces, Armor or Tank Troops, Air Defence Troops, Army Aviation and Special Forces such as: reconnaissance units, Signal Troops, Engineer Troops. The main services are Radiological, Chemical and Biological Defence Troops, Finance Service, Transportation Service, Medical Service and other organizations. The main mission of the service is combat service support and administration in the field. The Russian Navy includes: Submarine Force, Surface Fleet, Naval Aviation and Coastal Troops such as Naval Infantry and Artillery and Rocket Troops. The Russian Aerospace Forces include: Air Force, Space Forces and Aerospace Defence Forces, including their components. For example, the Air Force includes: the Aviation, Anti-aircraft Missile and Radio-Technical Troops, which are the Arms of the Air Force.

12. Read and mark each statement as true or false.

Correct the false statements.

1. The armed forces of the Russian Federation consist of five principal armed services.
2. There are also three independent branches.
3. There are about twenty arms and services in the Army.
4. The Russian Navy includes: Submarine Force, Surface Fleet, Naval Aviation and air Force.
5. Arms are those troops that directly participate in combat.

13. Choose the correct answer.

1. What's the process of obtaining military information?
A attack **B** reconnaissance **C** fighting
2. ___ are soldiers, especially when they are in a large controlled group.
A troops **B** defenders **C** attackers
3. How is fighting called that takes place in a war?
A race **B** combat **C** competition

14. Scan the passage. Then complete each of the words that refer to services.

1. R _ _ _ o _ _ _ i _ _ l
2. _ h _ _ i _ _ l
3. T _ _ n _ _ _ r _ _ _ _ o _
4. _ _ d _ _ a _
5. F _ _ a _ _ e

15. Fill in the gaps with the appropriate words from the text.

1. The armed forces of ___ consist of three principal armed services.

2. There are also two ____branches: Strategic Missile Troops and Airborne Troops.

3. Each armed ____ is divided into several arms and services.

4. There are about twenty arms and services in _____.

5. Arms are those _____ that directly participate in combat.

16. Questions for understanding.

1. What do the Armed Forces of the Russian Federation consist of?

2. How many independent branches are there?

3. Who is the constitutional Supreme Commander-in-Chief of the Armed Forces?

4. What does the Ministry of Defence exercise?

5. What does the General Staff implement?

6. What is each armed service controlled by?

UNIT 2

Armored Personnel Carrier

Grammar: Passive Voice (Страдательный залог)

Действительный и страдательный залогов в английском языке совпадают со значением соответствующих залогов в русском языке. Глагол в действительном залоге (Active Voice) показывает, что действие совершает лицо или предмет, выраженный подлежащим.

He often asks questions. Он часто задаёт вопросы.

Глагол в страдательном залоге (Passive Voice) означает, что действие направлено на предмет или лицо, выраженное подлежащим.

He is often asked questions. Ему часто задают вопросы.

Формы страдательного залога образуются при помощи глагола to be в соответствующей форме и **Participle II (Причастие II)** смыслового глагола.

Время	Indefinite <i>Неопределенное</i>	Continuous <i>Длительное</i>	Perfect <i>Совершенное</i>
to be (am, is, are, was, were, ...)+ V3 (-ed форма)			
Present <i>Настоящее</i>	I +amV3 he, she, it+ isV3 we, you, they+ areV3	I +am beingV3 he, she, it+ is beingV3 we, you, they+ are beingV3	I, we, you, they+ have beenV3 he, she, it+ has beenV3
Пример:	I am asked	I am being asked	I have been asked
Past <i>Прошедшее</i>	I, he, she, it+ wasV3 we, you, they+ wereV3	I, he, she, it+ was beingV3 we, you, they+ were beingV3	I, he, she, it, we, you, they+ had beenV3
Пример:	I was asked	I was being asked	I had been asked
Future	I, we+ will beV3	—	I, we+

<i>Будущее</i>	he, she, it, you, they+ will be V3		will have been V3 he, she, it, you, they+ will have been V3
Пример:	I will be asked		I have been asked
Future in the Past <i>Будущее впро- шедшем</i>	I, we+ would be V3 he, she, you, they+ would be V3	—	I, we+ would have been V3 he, she, it, you, they+ would have been V3
Пример:	I would be asked		I would have been asked

Indefinite Passive (to be + Participle II)

The newspapers are delivered every morning. (Present Indefinite Passive) Газеты доставляются каждое утро.

This book was bought a month ago. (Past Indefinite Passive)
Эта книга была куплена месяц назад.

The letter will be mailed tomorrow. (Future Indefinite Passive)
Письмо будет отправлено завтра.

Continuous Passive (to be + being + Participle II).

The house is being repaired. (Present Continuous Passive)
Дом ремонтируется.

When John was ill he was being taught at home. (Past Continuous Passive) Когда Джон болел, его обучали дома.

Perfect Passive (to have + been + Participle II)

This letter has been brought by the secretary. (Present Perfect Passive) Секретарь принёс письмо. (Письмо принесено секретарём)

He decided to become a writer only when his first story had been published. (Past Perfect Passive) Он решил стать писателем, только когда его первый рассказ был напечатан.

By the 1st of July the last exam will have been passed (Future Perfect Passive)

К первому июлю последний экзамен будет вамисдан.

Сказуемое в страдательном залоге может переводиться на русский язык:

- а) кратким страдательным причастием;
- б) глаголом на -ся;
- в) неопределённо-личным глаголом.

The house is built.

- а) Дом построен
- б) Дом строится
- в) Дом строят.

Следует обратить особое внимание на перевод глаголов с предлогом в страдательном залоге. Наиболее распространённые из этих глаголов:

hear of – слышать о

laugh at – смеяться над

look after – присматривать за (кем-либо)

look at – смотреть на

rely on – полагаться на

send for – посылать за

speak of (about) – говорить о

pay attention to – обращать внимание на

take care of – заботиться о

The book is much spoken about. Об этой книге много говорят.

He can't be relied on. На него нельзя положиться.

В русском переводе не все глаголы сохраняют предлог:

to listen to – слушать что-либо, кого-либо

to look for – искать что-либо

to provide for – обеспечить кого-либо, чем-либо

to explain to – объяснять кому-либо

He was listened to with great attention. Его слушали с большим вниманием.

В страдательном залоге употребляются:

1) Непереходные глаголы, так как при них нет объекта, который испытывал бы воздействие, то есть нет прямых дополнений которые могли бы стать подлежащими при глаголе в форме Passive.

Переходными в англ. языке называются глаголы, после которых в действительном залоге следует прямое дополнение; в русском языке это дополнение, отвечающее на вопросы винительного падежа – кого? что?: **to build** *строить*, **to see** *видеть*, **to take** *брать*, **to open** *открывать* т.п.

Непереходными глаголами называются такие глаголы, которые не требуют после себя прямого дополнения: **to live** *жить*, **to come** *приходить*, **to fly** *летать*, **to cry** *плакать* др.

2) Глаголы-связки: **be** – *быть*, **become** – *становиться/стать*.

3) Модальные глаголы.

4) Некоторые переходные глаголы не могут использоваться в страдательном залоге. В большинстве случаев это глаголы состояния, такие как:

to fit – *годиться, быть в пору*

to have – *иметь*

to lack – *не хватать*

to like – *нравиться*

to resemble – *напоминать, быть похожим*

to suit – *годиться, подходить* др.

1. Put the verb in brackets into the correct tense in the Passive Voice.

Model: This library ... (build) in 1921. *This library was built in 1921.*

1. I can't pay the fare, because my purse ... (steal).
2. This irrigation project ... (finish) tomorrow.
3. Sandra ... (drive) to work by her husband every day.
4. My car ... (repair) at the moment.
5. Are you going to make breakfast? No, it ... (make) by my brother.

2. Fill in the gaps with the preposition *by* or *with*.

Model: The pie was made ... the peaches. *–The pie was made with the peaches.*

1. This manuscript was written ... unknown author many years ago.
2. Peter was woken up ... the storm.
3. My finger was cut ... a knife.
4. Mary is being bandaged ... a nurse at the moment.
5. The building will be decorated ... marble.

3. Change the sentences using the Passive Voice.

Model: Kate is writing an essay right now. *–An essay is being written by Kate right now.*

1. The gangsters killed him yesterday morning.
2. She hasn't made the dinner yet.
3. We should buy a new stove.
4. I water the flowers every day.
5. A postman has delivered an insured letter.

4. Put the verb in brackets into the Active and Passive Voice.

Model: Many women and children ... (hurt) in the car accident yesterday. – *Many women and children were hurt in the car accident yesterday.*

1. I ... (remember) this story forever.
2. These beautiful plants ... (grow) by my grandmother.
3. The best wine ... (produce) in France.
4. We ... (find) a corpse in his room.
5. This ancient settlement ... (discover) by the famous archaeologist in 1925.

5. Choose the correct word.

1. The room ... now.
a) is being cleaned b) is being clean
2. The new shopping centre ... soon.
a) will opened b) will be opened
3. My computer ... this week.
a) may be not repaired b) may not be repaired
4. A thief ... yesterday.
a) was caught b) has been caught
5. My food ... by waiter.
a) has been brought b) has brought

6. Give the Russian equivalents of the following English words and word combinations.

Infantry fighting vehicles, large track, capacity, in addition, tracked vehicles, wheeled vehicles, traverse speed, to provide protection, small turret, to be fitted with, machine gun, to mount, amphibious, carrier, maneuverability, to resemble, weapon system, to be outfitted.

7. Arrange the following words in the pairs of synonyms.

Armored, assault, attack, instrument, attempt, confine, remove, trench, conversation, submit, venture, action, technique, adjust, appliance, take off, restrict, impact, motion, discussion, intend, instrument, conform, ditch, repair.

8. Read and translate Text A from English into Russian.

Subtechnical vocabulary :

destruction(n)	уничтожение, разрушение
distinguish(v)	выделять, различать
resemble (v)	иметь сходство
truck (n)	грузовой автомобиль
weapon (n)	орудие, оружие
mount (v)	устанавливать, подниматься
remote (v)	располагать
pintle (n)	вертикальная ось
requirement (n)	требование, необходимое условие
reveal (v)	открывать
vehicle (n)	транспортное средство
provide (v)	снабжать, обеспечивать
outfit (n)	снаряжение, экипировка
protection (n)	защита, охрана

ТЕХТ А

An armored personnel carrier (APC) is type of armored fighting vehicle (AFV) designed to transport infantry to the battlefield. APCs are colloquially referred to as `battle taxi`s or `battle buses`, among other things. Armored personnel carriers are distinguished from infantry fighting vehicles by the weaponry they carry.

In our time most armored personnel carriers use a diesel engine comparable to that used in a large truck or in a typical city

bus. The M113 for instance used the same engine as the standard GM city bus.

Weight can vary from 6 to 40 tons or more, but 9 to 20 tons is typical. Most have a capacity of between 8 and 12 dismountable troops, although some can carry more than 20. In addition, it has a crew of at least one driver, many with a gunner and commander as well.

An APC is either wheeled or tracked, or occasionally a combination of the two, as in a half-track. Both systems have advantages and limitations.

Tracked vehicles have more traction off-road and more maneuverability, including a minute turn radius. Due to the limited service life of their treads, plus the wear they cause on roads, tracked vehicles are typically transported cross country by rail, flatbed trucks or purpose built transporters.

Wheeled APCs are faster on road, can cross long distances, and are less expensive to develop and produce. However, wheeled vehicles have higher ground pressure than tracked vehicles with a comparable weight, due to tracks having more surface area in contact with the ground. The higher ground pressure increases the likelihood of becoming immobilized by terrains such as mud, snow or sand.

9. Fill in the gaps with the appropriate words.

Traction, opportunities, minute turn, less, maintenance, resources, equipment, munitions.

1. Tracked vehicles have more ... of road and more maneuverability, including a radius.

2. Wheeled APCs are faster on road, can cross long distances, and are ... expensive to develop and produce.

3. Wartime creates challenges, but also ... to change.

4. Getting the armored transport, ... , ... and soldiers ready for invasion is a spectacular achievement of logistics, effort and manpower.

5. To be effective in the field, mechanized units also require large numbers of mechanics with specialized ... and

10. Translate the sentences from English into Russian.

1. Большинство материалов имеют более высокую плотность, чем вода и тонут в воде.

2. Все созданные в нашей стране боевые машины пехоты стали настоящими шедеврами мирового танкостроения.

3. По своей конструкции и тактико-техническими характеристиками эти машины совершенны.

4. Боевая бронированная гусеничная машина, предназначена для транспортировки личного состава мотострелковых и пехотных подразделений.

5. Моторно-трансмиссионное отделение расположено в передней части машины.

11. Read and translate Text B, give the name to the text.

TEXT B

Many APCs are amphibious. Their tracks can propel the APC in the water. Wheeled APCs will include propellers or water jets. Preparation for amphibious operations usually comprises checking the integrity of the hull and folding down a trim vane in front. Water traverse speed varies greatly between vehicles. The maximum swim speed of the M113 is 3.8 mph (6.1 km/h), whereas the LAV-25 and AAVP-7 about double that at 6.5 and 8.2 mph (10.5 and 13.2 km/h), respectively.

APCs must provide a minimum amount of protection against small arms fire to be considered as such, though some provide as much protection as a main battle tank, as is the case of the IDF Namer, which is based on a Merkava tank. Armor is usually com-

posed of steel or aluminum. Some APCs also come with NBC protection, which is intended to provide protection from weapons of mass destruction.

Generally APCs will be lighter and less armored than tanks or IFVs, often being open topped and featuring doors and windows, as seen in the French VAB.

An APC carries a primary weapon no larger than a 20 mm auto cannon, before falling into the "infantry fighting vehicle" sub-classification, and will most likely be outfitted with one or more machine guns ranging from 5.56 mm to 7.62 mm. The primary weapon is usually on the top of the vehicle, mounted with either a simple pintle mount, in a small turret, or a remote weapon system.

12. Translate the following Russian words and word combinations into English in writing, use a dictionary if necessary.

Пушка, бронированный, выявлять, материалы, сухопутная техника, пехота, самовоспламеняющаяся жидкость, плотность, трансмиссия, передняя часть, танкостроение, машинное отделение, разработать тактику, усиленный, двигатель внутреннего сгорания, принимать решение, механизированный, прибор, сложная задача, вертикальная ось.

13. Read and translate the text, think of five questions covering the text, put them to your group-mates.

The Bumerang

The Bumerang is a new-generation Russian armored personnel carrier. It was developed to replace the BTR-series APCs. The Bumerang was first publicly revealed in 2015. During the same year a handful of pre-production vehicles were delivered to the Russian Army. Full-scale production could begin in 2016. It is estimated that Russian Army has a requirement for around 2000 Bumerang armored personnel carriers.

The Bumerang is a clean sheet design. It is not based on any previous Russian APC. Actually it resembles Western wheeled armored vehicles. Design flaws of the previous Soviet and Russian APCs, such as rear-mounted engine, side exit and cramped crew compartment were fixed.

It is believed that maximum level of all-round protection with add-on armor is against 14.5-mm armor-piercing rounds. Vehicle has a V-shaped hull and can survive mine blasts.

The Bumerang is fitted with remotely-controlled turret, armed with a 30-mm cannon, coaxial 7.62-mm machine gun and 4 launchers with Kornet-M anti-tank guided missiles. There is also a version armed with a single 12.7-mm machine gun.

Vehicle is fully-amphibious. On water is propelled by two water jets.

14. Match the words and phrases from the text with their definitions. Make sentences with these words and phrases.

- | | |
|-----------------|--|
| reveal (v) | a military vehicle or ship covered with a tough metal layer as a defense against attack |
| mount (v) | a large, heavy piece of artillery, typically mounted on wheels, formerly used in war warfare |
| resemble (v) | the action or process of causing so much damage to smth. |
| infantry (n) | a soldiers who fight on foot |
| cannon (n) | all the things, esp. clothes, needed for a particular purpose |
| distinguish (v) | to recognize, to set apart or mark as different |
| handful (n) | a weapon from which bullets or lager metal objects are fired through a metal tube |
| outfit (n) | an amount which is as much as can be held in the hand |
| infantry (n) | to mean to be, to plan |
| cannon (n) | to fix on a support or to prepare |
| destruction (n) | have qualities or features, especially those of |

appearance, look or seem like
armored (adj) make (previously unknown or secret information) known to others

15. Questions for general understanding.

1. What are the Armored Personnel Carriers?
2. What engine do APCs and Bumerang use?
3. Why did the Bumerang develop to replace the BTR series APCs?

