

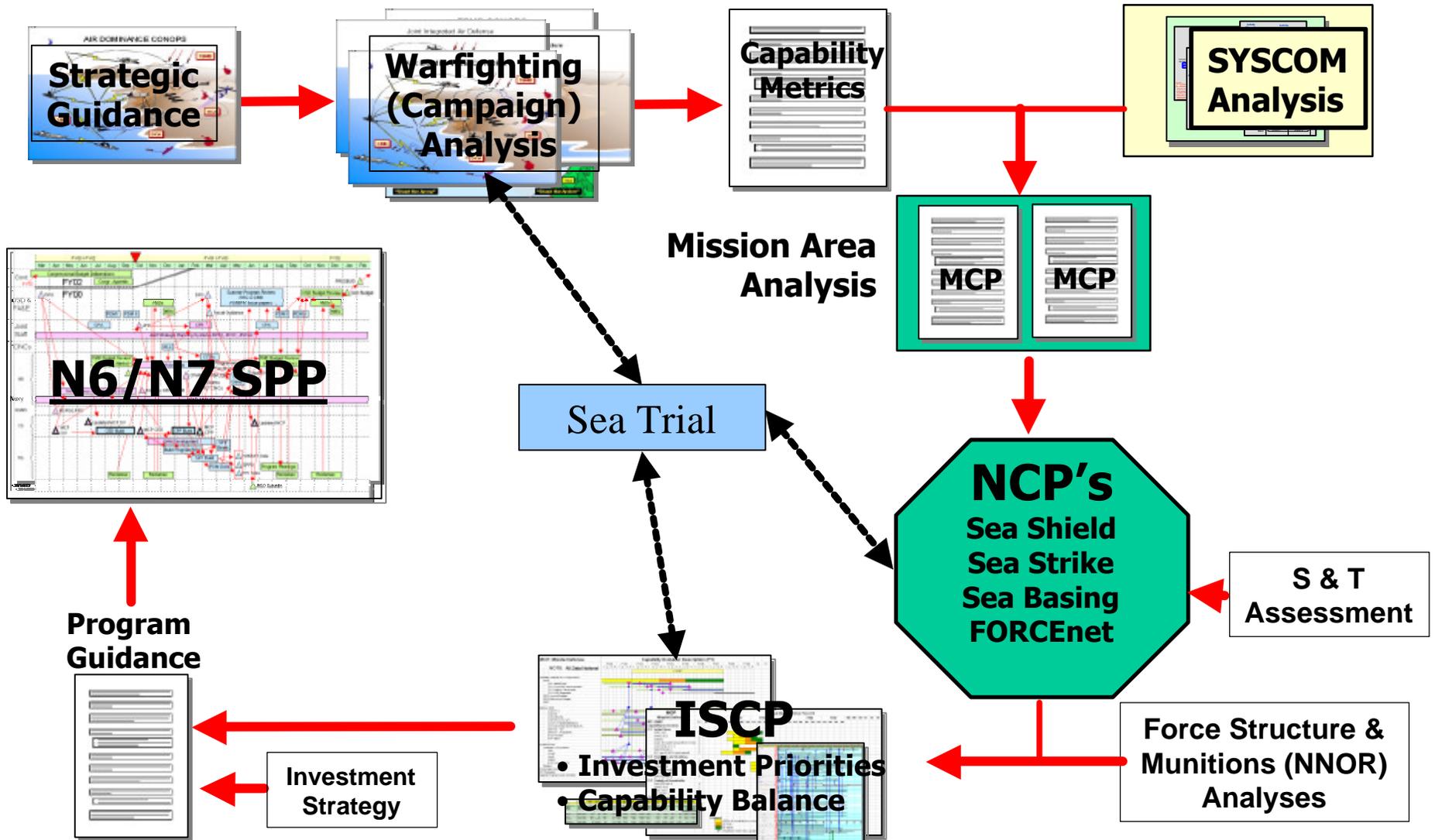


FORCEnet POM 06 Process

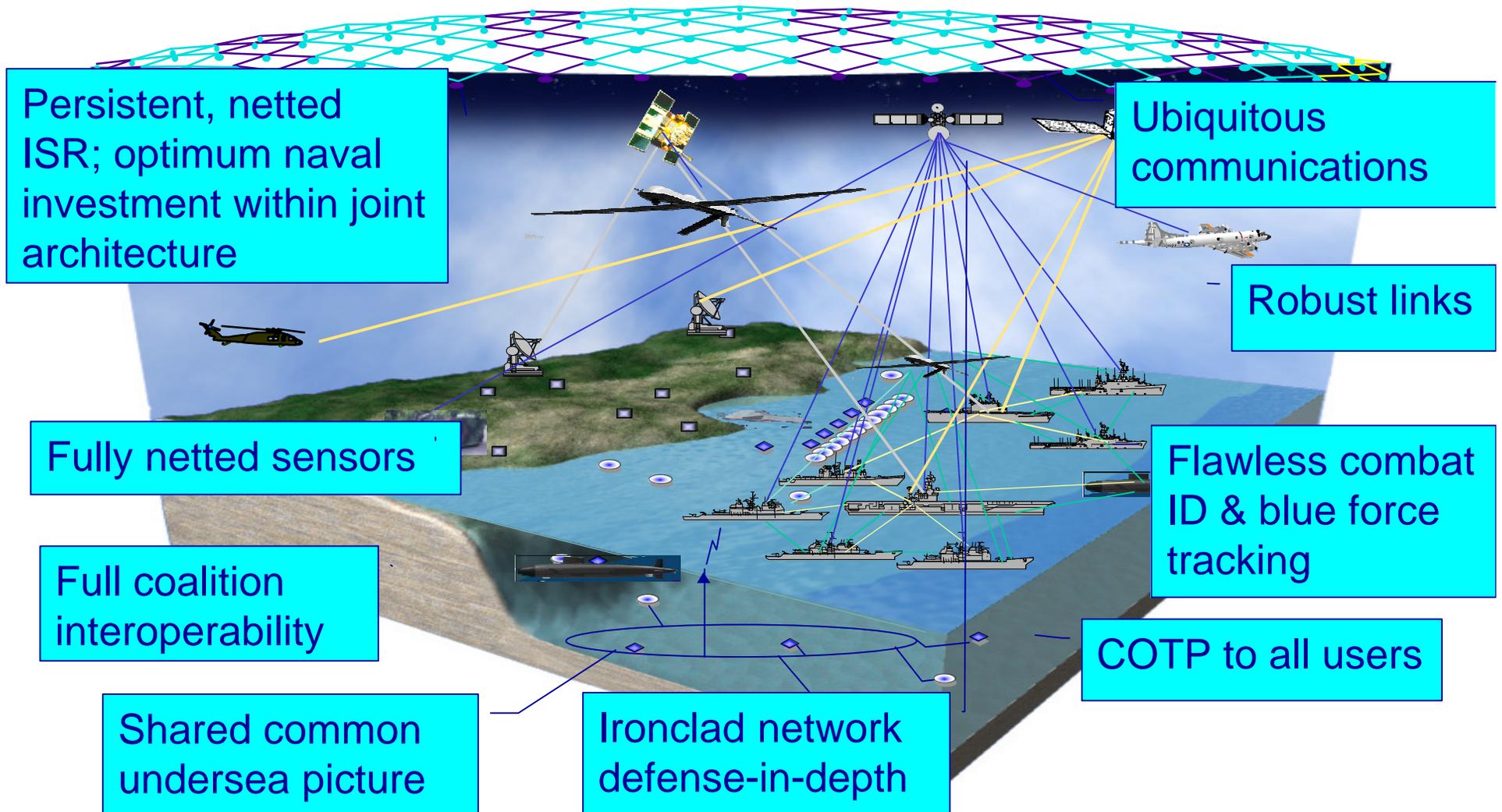
RADM Thomas E. Zelibor, USN
Space, Information Warfare, Command
and Control (N61)
23 OCT 2003



