World ATM Congress 2021

At the World Air Traffic Management Congress, ENAIRE will showcase its essential role in promoting the advanced use of drones and Urban Air Mobility in Spain

PRESS RELEASE

- ENAIRE will manage the common information services needed for conventional and unmanned flights to coexist, ensuring the safety of air operations

- It is involved, along with Indra, in the STARTICAL project, which seeks to create a network of over 200 low-altitude nanosatellites to improve air traffic management with a view to providing a global service

- Launch of EYWA, a system based on Big Data and machine learning aimed at improving the management of complex situations and reducing the impact of incidents.

- It will lead five conferences and one round table on U-Space, iTECC, GNSS, STARTICAL, the Single European Sky and Urban Air Mobility

- From 26 to 29 October, 6,000 professionals from 110 countries will gather at IFEMA in Madrid, where 130 companies and 90 air navigation providers will be present

22 October 2021

At the World ATM Congress 2021, ENAIRE will present its essential role in developing both the drone sector in Spain and the future of Urban Air Mobility. The 2021 edition of the fair will be held in Pavilion 9 of the IFEMA fairgrounds in Madrid from 26 to 28 October, after it was cancelled in 2020

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due to COVID-19. This year's event will also feature a new edition of Expodrónica (Drone Expo), with 50 exhibitors.

ENAIRE will manage the common information services needed for conventional flights to coexist alongside advanced unmanned drone flights (deliveries, air taxis, etc.), ensuring the safety of air operations.

Spain's national air traffic manager will provide U-Space services to automatically manage drone operations beyond visual line of sight (BVLOS), and it will provide centralised common information services (CIS), which are essential for flight safety.

It will also be showcasing, along with Indra, the STARTICAL project, which seeks to create a network of over 200 low-altitude nanosatellites to improve air traffic management with a view to providing a global service. This is a pioneering initiative that is consistent with the Spanish Government's Recovery, Transformation and Resilience Plan, and with our country's digital transformation and ecological transition goals. It hopes to provide increased flight management capacity to air traffic all over the world, with improvements in safety, and reduced emissions and operating costs.

Another highlight of the Fair is the launch of the EYWA platform. SYSRED H24, the unit at ENAIRE responsible for the service, has designed the EYWA system to rely on Big Data and machine learning, the goal being to transform data into information, and information into knowledge, thus optimising organisational processes and decision-making. This project will enhance efficiency and productivity by improving the management of complex situations, facilitating decision-making to reduce the impact of incidents.

New services, products, applications and platforms

ENAIRE presents to the world its strategy for digitising Spanish skies, helping to make them safer, more sustainable, more efficient and more connected.

At this year's edition, ENAIRE will display its new services, products, applications and platforms, which include the following:

- **ICARO MAP.** This is the leading geo-referenced information display within ENAIRE's scope of operations. It integrates surveillance, meteorological, AIS (Aeronautical Information Service), and dynamic

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(NOTAM, SUP, AUP/UUP) information, along with other relevant air traffic management layers, in a single interface.

- **PERSEO.** (Platform for Analysing the Effects of Network Sectorisation on Operations). The main goal of the application is to systematically and automatically provide Air Traffic Management (ATM) system status indicators that allow the end user to analyse the system and aid in decision-making. One notable feature is its ability to determine, analyse and monitor the reference configurations in each air traffic service (ATS) unit over various time horizons (historical, tactical and planning). The determination of indicators relies on exploiting multiple sources of information available in the ATM system.

- **IFOCUCS.** The most advanced air traffic control station that Spain's air traffic control centres will be equipped with.

- **ENAIRE PLANEA**. Platform specially designed for managing unconventional operations with drones, manned aircraft and other uses of the airspace. It makes available to drone operators a large number of features and advantages, such as a personal area from which to submit and track requests. Available at planea.enaire.es.

- **ENAIRE DRONES.** Offers assistance to pilots and operators of remotely piloted aircraft systems (RPAS) and provides aeronautical data and information that help identify any restrictions on flying drones in a specific space, in accordance with the applicable law. It is available at drones.enaire.es for Android and iOS devices.

