Marine Corps Shipbuilding Requirements and MPS Enhancement Strategy

17 November 2009

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Agenda

- **Amphibious Ship Requirements and Inventory Levels**
- **Maritime Prepositioning Ships Enhancement Strategy**

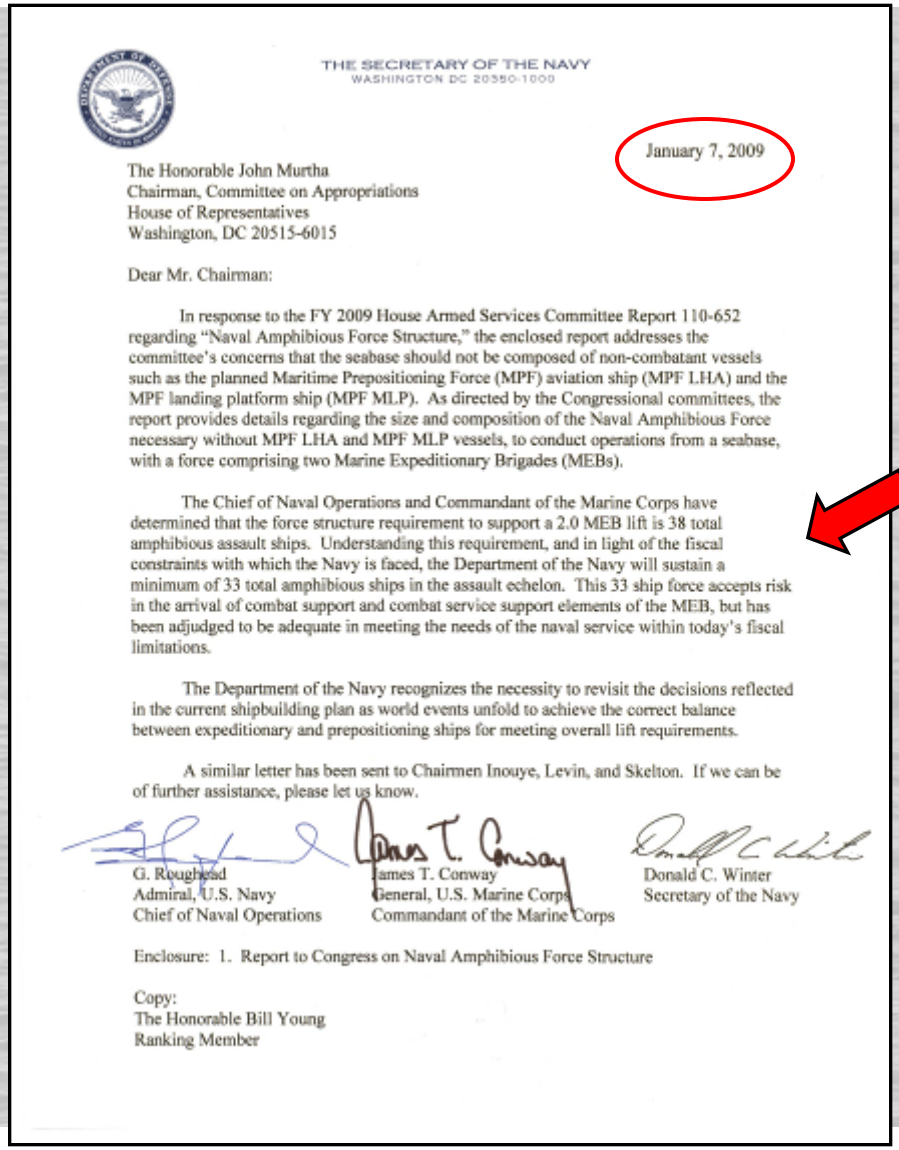
Key Points

Marine Corps Shipbuilding Requirements

- **Warfighting. Attain a minimum 38 ships to support forward presence and engagement, and generate 34 Ao for 2.0 MEB AE**
- **Stay the course with LPD-17 production. Designate LPD-17 hull form for LSD replacement.**
- **Return to Big Deck well deck in LHA-8**
  - **FY16 vs FY17 ship**
  - **Restore R&D funding now**
- **Achieve credible seabasing capabilities by enhancing legacy MPS squadrons**
  - **T-AKEs, LMSRs, MLP Lite, plus technology insertion**
  - **Restore R&D funding now**
- **NSFS. Carefully execute and monitor Analysis of Alternatives and assess all hull forms to meet NSFS requirements.**

