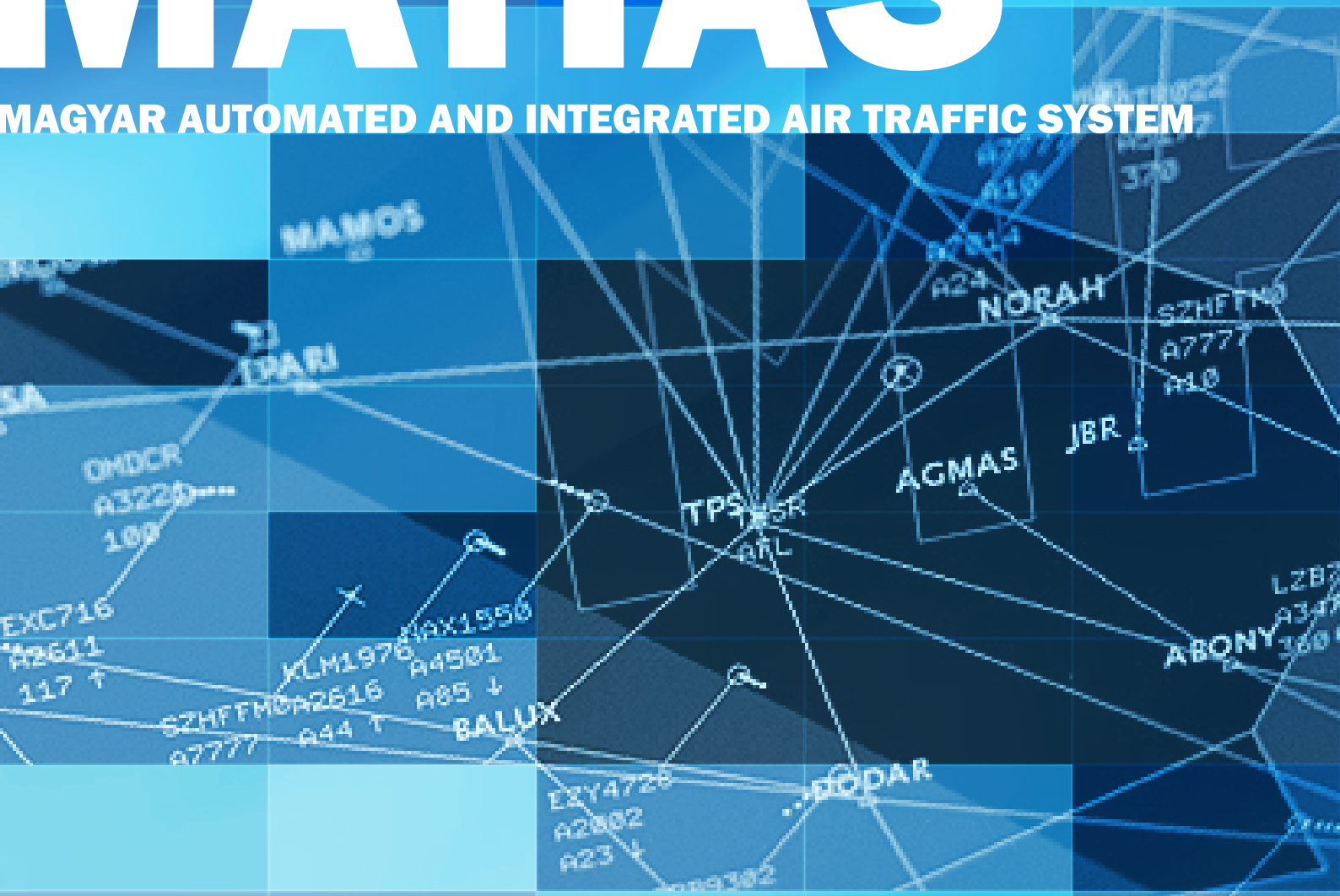
HungaroControl

Hungarian Air Navigation Services

MATIAS

MAGYAR AUTOMATED AND INTEGRATED AIR TRAFFIC SYSTEM



MATIAS is the integrated ATM system of HungaroControl. It consists of innovative equipment and software implemented in order to accomplish the goals of safety, efficiency, and cost-effective operations supporting air traffic controllers.

Straight to the point

THE MATIAS SYSTEM MEETS THE EU REQUIREMENTS CONCERNING THE FUTURE HARMONISATION OF ATM SYSTEMS IN EUROPE.

MATIAS has been developed by Thales Air Systems with the participation of HungaroControl. The first release of the system rolled out in 2002 and it went into operation in 2004. Since then the development activity is continuous in 'Builds' – the next upgrade is Build 10.

The system is being continuously developed along a clear roadmap in line with the EU Implementing Rules, interoperability requirements and the EUROCONTROL vision for the future of ATM.

PURPOSE

This MATIAS system supports ATCOs in providing air traffic control services within the Hungarian airspace for en-route control, terminal control of Budapest International Airport and in the provision of flight information services.

The system also includes remote terminal radar control capability for domestic airports, testing and training functionalities as well as simulator capability for testing and training purposes.

Although MATIAS is specially designed for the Hungarian environment, the system has kept its global ATS ability as it supports HungaroControl to provide ATS services in the upper airspace over Kosovo as well – proving its versatility in operating in different environments.

FEATURES, BENEFITS AND SOLUTIONS

The MATIAS system is based on modern architecture and technologies in line with SESAR developments and implemented the best cost-effective technical solutions available.

The principal benefit is the **increased controller productivity** and the **level of safety** by automating several routine coordination tasks and flight data entry.

Stripless environment is provided with advanced, integrated and consistent HMI functions including advanced Mode-S DAP presentation and related controller tools in order to help ATCOs gain better situational awareness.

Executive Controller and Planning Controller can access the **same functionalities**. This results in better substitutability and operational safety.

There is **central integrated flight data and surveillance processing** including the handle of elementary and enhanced Mode-S data for both en-route and terminal control, with fallback and degraded mode facilities.

It provides ATCOs with real-time flight information and enables automated co-ordination between internal sectors, between the adjacent air traffic control centres and the use of the datalink function.

The system is equipped with safety nets providing **proximity area warning**, medium term conflict detection and minimum sector altitude warning including monitoring aids and advanced conflict detection tools as well.

Met information (GRIB) and aeronautical information such as NOTAMs are integrated into the system to provide useful met information updates.