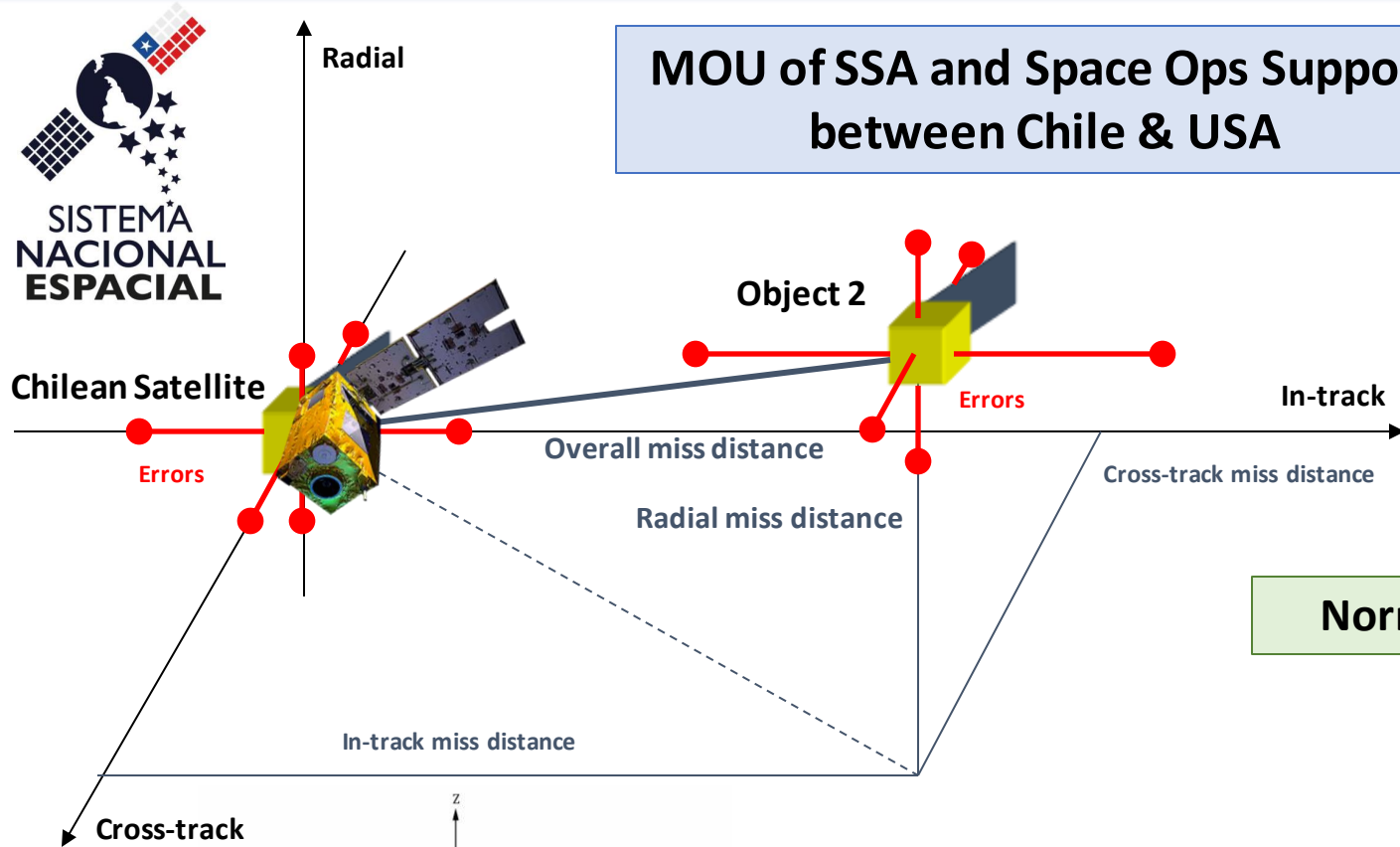


“Space Traffic Monitoring – Raven Telescope”

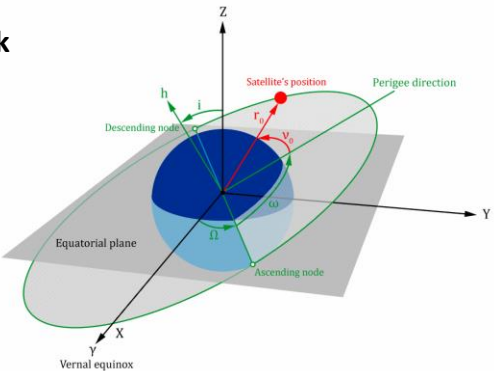
Col. Hernan TELLO
Deputy Director in Space Affairs
Chilean Air Force

