



Final Presentation for the Implication of FORCEnet on Coalition Forces

October 25, 2006

Port Hueneme – COHORT 4

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Agenda



- Purpose
- Schedule
- Scenario
- Modeling and Simulation
- Financial Analysis
- Conclusion

Supporting Information from previous IPR presentations are available upon request.– Scenario, Flow and Entity Diagrams, Notional Formations, Detection Analysis, SV Diagrams.



Purpose



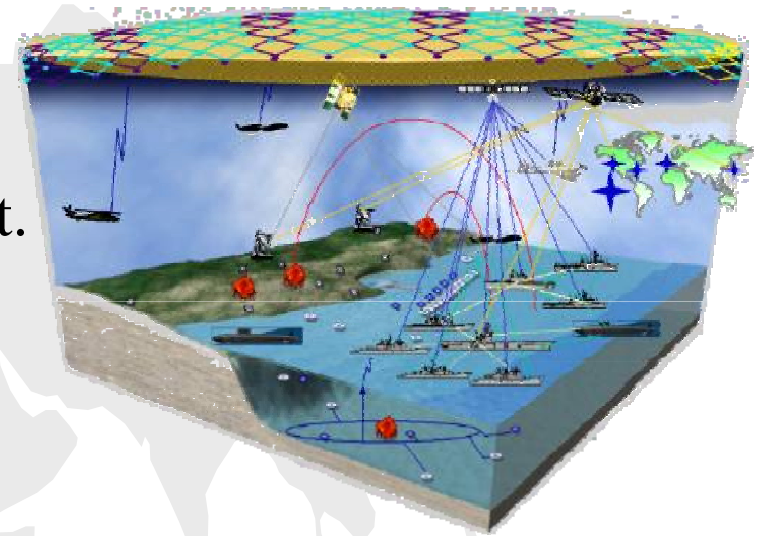
- The purpose of this presentation is to report the PHD Cohort #4 group analysis of the Implication of FORCENet on Coalition Forces.



Project Objectives



- To provide analysis and guidance on the technical requirements for coalition maritime warfare interoperability in a FORCENet construct.
- Develop a high level system architecture to accomplish maritime coalition littoral warfare operations.
- Assess the incremental value of higher levels of FORCENet interoperability (not fully networked to 100%)
- If it is determined that FORCENet is a “good thing” to implement with coalition navies, then determine what is the cost of entry into the USN version of Network-Centric Warfare.

