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Oksana Hlushko, Darya Dolmatova
National Aviation University, Kyiv

MODERN AIR TRAFFIC MANAGEMENT SYSTEM OF EUROPE

Flying is the result of both technology and human skills. Air traffic management (ATM) is about the process, procedures and resources which come into play to make sure that aircraft are safely guided in the sky and on the ground.

ATM: Overview

- The Air Transport System;
- Current Analysis of Performance;
- Forecast and Challenges;
- Solutions for problems;

The air transport system considers route structure options in terms of operational impacts and environments; it integrates the discussion of aircraft, airlines, airports and airspace issues.

It consists of three main parts:

- Airspace users(every day in Europe conducted near 30,000 flights);
- Airports(near 2,000);
- Air Navigation Service providers(38 member states through Europe);

Current Analysis of Performance or System Analysis includes sifting of 5 main components of ATM, making decisions about effectiveness and cost reliability of these segments and finding the solutions to main problems.

These segments are:

- Fragmentation(dividing an ATM on segments);
- Capacity and Delays(finding reasons and delays factors, near 24% of flights have a delay more than 15 minutes);
- Cost-effectiveness(cost-traffic volume relations);
- Flight efficiency(almost every route have extension of 49 km);
- Safety(13 states did not report incidents).

Forecast and Challenges

The main challenges of ATM system are:

- Capacity and cost of flights;
- Aviation safety (Accidents=Traffic·Accident Rate);
- Environment.

So, to ensure the safe, efficient and orderly conduct of flights ATM system is divided on different segments. Each segment is observed separately and directly to maintain the most effective results and solutions to the current problems.

Supervisor – O.E.Luppo, associate professor