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Государственное бюджетное профессиональное образовательное учреждение
Московской области
«Авиационный техникум имени В.А. Казакова»

УТВЕРЖДАЮ

Зам. директора по УМР

М.В. Иванова

« _____ » _____ 2018 г.



Цикловая комиссия общеобразовательных и
естественнонаучных дисциплин

**УЧЕБНО – ПРАКТИЧЕСКОЕ ПОСОБИЕ
AVIATION BASICS**

PART 1 (units 1-5)

по дисциплине «Иностранный язык»

для студентов 2-4 курсов

специальности 24.02.01 Производство летательных аппаратов

РАССМОТРЕНО

на заседании предметно-цикловой комиссии
общеобразовательных и естественнонаучных
дисциплин

СОСТАВИЛИ:

Минакова Е.Г.

Широкая Е.В.

Протокол _____

от « _____ » _____ 201_ года

Председатель ПЦК:

2018

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Протокол №4

от «7» ноября 2018 года

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2018

Учебное пособие по английскому языку предназначено для студентов 2-3 курсов специальностей 24.02.01 «Производство летательных аппаратов» и 25.02.06 «Производство и обслуживание авиационной техники». Данное пособие рассчитано на формирование коммуникативной компетенции на специализированном материале при овладении дисциплины «Иностранный язык» и может быть использовано как методическая основа курса «Профессиональный английский» – для углублённого изучения предмета.

Цель курса – приобретение студентами коммуникативной компетенции, уровень которой позволяет использовать иностранный язык как в профессиональной (производственной и научной) деятельности, так и для целей самообразования. Под коммуникативной компетенцией понимается умение соотносить языковые средства с конкретными сферами, ситуациями, условиями и задачами общения. Соответственно, языковой материал рассматривается как средство реализации речевого общения, при его отборе осуществляется функционально-коммуникативный подход.

Учебное пособие состоит из 5 частей по авиационной тематике, содержащих оригинальные тексты с системой упражнений и лексическим материалом необходимым для успешного перевода специальной литературы и технической документации. Лексический материал и предложенные упражнения позволяют сформировать достаточную языковую компетенцию для успешного осуществления коммуникации в рамках профессиональной деятельности. Материал пособия охватывает тематику: Самолет/вертолет. Основные части самолета/вертолета. Обязанности бортинженера/ механика / бортоператора / бортпроводника. Руководство по техническому обслуживанию (материалы и документы ИКАО по техническому обслуживанию). Тексты снабжены словарями и упражнениями.

Учебное пособие может использоваться для аудиторной и самостоятельной работы студентов.

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UNIT 1

Grammar

The Pronouns

1. Learn the pronouns:

Лицо	Личные местоимения		Притяжательные местоимения			Возвратные местоимения
	Именительный падеж	Объектный падеж	Основная форма (перед существительным)		Абсолютная форма (без существительного)	Единственное число: + self
Единственное число						
1	I — я	me — меня, мне	my	мой, моя, моё	mine	myself - я сам, сама, сами
2	you — ты	you — тебя, тебе	your	твой, твоя, твоё	yours	yourself — вы сами
3	he — он she — она it — он, она, оно	him — его her — её, ей it — его, её, ему, ей	his her its	его её его, её	his hers its	himself — он сам herself — она сама itself — он, она, оно сам(о,а)
Множественное число						
1	we — мы	us — нас, нам	our -	наш, наша, наше, наши	ours	ourselves — мы сами
2	you — вы	you — вас, вам	your	ваш, ваша, ваше, ваши	yours	yourselves — вы сами
3	they - они	them — их, им	them	их	theirs	themselves — они сами

Вопросительные местоимения	Относительные и соединительные местоимения	Указательные местоимения		Взаимные местоимения
who — кто	who — кто	this — этот	these — эти	each other — друг друга, один другого
whom — кого, кому	whom — кого, кому	that — тот	those — те	one another — друг друга, один другого
what — что, какой	what — что, какой	such — такой, такого рода, подобный		
which — который	which — который	(the) same — тот же самый, те же самые		
whose — чей	whose — чей	it — это		
	that — который			

Imperative Mood

Help me! — Помогите мне! Help her! — Помогите ей!

Help him! — Помогите ему! Help us/them! — Помогите нам/им!

Meet me! — Встречайте меня! Meet him/her! — Встречайте его/ее!

Meet us/them! — Встречайте нас/их!

Tell me your name, please. Скажите мне ваше имя, пожалуйста.

Tell me the time, please. Скажите мне время, пожалуйста.

Conversation practice

Learn the new words:

crew - экипаж

plane - самолет

aircraft - самолет, воздушное судно; суда

cockpit - кабина пилотов

co-pilot - второй пилот

captain (pilot-in-command) - командир

navigator - штурман

radio-operator - бортрадист

flight - полет, рейс

fly - летать

engineer - инженер

flight engineer - бортинженер

member - член

crew member - член экипажа

mechanic - механик

helicopter - вертолет

passenger - пассажир

passenger plane - пассажирский самолет

cabin (compartment) - салон, отсек

passenger cabin (compartment) - пассажирский салон

air - воздух

air hostess - бортпроводница

cabin/flight attendant -

бортпроводница, проводник

cargo - груз

freighter (cargo plane) - грузовой самолет

hold - отсек

cargo hold/ compartment - грузовой отсек

baggage (luggage) - багаж

baggage hold - багажный отсек

steward - стюард

Read the text and learn it:

This is our plane. This is our crew. We are in the plane. This is our cockpit. We are in the cockpit. The crew is: the captain, the co-pilot, the navigator, the radio-operator, the flight engineer. They are crew members. The crew members are in the plane. They are in the cockpit. I'm a flight engineer. I'm in the plane. I'm in the cockpit. I'm a crew member. This is a passenger plane. The passengers are in

the passenger cabins (compartments). The air hostesses (stewardesses) are in the plane.

They're in the passenger cabins. They're not in the cockpit. They are not crew members. The cargo is in the plane. It's in the cargo holds (compartment). The baggage (luggage) is in the plane. It's in the baggage holds. The plane is in the air. It's in flight.

Exercise 1. Answer the questions:

1. Is this your plane?
2. Is this your crew?
3. Is the crew in the cockpit?
4. Are the crew members in the plane?
5. Are they in the cockpit?
6. Are you a crew member?
7. Are you in the plane?
8. Are you a flight engineer?
9. Is it a passenger plane?
10. Are the passengers in the plane?
11. Are the air hostesses in the passenger cabin?
12. Are they crew members?
13. Is the cargo in the plane?
14. Is it in the cargo hold?
15. Is the baggage in the plane?
16. Is it in the baggage hold?
17. Is the plane in flight?
18. Is it your helicopter?

Exercise 2. Answer the questions with 'yes/no':

a)

1. *Are you a pilot? — Yes, I am.
(No, I am not).*
2. Are you a co-pilot?
3. Are you a navigator?
4. Are you a radio-operator?
5. Are you a captain?
6. Are you an engineer?
7. Are you a flight engineer?
8. Are you a crew member?
9. Are you a steward?
10. Are you in the plane?
11. Are you in the cockpit?
12. Are you a passenger?
13. Are you a mechanic?

b)

1. *Are you pilots? — Yes, we are.
(No, we aren't).*
2. Are you co-pilots?
3. Are you navigators?
4. Are you captains?
5. Are you radio-operators?
6. Are you engineers?
7. Are you flight engineers?

8. Are you crew members?
9. Are you passengers?
10. Are you in the plane?
11. Are you in the cockpit?

12. Are you in the passenger cabin?
13. Are you mechanics?

c)

1. *Is he a pilot? — Yes, he is. (No, he isn't).*
2. Is he a co-pilot?
3. Is he a navigator?
4. Is he an engineer?
5. Is she an air hostess?
6. Is he a crew member?
7. Is the captain in the cockpit?
8. Is the air hostess in the cockpit?

9. Is he in the passenger cabin?
10. Is an air hostess a crew member?
11. Is a flight engineer a crew member?
12. Is she a passenger?
13. Is he your captain?
14. Is he a mechanic?

d)

1. *Are they crew members? — Yes, they are. (No, they aren't).*
2. Are they pilots?
3. Are they engineers?
4. Are the crew members in the plane?
5. Are the pilots in the cockpit?
6. Are the passengers in the plane?

7. Are the stewardesses in the passenger cabin?
8. Are they in the baggage holds?
9. Are the air hostesses crew members?
10. Are they in the plane?
11. Are the flight engineers crew members?
12. Are they mechanics?

e)

1. *Is it your plane? — Yes, it is. (No, it isn't).*
2. Is it your crew?
 1. Is it a cargo plane?
 3. Is this a passenger plane?
 4. Is this your cockpit?
 5. Is this your cargo?

6. Is it a cargo hold?
7. Is it a passenger cabin?
8. Is it a baggage cabin?
9. Is the cargo in the plane?
10. Is the crew in the cockpit?
11. Is the mechanic in the helicopter?

f)

1. *Are you a crew member?*
2. Is the crew in the plane?

3. Are the passengers in the plane?
4. Is the captain in the cockpit?

- | | |
|---|---|
| 5. Are the crew members in the cockpit? | 11. Are the air hostesses in the plane? |
| 6. Are the air hostesses crew members? | 12. Are you an engineer? |
| 7. Is this a cargo plane? | 13. Are you a flight engineer? |
| 8. Is this your luggage? | 14. Is this a passenger plane? |
| 9. Is he your captain? | 15. Is the cargo in the plane? |
| 10. Is the air hostess in the cockpit? | 16. Are you a mechanic? |

Exercise 3. Use "a", "an" or "-":

1. I am a flight engineer. 2. He is . . . engineer. 3. It is . . . plane. 4. This is . . . cockpit. 5. That is . . . passenger cabin. 6. I am . . . crew member. 7. I'm not . . . pilot. 8. She is . . . air hostess. 9. This is . . . our crew. 10. He is . . . our captain. 11. That is . . . cargo plane. 12. He is . . . mechanic. 13. This is . . . helicopter. 14. They are . . . crew members. 15. Are you . . . mechanic? 16. Is she . . . crew member? 17. Is it . . . cargo plane? 18. Are they . . . your passengers?

Exercise 4. Use "am, is, are":

1. This . . . our crew. 2. The crew . . . in the plane. 3. This . . . a cargo plane. 4. The captain . . . in the plane. 5. He . . . a crew member. 6. The crew members . . . in the cockpit. 7. I . . . a flight engineer. 8. I . . . in the plane. 9. I . . . in the cockpit. 10. We . . . in the plane. 11. He . . . a radio-operator. 12. This . . . our plane. 13. She . . . an air hostess. 14. We . . . crew members. 15. We . . . in the plane. 16. We . . . flight engineers. 17. I . . . a crew member. 18. The air hostesses . . . not crew members. 19. The air hostesses . . . in the passenger cabins. 20. The cargo . . . in the plane. 21. They . . . mechanics. 22. The cargo . . . in the helicopter.

Exercise 5. Change these statements to questions:

- | | |
|--|--------------------------------------|
| 1. He is a captain. — Is he a captain? | 6. They are in the plane. |
| 2. She is an air hostess. | 7. The crew is in the plane. |
| 3. They are pilots. | 8. They are air hostesses. |
| 4. She is a crew member. | 9. It is a cargo plane. |
| 5. He is an engineer. | 10. The cargo is in the cargo holds. |

11. The plane is in the air.
12. It is in flight,
13. This is a passenger plane.

14. The passengers are in the plane.
15. These are helicopters.
16. They are mechanics.

Exercise 6. Look at this: *This is a plane. These are planes.* Now you do this:

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. This is a crew. 2. This is a stewardess. 3. This is a cargo plane. 4. This is a co-pilot. 5. This is a passenger plane. 6. This is a crew member. | <ol style="list-style-type: none"> 7. This is a cargo hold. 8. This is a passenger compartment. 9. This is a passenger. 10. This is an air hostess. 11. This is a helicopter. |
|---|--|

Exercise 7. Look at this: *That is a plane. Those are planes.* Now you do this:

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. That is a cargo plane. 2. That is a cargo hold. 3. That is a passenger plane. 4. That is a crew. 5. That is a passenger compartment. | <ol style="list-style-type: none"> 6. That is a passenger. 7. That is a crew member. 8. That is an engineer. 9. That is a flight engineer. 10. That is a navigator. 11. That is a mechanic. |
|---|---|

Exercise 8. Give the plural forms:

a crew — crews

a pilot — a flight engineer — a cargo hold — a plane — a cockpit — a compartment — a crew member — a hold — a cabin — an engineer — an air hostess — a baggage cabin — a captain — a radio-operator — a steward — a navigator — a flight — a stewardess — a co-pilot — a member — a mechanic — a helicopter — an aircraft — a crew

Exercise 9. Translate into English:

Помогите мне. Помогите нам. Встречайте меня. Встречайте нас. Встречайте их. Помогите ему. Встречайте его. Помогите ей. Встречайте ее. Скажите мне ваше имя. Скажите мне его имя.

