Presented to:
14th Annual Machinery Marketing Conference

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Program Manager
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Agenda

- Background
- Requirements
- Acquisition Strategy
- Point Design
- Additional Program Information
Concept of Operations
Logistics Support For Operations In Littoral Areas
Concept of Operations
Three Stage Logistics Support Train

1st STAGE
Merchant Shipping
- Cargo
- Tankers

Forward Bases

2ND STAGE
Shuttle Ships
- Oilers
- Ammunition Ships
- Stores Ships

3RD STAGE
Station Ship
- Fast Combat Support Ship

Battle Group or Amphibious Ready Group

T-ADC(X)
Concept of Operations
Traditional CVBG Resupply

Station Ship / Shuttle Ship CONOPS

Resupply port

Shuttle Ships
• T-AO
• T-AE
• T-AFS

Station Ships
• AOE-1
• AOE-6

CVBG
Concept of Operations
Combat Logistics Force (CLF)

- Station Ships (AOE)
  - In-Theater Resupply
  - Operate With Battle Group
  - Military Crews
Concept of Operations
Combat Logistics Force (CLF)

- Shuttles (TAE, TAFS, TAO)
  - Resupply Station Ships
  - Shuttle From Forward/Theater Ports
  - Civilian Crews & Military Dets (T-Ships)
The Combat Logistics Force
Fast Combat Support Ships (AOE)

- Cargo Capacity:
  - 156,000 bbls Fuel
  - 1,800 tons Ammo
  - 650 tons Stores
- Length: 754 feet
- Beam: 107 feet
- Speed: 25 knots
- Aircraft: 2 CH-46Ds
- Crew: 25 Officers
  - 470 Enlisted
The Combat Logistics Force
Ammunition Ships (TAE)

- Cargo Capacity: 5,500 tons Ammo
- Length: 564 feet
- Beam: 81 feet
- Speed: 20 knots
- Aircraft: 2 CH-46Ds
- Crew: 125 Civilians
  24 Military
The Combat Logistics Force
Combat Stores Ships (TAFS)

• Cargo Capacity: 3,925 tons Stores
• Length: 581 feet
• Beam: 79 feet
• Speed: 20 knots
• Aircraft: 2 CH-46Ds
• Crew: 124 Civilians
  48 Military
The Combat Logistics Force
Fleet Oilers (TAO)

TAO
- Cargo Capacity: 159,500 bbls Fuel
- Length: 677 feet
- Beam: 97 feet
- Speed: 20 knots
- Crew:
  - 85 Civilians
  - 23 Military
Problem: AOE-1/Stores/Ammo Ships Reaching End of 35 Year Service Lives

Solution: T-ADC(X)
Requirement
AoA Findings

Current Fleet → CLF Recapitalization Plan → Recapitalized Fleet

32 Ships
13 T-AO
4 AOE-1 and 4 AOE-6
1 AE + 4 TAE
6 TAFS

15 T-AO
4 AOE-6
12 T-ADC(X)

Number of Ships

1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010

BUDGETED EXTENSIONS

TAFS

AOE-1

AE/TAE

TADC(X)
Shipbuilding Profile

CY00  CY 01  CY 02  CY 03  CY 04  CY 05
T-ADC(X) Mission

**Primary Mission**
- Deliver Steady Stream of Ammunition and Stores
- In Its Shuttle Role - Provide Logistics Lift Capability

**Secondary Mission**
- Perform Substitute Station Ship Role in Company W/ T-AO
T-ADC(X)
Shuttle/Substitute Station Ship
Station Ship / Shuttle Ship CONOPS

Resupply Port

Shuttle Ships
• T-AO
• T-ADC(X)

Substitute Station Ship
• T-AO
• T-ADC(X)

Station Ship
• AOE-6

CVBG
Operational Requirements

• Commercially designed and constructed - ABS/USCG/SOLAS
• Full AFS or AE loadout (or 60% of each) plus 18K bbls cargo oil
• Simultaneous Operations from 5 transfer stations
• Mobility
  – Sustained Speed 20 kts, Endurance 14,000 NM @ 20 kts
• Limitations
  – 210 m LOA, Panamax Beam, 9.5 m full load draft, 41 m air draft
• Navy Standard Underway Replenishment Equipment
• Two H-46D/H-60 Helos Hangared
Requirements in Excess of Commercial Practice