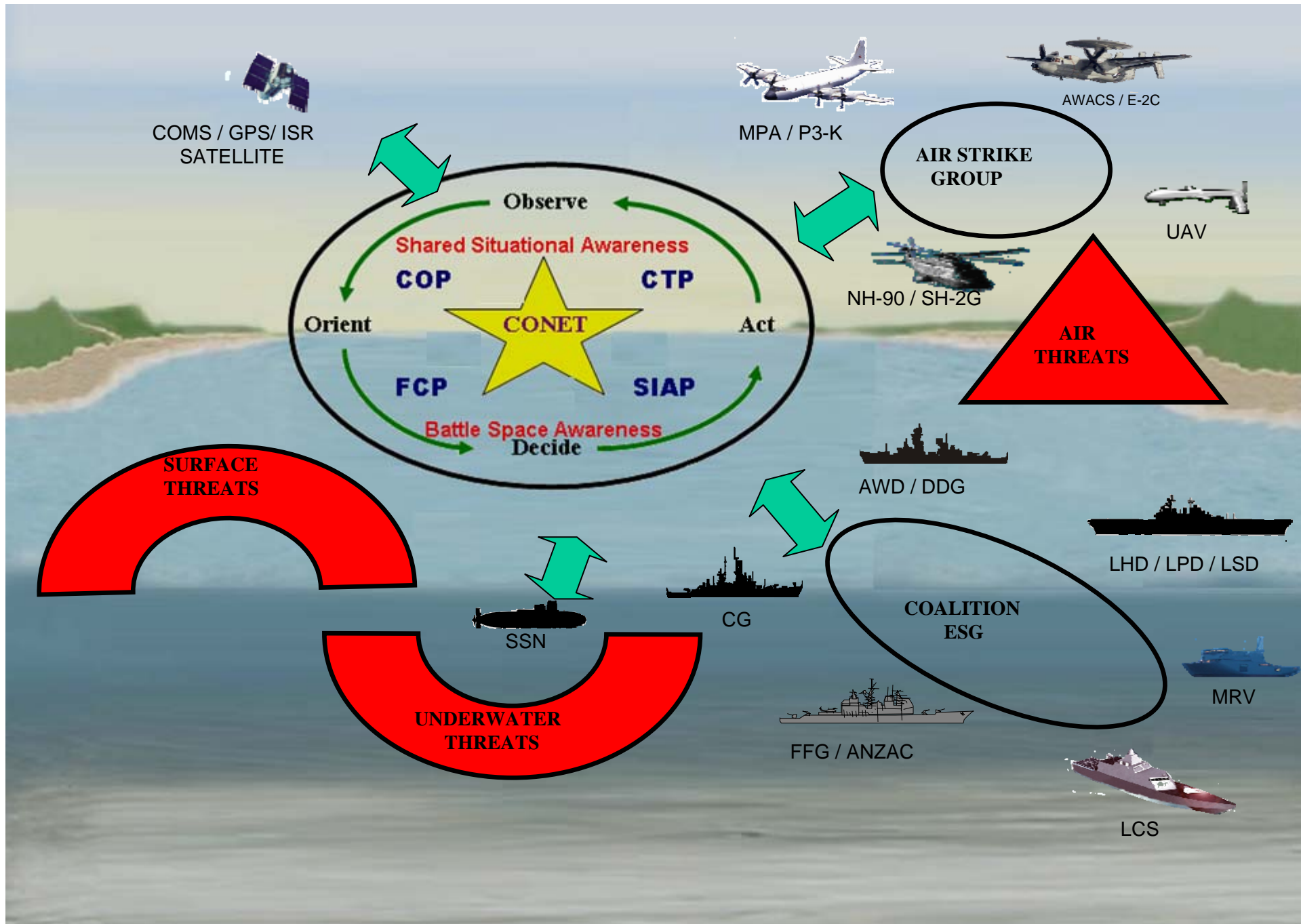




Schedule



- Project Plan ✓
- Initial Capabilities Document (ICD) ✓
- Architecture Framework ✓
- Modeling & Simulation ✓
- Financial Analysis ✓
- Capability Development Document ✓





Modeling and Simulation

What did we consider and what were the results?



Assets Available



Non-Organic & Organic Assets
Active / Passive
Space / Air / Surface / Sub-Surface

Model snapshots shown here were accomplished using AGI software



Financial Analysis

What did we consider and what were the results?



Financial Analysis Assumptions



- The dollar amount assigned to each element in the cost model is based on information gathered from comparable systems.
- Procurement Cost includes:
 - System Integration Cost (R&D)
 - Acquisition Cost
 - Installation Cost
 - Initial Training Cost
 - Cost of Initial Spares
 - Administrative and Logistics Cost
- Operation & Support Cost includes:
 - Ongoing Technical Support Cost
 - Cost of Replenishment and Spare Parts