Amphibious Assault Ship Requirements

- **7 Jan 09 SecNav, CNO, and CMC letter stated requirement for 38 amphibious ships fiscally constrained to an inventory minimum of 33**
- **33 inventory level accepts risk in MEB support elements**



THE SECRETARY OF THE NAVY
WASHINGTON DC 20350-1000

January 7, 2009

The Honorable John Murtha
Chairman, Committee on Appropriations
House of Representatives
Washington, DC 20515-6015

Dear Mr. Chairman:

In response to the FY 2009 House Armed Services Committee Report 110-652 regarding "Naval Amphibious Force Structure," the enclosed report addresses the committee's concerns that the seabase should not be composed of non-combatant vessels such as the planned Maritime Prepositioning Force (MPF) aviation ship (MPF LHA) and the MPF landing platform ship (MPF MLP). As directed by the Congressional committees, the report provides details regarding the size and composition of the Naval Amphibious Force necessary without MPF LHA and MPF MLP vessels, to conduct operations from a seabase, with a force comprising two Marine Expeditionary Brigades (MEBs).

The Chief of Naval Operations and Commandant of the Marine Corps have determined that the force structure requirement to support a 2.0 MEB lift is 38 total amphibious assault ships. Understanding this requirement, and in light of the fiscal constraints with which the Navy is faced, the Department of the Navy will sustain a minimum of 33 total amphibious ships in the assault echelon. This 33 ship force accepts risk in the arrival of combat support and combat service support elements of the MEB, but has been adjudged to be adequate in meeting the needs of the naval service within today's fiscal limitations.

The Department of the Navy recognizes the necessity to revisit the decisions reflected in the current shipbuilding plan as world events unfold to achieve the correct balance between expeditionary and prepositioning ships for meeting overall lift requirements.

A similar letter has been sent to Chairmen Inouye, Levin, and Skelton. If we can be of further assistance, please let us know.

G. Roughead
Admiral, U.S. Navy
Chief of Naval Operations

James T. Conway
General, U.S. Marine Corps
Commandant of the Marine Corps

Donald C. Winter
Secretary of the Navy

Enclosure: 1. Report to Congress on Naval Amphibious Force Structure

Copy:
The Honorable Bill Young
Ranking Member

Assault Echelon Shipping
31 ships in commission as of 9 Nov 09

LHA / LHD (Amphibious Assault Ship)

Hull	Ship	Location
LHA 4	USS Nassau	Norfolk, VA
LHA 5	USS Peleliu	San Diego, CA
LHD 1	USS Wasp	Norfolk, VA
LHD 2	USS Essex	Sasebo, Japan
LHD 3	USS Kearsarge	Norfolk, VA
LHD 4	USS Boxer	San Diego, CA
LHD 5	USS Bataan	Norfolk, VA
LHD 6	USS BHR	San Diego, CA
LHD 7	USS Iwo Jima	Norfolk, VA
LHD 8	USS Makin Island	San Diego, CA

LPD 4 (Amphibious Transport Dock)

Hull	Ship	Location
LPD 7	USS Cleveland	San Diego, CA
LPD 8	USS Dubuque	San Diego, CA
LPD 9	USS Denver	Sasebo, Japan
LPD 15	USS Ponce	Norfolk, VA

LPD 17 (Amphibious Transport Dock)

Hull	Ship	Location
LPD 17	USS San Antonio	Norfolk, VA
LPD 18	USS New Orleans	San Diego, CA
LPD 19	USS Mesa Verde	Norfolk, VA
LPD 20	USS Green Bay	San Diego, VA
LPD 21	USS New York	Norfolk, VA

LSD 41/49 (Dock Landing Ship)