- Shock resistance for firefighting, exterior comms and damage control equipment.
- Weather Deck washdown, DECON Station and protective clothing.
- Degaussing System & NIXIE
- T-ship Damage Control and Management System
- Navy Aviation Facilities
- Navy Exterior Communications
T-ADC(X) Acquisition
Key Features

• Commercial Ship Acquisition
• Performance Specification
• Innovation in Cargo Flow Efficiency
• Minimize Life-Cycle Cost
• Build the Entire 12 Ship Class Using a Single Design
  – Requirement for Two Shipyards
• One Competition for the Class of Ships
• Award Lead Ship with Priced Options for 11 Follow Ships
FY 00 T-ADC(X) ACQUISITION SCHEDULE

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- **ACQUISITION STRATEGY APPROVAL**
- **ISSUE RFP TRADE STUDIES**
- **PHASE I PROPOSAL PREP**
- **PHASE I SOURCE SELECTION**
- **PHASE I**
- **Decision Point**
- **ISSUE RFP FOR CONSTRUCTION PROPOSAL PREP**
- **PHASE II PROPOSAL PREP**
- **DOWN SELECTION TO SINGLE CONTRACTOR**
- **MS Decision**
- **PHASE II**
- **DETAIL DESIGN AND CONSTRUCTION**

- **2nd Capable Shipyard Identified Not Later Than Contract Design Proposal...**
- **CARGO SYSTEMS INTEGRATION DESIGN (UP TO 5 PRIME CONTRACTORS)**
Phase I

- Award up to 5 Cargo System Integration Study Contracts
- If Teams Form, They Must Be Non-exclusive
- Potential Industry Days
  - Cargo Handling
  - Performance Specification
T-ADC(X) Point Design

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<th>English</th>
<th>Metric</th>
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<tr>
<td>LOA</td>
<td>689 ft</td>
<td>210 m</td>
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<tr>
<td>Beam</td>
<td>100 ft</td>
<td>30.5 m</td>
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<tr>
<td>Draft</td>
<td>28.9 ft</td>
<td>8.9 m</td>
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<tr>
<td>Full Load Displacement</td>
<td>35,850 lt</td>
<td>36,416 mt</td>
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<tr>
<td>Sustained Speed</td>
<td>20 kts</td>
<td>20 kts</td>
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<tr>
<td>Max Dry Cargo Weight</td>
<td>5463 lt</td>
<td>5550 mt</td>
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<tr>
<td>Percent AE 26 Ammo (vol)</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Percent AFS 1 Stores (vol)</td>
<td>or 100%</td>
<td>or 100%</td>
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<tr>
<td>Max Cargo Fuel Weight</td>
<td>3,318 lt</td>
<td>3,371 mt</td>
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<tr>
<td>Cargo Fuel Volume</td>
<td>25,000 bbl</td>
<td>3,969 m3</td>
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Why Do a Point Design?

- Verifies performance requirements are achievable and affordable.
- Tool for assessing early cost / requirements impacts.
- Highlights missing/overlooked performance requirements.
- Intend to provide design and data to industry as information.
Areas for Industry Innovation

• Material Handling and Cargo Flow Efficiencies
  – Inventory management and planning aids
  – Incorporation of commercial practices and new technology
  – Flexibility to stow and handle various types of cargo

• Propulsion Systems
  – Propulsors
  – Prime Movers
  – Fuel Efficient Design
Areas for Industry Innovation

- **Auxiliary Systems**
  - Pumps (Ship System and Cargo)
  - Motors
  - Materials
  - Fluid Systems
  - Electrical Systems

- **Ship Operations**
  - Integrated Bridge Design
  - Environmental Compliance
  - Mooring Equipment
  - Accommodation ladder
Areas for Industry Innovation

• Hotel Services
  – Messing and Food Service Design
  – Domestic Stores Handling
  – HVAC Systems
  – Waste Handling Systems

• Corrosion Control
  – Tank Coating Systems
  – Paint Systems
  – Cathodic Protection
Additional Program Information

• NAVSEA Contracts Directorate Website at
  http://www.contracts.hq.navsea.navy.mil/webdata/acq/infodoc/t-adc(x)/t-adc(x).html

• T-ADC(X) Information Site

• T-ADC(X) Intranet Site (The procedure to request access to this site is provided on the T-ADC(X) Information Site)