

**SITUATIONAL AWARENESS-
SPACE, MARITIME AND LAND:
A SPACE PERSPECTIVE**

SITUATIONAL AWARENESS: INTRO

- ULTIMATE HIGH GROUND
- TO DOMINATE, SA IS A PREREQUISITE- FROM IT & ABOUT IT

SITUATIONAL AWARENESS: SPACE

WHAT

- LOCATION
 - ALL TYPES
 - DECONFLICTION OF ORBITAL PASS
 - DEBRIS AVOIDANCE
 - LAUNCH WINDOWS
 - ADVERSARY
 - ENHANCE CREDIBILITY OF OWN CAPABILITY
 - CHECK AND VERIFY CLAIMS/CAPABILITY
 - IDENTIFY POTENTIAL THREAT – PROXIMITY OPS
- SPACE WEATHER
 - UNDERSTANDING CAPABILITY LIMITATIONS
 - SAFETY OF OWN ASSETS

SITUATIONAL AWARENESS: SPACE

HOW

- GROUND RADARS
- OPTICAL TELESCOPES
- SATELLITE BASED IMAGING CAPABILITY
- GLOBAL ALLIANCES FOR GLOBAL COVERAGE
- WEATHER: SENSORS & ACADEMIC RESEARCH

SITUATIONAL AWARENESS: MARITIME

CHALLENGES

- VAST AREAS
- TARGET DISCRIMINATION
 - DELIBERATE CONFUSION
 - DARK SHIPS
 - COMMERCE AND MILITARY ASSETS IN SAME AREA
 - GREAT COMMONS
 - ESCALATION CONTROL - ONE TO TWO
 - NO CLEAR DEMARCATED BOUNDARY

SITUATIONAL AWARENESS: MARITIME

WHAT

- WIDE SWATH SAR AND EO SATELLITES
- GEO ORBITS FOR PERSISTENT SURVEILLANCE
- HEO ORBITS FOR TARGETING
- AI FOR DETECTION, IDENTIFICATION & CLASSIFICATION
- SOFTWARE FOR DATA FUSION – SAR/EO/IR/ELINT/AIS

SITUATIONAL AWARENESS: LAND

CHALLENGES

- MONITORING AREAS IN DEPTH
- RAPID DEPLOYMENT TO FORWARD AREA
 - INFRASTRUCTURE
 - AIRLIFT CAPABILITY
- ADVERSARY MILITARY BEHAVIOUR PATTERNS
- ASSESSING CNP

SITUATIONAL AWARENESS: LAND

WHAT

- SENSOR VARIETY – & HYPER SPECTRAL
- EDGE COMPUTING FOR TARGET CLASSIFICATION
- LARGE DATA ANALYTICS

