HungaroControl
Hungarian Air Navigation Services

BUDAPEST 2.0

Budapest 2.0 project is co-financed by the SESAR Joint Undertaking

"Seeing is believing"

powered by SESAR

Budapest 2.0 is HungaroControl's latest endeavour to contribute to the reshaping of the European ATM scene. As a member of the First European Platform for the live demonstration of innovative ATM concepts and solutions, HungaroControl directly supports the deployment of a set of SESAR solutions.

Straight to the point

HUNGAROCONTROL IS PART OF AN INTERNATIONAL CONSORTIUM THAT BRINGS TOGETHER A UNIQUE SET OF EXPERTISE IN THE ATM FIELD.

The introduction of new procedures and ideas happens in collaboration with Pildo Labs, WizzAir, Jetstream, Technical University of Catalonia and Slot Consulting, with background support by Budapest Airport, Vueling and LPS.

HungaroControl is responsible for the operational and technical enabling of the demonstrations through providing the key ATM systems, specifically trained personnel and other necessary infrastructure.

PURPOSE

With Budapest 2.0, HungaroControl is aiming to demonstrate the viability of:

- a CDO enhancement tool both in TMA and in en-route environment;
- RNP based operations with 3D trajectory;
- remote tower solutions for medium size airports.

Through the demonstrations and the subsequent case-based analysis, HungaroControl aims to confirm the longterm benefits of these solutions concerning the reduction of fuel consumption and noise pollution, ATCO situational awareness and many more factors that have a major influence on the satisfaction of our customers, the airspace users.

FEATURES, BENEFITS AND SOLUTIONS

The Budapest 2.0 project will present solutions in the following areas:

1. **Enhanced CDO operations**: The benefits of Continuous Descent Operations will be demonstrated after restructuring Budapest TMA. T-bar procedures and PBN arrival routes are designed and combined with the use of a CDO Enhancement Tool (for further information, please check the MergeStrip brochure).

As a second step, the use of our CDO Enhancement Tool will be extended to Budapest ACC sectors, for the sequencing of traffic arriving at Vienna Airport, demonstrating the benefits of sequencing in en-route phases of flights and continuous descent operations from top of descent until the handover point to Vienna Approach.

2. **RNP based operations**: LNAV/VNAV, LPV approach procedures and RNP-1 SIDs will be designed for Budapest airport. Special flight trials with JetStream and Pildo Flight Validation Platform will ensure proper validation. Designing of the new procedures will primarily focus on noise abatement requirements.

3. **Remote tower solutions**: A fully capable Remote Tower prototype is being set up at HungaroControl's Air Traffic Control Centre, based on the integration of the actual A-SMGCS and a new camera system. With deploying fixed and PTZ cameras, the demonstration covers all the runways and aprons of Budapest Liszt Ferenc International Airport. The main objective is to create business continuity of air traffic services and to enhance situational awareness and safety (for further information, please check the Remote Tower brochure).

Budapest 2.0 intends to provide valuable information and comparative analysis for potential airspace users about the safety and business implications of using these technical improvements. By presenting detailed description of benefits on the key performance areas (fuel consumption, safety and cost - concerning aircraft operators and airports), the project will facilitate the implementation of these SESAR solutions.

The commitment and the efforts taken for the successful demonstrations will help HungaroControl step ahead on its way to SESAR membership.

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