Скажите мне их имена. Скажите мне время. Помогите им. Встречайте этот экипаж. Скажите тому экипажу. Помогите своему командиру. Помогите их пассажирам. Встречайте этих членов экипажа. Помогите этим пассажирам.

Вы член экипажа? Вы бортиженер? Вы механик?

Learn the new special vocabulary:

take - брать

give - давать

close - закрывать

open - открывать

check - проверять, проверка

change - менять, заменять, смена, замена

send - посылать, отправлять

get - доставать, получать, доставлять, приносить

use - использовать

replace - заменять

brake - тормозить, тормоз

axe [æks] - топор

belt - ремень, пояс

bolt [bəʊlt] - болт, затвор

cable - кабель

grounding cable - трос заземления

duct [dʌkt] - труба, трубопровод,

канал, кабелепровод

cap - крышка

exit ['eksɪt] - выход

fan - вентилятор

fin - киль

flap - закрылок

fuse [fju:z] - предохранитель

hammer ['hæmə] - молоток

handle - управлять, ручка, рукоятка

hatch [hætʃ] - люк

hatch cover - крышка люка

hose [həʊz] - шланг

fuel hose - топливный шланг

jack - домкрат

lid - крышка, колпак

life jacket - спасательный жилет

vest [vest] (амер.) жилет

plug [plʌg] - заглушка, пробка

nozzle plug - заглушка на сопло

rope [rəʊp] - канат, трос

cord - тонкая веревка

slide - желоб

tip - кончик

tube - трубка, шланг

unit - агрегат

10. Read, translate and learn the following:

This is a hose. That is a fuse. These are exits. Check the fuse, please. Check the brakes, please. Send us a jack, please. Use the brakes. Check the slide, please. Check flaps. Open the hatch. Close the hatch. Give me a tube, please. These are life jackets. Get a cable, please. Use the axe. Give me a belt, please. Take the belt, please. Check the bolts. Change the nozzle plug. This is a fan. That is a fin.

Handle the flaps. Replace the fuse. Give me the fuel hose. Close the lid. Take the tip. Get a jack, please. Check this unit. Use my fuse.

11. Translate into English:

1. Это мой самолет. 2. Это наша пилотская кабина. 3. Это мой экипаж. 4. Экипаж в самолете. 5. Я - бортиженер. 6. Я - член экипажа. 7. Члены экипажа в пилотской кабине. 8. Это наш командир. 9. Это наши пилоты. 10. Пассажиры в самолете. 11. Они в пассажирском салоне. 12. Это пассажирский самолет. 13. Груз в самолете. 14. Он в грузовых отсеках. 15. Ваш багаж в самолете? 16. Он в багажном отсеке? 17. Стюардессы в пассажирском салоне. 18. Это пассажирские салоны. 19. Вы пилот? 20. Он наш командир? 21. Вы член экипажа? 22. Это ваш груз? 23. Они члены экипажа? 24. Она стюардесса? 25. Она в салоне? 26. Она не член экипажа, 27. Он ваш штурман? 28. Это ваш пилот? 29. Это ваш самолет? 30. Это ваши пассажиры? 31. Пришлите нам домкрат. 32. Проверьте этот агрегат. 33. Возьмите ремень. 34. Используйте этот кабель. 35. Это выход? 36. Закройте крышку люка. 37. Это ваш спасательный жилет. 38. Замените эту заглушку. 39. Дайте мне трос. 40. Вы механик? 41. Ваш экипаж в вертолете? 42. Это ваш вертолет?

UNIT 2

Many/few //Much/little

crews, pilots, planes, cars, time, air, oil, fuel, cargo, work, space, baggage/luggage

There be: there is /there are

There is a cockpit in the plane. There is a crew in the cockpit. (There's a crew)
There is no crew there. There's no cargo there. There are many crew members in the crew. There are not many crew members there. There are not 5 members in the crew. There are no crew members in the plane.

Is there a crew in the plane? - Yes, there is.

- No, there isn't.

Are there many passengers in the plane? - Yes, there are.

- No, there aren't.

Is there much cargo in the plane? - Yes, there is.
- No, there isn't.

Неопределенные местоимения

How many/How much

How many members are there in the crew?

How much cargo is there in the plane?

How much fuel is there in the plane?

How many flights (pilots, planes, flaps, passengers, ...).

How much ... (oil, fuel, cargo, air, water, ice, snow, baggage)

a crew — some crews

a passenger — some passengers

cargo — some cargo

some time, some fuel, some oil

Some/Any/No

There's some fuel there. There's some cargo there. There are some passengers there.

Some 5 minutes. Some of the passengers.

Wait for me for some time, some 5 minutes. Some of passengers are in the plane.

Is there any cargo? Are there any pilots?

Have you got any problems? There isn't any water there. Take any belt, please.

Come any time. We fly in any weather.

Exercise 1. Answer the following questions:

1. Have you got a family?
2. How many are you in your family?
3. Are your parents engineers?
4. What are their names?
5. What are your parents?

12. What do you do?
13. How old are you?
14. Are you married?
15. What is your occupation?
16. Where do you live?

17. Where do you study?
18. What do you learn?
19. Are you an engineer?
20. Are you a flight engineer?
21. Are you a mechanic?

Exercise 2. Use "am, is, are":

1. ... you a pilot?
2. ... your father a pilot?
3. What ... you?
4. I ... an engineer.
5. ... your son a student?
6. How old ... you? — I ... 30.
7. How old ... your son?
8. ... your wife a teacher?
9. ... she a housewife?
10. ... you four in your family?

11. ... the crew in the plane?
12. ... the crew members in the cockpit?
13. ... you a crew member?
14. ... your married?
15. ... your son married?
16. How many ... you in the family?
17. How old ... your parents?
18. How old ... your wife?

Exercise 3. Use "have, has":

1. ... you got a family?
2. ... you got children?
3. ... you got a son?
4. ... he got a family?
5. ... he got a daughter?
6. ... you many relatives?
7. He ... got grandparents.
8. I ... no grandparents

9. His wife ... got parents.
10. We ... got many problems.
11. ... you got much time?
12. ... he got children?
13. ... you got a sister?
14. How many brothers ... he got?

Exercise 4. Use "no, not":

1. There's ... fuel in the tanks.
2. I'm ... a pilot.
3. There's ... much fuel there.
4. She's ... a crew member.
5. He's got ... family.
6. I have ... time.
7. It is ... a cargo plane.
8. There's ... cargo in the plane.
9. I've got ... daughter.
10. They're ... students.

11. We're ... pilots.
12. She's got ... son.
13. He's ... a navigator.
14. There's ... aircraft there.
15. This is ... our crew.
16. My son's ... a pilot.
17. They've got ... baggage.
18. There's ... much fuel in the plane.

19. There are ... many air hostesses in the plane.
20. There's ... crew in the plane.
21. There's ... navigator in the crew.

22. There are ... air hostesses in their plane.
23. There's ... much cargo.

Exercise 5. Use "is, are":

1. There ... much fuel in the plane.
2. There ... many planes in the air.
3. ... there many passengers in the cabin?
4. There ... not much time before the flight.
5. ... there much fuel in the plane?
6. ... there many members in the crew?
7. ... there a crew member in the cockpit?
8. How many crew members . . . there in the plane?
9. ... there much cargo in the cargo hold?
10. ... there two cargo holds?
11. How many ... you in the family?
12. ... there much baggage in the plane?

13. How many passenger compartments ... there in your plane?
14. How much baggage ... there in the baggage cabin?
15. ... there two cargo holds?
16. How many flights to London ... there from Moscow?
17. ... there-much time before the flight?
18. ... you single?
19. ... you married?
20. ... your son married?
21. How many aircrafts ... there in the air?
22. How much cargo ... there in the cargo holds?
23. How many mechanics ... there in the helicopter?
24. ... there a mechanic in the crew.

Exercise 6. Use "how many/how much":

1. ... fuel is there in the tank?
2. ... passengers are there in the plane?
3. ... cargo is there in the cargo hold?
4. ... crew members are there in the plane?

5. ... time is there before the flight?
6. ... flights are there to London?
7. ... baggage have you got?
8. ... oil is there in the tank?
9. ... aircrafts are there on stands?

Exercise 7. Use "many/much":

1. I have ... time before the flight.
2. We have ... flights to Moscow.
3. There are ... passengers in the plane.
4. We have ... fuel.
5. He has ... problems.
6. We have ... cargo.
7. How ... fuel is there in the tanks?
8. Are there ... flights to St. Petersburg?
9. Is there ... cargo in the plane?
10. Are there ... passengers to London?
11. How ... planes fly to Moscow.
12. Have you got ... time before the flight?
13. There is... baggage in the plane.
14. There're not ... members in the crew.
15. Are there ... air hostesses in the cabin?
16. There's not ... fuel in the tank.
17. Passengers have ... luggage.
18. Are there ... members in the crew?
19. Is there ... fuel in this tank?
20. There is ... oil in the tank.

Read the text and team it:

This is a plane. There's a cockpit there. There's a crew in the cockpit. There're four crew members in the cockpit. There are two passenger cabins. There are many passengers in the passenger compartments. There are 350 passengers in the cabins. There're 10 stewardesses in the cabins. There's a cargo hold. There's much cargo in the cargo hold. There's a baggage hold and there's much passenger baggage there. There's much fuel and oil in the tanks. There's much water in this tank.

Exercise 8. Answer the questions:

1. How many members are there in the crew?
2. How many stewardesses are there?
3. Are there two passenger cabins?
4. How many cargo holds are there?
5. Is there a baggage cabin?
6. How many passengers are there?
7. Is there much cargo in the plane?
8. How many crews are there in the cockpit?
9. Is there much passenger cargo?
10. Are there many passengers in the plane?
11. How many flights are there to Moscow?

Exercise 9. Make the sentences into questions:

1. There is a crew in the plane.
2. There's a captain in the crew.
3. There's a navigator in the crew.
4. There's a radio-operator in the crew.
5. There's much time before the flight.
6. There's a flight engineer in the crew.
7. There's much fuel in the tank.
8. There's a flight to London.
9. There's much cargo in the hold.
10. There are four crew members in the plane.
11. There are ten stewardesses in the cabins.
12. There are 160 passengers in the plane.
13. There are four of us in the family.
14. There are many problems in flight.

Exercise 10. Use "some/any":

1. I've got ... time.
2. I haven't got ...time.
3. Have you got ... time?
4. I've g o t10 min.
5. There's ... fuel there.
6. There isn't ... fuel there.
7. Is there ... fuel in the plane?
8. There are ... planes in the air.
9. Are there ... planes in the air?
10. There aren't ... planes there.
11. There are ... planes.
12. We've got ... problems.
13. Have you ... problems?
14. We haven't got ... problems.
15. There is ... money here.
16. Have you got ... money
17. I've got ... 50 pounds.
18. I haven't got ... money.

