



**Network Manager**  
nominated by  
the European Commission



# Automatic Safety Monitoring Tool

## Keynote

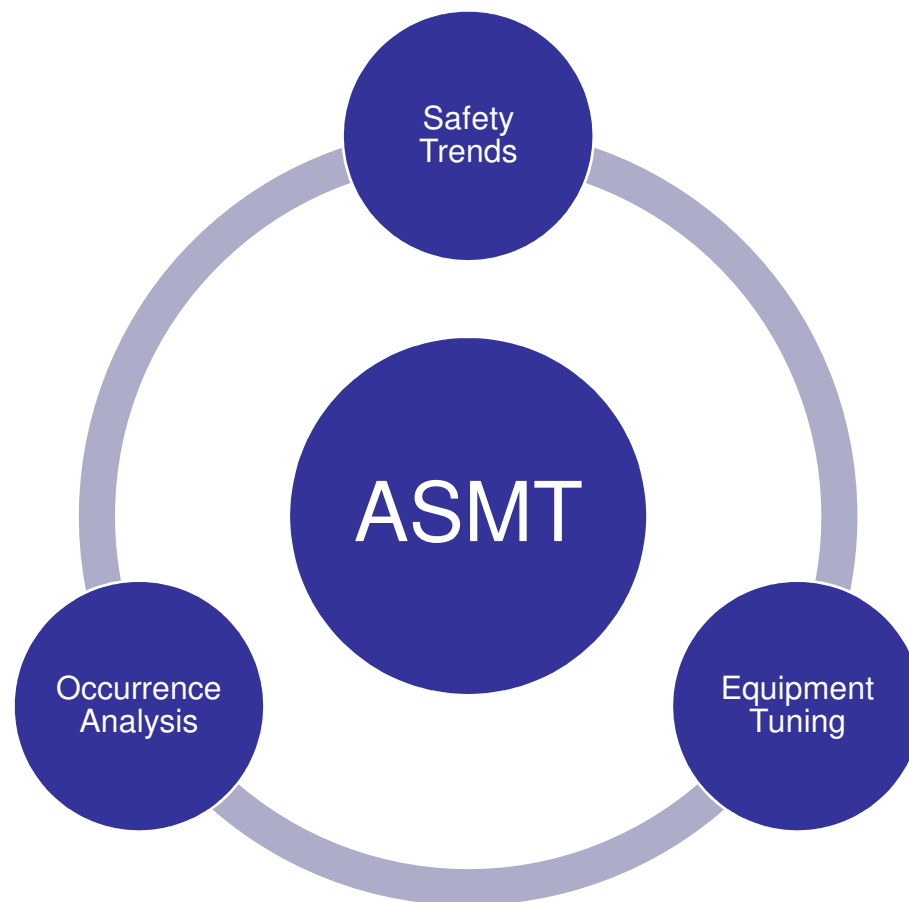
Dr. Frederic Lieutaud  
ASMT Project Manager

JLG CONSULTING  
EUROCONTROL External Technical Support

April 2017

Improve  
air traffic  
safety

# Key Use Cases



Network Manager  
nominated by  
the European Commission

NATS

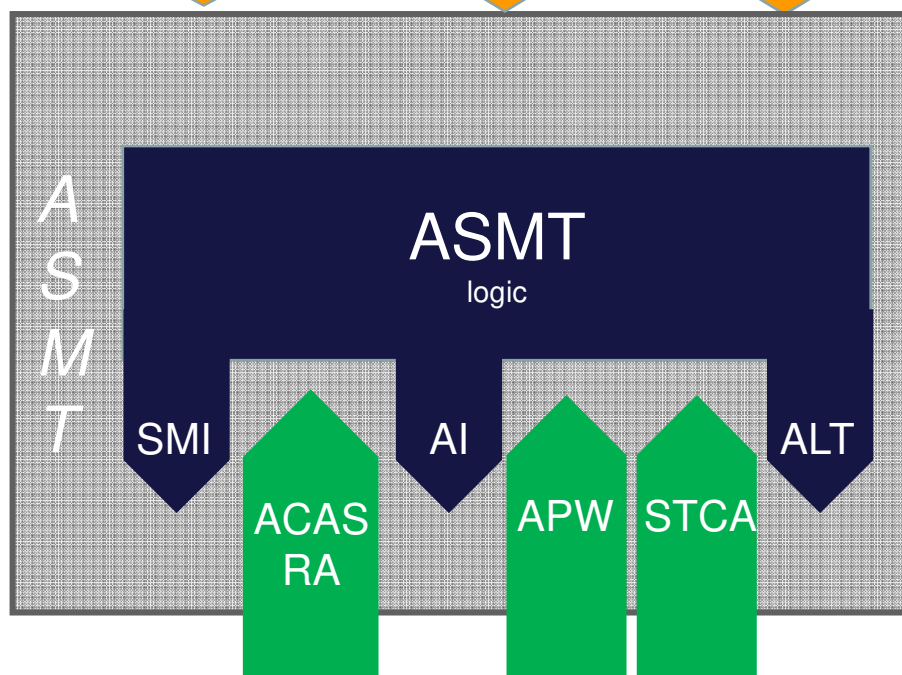
Airspace Data

Flight Plan Data

Track Data

## INTERNAL MODULES

- SMI: Separation Minima Infringement
- AI: Airspace Infringement
- ALT: Altitude Deviation



## EXTERNAL MODULES

- ACAS-RA
- APW: Airspace Proximity Warning
- STCA: Short Term Conflict Alert

## Data Flows

- The ASMT can support two data flow scenarios
  - **Directly from MRT (Cat-062) – Recommended Approach**
  - Directly from Mono Radars (Cat-048) – Legacy Systems

Cat-062 (MRT)	Cat-048 (Mono Radars)
<ul style="list-style-type: none"><li>• SMI</li><li>• STCA</li><li>• MSAW</li><li>• APW</li><li>• AP</li><li>• ALT</li><li>• ACAS-RA</li></ul>	<ul style="list-style-type: none"><li>• SMI</li><li>• ACAS-RA</li></ul>

# Deployment

- The ASMT can be deployed on a multitude of environments
  - Virtual Machine (VMWARE)
  - Physical Loan Box
  
- The ASMT can work on all operating systems
  - Linux Red Hat
  - Windows 7+
  
- The HMI works on all **modern** browsers
  - Chrome
  - Firefox



# Performance

- Performance is key to collecting safety occurrences in real time, so the tool was adapted for this scenario.
  - It can collect data from up to 12 radars in parallel
  - It can follow up to 1200 targets at the same time and capture safety events
  - It can store up to 1 million occurrences in the database for statistical analysis
  - It can run on a medium spec computer (no need for enterprise machine or server farms)



## Integration with other EUROCONTROL tools

- The industry is moving towards **safety intelligence**
  - Collect and enhance data from multiple sources in order to offer meaningful and useful information for the end-user

