



CLIL number...1
Air Traffic Services (ATS)

LEVEL

- ☐ A1 (Beginner)
- ☐ A2 (Elementary English)
- ☒ B1 (Intermediate English)
- ☐ B2 (Upper-Intermediate English)
- ☐ C1 (Advanced English)
- ☐ C2 (Proficiency English)

MAIN ACTIVITY :

Reading Comprehension, writing

VOCABULARY :

Vocabulary linked to the Air traffic Services (ATS): Airspace, Airtraffic, Airtraffic Services, Air Traffic Control Service , Flight Information Service, Alerting Service, FIS, ALS, ATCS, ATS, ICAO, ACC, APP, TWR, FIC, SAR

GOALS :

The aim is to make students know the basic notions about how the Air traffic Services work

SKILLS :

Reading: Skimming and scanning the text for gist and details
Writing: fill in the gaps, matching, association, answering questions, reconstruct sentences in chronological order

TIME :

PREPARATION :

2HOURS

Video projector, pc/tablet to watch/read the **PowerPointAIR TRAFFIC SERVICES(ATS)**prepared as a video and a set of slides
Power Point video <https://www.youtube.com/watch?v=HE5RTYCf37A>
Power Point-slides 1-6
<https://www.youtube.com/watch?v=kANcHxSAJr8>
Power Point-slides 7-11
<http://www.youtube.com/watch?v=JyblYqGaQHw>
Power Point-slides 12-19
<https://www.youtube.com/watch?v=2BBkkLUlnK4>
Power Point-slides 19-20
<https://www.youtube.com/watch?v=ZKHZUmqhy0c>

WARM UP

Before reading and watching the PowerPoint the teacher will ask students to do the following exercise to understand the meaning of some words important for a first approach to Air traffic Services.

Exercise 1. Association

<https://learningapps.org/display?v=prraq4xd222>

Do you know the meaning of the following words ? Try to guess : match the given words to their right definition.

1. <i>Airspace</i>	A. <i>Types of services that assist pilots operating in the airspace</i>
2. <i>Air traffic</i>	B. <i>The air available to aircrafts to fly in, especially the part subject to the jurisdiction of a particular country</i>
3. <i>Air traffic Services</i>	C. <i>Number of aircraft flying in an area or along a route</i>

Key : 1-B, 2-C, 3-A

Read and Watch Power Point-slides 1-6 <https://www.youtube.com/watch?v=kANcHxSAJr8>

then do the exercises

Introduction

Air Traffic Services (ATS)

The airspace is crossed by thousands of flights in our skies every day.

In each country there is an Authority that guarantees all flights the possibility of coexisting in maximum safety following harmonious traffic flows.

There is an inherent need to provide certain services to air traffic so that air traffic can be conducted in a safe and orderly manner.

The types of services created to assist pilots operating in the airspace are the so called Air Traffic Services (ATS).

Air Traffic Services (ATS) can form the basis for establishing the day-to-day requirements of the service provided to aircraft.

The term "ATS" has been defined as being a generic term meaning **various services**:

-Flight Information Service (FIS),

-Alerting Service (ALS),



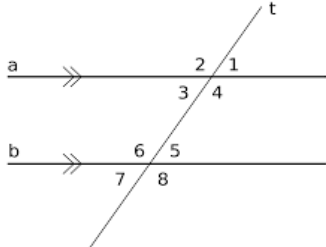




-Air Traffic Control Service (ATCS).

Exercise 2

Reconstruct the words given in jumbled order and match them to the connected pictures

<https://learningapps.org/display?v=ps10zq19322>



1. ecairaps	airspace	a. 
2. sorcsed yb	crossed by	b. 
3. tythoirua	authority	c. 
4. ixstoec	coexist	d. 
5. lowf	flow	e. 
6. ria ciatrif	air traffic	f. 
7. visserce	services	g. 

