



U.S. Naval Forces Europe U.S. Naval Forces Africa U.S. SIXTH Fleet/Task Force 6

Science and Technology Shortfalls

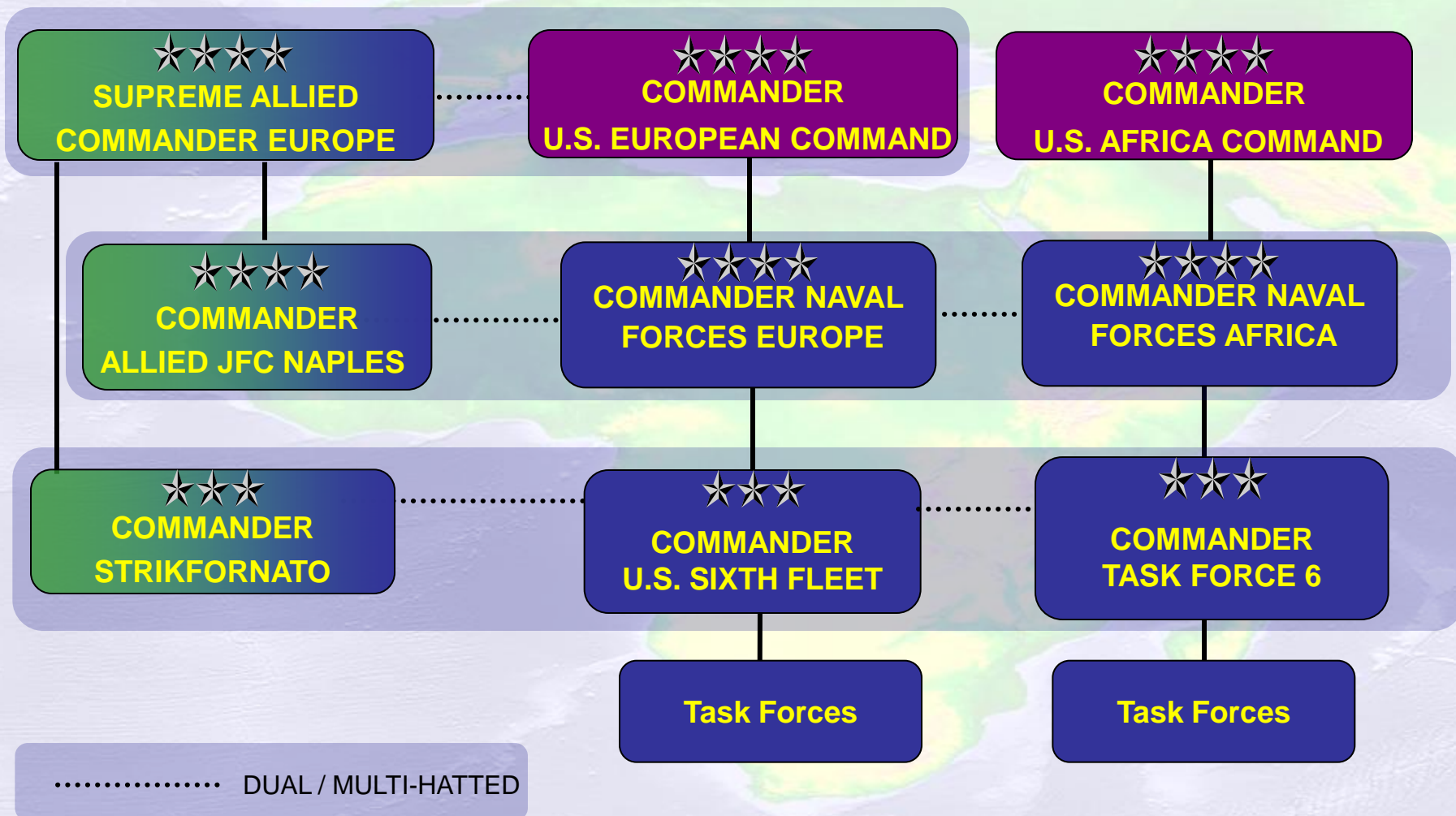
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Cell

