

# MIPS

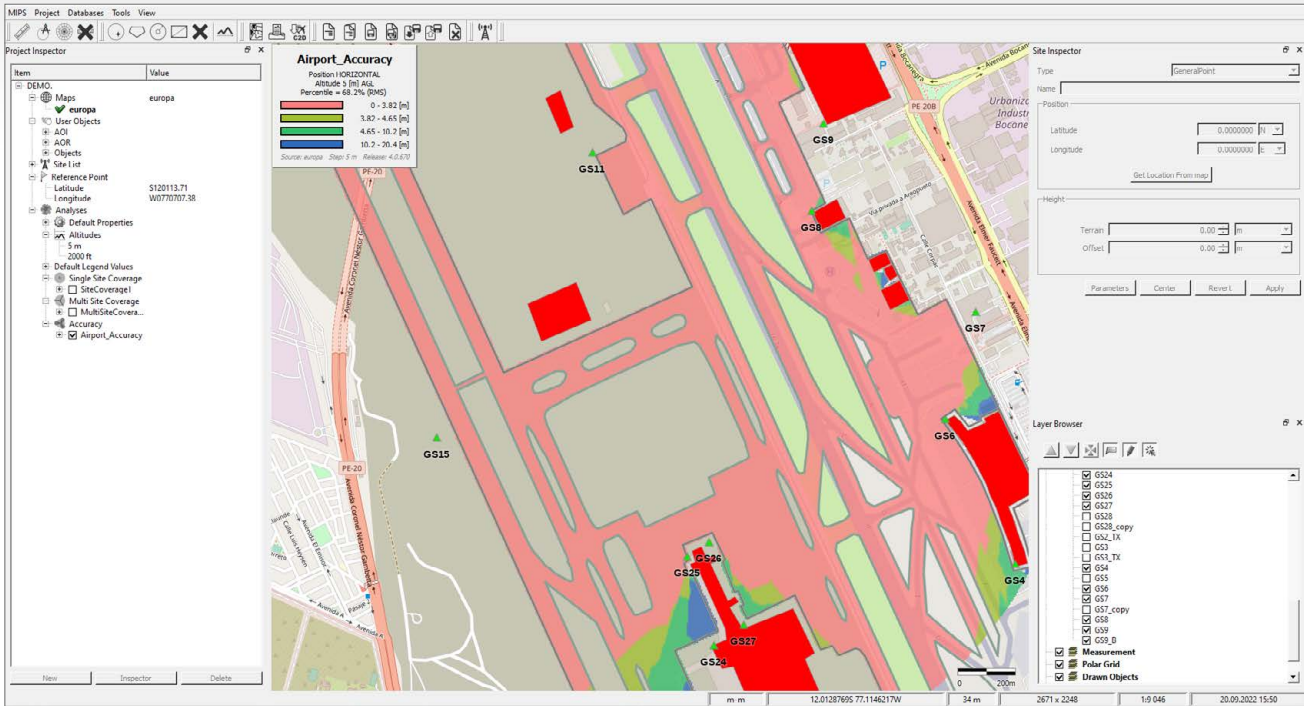
## Performance prediction tool for surveillance systems

**MIPS (Mission Planning System) represents a comprehensive performance simulation tool for surveillance systems with a capability of simulating single site coverage that may represent a coverage of traditional secondary surveillance radar for both Air Traffic Management and military applications.**

**It is used for various types of analyses: line of sight (LOS), true radio line of sight, Over The Horizon (OTH) coverage and accuracy simulations.**

### KEY FEATURES:

- ✓ Vector and raster maps support
- ✓ Predefined set of map backgrounds – including Open Street map or similar offline alternatives
- ✓ AIXM data support
- ✓ Advanced measurement and terrain profile tools
- ✓ Direct export/import of sites, polygons and simulations into Google Earth
- ✓ PSS Definition Wizard – automatic/semi-automatic tool which helps an operator to find an optimal PSS deployment
- ✓ Sites, polygons and 3D objects database (like maneuvering areas, airport buildings, etc...)



Example of MIPS analysis: MLAT airport system accuracy.

**USE CASES:**

- System deployment
- System performance
- Line of Sight
- Terrain reconnaissance
- Sites/System relocation

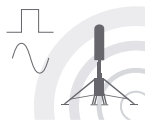
**TECHNICAL PARAMETERS:**

Input data for the analysis:

- Terrain Data (DTED, GeoTIFF, USGS DEM, CADRG, Lidar)
- Ground station parameters
- Emitter parameters
- Area of Interest

MIPS was originally developed to support the decision-making process of the commander when preparing and planning VERA recce missions through tools serving for a deployment optimization of VERA stations by means of available geographic data. MIPS was later supplemented by additional features to support the deployment process of other ERA systems.

**MIPS APPLICATIONS:**



PET (Passive ESM Tracker)

Semi-automatic deployment process of VERA-NG system, performance prediction of VERA-NG.

PLESS (Passive Long-range ESM Surveillance System)

Performance prediction of OTH-DF systems (Over The Horizon - Direction Finding) using properties of tropospheric reflectivity.



MSS (Multilateration Surveillance System)

Performance prediction of surface systems (airports).

WAM (Wide Area Multilateration)

Performance prediction of independent or multiple wide area systems.



Precision approach

Performance prediction of precision approach applications.