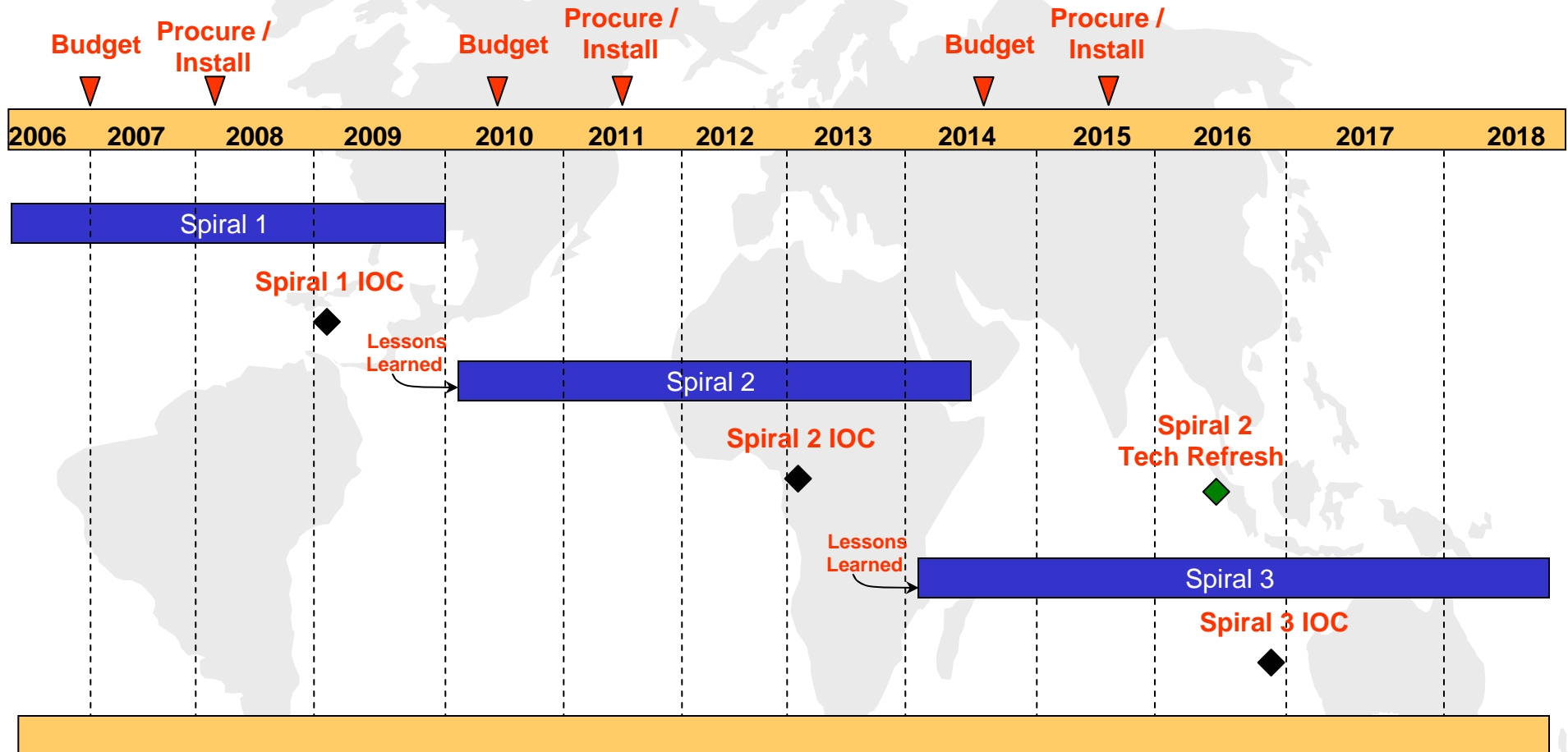
Coalition FORCEnet Fielding Plans



- FORCEnet Level I
 - Spiral 1 Acquisition (Command & Control) (FY2006)
- FORCEnet Level II
 - Spiral 1 Acquisition (Command & Control) (FY2006)
 - Spiral 2 Acquisition (Enhanced Tactical Data Capability) (FY2010)
- FORCEnet Level IV
 - Spiral 1 Acquisition (Command & Control) (FY2006)
 - Spiral 2 Acquisition (Enhanced Tactical Data Capability) (FY2010)
 - Spiral 3 Acquisition (Shared Engagement Capability) (FY2014)



