

Commandement de la défense aérienne et des opérations aériennes

Space surveillance division
DSE 42.542





SUMMARY

- ➔ MISSION
- ➔ ESTABLISHING SPACE SITUATION
- ➔ DETECTING AND EVALUATING THREATS
- ➔ SUPPORTING OPERATIONS
- ➔ ATMOSPHERIC REENTRIES FOLLOW-UP
- ➔ DSE AND GEIPAN

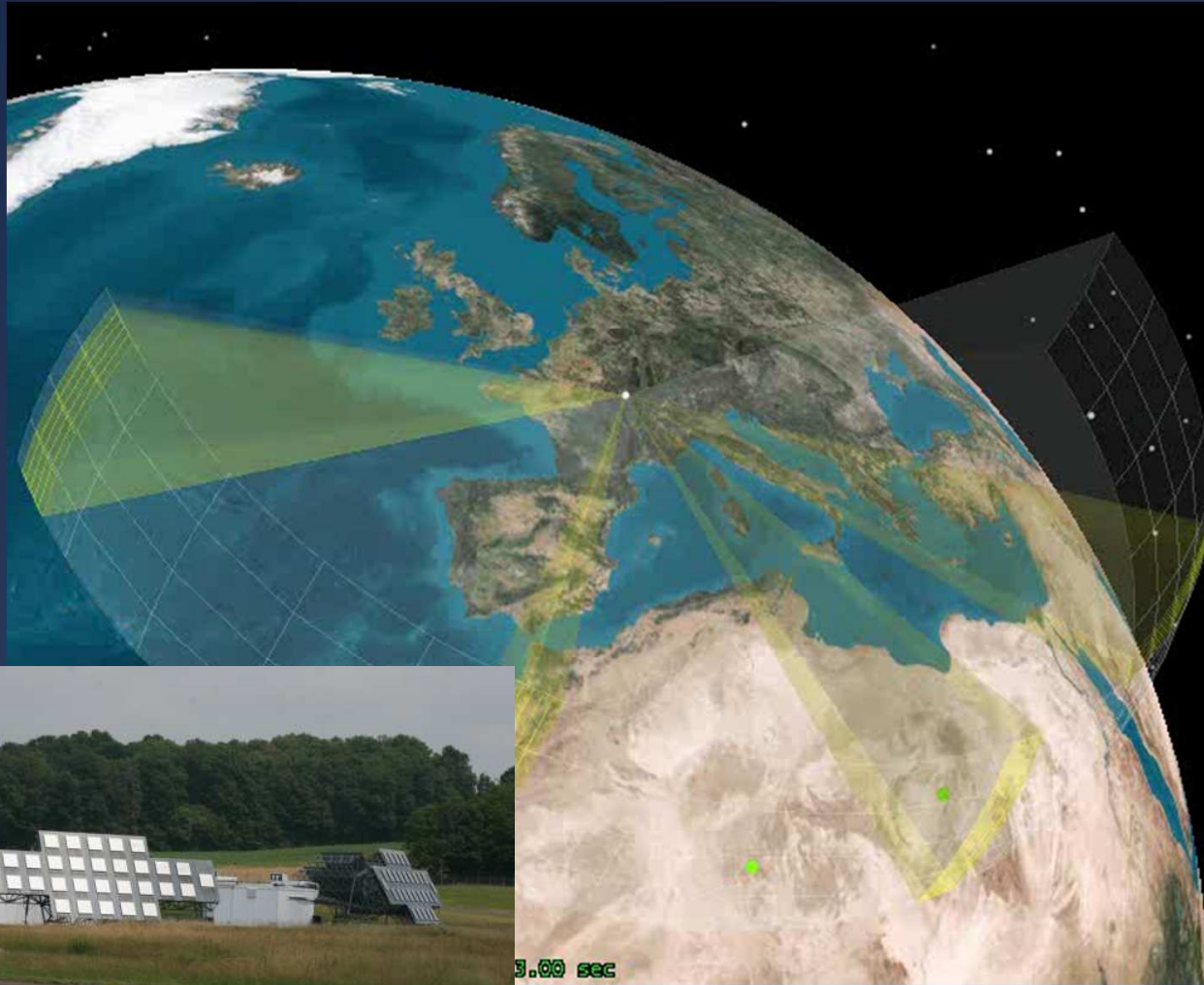


MISSION

- ➔ Assigned to French Air Force by French Code of Defense
- ➔ In order to :
 - detect and assess threats
 - report situation to Governmental and defense authorities (intelligence and support to operations)
 - give the alarm in case of space hazards
- ➔ Extended air defense mission, this mission is permanent



ESTABLISHING SPACE SITUATION LEO SURVEILLANCE

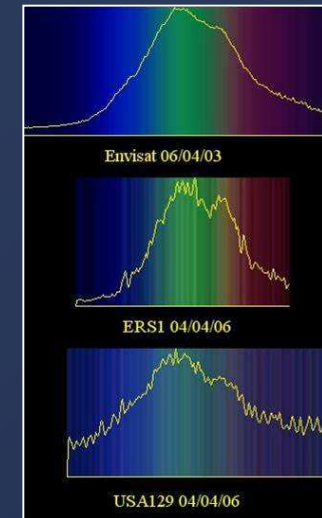


[illegible]