POM-06 Process

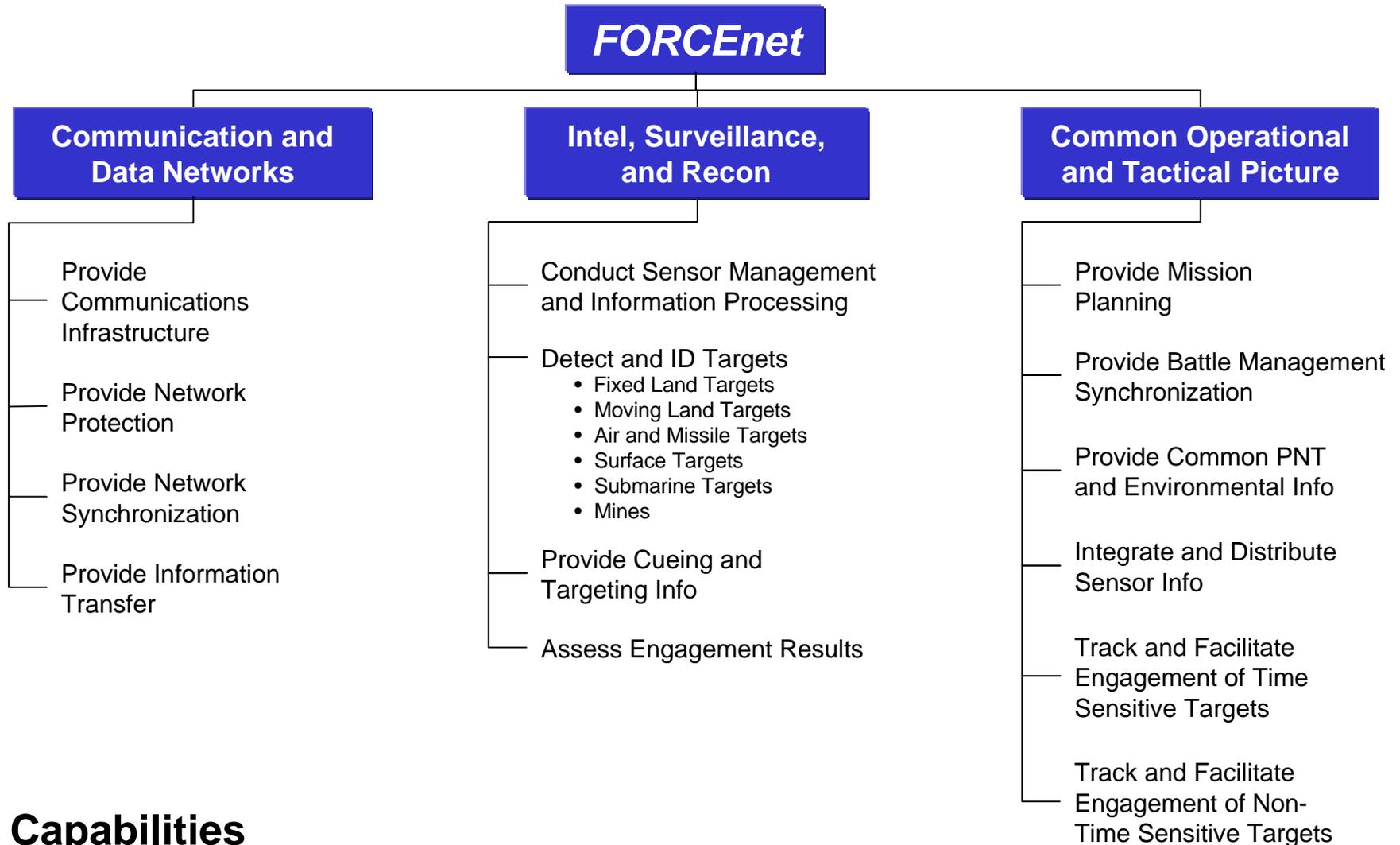


FORCEnet Capabilities Enabling Seapower 21



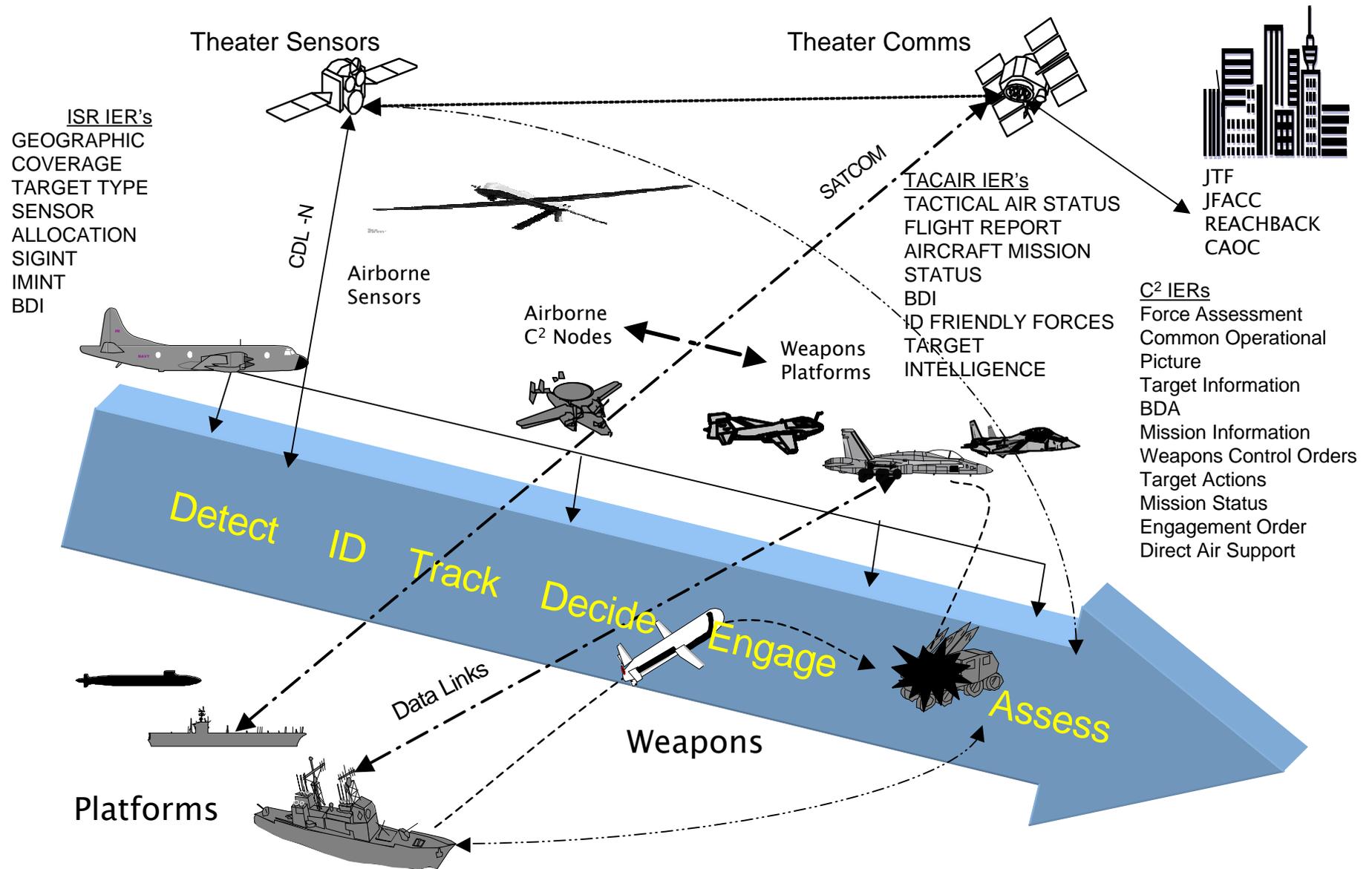


FORCEnet Mission Capability Packages



19 Capabilities

FORCEnet for the Warfighter





Sources of Analysis

No single model provides all the answers

Techniques Used

Attributes

- **OIF / OEF Lessons Learned**

- *Data derived from real world stressors on the full range of C4ISR*

- Performance of fielded systems assessed during maximum stress of combat
- Tactics, training and procedural shortfalls highlighted for correction