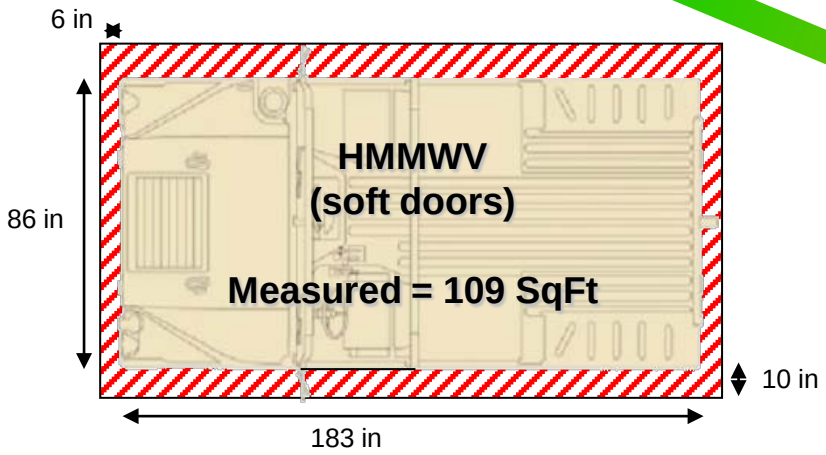
Hull	Ship	Location
LSD 41	USS Whidbey Island	Little Creek, VA
LSD 42	USS Germantown	San Diego, CA
LSD 43	USS Fort McHenry	Little Creek, VA
LSD 44	USS Gunston Hall	Little Creek, VA
LSD 45	USS Comstock	San Diego, CA
LSD 46	USS Tortuga	Sasebo, Japan
LSD 47	USS Rushmore	San Diego, CA
LSD 48	USS Ashland	Little Creek, VA
LSD 49	USS Harpers Ferry	Sasebo, Japan
LSD 50	USS Carter Hall	Little Creek, VA
LSD 51	USS Oak Hill	Little Creek, VA
LSD 52	USS Pearl Harbor	San Diego, CA