Learn the special vocabulary:

a bottle of nitrogen ['naitrədʒən] -
баллон азота

a bottle of oxygen ['ɒksɪdʒən] -
баллон кислорода

a tool kit - набор инструментов

adapter [ə'dæptə] - адаптер,
переходник

adjust [ə'dʒʌst] - регулировать

adjust [ə'dʒʌst] the latch! -
отрегулируйте замок!

bottle - баллон, бутылка

box - коробка, ящик

braking chock - тормозная колодка

bucket ['bʌkɪt] - ведро

charge - зарядить (баллон)

chemicals ['kemɪklz] - химжидкость

chock [tʃɔk] v, n - поставить

колодки, колодки

chock the plane! enter the chocks! -
встаньте на колодки!

chocks away! - колодки убраны!

cock - кран

connect - соединять

connecting hose - соединительный
шланг

connector [kə'nektər] (adapter) - переходник, соединительное устройство
cowl [kaʊl] - капот
defuel - сливать
disconnect - отсоединять
drain [dreɪn] v, n - сливать, слив
drain cock - сливной кран
drain plug - сливная пробка
dust carpets - чистить ковры
dust v, n - выбить пыль, пыль
electrical/hand/hydraulic [haɪ'drɔ:lɪk] pump - электрический/ручной/гидравлический насос
grease [grɪ:s] - смазка
ground (grounding, aircraft earthing ['z:θɪŋ]) - земля (заземление)
ground power unit - аэродромный источник питания
hydraulic [haɪ'drɔ:lɪk] - гидравлический
inflate - накачивать, наполнять, надувать, (газом),
latch [lætʃ] - замок, задвижка
leak v,n - утекать, утечка
leakage - утечка
liquid ['lɪkwɪd] - жидкость
lock v,n - ставить на замок, замок, запор
lock washer - контрольная шайба
lubricating ['lu:brikeɪtɪŋ] liquid - жидкая смазка
need - нуждаться
nozzle [nɔ:zl] - сопло, заправочный пистолет
nut [nʌt] - гайка
oil - масло (жидкое)
oil leak (leakage) - утечка масла

oxygen leak ['ɒksɪdʒən li:k] - утечка кислорода
oxygen ['ɒksɪdʒən] - кислород
plug - пробка
pump - подкачать; насос
refuel ['ri:'fjuəl] - (до)заправить топливом,
refueling - дозаправка топливом
refueling is over - заправка закончена
screw [skru:] down - завернуть
screw down the nut! - заверните гайку!
screw off - отвернуть
screw off the nut! - отверните гайку!
shut the cowl! - закройте капот!
socket ['sɒkɪt] - (штепсельная) розетка, штуцер
strut [strʌt] - стойка, нога, подпорка шасси, пилон
switch - выключатель
switch off - выключить
switch on - включить
tank - бак
to be in order - быть в порядке
to be off - быть выключенным
to be on - быть включенным
to be out of order - быть не в порядке
to be over - закончиться
toilet ['tɔɪlɪt] (lavatory ['lævətəri]) - туалет
tool - инструмент
wash - мыть
wash basin [beɪsn] - раковина
washer - прокладка, шайба
waste [weɪst] water - отработанная вода
water - вода

Read, translate and learn the following:

Open the cowl, please. Close the cowl. Refueling is over. Connect this hose to the hydraulic system. Pump up the hydraulic jacks. Wash the wash basins. Change the fuel pump. Check the locks, please. Send me a jack, please. Send me a tool kit. Send us two nitrogen bottles. Dust the plane. Adjust the latch. Check the drain plug. Replace the plug. Drain the waste water. Refuel the fuel tanks. Send us a connecting hose. Screw down the nuts. Wash the toilets. I have no tool kit. Check fuel tank drains for water. Enter the chocks. Shut the cowl. Adjust the lock. I need a bottle of oxygen. Check the oil. Have you a tool kit? Have you any tools?

TEST

1. Use "no/not":

1. There is . . . crew in the aircraft.
2. There are many members in the crew.
3. There arecrew members in the aircraft.
4. There'smuch cargo there.
5. There's cargo there.
6. There'repassengers in the cabins.
7. There're many passengers in the plane.
8. There's . . . much fuel in the tanks.
9. There're many pilots in the plane.
10. There'smuch time before the flight
11. I have time.
12. We have much time.

2. Use " many/much

1. How ... crew members are there in the cockpit?
2. How ... time is there before the flight?
3. How ... I fuel is there in the tank?
4. How ... cargo holds are there in the plane?
5. How ... I cargo is there in the hold?
6. How ... pilots are there in the plane?
7. How ... crews are there in the plane?
8. There's ... fuel in the tanks.
9. We've got ... passengers in the cabins.
10. There's not ... fuel in the tank.
11. Is there ... oil?
12. Is there ... baggage in the plane?
13. Is there ... time before the flight?
14. I fly ...

13. I learn ... new words. I learn

...

3. Use "some/any":

1. There're . . . passengers in the plane.
2. Are there . . . aircraft in the air?
3. There's ... fuel there.
4. Have you got ... baggage?
5. Are there . . . air hostesses in the plane?
6. Is there ... cargo in the holds?
7. There're flights to London.
8. There're not ... flights to Africa from London.
9. Are there ... flights to Paris?
10. Is there ... baggage in the plane?
14. He hasn't got ... baggage.
15. Are there ... crew members in the plane?
16. There're stewardesses in the cabins.
17. Are there stewardesses in the helicopter?
18. There are .. ten air hostesses in the plane.
19. There are . . . 500 passengers in the cabins.
20. There're not ... air hostesses there.

4 Use "am, is, are, have, has":

1. ... it a cargo plane? — Yes, it — Is it a cargo plane? — Yes, it is.
2. you a flight engineer?— Yes, I
3. There no crew in the cockpit.
4. ...these passenger planes?
5. Where you from?
6. What your name?
7. How old you?
8. you got a family?
9. ... you a crew member? — Yes, I ...
10. ... he your captain? — Yes, he
11. stewardesses crew members?
12. this your cargo?
13.there much cargo?
14.they crew members? — Yes. they
15. you got a car? — Yes, I
16. This a passenger plane.
17. passengers in the plane? — Yes, they....
18.he got a tool kit? — Yes, he
19. there many members in your crew?
20. you got much luggage?
21. there much fuel in the tanks?
22. We in the cockpit.
23. How many passengers . . . there in the plane?
24. What . . . you? — I . . . an engineer.

25. What ... you? — I ... a mechanic.

26. ... you many problems in flight?

27. there any problems in flight?

28. There a problem.

5. Use "what/how/where"

1. What are you? — I'm an engineer.

2. ... old are you? — I'm 30.

3. is your crew? — In the plane.

4. is in the hold? — Cargo.

5. ... are the passengers? — In the passenger cabins.

6. ... is your name? — Alex.

7.do you live? — In London.

8. do you learn? — I learn English.

9.do you study? — At the Academy.

10. ...do you fly? — To Moscow.

11. ... are you? — I'm a pilot.

12. ... many are you in your family? — We're 4.

13. ... is your son's name? — Sasha.

14. ... old is he? — He's 10.

15. ... is he? — He's a pupil.

16. ... is the mechanic?

17. ... helicopter is this?

18. ... tools are these?

6. What's the English for.

самолет — экипаж — смазка — пилот — член экипажа — капот — груз — грузовой отсек — насос — багаж — пассажир — заправка — бортинженер — полет, рейс — вода — закрыть — открыть — замок — проверить — заменить — гайка — отправить — использовать — топливо — выход — закрылок — масло — предохранитель — топливный шланг — слив — домкрат — заглушка — колодки — кончик — агрегат — утечка — механик — вертолет

7. Translate into English

1. Отрегулируйте замок. 2. Отверните гайку. 3. Замените этот насос. 4. Пришлите нам баллон азота. 5. Проверьте замки. 6. Пришлите мне набор инструментов. 7. Слейте отработанную воду. 8. Встаньте на колодки 9. Колодки убраны. 10. Отсоедините шланг. 11. Заправка закончена? 12. Это смазка? 13. Заверните гайку. 14. Проверьте масло. 15. Замените сливную пробку. 16. Откройте капот. 17. Заправьте топливные баки.

REMEMBER

UNITS OF MEASURE

LIQUID MEASURES

a pint - пинта	= 0,57 litre (Англия)	= 0,47 litre (США)
a pint of oil		
a litre литр		
a quart кварта = 2 pints = 1,14 l = 1/4 галлона = 2 ПИНТЫ		
imperial gallon галлон	= 4,5 Quart	= 4,54 litres
a gallon of petrol	галлон бензина	
I want 2 gallons of regular petrol		
a gallon of gas (gas — бензин — Am. — Eng.)		
3 gallons of super (высший сорт)		
3 gallons of extra (лучший сорт)		
US gallon	= 3,79	
a gramme	= gram	
an ounce унция	= 28.3 г	
a pound фунт	= 16 унций	= 453.6 г
a kilo = a kilogram(me)		
half a kilo		
a ton		
3 tons 5 tons 40 tons 45 tons 50 tons 90 tons		

MEASURES OF LENGTH

inch дюйм	= 2.5 см	
foot	= 12 дюймов	= 30.5 см
yard	= 3 feet	= 914 см
a mile	= 1760 ярдов	= 1609 м
statute mile	= 1609 м	
nautical mile	- 1852 м	
a centimeter		
a meter		
a kilometer		

Abbreviations to be used for measures of fuel

KG — kilograms

LB — pounds

LT — litres

IG — imperial gallons

UG — US gallons

R — 10.000 kg (remaining quantity in tanks) (оставшееся количество)

U — Uplift (количество заправляемого топлива)

D — Defuel (откачка топлива, слив)

N — Docket No. (квитанция №)

S — Receipt No. (квитанция №, требование)

Uplift density — удельный вес

Ramp weight — вес самолета на перроне

specific gravity — удельный вес

specific density (fuel density) — удельная плотность

fuel grade — тип топлива, сорт горючего

oil grade — тип (сорт) масла

Fuel on board — топливо на борту

Fuel order (flight plan departure fuel figure)

TEST

Translate into English:

1. Мой экипаж, наши члены экипажа, наша пилотская кабина, мой самолет, наш командир, их пилоты, наши пассажиры, их груз, его багаж, их экипаж, их штурман.
2. Много времени, много масла, много рейсов, много экипажей, много пилотов, много топлива, много пассажиров, много багажа, много груза, много самолетов, много грузовых самолетов, много снега, много топливных баков.
3. Сколько топлива, сколько экипажей, сколько масла, сколько багажа, сколько пассажиров, сколько членов экипажа, сколько грузовых отсеков, сколько груза, сколько пилотов, сколько баков.
4. Это мой самолет, Это наш, экипаж. В пилотской кабине есть экипаж. В экипаже 4 члена. В самолете есть 2 пассажирских салона. В салонах

много пассажиров. В пилотской кабине нет штурмана. В экипаже нет бортрадиста.

5. В нашем самолете есть грузовые отсеки. В грузовых отсеках много груза. В самолете 15 т груза. В самолете есть багажный отсек. В нем имеется пассажирский багаж. В баках много топлива. В баках 20 000л топлива. В этом баке нет масла. В том баке нет воды.
6. В баках много топлива? В воздухе много самолетов? В самолете много пассажиров? Сколько членов в вашем экипаже? В самолете есть экипаж? Много груза в этом грузовом отсеке? В вашем самолете много груза? Сколько пассажирских салонов в этом самолете? В вашем экипаже есть бортинженер? Сколько стюардесс в пассажирских салонах? У вас много багажа в самолете? В вашем экипаже есть штурман? В пилотской кабине есть командир? Много рейсов имеется в Москву? Сколько есть рейсов в Лондон?
7. Отрегулируйте тормоза. Отверните эту гайку. Встаньте на колодки. Отсоедините шланг. У вас есть набор инструментов? У нас течь масла. Проверьте замки. Заверните эту гайку. Дозаправьте 20 000 л топлива. Заправка окончена. Проверьте масло. Выключите двигатели. Двигатели выключены. Закройте капот.
8. У нас нет химжидкости. Дайте мне ведро. У вас есть смазка? Это баллон азота? Отрегулируйте замок. У нас нет набора инструментов. Слейте отработанную воду. Пришлите нам два баллона кислорода. Проверьте отстой топлива на наличие воды. Пришлите нам набор инструментов. Заправьте топливные баки. Дайте мне ведро для химжидкости. Возьмите переходник.
9. Какая марка топлива? Какое у вас топливо? Мне необходимо 50000 л топлива. Какой удельный вес? Подсоедините шланг к горловине. Конец заправки. Есть течь масла. Проверьте топливо на отсутствие воды. Начинайте заправку. Мне необходимо 30 л масла. Где розетка?
10. Агрегат, трос, заглушка, домкрат, шланг, люк, управлять, закрылок, выход, закрывать, проверять, посылать, использовать, заменять, тормозить, болт, крышка, предохранитель, крышка люка, заглушка на

сопло, веревка, проверять, брать, давать, топливный шланг, спасательный жилет, переходник.