- **Campaign Level Modeling**

- *Using N816 NE Asia scenario in ITEM, COSMOS, NSS, and GCAM*

- First-ever modeling of C4ISR and interdependencies of other warfare pillars

- **Wargaming**

- *Sea Shield and FORCEnet war games at the Naval War College*
 - *FORCEnet Information Assurance / Computer Network Defense war game*

- Interactions and feedback with other pillars
- Provides operator input to analysis
- Un-scripted game play with unexpected enemy actions in the info assurance / computer network defense war game

- **SYSCOM Program Assessment**

- *Highlights programmatic, interoperability and redundancy risks*

- Provides programmatic health assessment
- Technical analysis of interoperability

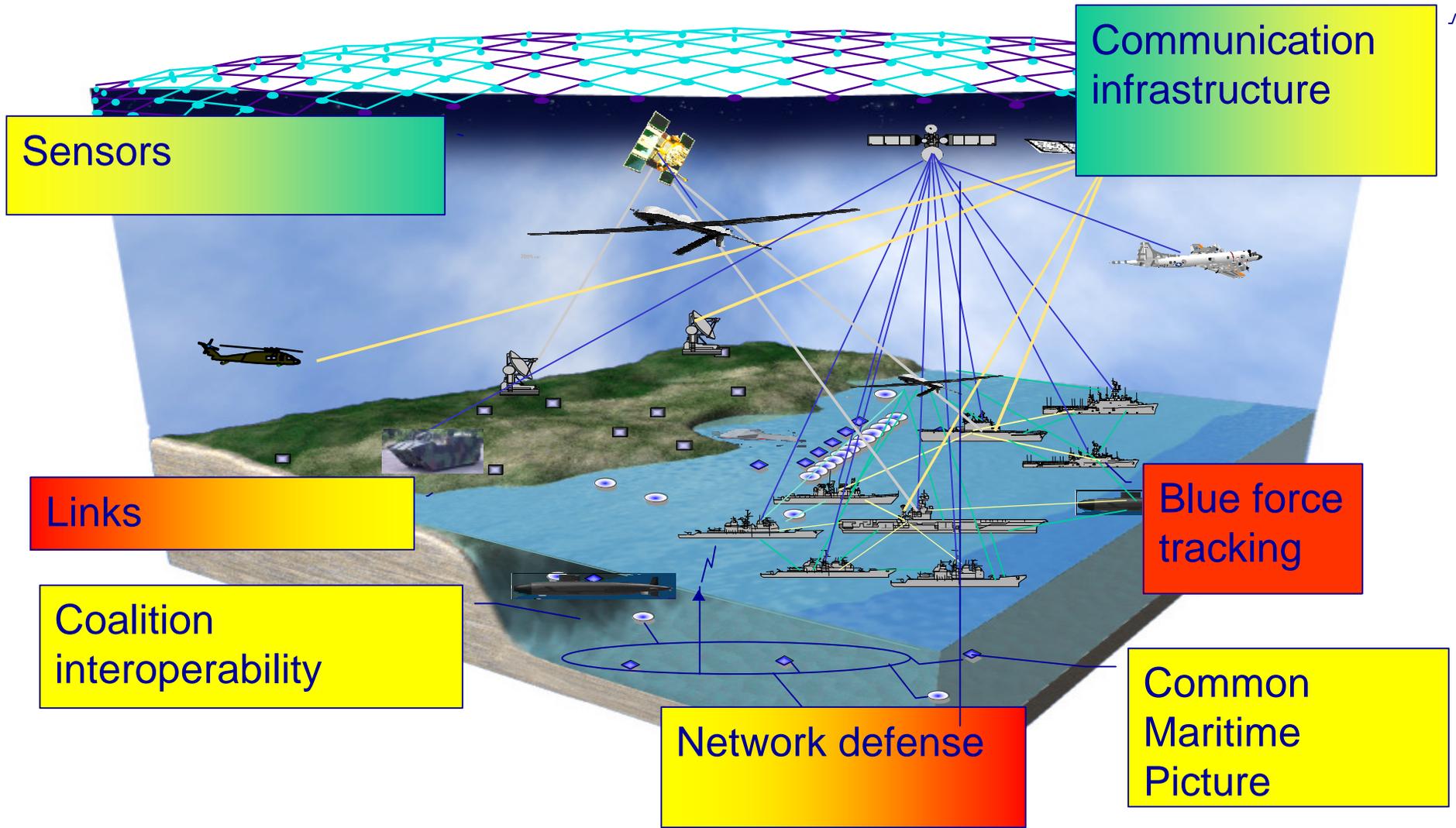


Sea Trial

- FORCEnet Trident Warrior IPD assessed:
 - Dynamic bandwidth management
 - Army, Navy, Marine Corps Fires interoperability
 - Inter Battle Group Wireless Network (LOS Data Transfer)
- MIT Lincoln Lab Giant Shadow LOE to examine:
 - Covert ISR and strike from SSGN
 - C4ISR metric analysis and process
- CNA Data Collection and Analysis:
 - Bandwidth efficiency monitoring
 - System reliability and performance
- Demonstrations- Gov't and Industry
- Networked Labs and Test Facilities

Sea Trial events don't have to be at sea.