Program Implementation



Spiral 1 = Basic IP Based C2 Integration

Spiral 2 = Enhanced Comms / Enhanced Tactical Data Capability

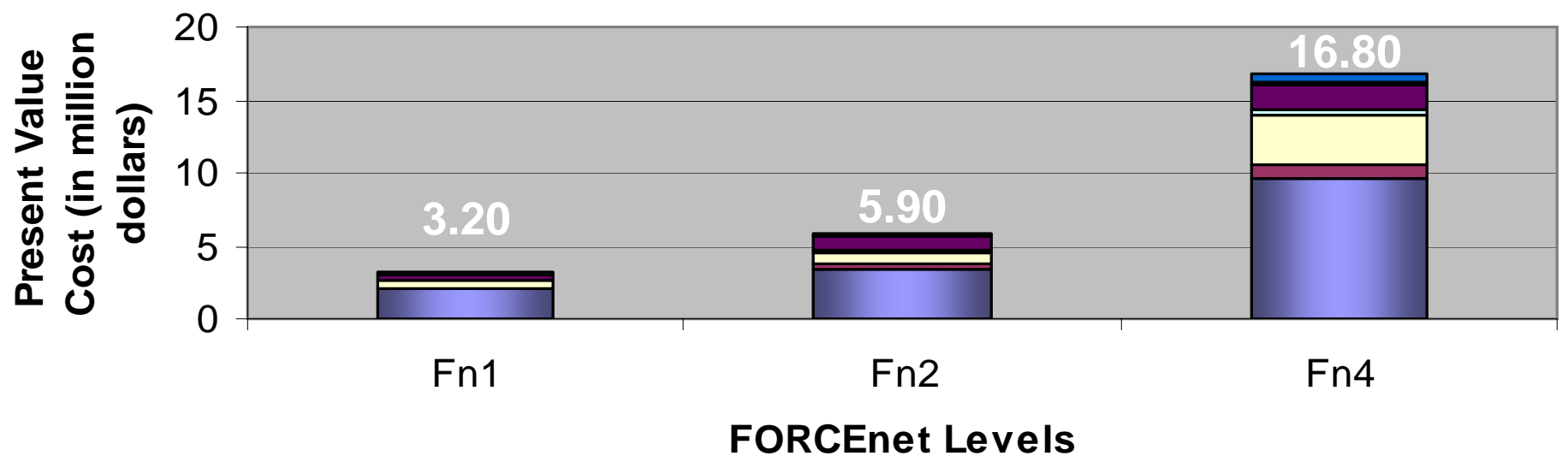
Spiral 3 = Enhanced Network / Shared Engagement Capability



Procurement Costs



Procurement Cost of FORCEnet Levels



- Integration
- Software
- Hardware
- Admin & Logistics
- Installation
- Initial Training
- Initial Spares

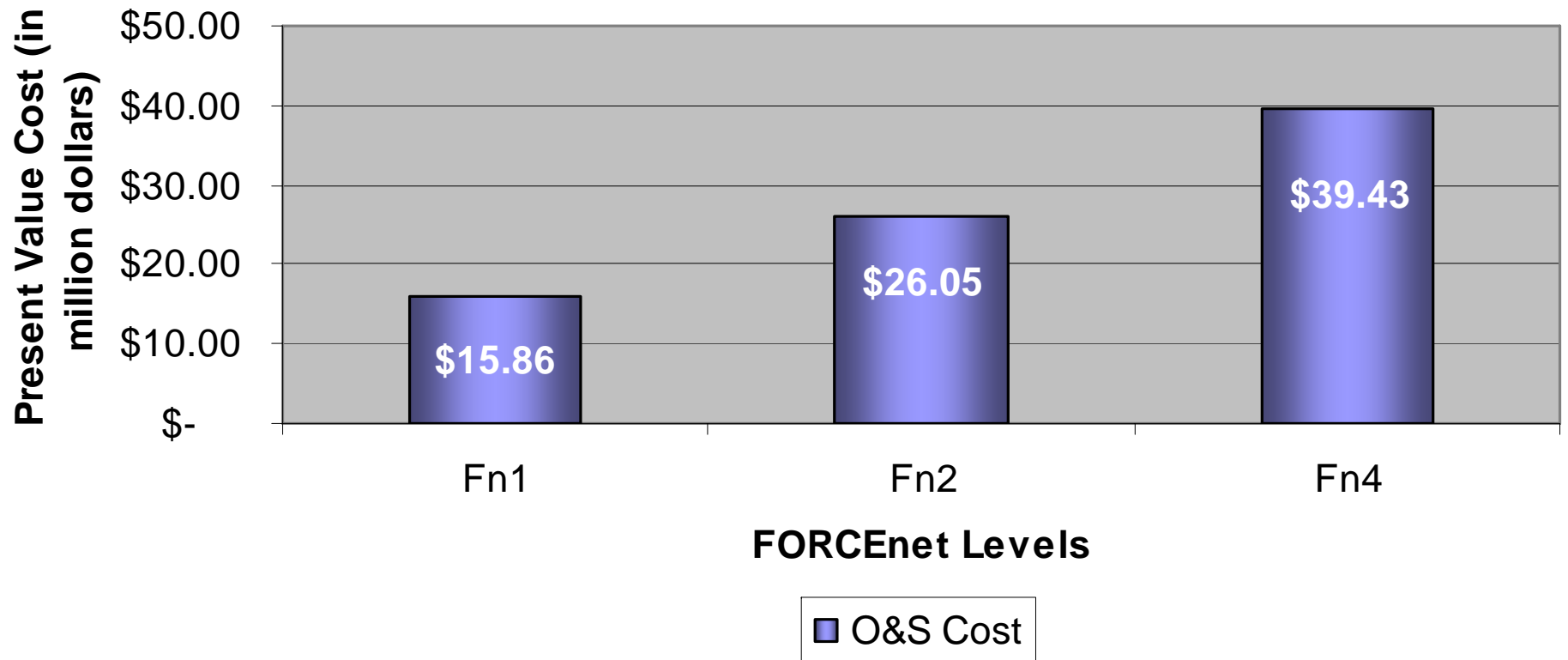
Note: Costs are estimated based upon existing systems historical costs. Costs are per ship.