11. Регулировать, колодки, кран, сливать, сливной кран, отсоединять, утечка, насос, надувать, сливная пробка, дозаправка, завернуть гайку, мыть, смазка, заземление, аэродромный источник питания, капот, кислород, азот, масло, набор инструментов, шайба, контрольная шайба, баллон, стойка, отработанная вода, ведро, розетка.

Translate into Russian:

Close, exit, jack, fuel grade, strut, connect, leakage, unit, drain, plug, drain cock, adjust, pump, hose, refueling, switch on, change, oil, hatch, crew, fly, freight, cargo hold, replace, fuse, cap, dust, leak, lock, switch on, wash, to be over, charge, oxygen, grease, nozzle, adapter, tool.

UNIT 3

Present Simple

Every day, every morning, every week, every month, every year, on Sunday, on holidays, in summer, once a week, once a year, often, always, seldom, usually

Типы вопросов

1. "Yes/No" questions:

Are you an engineer? — Yes, I am. (No, I am not).

1. Is he a pilot? — Yes, he is. (No, he isn't).
2. Do you fly? — Yes, I do. (No, I don't).
3. Does he fly? — Yes, he does. (No, he doesn't).
4. Have you got a car? — Yes, I have. (No, I haven't).
5. Has he got a car? - Yes, he has. (No, he hasn't).
6. Is there a crew there? — Yes, there is. (No, there isn't).
7. Are there pilots in the plane? — Yes, there are. (No, there aren't).

2. "Wh" questions:

What - что, какой

Who - кто

When - когда

Why - почему

Whom - кого, кому

Whose - чей

Where - где, куда

How - как

How far - как далеко

How many/much - сколько

How old are you? How many are you in the family? What do you do? Where do you live? Where do you fly? What's your name? How much fuel is there in the tank?

Make questions: What does he study?

What Where How When Why	do does	you they he she	speak English?
			learn English?
			study?
			fly?
			get life jackets?
			replace the engine?

Who/what/which — the subject:

1. Who speaks English? — I do.
2. Who lives in London? — My friend does.
3. Whose family lives in Moscow? — My family does.
4. Whose son studies at school? — My son does.
5. Whose children speak English? — My children do.
6. Who flies to Moscow? — We do.
7. What troubles you?
8. Which engine costs more?

3. Alternative questions (or или):

1. Are you a pilot or an engineer? — I'm an engineer.
2. Have you got a son or a daughter? — I've got a son.
3. Do you speak English or German? — I speak English.
4. Does he fly or study? — He flies.

4. Tail questions

1. You are a pilot, aren't you? — Yes, I am. (No, I am not.)
2. You are not a pilot, are you? — No, I am not. (Yes, I am.)
3. You fly, don't you? — Yes, I do. (No, I don't.)
4. You don't fly, do you? — Yes. I do, (No, I don't.)
5. You've got a car, haven't you? — No, I haven't. (Yes, I have.)
6. You have no car, have you? — No, I haven't. (Yes, I have.)

Negative Imperative:

Do not stop! (Don't stop!) Don't taxi! Don't do it! Don't smoke!

Let us

Let us help him! (Let's help him!) Let's check the fuel. Let him check the brakes. Let her help you! Let them replace the wheel. Let me do it for you. Let me introduce myself.

Conversation Practice

Learn the new vocabulary:

about - о, насчет

absorber - абсорбер, амортизатор

according (to) - согласно, в соответствии

after - после

aileron ['eɪləʁən] - элерон

all - все

at - в, на, у, при

before - перед, до

between - между

on board - на борту

body - корпус, фюзеляж

brief - инструктировать

central - центральный, главный

centre - центр

controls [kən'trəʊlz] - система управления; управление

cool - охлаждать

oil cooler - маслорадиатор

during - в течение

elevator ['elɪveɪtə] - руль высоты

empennage [em'penɪʒ] - хвостовое оперение

engine ['endʒɪn] - двигатель

engine mount - моторама

equip [ɪ'kwɪp] - оборудовать, оснащать

equipment [ɪ'kwɪpmənt] - оборудование

for - для

fuselage ['fju:zɪlə:ʒ] - фюзеляж, корпус

gear [gɪə] - шасси

inspect [ɪn'spekt] - осматривать, обследовать
inspection [ɪn'spekʃn] - осмотр
instrument ['ɪnstrʊmənt] - прибор, датчик
gage (gauge) [geɪdʒ] - датчик
land - производить посадку
landing - посадка
lower ['ləʊə] - выпускать (шасси); опускать
main - главный, основной
make - делать, выполнять
mechanism - механизм, устройство
nacelle [næ'sel] - гондола
nose - нос (носовая часть)
outer ['aʊtə] - внешний, наружный
outer wing - отъемная часть крыла
part - часть, деталь
plant - установка
power - мощность
power plant - силовая установка
pressure - давление
problem - проблема
provide - обеспечивать
propeller [prə'pelə] - винт, пропеллер
report n,v - отчет; докладывать
retract [rɪ'trækt] - убирать (шасси)
retracting [rɪ'træktɪŋ] - уборка (шасси)

round - вокруг
rudder ['rʌdə] - руль, руль направления
run up - опробовать (двигатели), прогрева;
see - видеть
shock v,n - ударять; удар
sit - сидеть
snag - проблема, затруднение
speak - говорить
special - специальный, особый
stability [stə'bɪləti] - устойчивость
stabilizer ['steɪbalaɪzə] - стабилизатор
start up - запустить (двигатель)
station engineer - главный инженер
support [sə'pɔ:t] - поддерживать
tail - хвост, хвостовая часть
tail plane - стабилизатор (хвостовой)
technical ['teknɪkəl] - технический
walk - ходить
wheel [wi:l] - колесо
wing - крыло
wing tips - законцовка крыла, концевой обтекатель крыла
work v,n - работать, работа
under - под
undercarriage ['ʌndə,kærɪdʒ] - шасси

A. Read, translate and learn the texts:

MAIN PARTS OF THE AIRCRAFT

There are five main parts of the aircraft: the power plant, the fuselage, the wings, the tail unit (empennage) and the landing gear (undercarriage).

The fuselage is the central body of the plane. The power plant provides power for flight. The wings support the plane in the air. The tail unit provides stability. The landing gear supports the plane on the ground.

The main parts of the fuselage are the nose, the cockpit, the cabin, the cargo compartments and the tail.

The main parts of the empennage are the fin, the stabilizer or tail plane, the rudder and the elevator.

The main parts of the wing are the centre wing, the outer wing, the wing tips, the wing flaps and the ailerons.

The main parts of the landing gear are the main gear, the wheels, the shock absorber or strut and the retracting mechanism, the nose gear.

The main parts of the power plant are the nacelle, the engine mount, the engine, the oil cooler and the propeller.

I'm a flight engineer. I fly on TU-154, I do much work on the ground and in the air. Before the flight I walk around the aircraft and make an inspection I inspect the nose wheel, I check the ground locks, inspect the main gear, nacelle No One and Two. Then I walk under the fuselage to the tail and inspect the rudder and elevators. I check all equipment on board. I check it according to the special list for the flight. I start up and run up the engines and check the fuel pressure.

During the flight I sit between the captain and the co-pilot (behind the navigator) and look at the engine instruments. I handle the controls for the landing gear and the wing flaps at takeoff and landing. I retract and lower the landing gear.

After landing I write my technical report and brief the station engineer about the problems (snags) on the aircraft in flight.

Exercise 1. Answer the following questions:

1. What do you do?
2. Are you a flight engineer (a mechanic)?
3. Do you fly?
4. What aircraft (helicopter) do you fly on?

5. Do you work much on the ground before flight?
6. Have you got much work in flight?
8. What parts of the plane do you inspect?
9. Where do you sit in flight?
10. What do you do in flight?
11. What instruments do you watch?
12. Who handles the controls for the landing gear?
13. What do you write after the flight?
14. Whom do you brief about the snags?
15. Who starts up the engines?
16. What do you do after landing?
17. What are the main parts of the plane?
18. What are the main parts of the power plant?

Exercise 2. Make "tail questions":

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <i>You are a flight engineer, ... ? -
You are a flight engineer, aren't you?</i> 2. You fly on TU-154, ... ? 3. This is a passenger plane, ... 4. There is much fuel in the tanks, ... ? 5. There are many passengers in the plane, ... ? 6. There's no navigator in your crew, ... ? | <ol style="list-style-type: none"> 7. He doesn't speak English, ... ? 8. You've got a family ... ? 9. He's your captain ... ? 10. He's got a car, .. ? 12. You don't smoke, ... ? 13. He flies much, ... ? 14. Stewardesses aren't crew members, ... ? 15. You handle the controls for the landing gear, ... ? |
|---|--|

Exercise 3. Make alternative questions:

1. *He's a pilot (a mechanic). - Is he a pilot or a mechanic?*
2. He's got a son (daughter).
3. She learns English (French).
4. I fly on TU-154 (IL-86). -
5. There are 10 stewardesses in the plane (5).
6. There is much fuel in the tanks (oil).
7. They are flight engineers (mechanics).
8. This is a passenger plane (a cargo plane).
9. They have much baggage there (cargo).
10. We replace the wheels (repair).

Exercise 4. Insert prepositions:

1. How many are you in your crew?
2. There is much time ... flight.
3. How many crew members are there ... the cockpit?
4. ... landing I write my technical report.
5. How much cargo is there ... the cargo hold?
6. I brief the station engineer ... the problems ... night.
7. How many flights are there ... London?
8. I sit ... the captain and the co-pilot.
9. Many aircraft fly ... Moscow.
10. I check equipment ... the special list ... the flight.
11. Check fuel tank drains ... water.
12. We check all equipment board.
13. Connect this hose ... the system
14. I walk ... the fuselage ... the tail.
15. There are 5 main parts ... the aircraft.
16. We fly ... TU-154.
17. We have much work ... the ground and ... the air.
18. The power plant provides power ... flight.
19. ... the flight I make an inspection ... the plane.
20. The landing gear supports the plane ... the ground.

Exercise 5. Use "do/does":

1. ... you fly?-Yes, I
2. ... your son fly? - No, he ... not.
3. What ... you do? - I'm a flight engineer.
4. What ... your wife do? - She is a dentist.
5. Where ... you live? - I live in Minsk.
6. Where ... you fly? - We fly to Moscow.
7. ... you speak English? — Yes, I
8. ... your crew speak English? - Yes, it
9. Where ... your crew fly? - It flies to Moscow.
10. Where ... your children study? - They study at school.
11. ... you learn English? - Yes, I
12. ... your son learn English at school? - Yes, he

Exercise 6. Use "have, has, do, does, am, is, are":

1. ... you got a family? - Yes, I
2. ... you a pilot? - No, I ... not.
3. ... you got a son? - Yes, I
4. ... he a student? - No, he ... not. -
5. Where ... you live? – I live in Minsk.
6. What ... you do? - I ... a flight engineer.
7. What ... your wife do? - She ... a teacher.
8. ... she an engineer? - Yes, she
9. ... you write a technical report? - Yes, I
10. ... you a flight engineer? - Yes, I
11. ... you much work in flight? - Yes, I
12. ... a flight engineer brief the station engineer? - Yes, he
13. Where ... he sit in flight?
14. What ... he do after landing?
15. ... he much work after flight?
16. ... there much fuel in the tanks?
17. ... there many problems in flight?

Exercise 7. Use "when, where, what, how, who, whom":

1. ... do you live?
2. ... do you do?
3. ... is your name?
4. ... does your wife do?
5. ... do you do before the flight?
6. ... do you sit in flight?
7. ... are you?
8. ... do you brief after landing?
9. ... report do you write after flight?
10. ... parts do you inspect?
11. ... do you need?
12. ... speaks English?
13. ... are the main parts of the helicopter?
14. ... do you inspect?
15. ... is the central body of the plane?
16. ... starts up the engines?
17. ... do you fly?
18. ... do you speak English?
19. ... old are you.
20. ... checks the locks?
21. ... do you give your technical report?
22. ... do you check the equipment on board?
23. ... plane is it?