UNIT 3

FIRST ARMORED CARS

Grammar: Modal Verbs (Модальные глаголы)

Present (Настоящее время)	Past (Прошедшее время)
will	would (used to)
can	could
may	might
shall	should (ought to)
must (have to)	(had to)

I **can** come tomorrow. - Ямогуприйтизавтра.

Свойства модальных глаголов

1. После модального глагола следует смысловой глагол в простой форме, т.е. это форма инфинитива без частицы **to**.
2. Модальные глаголы не изменяются по лицам и числам, т.е. в 3-м лице ед. числа окончание **-s(-es)** не добавляется.

3. Модальные глаголы не имеют форм инфинитива, причастия, герундия.

4. Модальные глаголы не имеют будущего времени.

5. Глагол **must** не имеет формы прошедшего времени.

6. Поскольку у модальных глаголов нет всех необходимых форм, вместо недостающих форм используются эквиваленты.

Present (Настоящее время)	Past (Прошедшее время)	Future (Будущее время)
Can	could	will be able to
May	might	will be allowed to
Must	had to	will have to

7. При образовании вопросительной и отрицательной формы модальных глаголов другие вспомогательные глаголы не используются.

1. Fill in the gaps with the appropriate modal verbs.

(must, should, would, ought to, have to, needn't, can, could, may)

1. They... not to do this work themselves.
2. You ... take my dictionary.
3. You don't look well, you ... consult the doctor.
4. Why ... I give you my money?
5. She ... not speak any foreign language.
6. He ... to help them. They need his help.
7. ... you tell me the time?
8. ... I go with you? No, you
9. Your daughter ... have told them about it.
10. ...you play the piano before?

2. Translate the sentences.

1. This building should have been constructed a year ago.
2. The letter should have been sent yesterday.
3. The tests of materials should have been conducted before their use.
4. We should not have used that sort of steel.
5. This phenomenon should be explained by thermal expansion.

3. Complete the sentences with the appropriate modal verbs.

1. I ... not go to the theatre with them last night, I ... revise the grammar rules and the words for the test. 2. My friend lives a long way from his office and ... get up early. 3. All of us ... be in time for classes. 4. When my friend has his English, he ... stay at the office after work. He (not) ... stay at the office on Tuesday, Thursday and Saturday and ... get home early. 5. ... you ... work hard to do well in your English? 6. "... we discuss this question now?" "No, we ... We ... do it tomorrow afternoon." 7. I'm glad you ... come. 8. "... you ... come and have dinner with us tomorrow?" "I'd love to." 9. "Please send them this article". "Oh, ... I do it now".

4. Translate into English using modal verbs.

1. Мы обязательно должны писать диктант сегодня? – Да, завтра мы будем учить новые слова. 2. Вчера мне пришлось ответить на все эти письма. 3. Виктора тоже пригласить на обед? – Да, сделайте это, пожалуйста. 4. Вам пришлось остаться дома, потому что была плохая погода? 5. Вы обязательно должны прийти и посмотреть нашу новую квартиру.- С удовольствием. 6. Я рад, что мне не пришлось заканчивать эту работу вчера. 7. Я не люблю поздно ложиться спать, но иногда мне приходится. 8. Можно мне пойти погулять сейчас? Нет, нельзя. Ты должен скоро ложиться спать. 9. Вам следует навестить вашего друга. Он вчера не пришел на урок. 10. Поче-

му ты не пришла? - Я не могла, я должна была помочь маме по дому. 11. Вам не нужно идти в библиотеку, у нас много книг дома, и вы можете взять любую, какую хотите.

5. Give the Russian equivalents for the following words and word combinations.

Armored vehicles, weapon engine, single prototype, to be presented at, armament, to be equipped with, rotating turret, traverse, machine gun, variety, to consist of, speed, a crew of four, to be manufactured.

6. Translate into English.

- 1) оружие;
- 2) транспортное средство;
- 3) транспортировка;
- 4) башенка (башня);
- 5) двигатель;
- 6) быть оснащённым;
- 7) шасси;
- 8) вооружение;
- 9) преодолевать;
- 10) регулируемый.

7. Read and translate Text A into Russian.

TEXT A
First armored cars

At the beginning of the 20th century, the first military armored vehicles were manufactured, by adding armor and weapons to existing vehicles.

The first armored car was the Simms' Motor War Car, designed by F.R. Simms and built by Vickers, Sons & Max-

imofBarrowon a specialCoventry-builtDaimlerchassiswith aGerman-built Daimlermotor in 1899and a single prototype was ordered in April 1899. The prototype was finished in 1902,too late to be used during theBoer War.

The vehicle had Vickers armoured 6mm thick and was powered by a four-cylinder 3.3-litre16hpCannstatt Daimler engine, giving it a maximum speed around 9 miles per hour (14 kilometres per hour). The armament, consisting of twoMaxim guns, was carried in two turrets with 360° traverse. It had a crew of four. Simms' Motor War Car was presented at the Crystal Palace,London, in April 1902.

Another early armored car of the period was the FrenchCharron, Girardotet Voigt 1902, presented at the*Salon de l'Automobile et du cycle*inBrussels, on 8 March 1902. The vehicle was equipped with aHotchkiss machine gun, and with 7mm armour for the gunner.

One of the first operational armoured cars with four wheel (4x4) drive and fully enclosed rotating turret, was theAustro-Daimler Panzerwagenbuilt byAustro-Daimlerin 1904. It was armoured with 3-3.5mm thick curved plates over the body (drive space and engine) and had a 4mm thick dome-shaped rotating turret that housed one or two machine-guns. It had a 4-cylinder 35hp 4.4.

litre engine giving it average cross country performance. Of note, both the driver and co-driver had adjustable seats enabling them to raise them to see out of the roof of the drive compartment as needed.

The Italians used armored cars during theItalo-Turkish War.A great variety of armored cars appeared on both sides duringWorld War Iand these were used in various ways.

7. Explain in English the meaning of the following words.

- 1)military armored vehicles;
- 2)rotating turret;

- 3)adjustable seats;
- 4)machine gun;
- 5)to be armored with.

8. Questions for general understanding.

1. When were the first military armored vehicles manufactured?
2. What was the power of the first armored vehicles?
3. What was the first step in the development of automation

9. Read and translate the Text B into Russian.

TEXT B **A Reconnaissance Vehicle**

A reconnaissance vehicle, also known as a scout vehicle, is a military vehicle used for forward reconnaissance. Both tracked and wheeled reconnaissance vehicles are in service. In some nations, light tanks such as the M551 Sheridan and AMX-13 are also used by scout platoons. Reconnaissance vehicles are usually designed with a low profile or small size and are lightly armoured, relying on speed and cover to escape detection. Their armament ranges from a medium machine gun to a large cannon. Modern examples are often fitted with ATGMs and a wide range of sensors. Some armoured personnel carriers and infantry mobility vehicles, such as the M113, TPz Fuchs, and Cadillac Gage Commando double in the reconnaissance role.

Smaller caliber weapons help reduce the vehicle's profile and noise signatures. https://en.wikipedia.org/wiki/Reconnaissance_vehicle - cite note-1 In contrast, French doctrine was to fit reconnaissance vehicles, such as the AMX 10 RC, with the heaviest weaponry possible on their light chassis, so as to allow them a further role for defence of the flanks.

Notes:

1. Cadillac Gage Commando – отряд (коммандос) специального назначения (разв. – диверс.)

2. AMX-13 – французский лёгкий танк. Разработан в 1946 – 1949 годах, неоднократно модернизируясь, производился серийно во Франции с 1952 по 1964 год.

3. TPz Fuchs (нем. Transportpanzer Fuchs – Бронетранспортёр 1 Лиса) – немецкий бронетранспортёр – боевая колёсная плавающая бронемашина, оснащённая вооружением, предназначенная для использования в мотострелковых подразделениях сухопутных войск.

4. M551, Шеридан (англ. 152 mm Gun Launcher AR/AAV M551, General Sheridan) – лёгкий авиадесантный плавающий танк США.

5. AMX-10RC – французский тяжёлый броневедомитель, часто классифицируемый также как колёсный танк.

6. EBR gives you easy, up-to-date, online access to detailed and accurate European company information direct from the source – each country's official register

7. M113 – бронетранспортёр (БТР) США 1960-х годов.

UNIT 4

METALS

Grammar: THE ADJECTIVE (Прилагательное)

1. Прилагательным называется часть речи, обозначающая признак предмета, т. е. качество или свойство.

2. По своей структуре прилагательные бывают:

а) *Простые*, т. е. состоящие только из одного корня: red красный, large большой.

б) *Производные*, т.е. имеющие кроме корня еще и суффиксы или префиксы, а иногда то и другое: dangerous опасный, unable неспособный, remarkable замечательный.

с) *Сложные*, т.е. состоящие из двух или более основ: ice-cold холодный как лед, light-blue светло-голубой.

3 Прилагательные в английском языке не изменяются ни по родам, ни по числам, ни по падежам:

This is a good book. Это хорошая книга.

I gave him a good book. Я дал ему хорошую книгу.

He brought me two good books. Он принес мне две хорошие книги.

4. По своему значению прилагательные делятся на качественные, обозначающие качество предмета, т. е. такой признак, который может быть у предмета в большей или меньшей степени:

small – маленький: yellow – желтый

и *относительные*, указывающие на связь предмета с другим предметом, от названия которого образовано данное прилагательное: silver – серебряный; Siberian – сибирский;

Russian – русский.

Функции прилагательных в предложении:

а) Определения:

A great ship asks deep waters. Большому кораблю – большое плавание.

б) Именной части сказуемого:

Who has never tasted bitter, knows not what is sweet. Кто никогда не пробовал горького, не знает, что такое сладкое.

5) Некоторые прилагательные могут приобретать значение предмета, т.е. признаки существительного, и могут выполнять в предложении те же функции, что и существительное:

relative (относительный) – *a relative* (родственник)

American (американский) – *an American* (американец)

Степени сравнения прилагательных (Degrees of Comparison)

1. Качественные прилагательные в английском языке имеют три степени сравнения: положительную, сравнительную и превосходную.

Положительная степень (The Positive Degree) обозначает качество предмета вне сравнения с каким-либо другим предметом, обладающим тем же качеством.

Сравнительная степень (The Comparative Degree) указывает на наличие большей степени качества у одного предмета сравнительно с другим предметом, обладающим тем же качеством. При сравнении часто употребляется союз *than* – чем.

Превосходная степень (The Superlative Degree) указывает на высшую степень качества у того или иного предмета среди всех других однородных предметов, обладающих тем же качеством.

2. Односложные прилагательные и двусложные, оканчивающиеся на *-y*, *-er*, *-ow*, *-le* образуют сравнительную степень при помощи суффикса *-er*, а превосходную степень при помощи суффикса *-est*, которые прибавляются к прилагательному в положительной степени:

dark	темный	darker	(the) darkest
simple	простой	simpler	(the) simplest
clever	умный	cleverer	(the) cleverest

а) This highway is wider than that highway. Это шоссе шире того шоссе.

б) That is the highest building in the city. Это – самое высокое здание в городе.

В односложных прилагательных, оканчивающихся на одну согласную, стоящую после краткой гласной, для сохране-

ния краткости чтения этой гласной согласная перед суффиксами -er, -est удваивается: big-bigger- (the) biggest; hot-горячий-hotter-(the) hottest.

В прилагательных, оканчивающихся на -y, стоящую после согласной, перед суффиксами -er, -est -y меняется на i:

busyзанятый-busier - (the) busiest

happyсчастливый - happier - (the) happiest

3. Все многосложные прилагательные, а также двусложные, не оканчивающиеся на -y, -er, -ow, -le образуют степени сравнения при помощи служебных слов more более - для сравнительной степени и (the) most наиболее, самый - для превосходной степени:

This subject is more important for you now. Этот предмет для тебя сейчас важнее (более важный).

It is the most interesting book I have ever read. Это самая интересная книга, какую я когда-либо читал.

Для выражения более низкой степени качества употребляются служебные слова less - (менее)- в сравнительной степени и (the) least меньше всего, (наименее) - в превосходной:

This text is less difficult than that one. Этот текст менее трудный, чем тот.

This text is the least difficult of all. Этот текст наименее трудный из всех.

4. Несколько прилагательных образуют степени сравнения от разных основ. Их рекомендуется запомнить:

good-better-(the) best; хороший-лучше -самый хороший, лучше всех

bad-worse-(the) worst; плохой-хуже-самый плохой, хуже всех

little-less-(the) least; маленький -меньше-самый маленький, меньше всех

5. Для усиления сравнения перед прилагательными в сравнительной степени употребляются наречия far, still, much - гораздо, намного, значительно:

muchbetter- гораздо лучше; muchmore-гораздо больше

much worse – гораздо хуже

The weather is much better today.

Сегодня погода гораздо лучше.

6. Сочетание the... the с прилагательными в сравнительной степени переводится на русский язык союзом чем... тем в сочетании с прилагательными в сравнительной степени:

1. Make up comparative and superlative forms of the adjectives listed below.

Model: short – shorter – (the) shortest

1. Large, tall, long, easy, hot, big, cold, nice, bad, short, low, busy, many, little.

2. beautiful, pleasant, comfortable, popular, famous, active, wonderful, necessary.

2. Open the brackets using the right form of adjectives.

1. Your English is (good) now.

2. We have (little) interest in this work than you.

3. Health is (good) than wealth.

4. It is one of (important) questions of our conference.

5. Your son worked (well) of all.

6. The Alps are (high) mountains in Europe.

7. Pete is not as (tall) as you are.

3. Give the Russian equivalents for the following words and word combinations.

To be bent by, property, separation, ductile, dense, malleable, crystalline structure, hammering, amounts, arrangement, fracture, coarse grains, to slide over, to increase, fatigue, to creep, to be drawn, grinder, to be melted, alloying, hot-working, vessels, to be required for.

4. Find the following in the text.

- 1) свойства металлов;
- 2) разделение атомов;
- 3) ковкий металл;
- 4) малое количество;
- 5) беспримесный металл;
- 6) двигаться плавно;
- 7) горячая обработка металла;
- 8) сгибать вручную;
- 9) причина деформации.

5. Read and translate Text B into Russian.

TEXT B

Structure and properties of metals

Metals are materials most widely used in industry because of their properties. The study of the production and properties of metals is known as metallurgy.

The separation between the atoms in metals is small, so most metals are dense. The atoms are arranged regularly and can slide over each other. That is why metals are malleable (can be deformed and bent without fracture) and ductile (can be drawn into wire). Metals vary greatly in their properties. For example, lead is soft and can be bent by hand, while iron can only be worked by hammering at red heat.

The regular arrangement of atoms in metals gives them a crystalline structure, irregular crystals are called grains. The properties of the metals depend on the size, shape, orientation, and composition of these grains. In general, a metal with small grains will be harder and stronger than one with coarse grains.

Heat treatment such as quenching, tempering, or annealing controls the nature of the grains and their size in the metal. Small amounts of other metals (less than 1 per cent) are often added to a pure metal. This is called alloying (легирование) and it changes the grain structure and properties of metals.

All metals can be formed by drawing, rolling, hammering and extrusion, but some require hot-working.

Metals are subject to metal fatigue and to creep (the slow increase in length under stress) causing deformation and failure. Both effects are taken into account by engineers when designing, for example, airplanes, gas-turbines, and pressure vessels for high-temperature chemical processes. Metals can be worked using machine-tools such as lathe, milling machine, shaper and grinder. The ways of working a metal depend on its properties.

