

Funded by EU PRTR funds

ENAIRe upgrades the Begas radar with 3D technology, a key element in air traffic control in Catalonia

- After lifting the antennas, the protective radome for the new system has been installed and is scheduled to enter service in late June
- The radome, or protective outer shell, shields the antennas from mechanical degradation caused by weather conditions and protects technical staff during maintenance work
- The new 3D (three-dimensional) technology represents a major innovation over its predecessor and enhances surveillance capabilities

Madrid, 18 February 2026

ENAIRe, Spain's national air navigation service provider, is installing the new Begas radar (Barcelona), an essential system for managing air traffic in Catalonia. This ENAIRe investment is funded by European resources from the Recovery, Transformation and Resilience Plan (PRTR).

Key tasks already completed include replacing the large spherical structure that protects the antennas, a component technically known as the 'radome'. In addition, the introduction of 3D technology (three dimensions) marks a significant improvement in the radar's detection capability.

ENAIRe's radars play a vital role in guaranteeing flight safety. Thanks to them, air traffic controllers can monitor the position of every aircraft at all times. The Begas radar is an indispensable sensor for air traffic surveillance coverage in the northeast of the Iberian Peninsula.

This information can be used, in whole or in part, without citing the source.

Campezo, 1 - 28022 Madrid. Spain. T. +34 912 967 551/53

E.prensa@enaire.es [X@ENAIRe](https://twitter.com/ENAIRe)

PRESS RELEASE



Work to replace the Begas radar began at the start of the year with the removal of the old antennas. Once the new antennas were lifted into place, work continued with the installation of the new radome, a process that required a full day of work and favourable weather conditions.

What is a radar's radome for?

Among the components of a radar structure, the most visible part of the tower consists of an antenna and a radome (the protective sphere). The main functions of this radome are:

- Physical protection. It shields the radar's components from weather-related damage such as rain, hail, snow and wind, and protects the antenna from knocks and external impacts.
- Signal integrity. It is designed so that radar signals pass through it with minimal distortion or attenuation, ensuring that the radar operates correctly.
- It protects maintenance staff by allowing them to carry out their tasks safely and sheltered from adverse weather conditions. This lets them perform technical work at height regardless of outside conditions, which is critical when the system must be restored to operation after a fault or when measurements are needed to guarantee the system's correct performance.

What was the reason for installing the new radar?

The work was necessary to ensure the performance of the Begas radar, as well as to implement a technological upgrade of the primary radar systems.

The work required to install, adapt and set up the radar will take around 6 months. The new equipment is expected to be fully commissioned, with all upgrades incorporated, by the end of June of this year.

What does work of this nature involve?

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E.prensa@enaire.es [@ENAIRe](https://twitter.com/ENAIRe)

To carry out this technological upgrade while reducing the impact during the renewal of the systems, ENAIRES has temporarily installed a provisional radar that, given its short-term nature, does not require a radome.

This guarantees the coverage provided by the Begas radar, since the data are integrated into the network of air surveillance systems connected to the Automated Air Traffic Control System (SACTA) installed at the Gavà Control Centre in Barcelona, from where air traffic control services are provided, ensuring the highest standards of safety and quality.

About ENAIRES

ENAIRES is the air navigation service provider in Spain.

As a company of the Ministry of Sustainable Transport and Mobility, it provides air traffic control services during the en route and approach phases of all flights to and from Spain and overflights. In addition, it manages communications, navigation and surveillance services from ENAIRES in the airspace and the entire AENA airport network in Spain and provides aerodrome air traffic control services in 21 airports, including the busiest.

ENAIRES is the fourth largest European air navigation service provider, and it is a member of international partnerships A6 Alliance, SESAR (Single European Sky ATM Research) Joint Undertaking, SESAR Deployment Manager, iTEC, CANSO (Civil Air Navigation Services Organisation) and collaborates closely with ICAO (International Civil Aviation Organization).

ENAIRES has obtained the highest rating in the key performance indicator for air safety at European scale for six consecutive years, the last five with the maximum possible score of 100%. It has also been awarded the EFQM 600 Seal for its safe, efficient, innovative and sustainable management of air navigation services.



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