8. tirelang	alerting	
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Key : 1-f, 2- c , 3- e , 4-b , 5- h , 6-a, 7-d, 8-g

MAIN ACTIVITY 1

Main Activity 1

Exercise 1 Find the right meaning of the sentence you are given

<https://wordwall.net/resource/30781467/airplane-quiz>

1. prevent	a. give something that is needed or wanted
2. collision	b. recommendation as to appropriate choice
3. manoeuvring area	c. help which gets someone out of a dangerous situation
4. obstruction	d. a violent impact of moving objects
5. expedite	e. give help or support to someone
6. provide	f. inform someone
7. advice	g. something that blocks a path
8. notify	h. ensure that it does not happen
9. rescue	i. part of an aerodrome to be used by aircraft for takeoff, landing, and taxiing
10. assist	j. speed up or make easy the action of something

KEY: 1-H, 2-D, 3-I, 4-G, 5-J, 6-A, 7-B, 8-F, 9-C, 10-E

Read and Watch Power Point-slides 7-11 <https://www.youtube.com/watch?v=JyblYqGaQHw>

then do the exercise

OBJECTIVES OF ATS

The objectives of the Air Traffic Services, as stated in ICAO (Internationa Civil Aviation Organization) Annex 11, are:

- to prevent collisions between aircraft;
- to prevent collisions on the manoeuvring area (taxiway plus runway) between aircraft and obstructions
- to expedite and maintain an orderly flow of air traffic;
- to provide advice and information useful for the safe and efficient conduct of flights;
- to notify appropriate organizations regarding aircraft in need of search and rescue aid and assist such organizations as required.

Exercise 2: find in the 2nd column the right continuation of the sentences written in the 1st column.

<https://wordwall.net/resource/30150611/matching-pairs>

The objectives of the Air Traffic Services, as stated in ICAO Annex 11, are:

1.to prevent collisions	a. between aircraft and obstructions
2.to prevent collisions on the manoeuvring area	b. maintain an orderly flow of air traffic
3. to expedite and	c. information useful for the safe and efficient conduct of flights
4.to provide advice and	d. aircraft in need of search and rescue aid and assist such organizations as required.
5.to notify appropriate organizations regarding	e. between aircraft

Key :1-e, 2-a , 3-b, 4-c, 5-d

MAIN ACTIVITY 2

Read and Watch PowerPoint slides 12-19, <https://www.youtube.com/watch?v=2BBkkLUlnK4>

then do the exercises

DIVISION OF ATS

In order to accomplish the previous objectives, the Air Traffic Services are sub-divided into three services:

1. Air Traffic Control Service
2. Flight Information Service
3. Alerting Service

Air Traffic Control Service Description

Air Traffic Control service is established to accomplish the first three objectives:

- preventing collisions between aircraft, and, on the manoeuvring area, between aircraft and obstructions;
- expediting and maintaining an orderly flow of air traffic.

Air Traffic Control Service is provided to controlled flights by Area Control Centre (**ACC**), Approach Control Office (**APP**) and Aerodrome Control Tower (**TWR**).

This Service is realized through clearances. A clearance is an authorization regarding: take-off, landing and level (altitude or height at which an aircraft is flying)

Flight Information Service Description

Flight Information service is a service provided by Flight Information Center (FIC) for the purpose of giving advice and information useful for the safe and efficient conduct of flights.

Information may regard:

- Weather conditions reported or forecast at departure, destination and alternate aerodromes;
- Volcanic activity and volcanic ash clouds;
- Changes in the service ability of navigation aids;
- Changes in condition of aerodromes and associated facilities;
- Free balloons;
- Collision hazards;
- Any other information likely to affect safety.

Alerting Service Description

The Alerting Service has the purpose of notifying the presence of aircraft in need of search and rescue aid to the organization in charge, Search and Rescue Service (SAR), of alerting the situation and providing relevant information about the aircraft in danger. The ATS units themselves do not provide SAR service but assist such organization as required.

Information about aircraft in a state of emergency is normally collected by the relevant Area Control Centre (ACC), or Flight Information Centre (FIC). It is then forwarded to the appropriate Rescue Coordination Centre.

Exercise 1

Complete the text filling in the gaps with the missing words given in the boxes in scrambled order:

<https://wordwall.net/resource/30151714/cloze-text-1>

<https://wordwall.net/resource/30152448/cloze-text-2>

<https://wordwall.net/resource/30153525/cloze-text-3>

DIVISION OF ATS

In order to accomplish the previous objectives, the Air Traffic Services are -1- into three services:

1. Air -2- Service

2. -3- Information Service

3. -4- Service

Air Traffic Control Service Description

Air Traffic Control service is a service provided for:

- 5- collisions between aircraft, and, on the -6- area, between aircraft and -7- ;
- 8- and maintaining an orderly -9- of air traffic.