Exercise 8. Match the questions and the answers:

- | | |
|----------------------------|----------------------|
| 1. <i>What's his name?</i> | a. No, he is not. |
| 2. What does he do? | b. Yes, he does. |
| 3. Where do you live? | c. Yes, I do. |
| 4. Where do you fly? | d. Yes, I have. |
| 5. What does your wife do? | e. In Moscow. |
| 6. Is your son a student? | f. He's an engineer. |
| 7. Have you got a family? | g. To London. |
| 8. Do you speak English? | h. She's a dentist |

9. Does your friend fly? *i. Willie.*

Exercise 9. Make the sentences negative: *I'm a pilot. – I'm not a pilot.*

1. This is a cargo plane. 2. There is a crew in the plane. 3. We've got much cargo. 4. There are many crew members in the cockpit. 5. There is water in the tank. 6. I'm a pilot. 7. There is a navigator in the plane. 8. This is our crew. 9. He has a family. 10. We have much time before flight. 11. We fly to France. 12. He lives in London. 13. Our crew speaks English. 14. My captain learns English. 15. Refuelling is over. 16. We chock the plane. 17. He does much work after flight. 18. He flies. 19. There's much fuel there. 20. There are pilots in the cockpit.

Exercise 10. Make the sentences interrogative: *I fly. - Do you fly?*

1. My crew flies much.
2. There are 4 members in the crew.
3. There is much cargo in the hold.
4. I live in Russia.
5. He checks all equipment on board.
6. During the flight he sits between the pilots.
7. After flight I brief the station engineer about the problems in flight.
8. There are 5 main parts of the aircraft.
9. He flies on IL-86.
10. They check the equipment according to the special list.
11. We do many exercises.

REVIEW

Let's check the brakes! Let's replace this engine! Let him repair this unit! Let's start refuelling! Let's stop refuelling! Let me check the locks! Let's test this engine! Let's chock the plane!

PARTS OF THE HELICOPTER

Learn the new vocabulary:

(aircraft)storage battery - бортовая аккумуляторная батарея
actuator ['æktju'eitə] - усилитель, привод
airscrew [ɛəskru:] (propeller)boss - втулка НВ
antitorque ['ænti tɔ:k] - рулевой винт
balance - центровка, балансировка
blade [bleid] - лопасть
boot [bu:t] - чехол
collective pitch - общий шаг
condition [kən'diʃn] - состояние
control linkage ['lɪŋkɪdʒ] - проводка системы управления
cooling fan - вентилятор системы охлаждения
crack - трещина; дать трещину, трескаться
cyclic pitch ['saɪklɪk] - циклический шаг несущего винта
defect - дефект
device - прибор, механизм, оборудование
directional control - путевое управление
directional stability - продольная устойчивость
dismantle [dɪs'mæntl] - демонтировать, разобрать
distortion [dɪ'stɔ:ʃ(ə)n] - деформация
drivetrain ['drɪvɪtreɪn] - трансмиссия
engine box - коробка двигателя
enough [ɪ'nʌf] - достаточный; достаточное кол-во
external - внешний
fore-aft control [fɔ:ra:ft] - продольное управление

gear box [gɪə bɔks] - редуктор
ground test - наземное испытание
hydraulic booster [haɪ'drɔ:ɪlɪk 'bu:stə] - гидроусилитель
intermediate gear box [ɪntə'mi:dʒət] - промежуточный редуктор
lateral control ['lætərəl] - поперечное управление
logbook ['lɒgbʊk] - бортовой журнал
main (lifting) rotor [meɪn('lɪftɪŋ) 'rəʊtə] - несущий винт (НВ)
main gear box - главный редуктор
oil cooler - масляный радиатор
outrigger ['aʊtrɪgə] - консольная балка
pre-flight check - предполетная проверка
propeller pitch - шаг винта
pusher - толкающий воздушный винт
pusher propeller - толкающий винт
rear rotor [rɪə 'rəʊtə] - рулевой винт
record ['rekɔ:d] - запись, карта-наряд
rotor drive system - трансмиссия привода несущего винта
rotor head - втулка винта
run - работать (о двигателе): обкатывать
see-saw - втулка НВ
shock absorber [ʃɒk b'sɔ:bə] - амортизатор (шасси)
swash plate [swɔʃpleɪt] - автомат перекоса
tail boom - хвостовая балка
tail gear box - хвостовой редуктор

tractor propeller - тянущий винт

transmission [trænz'miʃn] -

трансмиссия

turboprop ['tɜːbəʊ'prɒp] -

турбовинтовой

Read, translate and learn the texts:

wear (wore, worn) v, n -

изнашивать; износ, изнашивание

weight [weɪt] - вес

MAIN PARTS OF THE HELICOPTER

There are 5 main parts of the helicopter: the power plant, the fuselage, the landing gear, the main rotor (the lifting rotor) and the rear rotor (antitorque).

The fuselage is the central body of the helicopter. The power plant provides power for the flight.

The lifting or main rotor supports the helicopter in the air and provides fore-aft control, lateral control and main rotor collective pitch control. The lifting rotor creates lift.

The antitorque provides directional stability and directional control. The main parts of the antitorque are three blades, the airscrew boss, the gear box, the actuator and control linkage.

The main parts of the fuselage are the cockpit, the cabin, two engine boxes, the main gear box, and the external fuel tanks.

The main parts of the power plant are two turboprop engines, the main gear box, the fuel system, the oil system, 2 oil coolers, the main gear box fan or cooling fan and control linkage, the engine mount, the hydraulic system.

The main parts of the main rotor are five blades, the airscrew boss, the swash plate and 3 actuators.

The main parts of the landing gear are two main gears, the nose gear, the wheels and the shock absorbers. The landing gear supports the helicopter in the ground.

DUTIES OF A FLIGHT MECHANIC

I'm a flight mechanic, I fly on a helicopter. Before the flight I make pre-flight checks. I check records in the logbook, I make an inspection of the main

parts of the helicopter: the cockpit, the fuselage, external fuel tanks, absorbers and wheels, and blades.

I inspect the engines, main gear box, swash plate, see-saw, hydraulic system and the controls. I check all instruments and devices in the cockpit. I check if there is enough fuel for flight. I refuel the tanks. I check oil pressure in the engines and in the gear box after I start up and run up the engines. During flight I sit between the captain and the co-pilot. I regulate the oil and fuel pressure. I report the captain about any problems in flight. I make minor repairs in flight.

After landing I inspect the helicopter and make records in the log book.

Exercise I. Answer the questions:

1. What do you do before the flight?
2. What records do you check?
3. What inspection do you make?
4. What main parts do you inspect?
5. What do you check in the cockpit?
6. What do you check after you start up and run up the engines?
7. What do you inspect in flight?
8. What do you do in flight?
9. Whom do you report about your problems?
10. What repairs do you make in flight?
11. What do you do after landing?

Exercise 2. Translate into Russian:

Pre-flight check, shock absorber, run up, blade, oil, tail boom, logbook, rear rotor, oil cooler, airscrew boss, power plant, swash plate, oil pressure, enough fuel, hydraulic system, start up, device, refuel, gear box, power, external fuel tank, oil cooler, actuators, the nose gear, wheels, main rotor.

Exercise 3. Translate into English:

Амортизатор, внешний бак, бортжурнал, запускать двигатели, масло, несущий винт, гидроусилитель, лопасть, редуктор, промежуточный редуктор, втулка НВ, механизм, хвостовой редуктор, главный редуктор, автомат перекоса, давление, гидравлическая система, осмотр, запись.

Learn the special vocabulary:

Cool - охлаждать	short - короткий
Fill - наполнять	starter -- стартер
insert - вставлять	tank - бак
park - парковаться	starboard - правый борт
be short (of) - испытывать недостаток	port tank - левый бак
carpet - ковер	wing span - размах крыла
filler - прокладка, наливное отверстие, воронка	centre wing - центроплан
filler cap - крышка	outer wing - отъемная часть крыла
oil filter - масляный фильтр	port wing - левое крыло
inner - внутренний	starboard wing - правое крыло
port -- левый борт; левый; отверстие	wing tip - концевой обтекатель крыла
filler port - заливочное отверстие (наливное)	wiper - стеклоочиститель
	wind screen wiper - стеклоочиститель лобового стекла

1. Read, translate into Russian and learn the following:

Dust the carpets, please. Check the oil cooler. Switch on the engines. Run up the engines. Insert the chocks. Insert the hose into the filler. We are short of fuel and oil. Fill the port tank and the starboard tank with fuel. Fill the central tank too. Fill up the wash basin tank with water in the toilet. We are short of water. Fill tank TG16 with oil. What kind of plane is it? It's a jet plane. What kind of cooler is it? It's an oil cooler. What kind of pump is it? It's a hand pump. What kind of fuel is it? What kind of engine is it?

Wash the filter, please. Send us some cord. I have no bucket to drain oil. Shut the cowl. Clean the carpets. I have no connector. Start up the engines. Switch off the engines.

2. Translate into English:

1. Запускайте двигатели. 2. Наполните бак. 3. Промойте фильтр. 4. Дайте мне тонкую веревку. 5. У нас мало воды. 6. Заполните бак водой. 7. Проверьте маслорадиатор. 8. Включите двигатели. 9. Отсоедините шланг. 10. Давайте наполним этот бак. 11. Заправьте топливные баки. 12. Вставьте топливный шланг. 13. Промойте масляный фильтр. 14. Замените этот агрегат, 15. Заполните левый бак. 16. Дайте мне молоток. 17. Мне нужно

ведро. 18. Закройте капот. 19. У нас течь масла. 20. Нам нужен аэродромный источник питания. 21. Заправка закончена. 22. Отрегулируйте тормоза. 23. Проверьте отстой топлива на наличие воды. 24. Замените этот предохранитель. 25. Мне нужен набор инструментов. 26. Мы охлаждаем тормоза. 27. У нас мало топлива.

Регулировать, отвернуть, завернуть, охлаждать, наполнять, надувать, использовать, открывать, выключать, закрывать, сливать, включать, брать, давать, соединять, отсоединять, посылать, тормозить, мыть, кран, выход, болт, крышка, дозаправить, люк, утечка, сопло, шланг, заглушка, веревка, канат, стойка, баллон, химжидкость, масло, топливо, вода.

TEST

1. Translate into English:

запускать (двигатели) – колесо - убирать шасси - стабилизатор (хвостовой) - докладывать - главный инженер - обеспечивать - руль направления - выполнять осмотр - отсоединять - инструктировать - силовая установка - наполнять (газом, воздухом) – нос - выпускать (шасси) – гондола - производить посадку – двигатель - летать - оборудование

2. Use “am, is, are, do, does, have, has”:

1. *What is your name? - What are your names?*
2. *... you a pilot? - No, I ... not, I ... a mechanic.*
3. *Where ... your crew members? - They ... in the plane.*
4. *How many . . . they? - They .. 4.*
5. *... there a navigator in your crew? - Yes, there*
6. *... you much work in flight? - Yes, we*
7. *... he got a car? - Yes, he*
8. *... it a cargo plane? - Yes, it*
9. *Where ... you fly? - ... you fly much?*
10. *Where ... you from? - ... you from Moscow?*
11. *... he speak English? - ... he learn it? - Yes, he*
12. *... there much fuel in the tank? - Yes, there*
13. *... you fly on TU-154? - Yes, I*
14. *... there many problems in flight? - Yes, there*
15. *What ... you do? - ... you a student? - ... you study?*
16. *... there many tools in the kit? - Yes, there*
17. *... he got a tool kit? - Yes, he*

- | | |
|---|---|
| 18. Who ... a special list? - He
Where ... it? | 22. ... your sons students? - Yes,
they |
| 19. ... it a passenger cabin? - No,
it ... not. | 23. ... there much oil in the tank?
- Yes, there |
| 20. ... the passengers in the
plane? - Yes, they | 24. ... there many stewardesses in
the plane? - Yes, there |
| 21. ... you a student? - Yes, I | 25. Where ... you land? |
| | 26. When ... he lower gears? |