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NAVEUR/NAVAF—SIXTH Fleet Command Relationships





NAVEUR/NAF—SIXTH Fleet Who We Are

- **Nature of our Work has changed**
 - **Command Mission has evolved requiring agile balancing of effort between Theater Security Cooperation and Operations**

TSC

International
Military Partnering

Africa Partnership
Station

Africa Maritime Law
Enforcement
Program

Eurasia Maritime
Partnership

Operations

Ballistic Missile
Defense

Counter Terrorism
Ops

Theater ASW

Time Sensitive
Targeting

Maritime
Interception Ops

Contingency Ops





Maritime CHALLENGES

Sea-Blindness



Ballistic Missile Defense



Piracy



Increased ASW Requirements



Narcotics and Illicit Trafficking



NATO-EU Resource Competition



Lack of Regional Cooperation



Cyber Threats





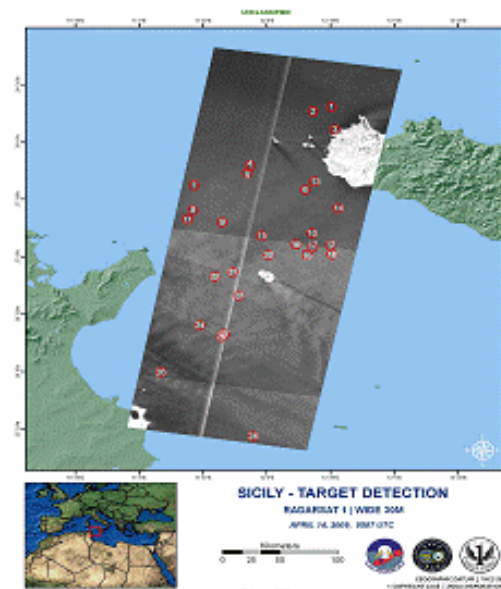
Shortfall: Maritime Domain Awareness in support of NAVEUR / NAVAF

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MDA: degrees of understanding in support of all mission areas

- **Informing the Commander's decision cycle**
 - Timely integration of commercial space based imagery into COP
 - Taskable by the operational Commander
 - Responsive to operational timelines
 - Shareable with international / interagency partners
 - Integration of Intelligent Agent technologies (threat evaluation, anomaly detection)
 - Computer Aided Maritime Threat Evaluation System (CAMTES): unclassified / shareable output
 - Automated data fusion (multi-source, cross security domain)



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Shortfall: Maritime Domain Awareness in support of MSS

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MDA: also an essential element in achieving maritime governance

- **Building partner capacity and capability**

- Cross security domain info transfer to facilitate sharing
 - Multiple data types, automated processing
- MDA systems tailored to meet “-ility” conditions in fielded locations
 - Including sustainment methodology
- Non-classified networks to facilitate sharing
 - MSSIS (international, inter-agency AIS)
 - Non-Classified Enclave (shipboard ad-hoc network)
 - SHADE-T / Mercury (coalition COP)