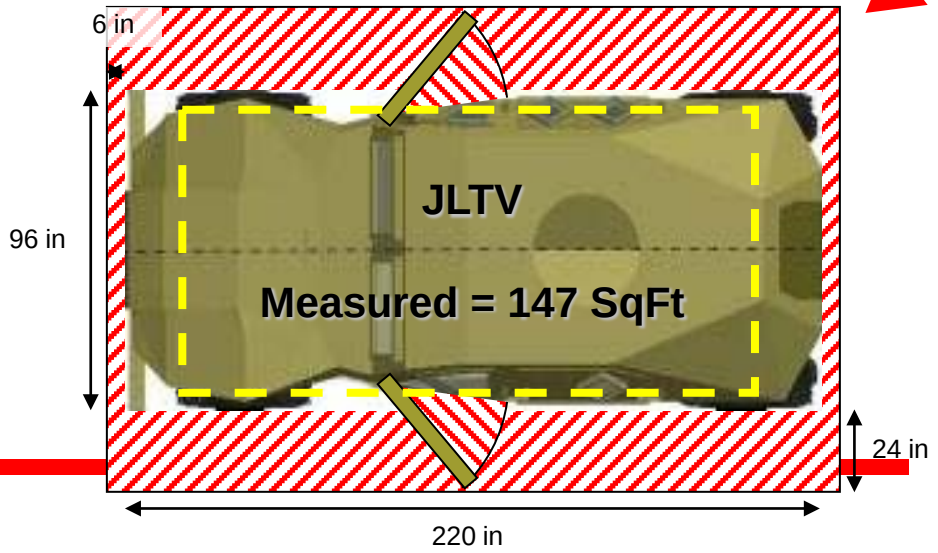
HMMWV to JLTV

30%

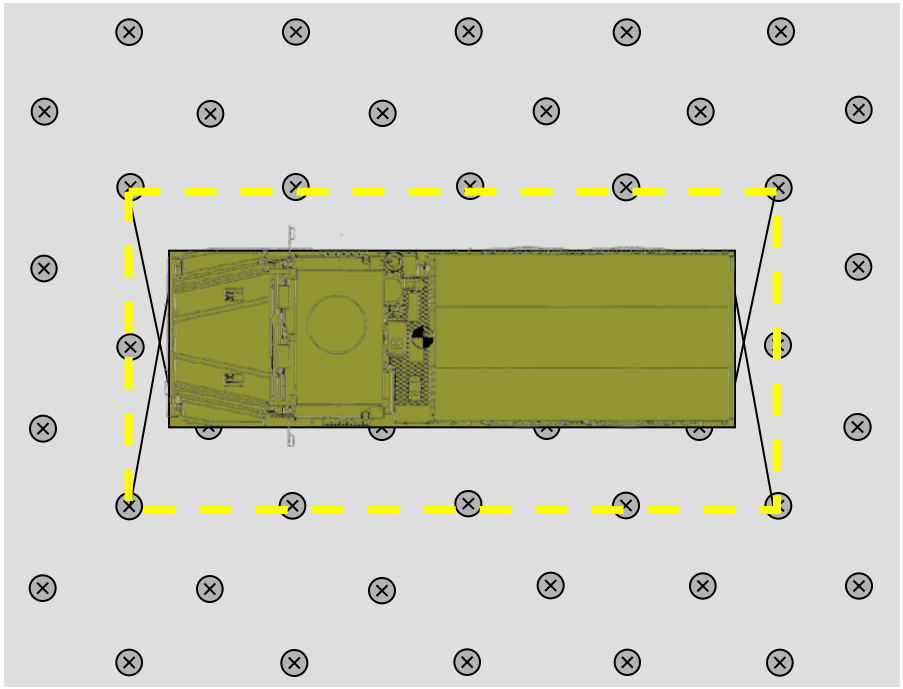
BROKEN STOWAGE FACTOR

??%

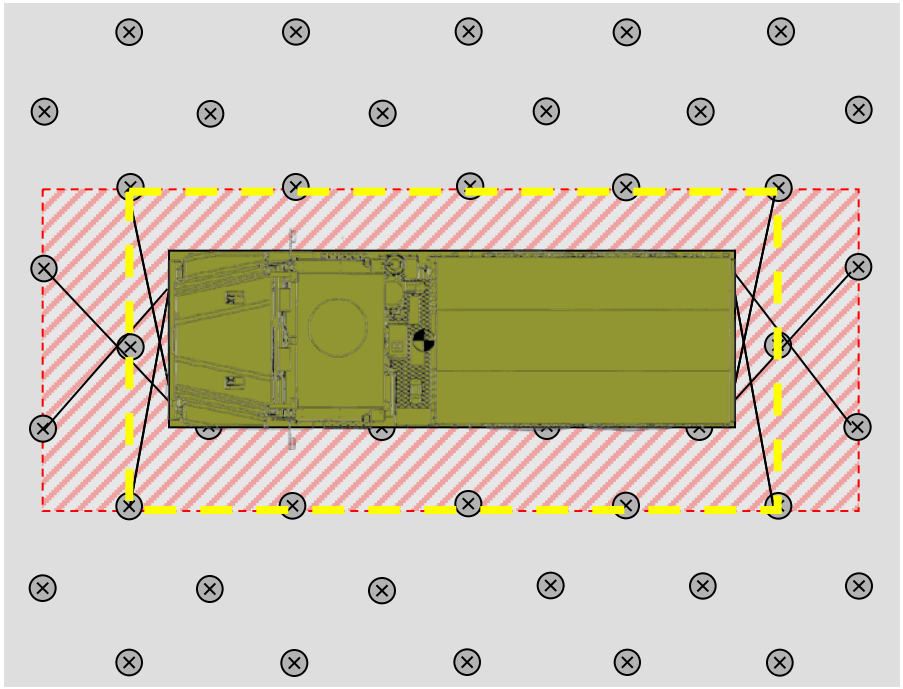




Additional Lashings



MTVR at 39,000 lbs
(unarmored cab with mobile load)
Requires 4 tie-down points



MTVR at 48,000 lbs
(armored cab with mobile load)
Requires 8 tie-down points

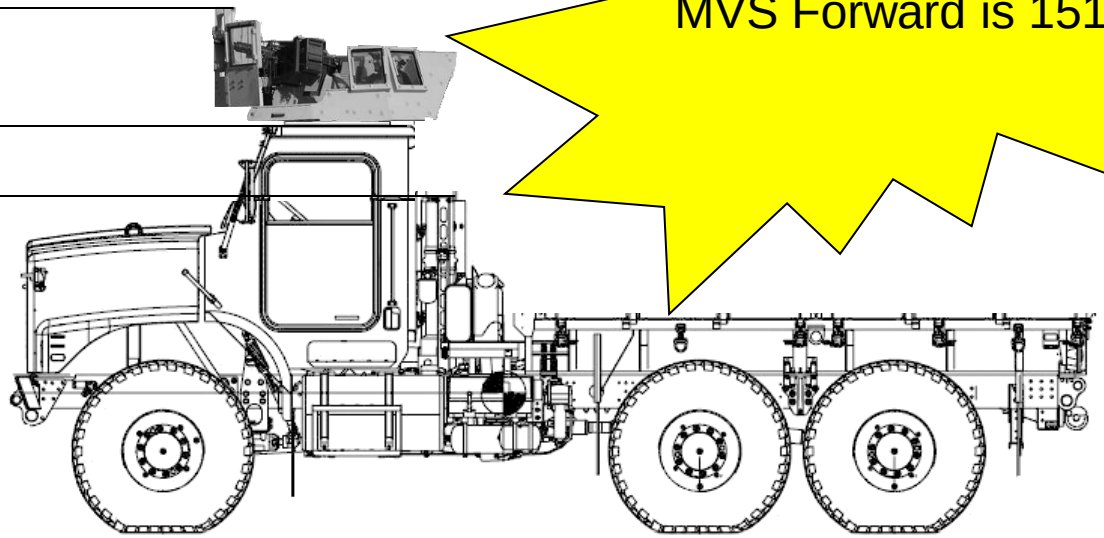
MTVR Stowage in LPD 17
Main Vehicle Stow

Maximum stowage in MVS Forward is 151”