3. Make the sentences negative: *He flies on IL-86.* - *He doesn't fly on IL-86.*

- | | |
|--|--|
| 1. He is a crew member. | 7. She speaks English. |
| 2. He makes an inspection of the
engines. | 8. They are crew members. |
| 3. There is much oil in the tank. | 9. I have time before the flight. |
| 4. They have many problems in
flight. | 10. There are 4 members in the
crew. |
| 5. The navigator watches all
instruments in flight. | 11. There is a navigator in the
crew. |
| 6. They fly much. | 12. He does much work on the
ground. |

4. Make the sentences interrogative: *He's a pilot.* - *Is he a pilot?*

- | | |
|--|---|
| 1. He flies on TU-154. | 10. We have many tools in the
cockpit. |
| 2. They're four in the crew. | 11. Mechanics make inspection of
the main parts. |
| 3. This is a cargo plane. | 12. He learns English. |
| 4. There's much fuel in the tanks. | 13. I brief the station engineer about
snags. |
| 5. There're some crew members in
the plane. | 14. There are many instruments in
the cockpit. |
| 6. She speaks English. | 15. There is much baggage in the
plane. |
| 7. He writes a technical report
after flight. | |
| 8. There are many passengers in
the cabins. | |
| 9. He has much work in flight. | |

5. Translate into English:

1. Вы пилот? 2. Вы летаете? 3. Куда летает ваш экипаж? 4. На каком самолете вы летаете? 5. Ваш экипаж говорит по-английски? 6. Откуда вы? 7. Это грузовой самолет? 8. У вас много топлива в баке? 9. У вас мало масла? 10. Сколько у вас топлива? 11. Вы летаете много? 12. У вас много

работы в полете? 13. Кто следит за работой всех приборов в полете? 14. Много приборов в пилотской кабине? 15. Есть проблемы в полете? 16. Сколько членов в вашем экипаже? 17. У нас нет штурмана в экипаже. 18. В самолете нет стюардесс. 19. Они не члены экипажа. 20. На борту не 10 стюардесс, на борту 5 стюардесс. 21. У нас мало воды. 22. Помогите нам. 23. Промойте фильтр. 24. Пусть он проверит тормоза. 25. Давайте проверим тормоза. 25. Встречайте нас. 26. Встречайте наш рейс. 27. Не закрывайте тот люк. 28. Давайте проверим колеса. 29. У нас мало топлива, нам нужна заправка. 30. Пришлите набор инструментов. 31. Откройте крышку. 32. Проверьте крышки. 33. Вставьте шланг в наливное отверстие. 34. Наполните левый бак. 35. Нам нужна вода. 36. Мы охлаждаем колеса. 37. Проверьте масляный фильтр. 38. Проверьте крышки. 39. Шланг короткий. 40. Замените шланг. 41. Отсоедините шланг. 42. Я выполняю незначительный ремонт в полете. 43. Мне нужен переходник.

UNIT 4

Grammar

Modal Verbs: can, must, may

MAY

- a. May I take your pen? — Yes, you may.
— Yes, do, please.
May I come in? — Yes, of course.

- b. We may have problems in flight.
There may be problems in flight.

CAN

- Can you help me? — Yes, I can.
— No, I can't.

CAN = TO BE ABLE TO

I can do it. = I am able to do it.

I can't do it. = I'm not able to do it. — I'm unable to do it.

MUST

Must you do it? — Yes, I must.

— No, I must not. I mustn't.

1. There must be a tool kit in the aircraft.
2. There must be much fuel in the tanks.
3. There must be a navigator in the crew.

MUST = HAVE TO = BE TO

1. I must do it. = I have to do it. = I am to do it.
2. We must land. = We have to land to repair the engine. = We are to land at 6.
3. You must not do it. = You do not have to do it. = You are not to do it.
4. Must you land? = Do you have to land to refuel? = Are you to land at 5?
5. Why must you land? = Why do you have to land? = When are you to land?
6. He must check the oil grade. = He has to check it. = He is to do it, it's his duty.
7. What must he do? What does he have to do? = What is he to do?

Noun + Noun:

Ground power unit (GPU), flight engineer, oil pressure, fuel tank, flight No, a passenger plane, a cargo plane, a fuel pump, a passenger compartment, a crew member, a flight deck, a baggage cabin, a tool kit, a life jacket, a hatch cover, a fuel hose, a nozzle plug, a drain cock, oil leak, a drain plug.

Conversation Practice

Learn the new vocabulary:

aboard - на борту

affect [ə'fekt] - влиять,
воздействовать
airframe - планер самолета
apron ['eɪprən] - перрон
assist - помогать
call - звать, вызывать; вызов
care - заботиться; забота
compressed - сжатый
conditioning - кондиционирование
consumption - потребление, расход
determine [dɪ'tɜ:mɪn] - определить
determination [dɪ'tɜ:mɪ'neɪʃn] -
определение
device - устройство, прибор
duty - обязанность
each - каждый
emergency [ɪ'mɜ:dʒənsɪ] -
аварийный
fault - неисправность
faulty - неисправный
fitting - соединение, крепление,
арматура
fluid ['flu:ɪd] - жидкость
full - полный
function - действовать,
функционировать
pressure ['preʃə]- давление
keep - держать
keep records - вести записи
ladder - стремянка
level - уровень
lights - освещение
locate - определить место
find - находить
lower (extend) - выпускать (шасси)
lubricate ['lu:brikeit] - смазывать
maintain [meɪn'teɪn] - оказывать
технич. обслуживание
maintenance ['meɪntənəns] -
техническое обслуживание

maintenance base - (авиационная)
техническая база, АТБ
mechanical [mɪ'kænikəl] -
механический
minor - незначительный
observe(watch) - наблюдать
operate - управлять; действовать,
работать
operation - действие, работа
other - другой
outside - наружный, внешний
overhaul ['əʊvəhɔ:l] - капремонт
performance - работа,
характеристика
platform - платформа, лестница
pre-flight - предполетный
properly ['prɒrəli] - должным
образом
reading - показание (прибора)
regulate - регулировать
repair - ремонтировать; ремонт
reservoir ['rezəvwa:l] - резервуар,
хранилище
retract [rɪ'trækt] - убирать (шасси)
routine [ru:'ti:n] - повседневный
service - обслуживать
shock strut - амортизационная
стойка
take off - взлетать; взлет
technician [tek'nɪʃn] - специалист,
техник
tension [tenʃn] - напряжение,
натяжение
tyre (tire) ['taɪə] - шина, покрышка
watch [wɒtʃ] - следить, наблюдать
wiring ['waɪərɪŋ] - электропроводка
What kind of hose [həʊz] is it? -
Какой это шланг?
What type of aircraft is it? - Какой
это тип самолета?

Read, translate and learn the text:

MAINTENANCE TECHNICAN

The flight engineers (aircraft maintenance mechanics) are members of flight crew. All mechanical and electrical devices aboard planes must work properly.

Their duties are: routine servicing, maintenance of aircraft (helicopter), determination and repair of faults, maintaining or overhauling aircraft and components.

They must inspect, repair and service airframe, engines, equipment, instruments and radio. Before the flight the flight engineer makes pre-flight inspection on apron. He must check maintenance records. He has to check the outside parts of the plane.

He may locate any faulty equipment. He must call a mechanic who has to make repairs. He inflates tires, fills fuel tanks and oil reservoirs, lubricates fittings, corrects fluid level in shock strut of landing gear, checks tension of controls, and cleans mechanical parts with compressed air and cleaning fluid. He may replace lights and faulty wiring; he may clean off engines. He checks main parts that affect the operation of the aircraft using many tools, ladders or platforms.

He must start up and run up the engines. In flight he is to assist the captain. He must watch (observe) instrument readings, he must check functioning of electrical systems. He is to adjust the electrical power. He is to watch engine instruments and regulate the performance of the engines, air conditioning and other equipment. He has to keep records of engine performance and fuel consumption. He is to lower and retract the landing gear. He must stop the engines.

He is to report any mechanical problems to the captain; he may have to make some emergency repairs in flight or some minor repairs on the ground.

Exercese 1. Answer the questions:

1. What must flight engineer do before the flight?
2. Who inspects instruments and equipment?
3. Who is to assist the captain?
4. Who checks the tyres?
5. May there be any repairs in flight?
6. Whom does the flight engineer brief?
7. What do flight engineers do in flight?
8. What do they do before landing?
9. What does the flight engineer write in his report?
10. Whom does he have to inform about problems in flight?
11. When does he call a mechanic?
12. What repairs may he make on the ground?
13. Who locates faulty equipment?
14. Who lowers and retracts the gear?
15. Who is to switch on and switch off the engines?

Exercise 2. Use "can/can't"

1. you speak English? — Yes, I
2. ... you write a technical report? — Yes, I
3. You can make an inspection of the plane, you?
4. He can't check the locks, ... he?
5. ... you check the equipment on board?
6. ... he start up the engines? — No, he
7. You ... check the fuel pressure, ... you?
8. ... you handle the controls for the landing gear? — Yes, I ...
9. You can drive a car, ... you?
10. ... you do it for me? — Yes, I
11. He ... speak English, can he?
12. Who ... help me? — I

Exercise 3. Look at this: *Don't do it.* — *You mustn't do it.* Now you do it:

1. Don't stop!
2. Don't switch off the engines.
3. Don't start up the engines.
4. Don't taxi.
5. Don't chock the aircraft.
6. Don't replace the latch.
7. Don't replace the pump.
8. Don't take the tools.
9. Don't change the valve.
10. Don't tell him about it.

Exercise 4. Use "must/may":

1. *She speaks English; she (may) be English.*

2. He is a crew member, he . . . be a co-pilot.
3. She has got much baggage, she . . . be a passenger.
4. He repairs the engines, he . . . be a mechanic.
5. She often flies, she . . . be a stewardess.
6. They learn much, they . . . be students.
7. There's faulty equipment, he . . . locate fault.
8. I don't speak English. — You . . . learn it.
9. If he locates a fault, he . . . call a mechanic.
10. I've got a tool kit; you . . . take any tool.
11. There is a life jacket, you . . . use it.

Exercise 5. Make sentences negative: You have to stop. — You don't have to stop.

- | | |
|----------------------------------|--|
| 1. You have to do it. | 7. She has to brief the captain. |
| 2. You have to stop on stand 5. | 8. You have to open the plane. |
| 3. He has to write a report. | 9. He has to call a mechanic. |
| 4. You have to call him. | 10. We have to make repairs in flight. |
| 5. He has to change the pump. | |
| 6. They have to repair the unit. | |

Exercise 6. Make sentences interrogative: He has to do it. — Does he have to do it?

- | | |
|---|---|
| 1. He has to check all equipment. | 7. She has to learn English. |
| 2. He has to write a report. | 8. They have to locate the fault. |
| 3. They have to brief the station engineer. | 9. You have to work much. |
| 4. He has to inspect the systems. | 10. He has to make pre-flight inspection. |
| 5. Mechanics have to repair the engine. | 11. They have to check the locks. |
| 6. The flight engineer has to open the plane. | 12. He has to call a mechanic. |
| | 13. He has to make minor repairs. |
| | 14. They have to fly there. |

Exercise 7. Translate into Russian (Noun + Noun):

Fuel pressure, oil temperature, brake temperature, engine change, cargo plane, passenger cabin, cargo hold, baggage hold, air hostess, life jacket, hatch cover,

nozzle plug, drain cock, fuel pump, hand pump, tool kit, engine mount, tail unit, station engineer, filler cap, fuel drain, fuel leak, oxygen leak, wing tip.