O&S Costs



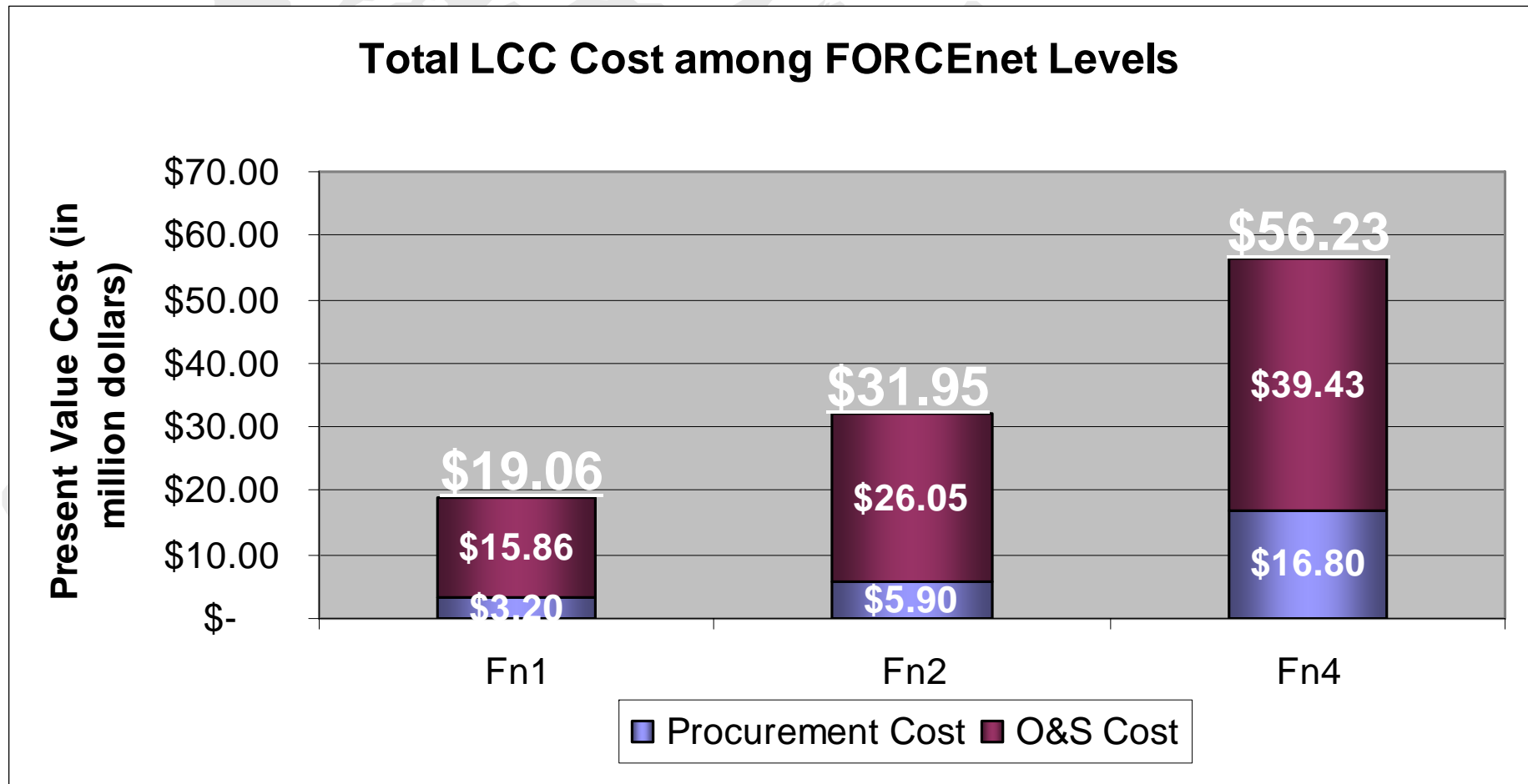
O&S Cost among FORCEnet Levels



Note: Costs are estimated based upon existing systems historical costs. Costs are per ship over 20 years.



