MSS-5

Multilateration Surveillance System

MSS-5 is the 5th generation of the Multilateration Surveillance System (MSS) tailored for Air Traffic Management combining proven multilateration and ADS-B technologies. The system provides accurate real-time localization, tracking and identification of all objects equipped with transponder: at the airport surface, in TMA and en-route. The system withstands all weather conditions and is suitable for any terrain profiles.

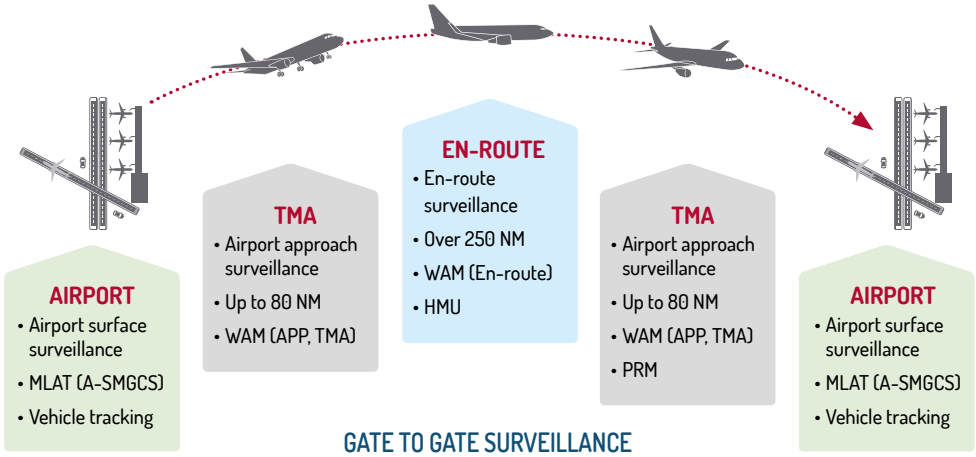
MSS-5 answers the 5 main challenges of Air Traffic Surveillance nowadays:
• traffic density • deployability • time synchronization • safety • security

5 KEY FEATURES:

- ✔ 2020+ standards readiness
- ✔ Dual Station Data output: ASTERIX format and raw Mlat
- ✔ Expandable modular solution for flexible deployment, mast up or down
- ✔ All weather conditions - any climatic or terrain challenges
- ✔ Worldwide GNSS Synchronization (GPS, GLONASS, GALILEO, BEIDOU)

SOLUTIONS AND USE CASES:

The MSS-5 architecture can be configured to optimize performance for specific applications: MLAT, WAM, PRM, HMU, VTS and ADS-B based surveillance.



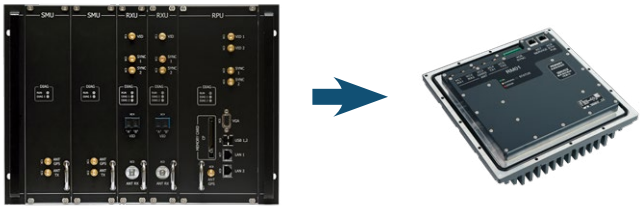
Legend:

- **TMA** – Terminal Maneuvering Area
- **A-SMGCS** – Advanced Surface Movement Guidance and Control System
- **WAM** – Wide Area Multilateration
- **HMU** – Height Monitoring Unit
- **PRM** – Precision Runway Monitoring
- **MLAT** – Surface Multilateration
- **APP** – Approach
- **VTS** – Vehicle Tracking System

5 CHALLENGES	TRAFFIC DENSITY	DEPLOYABILITY	TIME SYNCHRONIZATION	SAFETY	SECURITY
	Despite the current dropout, traffic density increases; a new layer of ATM for UAS is expected.	A simple, all in one solution, is needed for quick deployment and life-cycle support.	Multistatic systems need to be synchronised on more than one source.	The performance of the system has to be accurate and reliable 24/7.	The surveillance system is part of a critical infrastructure, therefore high security standards must be applied.
MSS-5 SOLUTIONS	• DO-260C standard Phase Overlay ready	• 2 modules solution: 1 receiving + 1 supply module • Small, light and compact • Easy deployment, mast up	• GPS, GLONASS, GALILEO, BEIDOU • Alternative synchronization	• Remote control and update • Eurocae Standards compliance	• Quido security monitoring • Linux based Receiving Module

ARCHITECTURE:

Receiving module – 5 in 1:
2 Receiving Modules (RXU), 2 Site Monitoring Modules (SMU) and 1 Processing Module (RPU)



Supply module – 5 in 1:
Standard Power Supply, PoE Supply, Security monitoring module, Safety monitoring module, In-build Switch

BASIC SPECIFICATIONS:

Type of system	Multilateration Surveillance System
Number of input channels per station	2
Type of targets	Mode A/C, Mode S, DO-260C
Operating temperature	-40°C to +60°C
Relative humidity	up to 100 %
Station Data output	ASTERIX format and raw Mlat
PoE	4x60 W
Modulation	PAM, PPM, Phase Overlay PSK, MSK
Racks	outdoor (standards IP65) x indoor

SALES DEPARTMENT
+420 467 004 387
sales@era.aero

ERA a.s.
Průmyslová 462
530 03 Pardubice
Czech republic

www.era.aero