8. Glossary

Leant the special vocabulary:

aid помогать; помощь, средство
clean чистить, убирать;
чистый
copy записывать; экземпляр
heat обогревать
heating обогрев
hot горячий
fail отказывать, выходить из
строения
first aid kit аптечка
failure отказ, неисправность
free освободить; свободный
galley ['gæli] кухня (на борту)
galley- буфет
gauge датчик, прибор

oil quantity gage [geɪdʒ]
масломанометр
key ключ (дверной)
mail почта
fill наполнять;
refill дозаправлять
number количество, номер
oil shock absorber масляный
амортизатор
overheat перегревать
overheating перегрев
red красный
system система
trouble беспокоить;
неисправность

Read, translate and learn the following:

Clean the toilets, please. We need clean water. The wash basin must be clean. Give me the red box. We have engine failure. We have brake failure. We have oil cooler failure. We have fuel pump failure. I have to fill the shock absorber with nitrogen. Take the green box. Open the red box. Brakes may fail. Any system may fail. I need two copies. Give me the first and the second copies. Brakes may overheat. I must watch the engine gages. We need water. There is much mail in the plane. We may need help. I need the first copy. I have no first aid kit. We have trouble with shock absorber, the fluid leaks away. There is a leakage in the oil system. Clean the cockpit, please. We have oil leak No. 2 engine. We have hand pump failure. Have you got two copies? — Give me one copy. Have you got much mail? I've got the key. Who has a first aid kit? What kind of pump is it? What kind of hose is it? Is it a short hose? What kind of engines are these? What kind of valve is it? Engines may fail. We may have any failure in flight. Fill the wash basin tank with water.

TEST

1. Use the equivalents of modal verbs: **Can you help me? — Are you able to help me?**

1. Can you retract the gear?
2. He must check the locks.
3. I must fill the tanks with fuel.
4. He must report any problem in flight.
5. He can repair any engine.
6. We can come any time.
7. It can fly in any weather.
8. How much cargo can you take?
9. Must you write a report after flight?
10. Can you answer all questions?
11. Whom must he brief about snags?
12. They must be in the plane.
13. He can't lower the gear.

2. Make the sentences negative: ***I can help you. — I can't help you.***

— I'm unable to help you.

1. I can give you my tools. —
2. He can open the plane.
3. We have to call a mechanic.
4. He has to check the locks.
5. He can close the hatch.
6. I can answer the question.
7. He can replace the engine.
8. They have to use this device.
9. I can tell you where the airport is.
10. You have to take much cargo.
11. He can lower the gear.

3. Make sentences interrogative: **He can drive a car. — Can he drive a car?**

1. He can speak English.
2. They have to work much.
3. They must have a special list.
4. He has to check the fuel pressure.
5. There may be problems in flight.
6. He is to assist the captain.
7. Each tank must be full.
8. They have to make minor repairs.
9. He has to keep records of fuel consumption.
10. There must be life jackets in the cabin.
11. There may be problems with gears.
12. They are to be in the cockpit.

4. Use the modal verbs or their equivalents: ***We ... to land at 9. — We are to land at 9.***

1. ... I take your tool kit? — Yes, you
2. I ... help you.
3. The crew ... be in the cockpit.
4. You ... come any time.
5. He ... to report any problem in flight.
6. ... you ... to learn English?
7. Who ... to brief the station engineer?
8. ... you tell me the time, please?
9. He to check all systems.
10. All devices ... work properly.
11. Who ... to make pre-flight checks?
12. How much cargo ... you take?
13. We ... to fill the shock absorber with nitrogen.
14. There ... be much fuel in the tanks.

5. Translate into English:

Аптечка; отказывать; убирать; экземпляр; неисправность; датчик; перегреть; помогать; почта; нуждаться; ключ; освободить

1. На самолете должен быть набор инструментов.
2. Бортинженеру может быть нужен домкрат.
3. У нас могут быть проблемы в полете.
4. Экипаж должен быть в самолете.
5. Бортинженер может выполнить незначительный ремонт в полете.
6. Где должен сидеть бортинженер?
7. Какие приборы могут быть необходимы вам?
8. У вас могут быть какие-либо проблемы в полете?
9. У вас отказ двигателя?
10. Вам нужна вода?
11. Проверьте тормоза, у нас неисправность тормозов.
12. Тормоза могут перегреться?
13. Вы можете говорить по-английски?
14. Я могу помочь вам.
15. Я не могу говорить по-английски.
16. Вы можете взять 50 пассажиров?
17. Кто может говорить по-русски?
18. Вы можете прислать механика?
19. Вы можете выпустить шасси?

Remember

HOW TO SAY THE TIME

What time is it? = What's the time?	1.55 — 5 (minutes) to 2. 1.05 — 5 (minutes) past 1
It's 5 o'clock (sharp). It's 5 past 5.	1.50 — 10 to 2. 1.10 — 10 past 1.
It's 10 past 5.	1.45 — a quarter to 2. 1.15 — a quarter past 1.
It's 20 past 5.	1.40 — 20 to 2. 1.20 — 20 past 1.
It's half past 5	1.35 — 25 to 2. 1.25 — 25 past 1.
It's 20 to 6.	1.30 — half past 1.
It's 10 to 6.	P.M. — post meridian [pəʊst mə'ri:diən] от 12 ч дня
It's 25 to 6.	A.M. — ante meridian ['æntɪ mə'ri:diən] от 24 ч. до 12 ч дня
It's a quarter to 6.	at 5.30 p.m. at 11.45 a.m.
It's 5 to 6.	
It's a quarter past 5.	
It's 25 past 5.	
It's 6.	

1. What's the exact time by your watch?
2. Can you tell me the exact time, please?
3. My watch is some seconds slow (fast).
4. My watch is 5 minutes slow (fast).
5. I can't tell you the exact time.
6. I'm sorry, I'm some minutes late. — OK, that's all right.
7. We take off at 10.30 a.m.
8. When does your flight depart? — It departs at 9.
9. When does your flight arrive? — It arrives at 11.
10. How long does your flight last? — It lasts 2 hours.
11. How long does loading last? — It lasts an hour.

REVIEW

Translate into English:

Перегрев, отказ, использовать, проверять, открывать люк, закрывать, заменять тормоза, посылать, предохранитель, топливный шланг, подъемник, агрегат, насос, сливной кран, регулировать, соединять, неисправность, выходить из строя, отсоединять, соединительный шланг, набор инструментов, кислород, азот, сливная пробка, масло, топливо, дозаправка, источник питания, смазка, жидкость, капот, топливный бак, утечка кислорода, течь масла, колесо, радиатор, руль высоты, двигатель, шасси, убирать шасси, датчик, выпускать, шасси, гондола, давление, запускать двигатели, состояние, трещина, бортжурнал, охлаждать, наполнять, вставлять, левое крыло, правый бак, масляный фильтр, испытывать недостаток, хвостовая часть, амортизатор, оборудование, фюзеляж, опробовать двигатели, стеклоочиститель переднего стекла, правое крыло, левый бак, заливочное отверстие, аптечка.

1. У нас перегрев колес, нам нужна вода для охлаждения колес.
2. Используйте мои инструменты.
3. У нас отказ левого двигателя.
4. Проверьте тормоза.
5. Замените этот агрегат.
6. Давайте заменим этот предохранитель.
7. Пришлите нам подъемник.
8. Откройте сливной кран.
9. Отрегулируйте тормоза.
10. Какая у вас неисправность?
11. Любое оборудование может выйти из строя.
12. Отсоедините топливный шланг.
13. У вас есть набор инструментов?
14. Вы можете прислать нам набор инструментов?
15. Нам необходима дозаправка, у нас мало топлива. Нам нужно 20000 л. топлива.
16. Вам нужен наземный источник питания для запуска? — Да.
17. У нас проблема, у нас течь масла.
18. Вы должны заменить это колесо?
19. Вы можете помочь мне заменить колесо?
20. Могу я запускать двигатели?
21. Вы должны делать записи в бортжурнале?
22. Я должен охладить колеса.
23. Мы должны заполнить топливные баки.

- | | |
|--------------------------------------|---------------------------------------|
| 24. Вставьте шланг в горловину. | 28. Спасибо за техобслуживание. |
| 25. У вас мало топлива? — Да. | 29. Мне нужно ведро для слива масла. |
| 26. Вам необходима дозаправка? — Да. | 30. У вас есть переходник? |
| 27. Заправка закончена, благодарю. | 31. Я должен очистить шасси от масла. |
| | 32. Где розетка? |

Read, translate and learn the text:

DUTIES OF A FLIGHT MECHANIC

I'm a flight mechanic. I fly on a helicopter. I fly on MI-8. Before the flight I am to make pre-flight checks. I must check records in the log book. I must make an inspection of the main parts of the helicopter. I must check the power plant, the fuselage, the main rotor, the rear rotor, the landing gear, the transmission.

I must check the equipment in the cockpit. I have to check the operation of the fuel pumps.

I must check if there is enough fuel in the fuel tanks and I must refuel the tanks.

I must check the operation of the hydraulic system, the fuel pumps after I start up the engines.

During flight I must sit between the captain and the co-pilot.

In flight I must control the oil and fuel pressure.

I have to adjust fuel consumption.

If there are any faults I must inform the captain about them. I can make minor repairs in flight if necessary (*если необходимо*). If there are any failures I can make minor repairs after flight on the ground.

After landing I am to inspect the main parts of the helicopter and I must make records in the log book.

I am to make records of any faults and repairs.

I must brief the station engineer about any technical problems.

1. Answer the following questions:

1. What are you to do before the flight?
2. What must you check in the helicopter?
3. Who is to check if there is enough fuel in the tanks?
4. What do you have to do in flight and after flight?
5. You're a mechanic, aren't you?
6. Do you fly on MI-8?
7. Who makes pre-flight checks?
8. Who has to check records in the log book?
9. You have to inspect the main parts, don't you?
10. What parts are you to inspect?
11. Where must you sit in flight?
12. Who controls the oil and fuel pressure?
13. May there be any faults?
14. What repairs can you make in flight?
15. Is it necessary to adjust fuel consumption?
16. Who do you inform about any failures?
17. Is it necessary to inspect the main parts after landing?
18. Does the captain have to make records in the log book?
19. What system are you to check after you start up the engines?
20. Do you have to make repairs after flight?

UNIT 5

Grammar

Present Continuous: to be + ing (Participle 1)

work — working	fly — flying
speak — speaking	brief — briefing
watch — watching	do — doing
check — checking	make — making

I'm a teacher. I teach English. I am teaching English now.

You're a student. You learn English. You're learning English now.

He is a mechanic. He repairs engines. He is repairing now.

I'm checking the brakes. We're inspecting the units.

He's briefing the captain. We're running the engines. We are refuelling.

I'm waiting for your mechanic. I'm replacing the valve.

I am learning English. I am not learning English now. Am I learning English now?

He is learning English. He is not learning English. Is he learning English?
 She is learning English. She is not learning English. Is she learning English?
 It is working. It is not working. Is it working?
 We are leaning English. We are not learning E. Are we learning English?
 You are leaning English. You are not learning English. Are you learning English?
 They are leaning English. They are not learning English. Are they learning English?
 What are you doing now? — We're learning English.
 Are you learning English? — Yes, we are. — No, we are not.

To be going (to) (future action)

I'm going to learn English.

What are you going to do? — I'm going to check the engines.
 What do you do? — I'm a flight engineer.
 What are you doing now? — I'm learning English.
 What are you going to do? — I'm going to fly to London.

change — changing	hold — holding	give — giving
tell — telling	operate — operating	inspect — inspecting
lock — locking	provide — providing	walk — walking
lower — lowering	retract — retracting	start up — starting up

ИСКЛЮЧЕНИЕ:

see, understand, like, know, need, want, remember, hear, cost

Do you understand me? Do you know English?
 Do you remember his telephone number? Does it cost much?
 Do you need assistance? I don't like it.

Причастие I (Participle I). Функции:

- a) Present Continuous: He is repairing the engine.
- b) Определение: We see a mechanic repairing the engine.
- c) обстоятельство: While repairing.
When repairing.

Present Continuous может использоваться для выражений ближайшего будущего времени:

We are flying to London in May.
We are taking off in 10 minutes. (через 10 мин.)

Инфинитив в функции обстоятельства цели:

We need a ladder to inspect the engines. Нам нужна стремянка, чтобы осмотреть двигатели.