164”

127”

101”



Armor/Protection

Significant Impact on Vehicle Height & Ship Stowage Location

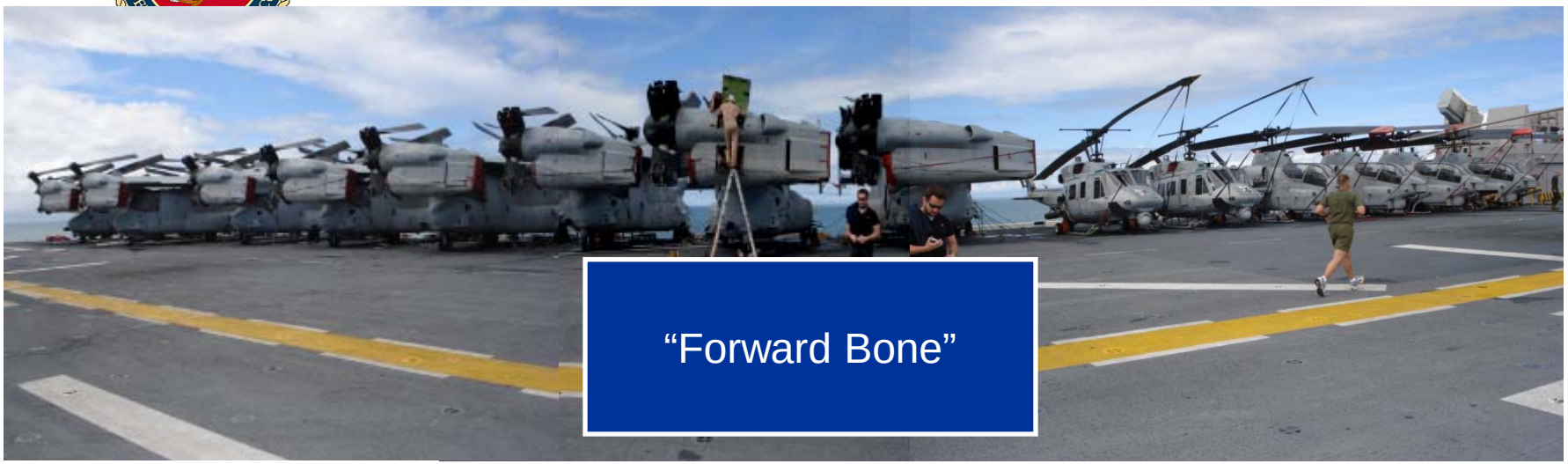
Depending on which variant of armored gun mount is added, there is a height increase of 20 to 30 inches per vehicle

Mobile Loads

Extended Bed MTVRs

Short Bed MTVRs

Aviation



Aviation

LHD 5 Hangar Bay

All this and four aircraft

Engineer Equipment

TRAM

- New TAMCN B0063 replaces B2567
- Addition of armor to the cab one key difference

