

Aviation

by Tim Bowen

Lesson length: 60-75 minutes

Aim: Students learn and practise giving thanks in a variety of situations

Main aim: presentation and practice of aviation-related vocabulary

Subsidiary aims: reading for specific information; pronunciation: word stress; stress in compounds

Materials: Worksheets 1-5

Procedure

- 1 Write the words *air* travel on the board. Ask your students to work in pairs and brainstorm all the words they know associated with this topic. Set a time limit of 3 to 4 minutes for this. Listen to their ideas and categorise the words on the board – for example, verbs, parts of the aircraft, airports and check-in, people, weather, adjectives. Make sure all the members of the class understand each vocabulary item.
- 2 Tell the students they are going to read six technical questions about aircraft. Ask them to decide which of the three answers to each question they think is correct. Give them the first part of Worksheet 1. Do not let them look at the text at this stage. When they have chosen the best answers, ask them to compare their choice with a partner. Then listen to their ideas but do not correct them. Ask them to read the text and check their answers. Check that they have found the correct answers. Ask them if they are surprised by any of the answers.
- 3 Return to the list of words on the board and highlight any people or jobs (for example, pilot, stewardess, engineer). Ask the students to work in pairs or small groups. Give them Worksheet 2 and ask them to match each of the job titles with two of the things that person does. Note that some of the job titles are singular and others are plural. This should help the students in their choices. Check the answers and make sure that everyone agrees. Deal with any vocabulary questions that may arise (e.g. *collision, refuel*).
- 4 Ask the students to look again at the list of words on the board. Highlight any verbs (e.g. *take off, land*). Tell the students they are going to see a list of 12 common aviation verbs and 12 sentences, each one with a gap. They should fill the gaps using the verbs. Give them Worksheet 3. When they have finished the

exercise, ask them to compare their answers with a partner. Then check that they have the correct answers. Be prepared to deal with questions about some of the vocabulary in this exercise (e.g. *cruise, sharply, clearance*).

- 5 Give the students **Worksheet 4**. Ask them to work in pairs and label the different parts of the aircraft. Check the answers. Note the pronunciation of *fuselage* - /'fju:zə,lɑ:ʒ/. If you have time, present some other words for parts of the aircraft, e.g. *landing gear, hold, wing flaps, nose-wheel* and *wing tips*.
- 6 Ask the students to look at the second part of Worksheet 4. These are safety instructions you usually hear when travelling by plane. Ask the students to fill the gaps using the words at the beginning of the exercise. Then ask them to compare their answers with a partner. Check that they have the correct answers. Note the pronunciation of *aisle* - / aɪ / (the 's' is silent).
- 7 Give the students a copy of Worksheet 5 and ask them to match the words or prefixes in the left-hand column with the words in the right-hand column to make aviation terms. Check the answers. Then ask them to decide which part of each expression carries the main stress – is it the first element or the second element? Note that there is a generalised pattern here. If the expression is a noun + noun expression, the main stress falls on the first element (e.g. **GROUND** staff). If it is an adjective + noun expression, the main stress falls on the second element (e.g. bad **WEATHER**).
- 8 Finally, ask the students to decide which of the two stress patterns the 12 words in the third exercise follow. Ask them to do this in pairs. Then read the words aloud with the correct stress pattern (see the Answer Key) so that they can check their answers.

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What do you know?

Choose the best answer. Then look at the text and check your answers.

- 1 What is the normal cruising altitude for a modern passenger aircraft?
 - a. 3,000 metres
 - b. 6,000 metres
 - c. above 9,000 metres

- 2 What is the maximum range of a Boeing 747?
 - a. 7000 km
 - b. 10,000 km
 - c. over 13,000 km

- 3 Why don't aircraft fly above 40,000 feet (12,000 metres)?
 - a. extra cabin pressure
 - b. extra fuel
 - c. they are not allowed to

- 4 What is the ground speed at take-off of the average passenger aircraft?
 - a. 120-150 kph
 - b. 200-240 kph
 - c. 250-290 kph

- 5 How many passengers can a Boeing 747-400 carry?
 - a. 300
 - b. 400
 - c. 500

- 6 How many passengers can the Airbus 380 carry?
 - a. 455
 - b. 555
 - c. 655

The demand for air travel is increasing all the time and modern passenger aircraft are required to fly longer and longer distances. The first jumbo jet was the Boeing 747-100 which entered service in 1970 and had a capacity of about 350 passengers. The latest in the 747 series is the 747-400, which can carry around 500 passengers and fly over 13,000 km without refuelling.

