EXWAR Challenges / Way Ahead in the Future Joint Operating Environment: An MSC Perspective

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MSC’s Mission

Provide efficient sea transportation, combat-ready logistics forces, and reliable special mission ships for the Department of Defense in peace and war.
MSC on One Hand

Time zones:

- # of People: 10,000
- # of Ships: 180 (120/60)

What we do:
- All Ships That Don’t Shoot

What our Customers Pay Us:
- $3.5B
MSC Across the Spectrum of EW

- Hospital Ship deployments
- Foreign Humanitarian Assistance
- Theater Security Cooperation
- Prepositioning
- Afloat Forward Staging Base
- Command Ship
Sea Basing - Components

- Carrier Strike Group
- Amphibious Ready Group / Marine Expeditionary Unit
- Maritime Prepositioning Group
- Combat Logistics Force Ships
- Connectors
- Coalition Force and Sister Service Ships
Potential Needs

- Selective Stowage / Retrieval
- OPDS (next generation)
- Energy Efficiency
- Robust C2
- Double hulling
- Force Protection Measures
- Joint Army/Navy Integrated Software Management of JHSV
- Ship Scheduling Optimization Software
Selective Stowage / Retrieval

- Combatant Commander required partial offload of ammo in theater
  - In-theater, in stream offload of 863 containers (34% of load)
  - Required reconfiguration due to stowage arrangement and lack of lay down space
  - Total time 21 days
  - Estimated container over stow was 20% average (approx 400 additional moves total)
  - Avg rate of discharge was 2.5-3.5 containers/hour

Selective Stowage / Retrieval can broaden the application range of prepositioned shipping from FHA and TSC to full-scale deployment.
Mission-focused... Value-driven

Offshore Petroleum Distribution System

MV VADM K.R. Wheeler

<table>
<thead>
<tr>
<th>Length</th>
<th>Beam</th>
<th>Max Draft</th>
<th>Min OP Draft</th>
<th>Max Spd</th>
<th>Transit Spd</th>
<th>Crew</th>
<th>HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>348.5Ft</td>
<td>70 Ft</td>
<td>27.5 Ft</td>
<td>16 Ft</td>
<td>16.0 Kts</td>
<td>13.0 Kts</td>
<td>26</td>
<td>16,320</td>
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</tbody>
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- Is one OPDS enough?
- Are 8 miles of pipe enough?
Energy Initiatives

• Cargo light replacement
• Magnetic Coupling Variable Speed Drive
  • Reduce energy consumption in cargo cooling systems
• Energy Management Plan for LMSRs
• Hull Performance Monitoring System
  • Optimize frequency for cleaning running gear and scamping
• Hull Coating Systems
• Performance-based Navigation
• Adaptive Steering
• Improved Efficiency HVAC DH

Energy initiatives are not just about reducing propulsion fuel consumption. MSC operates ships across the full OPTEMPO spectrum.
Potential Needs

- Selective Stowage / Retrieval
- OPDS (next generation)
- Energy Efficiency
- Robust C2
- Double hulling
- Force Protection Measures
  - Anti-Terrorism
  - Counter-Piracy
- Ship Scheduling Optimization Software
- Joint Army/Navy Integrated Software Management of JHSVs
• Non Traditional Prepo Mission Tasking
  • TSC
  • AFSB
  • FHA
• JHSV
• Constrained Budget Environment
• Service Life Extensions
• Limited Use of National Defense Waiver
• Improved information management and knowledge warehousing will yield greater business efficiencies
Questions?

www.msc.navy.mil