Engineer Equipment

- Various contributors to increases in dimensional data, e.g. spare tire strapped to roof of the TRAM
- Techniques such as this are common practice

Agenda

- **Amphibious Ship Requirements and Inventory Levels**
- **Maritime Prepositioning Ships Enhancement Strategy**

Current MPS Configuration

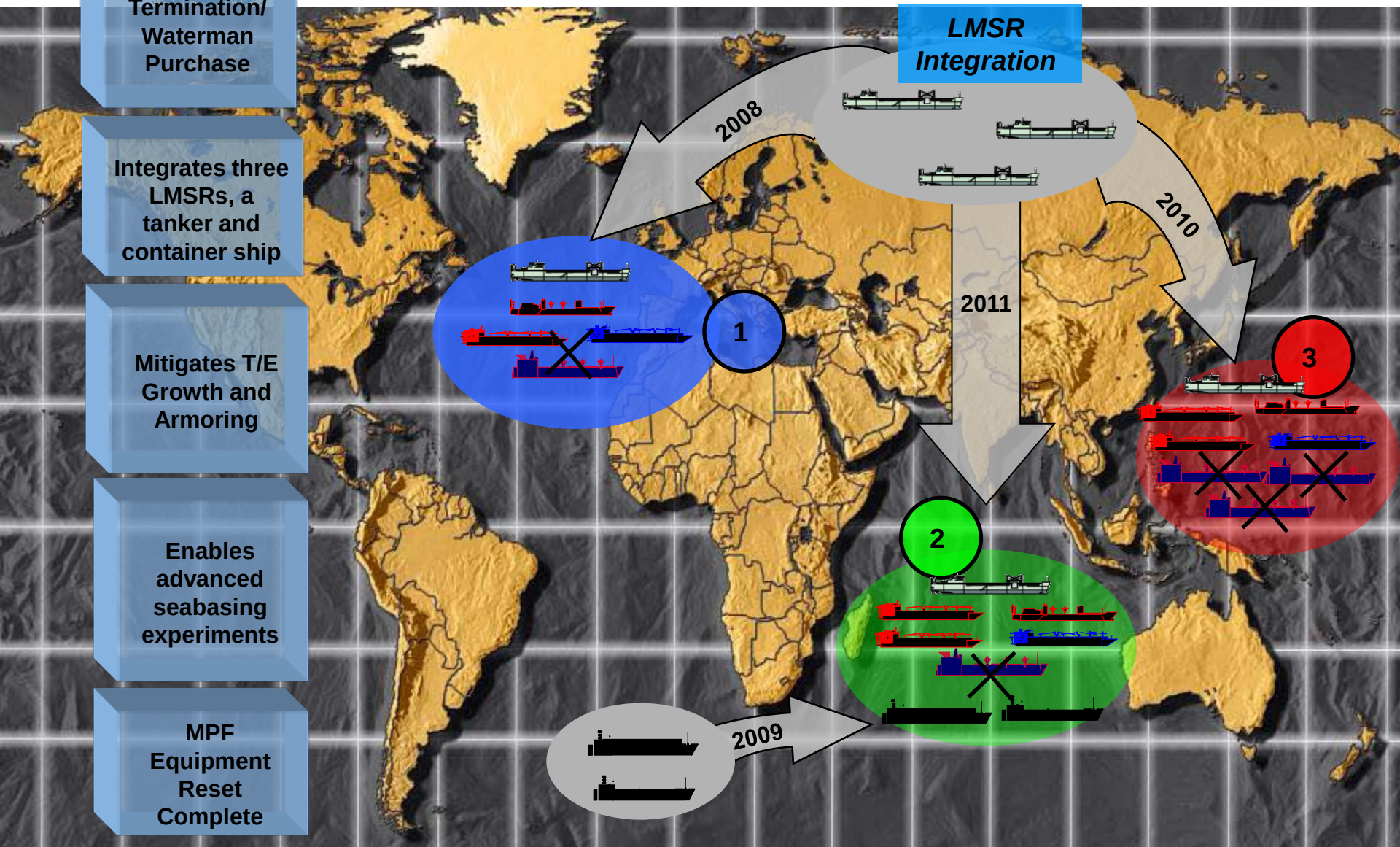
Maersk Termination/ Waterman Purchase

Integrates three LMSRs, a tanker and container ship

Mitigates T/E Growth and Armoring

Enables advanced seabasing experiments

MPF Equipment Reset Complete



Maritime Prepositioning Ships Enhancement Strategy

- **MPS today**
  - **Dense packed**
  - **Integrated with Amphibs during JFEO**
  - **Requires pier facilities to offload**
  - **Offload optimized for conventional conflict**
  - **Optimized for high-end threat**
  - **Limited Employment Options**
  - **Limited scalability optimized for MCO**

