

SESAR2020: Successful Flight Centric ATC validation and open day in Budapest

In Budapest, the SESAR partners Hungarocontrol, Frequentis, and DLR jointly validated a new concept of flight-centric operations in the scope of the SESAR2020 framework. For this purpose, the entire upper Hungarian airspace was simulated to operate without any airspace sectors at the open day in Budapest in January 2019.

Challenged by growing air traffic and increasing cost pressure, air navigation service providers need to rethink their current ways of working since capacity concerns can no longer be solved by adding more controllers. By breaking down existing barriers of fixed airspace structures, flight-centric operations allow to use the existing airspace better and fly more efficient routes.

The entire Hungarian upper-airspace was used for the demonstration of this advanced operating concept. The project partners successfully validated the concept in medium- and high-complexity simulated traffic in Budapest: In total, ten Hungarian air traffic controllers participated in the single man operations and all incoming flights were distributed by the assignment center to balance the workload. Since 2008, DLR experts have been researching the “Sectorless ATM” concept and in the current PJ10 PROSA project the solution was developed and a wide-area communication prototype integrated by Frequentis in the real-time simulation. The exercise ended with an open day, attended by over 50 European ATM stakeholders.

Frequentis deployed its latest communication solution to provide voice-as-a-service, enabling the successful integration of its voice communication systems to the DLR platform. While European airspace is currently divided into sectors to provide safe separation services for aircraft, Flight Centric ATC does not reference geographical sectors, which opens up the opportunity to more evenly distribute air traffic and avoid lost productivity in under-loaded sectors.

The sectorless flight guidance (Flight Centric ATC) research initiative is part of the SESAR 2020 project PROSA.



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Find more information via the website: <https://www.sesarju.eu/projects/prosa>



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Background information about DLR

DLR is the national aeronautics and space research centre of the Federal Republic of Germany. Its extensive research and development work in aeronautics, space, energy, transport and security is integrated into national and international cooperative ventures. In addition to its own research, as Germany's space agency, DLR has been given responsibility by the federal government for the planning and implementation of the German space programme. DLR is also the umbrella organisation for the nation's largest project management agency. DLR has approximately 8,000 employees at 20 locations in Germany.

Detailed information about DLR can be found on the website: <https://www.dlr.de/dlr/en/>

Background information about HungaroControl

HungaroControl is one of the most successful state-owned companies in Hungary, which provides air navigation services in the Hungarian airspace and (on a NATO assignment) in the upper airspace over Kosovo, trains air traffic control personnel and conducts air navigation research and development. The company's sole shareholder is the Hungarian State, while the rights of the founder and owner are exercised by the Minister without Portfolio Responsible for the Management of National Assets. With over 700 employees, HungaroControl's business is balanced and profitable without any budgetary subsidy. The company supports the Single European Sky programme aimed at improving the efficiency of European air transport.

Detailed information about HungaroControl can be found on the website: <http://en.hungarocontrol.hu>

Background information about FREQUENTIS

Frequentis is an international supplier of communication and information systems for control centres with safety-critical tasks. These control centre solutions are developed and distributed by Frequentis in the business segments Air Traffic Management (civil and military air traffic control, and air defence) and Public Safety & Transport (police, fire and rescue services, emergency medical services, vessel traffic and railways). Frequentis maintains a worldwide network of subsidiaries and local representatives in more than fifty countries. The company's products and solutions are behind more than 25,000 operator positions in almost 140 countries. With this extensive portfolio, Frequentis is the leading provider of voice communication systems... all making our world a safer place every day! For more information, please visit www.frequentis.com