



Improved sustainability in aviation

## Improved efficiency in the ENAIRE network avoids 4,000 tonnes of atmospheric CO<sub>2</sub> emissions and saves 1,300 tonnes of fuel

- Improvements in flight efficiency have resulted in saving 118,000 nautical miles in the first seven months of the year, equivalent to 5.5 trips around the Earth, despite the general increase in operations compared to previous years
- ENAIRE is the leader in continuous descent clearances in Europe: 35% of all approach operations to major Spanish airports, compared to the 14% authorised at major European airports over the same period
- ENAIRE's sustainability strategy focuses on reducing emissions, attenuating noise levels and improving the environmental management of its own centres

**Madrid, 14 September 2023**

The figures obtained by ENAIRE between January and July show an improvement in the efficiency of the route network, the first consequence of which is a decrease in distances flown, saving fuel for airlines and reducing pollution from air transport. And this despite the general increase in the number of flights compared to previous years.

This increased flight efficiency is the result of the improvements promoted by ENAIRE in its strategic plans (2020 Flight Plan and 2025 Flight Plan), including the optimisation of air routes; the modernisation of airspace procedures, with an increase in the number of continuous descents; the application of new technologies, with support from satellite navigation systems during approaches; and increased civil-military coordination, which boosts the Flexible Use of Airspace.

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

Avda. de Aragón, 330 - 28022 Madrid. Spain. T. +34 912 967 551/53



The application of all these measures has cut 118,000 nautical miles (218,000 kilometres) from the distance travelled in just the first seven months of 2023 (January-July). This is equivalent to almost 5.5 trips around the Earth. This reduction in distances flown avoided the emission of 4,000 tonnes of atmospheric CO<sub>2</sub> and saved 1,300 tonnes of fuel.

Of special note is the issuance of continuous descent clearances to reduce fuel consumption and polluting emissions during the approach and landing phase of an aircraft. On average, between January and July, ENAIRE cleared 35% of all operations to do a continuous descent at Spanish airports, compared to the 14% average at major European airports over the same period.

In the last five years, between 2017 and 2022, ENAIRE's gradual improvement in air traffic management saved more than 8 million nautical miles, which is equivalent to 380 trips around the world, and avoided emitting almost 285,000 tonnes of atmospheric CO<sub>2</sub>.

### Green Sky Plan

ENAIRE's sustainability strategy, called Green Sky, focuses its efforts on three areas of action: reducing atmospheric emissions (Fly Clean); attenuating noise levels and reducing its effect on biodiversity in and around Spanish airports (Fly Quiet); and improving the environmental management of its centres and facilities throughout Spain (Eco-ENAIRE).

The Fly Clean area of action directly seeks to improve flight efficiency, with the consequent reduction in fuel consumption and emissions. Procedures that rely on performance-based navigation (PBN) techniques with satellite technology, and coordinating with the Ministry of Defence in promoting the concept of Flexible Use of Airspace, are key areas of action for improving efficiency. Similarly, ENAIRE is working to implement the "Free Route" concept laid out in the Single European Sky, which will allow planes to fly more efficient direct trajectories. As a result of these actions, the efficiency of the route network has improved compared to previous years, despite the increase in air traffic.

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

Avda. de Aragón, 330 - 28022 Madrid. Spain. T. +34 912 967 551/53



### **Fly Quiet: acoustic improvements**

This initiative is focused on reducing the effect of noise on towns near airports. ENAIRE systematically studies the environmental impact of all the flight manoeuvres it designs in an effort to make improvements to approach and departure flight paths that keep aircraft from flying over cities and towns, and to minimise the noise levels they generate.

As part of ENAIRE's commitment to reducing the noise impact on the population, it actively participates in working groups with AESA, the Civil Aviation General Directorate and AENA. In this area, ENAIRE has been able to define a methodology for designing common acoustic studies, standardising the criteria and parameters for calculating acoustic footprints in the aviation sector.

### **Eco-ENAIRE: sustainability in ENAIRE's own centres**

This initiative drives the improvement of ENAIRE's environmental management by providing renewable energy to power all of its air control centres and major air navigation facilities. Lighting consumption is being optimised by using LED technology, and a plan is being implemented to decarbonise the vehicle fleet.

In the same vein, ENAIRE will continue to purchase 100% of its electricity from certified renewable sources, a measure that, since 2015, has saved over 110,000 tonnes of CO<sub>2</sub>.

There is also a plan to install solar panels to supply electricity and thus further contribute to the use of renewable energies. The photovoltaic installations at the control centres in Seville and the Canary Islands are already in use, and work is underway on similar facilities in Madrid and Barcelona.

In addition, the wind turbine installed at the Canary Islands Control Centre provided over 40% of this unit's energy needs in 2021. Overall, the photovoltaic installations already in use at ENAIRE's control centres, together with the energy generated by the wind turbine, account for 40% of the consumption at these facilities and 6.2% of ENAIRE's total consumption.

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

Avda. de Aragón, 330 - 28022 Madrid. Spain. T. +34 912 967 551/53



As a whole, these photovoltaic installations will generate nearly 4 GWh annually, saving 18% of the electricity consumed in these facilities, and 13.7% of ENAIRE's total consumption.

17% of the vehicle fleet has been replaced, and ENAIRE registered its Carbon Footprint for 2019, 2020 and 2021.

### **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, 46 airports 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.

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

Avda. de Aragón, 330 - 28022 Madrid. Spain. T. +34 912 967 551/53