Total LCC Costs



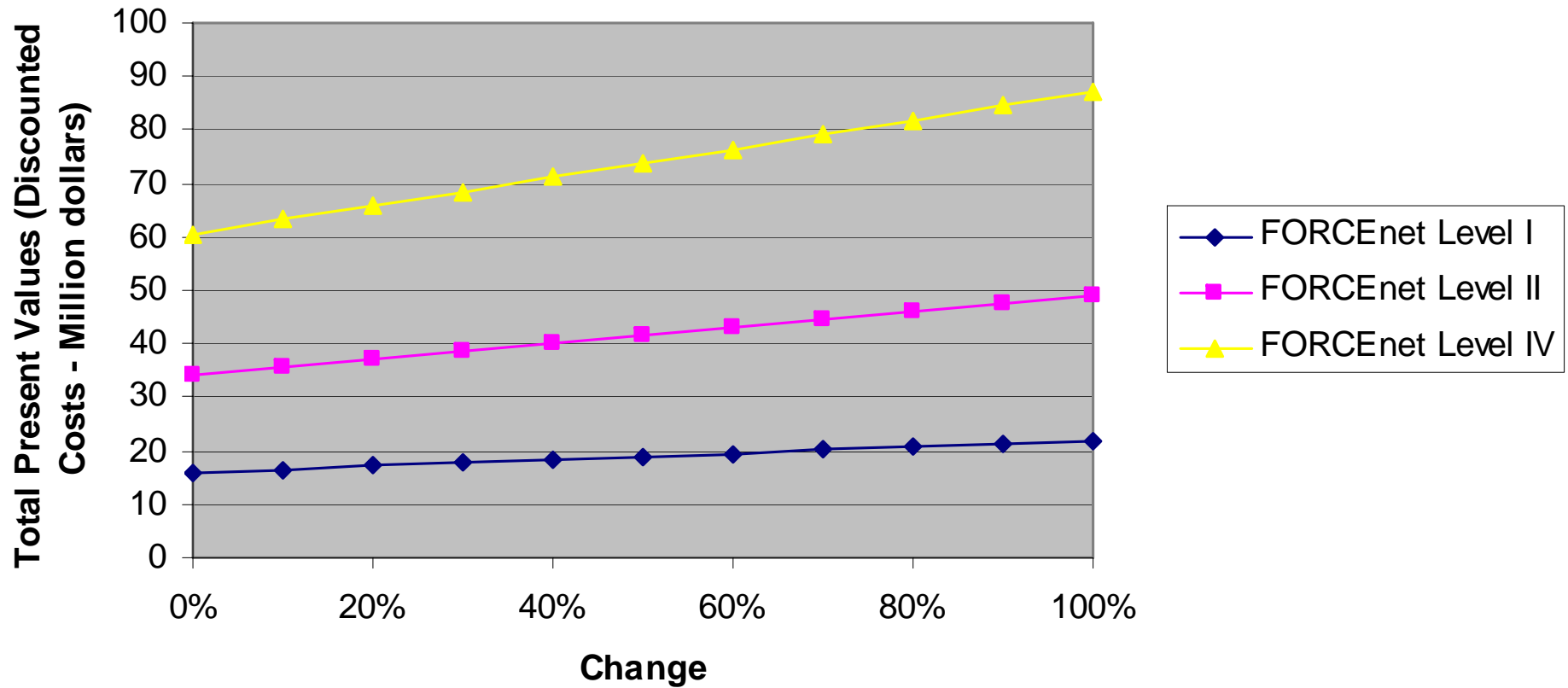
Note: Costs are estimated based upon existing systems historical costs. Costs are per ship over 20 years.



Sensitivity Analysis



O & S Costs (year 11 - 20 / 2016 - 2025) Sensitivity





Conclusion



Conclusion



- FORCEnet Level 4 provides the higher performance
- FORCEnet Level 4 associated costs are higher
- FORCEnet Level 2 provides comparable performance levels at ~ 40% less cost than FORCEnet Level 4.