Boeing's great rival in the passenger airline industry is Airbus, based in Toulouse in the south of France. Airbus recently launched its giant A380 aircraft, the biggest passenger plane in history. Designed to fly distances of up to 14,800 km, the A380 can carry 555 passengers. Most passenger aircraft have a cruising altitude of between 30,000 and 35,000 feet, from 9,000 to 10,500 metres, although technically they can normally fly higher than 40,000 feet. They rarely do this, mainly because of the large increase in cabin pressure this would require. The 747-400 has a maximum speed of 939km per hour. Compared with this, its ground speed at take-off seems quite slow – around 290 km per hour.

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Jobs, tasks and responsibilities

Match the job titles with the tasks each one performs. There are two tasks for each job.

- | | | |
|---|-------------------------|---|
| 1 | air-traffic controllers | a. carries out minor in-flight repairs |
| 2 | the pilot (or captain) | b. refuel aircraft |
| 3 | the co-pilot | c. is often also called the first officer |
| 4 | the flight engineer | d. serve food and drink to passengers |
| 5 | flight attendants | e. maintain radio contact with aircraft |
| 6 | ground staff | f. is responsible for the safe completion of the flight |
| | | g. help prevent mid-air collisions |
| | | h. instruct passengers in the use of safety equipment |
| | | i. assists other pilots by monitoring instruments |
| | | j. shares flying duties with the captain |
| | | k. supervises all other crew members |
| | | l. load and unload baggage |

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Key verbs

Fill the gaps using these key aviation verbs.

land take-off climb descend proceed contact
 push back taxi refuel cruise bank start up