6. Answer the questions.

1. What is malleability?
2. Why are most metals dense?
3. What do the properties of metals depend on?
4. How are metals worked?
5. What is crystalline structure?

7. Translate into Russian.

1. Mankind has used metals for centuries in gradually increasing quantities but only now they are employed in really great quantities.

2. Of all the metals iron is the most important one. Absolutely pure iron is never prepared except for laboratory purposes

3. These mechanical properties are of great importance in industrial purposes because all parts and units made of iron and steel must meet up-to-date demand

8. Read and translate Text A.

Text A

Metals and nonmetals

There are some distinctions between metals and nonmetals. Metals are distinguished from nonmetals by their high conductivity for heat and electricity, by metallic lustre and by their resistance to electric current. Their use in industry is explained not only by those properties, but also by the fact that their properties, such as strength and hardness, can be greatly improved by alloying them with other metals. There are several important groups of metals and alloys. The so-called precious metals include silver, gold, platinum and palladium. The light metals are aluminium, beryllium and titanium. They are important in aircraft and rocket construction.

Many elements are classified as semimetals (bismuth, for example) because they have much poorer conductivity than common metals.

Nonmetals (carbon, silicon, sulphur) in the solid state are usually brittle materials without metallic lustre and are usually poor conductors of electricity. Nonmetals show greater variety of chemical properties than common metals do. Metals can undergo corrosion, changing in this case their chemical and electromechanical properties. In order to protect metals from corrosion the products made of metals and steel are coated by some films (coatings). Organic coatings protect metals and steel from corrosion by forming a corrosion-resistant barrier between metal or steel and the corrosive environment.

9. Answer the questions.

1. What are metals and nonmetals?
2. What are the distinctions between metals and nonmetals?
3. How many groups of metals and alloys are there? What are they?

4. What is alloying?

UNIT 5

MACHINE TOOLS

Grammar: Numerals (Числительное)

Именем **числительным** называется часть речи, которая обозначает количество или порядок предметов. По строению они подразделяются на простые, производные и составные:

К *простым* относятся числительные от 1 до 12.

Производными являются числительные от 13 до 19.

Они образуются при помощи суффикса – **teen** от соответствующих числительных первого десятка:

*four*четыре – *fourteen*четырнадцать.

К производным относятся также числительные, обозначающие десятки. Они образуются при помощи суффикса – **ty**: *six*шесть – *sixty*шестьдесят; при этом некоторые из них видоизменяются.

например: *two*два – *twenty*двадцать.

К *составным* относятся числительные, обозначающие десятки с единицами, начиная со второго десятка. Они пишутся через дефис (черточку). Например: *twenty-one*двадцать один,

*forty-seven*сорок семь.

В составных числительных в пределах каждого трех разрядов перед десятком (а если их нет, то перед единицами) ставится союз **and**, например:

3,516,436

three million five hundred and sixteen thousand four hundred and thirty-

six. В американском варианте произношения союз **and** опускается, например: *375 – three hundred seventy-five.*

При обозначении количественных числительных при помощи цифр каждые три разряда (справа налево) отделяются запятой, например: 1,534; 3,580,000.

Запятая в английской системе арифметических знаков указывает на разряд, а в русской системе записи это знак десятичной дроби. **Точка** между цифрами в английской системе является знаком десятичной дроби, а в русской системе указывает на разряд числа.

Например:

Английская система.

3,851.355 kilometers

4.5 tons

Русская система.

3.851,355 километра

4,5 тонны

Они не принимают окончания множественного числа, когда перед ними стоит числительное, например:

two hundred *две сотни, двести*

three thousand *три тысячи*

five million *пять миллионов*

Но они принимают окончания множественного числа, если они выражают неопределенное количество сотен, тысяч, миллионов, а после них употребляется существительное с предлогом **of**.

Hundred **of** students

thousands **of** songs

Сотни студентов

Тысячи песен

1. Write in numbers.

1. Two hundred and forty-five, five hundred and thirty-three, eight hundred and sixteen.

2. Three thousand five hundred and sixty-two, seven thousand three hundred and twenty-four.

3. One hundred books, a hundred (of) pages

4. Two and three is five (two plus three equals five), seven minus four is three, three multiplied by five is fifteen, ten divided by two is five.

5. The first of January, two thousand and eighteen; the eight of March, two thousand and seventeen.

6. Chapter five, bus six.

7. Three point four five, eight point zero nine.

8. Two thirds, four fifths.

Subtechnical vocabulary:

machine-tool	станок
equipment	оборудование
jewel	драгоценный камень
aircraft	самолет
spindle	шпиндель
to impart	придавать, сообщать
rotary	вращательный
motion	движение
feed	подача
to rest	отдыхать, покоиться
frame	рама, корпус
cutter	резец, фреза, режущий инструмент
to rotate	вращать
lathe	токарный станок
to perform	исполнять, совершать
variety	разнообразие, множество
reaming	развертывание, раззенкование
tapping	нарезка резьбы метчиком
to employ	употреблять
adapter	держатель, соединительная муфта
drive	привод, передача
arrangement	устройство

Word combinations for connected reading.

drilling machine	сверлильный станок
------------------	--------------------

sensitivedrillingmachine	сверлильный станок повышенной-точности
uprightdrillingmachine	вертикально-сверлильный станок
radialdrillingmachine	радиально-сверлильный станок
multi-spindlemachine	многошпиндельный станок
millingmachine	фрезерный станок
benchlathe	верстачный станок
chuckinglathe	патронный токарный станок
screwmachine	винторезный станок
boringmill	расточный станок
crankshaftlathe	коленчатоваальный станок
wheelathe	колесотокарный станок
engineathe	токарно-винторезный станок

2. Find the Russian equivalents for the following word combinations.

a) stationary repair shops; are changed automatically; machine-tools perform; depends upon the size; diameter of a work piece; the most convenient machine-tools; are equipped with mechanisms; cutting tools; circular holes; the main parts of lathe; a number of processes; high speed steel; metal undergoes; are used in production;

b) металл проходит (через); многочисленные процессы; станки изготавливают; основные части токарного станка; автоматически меняются; отверстия круглой формы; применяются в производстве; режущие инструменты; зависит от размера; диаметр детали; стационарные мастерские; скоростная сталь; оборудованы механизмами; самый удобный станок.

3. Read and translate Text A into Russian.

ТЕХТ А

The machine-tool is the principal manufacturing equipment in a shop. It is essential in the manufacture of every product from a giant turbine to minute jewels for aircraft instruments.

One of the simplest tools is the ordinary drilling machine. It consists of a spindle which imparts rotary motion to the drilling tool, mechanism for feeding the tool into the work, a table on which the work rests, and a frame.

The drilling machines or drill presses are grouped into the following four classes: sensitive, upright, radial and multi-spindle machines.

A milling machine is a machine-tool that removes metal as the work is fed against a rotating cutter.

The lathe is a machine-tool which can perform a wide variety of operations. It is primarily used for turning and boring operations. In addition, the lathe can be used for drilling, reaming, tapping and, by employing suitable adapters, operations of milling and grinding may be carried out without difficulty.

The lathe is the oldest machine-tool, but it is still widely used.

There are many types of lathes that differ in their size, design, method of drive, arrangement of gears and purpose.

According to the character of work performed, the design and construction lathes are divided into the following types: bench lathes, chucking lathes and automatic lathes. There are also screw machines, boring mills, crankshaft lathes, wheel lathes, etc. An engine lathe is shown in the figure.

Vocabulary :

toundergo	подвергаться, проходить через
shape	форма
casting	отливка
rolling	прокатка
welding	сварка
piercing	прохождение отверстия
trimming	обрезка, заделка краев, отделка
spinning	выдавливание (на

bending	токарно-винторез. станке)
drawing	сгибание
machine-tool	выдавливание, волочение
lathe	станок
headstock	токарный станок
chuck	передняя бабка
tailstock	зажим, патрон, держатель
carriage	задняя бабка
perfection	каретка
turner	завершение
plane	токарь
surface	плоский
milling	поверхность
shaping	фрезерование
hole	придание формы
drilling	отверстие
	дробление, шлифовка,
	измельчение
boring	бурение, сверление
thread	резьба, нарезка

4.Translate into English.

1 Металл подвергается таким процессам как сварка, ковка, прокатка, отливка и т.д.

2 .Основными частями токарного станка являются задняя бабка, передняя бабка, зажим и каретка.

3. Отверстия круглой формы высверливаются на сверлильном станке или с помощью расточной фрезы.

4. Режущие инструменты в станках сделаны из скоростной стали.

5. Механизмы сверлильного станка позволяют сверлить, зенковать и нарезать резьбу.

5. Find the wrong statements and correct them.

1. The main parts of machine-tool are the headstock, the chuck, the tap and the tailstock.
2. Milling machines work on flat surfaces.
3. A boring machine drills circular holes.
4. Shaping machines include gear milling machines.
5. The type of a lathe depends upon the work piece diameter size.

6. Read and translate Text B into Russian.

Text B

Metal undergoes a number of processes before it is formed into the required shape: casting, rolling, welding, piercing, trimming, spinning, bending, drawing, etc.

The machines which perform all these kinds of works are called machine-tools. The most common machine-tool found in almost any workshop is the lathe. The main parts of it are: the headstock, the chuck, the tailstock, the carriage.

The automatic lathe is a perfection of the ordinary lathe. Its tools are changed automatically. A worker skilled in the use of a lathe is called a turner.

There are many other machine-tools that work on plane surfaces, for example, milling machines, planing and shaping machines. Circular holes are drilled by a drilling machine or bored by a boring machine or a boring mill. Thread milling machines are used in the production of different machine elements. Gear cutting machines include gear milling machines. All these machines use cutting tools made of high-speed steel.

There are three types of lathes produced by our machine-tool manufacturing works: heavy, medium and light types. The type of a lathe depends upon the size of diameter of work pieces.

Almost convenient and efficient machine is the model combination lathe for turning, milling, drilling, grinding, slotting, and tool-

sharpening jobs. It can be used both in stationary and mobile repair shops, on ships, etc.

The most drilling machines are equipped with mechanisms, permitting not only drilling, countersinking and reaming, but also cutting female threads with the help of taps.

Both universal and special-purpose type radial drills are built.

7. Complete the sentences choosing one of the appropriate variants.

1. The machines which perform drawing, casting, rolling, welding, trimming, etc. are called...

2. The most common machine-tool is ...

3. ... are changed automatically.

4. Circular holes ... by a boring machine.

5. Machine-tools use ... made of high-speed steel.

6. The model combination lathe is ...

7. The most drilling machines are equipped with mechanisms which

Are bored; permit not only drilling, countersinking and reaming, but also cutting female threads; lathe; cutting tools; machine-tools; the tools of the ordinary lathe; a most convenient and efficient machine.

8. Questions for general understanding.

1. What process does metal undergo before it is formed into the required shape?

2. How are the machines which perform this work called?

3. What is the most common machine-tool in any workshop?

4. What are the main parts of a lathe?

5. Are tools of the automatic lathe changed automatically?

6. What are the different types of machine-tools to work on plane surfaces?

7. What are circular holes drilled by?

8. Where are thread milling machines used?
9. What are the main types of lathes?
10. What does the type of a lathe depend upon?
11. What is the most convenient and efficient machine?
12. What are the majority of drilling machines equipped with?

UNIT 6

UNIFORMS AND TACTICAL GEARS

Grammar: *The Infinitive (Инфинитив)*

Infinitive	Simple	Continuous	Perfect	Perfect Continuous
Активный залог	to listen	to be listening	to have listened	to have been listening
Пассивный залог	to be listened	to be being listened	to have been listened	to have been being listened

Например:

The professor is glad to see his former students. Профессор рад видеть своих бывших студентов.

He is proud to be working with this famous scientist.

Он гордится тем, что работает с известным ученым.

The professor is glad to have seen his former students. Профессор рад, что повидал своих бывших студентов.

Perfect Continuous

He is proud to have been working with this famous scientist for many years. Он гордится тем, что проработал с этим известным ученым много лет.

1. Инфинитив в форме действительного залога

Active

I want to help you. Я хочу помочь Вам.

Passive

I want to be helped. Я хочу, чтобы мне помогли.

Функции инфинитива:

1. *Подлежащее.*

To read is her hobby. Чтение – ее любимое занятие. (Читать – ее любимое занятие.)

2. *Часть сказуемого*

Our aim is to master English. Наша цель – овладеть (овладение) английским языком.

Your task is to become a good engineer. Ваша задача заключается в том, чтобы стать хорошим инженером.

3. *Дополнение.* She likes to sing. Она любит петь.

4. *Определение выраженное:*

а) неопределенной формой глагола: The desire to find the solution was very strong. Желание найти решение было очень сильным.

б) существительным или прилагательным: It will be done in the year to come. Это будет сделано в ближайшие годы.

в) придаточным определительным предложением: He was the first to prove it. Он был первым, кто доказал это.

5. *Обстоятельство:* in order to ...

A number of devices were developed in order to detect cosmic rays. Было разработано несколько приборов для того, чтобы обнаруживать космические лучи.

а) придаточным предложением с союзом для того, чтобы:

To read this English article you must use a dictionary. Для того, чтобы прочитать эту английскую статью, вам нужно воспользоваться словарем.

б) неопределенной формой глагола:

She went there to study physics. Она поехала туда изучать физику.

в) *деепричастием:*

Hydrogen combines with oxygen to form water. Водород соединяется с кислородом, образуя воду.

Запомните устойчивые словосочетания инфинитивом: To cut a long story short, To tell (you) the truth, To say nothing of, To put it mildly, To say the least of it, To begin with.

1. Insert the particle 'to' where necessary.

1. I like ... play the guitar. 2. My brother can ... speak French. 3. We had ... put on our overcoats because it was cold. 4. May I ... use your telephone? 5. I would rather ... stay at home today. 6. Would you like ... listen to good music? 7. What makes you ... think you are right? 8. I like ... dance. 9. Let me ... help you with your home work.

2. Use the infinitive in its proper form.

A. Passive or Active. 1. The lecturer wants The student wants ... (to understand, to be understood) it. 2. We expected the meeting ... next month. He expected ... the attention of the audience (to hold, to be held). 3. Some changes had He wanted ... some changes in the project (to make, to be made).

B. Indefinite or Perfect. 1. She admits ... the same mistake in her previous paper (to make, to have made). 2. It's good ... work on time (to finish, to have finished). 3. She confessed ... the man before (to see, to have seen).

3. Use the infinitive instead of the subordinate clause.

Model: I have no books which I can read. I have no books to read.

1. He hopes that he will get the information tomorrow. 2. We should be sorry if we heard bad reports of him. 3. Do not promise

that you will do it, if you are not sure of success. 4. He was sorry when he heard of your disappointment. 5. She was sorry that she had missed the beginning of the lecture. 6. There was nothing that he could do except going home. 7. Don't forget that she has a baby whom she must take care of. 8. She is happy that she has found such a simple solution to this difficult problem.

4.State the forms and functions of the infinitive. Translate the sentences.

1. Our plan was to introduce new methods of research. 2. Here is an example to be followed. 3. They must continue their space exploration. 4. All you have to do is to write a letter. 5. He continued to read. 6. I didn't ask to be told the news. 7. He has a lot of work to do. 8. I left my village to enter the university. 9. To make a choice between these two methods was quite difficult. 10. There are lots of contradictions to be found in your report. 11. The conference to be held tomorrow will be devoted to a dramatic breakthrough in astronomy.

5. Translate the sentences. Mind the infinitive.

1. To put it mildly, this work must be done. 2. This method is of great scientific value, to say nothing of its possible economic effect. 3. To tell the truth, we expected quite different results. 4. Our new boss is hard to please. 5. To cut a long story short, he didn't pass his exam on physics. 6. Our neighbours are difficult to deal with. 7. It is very strange to say the least of it. 8. His behaviour leaves much to be desired. 9. To begin with, everybody makes mistakes. 10. This new actress is pleasant to look at.

6. Change the sentences according to the model and translate them.

Model: Thomson was the first who discovered the electron. Thomson was the first to discover the electron. Томсон первым открыл электрон.