Air Traffic Control Service is provided to controlled flights by Area Control Centre -10-, -11- (APP) and Aerodrome Control Tower -12-.

This Service is realized through clearances. A clearance is an -13- regarding: take-off, landing and -14- (altitude or height at which an aircraft is flying)

Flight Information Service Description

Flight Information service is a service provided by -15- (FIC) for the purpose of giving advice and information useful for the -16- and efficient conduct of flights.

Information may regard:

- Weather conditions reported or -17- at departure, destination and alternate aerodromes;
- -18- activity and volcanic -19- clouds;
- Changes in the service ability of -20- aids;
- Changes in condition of aerodromes and associated -21-;
- Free -22-;
- Collision -23-;
- Any other information likely to -24- safety.

Alerting Service Description

The Alerting Service has the purpose of -25- the presence of aircraft in need of search and rescue aid to the organization in charge, -26- (SAR), of alerting the situation and providing relevant information about the aircraft in -27-. The ATS units themselves do not provide SAR service but -28- such organization as required.

Information about aircraft in a state of emergency is normally -29- by the relevant Area Control Centre (ACC), or Flight Information Centre (FIC). It is then -30- to the appropriate rescue coordination centre.

Key

1. sub-divided	7. obstructions	13. authorization	19. ash	25. notifying
2. <u>Traffic Control</u>	8. expediting	14. level	20. navigation	26. Search and Rescue Service
3. <u>Flight</u>	9. flow	15. Flight Information Center	21. facilities	27. danger
4. <u>Alerting</u>	10. (ACC)	16. safe	22. balloons	28. assist
5. preventing	11. Approach Control Office	17. forecast	23. hazards	29. collected
6. manoeuvring	12. (TWR)	18. Volcanic	24. affect	30. forwarded

Exercise 2

<https://learningapps.org/display?v=p4kr83pet22>

Match each acronym to its full form

1. FIS	a. Air Traffic Services
2. ALS	b. Area Control Centre
3. ATCS	c. Approach Control Office
4. ATS	d. Flight Information Service
5. ICAO	e. Flight Information Center
6. ACC	f. Air Traffic Control Service
7. APP	g. Search and Rescue Service
8. TWR	h. Alerting Service
9. FIC	i. International Civil Aviation Organization
10. SAR	j. Aerodrome Control Tower

Key: 1-d, 2-h, 3-f, 4-a, 5-i, 6-b, 7-c, 8-j, 9-e, 10-g

Exercise 3

<https://learningapps.org/display?v=p590gs5y322>

Put under the right Service the aims or information it provides.

Weather conditions reported or forecast	alert the situation and provide relevant information about the aircraft in danger	Changes in condition of aerodromes and associated facilities
notify the presence of aircraft in need of search and rescue aid	Collision hazards	prevent collisions on the manoeuvring area between aircraft and obstructions
Changes in the service ability of navigation aids	prevent collisions between aircraft	Volcanic activity and volcanic ash clouds
expedite and maintain an orderly flow of air traffic	Free balloons	Assist the Search and Rescue Service

Air Traffic Control Service	Flight Information Service	Alerting Service

Key:

Air Traffic Control Service	Flight Information Service	Alerting Service
prevent collisions between aircraft	Weather conditions reported or forecast	notify the presence of aircraft in need of search and rescue aid
expedite and maintain an orderly flow of air traffic	Volcanic activity and volcanic ash clouds	alert the situation and provide relevant information about the aircraft in danger
prevent collisions on the manoeuvring area between aircraft and obstructions	Changes in the service ability of navigation aids	assist the Search and Rescue Service
	Changes in condition of aerodromes and associated facilities	
	Free balloons	
	Collision hazards	

FOLLOW UP

Description of the activity.

FOLLOW UP

Now you are finally at the last part of today's activities.

Read and Watch PowerPoint slides 20-29 <https://www.youtube.com/watch?v=ZKHZUmghy0c> then do the exercise.

A flight from the closing of the door to the final destination

During the aerodrome control phase (airport aprons), pilots will contact the control tower (TWR), which authorises them to start their engines and move from the parking area to the holding point through the taxiways.

At the end of this ground movement phase, pilots will receive clearance to take off from the air traffic controller only when the minimum separation distance from all other aircraft is guaranteed. When the runway is clear, the **aircraft is cleared for take-off**.

