“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 of Chile Satellite
TLE of Object 2

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

CONJUNCTION ALERT

Normal Space Ops
ACM Determination

JSpOC check ACM determ. propagation

Chile Perform ACM

Calculate New ACM

TLE: They have a lack of precision
TLE: They have a lack of precision

LOCATION OF SSA SENSORS MOSTLY IN THE NORTHERN HEMISPHERE

ADD MORE SENSORS
INSTALLATION THE RAVEN TELESCOPE

RAVEN TELESCOPE

USSF – CAF Risk Reduction Cooperation in SSA
RAVEN TELESCOPE ACTIVITIES

RAVEN TELESCOPE

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.

CHARACTERIZE OBJECTS IN THE SPACE

FOLLOW OBJECTS IN SPACE

Installation – Calibration – Training – Operation
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 internationals partners
Review astronomical observatories capabilities and human talents
Create regulatory framework
Integrate into the international community of SSA
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.