1. Lodygin was the first who invented the electric lamp.
2. Yuri Gagarin was the first who flew into space.
3. Samuel Morse was the first who produced a practical telegraph.
4. You will be the last who will answer at the exam.
5. James Chadwick was the first who discovered the neutron.

7. Translate the groups of words with the passive infinitive: *Model: The data to be discussed... Данные, которые нужно обсудить ... (Данные, которые будут обсуждаться) ...*

1. The problem to be solved ...
2. The measures to be taken ...
3. The stars to be observed ...
4. The decision to be made ...
5. The new words to be learnt ...
6. The new method to be introduced ...
7. The factor to be taken into consideration ...
8. The advice to be followed ...
9. The secret to be discovered ...
10. The conference to be held ...

8. Translate the sentences with the infinitive in the function of an attribute.

1. The problems to be discussed are of vital importance for our work.
2. The decision to be made is hardly an easy one.
3. There are some measures to be urgently taken.
4. Here are some new expressions to be learnt.
5. This is the issue to be debated in the Parliament.
6. The scientist spoke about the new method to be introduced.

9. Read and translate the sentences. Mind the place of the infinitive and its functions.

1. To read English books is necessary. 2. To read this English book you will have to use a dictionary. 3. To harness solar energy for practical purposes is the task facing engineers. 4. To harness solar energy for practical purposes the engineers will have to make a lot of experiments. 5. To develop national economy is the main task of the government. 6. To develop national economy the people have to use the natural resources of the country most efficiently. 7. To expand old universities is much cheaper than to build new ones. 8. To expand old universities is a versatile problem. 9. To take correct measurements is not an easy task. 10. To take correct measurements it is necessary to use accurate instruments.

10. Read and translate Text A into Russian.

TEXT A

Today's military uniforms are lightweight and comfortable. Most countries' uniforms are camouflaged. This makes soldiers blend into the scenery. Trousers, a T-shirts, boots and headgear make up the basic field uniform. For colder weather, soldiers wear a field jacket.

A soldier carries what he needs into the battle in load-bearing equipment, including a rucksack and webbing. The webbing may contain a bayonet, two or more ammo pouches, a first aid kit, canteen holders for water canteens and even a pistol holster. The soldier typically wears a Kevlar helmet into battle.

11. Read and choose the correct answers.

1. To help them ..., soldiers wears uniforms that are camouflaged.

- a) carry heavy equipment
- b) hide in their surroundings

- c) stay warm in cold weather
 - d) carry additional equipment
2. Which is NOT normally a part of the webbing?
- a) a first aids kit
 - b)trousers
 - c) a bayonet
 - d)an ammo pouch

12. Write down the parts of the soldier’s uniform.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

13. Read and translate Text B into Russian.

TEXT B

Organization. Rank structure.

The use of ranks in armies is nothing new. In fact, some modern ranks existed in the Middle Ages, such of the rank of captain. Today, there are two main groups enlisted soldiers and officers. Enlisted soldiers have no command authority. They rank bellow all commissioned officers. Enlisted soldiers begin with the rank of private. There are two types of officers. Noncommissioned officer (NCO) like a sergeant is given some authority. However, NCOs are full officers. A warrant officer is a type of NCO. There are often technicians and specialists.

Commissioned officers begin with the rank of lieutenant. They must undergo special training to receive their "commission".

Commissioned officers such as generals command armies or major parts of armies.

14. Mark each statement as true or false. Correct the false statement to make them true.

1. The ranks used by armies today were created by armies in the Middle Ages.

2. Enlisted soldiers only have commanded authority over non-commissioned officers.

3. The rank of private is the lowest rank that a commissioned officer holds.

4. Warrant officers are considered non – commissioned officers.

5. The lowest commissioned rank is the rank of lieutenant.

15. Choose the correct answer for each question.

1. Which of the following is non-commissioned officer?

- a) a private
- b) a sergeant
- c) a general

2. Which job might a warrant officer have?

- a) infantryman
- b) field medic
- c) artillery targeting technician

16. Choose the rank in each pair that is higher in authority.

1. sergeant major/ sergeant

2. private /corporal
3. colonel / general
4. lieutenant / command sergeant major
5. captain / lieutenant colonel

17. Read and translate Text C.

TEXT C
Military Organization

The organization of an army greatly increases and effectiveness. The smallest unit in a modern army is a fireteam. This is made up of four to five soldiers. Two or more fireteams together make up a squad. Similarly, two or more squads form a platoon, (25–60 people). Above the platoon is the company (2–8 platoons, with 70 – 250 soldiers).

A battalion can include up 1,500 troops. Two or more battalions make up a regiment and two to four regiments create a division consisting of 10.000 -20.000 soldiers. An army is commanded by a general and can have more than 100.000 troops.

18. Match the unit name (1-7) with its size (A- G) .

- | | |
|-------------|---------------------|
| 1)fire team | A. 20.000 soldiers |
| 2)company | B. 4–5 soldiers |
| 3)battalion | C. 100.000 soldiers |
| 4)division | D. 1.500 soldiers |
| 5)army | E. 25 soldiers |
| 6)squad | F. 10 soldiers |
| 7)platoon | G. 250 soldiers |

19. Question for general understanding.

1. According to the passage, what is the purpose of the military organization?
2. What is the smallest unit in the modern army?
3. What army unit is most likely to be commanded by a colonel?
4. How many battalions are required to make a regiment?

UNIT 7

LAND FORCES

Grammar: Participle I, II (Причастие I, Причастие II)

ACTIVE		PASSIVE
Indefinite	asking	being asked
Perfect	having asked	having been asked

Participle I Indefinite обозначает действие, одновременное с действием глагола-сказуемого.

While translating difficult texts we use a dictionary. *Переводя трудные тексты, мы пользуемся словарём.*

Participle I Perfect обозначает действие, предшествующее действию, выраженному глаголом-сказуемым.

Having read the book I returned it to the library. *Прочитав книгу, я вернул её в библиотеку.*

Функции причастия I

В предложении причастие I (**Participle I**) может быть:

1. Определением. В этой функции употребляется только **Participle I Indefinite**, которое соответствует русскому причестию настоящего времени в той же функции.

A smiling girl. *Улыбающаяся девочка.*

A swimming man. *Плывущий человек.*

The men building our house with me are my friends.

Люди, строящие наш дом вместе со мной, – мои друзья.

The house *being built* in our street is a new building of school. Дом, *строящийся* на нашей улице - это новое здание школы.

2. Обстоятельством. В этой функции Participle I Indefinite Active чаще всего стоит в начале предложения и переводится на русский язык деепричастием несовершенного вида.

Translating the article he consulted the dictionary. Переводя статью, он пользовался словарём.

Перед таким причастием в функции обстоятельства часто стоят союзы **when** или **while**. Такие словосочетания переводятся либо деепричастным оборотом (или деепричастием) с опущением союза, либо придаточным предложением, которое начинается с союзов «когда», «в то время как».

While translating the article the student consulted the dictionary. Переводя статью, студент пользовался словарём. / *Когда студент переводил статью, он пользовался словарём.*

Participle II Indefinite Passive переводится на русский язык обстоятельственным придаточным предложением.

Being built of wood the bridge could not carry heavy loads. *Так как мост был построен из дерева, он не мог выдержать больших нагрузок.*

Participle I Perfect Active переводится деепричастием совершенного вида.

Having built a house he began building a greenhouse.

Построив дом, он начал строить парник.

Participle I Indefinite Passive в функции обстоятельства (времени, причины) переводится обстоятельственным придаточным предложением. При этом в качестве подлежащего русского придаточного предложения употребляется подлежащее английского предложения.

Having been built of concrete, the house was cold in winter. Так как дом был построен из бетона, зимой в нём было холодно.

3. Частью сказуемого. Participle I Indefinite Active может быть частью сказуемого.

They are playing chess. Они играют в шахматы.

1. Translate into Russian, paying attention to present Participles.

1. The girl standing at the window is my sister.
2. Having finished the experiment the students left the laboratory.
3. Having been built of concrete, the house was always cold in winter.

2. Open the brackets.

1. Tom fell asleep (watch) the film.
2. The pupils opened their textbooks (look for) the answer.
3. Julia lived in Milan for 3 years (train) to be a designer.
4. (to be) vegetarians they don't eat meat.
5. Jane found some old letters (tidy up) her bedroom.

3. Open the using used a past participle tense. Translate the sentences.

1. The letter (to write) by him was very long
2. We are interested in the goods (to produce) by this factory.
3. She didn't understand the word (to say) by him.
4. He didn't see the things (to keep) in her box.
5. I don't like the video (to buy) yesterday.
6. This is the house (to build) many years ago.
7. The question (to put) to the professor was important.
8. When (to offer) to work abroad, he refused.

4. Translate the sentences into Russian, paying attention to a complex object of present participles.

1. The captain watched the sailors unloading the steamer.
2. I heard him shouting something from the opposite shore.
3. He watched them going down the mountain.
4. We saw him walking along the bank of the river.
5. The people watched the goods being discharged.
6. The children watched the boys playing football.
7. I saw her talking with a woman.

Subtechnical vocabulary :

Landforces	сухопутные войска
Warfare	ведение боевых действий
Torepel	отвергать, отклонять
Enemy aggression	вражеская агрессия
Combat on land	боевые действия на суше
To defeat enemy troops	разбить вражеские силы
Weapons of mass destruction	оружия массового поражения
A motorized rifle troops	мотострелковые войска
Tank troops	танковые войска
Air defence troops	войска ПВО
Missile troops	ракетные войска
Reconnaissance formation	разведывател. формирование

5. Give the English equivalents of the following words :

Service, method, aggression, territorial integrity, structure, theory and practice, tactic, artillery, formation, radiological, biological.

6. Read the following words and match them with their definitions and then give Russian equivalents:

a) armed

- b) troop
- c) combat
- d) warfare
- e) aggression
- f) integrity
- g) destruction

- 1) Fighting during a war
- 2) Process of destroying something
- 3) Carrying weapons
- 4) The state of being united as one complete thing
- 5) Threatening behavior or feelings that often result in fighting
- 6) Soldiers in an organized group
- 7) The activity of fighting in a war

7. Read and translate text A from English into Russian.

Text A
Land Forces of the Russian Federation

The modern Land Forces are the most numerous Services of the Armed Forces of the Russian Federation varied in its weapons and methods of warfare, intended for repelling enemy aggression and protecting the territorial integrity and national interest of the Russian Federation. The primary responsibilities of the Land Forces are the protection of state borders, combat on land, the security of occupied territories, and the defeat of enemy troops. The Land Forces must be able to achieve these goals both in nuclear war and non-nuclear war, especially without the use of weapons of mass destruction. The High Command of the Land Forces is officially tasked with the following objectives: 1.to train troops for combat; 2. to improve troops' structure; 3. to develop military theory and practice; 4. to develop and introduce training field manuals, tactics, and methodology; 5.to improve combat training of the Land Forces. The Russian Land Forces comprise a motorized

rifle troops; tank troops; air defence troops; missile troops and artillery; reconnaissance formations and military units; engineer troops, troops of radiological, chemical and biological defence; and signal communications troops. Land Forces units are part of four military districts and make up the basis of the forces in the strategic areas. The Land Forces manpower is set at 300,000. By 2020, over 40 new units will be set up and five more will be reorganized

8. Read the text again and complete the sentences.

1. The most numerous Services of the Armed Forces of the Russian Federation are...
2. The primary responsibilities of the Land Forces are...
3. The Russian Land Forces comprise...
4. The main tasks of the High Command of the Land Force are...
5. ...and make up the basis of the forces in the strategic areas.
6. ...is set at 300,000

9. Scan Text A and complete each of the words.

1. _ _ o _ e _ t _ n
2. e _ _ m _ _ r _ o _ _
3. s _ a _ e _ _ r _ _ r
4. m _ _ p _ w _ r
5. _ e _ l _ _ _ g

10. Read the text and answer the questions.

- 1) How many military districts are there in Russia? Name them.
- 2) What military force makes up the basis of the forces in the strategic areas?
- 3) What are the Land Forces intended for?

- 4) What are the primary responsibilities of the Armed Forces?
- 5) What tasks does the High Command of the Land Forces have?
- 6) What do the Russian Land Forces consist of?
- 7) How many people serve on the Land Forces?

11. Read Text B and answer the questions.

1. What is the Engineer Troops?
2. Which divisions do they consist of ?
3. What actions are the Troops involved in?
4. Which tasks do they perform in peacetime?
5. How is the development of the Troops carried out?

Text B

The Engineer Troops of the Russian Army.

The Engineer Troops of the LF (Land Forces) are special forces designed to perform the most complex tasks of engineer support of combined-arms operations (combat actions), requiring special training of personnel and use of means of engineer equipment. The Engineer Troops are composed of formations, units and subdivisions for various purposes: engineering reconnaissance, field engineering, fencing, obstacle clearing, assault-and-traffic engineering, pontoon bridge (pontoon), assault-crossing, camouflage-engineering, technology-engineering, field water supplying ones and so on. In addition, they are involved in countering the intelligence systems and homing of the enemy's weapons (camouflage), simulation of troops and facilities, providing misinformation and demonstrative actions to deceive the enemy as well as to eliminate the effects of enemy weapons of mass destruction. In peacetime, the Engineer Troops have a number of important and socially significant tasks: they clean areas of explosive hazards, are involved in liquidating aftermath of manmade accidents and catastrophes, natural disasters, prevent destruction of bridges and

waterworks during floating of ice, etc. The development of the Engineer Troops is carried out through equipping them with new, highly effective, versatile means of engineer equipment.

12. Read the text and find words that mean.

1. Fighting between armed forces.
2. An attack by the armed forces.
3. The type of clothes or face paint that soldiers wear to make themselves more difficult to see.
4. The use of soldiers or aircraft to go into an area and get information about an enemy.
5. An object that supports a floating bridge.
6. The consequences or after-effects of a significant unpleasant event.

13. Read the text again and complete the sentences.

1. The Engineer Troops are special forces designed to perform the most complex tasks of engineer support of combined-arms operations, ...

2. ... engineering-reconnaissance, field engineering, fencing, obstacle clearing, pontoon bridge, assault-crossing, water supplying and so on.

3. ... providing misinformation and demonstrative actions to deceive the enemy as well as to eliminate the effects of enemy weapons of mass destruction.

4. In peacetime, the Engineer Troops have a number of important and socially significant tasks...

5. ... equipping them with new, highly effective, versatile means of engineer equipment.

UNIT 8

GROUNDFORCES

Grammar: The Gerund (Герундий)

Герундий – это неличная форма глагола, выражающая название действия и обладающая как свойствами глагола так и существительного.

В русском языке нет соответствующей формы. Его функции в предложении во многом сходны с инфинитивом, однако он имеет больше свойств существительного.

Глагольные свойства герундия выражаются в том, что:

1. Герундий переходных глаголов может иметь прямое дополнение (без предлога):

reading books – *читать* (что?) *книги*,

preparing food – *готовить* (что?) *пищу*

2. Герундий может иметь определение, выраженное наречием (в отличие от существительного, определяемого прилагательным):

reading loudly – *читать* (как?) *громко*

driving quickly – *ездить* (как?) *быстро*

3. Герундий имеет неопределенную и совершенную формы, а также формы залога – действительного и страдательного.

Всеми этими признаками обладает и причастие I (также имеющее **ing**-форму).

Однако герундий обладает **свойствами существительного**, которые выражаются в том, что герундий:

1. Может определяться притяжательным местоимением и существительным в притяжательном или общем падеже (это – герундиальный оборот):

theirs **singing** – *пение* (чь?) *их*

my friend's **reading** – *чтение* (чь?) *моего друга*

Helen (’s) **coming** – *приезд* (чей?) *Хелен*

2. Передним может стоять предлог, например:

by **reading** – *путем чтения, читая*

before **leaving** – *перед уходом*

3. Как существительное он может служить в предложении: подлежащим, частью составного сказуемого, дополнением, определением или обстоятельством.