- **FLOW TOOLS**. This is an ecosystem of custom tools designed for and by air traffic units where ENAIRE provides ATS, ASM (airspace management) and ATFM (flow management and capacity) services. These tools (DEMMON, UTP, WSIS, NODE, PR24, ASIM, BINY, SQUID, CODEM, IMPACT and ICARO MAP) allow these services to be provided safely and efficiently, while ensuring that the information presented is constantly up to date, official and accessible. This information is obtained from internal and external systems using SWIM standards, and is easy for the end user to work with.

- **GAMMA SIM**. This is an air traffic control simulator with a highly realistic 3D visual environment for towers. It also offers the option to implement en route and approach scenarios. Designed and

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maintained by ENAIRE, thanks to the experience and input of controllers, engineers and pseudo-pilots, it has achieved a level of maturity and excellence that make it the cornerstone of the air traffic control (ATC) training that ENAIRE provides to its own staff. Furthermore, due to its flexibility, it has also been used to simulate new scenarios, remote tower, tests of drone operating environments, etc.

At its stand, ENAIRE will employ audiovisuals and graphs to show its pledge to the sector's recovery, its commitment to sustainability (Green Sky Plan) and to safety.

Other highlights at the Fair include the Master's Degree in Air Navigation Services Management, created by ENAIRE in conjunction with the Polytechnic University of Madrid and the Autonomous University of Madrid, and the Enaire Foundation's presentation of a large piece by sculptor Eduardo Chillida.

ENAIRE presentations

Over the course of the Fair, ENAIRE will take part in five presentations and one round table. These are:

1. Conference on ENAIRE and U-Space Development, with the Head of the Drones Business Development Division, Daniel García Monteavaro (26th at 10:50).

2. Conference on the iTEC alliance, led by the head of iTEC Strategy, Torgeir Slotte (26th at 12:00).

3. Conference on the project to implement GBAS Category II/III for operations at the Adolfo Suárez Madrid-Barajas Airport, with ENAIRE's GNSS Certification Manager, Patricia Callejo (27th at 10:10).

4. Conference on the creation of a satellite constellation for air navigation through the company STARTICAL, created by ENAIRE and Indra, with José Luis Chincilla from Indra (27th at 12:00).

5. Conference on the Single European Sky and IP Voice Communications, with ENAIRE's Communications Manager, Angel Crespo (27th at 15:40).

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6. Round table on U-Space and Urban Air Mobility, with Maurizio Trezza (Everis; AMULED Project); Jorge Bueno (Isdefe; USEFE Project); Juan Vicente Balbastre (Polytechnic University of Valencia; BUBBLES Project) and Pablo Sánchez-Escalonilla (CRIDA, DACUS project), moderated by Andrew Hately (EUROCONTROL) (27th at 10:20).

Fair facts and figures

The World ATM Congress will once again be held in Madrid, bringing together 6,000 professionals from 110 countries, with the presence of 130 companies from the aeronautical industry and 90 air navigation suppliers.

This event is promoted by CANSO, the Civil Air Navigation Services Organisation comprising air traffic control service providers from all over the world, of which ENAIRE is a founding member; and ATCA, an organisation that brings together the entire United States air traffic industry.

In addition to conferences and meetings, companies and industries showcase the latest air traffic control technology. At this trade fair, the MITMA (Ministry of Transport, Mobility and Urban Agenda) Group will be represented by ENAIRE, Ineco and Senasa at a joint stand, where they will showcase their most relevant projects.

ABOUT ENAIRE

ENAIRE is the air navigation service provider in Spain.

As a company of the Ministry of Transport, Mobility and the Urban Agenda, it provides en route control services for all flights and overflights from five control centres in Madrid, Barcelona, Seville, Gran Canaria and Palma, as well as approach services to every airport in the country.

In addition, 45 control towers receive ENAIRE's communication, navigation and surveillance services, and 21 airports, including the country's busiest, rely on its aerodrome control services.

ENAIRE is the fourth most important European air navigation service provider, and, in a clear commitment to the Single Sky initiative, belongs to international partnerships such as SESAR Joint Undertaking, SESAR Deployment Manager, A6 Alliance, iTEC, CANSO and ICAO.

ENAIRE is the official provider of aeronautical information in Spain.

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