- **MPS tomorrow**
  - **Selective offload**
  - **Integrated into routine, steady state operations**
  - **In-stream offload**
  - **Loaded and configured with enablers to address hybrid threats across ROMO**
  - **Multiple Employment Options**
  - **Loaded and configured with enablers to address hybrid threats across ROMO**
  - **Selective offload**
  - **Integrated into routine, steady state operations**

MPS Enhancement Strategy

- **Roll-on roll-off cargo ships, coupled with mobile landing platforms, provide key enabling capabilities to fully leverage existing MPS capabilities**
  - **Selective offload**
    - **Increased ship stowage capacity allows for reconfigured loads across MPSRON for selective offload**
  - **In-stream offload of Large, Medium Speed RO/RO (LMSR) with Mobile Landing Platform (MLP Lite)**
  - **Increased connector lift capacity with MLP Lite**
  - **Increased ship-to-shore throughput**

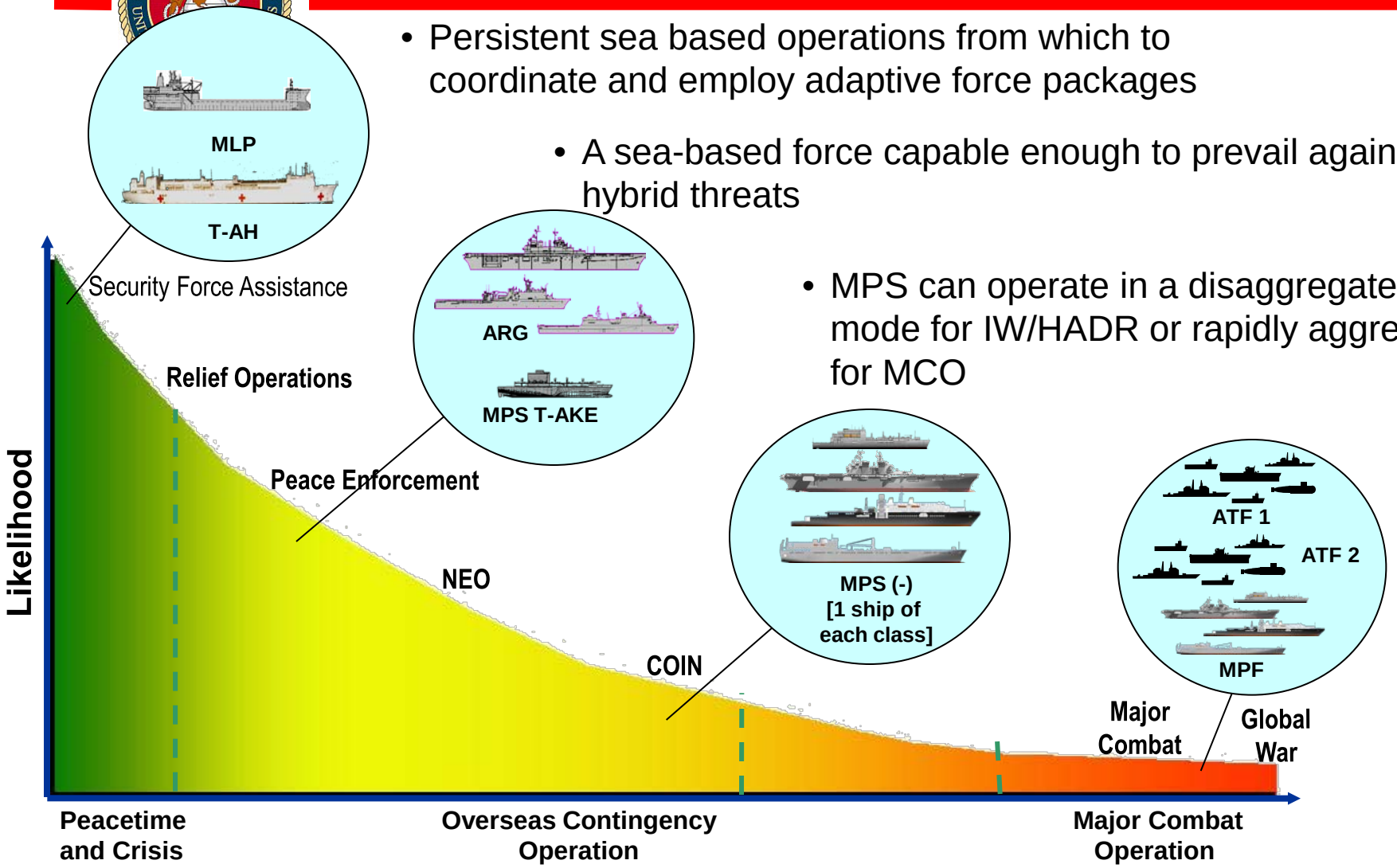
T-AKE

LMSR

Notional MLP Lite

MPS Employment Options

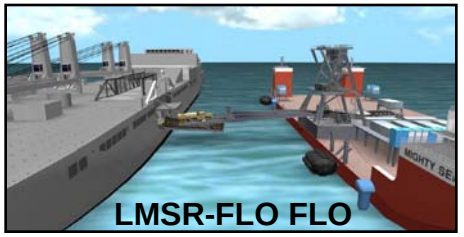
- Persistent sea based operations from which to coordinate and employ adaptive force packages
  - A sea-based force capable enough to prevail against hybrid threats
- MPS can operate in a disaggregated mode for IW/HADR or rapidly aggregate for MCO



