

INDRA MAKES THE SPANISH SKY INTO ONE OF THE MOST EFFICIENT AND DIGITIZED IN EUROPE

- **Indra is modernizing the country's principal air traffic control centers with the SACTA-iTEC 4.0 automated air traffic management system allowing more flights to be managed in a more environmentally friendly way**
- **The new version incorporates advanced features to manage traffic with the highest levels of safety and punctuality, improving passenger comfort**
- **ENAIRE joins the ranks of the leading navigation service providers that use Indra's iTEC air traffic management system**

Madrid, 14 June 2021.- Indra has modernized Spain's principal air traffic control centers and is preparing the country to take the lead in the construction of the European digital sky, that will make the airspace of the 27 Member States the safest, most efficient and environmentally friendly in the world.

The five control centers that manage all flights crossing Spain in Madrid, Barcelona, the Canary Islands, Seville and Palma de Mallorca, and the centers that control the approaches to the major airports in Málaga and Valencia are already operating with the SACTA-iTEC 4.0 air traffic management system.

This new version of the SACTA system incorporates advanced features that will enable ENAIRE to manage more flights with the highest levels of safety and punctuality. For the first time, the system incorporates some of the key functions of the iTEC air traffic management system, rolled out by Indra to some of the most important air control centers in Europe.

With this next-generation system Indra is preparing the country to adapt to the new airspace architecture being promoted by the European Union that is set to completely transform the sector.

The system incorporates state-of-the-art digital technologies to provide unprecedented accuracy in flight management. The modernization of air traffic control infrastructure will make flying more cost-effective and reduce unnecessary emissions. It is therefore a concrete, real solution to environmental problems while new clean aviation fuels are still in development.

The new version of SACTA increases the number of sectors into which control of Spanish sky can be divided, giving the overall air traffic control system the flexibility to adapt to any sudden changes in demand without creating congestion in the air or on the ground.

The controller position screens have improved display of aircraft position, speed, course and turning data, allowing more efficient management.

For enhanced safety, the system warns the controller when authorization for level change given by the controller is different than the one selected by the pilot.

The system also incorporates the new RECAT-EU classification, that improves the calculation of the separation to be kept by planes to avoid turbulence generated by other planes, so increasing capacity and efficiency.

The controller can view separation information in even greater detail during airport approach. In addition to monitoring the separation needed to avoid turbulence, the system monitors the separation of aircraft in function of radar information refresh and the sequence determined by the arrival manager (AMAN). This leads to an increase in capacity and avoids aircraft having to circle consuming fuel unnecessarily. The system also has alarms for when any parameter is exceeded.

Controllers will also be able to make unscheduled runway configuration changes by adjusting the flight paths of approaching aircraft. That will also increase the ability to respond to required unforeseen circumstances and ensure that traffic keep flowing as smoothly as possible.

Europe's most advanced air traffic management

This new version of the SACTA-iTEC 4.0 is being implemented in the framework of the iTEC Partnership, of which ENAIRE is a founding member and Indra a technology member.

The partnership also includes navigation service providers from Germany (DFS), the United Kingdom (NATS), the Netherlands (LVNL), Lithuania (Oro Navigacija), Norway (AVINOR) and Poland (PANSO). The partners have jointly developed the iTEC air traffic management system, which is still developing.

Their aim is to ensure that the flow of air traffic in Europe continually improves and that flying is ever more efficient and clean, ensuring perfect interoperability among control centers across the continent.

When fully deployed, the Indra-developed iTEC system will manage more than seven million flights annually across Europe with some of the world's busiest and most complex airspace. The system is already operational at the control centers in Karlsruhe in Germany, Prestwick in Scotland and Vilnius in Lithuania. ENAIRE is making progress towards full implementation.

Indra is one of the world's leading suppliers of air traffic management systems. It is the only company with a portfolio of solutions based on proprietary technology that covers all phases of the management of a flight from planning and take-off to landing.

About Indra

Indra (www.indracompany.com) is one of the leading global technology and consulting companies and the technological partner for core business operations of its customers world-wide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defence markets, and a leading firm in Digital Transformation Consultancy and Information Technologies in Spain and Latin America through its affiliate Minsait. Its business model is based on a comprehensive range of Bandwidth proprietary products, with a high-value focus and with a high innovation component. In the 2020 financial year, Indra achieved turnover of €3.043 billion, around 48,000 employees, a local presence in 46 countries and business operations in over 140 countries.