FORCEnet Analytic Results

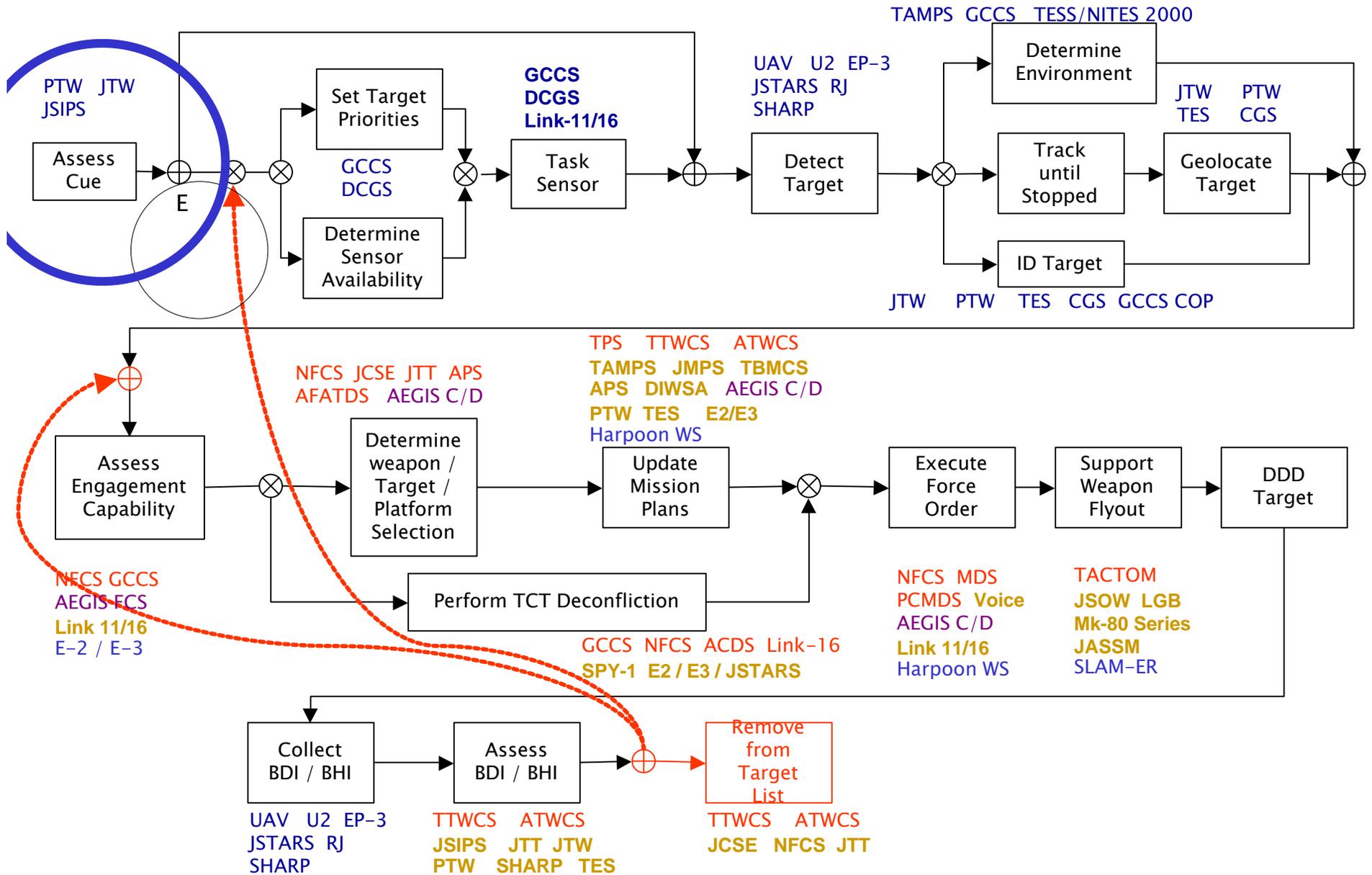


(Displayed results are for demonstration purposes only)