ESTABLISHING SPACE SITUATION DEEP SPACE SURVEILLANCE

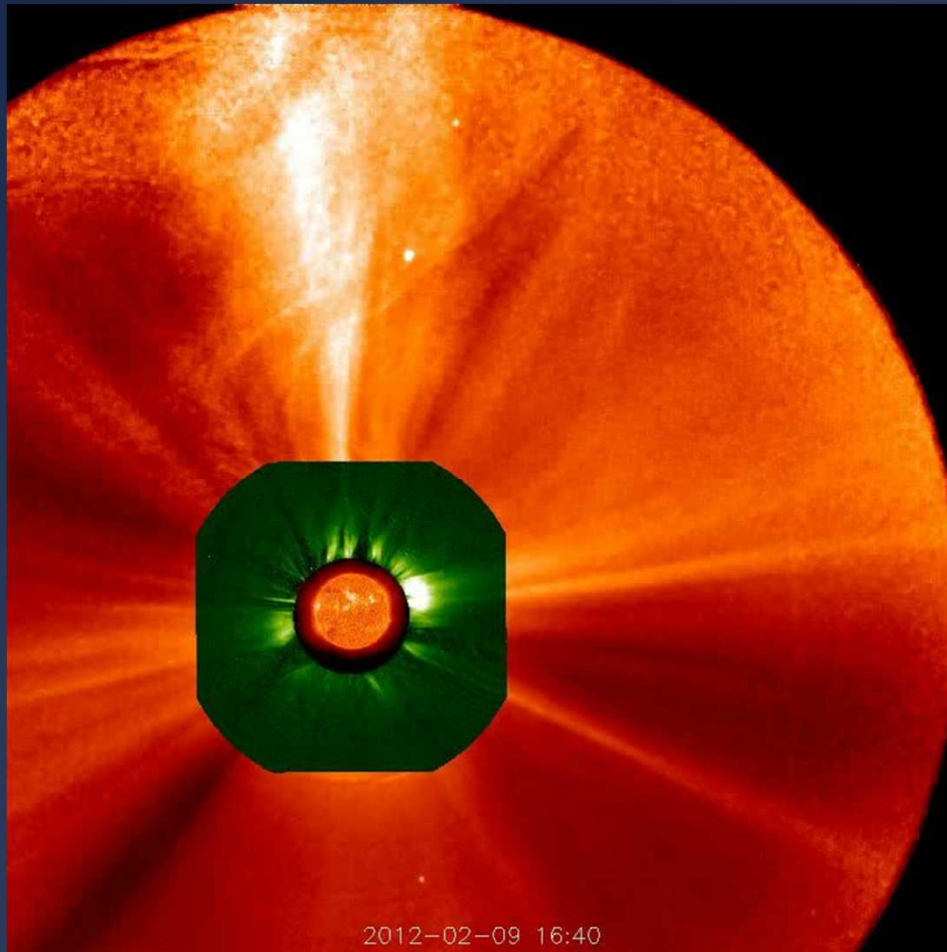
➔ OSCEGEANE (spectroscopic characterization of GEO satellites)



➔ TAROT (CNRS, CNES) for proximity lookout



ESTABLISHING SPACE SITUATION SPACE WEATHER



2012-02-09 16:40

Warn MILCOMS of possible
jamming/disruption

Provide advice to by-pass difficulties

AWACS (RAP)
GPS

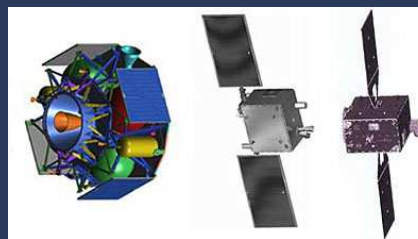
FEDOME (a federator of open-source
and scientific data)



