

Air Transport Management and Technology:

1. The Importance of Air Transport

Methodological concept to effectively support technical key competencies using foreign languages ATCZ62 – the CLIL as a university teaching strategy



Europäische Union
Evropská unie
Europäischer Fonds für
regionale Entwicklung
Evropský fond pro
regionální rozvoj



UNIVERSITY
OF APPLIED SCIENCES
UPPER AUSTRIA

„We Are Taught To Fly in the Air Like Birds, and To Swim in the Water Like the Fishes; But How To Live on the Earth We Don't Know.“

G. B. Shaw

Air transport

- **Air transport** is an integral part of transport infrastructure and is an important sector of the economy.
- International air transport has a major influence on the development of international relations and cooperation on two basic levels:
 - socio-political;
 - economic.
- In general, we can say that air transport contributes to the creation of national GDP, in particular through the emergence of new services and the aerospace industry, creating jobs and enabling the rapid and safe transport of people and things over longer distances.

Air Transport in Numbers

- Air transport comprises the transport of about 9.5 million people per day (approximately as much as in 1947 for the whole of this year) and has an annual energy consumption of approximately 56 TWh.
- There are over 49,000 airports in the world, most of them (about 15,000) located in the United States with up to 4,000 aircrafts carrying 61,000 passengers moving every second over the air space. The busiest airports are in cities like Atlanta, Chicago, London, Tokyo, Los Angeles, Dallas and Paris.
- Air transport is one of the safest modes of transport at all: 539 people died in air accidents in 2008, i.e. one death per 1.3 millionth flight. Fewer people died as a result of air crashes than on Czech roads in the given year.

Basic Characteristics of Air Transport:

- Unlike land-based modes of transport, the airway is spatial and uses a large part of the airspace of the troposphere.
- Aviation means of transport (airplanes) implement their flight due to the lift force acting on the carrier surfaces of the aircraft (mostly wings).
- It allows the transport of persons, goods and animals at high speeds over long distances.
- It allows the transport of persons, goods and animals where land transport routes are not available.
- It is one of the safest transport systems.

Other uses of air transport: medical interventions, aerial work in agriculture, aerial photography, fire fighting and their localization, active and passive tourism, sport flying, etc.

Fundamental elements of the air transport system include:

- **Airplane** and
- **Air transport infrastructure:**
 - Airports and technical facilities
 - Controlled airspace
 - Air traffic control

Basic Classification of Air Transport:

- **Military aviation** is based on the requirements of country protection and is governed by special military regulations and regulations of the Ministry of Defense.
- **Civil aviation** is the subject of a number of international treaties and extensive international cooperation. Civil aviation means air operations operated in the Czech Republic by civil aircraft for civilian purposes and also activities operated by Czech aircraft for civilian purposes abroad.
 - Commercial air transport
 - General Aviation

Commercial Air Transport

Commercial air transport is the most important part of civil aviation and provides aircraft for the transport of persons, goods and mail **for a fee**. We divide it according to various aspects:

- a) **Personal** and **freight** according to the type of transport.
- b) **Regular** and **irregular** according to the way of operation.
- c) **National** and **international** according to its range.
- d) **Small** and **large** commercial air transport according to the type of operation.

General Aviation

General aviation is a part of civil aviation and includes:

- a) Aviation work – the use of aircraft to operate for a fee;
- b) Aviation activities for the state's needs – flights for the transport of state officials;
- c) Aviation activities for personal use – business or other activities, according to special regulations;
- d) Recreational and sport flying - non-profit flying;
- e) Air public performances and air races.