



In service since 20 April

ENAIRE improves operations at the Josep Tarradellas Barcelona-El Prat Airport by redesigning departure flows based on satellite navigation

- This increases the environmental sustainability of operations thanks to improved efficiency, without requiring changes to the existing uses or configurations of the runways
- The newly-designed procedures further enhance the safety and consistency of operations, as well as connectivity between the different airports in the Barcelona terminal manoeuvring area (TMA)
- ENAIRE's new procedures rely on state-of-the-art satellite technologies
- The BRAIN II Project, as this initiative is called, is already working successfully at the airports of Reus, Girona-Costa Brava and Lleida-Alguaire

Madrid, 25 April 2023

On 20 April, ENAIRE, Spain's national air navigation service provider, implemented the so-called BRAIN II project at Josep Tarradellas Barcelona-El Prat Airport, which improves its operability by redesigning departure flows based on satellite navigation.

To this end, ENAIRE used the most advanced airspace design technologies, complying with European regulatory requirements, and established operational procedures with the following characteristics:





- 1. The safety, punctuality and efficiency of aircraft operations in the Barcelona airport and its TMA are improved through the implementation of a new set of departures for all the runways.
- 2. This brings with it improvements in the efficiency of operations by making it possible to better adjust departures to their scheduled times.
- 3. It entails improvements for air transport passengers through more on-time departures.
- 4. It creates new departures/arrivals based on satellite navigation at the Reus, Girona-Costa Brava and Lleida-Alguaire airports in order to promote connectivity between the different airports in the Barcelona TMA

Thanks to these improvements, which rely on implementing new airspace design techniques at the Barcelona Airport, aircraft separation and air traffic flows can be optimised.

Maintenance of arrival and departure trajectories

As part of this project, the current role of the runways has been maintained, meaning its implementation will not require changes in terms of their use or configurations, in the arrival or departure trajectories, or in the number of planned operations during peak airport traffic scenarios.

The new procedures will also result in improved environmental sustainability through lower aircraft emissions thanks to optimised trajectories and more efficient operations, in keeping with the goals to preserve the Red Natura 2000 sites flown over and the birds that inhabit them.





To fly these procedures based on the use of satellite navigation, aircraft need to be properly equipped and the crews trained on their use.

These new approach procedures based on satellite navigation will help continue to move forward in meeting the requirements of the Performance-Based Navigation (PBN) Implementation Plan, laid out in ENAIRE's 2025 Flight Plan. It also assists in complying with European Commission Implementing Regulation (EU) 2018/1048, the aim of which is to improve the efficiency of air traffic management at the European level by implementing performance-based navigation (PBN).

In order to allow for these new landing and take-off procedures, ENAIRE has conducted the necessary safety studies, which were duly processed with the National Aviation Safety Agency (AESA).

Through these efforts, ENAIRE is making available to users of the Josep Tarradellas Barcelona-El Prat, Reus, Girona-Costa Brava and Lleida-Alguaire airports satellite-based approaches and departures that improve the safety and consistency of operations at these airports. And it does all this without having to set up additional land infrastructure, with the operational benefits this entails.

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 Europe's fourth largest air traffic manager and participates in the A6 Alliance, a coalition of air navigation providers responsible for over 80% of European air traffic, and which is seeking to modernise the air traffic management system. It is also a member of other international alliances promoting the Single European sky, such as SESAR Joint Undertaking, SESAR Deployment Manager, iTEC, CANSO and ICAO.





ENAIRE, as the agency appointed by the Ministry of Transport, Mobility and Urban Agenda to implement the U-space system in Spain, will be the provider of the Common Information Services (CIS), which are essential for administering U-space services to drones and Urban Air Mobility, in interaction with local air traffic control services, so that all types of aircraft can fly safely in the same airspace.

ENAIRE has received the highest score in Europe on the aviation safety key performance indicator. It has also been awarded the EFQM 500 Seal for its safe, efficient, innovative and sustainable management of air navigation services.