Примечание: Однако герундий в отличие от существительного, в том числе и отглагольного (та же **ing**-форма), не может иметь артикля и формы множественного числа.

Глаголы, после которых в качестве прямого дополнения употребляется *только герундий* (а не инфинитив):

to admit – допускать, признавать	to imagine – воображать
to avoid – избегать	to mention – упоминать
to delay – откладывать	to mind – возражать
to deny – отрицать, отвергать	to miss – упустить
to dislike – не нравиться	to postpone – откладывать
to enjoy – наслаждаться, нравиться	to risk – рисковать
to escape – убежать	to stop – прекращать
to excuse – извинять(ся)	to suggest – предлагать
to finish – закончить	to understand – понимать
to forgive – прощать, извинять	

He avoided **looking at** us. Он избегал *смотреть* на нас.

We finished **dressing**. Мы закончили *одеваться*.

I don't mind **doing** it. Я не возражаю *сделать* это.

Stop **laughing**. Перестань *смеяться*.

Только герундий употребляется и после таких составных глаголов:

to **burst out** – *разразиться*
to **give up** – *прекращать*
to **go on** – *продолжать*
to **keep (on)** – *продолжать*

to **put off** – *отложить*
can't help – *не могу не, нельзя не...*
can't stand – *не могу терпеть...*

They burst out **laughing**.

Они разразились смехом.

He gave up **smoking**.

Он бросил курить.

Go on **reading**.

Продолжай читать.

They went on **eating**.

Они продолжали есть.

I cannot help **asking**.

Я не могу не спросить.

2. Глаголы, после которых употребляется как герундий, так инфинитив:

to **attempt** – *пытаться*
to **begin** – *начинать*
to **continue** – *продолжать*
to **forget** – *забывать*
to **hate** – *ненавидеть*
to **intend** – *намереваться*
to **like** – *нравиться*
to **love** – *любить*
to **need** – *нуждаться*

to **prefer** – *предпочитать*
to **propose** – *предлагать*
to **refuse** – *отказываться*
to **regret** – *с сожалеть*
to **remember** – *помнить*
to **require** – *требоваться*
to **try** – *стараться*
to **start** – *начинать*

Герундий, как и существительное, может заменяться **it**:

Do you like **swimming**? *Вы любите плавание?*

I like **it** very much. *Мне оно очень нравится.*

1. Form a gerund from a verb in brackets and translate the sentences.

1. Start ... about pleasant things - and you'll be happy! (think)
2. Americans enjoy ... houses and ... to new places. (change/move)
3. Would you like to go ... in the sea? (sail)
4. Most people enjoy ... in the sun. (lie)

5. I haven't had my lunch yet. Do you mind ... outside for ten minutes? (wait)

6. John likes ... at a high speed. (drive)

7. Stop ... about your troubles. (worry)

8. Jack was proud of ... the first prize for.... (get/ jump)

9. Helen was so angry that she left without... a word. (say)

2. Translate the sentences into Russian.

1. He gave up the idea of visiting New York.

2. He congratulated his friend on entering the institute.

3. I succeeded in translating this difficult text.

4. They suspected him of lying to them.

5. After checking the students' papers, the teacher left the classroom.

6. She has always dreamt of going abroad.

7. He persisted in solving that difficult problem.

8. They accused him of having robbed their house.

9. My happiness depends on your loving me.

10. Nothing can prevent us from visiting our grandparents this summer.

11. I am used to drinking a glass of juice in the morning.

Subtechnical Vocabulary:

striking force

ударная сила

armor protection

защита брони

offensive operation

атака

defensive operation

оборона

self-propelled gun

самоходное орудие

installation

установка

canon

пушка

howitzer

гаубица

rifle

ружье

mortar

миномет

flame-thrower

огнемет

3. Give the Russian equivalents of the following words and define parts of the speech.

support – supporter – supporting
strike – striker – striking
protect – protection – protecting
arm – armor – armed
defence – defend – defensive
offence – offend – offensive
destroy – destruction – destroyer; destructive

4. Read and translate Text A from English into Russian.

TEXT A
Ground Forces Armament (Part 1)

Armor is the main striking force in offensive and defensive operations. Its units are characterized by high mobility, armor protection, great fire and striking power. It consists of armed fighting vehicles such as tanks, armored personnel carriers, selfpropelled guns, infantry combat vehicles and auxiliary vehicles (trucks, tractors).

Artillery supports other combat arms by fire, destroys enemy manpower, his combat equipment and installations, and provides air defense. Their cannons are guns, howitzers and multiple launch rocket systems.

Infantry units are armed with small arms – rifles, machine – guns, grenade and rocket launchers; antitank guided missiles, mortars, flame-throwers, etc. Their mission is to destroy or capture the enemy by fire, close combat or counterattack. Infantry units are characterized by rapid change in location and mobile warfare.

5. Continue the sentences.

1. The main characteristics of Armor are.....
2. The mission of Artillery is.....
3. Infantry units are employed to
4. The main characteristics of Infantry are.....

6. Read the text and mark the sentences. T (true) of F (false).

1. Infantry is the main striking force in offensive and defensive operations.
2. Artillery consists of armed fighting vehicles.
3. Artillery supports other combat arms by fire and destroys manpower.
4. The mission of armor units is to destroy or capture the enemy by fire.
5. The cannons are guns, howitzers and multiple launch rocket systems.
6. Armor units are armed with small arms.

7. Read the Text B and answer the questions.

1. What is the main striking force in offensive and defensive operations?
2. What supports other combat arms by fire ?
3. What units are armed with small arms ?
4. Describe a modern tank.
5. What are they used mainly for today?
6. What is heavy tank?
7. What are the main characteristics of the Russian tank T90?

Text B

Ground Forces Armaments (Part II)

A modern tank is an armored, track laying combat vehicle. It consists of three main parts: the hull with turret, the running gear,

and the engine. The tank armament is divided into three types: the primary armament (gun), secondary armament (machine-guns), and antiaircraft armament (AA machine-guns). Tanks are usually classified according to weight rather than armament as light, medium, and heavy. Tanks today are used mainly for reconnaissance (light tanks) and for assault against portions of the enemy lines which are known to be weakened (light and medium). Heavy tank is an assault vehicle designed to absorb enemy fire and rarely used to ram enemy strongholds. Main characteristics of the Russian tank T90: crew-3 persons, weight – 47 tons, top road speed - 60 km/h, cruising range- 550km; armament: gun (125mm caliber, 43 rounds), machine gun (7,62 mm), AA machine gun (12,7 mm caliber).

8. Read and mark each statement as True or False.

1. A tank is an armored, track-laying combat vehicle.
2. Tanks are usually classified according to their armament.
3. Light tanks are used to absorb enemy fire.
4. Heavy tanks are often used to ram enemy strongholds.
5. The crew of T-90 consists of 3 persons.

9. Match the words to their meaning. Which of the words means.

1. “a platform housing guns and capable of rotation”?
A tank **B** armament **C** turret
2. “tracks and road wheels of a tank”?
A hull **B** running gear **C** vehicle
3. “carry out a military attack or raid on (an enemy position)”
A range **B** assault **C** stronghold
4. “an exploration of an area to gather military information”?
A assault **B** reconnaissance **C** ram

10. Fill in the gaps with the given words. 125mm gun,

armoured, weight, machine gun, turret, missiles, hull, 45 rounds.

T-14 Armata is a new-generation main battle tank (MBT). The (1) ___ is divided into three compartments. The driver sits in the left, gunner in the middle and commander in the right inside a special (2) ___ capsule. The roof of the (3) ___ houses satellite communications, global navigation satellite system (GLONASS), and radio communications antennae. The tank has a combat (4) ___ of 48t. Armata is equipped with a (5) ___ fed by an automatic loader. The turret carries (6) ___ of ammunition. The gun can fire laser-guided (7) ___. The 125mm gun can be replaced with a new 152mm gun in future. The tank can also be equipped with a 12.7mm (8) _____.

UNIT 9

ELECTRONIC WARFARE

Grammar: Sequence of Tenses (Согласование времён)

В английском сложноподчиненном предложении с придаточным дополнительным (вопрос «что?», «кто?», «чего?» и т. д.) соблюдаются **правила согласования времен** в главном и придаточном предложениях. Эти правила сводятся к следующему:

1. Если глагол-сказуемое главного предложения стоит **в настоящем или будущем** времени, то глагол-сказуемое придаточного дополнительного предложения может стоять **в любой** временной форме, требуемой смыслом, например:

He says you are right. – Он говорит, что ты прав.

He will tell why he was not at school yesterday. - Он скажет, почему он не был в школе вчера.

2. Если глагол-сказуемое главного предложения стоит **в прошедшем времени** (обычно – в *Past Indefinite*), то и глагол дополнительного придаточного предложения должен стоять в одном из прошедших времен, в том числе – в будущем с точки зрения прошедшего (*Future in the Past*).

He said he would not go to school tomorrow. – Он сказал, что не пойдет в школу завтра.

При этом для обозначения действия, **одновременного** действием, выраженным сказуемым главного предложения, употребляется *Past Continuous* (в русском языке — настоящее время) или *Past Indefinite*.

He told me he was preparing for his exam. – Он сказал мне, что готовится к экзамену.

При указании определенного времени (in 1980, yesterday) предшествующее время выражается при помощи *Past Indefinite*. Например: *I thought you were born in 1980.*

Для выражения будущего времени с точки зрения прошедшего времени употребляется форма *Future in the Past* где вспомогательный глагол *will* меняется на *would*, которая на русский язык переводится будущим временем:

He told me that he would meet me at the Institute. – Он сказал мне, что встретит меня в институте.

1. Open the brackets. Pay attention to the Sequence of Tenses. Translate the sentences into English.

1. I did not know that you already (to read) this book 2. He did it better than I (to expect). 3. He said that the bus (to be) here soon. 4. I think it all happened soon after the meeting (to end). 5. They decided that they (to bring) us all the necessary books. 6. He said that he (can) not do it without my help. 7. He asked the students whether they ever (to see) such a book. 8. It was decided that we (to start) our work at eight o'clock. 9. I told you that I (to leave) for Minsk on the following day. 10. The boy did not know that he al-

ready (receive) a good mark. 12. He wanted to know what (to become) of the books. 13. The visitors were told that the secretary just (to go out) and (to come back) in half an hour. 14. He said we (may) keep the books as long as we (to like). 15. We thought that he not (to be able) to make his work in time and therefore (to offer) to help her. 16. When I came they (to tell) me that he (to leave) half an hour before. 17. It was soon clear to the teacher that the control work (to be) a difficult one. 18. I decided that next year I (to go) to see my old friend again. I not (to see) him since he (to go) to Moscow.

2. Read and translate Text A from English into Russian. Answer the questions.

1. What are the examples of Russian electronic warfare?
2. What are the Krasukha's primary targets?
3. What can it cause?
4. What is the Russian Air Force airborne jamming pod Khibiny?
5. What does it consist of?

Text A
Electronic Warfare

Some good examples of cutting edge Russian electronic warfare system are the Krasukha - 4 vehicle-borne jamming system and the Khibiny airborne jamming pod. The Krasukha - 4 is a mobile, groundbased, electronic warfare (EW) system. It has been in use since 2014. The Krasukha's primary targets are airborne radio-electronics (such as UAVs) and airborne systems guided by radar. It is intended to jam AWACS and radar guided missiles at ranges of up to 250 – 300 kilometres. The missiles, once jammed, are then provided a false target away from the original to ensure that the missiles are no longer a threat. The Krasukha-2 guards mobile high priority targets. The Krasukha-4 broadband multifunctional

jamming station is mounted on a BAZ- 6910-022 four-axle-chassis. It has the range for effectively disrupting low Earth orbit (LEO) satellites (including spy satellites) and can cause permanent damage to targeted enemy radio-electronic devices. The Russian Air Force airborne jamming pod Khibiny is an advanced aircraft-mounted electronic warfare (EW) system capable of jamming state-of-the-art radar-based weapon systems. It consists of a small torpedo-shaped wingtip pod that covers the aircraft with a radio-electronic protective hood once a missile attack has been detected. The protective hood prevents the missile from reaching the target and makes it deviate from the course. According to KRET corporation the Khibiny increases the aircraft's survivability by 25 – 30 times. The Russian Air Force plans to install the Khibiny jammer on all its advanced jets such as Su-30SM, Su-30M2, Su-34 and Su-35 (Khibiny-10V).

3. Read and mark the statement as True or False.

1. Krasukha-4 and Khibiny are ground-based vehicle-borne jamming systems.
2. The enemy missiles are diverted back and thus present no threat.
3. Due to enemy missile deviation from the course there is a better chance for the jet and its crew to survive.

4. Choose the correct answers.

1. Which of the words means “state of the art, the highest level of development, as of a device, technique, or scientific field”?
A intended **B** cutting edge **C** high priority
2. Which of the following describes the meaning of the word “to jam”?
A to block passage **B** to protect **C** to damage
3. Which of the following is not mentioned in the passage?
A cost **B** origin **C** efficiency
4. Which word is the opposite of “unimportant”?

A state-of the-art **B** high priority **C** permanent

5. Scan the passage. Complete the words that refer to electronic warfare systems.

1. _ _ l _ f _ n c _ o _ _ l

2. c _ _ a _ l _

3. _is _ _ e

6. Read Text B and answer the question.

What is the main task of the Russian Federation as a permanent member of the UN Security Council?

Text B

Russia's Participation in Peacekeeping Operations

As a permanent member of the UN Security Council the Russian Federation is responsible for maintaining peace and security all over the world. The military men of the Russian Armed Forces have repeatedly participated in prevention or elimination of inter-cine and inter-ethnic conflicts in the territories of both the former USSR Republics and in the foreign far abroad countries. Russian servicemen had to prove themselves as experienced and highly qualified peacekeepers capable of performing the tasks qualitatively. The 15th Separate Motorized Rifle Brigade is formed in order to prepare the Russian troops to take part in operations to maintain international peace and security.

7. Give the English equivalents.

Постоянный Член ООН, поддержание мира и безопасности, неоднократные участники, предотвращение, ликвидация межнациональных конфликтов, миротворец.

8. Read and decide whether these sentences are true (T) or false (F).

1. The Russian Federation is responsible for maintaining peace and security in the country.

2. Russian servicemen had to prove themselves as skilled and professional peacekeepers capable of performing the tasks efficiently.

3. The Russian Armed Forces participated in prevention or elimination of internecine and inter-ethnic conflicts only in the territories of the former USSR Republics.

4. The 6th Separate Tank Brigade is formed to prepare the Russian troops to take part in operations to maintain international peace and security

9. Find in the text the words that have similar meanings to the following:

unchanged
the representative
skilled
professional
efficiently
saving

10. Fill in the gaps in the sentences below with the given words. One is extra.

member; repeatedly; maintain; prevention; permanent

1. The Russian Federation is a ___ member of the United Nations Security Council.

2. Sergei Mironov is a ___ of the Council of the State Duma.

3. "___ is better than cure".

4. When they moved, they were careful to ___ the proper distance.

Supplementary Reading

The United Nations

The United Nations (UN) is an intergovernmental organization to promote international co-operation. A replacement for the ineffective League of Nations, the organization was established on 24 October 1945 after World War II in order to prevent another such conflict. At its founding, the UN had 51 member states; there are now 193. The headquarters of the United Nations is in Manhattan, New York City, and experiences extraterritoriality. Further main offices are situated in Geneva, Nairobi and Vienna. The organization is financed by assessed and voluntary contributions from its member states. Its objectives include maintaining international peace and security, promoting human rights, fostering social and economic development, protecting the environment, and providing humanitarian aid in cases of famine, natural disaster, and armed conflict.

The United Nations' system is based on five principal organs: the General Assembly, the Security Council, the Economic and Social Council (ECOSOC), the Secretariat, and the International Court of Justice. A sixth principal organ, the Trusteeship Council, suspended operations in 1994, upon the independence of Palau, the last remaining UN trustee territory.