Identify Gaps or Weaknesses

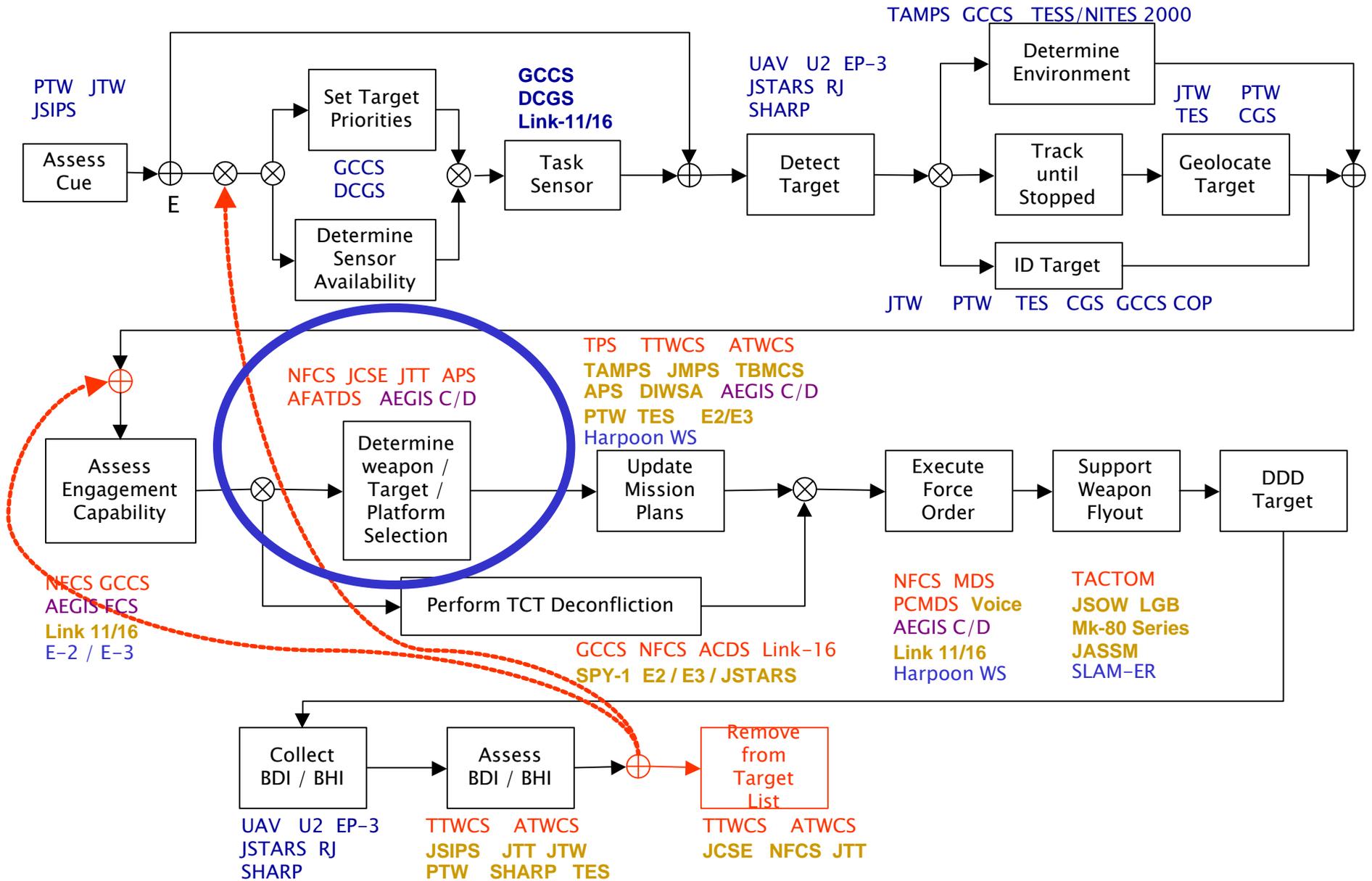
Detect → ID → Track → Decide → Engage → Assess





Combine Capability

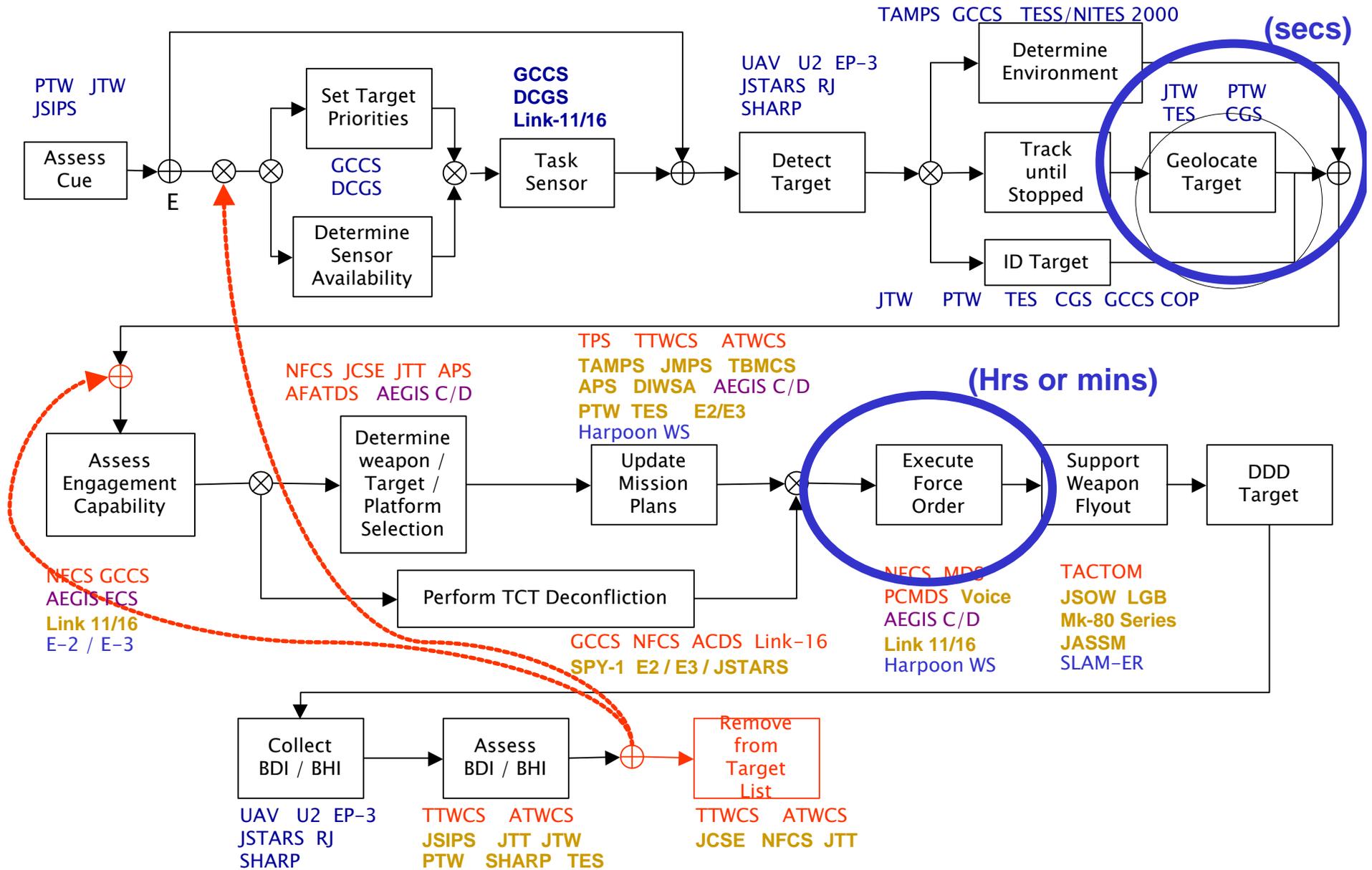
Detect → ID → Track → **Decide** → Engage → Assess