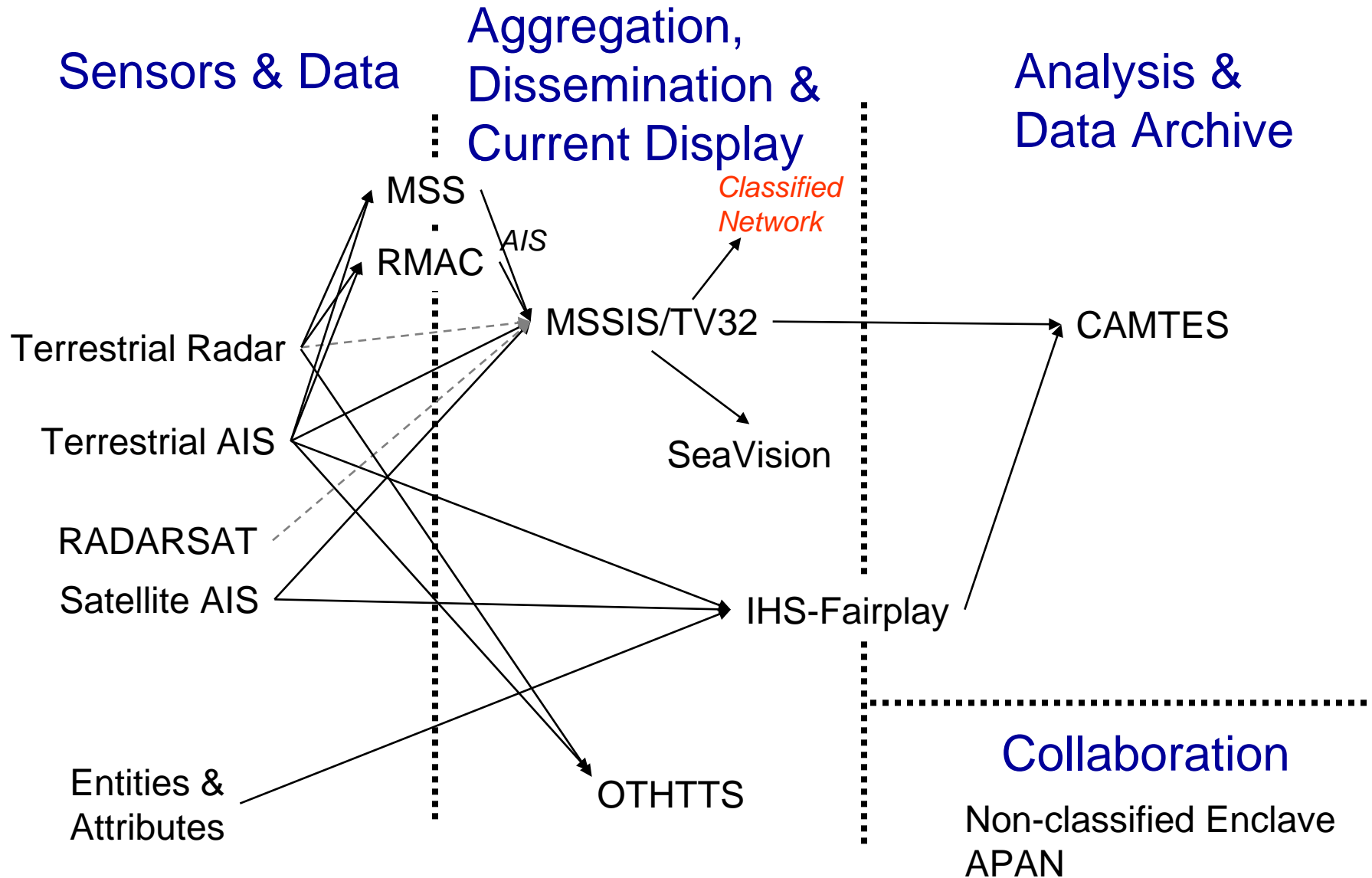


Elements of NAVEUR / NAVAF Maritime Governance Model

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C6F MDA Systems-of-Systems





Shortfalls: ASW, NATO Interop, FP

- **Theater Anti-Submarine (ASW)**
 - Conducted in conjunction with our Allies
- **NATO Interoperability**
 - SIXTH Fleet / NATO Undersea Research Center (NURC) technical exchange
 - Operational demonstration / experimentation with NURC technologies: MDA/MSA, ASW, Force/Harbor Protection
- **Force Protection**
 - Integrated, deployable systems for ships at anchor or at pier
 - Unambiguous warning and non-lethal capabilities

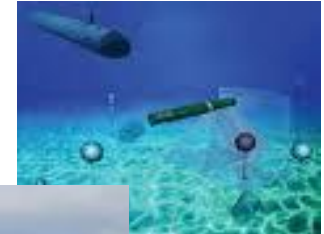




Shortfall: UxV, Network Defense

- **Unmanned Systems in support of NAVEUR / NAVAF**

- Maritime missions that may benefit (ISR, MCM, ASW)
- Resourcing for platforms limited



- **Network Defense**

- Robustness
- Tools for Fleet use
- Graceful degradation of network capabilities





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Questions?



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