

ATM WORLD CONGRESS 2016: LEADERSHIP CHANGE AND IMPLEMENTATION

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From 8 to 10 March for the fourth consecutive year it was held in Madrid the [World ATM Congress](#) , the largest global event on air traffic management. This year has registered 7,175 registered attendees and 225 exhibitors.

Organized by [CANSO](#) , the Civil Air Navigation Services Organisation in collaboration with [ATCA](#) Air Traffic Control Association, the conference brings together professionals and companies related to the sector in its different aspects to show the latest developments and innovations related to it. Ana Maria Pastor Julian, Acting Minister of Development, opened the conference a year.



Overview of Congress. (Photo: World ATM Congress)

Under the theme "Leadership, Change and Implementation", 225 companies from 125 countries gathered to explore the latest trends in ATM management. The event was attended by professionals from different sectors of aviation, airport and airline representatives, suppliers of air navigation services (ANSPs), producers, trade associations and companies products and services in the aerospace industry.

Five scenarios with more than 80 hours of presentations and product demonstrations were held where various events including awards Single European Sky of the European Commission.

The SESAR program

In 1999, the European Commission initiated the Program Single European Sky (SES Single European Sky) to ensure that national airspaces grew a set mode and ensure efficient use and unified European airspace that would respond to the growing demands air traffic.

The SESAR (Single European Sky ATM Research) program, known as SESAR 2020, aims to develop new systems for the unification of European airspace and meet the requirements of increased traffic.



View of one of the sessions during the Congress SESAR

During the conference, the European Commission and the SESAR Joint Undertaking announced the 19 members who will participate in the research and development program. By Spain and Indra Sistemas Ático are responsible for carrying out such a mission.

Currently, the program implementation the Single European Sky is developing 84 projects carried out by 45 partners in 23 Member States of the European Union. These 45 members consist of 26 providers of air navigation services, airport operators 13 5 airspace users and a provider of meteorological services.

Today, according ATM functionality, five guidelines are followed (AFS)

12 projects for AF1: arrivals expanded Management and performance-based navigation in terminal control areas of high density.

Is the management of arrivals (AMAN, arrival management) extended to airspace en route to facilitate more advance sequencing traffic and improving the accuracy of the approach paths.



A completed project would be the London Airspace Management Programme (LAMP), developed by NATS and British Airways, which implements arrival routes RNAV (Area Navigation) to London City Airport and exit routes RNP (Required Navigation Performance) from Gatwick.

38 projects for AF2: Integration and productivity of airports.

To increase the performance of the tracks, Austro Control has implemented the EGS system (External Gateway System), which connects the subsystems of the ATS units Tower and Approach to the processing system ATM data, which enables improvements in future electronic chips, output management or DMAN (Departure management), making joint decisions airport (a-CDM, airport Collaborative decision making) and Advanced (a-SMGCS, Advanced Guidance System and Motion Control Surface Surface Movement Guidance and Control System)

13 projects for AF3: flexible airspace management and free routing.

5 AF4 projects: Collaborative network management, which should improve the quality and timeliness of the information network used by all parties to collaborate in the ATM management.

16 projects AF5: Initial Management of information throughout the system.

Through a web-based internet protocol enabled by the management of information throughout the system as a whole (SWIM, System Wide Information Management) network systems.

Virtual centers

The concept of virtual centers refers to the virtualization host the European Master Plan. It is given mainly by the disengagement of the "controller working position" (CWP, Controller Working Position) through the remote provision of ATM data and technical services as the management and distribution of flight data and surveillance data.

Thus flexibility increases when organizing the ATM operations both within units of air traffic service (ATSUs, Air Traffic Service Units) and between one and another unit, increasing the functionality and thus the total capacity of influx of traffic.



WATM Boeing in 2016 (World ATM Congress)

CARATS

CARATS (Collaborative Actions for Renovation of Air Traffic Systems) is the long-term vision for the future ATM system in Japan. Just as the SESAR in Europe, CARATS requires the collaboration of different actors aviation to develop the skills necessary to reform the Japanese air traffic system strategies.

To achieve the objectives are being carried out various reforms, all aimed towards transition to Operation Based on Trajectory (TBO, Trajectory Based Operation) which uses management methods based on time to get the four-dimensional trajectory for all phases of flight.

Another half highlights include RNP AR approach procedures flexible and accurate for both takeoffs and landings to one of the approaches PBN (Performance Based Navigation) being implemented worldwide and allows precision approach curves. The RNP is operating in the airport significatica Matsuyama and represents a decrease in the flight path.

Remote Torres

Remote towers allow provide services air traffic control (ATS, Air Traffic Services) and information services flight aerodrome (AFIS Aerodrome Flight Information Services) to the airports where they are not available because they are difficult to implement conventionally or too costly.

The main difference is that both air traffic controllers and AFIS operators would no longer located at the aerodrome but it would be relocated to a remote tower, which could control one or more aerodromes. The remotely operated airports must be equipped with video resources like cameras, infrared cameras, microphones and line remote telecommunications tower. So the view of the airfield is played in the remote tower, which also uses sources of additional information and image enhancement systems that can be used in all visibility conditions.

This concept is especially useful in small rural airports because they are cheaper to maintain and can be operational for longer periods.

See you soon

The World ATM Congress will meet again in Madrid on 7, 8 and 9, 2017.