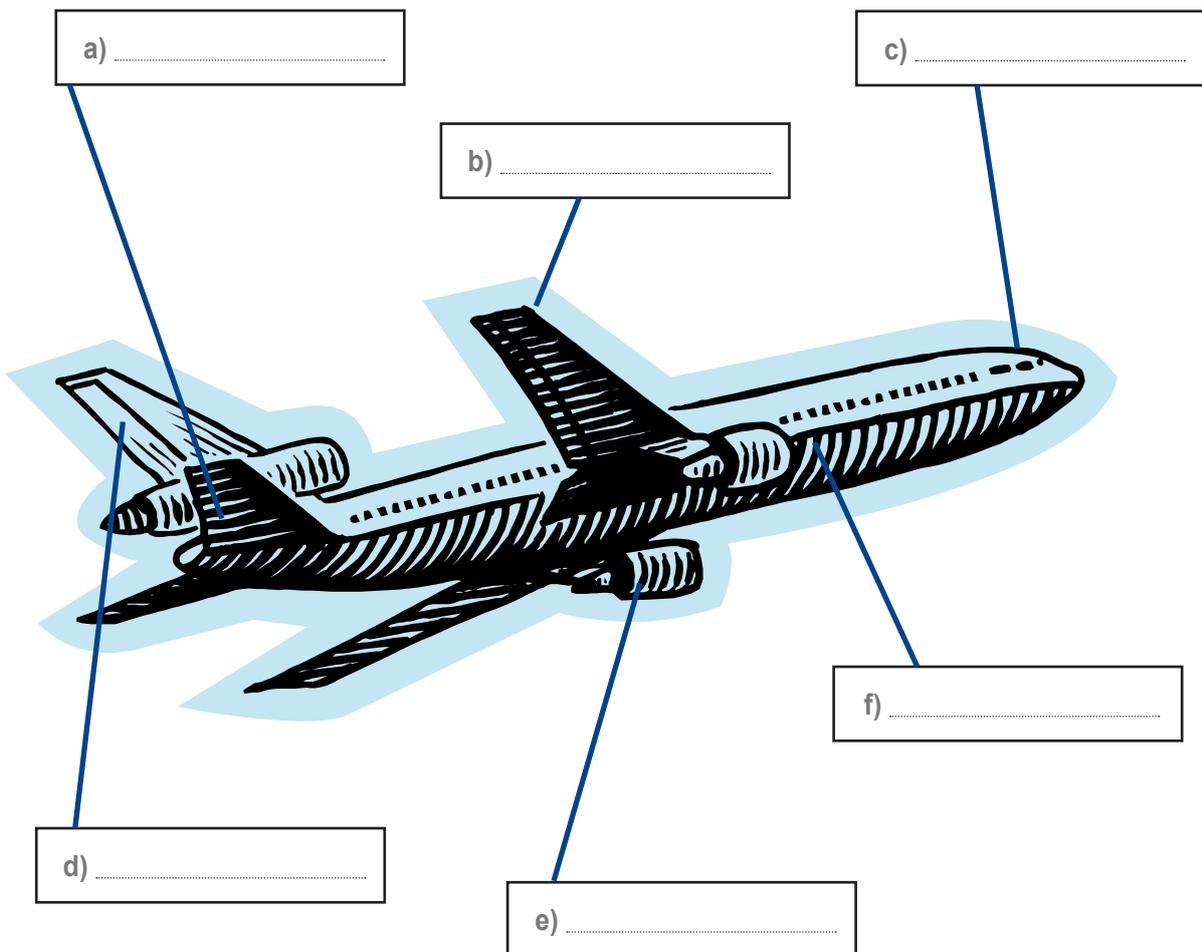
- 1 After take-off aircraft normally rapidly to their cruising altitude.
- 2 On long-haul flights from the UK to Australia, for example, aircraft have to stop to
- 3 When the crew on the flight deck have completed their checks, the pilot can the engines.
- 4 Some airports are located in mountainous regions which means that pilots have to sharply to the right or left before beginning their final approach.
- 5 In poor visibility pilots sometimes have to circle the airport several times before they get an opportunity to
- 6 After receiving clearance from air-traffic control, the pilot can from the parking stand.
- 7 After landing, the aircraft leaves the runway and to the parking stand.
- 8 One of the main tasks of the first officer is to air-traffic control.
- 9 Most modern passenger aircraft at an altitude of around 33,000 feet.
- 10 Air traffic control instructs pilots to to the next navigation point.
- 11 Modern passenger aircraft normally begin to from their cruising altitude about 20 minutes before landing.
- 12 Aircraft reach a ground speed of around 250-290 km per hour before they

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Aircraft parts

Label the diagram with the following parts:

- 1 wing
- 2 fuselage
- 3 tail
- 4 engine
- 5 cockpit
- 6 rudder



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Pronunciation

1 Match the words or prefixes in the left-hand column with those in the right-hand column to make aviation terms.

- | | |
|-------------|--------------|
| 1. co- | a. officer |
| 2. flight | b. desk |
| 3. ground | c. altitude |
| 4. bad | d. pilot |
| 5. check-in | e. staff |
| 6. safety | f. attendant |
| 7. first | g. equipment |
| 8. high | h. weather |

2 Now decide which element in each expression carries the main stress. For example, **CA**bin crew

3 Match these aviation terms to one of these two stress patterns:

1) ● ● ●

2) ● ● ●

turbulence

departure

passenger

instrument

collision

equipment

altitude

supervise

attendant

maintenance

controller

refuelling

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Worksheet 1

1. c
2. c
3. a
4. c
5. c
6. b

Worksheet 2

1. e, g
2. f, k
3. c, j
4. a, i
5. d, h,
6. b, l

Worksheet 3

1. climb
2. refuel
3. start up
4. bank
5. land
6. push back
7. taxis
8. contact
9. cruise
10. proceed
11. descend
12. take off

Worksheet 4

1. b
2. f
3. d
4. e
5. c
6. a
1. fasten
2. upright
3. luggage
4. obstruct
5. fold
6. remain

Worksheet 5

1. **CO**-pilot
 2. **FLIGHT** attendant
 3. **GROUND** staff
 4. bad **WEA**ther
 5. **CHECK**-in desk
 6. **SAF**Ety equipment
 7. first **OFF**icer
 8. high **AL**titude
- 1) turbulence, passenger, instrument, altitude, supervise, maintenance
- 2) departure, collision, equipment, attendant, controller, refuelling