

EUROCONTROL MUAC AND INDRA LAUNCH THE WORLD'S MOST ADVANCED CONTROLLER-PILOT COMMUNICATION SYSTEM AND ACCELERATE THE DIGITALIZATION OF THE EUROPEAN SKY

- EUROCONTROL MUAC and Indra have implemented an innovative ATN Automatic Dependent Surveillance Contract system (ADS-C) for automated data exchanges with aircraft in flight to increase the accuracy with which traffic is managed
- It will boost predictability, facilitate early conflict detection and it will be the first step towards Trajectory Based Operations (TBO). It will also optimize aircraft climbs and descents, keeping them at optimal flight levels for longer and minimizing fuel consumption

Madrid, June 24 2022.- EUROCONTROL MUAC (Maastricht Upper Area Control Centre), in partnership with Indra, a leading global technological engineering company for the aerospace, defence and mobility sectors, have put an advanced system into operation to allow air traffic control systems to automatically exchange data with the onboard computer of an aircraft to manage air traffic with greater efficiency, safety and flexibility, a decisive step forward in the digitalization of the European sky.

With the introduction of the ATN Automatic Dependent Surveillance Contract (ADS-C) system, EUROCONTROL MUAC and Indra are paving the way for the progressive deployment of a new technology that will contribute to improving air traffic in Europe and in the rest of the world.

This system enables the controller to establish “electronic contracts” with aircraft and receive information on key parameters, such as the route and altitude, among others. The data exchange are performed directly with the desired aircraft, agreeing on the specific information required and the frequency with which it should be received, thus establishing “silent” communication that minimizes voice communication and streamlines traffic management, reducing the workload of both controller and pilot. The data is transmitted via the new Aeronautical Telecommunications Network (ATN), a sophisticated global information highway that is transforming ground-to-ground and ground-to-air communications in the aviation world.

The operational benefits provided by the new system implemented, in partnership with Indra at the EUROCONTROL MUAC control centre in Maastricht, constitute a considerable leap forward in the digitalization of air traffic management. The better quality of information shared between aircraft and air traffic control system significantly improves flight predictability, enabling much more accurate operations planning.

It will also make possible checking whether the aircraft is following the planned route throughout the flight, alleviating the controller's workload and increasing his/her capacity to manage more flights. The ability to detect midterm conflicts is also improved and potential problems can be identified earlier.

By optimizing aircraft climbs and descents, the new system also ensure most optimal flight levels, and in this way, it contributes to reducing fuel consumption and pollutant emissions as much as possible.

It will also facilitate the introduction of TBO, whereby the aircraft can fly more optimal routes and it allows more flexible use of the airspace.

In terms of improving interoperability with other control centers, Indra's ADS-C system will contribute to the improved algorithms for the Arrival Management System (XMAN), which would have a direct impact on traffic flow and flight punctuality throughout the continent.

Increased automation

According to EUROCONTROL MUAC director John Santurbano, “ADS-C provides benefits for both controllers and aircraft operators and ultimately allows for better air traffic management, enhanced safety, flight efficiency, and savings for all key players. The higher the number of aircraft equipped with ADS-C, the more visible all these benefits will be - both for the individual aircraft and also, thanks to higher predictability, at network level. At MUAC, we do realise and confirm the need for an ADS-C common service (ACS) once more air navigation service providers start implementing ADS-C. However, for the time being, we will follow an evolutionary approach as we see this as the best way to drive change. Our current implementation is a major step towards trajectory-based operations, a first step towards future enhancement of existing tools and an enabler for automation for at least the coming decade”

Indra ATM director for Central Europe Xose Luis Gonzalez Paz stated, “Collaboration and a firm commitment to innovation are ways of improving sustainability and guaranteeing the future of the air navigation sector in Europe and round the globe. The digitalization of the European sky positions us at the forefront of the world and enables us to lead the transformation of a key sector that is undoubtedly set to undergo major development in the coming years. In this regard, the ADS-C system constitutes a fundamental element of the digitalization of air traffic that will significantly increase our capacity to manage more traffic while reinforcing safety and maintaining the highest levels of service quality. We’re convinced that we’ll rapidly capitalize on all these improvements and that air traffic control centres round the world and airlines will upgrade their systems very soon.”

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 worldwide. It is a world-leader in providing proprietary solutions in specific segments in Transport and Defence markets, and a leading firm in Digital Transformation and Information Technologies in Spain and Latin America through its affiliate Minsait. Its business model is based on a comprehensive range of proprietary products, with a high-value, end-to-end focus and with a high innovation component. In the 2021 financial year, Indra achieved revenue of €3.390 billion, with more than 52,000 employees, a local presence in 46 countries and business operations in over 140 countries.

About EUROCONTROL MUAC

Maastricht Upper Area Control Centre (MUAC) manages the upper airspace (from 24,500 to 66,000 feet) of Belgium, the Netherlands, Luxembourg and Northwestern Germany, one of the busiest and most complex air spaces to manage.

They are pioneers in delivering customer-centric, reliable and impartial air traffic services.

They are Europe's only provider of cross-border civil and military navigation services and they have played a key role in the integration of the European airspace, building their services around traffic flows based on non-national premises.