Synchronize P3I

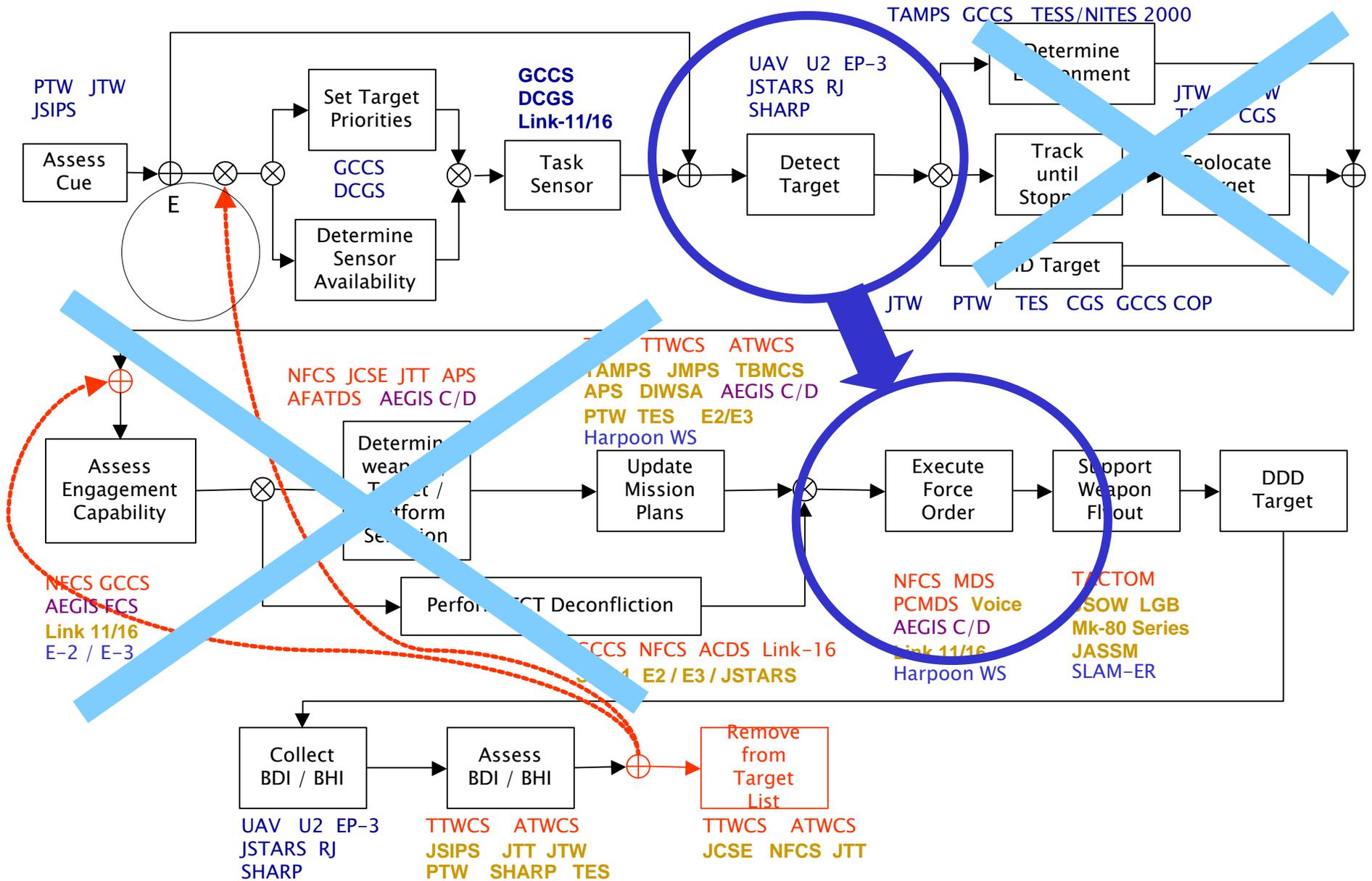
Detect → ID → Track → **Decide** → Engage → Assess