Four of the five principal organs are located at the main UN Headquarters in New York City. The International Court of Justice is located in The Hague, while other major agencies are based in the UN offices at Geneva, Vienna, and Nairobi. Other UN institutions are located throughout the world. The six official languages of the United Nations, used in intergovernmental meetings and

documents, are Arabic, Chinese, English, French, Russian, and Spanish. On the basis of the Convention on the Privileges and Immunities of the United Nations, the UN and its agencies are immune from the laws of the countries where they operate, safeguarding the UN's impartiality with regard to the host and member countries.

The North Atlantic Treaty Organization

The North Atlantic Treaty Organization, also called the North Atlantic Alliance, is an intergovernmental military alliance based on the North Atlantic Treaty which was signed on 4 April 1949. The organization constitutes a system of collective defense whereby its member states agree to mutual defense in response to an attack by any external party. NATO's headquarters are located in Haren, Brussels, Belgium, where the Supreme Allied Commander also resides. Belgium is one of the 28 member states across North America and Europe, the newest of which, Albania and Croatia, joined in April 2009. An additional 22 countries participate in NATO's Partnership for Peace program, with 15 other countries involved in institutionalized dialogue programs. The combined military spending of all NATO members constitutes over 70 percent of the global total.

NATO has twenty-eight members, mainly in Europe and North America. Some of these countries also have territory on multiple continents, which can be covered only as far south as the Tropic of Cancer in the Atlantic Ocean, which defines NATO's "area of responsibility" under Article 6 of the North Atlantic Treaty. During the original treaty negotiations, the United States insisted that colonies like the Belgian Congo be excluded from the treaty.

Concern Kalashnikov

Concern Kalashnikov is the largest Russian manufacturing company that produces assault and sniper rifles, guided artillery projectiles and a wide range of precision weapons. The major part of the civilian products includes hunting shotguns, sporting rifles, various machines and tools. The Concern is the flagship of the Russian small arms manufacturing sector, producing about 95% of all small arms in Russia and supplying to more than 27 countries around the world. The Concern contains three brands: “Kalashnikov” (combat and civilian weapons), “Baikal” (hunting and civilian guns), and “Izhmash” (sporting rifles), also the Concern is developing new business lines that include remote weapon stations, unmanned aerial vehicles and multi-functional special-purpose boats.

The Concern is focused on developing the following product lines:

- Military weapons (including its disposal), service and civilian small arms;
- High-precision ammunition for the artillery armament;
- Technological tools to provide operation and repair of the missile artillery and armored force vehicles armament (including means of technical maintenance and repair);
- Aviation armament and guided missiles;
- Machines, high-quality tools and workpieces;

The Concern’s list of the prospective development lines includes:

- remote weapon stations;
- unmanned aerial vehicles;
- Multi-functional special-purpose boats.

Small Arms Manufactured in Izhevsk

High reliability and operational simplicity are two key factors that make the Kalashnikov weapons so unique.

Since its founding in 1807, the Izhevsk Mechanical Plant (today the Concern Kalashnikov) has been supplying the Russian army with firearms and melee weapons. From the days of the Patriotic War of 1812, every significant military victory that Russia has scored was attributable to the efforts of the Izhevsk gunsmiths.

Concern Kalashnikov has been developing and producing small arms - and its core expertise lies there. At the present time, the design center is working on more than 50 advanced projects being developed for the military and Special Forces units of the Russian Federation and for civilian customers. Such projects include the development of pistols, assault rifles, self-loading sniper rifles and automatic grenade launchers.

Military weapons

The Kalashnikov assault rifle is the company's best known product. The genius of simplicity and the unique blend of its design features make it the greatest rifle of the 20th century adopted by the force structures of Russia and hundreds of other countries. Today the company produces the fourth generation of the so-called "hundred series" of Kalashnikov assault rifles, such as the AK-101, AK-102, AK-103, AK-104, and the AK-105. The fifth generation Kalashnikov the AK-12 assault rifle f is about to pass the state trials.

The Concern equips the Russian Special Forces with sniper rifles, such as the SVD, SVDS, SVDM, SV-98, SV-99, and law enforcement agencies with "Vityaz-SN" submachine guns, 18.5 KS-K shotguns, and other gun models.

The Concern manufactures the military-use products under the "Kalashnikov" brand.

Civilian weapons

Many models of the civilian weapons are based upon the design of the famous Kalashnikov assault rifle. Such models include,

for example, the absolutely new civilian rifles “Saiga-MK 107”, “Saiga-9”, and “Saiga-12, ver.340” based upon the AK «hundred series» and other small arms samples.

“Saiga-MK107” is based on the advanced AK-107 assault rifle. The major advantage of this model is the lack of impulses generated by heavy reciprocating parts which makes it possible to fire accurate and rapid shots.

“Saiga-9”, the successor of the submachine gun “Vityaz-SN”, is new both on the national and the international markets. The carbine rifle shows high reliability and demonstrates many similarities with the military sample which draws customers’ attention.

In 2015, the Concern introduced the new shotgun “Saiga 12, ver.340”. The design was developed by the Concern Kalashnikov in close cooperation with the top athletes of the Russian Shooting Sport Federation who duly appreciated the reliability of the weapon and its total efficiency during the IPSC World Championship held in Italy in 2015.

For the first time all the open division Russian shooters picked up a convincing victory utilizing the new "Saiga 12" version 340, which recently entered the retail market.

The new model features a reinforced receiver, a 10-round magazine and a system that provides faster reloading. The low recoil is attributed to the muzzle brake. The shotgun delivers the highest level of reliability and can be used both by the army and the police units.

Sporting Firearms

For many years, the Concern Kalashnikov has been the leading Russian sporting firearms manufacturer and the only company in Russia producing biathlon rifles under the “Biathlon-7” brand in various versions. The first sporting rifle was produced in 1949 under the guidance of Yevgeny F. Dragunov. Starting from 1950, there have been various types of sporting rifles produced that brought many world records and Olympic titles to several genera-

tions of Russian and foreign sportsmen. As one of the few defense enterprises, Izhmash (now Concern Kalashnikov) was requested to develop a specific weapon for the Russian biathletes in order to provide them with a quality weapon that they can train and compete with. The introduction of the Biathlon rifle was officially proclaimed on March, 2nd, 1958 at the first World Cup in Austria. Since then, for over 50 years, the Biathlon rifle, initially designed by the Izhevsk gunsmiths, continues to be immensely popular with sportsmen competing in Russian and international sports events. The sporting rifle is produced under the "IZHMASH" brand.

Weapon stations

One of the most promising projects is the new land and water-based remote weapon station (MBDU). It has a two-axis gyro-stabilizing device and an automatic target tracking system that can track 10 static and one mobile target simultaneously.

The station is equipped with armored protection against 7.62 x 54R mm armor-piercing bullets. The MBDU can also be fitted with one of four available weapons: 7.62 mm or 12.7 mm machine guns; 30 mm AG-17; or new 40 mm grenade launchers.

Mechanized infantry

Mechanized infantry – are infantry equipped with armored personnel carriers (APCs) or infantry fighting vehicles (IFVs) for transport and combat.

Mechanized infantry is distinguished from motorized infantry in that its vehicles provide a degree of protection from hostile fire, as opposed to "soft-skinned" wheeled vehicles (trucks or jeeps) for motorized infantry. Most APCs and IFVs are fully tracked, or are all-wheel drive vehicles (6×6 or 8×8), for mobility across rough ground. Some nations distinguish between mechanized and armoured infantry, designating troops carried by APCs as mechanized and those in IFVs as armoured.

The support weapons for mechanized infantry are also provided with motorized transport, or are built directly into combat vehicles, in order to keep pace with the mechanized infantry in combat. For units equipped with most types of APC or any type of IFV, fire support weapons, such as machine guns, auto cannons, small-bore direct-fire howitzers, and even anti-tank guided missiles, are often mounted directly on the infantry's own transport vehicles.

Compared with "light" truck-mobile infantry, mechanized infantry can maintain rapid tactical movement and (if mounted in IFVs) possess more integral firepower. They require more combat supplies (ammunition and especially fuel) and ordnance supplies (spare vehicle components), and a comparatively larger proportion of their manpower is required to crew and maintain the vehicles. For example, most APCs mount a section of seven or eight infantrymen, but have a crew of two. Most IFVs only carry six or seven infantry, but require a crew of three. To be effective in the field, mechanized units also require large numbers of mechanics with specialized maintenance and recovery vehicles and equipment.

Motorized infantry

In NATO and most other western countries, motorized infantry is infantry that is transported by trucks or other un-protected motor vehicles. It is distinguished from mechanized infantry, which is carried in armoured personnel carriers, or infantry fighting vehicles.

In Russia and the former Soviet Union, the term *motostrelki* is used to indicate mechanized infantry; and during the Korean War this usage prevailed in all Warsaw Pact countries.

Motorizing infantry is the first stage towards the mechanization of an army. Civilian trucks are readily adaptable to military uses of transporting soldiers, towing guns, and carrying equipment and supplies. This greatly increases the strategic mobility of infantry units, which would otherwise rely on marches or railroads. In

practice, armies have found it advantageous to develop trucks to military specifications, such as all-wheel drive, in order to have vehicles that function reliably in extremes of weather and terrain.

Motorization provides no direct tactical advantage in small unit combat, because trucks and jeeps are vulnerable to artillery and small arms fire. However, in larger battles, motorized infantry have an advantage in mobility allowing them to move to critical sectors of the battlefield faster, allowing better response to enemy movements, as well as the ability to outmaneuver the enemy.

The disadvantage of motorization is that the formation required many vehicles and supplies of fuel to be of advantage.

The speed advantages of motorized infantry first became important in World War II in the German Blitzkrieg. While no more robust than regular infantry moving on foot, its increased speed became decisive in the Blitzkrieg strategy because it could follow the panzer forces and defend its flanks. Notwithstanding the obvious advantages of motorization, most countries only opted for partial motorization of their infantry because of the cost and logistical implications caused by the deployment of so many vehicles.

IMR-3M Obstacle – Clearing Vehicle



Picture 1– IMR – 3M Obstacle

A vehicle built for heavy engineering in tough environments, it's hard not to respect this road-clearing (or -creating) monster. The two-man crew inside the vehicle can breach tree entanglements, blaze an 8-mile trail in an hour and lift 2 tons with a telescoping arm that extends 10 yards. It's also prepared to survive a fight, with thick armor, masking smoke and a machine-gun turret. Best of all, it's mounted on the chassis of a T-90 main battle tank. It can also survive blasts from explosives - the plow can clear pressure and magnetic-fuse mines - making the vehicle an all-purpose brute (picture 1).

9A52-4 Multiple Launch Rocket System



Picture 2– 9A52-4 Multiple Launch Rocket System

One hero of Russian history is the Katyusha, a wheeled vehicle from World War II that rained rockets on German troops and tanks. This modern version, a very lightweight rocket launcher mounted on a truck chassis, has a simple design but packs a wallop - the crew inside the cab fires 300-mm rockets with warheads that include incendiary, fuel-air explosive, cluster munitions or antitank mines. The one on display here features six reusable launch tubes, which can be reloaded by a separate vehicle, using a crane, within 8 minutes. While the four-axle truck it's mounted on is not ideal off-road driving, these systems are masters of the shoot-and-scoot; by the time counterbattery fires rain down, they have driven away. This air-transportable version of the popular Smerch rocket system was introduced in 2007 but still awaits an international customer. (The previous, heavier versions are used by India, Algeria, Kuwait and others)(picture 2).

1V13 Artillery Fire Command Vehicle



Picture 3– 1V13 Artillery Fire Command Vehicle

Even the most modern artillery shell or missile is useless without knowing where targets are located. This scrappy recon vehicle is made to operate, day or night, in the most miserable conditions possible to provide guidance to indirect fire coming from large and small formations, from the platoon to the battalion level. The 1V13s are studded with radios, laser rangefinders, navigation equipment and an aiming circle that provides the angle needed to correctly place a round. Once in position, the crew of six can set up to direct volleys of heavy fire within 15 minutes. The low profile and telescoping antenna are meant to protect the crew members as they sneak into position. The guys inside these things need to be close to the enemy to do their jobs—that takes bravery and good hardware, especially since they are favored targets of the enemies. Like almost all Russian military equipment, the vehicle was designed during the Soviet era and has been sold internationally and sporadically upgraded (picture 3).

9A39 Launch/Reload Vehicle for the Buk M1-2



Picture 4– 9A39 Launch/Reload Vehicle for the Buk M1-2

The BUK M1-2 Self-Propelled Launch System (called the SA-11 Gadfly by NATO) is tailor-made to spot and destroy aircraft and inbound cruise missiles. In this photo is an oft-forgotten part of the medium-range system—the reloader. The crane, bent in the front, hoists missiles onto nearby Gadflies. The system can't see for itself—it relies on other nearby vehicles carrying radar for targeting—but it can shoot and reload on its own. The missiles are radar guided and can reach Mach 3. These vehicles are sold all over the world, including in Pakistan, Egypt, North Korea, Syria, China and (arriving soon) Venezuela (picture 4).

MIK-MKS Mobile Communications System



Picture 5 – MIK-MKS Mobile Communications System

It takes a half-hour for the 100-foot mast of this vehicle to reach its full height. But once it does, the MIK-MKS provides wireless broadband access for 200 users using the four antennas atop the mast. Micran, the company that makes the system in the Siberian city of Tomsk, can tailor it for a variety of other communications uses, but the main purpose of the system is for a single vehicle to connect a slew of dispersed units. It's designed to be hardened against jamming interference from enemies and rough conditions of Mother Nature, especially high winds (picture 5).

Pneumatic Dummies



Picture 6 – Pneumatic Dummies

These cheap decoys made by Rusbal, a balloon manufacturer near Moscow, are intended to fool satellites and aircraft by adopting the shape, color, thermal signature (by using heaters) and radar returns of things that would make a juicy target for an airstrike. At the arms show, the company chose to inflate an S-300 anti-aircraft missile launcher, the system that Iran is so eager to set up to thwart an Israeli attack on its nuclear facilities, if Russia will ever deliver them. Imagine they do so, with a crate of decoys thrown in. The company catalog includes aircraft, vehicles, hangars, radar arrays and forward operating bases. American military intelligence has been fooled by decoys before—notably by the Serbs, who protected their air force by setting up a fleet of faux targets. Nothing means tactical deception like launching a \$600,000 cruise missile against a cheap balloon (picture 6).

Kasta 2E Radar



Picture 7 – Kasta 2E Radar

The Kasta is a great all -purpose radar system that can be used to track helicopters, cruise missiles and airplanes. Set this up for remote operation, and you've got a movable defense screen for virtually anything in the air or an air-traffic-control radar that can operate in any weather for up to 20 days. The radar here can cover about 90 miles, depending on the height of the antenna it is mounted on, and can be set up for action in 20 minutes. The Kasta is said to be resistant to enemy jamming. A newer version of this radar is a popular item on the international market and guards Iranian nuclear sites. The diesel engine fires up with a whine, and the old-school mechanical radar dishes spin, unlike newer electronic radar arrays (picture 7).

Air Force Ranks and Insignia of the Russian Fed

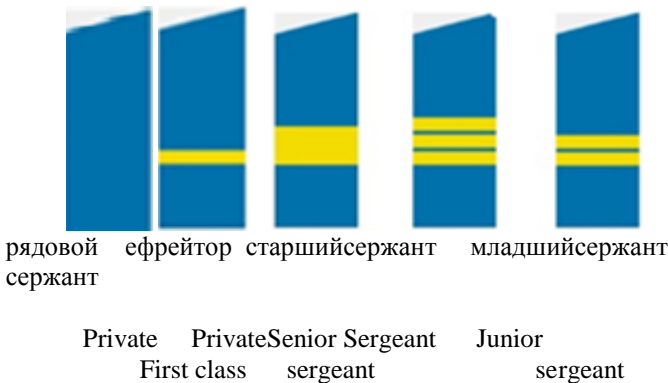
The following table presents images of the rank insignia used by the Russian Federation Air Force (VVS). The Russia inherited the ranks of the Soviet Union, although the insignia and uniform was altered a little, especially the re-introduction of the old Czarist crown and double eagle. The Russian Air Force is an independent organization. The Russian Air Force follows the same rank structure as the Russian Ground Forces, with the addition of the title "of aviation" to each officer's rank, now abandoned.

