

Flightwatch For Airport

Purpose

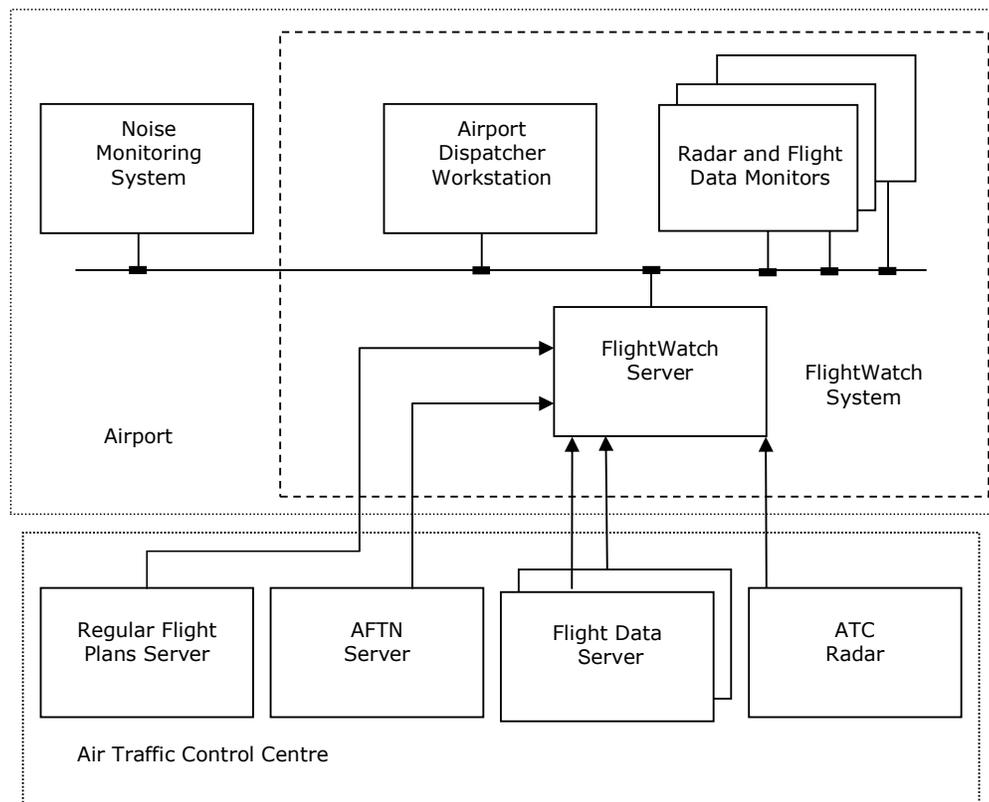
Flightwatch is a system, which transmits and presents the real-time information about the landing planes to the dispatchers, other managerial units and the clients of the airport. The system also allows to assess the noise sources accompanying flights.

Work principle

For linking the flights with radar data the FlightWatch system exploits the associations between the radar code and the flight plan created by air traffic controllers. The flights are determined according to the flight CallSign. The active flights table is created, where the flight plan data is collected and relevant changes are made. The active flights table is supplemented with the secondary source radar (SSR) code after the air traffic controller has made the appropriate association.

The results are displayed within different workstations on cartographic background.

Build-up



The FlightWatch system requires the following data from the Air Traffic Control Centre:

- Data about the location of the flight, provided by the [ATC radar](#).
- Messages about associations and flights actuality, which require preliminarily filtered data from the [ATC Flight Data Servers](#).
- Data about active flights and flight plan changes from the [AFTN Server](#).
- Data about repetitive scheduled flights provided by the [Regular Flight Plan Server](#).

- [The FlightWatch Server](#) accommodates the following processes:

The *Flight Plan Manager* manages the table of active flight plans. Changes in the table are made on the basis of flight plan messages received via ATC flight plan servers and regular flights database excerpts, when the flight becomes active.

The *Association Manager* identifies the messages about activating or deactivating an association in the message flow sent by ATC and either adds or closes the relevant entries in the table accordingly.

Radar Data Manager (RDM) receives messages in the ASTERIX (All Purpose Structured Eurocontrol Standard for Radar Information Exchange) format from the radar. It supplements the radar messages with CallSign data received from the active flight plans table.

- [The Airport Dispatcher Workstation](#) (ADWS) displays all the active flights landing at or taking off from airport to the dispatcher. As a background for the synthetic image from the radar the ADWS displays cartographic and coordinate information. The second monitor of the ADWS displays information connected with flight plans such as the scheduled times of arrivals and departures.
- [The Radar and Flight Data Monitors](#) display radar images of the flights together with flight data at as many workstations as required over local area network.
- To the [Noise Monitoring System](#) ASTERIX messages supplemented with CallSign data elements are transmitted.

Usage

The Flightwatch System is under development for Tallinn Airport.