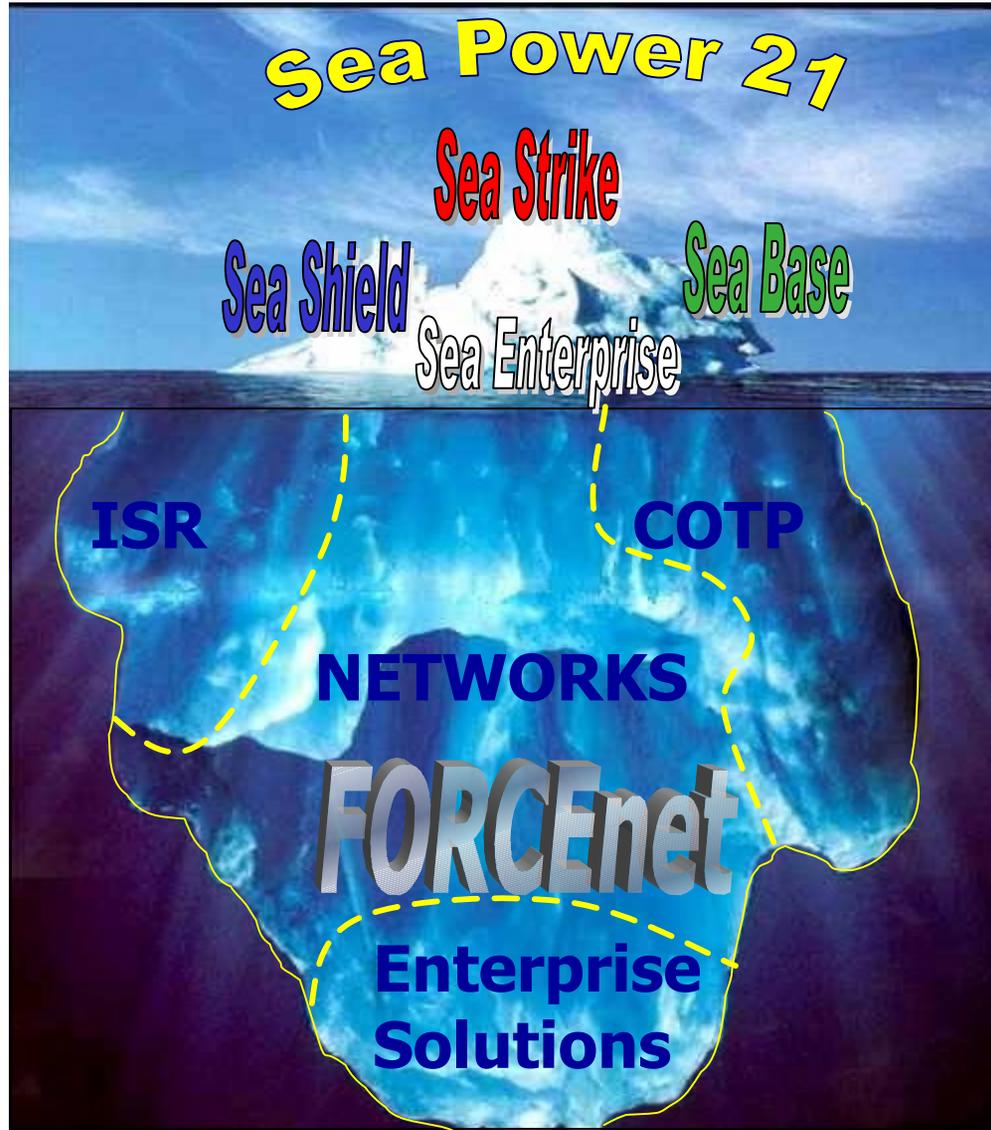
Eliminate Steps

Detect → ID → Track → Decide → Engage → Assess





Invisible Below the Waterline





Enterprise Solutions

- Enterprise Services
- Application Reduction
- Data Standards
- Interoperability
- Enterprise Network Management
- Server Consolidation
- Authoritative Databases
- Collaboration/Content Management



External Demands

As Is

- **OSD dictates policies**
- **Other services drive solutions**
- **Agencies impose standards & limits**

2012

- **FORCEnet key driver in policy**
- **All services share in many costs**
- **Maritime concerns incorporated in all Joint solutions**

- OSD special interest issues
 - Data Standards
 - Enterprise Standards
- JFCOM – MID 912
- Joint Staff special interest:
 - All COCOM C4 support
- NSA: Crypto / Network security
- International forums:
 - Frequency spectrum allocation
 - Coalition demands

- National Security Space:
 - Influence space systems & architectures
 - Prepare Navy platforms
- Navy / AF C4ISR integration talks
- Fleet Response Program
- Reduced manning
- Increased use of reachback
- Coalition Interoperability



The New Focus

- Open Architecture
 - Non-Proprietary code
 - Plug and play applications and hardware
 - Maximum use of COTS and International Standards
- Joint Solutions
- Platform independent capabilities
- Enterprise Solutions
- Network Defense
- Distributed Services
- IP-based
 - IPv6
- Focus S&T on gaps
- Rapid transition strategy for legacy systems
- End to end testing
- End to end capability improvements



Questions?