The English title for each rank is given first, followed by the Russian title, an English transliteration, then the United States Air Force equivalent. Images of each insignia are provided in the table, along with images of the USAF equivalent.

Russian armed forces have two styles of ranks: troop ranks (army style ranks) and deck ranks (navy style ranks). The army uses troop ranks, and so does the Air Force. The following table of Ranks is based on those of the Russian Federation. The Russian Federation eliminated the descriptor "of Aviation" following ranks; however, common use of this is being abolished altogether. The rank of a serviceman of a "Guards" unit or formation may be followed by the word Guards. The rank of a citizen of the legal, medical or veterinary professions shall be followed by the words of Justice, of the Medical service, or of the Veterinary service, to their respective ranks. The rank of a citizen having reserve or retired status shall be followed by the word Reserve or Retired, respectively.

Insignia Reform (2010)

On March 11, 2010, Law No.2010-293 of the President of Russia introduced a new set of rank insignia. Privates, airmen and seamen now wear plain shoulder epaulettes. Senior NCOs had their chevrons replaced by plain bars (small horizontal bars for corporals and sergeants increasing in number with seniority, large horizontal bars for staff sergeants, and vertical bars for master sergeants). These rank badges mirror Imperial Russian Army and 1970s Soviet Army insignia. Warrant officers and officers received new shoulder rank epaulettes and all general officer insignia now reflect service affiliation in the duty dress uniform. The parade dress gold epaulettes have been retained. The insignia for a marshal of the Russian Federation retained the coat of arms of Russia and themarshal's star(pictures 8).





Старший прапорщик прапорщик Старшина
 Senior warrant Sergeant Junior sergeant

Picture 8 – shoulder straps of the Russian army

These rank badges mirror Imperial Russian Army and 1970s Soviet Army insignia. Warrant officers and officers received new shoulder rank epaulettes and all general officer insignia now reflect service affiliation in the duty dress uniform. The parade dress gold epaulettes have been retained. The insignia for a marshal of the Russian Federation retained the coat of arms of Russia and the marshal's star (picture 9).



Капитан Майор Подполковник Полковник
 Captain Major Lieutenant colonel Colonel

Picture 9 – shoulder straps of the Russian army



генерал	генерал - майор	генерал - лейтенант	генерал - полковник	генерал - армии
Major general	Leutenant general	Colonel general	General of army	

ABBREVIATIONS

ABCS –Army Battle Command System	Армейская боевая Командная система
ACCS –Army Command and Control System	Армейская система Командования и управления
ADE – Assistant Division Engineer	Помощник дивизионного инженера
AO –Area Of Operation	Зона операции
AOR – Area Of Responsibility	Зона ответственности

AP (mine) – anti-personnel mine	противопехотная мина
BG – battle group	боевая группа
CA –Civil Affairs	совет по гражданским делам
DOD – Department of Defense	Министерство обороны
DOS – Department of State	Госдепартамент
E– Mail – Electronic mail	Электронное письмо
EA - Electronic Attack	Электронная атака
EC - European Council	Европейский совет
EMP - Electromagnetic Pulse	Электромагнитный импульс
EP –Electronic Protection	Электронная защита
EU –European Union	Европейский союз
GO – Government Organization	Правительственная организация
HF – High Frequency	Высокая частота
HN –Host Nation	Принимающая страна
IADS –Integrated Air Defense System	Интегрированная система ПВО
LAN –local area network	локальная сеть
LP –local police	местная полиция

MP –MilitaryPolice	Военная полиция
NAC – North Atlantic Council	Североатлантический совет
NATO – North Atlantic Treaty Organization	Организация Североатлантического союза
PPF – Partnership for Peace	Партнерство ради мира
QRF – Quick Reaction Force	Силы быстрого реагирования
RC – Reserve Components	Резервные компоненты
SF – Special Forces	Силы особого назначения
TF –Task Force	Целевая группа
VHF –Very High Frequency	Очень высокая частота
VTC – Video Teleconference	Видеотелеконференция
WAN –Wide Area Network	Глобальная сеть
WB –World Bank	Всемирный банк
WEU – Western European Union	Западноевропейский союз
WHO – World Health Organization	Всемирная организация здравоохранения

COMMANDS

(Left) shoulder, ARMS!	На пле-ЧО!
ABOUTFACE!	Кру-ГОМ! (поворот на месте)
AS YOU WERE!	Отставить!
AT EASE!	Вольно!
AT MY COMMA D!	Слушай мою команду!
ATTENTION!	Смирно!
Bytwos, NUMBER!	На первый и второй рассчита- тайсь!
COUNTOF!	По порядку – РАССЧИ- ТАЙСЬ!
DISMISSED!	Разойдись!
Double, time, MARCH!	Бегом, МАРШ!
DRESS, ready FRONT!	Равняйсь, смирно!
EYES, RIGHT! (LEFT, FRONT)	Равнение на-ПРАВО! (на ЛЕВО!; на-СЕРЕДИНУ!)
EYES,RIGHT, (LEFT)	Направо, (налево)-
FALLIN!	Становись!
FALLOUT!	Разойдись!

Fix (unfix), BAYONETS!	Штык ПРИМКНУТЬ НУТЬ) ОТОМКНУТЬ)
Forward, MARCH!	Шагом, Марш!
HALT!	Стой!
Mark time, MARCH!	На месте, шагом МАРШ!
Order, ARMS!!	Кно-ГЕ
Present, Arms!	Накара-УЛ!
Quick time, MARCH!	Шагом, МАРШ! Шире ШАГ!
REST!	Вольно! Заправиться!
RIGHT (LEFT), FACE!	Напра-ВО, нале-ВО. (поворот на месте)
Right shoulder, ARMS!	Направоепле-ЧО!
Sling, ARMS!	Наре-МЕНЬ!

TECHNICAL VOCABULARY

- A -

accelerator (pedal)	газ
accommodate the crew	вместатьэкипаж
accomplish a specific task	выполнятьопределённуюзадачу
administration	управление тылом, тыл и снабжение, администрация
adjust	добавлять
aerial	антенна
afford protection against	обеспечитьзащитуот
to aim the weapon at the target	наводитьоружиенацель
to assign a mission	ставитьзадачу
to be armed with	иметьнавооружении
air compressor	воздушныйкомпрессор
air defense artillery	зенитнаяартиллерия
air defense battalion	зенитныйдивизион
AirForce (AF)	Военно-воздушные силы (ВВС)
Airborne	воздушно-десантный
airborne division	воздушно-десантнаядивизия
airborne infantry	воздушно-десантнаяпехота
air-cooled	воздушногоохлаждения
air-cooledengine	двигатель воздушного охлаждения
airduct	воздуховод
alternator	генератор
ammunition	боеприпасы, патроны
ammunitionbearer	подносчик боеприпасов
amphibious	морской, десантный, плавающий
angle of fire	уголвозвышения
antitankgrenade	противотанковая граната
antitankplatoon	противотанковый взвод
apart	раздельно, порознь

approximately	примерно, приблизительно
apron	фартук
arm	вооружать, оснащать, род войск
ArmedForces	ВС, вооружённые силы
ArmedService	вид вооружённых сил
armored division	бронетанковая дивизия
armored personnel carrier	бронетранспортёр
armor-piercing	бронепробивной
Army Aviation	армейская авиация
Artillery	артиллерийские войска
artillerypiece	артиллерийское оружие
approval	одобрение определенных действий
assault	атака
assaultboat	штурмовая лодка
assaultbridge	штурмовой мост
assault stream crossing	переправочно-десантное
equipment	оборудование
assigned	включённый состав
atadecisivepoint	вести решительный бой
attach units to the division	придавать части (подразделения) в состав дивизии
attached	временно включённый в состав
attack	наступление, атака
automaticpistol	автоматический пистолет
aviationbattalion	батальон армейской авиации
axle	ось

- В -

ball	боевой, общего назначения
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bar	орденская планка
barbedwireentanglement	заграждение из колючей проволоки
barrel	ствол
barrel assembly	стволвсборе
basic branch	родвойск
battalion	батальон, дивизион
bayonet	штык
beam	балка, перекладина
bearing	подшипник
beinaccessibletotanks	быть недоступной для танков
bend	гнуть
beltfed	ленточное питание
bipod	монтажная двунога, сошка
blank	холостой
board of officers	офицерскийсовет
body	корпус
boltassembly	затвор в сборе
bonnet	капот
bore	канал ствола
bottomcarriage	нижний станок, лафет
boundary	граница
boxmagazine	коробчатый магазин
brakelight	тормозная лампа
brakepedal	педадь тормоза
brakedisc	тормозной диск
brakepad	тормозной башмак
bracket	кронштейн
breechblock	затвор
breechloading	заряжающейся через затвор
breech mechanism	затворныймеханизм
breech ring	казенник
bridgetruck	автомобиль для перевозки мостового имущества

bullet
bumper
by hand

пуля
бампер
вручную

- C -

cadet
to call the roll

курсант, кадет, слушатель
производить переключку

can

канистра

cannon

артиллерийск оружие

capacity

емкость

cape

плащ - палатка (накидка)

captain (CPT)

капитан

carbine

карабин

carburetor

карбюратор

carpenter toolkit

комплект плотнич. инструм.

carriage

лафет

cartridge

патрон

cartridge case

патронная гильза

case

гильза

caterpillar steel track

гусеничная стальная лента

CEV (combat engineer vehicle)

саперный танк

chamber

зарядная камера

channel

желоб, выемка, паз

characteristics

боевые свойства, тактиче

ские

данные

checkpoint

ориентир

Chemical Corps (CmlC)

химические войска

choke

подсос (воздушная заслонка)

chuck (key)

зажимной патрон, (ключ)

clean

очищать, приводить в

clip

порядок

close with the enemy

обойма

closesupport

сближаться с противником

непосредственная поддержка

clutch	сцепление
CoastGuard (CG)	береговая охрана
coil	катушка зажигания
colonel	полковник
column	колонна
combat (cbt)	бой
combatboots	ботинки с высоким берцем
combinedarmsforce	общевойсковое соединение
combustible	горючий
combustionchamber	камера сгорания
command (comd)	командование, часть, соединение
command and control system	системакомандованияи-управления
commandofexecution	исполнительная команда
commander of the guard	начальниккараула
commanding general (CG)	командирсоединения
commanding officer	командирчасти
commission	производить в офицеры, присваивать первичное
commissioned officer (ComO)	офицерполучившийзвание
company (Co)	рота
company headquarters (co hq)	управлениероты
company officer (CcOff)	младшийофицер
compression stroke	тактвсасывания
concentrate great power	сосредотачиватькрупн.силы
concrete – piercing	бетонобойный
to conduct mounted combat	вестибойнамашинах
connecting rod	шатун
container	емкость
convert heat energy into mechanical	преобразов. тепловую энергию в механич.
conrod	шатун
coolant	охлаждающая жидкость
corpsartillery	корпусная артиллерия

Corps of Engineers

counterinsurgency operations

court – martia

covered weapon emplacement

cradle

crane –shovel

crankshaft

crew

crew compartment

cross

cruising range

cuff

cyclic rate

cylinderhead

cylinder

инженерные войска
(войсковое соединение)

подавление (внутренних
беспорядков)

военный трибунал

закрытое огнев. сооружение

люлька

экскаватор; кран

коленвал

экипаж

отделение экипажа

крест

запас хода

манжета

техн. скорострельность

головка цилиндра

цилиндр

- D -

daily routine

decoration

deep penetration

defense (def)

delaying actions

deliberate

demolition

demolition equipment set

denial operations

department

Department of Defense (DOD)

depth

deputy secretary

destroy

destruction

распорядок дня

боевая награда

глубокий прорыв

оборона

сдерживающие действия

преднамеренный

разрушение

комплект подрыв. инструм.

сдерживания действия

управление, министерство

министерство обороны

глубина

заместитель министра

ликвидировать

уничтожение

detachable	съемный, отсоединяемый
detail (dtl)	наряд, команда, группа
diesengine	дизельный двигатель
differential	дифференциал
difficultground	труднопроход. местность
dig	копать
digger	землеройная машина
digit(al)	цифра(вой)
dismountedcombat	бой в смешанных порядках
dispersion	расседоточение
distance	дистанция, расстояние
distributor	распределитель
division artillery	дивизионная артиллерия
division artillery commander	начал. артиллерии дивизии
divisionbase	штаб и дивизионные части
dozer	бульдозер
draft	призыв в армию
drainplug	сливная пробка
drillandceremonies	строевая подготовка
drill	учебный
drillingtable	рабочий стол (станка)
drivesprocket	ведущее колесо
driver	водитель механик
drivingcompartment	отделение водителя
dugout	блиндаж
dumtruck	самосвал
duplex	с двумя убойными элементами
dutyroster	лист (график) нарядов

- E -

earthmoving

емляные работы

effectiverange	дальность действит.огня
electriccurrent	электрический ток
electricspark	электрическая искра
electricarc	электрическая дуга
element (elm)	подразделение
elevate the main armament	придаватьуголвращенияпушке
elevatingsystem	механизм вертикальной на- водки
elevating mechanism	подъемныймеханизм
enemy	враг
to engage in delaying action	вестисдерж. действия
engine (powerplant)	двиг.-ль, силовая установка
engine compartment	моторноеотделение
engineer battalion	сапёрныйбатальон
engineer combatgroup	полевая инженерная группа
engineer dump truck company	инженер. ротаавтомобилей
engineerequip	инженерное имущество (тех- ника)
engineerplat	взвод инженерных машин
to enlist	поступать на военную службу
Ensign (ENS)	прапорщик, мичман знамени
enter the engine from the oil tank	поступатьвдвигательиз масляногобака
equipment	боеваятехника
to be equipped	бытьоснащённым
escape	исчезать
evaluation of targets	оценкацелей
evasion	выход с территор. захвачен- ной противником
execute a mission	выполнитьзадачу
exercisecommand	быть начальником
exhaustpipe	выхлопная труба
exhauststroke	такт выхлопа

expedient means	целесообразные средства
explode	взрывать
explosive	взрывчатое вещество

- F -

fan clutch	термомуфта вентилятора
fastener	фиксатор
fault	неполадка, повреждение
feed fuel into a carburetor	подавать топливо в карбюратор
ferry	переправа на плавучих средствах
field artillery	полевая артиллерия
field command	полевое командование, войсковое учреждение
field exercises	занятия в поле
field fortification	полевое фортификационное сооружение
field manual (FM)	боевой устав
field of fire	сектор обстрела
field officer (FO)	старший офицер
field uniform (fldunif)	полевая форма одежды
to fight in armored personal	вести бой на бронированных транспортных средствах
fighter – leader	командир огневой группы
fighting compartment	боевое отделение
fighting vehicle	боевая машина
file	ряд
fill up	заполнять
filler	заряд
fin assembly	стабилизатор в сборе
final drive	главная передача
fire control instruments	приборы управления огнём
fire control	управление огнём
fire power	огневая мощь

fire support	огневаяподдержка
fire team	огневаягруппа
fire a machine gun, rifle, a submachine	вестиогоньизпулемета
fire by single shots	вестиодионочныйогонь
firefromtheshoulder	вести огонь с упора в плечо
firegrenades	вести стрельбу гранатами
fireinbursts	вести огонь очередями
firing battery	огневойвзводбатареи,
firingmechanism	ударный механизм
firstaid	первая помощь
fix	закреплять, исправлять
fixedandfloatingbridge	мост на смешанных опорах
fixedbridge	мост на жестких опорах
fixed	на стационарных установках
flame - throwing tank	огнемётныйтанк
flank	фланг
floatbridge	паромный мост
flywheel	маховик
footbridge	пешеходный мост
forces	войска, силы и средства
formation (frm)	строй, боевой порядок
foxhole	стрелковая ячейка
fragmentation grenade	осколочнаяграната
fragmentation	фронт
fuel gauge	датчикбака
fuel system	системапитания
fuel pipe	бензопровод
fuel tank	топливныйбак
full – tracked	гусеничный
to furnish fire support	оказыв. огневуюподдержку
fuse	взрыватель, предохранитель

