



Expeditionary Logistics Component

Littoral Combat and Power Projection FNC

ONR Technology Baseline

HiCASS Industry Day

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Technology Readiness Level

DOD 5000.2-R Appendix A6-4



- SYSTEM QUALIFICATION
- SYSTEM/SUBSYSTEM DEVELOPMENT
- TECHNOLOGY DEMONSTRATION
- TECHNOLOGY DEVELOPMENT
- RESEARCH TO PROVE FEASIBILITY
- BASIC TECHNOLOGY RESEARCH

9	Actual Application of the Technology in It's Final Form and Under Mission Conditions.
8	Technology Has Been Proven to Work in It's Final Form and Under Expected Conditions.
7	Prototype Near or at Planned Operational System. Major Step From Level 6, Requiring the Demonstration of an Actual Prototype in an Operational Environment.
6	Representative Model or Prototype System, Which Is Well Beyond the Breadboard Tested in Level 5 Is Tested in a Relevant Environment
5	Fidelity of Breadboard Technology Increases Significantly Enough to Justify Being Ready for Testing in a Simulated Environment
4	Basic Technology Components Are Integrated to Establish That the Pieces Will Work Together.
3	Active Research and Development Is Initiated. This Includes Analytical and Laboratory Studies to Physically Validate Analytical Predictions of Separate Elements of Technology.
2	Invention Begins. Once Basic Principles Are Observed, Practical Applications Can Be Invented. The Application Is Speculative and There Is No Proof of Detailed Analysis to Support the Assumption.
1	Lowest Level of Technology Readiness. Scientific Research Begins to Be Translated Into Technology's Basic Properties.



Technology Readiness Level



F
N
C

9	<u>Actual system</u> proven through successful <u>mission operations</u>.
8	<u>Actual system</u> completed and qualified through <u>test and demonstration</u>.
7	<u>System prototype</u> demonstration in an <u>operational environment</u>.
6	<u>System/Subsystem model or prototype</u> demonstration in a <u>relevant environment</u>.
5	<u>Component and/or Breadboard</u> validation in a <u>relevant environment</u>.
4	<u>Component and/or Breadboard</u> validation in <u>laboratory environment</u>.
3	<u>Analytical and experimental</u> critical function or characteristic <u>proof of concept</u>.
2	<u>Technology concept</u> and/or application <u>formulated</u>.
1	<u>Basic principals</u> observed and <u>reported</u>.



ONR's Role in Naval Logistics



- Identify and mature new technology that can be integrated into (or replace) current logistics systems or equipment
- Cannot develop “prototypes”, but must develop systems necessary to demonstrate the technology contextually
- ONR cannot perform engineering design development of the production system
- The investment focus is on the technology, not the system – if the demo system is too expensive, the value of the investment is diluted



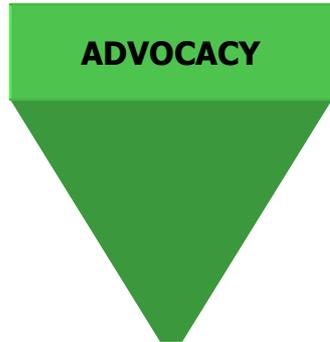
PROGRAMMATIC RELATIONSHIPS



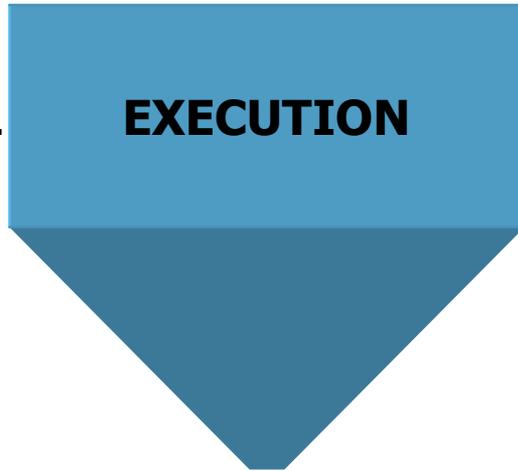
OPNAV & HQMC

ONR

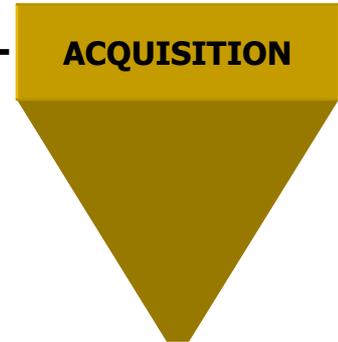
PEO Ships
PEO Carriers



ADVOCACY



EXECUTION



ACQUISITION

IDENTIFY
REQUIREMENTS

DEVELOP, DEMO AND
TRANSITION SCIENCE
& TECHNOLOGY

PROCURE, FIELD &
SUPPORT NEW CAPABILITIES

Operational Forces



TRANSITION TO ACQUISITION



Transition to acquisition is the ultimate objective of the FNC.

Transition to acquisition translates into a fielded capability to the operational forces.

Factors that influence transition include affordability/POM, architecture, interoperability, vulnerability, modularity, etc.