SPACE OPERATION EXPERIENCE

AVOIDANCE COLLISION MANEUVERS (ACM) PROCEDURE



MOU of SSA and Space Ops Support between Chile & USA



TLE:
They have a lack of precision



TLE of Chile Satellite
TLE of Object 2

Chile check the Radial Miss Distance:
TLE Chilean Satellite own data +
TLE Object 2 provided

Normal Space Ops

ACM Determination

NO

YES

JSpOC check ACM determ. propagation

Chile Perform ACM

ACM generate new conjunction alert

NO

YES

Calculate New ACM

PUBLIC

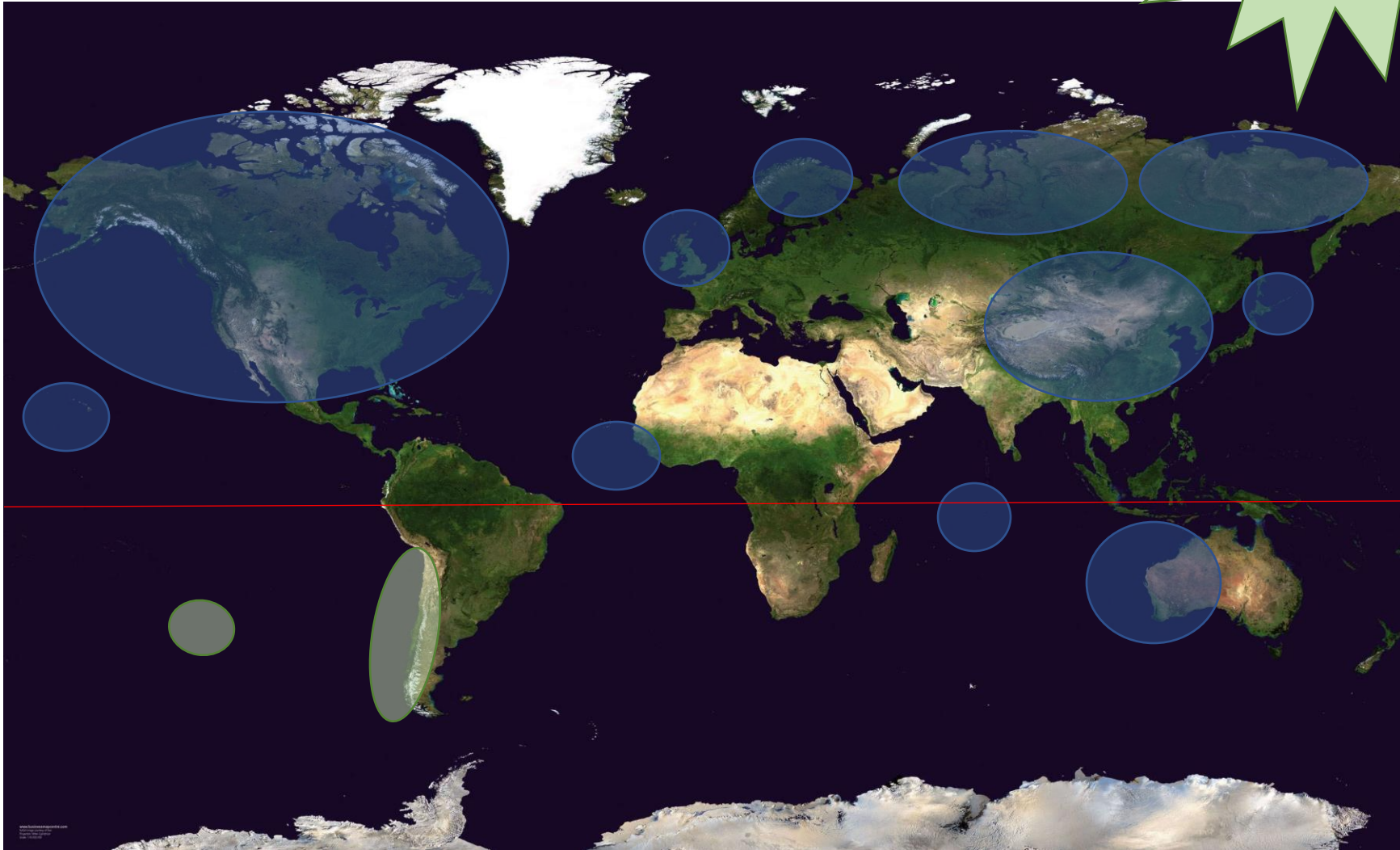
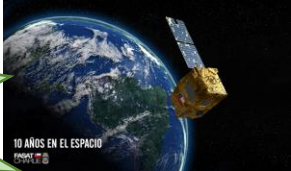
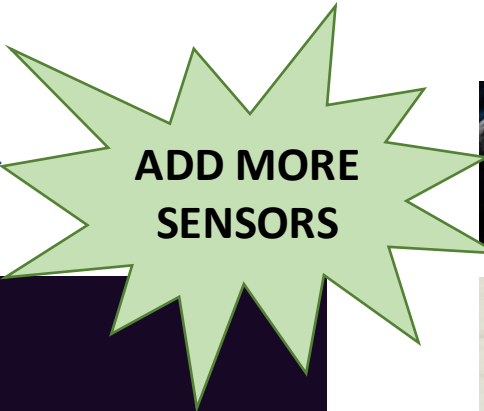
LOCATION OF SSA SENSORS



