

# FIT FOR THE FUTURE

The new terminal area control centre in Valencia, Spain, is managing more than 200,000 flights

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The building and antennae towers in which the radio equipment radiating system has been installed for ENAIRE's new terminal area control centre in Valencia



ENAIRE's new terminal area control centre in Valencia, Spain uses the latest technology to control the air traffic in an area of 59,000 km<sup>2</sup>, which includes the airports of Alicante, Valencia, Castellón and Murcia, as well as between Madrid and the Balearic Islands. In 2019, traffic is expected to grow by 4% and the number of flights will exceed 200,000.

The building, which was opened in February 2019 will provide air traffic approach-control services for the airports of Valencia, Alicante-Elche and VFR (visual flight rules) aerodromes. The centre is also responsible for coordinating the technical operation services that are carried out in relation to ENAIRE's facilities – air navigation systems such as VOR (Very High Frequency (VHF) Omni-Directional Range (VOR) and radar – that are required so aircraft can follow their routes and be detected at all times. These systems are located in the Valencian Community, the Region of Murcia and Albacete Air Base. The investment made by the Ministry of Public Works, through ENAIRE, in the Valencia control centre totals €26.5 million (US\$30 million).



**Above:** Valencia's new terminal area control centre can handle the expected air traffic demand in the region, which grows during the summer months because of increased international tourism

**Opposite page:** José Luis Ábalos, Minister of Public Works, opening ENAIRE's terminal area control centre (TACC) in Valencia

The technology and redundant systems the centre has to control air traffic ensure the safety and continuity of air navigation services and also that it will be able to respond to the demands of the major growth of air traffic in the Valencian Community, one of the most popular destinations for international tourism.

In 2018, ENAIRE managed 188,000 flights from this centre, 70% of which were international. In 2019, traffic is expected to

grow by 4% and the number of flights will exceed 200,000.

These ENAIRE facilities also provide assistance to important regional services, such as flights for organ transplants, medical evacuations, the Maritime Rescue Air Base, firefighting, agriculture, the police, the Directorate-General for Traffic, air sports, flying clubs and aviation schools.

## What is a TACC?

A terminal area control centre (TACC) is where the air traffic in a certain area or sector of airspace is planned, organised and managed. Spain's airspace is divided into three large flight information regions: Madrid, Barcelona and the Canary Islands. Each flight information region is, in turn, divided into smaller airspace sectors known as terminal control areas, aerodrome control areas and airways.

Valencia's TACC has facilities that are sized to meet the major air traffic growth demands of the Valencian Community. This is therefore, as Jose Luis Abalos, Minister of Public Works, pointed out, "a strategic project because it is a replica, in the field of aeronautical infrastructures, of the

Mediterranean Corridor, which is a social, economic and political priority”.

Different professionals from ENAIRE and Ineco have been working on completing this centre for several years. The work of experts in automation, communications, surveillance, deployment of Automated Air Traffic Control Systems, (AATCS), technical supervision and general matters has made the change to this new TACC possible.

### Ineco's participation

Ineco was involved in the construction and commissioning of Valencia's TACC and since 2008 has provided works management, technical assistance and supervision and surveillance of the works. In recent years, the company has participated in the implementation of the TACC, collaborating with ENAIRE's systems department, providing support to the automation division, navigation and surveillance division and technical operations, as well as with ENAIRE's regional management, with a physical presence in Barcelona and Valencia.

Experts from the company have collaborated on the commissioning of radio navigation integration systems, which allow



remote supervision and management of the radio navigation of the Eastern Sector and air traffic management systems. These include: autonomous air traffic control system (AATCS) which is responsible for the management of air traffic control, voice communication systems (VCS) for air traffic control, which provides voice links with pilots and between controllers and last-resort radio and last-resort telephony equipment that guarantee oral

communications as an alternative to VCS with limited functionality.

Other work consisted of validation of the software versions of the AATCS and VCS systems, the commissioning of the Orion supervision system and various jobs involving project coordination, plan updating and technical transition coordination, with participation in the commissioning of the systems and forming part of Enaire's transition committee. ❖

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