Transition Target Types:

MPF (F)

Combat Logistics Force (CLF)



	Exit Criteria	UNITS	Threshold	Goal	How Measured?	
At Sea Transfer	Target Impact					
	Target Alignment at Touchdown					
	Max Load Capacity					
	Throughput Capacity					
	Sea State Capability					
	System Weight					
	System Power Consumption					
Station Keeping	Relative Position Accuracy					
	Ship Response Time					
	Relative Velocity Accuracy					



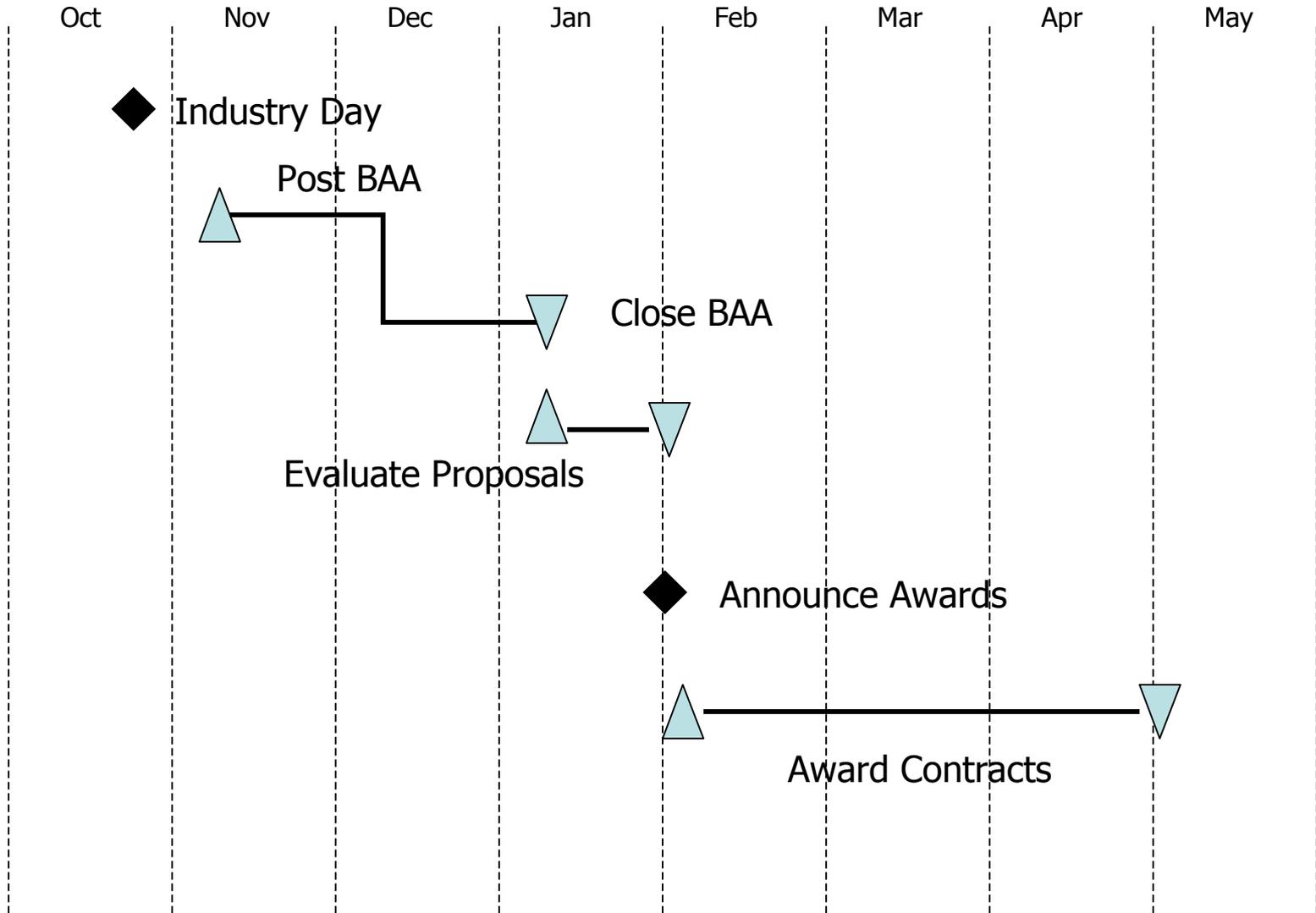
ACQUISITION PLAN / CONTRACT OVERVIEW



- **BAA Solicitation targeted for release- 14 NOV 2003**
 - <http://www.onr.navy.mil/02/baa>
 - **Subject to Full and Open Competition**
- **Three awardees anticipated from BAA**
 - **Target awards by end of April 2004**
 - **Approx. \$3M anticipated for all awards**
 - **6-month awards with demo, tech report and analyses deliverables**
- **Follow-On RFP targeted for release in late CY04**
 - **Shall be subject to Full and Open Competition**
 - **Target one award in FY05**
 - **Approx. \$20M anticipated over multi-year period**
 - **Shall pursue demos, integration and transfer of HiCASS system and capability**



POA&M LEADING UP THROUGH CONTRACT AWARD





S&T Program Review



FNC Product Line/Product Title: HiCASS

Presenter: Edward Crawford / Code 36A/ Technical Manager

Contributors: Andrew Kondracki/ Code 36A/ Distribution Team Coordinator

Fiscal

Summary	FY02	FY03	FY04	FY05	FY06	FY07
D&I	\$0	\$0	\$0	\$0	\$0	\$0
E&D (non-FNC)	\$0	\$0	\$0	\$0	\$0	\$0
FNC HvyUNREP	\$4000	\$6210	\$0	\$0	\$0	\$0
FNC HiCASS	\$1000	\$2170	\$5313	\$6723	\$12181	\$11556
Other funds	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$5000	\$8380	\$5313	\$6723	\$12181	\$11556

ONR Taxonomy map: (Research Area(s)/Thrust(s) as reported for the IBR)