



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

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National Defense Industrial Association
Expeditionary Warfare Conference
November 17, 2009

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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

24

of Ships:
180
(120/60)

What our Customers Pay Us:
\$3.5B



What we do:
All Ships That Don't Shoot



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



Maritime Prepositioning Group



Combat Logistics Force Ships

Amphibious Ready Group / Marine Expeditionary Unit



Connectors



Coalition Force and Sister Service Ships



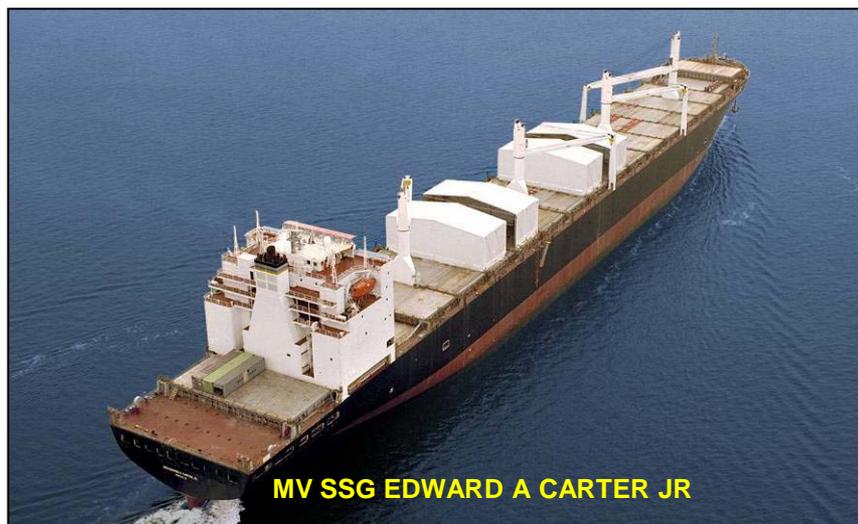


Potential Needs

- **Selective Stowage / Retrieval**
- **OPDS (next generation)**
- **Energy Efficiency**
- **Robust C2**
- **Double hulling**
- **Force Protection Measures**
- **Joint Army/Navy Integrated Software Management of JHSVs**
- **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.



Offshore Petroleum Distribution System

MV VADM K.R. Wheeler



| Length | Beam | Max Draft | Min OP Draft | Max Spd | Transit Spd | Crew | HP |
|---------|-------|-----------|--------------|----------|-------------|------|--------|
| 348.5Ft | 70 Ft | 27.5 Ft | 16 Ft | 16.0 Kts | 13.0 Kts | 26 | 16,320 |

- 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 HVACDH**

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



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- **Force Protection Measures**
 - Anti-Terrorism
 - Counter-Piracy
- **Ship Scheduling Optimization Software**
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MSC Trends

- **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