- G -

gacket	прокладка
ganister	картечь
garrisoncap	пилотка
gaspiston	газовый поршень
gasolineengine	бензиновый двигатель
gas-operated	оружие, автоматика кот. использ. принцип отвода газов
gear	передача
general engineer work	саперныеработы
General of the Air Force (GAF)	генералВВС
General of the Army (GA)	генерал (генералармии)
general purpose machine gun	пулеметобщегоназначения
GeneralStaff (GS)	генеральный штаб
goggles	защитные очки
grade	воинское звание
grade	старший прапорщик
grenade	граната
grenadelauncher	гранатомёт
grenadier	гранатомётчик
groove	нарез
groundsurveillancesection	секция наземного наблюдения
guard	караул, караульный
guardmounting	развод караула
guerrillawarfare	подрывная деятельность
guidancecommand	команда наведения
guidance	наведение
gun	пушка, пистолет, пулемёт
gunturret	бронеколпак, оруж.башня
gunner	наводчик

- Н -

handgrenade	ручная граната
handbrake	ручной тормоз

handle	рукоятка
hastystreamcrossing	форсирование водной преграды сходу
hatch	люк
headgear	головной убор
headlight	передняя фара
headquarters	штаб, штабной
headquarterscompany	штабная рота
heavy	тяжелый, крупного калибра
heavy machine gun	тяжелый пулемет
heavyraftplat	паромно-мостовой взвод
highexplosive	фугасный, осколочно- фугасный
hitch	цепное устройство
hold a stripping	неполная разборка
hollow-charge	кумулятивный
homing missile	самонаводящаяся ракета
hose	шланг
howitzer	гаубица
howitzer field artillery battalion	гаубичный дивизион полевой артиллерии
hubcap	колпак
hull	корпус

- I -

identification card	удостоверение личности
identification	личный знак
ignite the air-fuel mixture	воспламенять горючую смесь
ignition system	система зажигания
illuminating	осветительный
improvised means	подручные (местные) средства
in case in emergency	в случае чрезвычайного положения
include organically	включать в штатный состав

increase the capability	увеличить мощность
indicator lever	тумблер спидометра
individual weapon	индивидуальное оружие
infantry	пехота
infantry entrenchment	стрелковый окоп
inflict losses on the enemy	наносить противнику потери
informal briefing	неофициальная беседа
infrared homing missile	ракете с инфракрасной системой наведения
ignite propelling charge	воспламенять боевой заряд
inlet valve	всасывающий клапан
inner	внутренняя тяга
insignia (of grade)	знаки отличия (по званию)
install atomic land mines	устанавливать ядерный фугас
intake stroke	такт всасывания
intelligence officer	офицер разведывательного отделения
interior guard duty	внутренняя караульная служба
internal combustion engine	двигатель внутреннего сгорания
interval	интервал
item of uniform	предмет обмундирования

- J -

jack	домкрат
jammed	заклиненный, защемленный
Joint Chief of Staff (JCS)	комитет начальн. штабов

- K -

keep the engine moving at a fairly	обеспечивать плавную работу
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kneelingfoxhole	стрелковая ячейка для стрельбы с колена
kneelingposition	положение с колена
- L –	
landvehicle	наземное транспортное средство
launchtube	пусковая труба
launcher	пусковая установка
launcherrail	направляющая
leader (ldr)	командир
level (with)	уровень, (на уровне)
lever	рычаг, тумблер
liaisonsection	секция связи взаимодействия
Colonel (LTC)	подполковник
Lieutenant General (LTG)	генерал-лейтенант
light (artillery)	легкий, малокалибра
lightantitankweapon	легкое противотанковое средство
light machine	ручнойпулемет
light tank	лёгкийтанк
line	развёрнутыйстрой
liquid- cooled engine	двигательжидк. охлаждения
load	заряжать
loader	заряжающий
locate a target	определитьместоп. цели
logistical (log)	тыловой, логистика
long--range rockets	УРдальнегорацидусадействия

- M –

toman	укомплект. личный состав
machine gun	пулемёт

machine-gunner	пулемётчик
machineshop	мастерская , цех
magneto	генератор
maintenance platoon	ремонтный взвод
major	майор
Major General (MG)	генерал- майор
Maneuver	манёвр
maneuver in offensive action	осуществлять маневр
mark a minefield	обозначать минное поле
Master Sergeant (MSGT)	старший сержант
Measure	измерять
mechanized infantry (mechinf)	мотопехота
mechanized infantry division	механизированная дивизия
Medical Corps (MC)	военно-медиц-ская служба
medical platoon	медицинский взвод
medium	средний калибр
medium machinegun	станковый пулемет
medium range radar	РЛС среднего радиуса действия
medium-range GM	УР среднего радиуса действия
messing	питание, котловое довольствие
meter	счетчик, измеритель
military intelligence (MI)	военная разведка
military police company	рота военной полиции
Military Police Corps (MPC)	служба военной полиции
mine – clearing tank	танк-тральщик
mine – laying tank	танк-миноукладчик
mine detector	миноискатель
minefield	минное поле
minefield marking equipment	прибор для обозначения мин
missile	реактивный снаряд, радиоуправляемая ракета

missile man	ракетчик
mobility	подвижность
mortar	миномет
mortar carrier	миномётный транспортёр
mortar platoon	миномётный взвод
motor carriage	самоходная установка
motor transport officer (motor off)	начальникавтотрансп. службы
move	двигаться
mounted combat	бой на боевых машинах
mudflap	брызговик
multiple launcher	многоств. пусковая установка
munition	снаряжение (боеприпасы),
muzzle velocity	начальная скорость

- N -

National security Act	закона национ. обороне
National Security Council	Совет национальной безопасности
natural obstacle	естественное препятствие
Navy	ВМС
noisy	шумный
non-combustible	негорючий
North Atlantic Treaty Organization (NATO)	Североатлантический Союз (НАТО)
nuclear war	ядерная война
nut	гайка

- O -

Objective	рубеж, задача
Office of Emergency Plan-	Управл. чрезвычайного

ning	планирования
officer of the day (OD)	дежурныйпочасти
oil	смазывать (маслом)
oily	покрытый маслом
oiltank	бак для масла
open weapon emplacement	открыт.огневоесооружение
operate	управлять
operator's permit	удостоверение водителя
opposedstreamcrossing	форсирование водной
order	преграды
ordertoactiveduty	орден
OrdnanceCorps -	призыв.надействит.военную
Organic	службу
tobeorganictothedivision	артил. – технич. служба
outboardmotor	штатный, табельный
overheadcover	входитьвштатныйсоставдивизии
overheat	подводный мотор двигатель
	укрытие от навесного огня
	перегревать

- P -

pace	шаг
panoramictelelescope	орудийная панорама
patrol	патруль, дозор
payload	боевая часть с зарядом,
penetratingpower	полезный груз
performreconnaissance	пробивная способность
permanentstation	вести разведку
permit	постоянное место службы
personnel	пропуск
personnelofficer (S1)	личный состав
petrolcap	офицер по работе с личным
	составом
	крышка бака

petrolengine, (pump)	бензин.двигатель, (насос)
pioneertoolkit	комплект саперн. инструмента
pioneering	саперные работы
piston	поршень
plate (steel)	листовой металл
platform	полк боевого отдела
platoon (plat)	взвод
Platoon Sergeant (Plat Sgt)	взводныйсержант
plug	штекер, вилка
plugin	включать, вставл. штепсель
pneumatictool	пневмат. инструмент
portable	переносный
post	выставлять на пост
power	питание
powerstroke	рабочий ход
preparatorycommand	предварительная команда
press	нажимать на педаль
pressure	давление
prime move	тягач
private	рядовой
produceshockeffect	оказывать ударное действие
projectile	снаряд
pronefoxhole	стрелковая ячейка лёжа
proneposition	положение лежа
propellingcharge	метательный заряд
pull	тащить
pushdown	отжать рукоятку (ручку)
pushup	поднять вверх
putdown	опустить
putin	вставлять
puton	насаживать, надевать
put out (i.e. fire)	тушить (огонь)

- R -

radio operator	радист
radiator	радиатор
rangeoffire	дальность стрельбы, радиус действия
rangepractice	огневая подготовка
rank	шеренга
recharge the battery	заряжатьаккумулятор
reaction motor	реактивныйдвигатель
readyreserve	резерв первой очереди
rear –viewminor	зеркало заднего обзора
receiver	рамка пистолета, ствольная коробка пулемёта
recoil	отдача, откат
recoil – operated	использующий силу отдачи
reconnaissance	разведка
reconnaissanceplatoon	разведовательный взвод
record a minefield	наносить минное поле на карту
recruit	новобранец
recruiting	набор, вербовка
regiment	полк
regular	регулярный, кадровый
regulations	наставление, устав
relay	реле
remotecontrolled	с дистанцион. управлением
removeobstacle	устранять препятствия
reorganized objective army	общевойсковаядивизия
repair	чинить, ремонтировать
replace	заменять
repel	отражать
repel the hostile assault	отражатьатакупротивника
reserve	резерв, запас
retire	уходить в отставку, увольн. действ. службы

retiredreserve	резерв третьей очереди
retrogradeoperations	отступление
reveille	подъём
righthand	с правым ходом, правосторонний
rigid	жесткий
rifle	винтовка
riflecompany	пехотная рота
riflegrenadelauncher	винтовочный гранатомет
rifleplatoon	пехотный взвод
rifleman	стрелок
roaddivision	автодорожная дивизия
rocketdivision	ракетный дивизион
rocketlauncher	реактивный гранатомёт
rotate the turret	вращать башню
round	патрон
round per minute	выстрелов в минуту
rubber	резина
running gear	ходовая часть

- S -

safe	безопасный
safetyhelmet	защитный шлем
sawdust	опилки
seaman	матрос
Secretary of Defense	Министр обороны
security	безопасность
security section	отдел охраны
seize terrain	захватывать местность
Selective Service Act	законовоинской повинности
selector	переводчик
self-propelled	самоходный
semifixed	полуфиксированный
sentinel; sentry	караул. на посту, часовой

sergeant	сержант
servicecap	повседневная фуражка
servicenumber	личный номер
service	проводить техн. обслуживание автомобиля
shaft	вал
shapedcharge	кумулятивный заряд
shell	снаряд
shield	щиток
shiftinglever	рычаг переключ. передачи
shockabsorber	амортизатор
shockeffect	удар, ударные действия
short-range guided missile (GM)	УР ближнего радиуса действия
short-rangerockets	УР ближнего радиуса действия
shoulderboard	жёсткий погон
shoulderloop	мягкий вшивной погон
shovel	лопата
shrapnel	шрапнель
sight	прицел
sighting instruments	прицельноеустройство
signal battalion	батальонсвязи
single stage solid propellant motor	одноступенчатый двиг. на твёрдом топливе
sink	погружаться
sleigh	салазки
slide	кожух-затвор пистолета
slingposition	в положении на "ремень"
slit	щель
smallarms	стрелковое оружие
smokegrenade	дымовая граната
smokescreen	дымовая завеса
smoothbore	гладкоствольный
spade	сошник

sparewheel	запасное колесо
sparkplug	запальная свеча
specialbranch	служба (специальная)
SpecialForces (SF)	десантно-диверс. войска
splinter proof shelter	противооскол. укрытие, убежище легкого типа
squad	отделение
squadron	артиллерийский дивизион
standard trench	стрелковый окоп
standing position	положение стоя
steel helmet	каска
steering wheel	направляющее колесо
stir (semitrailer)	полуприцеп
stock	ложе
store room	склад, кладовая
strainer	фильтр
straight	прямой
straighten	выпрямлять
strap	предохранительный хомут
strategic offensive force	стратегич. ударные силы
strengthen defensive positions be in	укреплять оборонительные позиции
stretch	вытягивать, растягивать
strike an arc	зажигать дугу (эл.)
strong	прочный
submachinegun	автомат, пистолет-автомат
submit	подчиняться
subversion	подрывная деятельность
supervisor	наставник
supply (sup)	снабжение, обеспечение
support (spt)	поддержка обеспечение
suspension	подвеска

- T -

tank battalion	танковый батальон
tank company	танковая рота
tank ditch	противотанковый ров
tank platoon	танковый взвод
taps	отбой
temporary grade	временное звание
terminal	клемма, вывод
test	проверять, испытывать
thickness	толщина
tie	завязывать
tighten	закреплять
tip	концевая часть электрода
timing belt	ремень ГРМ
tir (trailer)	прицел
towed	буксируемый на тяге
tracer	трассирующий
track	следить, вести
tractor-drawn	автомобил. базовое шасси
trail	станина
trailer	грузовик
training	подготовка, обучение
training grenade	учебная ручная граната
transmission compartment	трансмисс. отделение
Transportation Corps (TC)	автомобильные войска
traversing mechanism	поворотный механизм
trench-digging machine	траншекопатель
trigger	спусковой крючок
trigger assembly	спусковой механизм
tripod mount	пулеметная тренога
troop shelter	укрытие для войска
troops	войска
truck	грузовая машина
tank recovery vehicle	тягач для эвакуации танков
turret	башня
tyre	шина

- U -

unconventional warfare	боевые действия
uniform	форма, обмундирование
unit	часть, подразделение
unit of the combined	общевойсковое
universal joint	соединение
unopposed stream crossing	карданный шарнир
upper carriage	переправа
usablate	верхний станок, лафет
	боевая скорострельность

- V -

valve	клапан
vehicle	транспортное средство
vehicle evacuation	эвакуационная машина
very heavy	сверхтяжелый калибр
volume of fire	плотность огня

- W -

warhead	боевая головка
weapon (wpn)	оружие
weapons platoon	вооружённый взвод
wheel brace	баллонный ключ
wheel hub	ступица
windscreen wipers	дворники, щётки
wing	крыло
wrench	гаечный ключ
wrist pin	поршневой палец

Таблица соотношения основных англо-американских единиц измерений и метрических мер.

Меры вместимости

1 пинта (US pint) = 0,473 л

1 галлон (US gallon) = 3,785 л

1 бушель (US bushel) = 35,236 л

Меры массы (веса)

1 тонна длинная, американская (longton) = 1016,047 кг

1 тонна короткая, американская (shortton) = 907,185 кг

1 фунт (pound) = 453,593 кг

1 унция (ounce) = 28,349 г

Меры объема

1 куб. фут (cubic foot) = 0,028 м³

1 куб. дюйм (cubic inch) = 16,387 см³

Меры длины

1 миля морская (nauticalmile) = 1853,2 м

1 миля сухопутная статутная (statutemile) = 1609,2 м

1 ярд (yard) = 0,914 м

1 фут (foot) = 0,305 м

1 дюйм (inch) = 2,54 см.

Меры площади

1 английская квадратная миля (squaremile) = 2,589 км²

1 акр (acre) = 0,405 га

1 кв. фут (square foot) = 0,093 м²

1 кв. дюйм (square inch) = 6,452 см²

Таблица пересчета калибров

30 in = 7, 62 мм 2.36 in = 60,0 мм

303 in = 7, 69 мм 3.5 in = 88, 9 мм

50 in = 12, 7 мм 8 in = 203, 2 мм

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Басте Зара Юсуфовна
Батурьян Маргарита Аветисовна
Карипиди Алла Геннадьевна

АНГЛИЙСКИЙ ЯЗЫК
ДЛЯ СТУДЕНТОВ УВЦ

Учебное пособие

В авторской редакции

Дизайн обложки – Н. П. Лиханская

Подписано в печать 05.02.2018. Формат 60 × 84 ¹/₁₆.

Усл. печ. л – 7,6. Уч.-изд.л. – 5,9.

Тираж экз. Заказ №

Типография Кубанского государственного аграрного университета.
350044, г. Краснодар, ул. Калинина, 13