



TELECOM OPERATORS  
GROUND SEGMENT  
MARKET LEADERSHIP



ANY MISSION  
LEO/MEO/GEO/HEO



FROM ONE SATELLITE TO  
MASSIVE FLEETS



DAILY MONITORING FOCUS ON  
SAFETY



WE FIT TO CUSTOMER NEEDS



HALF OF THE TOP SATELLITE  
OPERATORS COUNT  
ON OUR PRODUCTS

**Focusoc TEAM**



# Focusoc

A product by:



For more information about **Focusoc services:**  
[focusoc@gmv.com](mailto:focusoc@gmv.com)

Product Info at:  
[www.gmv.com/en-es/products/space/focusoc](http://www.gmv.com/en-es/products/space/focusoc)






# Focusoc

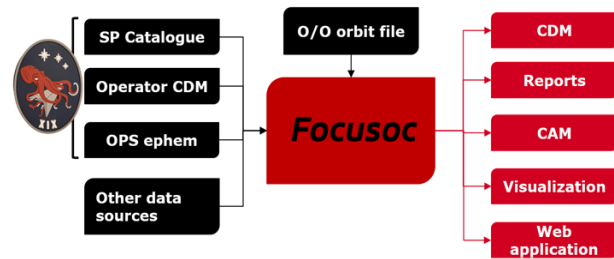
**Focus operations  
centre for collision  
avoidance**



## What is Focusoc?

GMV's **Focusoc** provides **Collision Avoidance** services for safety of flight. It uses operational Closeap and **Focusuite®** tools.

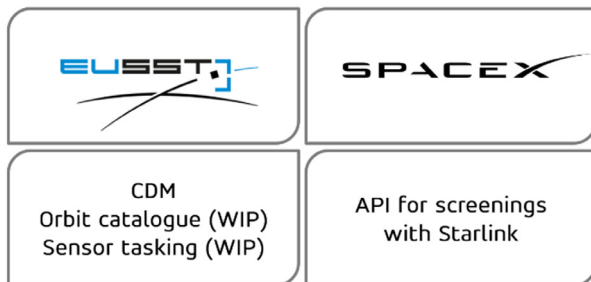
-  Usage of O/O operational orbits.
-  Automated screenings.
-  19SDS SP catalogue, CDM and public files.
-  Collision Avoidance manoeuvres.
-  Web application and API.



## SSA data in Focusoc

- Validity of **SP catalogue** extended to **15 days** in GEO.
- Mini catalogue propagated from **19SDS CDM**.
- **Operational public files** including SpaceX, OneWeb, Planet, Iridium, HawkEye, Telesat, etc.
- Support to operations through **optical tracking**.
- **Passive RF data** from in-house sensor: **Focusear**.

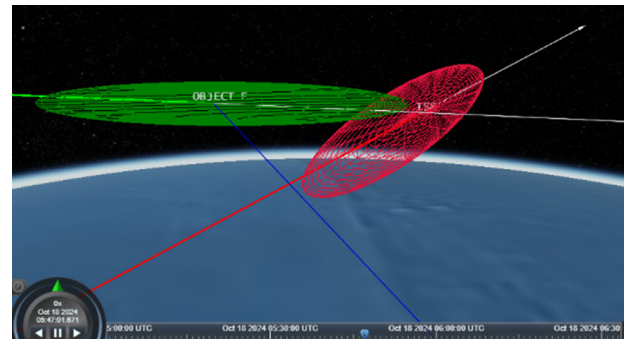
In constant search of new data sources:



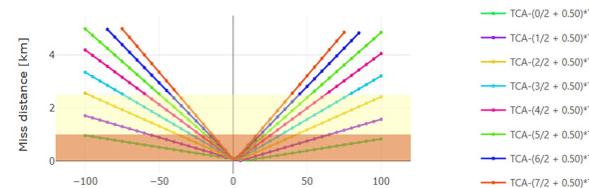
## Focusoc for CA

**Focusoc** performs all Collision Avoidance operations for your fleet.

- **Middle-man** processing (CDM handling).
- Multiple sources of orbital information: OEM, OPM, CDM, TDM, TLE, custom formats.
- Generation of CDM, conjunction reports and conjunction database with 3D visualization.











- Computation of the **Probability of Collision (PoC)** and **Scaled PoC**.
- **Collision Avoidance Manoeuvre (CAM)** assessment, selection of optimal **CAM** and post-CAM screening.



- Regular comparisons between **O/O ephemeris** and **SP catalogue**, assessing O/O orbit quality.
- **CCSDS standards** and custom formats.

## Focusoc key features

- |   |  |
|---|--|
| Cost effective solution      | Automated executions        |
| Short latency                | Collision Risk assessment   |
| Detailed analysis of events  | Web Interface and Rest API  |
| Expert support               | Fully operational           |

Continuous improvement of the service, including ESA support

- Service provision to SWARM
- Co-funded enhancements



## Focusoc roadmap

### Horizontal scaling & Megaconstellations



- Container-based.
- Global metrics for big fleets.
- Automated constellation operations.

### Horizontal scaling & Megaconstellations

-  Catalogues
-  Support tracking
-  CDM (EUSST,...)
-  Operational orbits

## Transition from space-track to TracSS