DETECTING AND EVALUATING THREATS

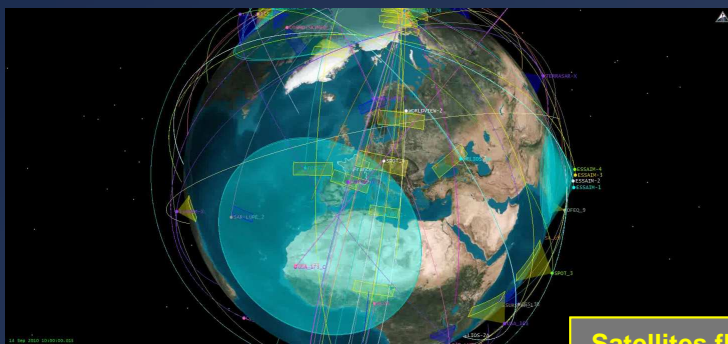
➔ Mainly through analysis

- Proximity operations
- Jamming
- Blindness
- Furtivity





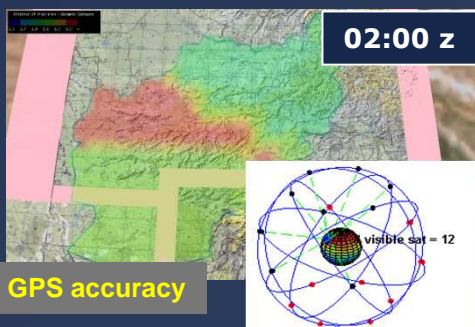
SUPPORTING OPERATIONS



Satellites fly-over



Space weather alerts



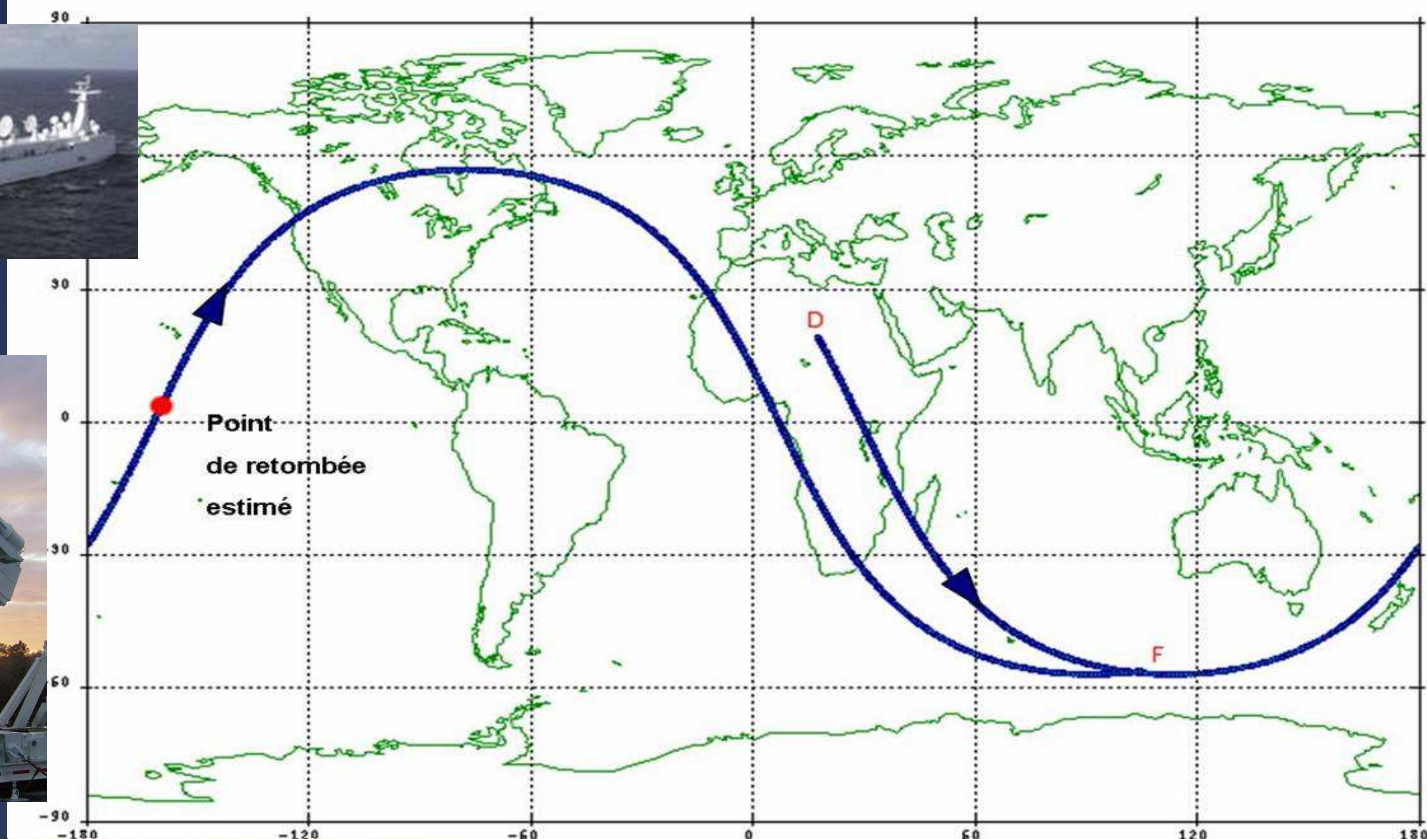
GPS accuracy



ISR/BDA



ATMOSPHERIC REENTRIES FOLLOW-UP





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- The map displays the flight paths of two commercial aircraft that crashed in 1988. The Pan Am 103 path is shown in red, starting from London and heading towards New York. The Delta 191 path is shown in green, starting from London and heading towards Atlanta. The crash sites are marked with green dots and labeled with their coordinates: Pan Am 103 (N30250, W00704) and Delta 191 (N30734, W00734). The map also shows the flight paths of other aircraft, including the Breeze-M (N30007) and the Breeze-M (N30004).