Conversation Practice

Learn the new vocabulary:

away - прочь	device - устройство, прибор, приспособление
climb - подниматься	remember - помнить
from - от, из	(fuel) pressure - давление (топлива)
hangar - ангар	taxi - рулить
here - здесь	representative - представитель
high - высокий	work - работать
into - в, на (внутри)	tow - буксировать
look - смотреть	valve - клапан
make a flight - выполнить полет	relief valve - сброса давления
normal - нормальный	ramp - грузовая стоянка
push - толкать, передвигать	

Read, translate and learn the text:

AT THE AIRPORT

We are at the airport now. There are many aircraft there. Some planes are standing on the apron on stands; some planes are in the air. There is a hangar. There are some aircraft there; some mechanics are working in the hangar. They are standing on platforms. They are checking the aircraft before the flight. They are checking the devices. One mechanic is checking the fuel of No. 2 engine. The fuel pressure is high. He is adjusting the relief valve. Now he is pushing the platform away from the aircraft. The flight engineer is making an inspection. He is climbing into the cockpit. He is sitting between the pilots. He is checking instruments, all systems and equipment. He is running the engines. Now he is starting up the engines. He is checking the fuel pressure. It's normal. The aircraft is taxiing to the ramp. They are going to make a flight. Now they are taking off. They are in the air.

One mechanic is repairing the engine. Many engineers and mechanics are working here. There is a tractor; it is towing a plane into the hangar.

Exercise 1. Ask and answer the following questions:

1. Are there many aircraft there?
2. Who is working in the hangar?
3. Where are mechanics standing?
4. Why is the mechanic checking the fuel pump?
5. What is he checking?
6. What systems are they inspecting?

- | | |
|---|---------------------------------------|
| 7. Who is making an inspection? | 13. Who is running the engines? |
| 8. Who is repairing the engine? | 14. What pressure is he checking? |
| 9. Is there a tractor? | 15. Is the fuel pressure normal? |
| 10. What is the tractor doing? | 16. Where is the plane taxiing? |
| 11. Who is climbing into the cockpit? | 17. Are they going to make a flight? |
| 12. Where is the flight engineer sitting? | 18. They are taking off, aren't they? |

Exercise 2. Use “am, is, are”:

1. *What ... they doing? — They ... learning English.*
What are they doing? — They are learning English.
2. What ... he replacing? — He ... replacing the pump.
3. What plane ... taking off? — TU-154
4. Where ... you taxiing? — We ... taxiing to stand five.
5. What plane ... landing? — IL-86
6. Who sitting between the pilots? — I
7. Where ... you going to fly? — We ... going to fly to Moscow.
8. When ... he going to repair the engine?

Exercise 3. Use "to be going to" for future actions:

- | | |
|---|---|
| 1. <i>We fly to London. — We're going to fly to London.</i> | |
| 2. He learns English. | 7. He starts up the engines. |
| 3. They inspect all systems. | 8. They taxi to the ramp. |
| 4. He locks the plane. | 9. The planes stand on the apron. |
| 5. I retract the gears. | 10. The tractor tows the plane into the |
| 6. We take off. | hangar. |

Exercise 4. Use Present Continuous:

- | | |
|---|---|
| 1. <i>He (speak) English now. — He is speaking English now.</i> | |
| 2. I (make an inspection) of the main parts now. | 7. He (go) to check the locks now. |
| 3. He (climb) into the cockpit now. | 8. The engineer (adjust) the valve. |
| 4. They (inspect) all systems now. | 9. They (repair) the rudder. |
| 5. I (check) the brakes now. | 10. The tractor (tow) the aircraft into the |
| 6. We (replace) the wheel now. | hangar. |

Exercise 5. Use Present Continuous:

- | | |
|---|--|
| 1. <i>Do you speak English? — Are you speaking English now?</i> | 4. Does she dust the carpets? |
| 2. Do you change the brakes? | 5. Does he adjust the relief valve? |
| 3. Does he inspect the main parts of the plane? | 6. Do they repair the engine? |
| | 7. Does the tractor tow the plane into the hangar? |

8. Do you start up the engines?
9. Does he sit between the co-pilot and the captain?
10. Does he replace the wheel?
11. Do you check the temperature?
12. Does he brief the captain about any technical problems?
13. Do you use these tools?
14. What do you do?
15. Where do you fly?
16. What system do you inspect?
17. Where do you taxi?
18. Where do you land?
19. What does he do?
20. Does he check the pressure?
21. Do you wash the valve?
22. Does he replace the faulty units?
23. Do you run up the engines?
24. Do you go to the hangar?
25. Do they tow the aircraft into the hangar?
26. Does he push away the stepladder?
27. Do you check the fuel pressure?

Glossary

Learn the special vocabulary:

a burst tyre (a flat tire) - лопнувшая шина

arrive – прибывать, прибытие

auxiliary power unit (APU) [ɔ:g'zɪljəri

'paʊə 'ju:nɪt] - вспомогательная силовая установка

burn off (out) fuel - вырабатывать топливо

burst [bɜ:st] - лопнуть; взрыв

charwoman ['tʃɑ:wʊmən] - уборщица

depart [dɪ'pɑ:t] - отправляться

departure [dɪ'pɑ:tʃə] - отравление

engine power - мощность двигателя

extinguish [ɪks'tɪŋgwɪʃ] - тушить, гасить

extinguisher [ɪks'tɪŋgwɪʃə] - огнетушитель

fire - огонь, пожар

fire extinguisher - огнетушитель

forward - передний

less - меньше

light - свет, освещение

lighting - освещение

locking wire ['lɒkɪŋ'waɪə] - контрольная проволока

more - больше

not less - не менее

not more - не более

rear [rɪə] - задний

screwdriver ['skru:draɪvə] - отвертка

spanner (wrench) ['spænə (rentʃ)] - гаечный ключ

spare [spɛə] - запасной

spares (spare parts) - запчасти

stepladder ['steplædər] - стремянка

to be on fire, burn - гореть

wire cutters ['waɪə'kʌtəz] - кусачки

Read, translate and learn the following:

We've got a burst tyre, replace it, please. There are some fire extinguishers on the plane. Have you got any spare parts? Do you need spares? We need a stepladder to inspect the engines. Send us a charwoman to clean the plane.

There's fire in the cargo hold. Is there tire in the forward or rear hold? We have faulty auxiliary power unit. What is on fire? What engine is on fire?

We need a charwoman to dust the carpets and wash the toilets. I need a mechanic to repair the oil cooler. There are not more than 10 stewardesses in the plane. There is not less than 20 tons of fuel in the tanks. Is the charwoman coming?

We have to burn off fuel. We are burning off fuel. What is the time of your arrival? What is the time of your departure? We are arriving in time. We are departing at 5. We are unable to extinguish the fire. We need a fire extinguisher. There is fire in the cargo hold. The cargo hold is on fire. The rear baggage hold is burning. Can you extinguish the fire?

TEST

1. Use present Continuous:

<i>a)</i>	<i>b)</i>	<i>c)</i>
1. Do you learn English?	1. We fly to London.	1. Who teaches English?
2. Does she clean the cockpit?	2. He inspects the main parts.	2. Who learns English?
3. Does she dust the carpets?	3. She dusts the carpets.	3. Who flies to Helsinki?
4. Does the flight engineer replace brakes?	4. They clean the plane.	4. Who sits between the pilots?
5. Do you fly to Paris?	5. He repairs the unit.	5. Who checks the brakes?
6. Does he drive a car?	6. We land at Helsinki.	6. Who fills up the tanks?
7. Do you start up the engines?	7. The flight engineer writes a report.	7. Who works in the hangar?
8. Does he inspect the plane?	8. He makes minor repairs.	8. Who cleans the cabins?
9. Does he handle the controls?	9. He retracts the gears.	9. Who repairs the engines?
10. Does the tractor tow the plane?	10. He does much work on the ground.	10. Who runs the engines?
11. Do mechanics work in the hangar?	11. He has some problems.	
12. Do engineers repair the engine?	12. We have our English lessons.	
	13. They arrive at Pulkovo.	
	14. The plane takes off from Paris.	
	15. I call a mechanic to repair the engine.	

2. Use "to be going to":

1. They're learning English.
2. He's changing the fuel pump.
3. He's writing a technical report.
4. I'm calling an Aeroflot representative.
5. I'm briefing the station engineer.
6. He is speaking to the mechanic.

7. We're flying to London.
8. She's cleaning the toilets.
9. They are landing at Pulkovo.

10. We're arriving in time.
11. I'm inflating the tyre.
12. He's replacing the wheel.

3. Use Present Continuous:

1. I (drive) to the airport.
2. She (clean) the plane.
3. Where ... you (taxi)?
4. When ... the plane (arrive)?
5. When ... they (depart)?
6. We (fly) to London.
7. He (lock) the plane.
8. The tractor (tow) the plane to the hangar.
9. He (learn) English.

10. The crew (make a flight) to Paris.
11. The flight engineer (have) much work now.
12. They (land) at Pulkovo.
13. Where ... he (work)?
14. Where ... you (sit)?
15. Who (teach) you English?
16. Who (fill up) the tanks?
17. Who (learn) English?

4. Translate into English:

1. Он работает в ангаре сейчас? 2. Вы собираетесь заменить двигатель? 3. Вы работаете в ангаре? 4. Куда вы рулите сейчас? 5. Кто проверяет самолет перед вылетом? 6. Давление топлива нормальное? 7. Я запускаю двигатели. 8. Я рулю к грузовой стоянке. 9. Куда вы собираетесь лететь? 10. В ангаре есть самолеты? 11. Сколько самолетов на перроне? 12. Вы собираетесь сесть здесь? 13. Вот стремянка для осмотра двигателя. 14. Нам нужен механик для ремонта двигателя. 15. Используйте этот агрегат. 16. У нас неисправность вспомогательной силовой установки. 17. Пришлите уборщицу для уборки в самолете. 18. Пришлите нам запчасти для ремонта шасси. 19. Пришлите механика для замены колеса. 20. Нам нужен набор инструментов, чтобы отремонтировать это оборудование. 21. Я пишу отчет, чтобы проинформировать инженера о своих проблемах в полете. 22. У нас лопнула шина. 23. Горит двигатель.

5. Use "do, does, am, is are":

1. What ... you do in flight?
2. What ... you doing now?
3. ... you change the brakes?
4. Why ... you changing the brakes?
5. ... you going to change the brakes?
6. ... you repair the engines in flight?
7. ... you repairing the engines now?
8. ... you write any reports?
9. ... you writing a technical report?

10. ... you speak English? — Yes, I
11. How old ... you? — I ... 30.
12. We ... landing at Pulkovo.
13. Where ... you land?
14. How much cargo ... there in the rear hold?
15. you like to learn English?
16. you understand me?

17.... the flight engineer make repairs
in flight?

18.Who ... speaking English now?

19.Who ... teaching you English?

20.What ... you learning? — I ...
learning English.

Remember

New language items:

What's the English for “Машина скорой
помощи”?

How do you spell your name?

Is this correct? Am I right?

How do you say it?

How do you pronounce it?

I agree with you. I don't agree with you.

I think you're right! I don't think you're
right.

I don't think so.

I don't mind it.

Do you mind it?

I lost my way. How can I get to the bus
stop?

How about (what about) taking a
taxi/having a cup of coffee?

REVIEW

Translate into English:

Мы собираемся заменить это колесо. Я собираюсь отремонтировать этот агрегат. Вы собираетесь использовать стремянку? Мы собираемся вызвать вашего механика. Мы собираемся заменить масло. Я не собираюсь заменять этот фильтр, я собираюсь проверить и промыть его. Я собираюсь отрегулировать тормоза. Что вы собираетесь делать? Что вы собираетесь ремонтировать? Какие запчасти вы собираетесь прислать нам? Какой двигатель вы собираетесь ремонтировать? Вы собираетесь заменить этот шланг? Сколько топлива вы собираетесь дозаправить? Когда вы собираетесь заменить этот агрегат? Я собираюсь опробовать двигателя. Нам нужна вода для охлаждения колес. Нам нужен ваш механик, чтобы заменить колесо. Нам нужна стремянка, чтобы осмотреть двигатели. Пришлите нам вашего механика, чтобы оказать нам помощь в ремонте (техобслуживании). Нам нужен ваш механик, чтобы отремонтировать двигатель. Мы вызываем вашего механика, чтобы отремонтировать крыло. Отказ вспомогательной силовой установки для запуска двигателей. Нам нужны запчасти для ремонта этой системы. Нам нужен набор инструментов для замены колеса. Что вам нужно, чтобы осмотреть хвостовое оперение? Нам необходимо промыть этот бак. Помогите промыть и заполнить чистой водой этот бак. Давайте проверим этот шланг. Необходимо заменить этот переходник.

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