The aircraft then contacts "approach" (approach and departure control), where air traffic controllers are responsible for accompanying the aircraft now in flight up to its cruise altitude and route.

At this time pilots contact the competent Area Control Centre (ACC), which will manage the flight until it reaches an area handled by another ACC or enters the approach phase towards the destination airport. The air traffic controllers operating in the **ACCs** instruct the pilot on the altitude and route to be taken, making sure that the aircraft always maintains a safe separation distance from other aircraft.

In the vicinity of the destination airport, the aircraft is handed over to approach again, where the controller takes charge of the flight and guides it through descent until it is lined up with the runway.

When the aircraft is stabilized on the landing path and in sight of the airport, the flight is handed over to the **control tower** at the destination airport, which authorizes it to land and guides it to a designated gate.

Exercise 1

<https://learningapps.org/display?v=pi6cpjmoa22>

Put the following sentences in the right chronological order

- | |
|---|
| 1. At this time pilots contact the competent Area Control Centre (ACC), which will manage the flight until it reaches an area handled by another ACC or enters the approach phase towards the destination airport. |
| 2. In the vicinity of the destination airport, the aircraft is handed over to approach again, where the controller takes charge of the flight and guides it through descent until it is lined up with the runway. |
| 3. During the aerodrome control phase (airport aprons), pilots will contact the control tower (TWR), which authorises them to start their engines and move from the parking area to the holding point through the taxiways. |
| 4. The air traffic controllers operating in the ACCs instruct the pilot on the altitude and route to be taken, making sure that the aircraft always maintains a safe separation distance from other aircraft. |

5. When the aircraft is stabilized on the landing path and in sight of the airport, the flight is handed over to the control tower at the destination airport, which authorizes it to land and guides it to a designated gate.
6. At the end of this ground movement phase, pilots will receive clearance to take off from the air traffic controller only when the minimum separation distance from all other aircraft is guaranteed. When the runway is clear, the aircraft is cleared for take-off .
7. The aircraft then contacts "approach" (approach and departure control), where air traffic controllers are responsible for accompanying the aircraft now in flight up to its cruise altitude and route.

Key :

1. During the aerodrome control phase (airport aprons), pilots will contact the control tower (TWR), which authorises them to start their engines and move from the parking area to the holding point through the taxiways.
2. At the end of this ground movement phase, pilots will receive clearance to take off from the air traffic controller only when the minimum separation distance from all other aircraft is guaranteed. When the runway is clear, the aircraft is cleared for take-off .
3. The aircraft then contacts "approach" (approach and departure control), where air traffic controllers are responsible for accompanying the aircraft now in flight up to its cruise altitude and route.
4. At this time pilots contact the competent Area Control Centre (ACC), which will manage the flight until it reaches an area handled by another ACC or enters the approach phase towards the destination airport.
5. The air traffic controllers operating in the ACCs instruct the pilot on the altitude and route to be taken, making sure that the aircraft always maintains a safe separation distance from other aircraft.
6. In the vicinity of the destination airport, the aircraft is handed over to approach again, where the controller takes charge of the flight and guides it through descent until it is lined up with the runway.
7. When the aircraft is stabilized on the landing path and in sight of the airport, the flight is handed over to the control tower at the destination airport, which authorizes it to land and guides it to a designated gate.

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WORD LIST (61 words)

ACC
Accomplish (to)
Advice
Affect (to)
Air traffic
Air traffic Services
Airspace
ALS/ Alerting Service
APP
Appropriate
Assist (to)
Associated
ATCS/ Air Traffic Control Service
Authority
Authorize (to)

Balloon
Clearance
Coexist (to)
Collision
Conduct
Coordination
Crossed
Cruise altitude
Day-to-day
Descent
Designate (to)
Expedite (to)
Facilities
FIC
FIS/ Flight Information Service
Flow
Forecast
Guarantee (to)
Hand over (to)
Handle (to)
Harmonious
Hazard
Holding point
ICAO
In charge
Inherent
Landing path
Level
Manoeuvring area
Minimum separation distance
Navigation aid
Notify (to)
Obstruction
Organization
Parking area
Prevent (to)
Provide (to)
Relevant
Report (to)
Requirement
Rescue
SAR
Service
Taxiway
TWR
Volcanic ash