TLE: They have a lack of precision



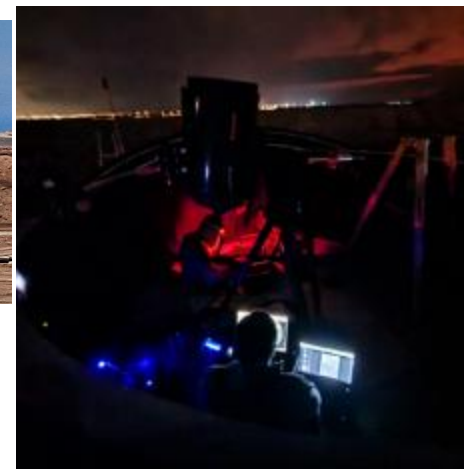
LOCATION OF SSA SENSORS MOSTLY IN THE NORTHERN HEMISPHERE



INSTALLATION THE RAVEN TELESCOPE



**RAVEN
TELESCOPE**



USSF – CAF Risk Reduction Cooperation in SSA

PUBLIC

RAVEN TELESCOPE ACTIVITIES

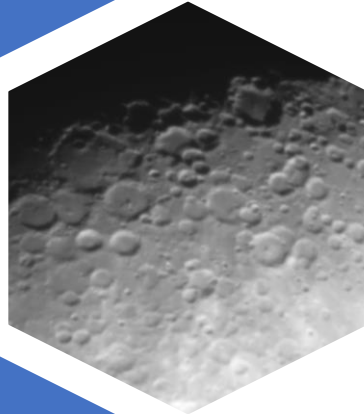


RAVEN TELESCOPE

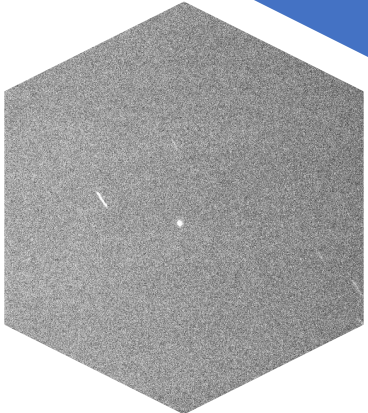


RAVEN TELESCOPE

CHARACTERIZE
OBJECTS IN
THE SPACE



FOLLOW
OBJECTS IN
SPACE



Raven Half Meter Class Telescope

- It varies between 0.3 and 0.6 meters depending on the need and application.
- Commercially standard ready to use both in HW/SW
- First in Latin America with these characteristics.



Installation – Calibration – Training – Operation

PUBLIC

SPACE TRAFFIC MONITORING STRATEGY



NEXT STEPS

- Complete training processes and get more course and formation in SSA
- Gain operating experience
- Install Telescopes in other locations
- Create new network cluster with national and international partners



- Review astronomical observatories capabilities and human talents
- Create regulatory framework
- Integrate into the international community of SSA

PUBLIC

“Space Traffic Monitoring – Raven Telescope”

THANK YOU VERY MUCH FOR YOUR ATTENTION

WWW.SNESPACIAL.CL



CONCLUSIONS



- Chile wants to contribute to space traffic monitoring for all mankind.
- Installing Telescope for SSA in Chile will contribute to get more data of object in the Earth's orbits.
- That will allow, in the future, obtain more accurate TLE of objects in outer space for safe space operations and other purposes.