Responsive and Tailorable across the full Range of Military Operations

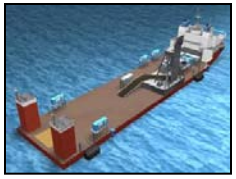
MPS Enhancement Strategy

- Enhance legacy MPS squadrons to improve capabilities and inform MPF(F) development over long term
- CONOPS
  - Modular employment options
  - Steady state amphibious and MPS integration
- Technology insertion
  - JHSV Sea State 3 Ramp Upgrade
  - Pendulation control mod to existing LMSR cranes
  - LCAC integration with Roll-on/Roll-off discharge facility (RRDF)
- Platforms
  - Alaska Class Heavy Lift Ship “MLP Lite”
  - LMSR
  - T-AKE



MPS Enhancements and Concepts

Designed to illuminate MPF(F) capabilities over the long term

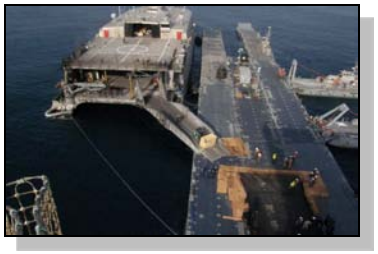


Flo-Flo Testing and Demonstration

– Continue at-sea vehicle/equipment transfer and surface interface operations between MPS ships and surrogate Mobile Landing Platform vessels

Joint High Speed Vessel Ramp Upgrade

– Enhance current JHSV ramp design to sea state 3 interface with MPS organic Improved Navy Lighterage System's Roll-on/Roll-off Discharge Facility



Pendulation Control Mod to Existing Cranes

– Enhance MPF LMSR cranes to operate in sea state 3.

Roll-on/Roll-off Discharge Facility (RRDF)

- Enable MPS RRDF interoperability with LCACs

-- Plus --

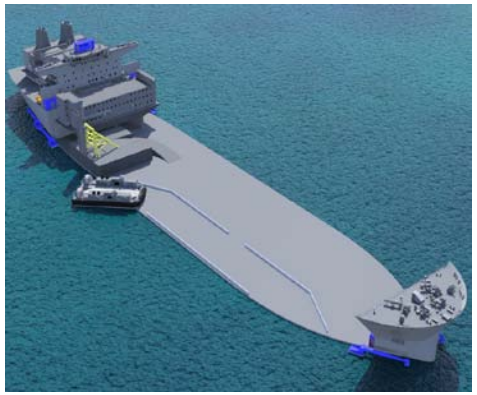
Existing STOCKHAM Modifications

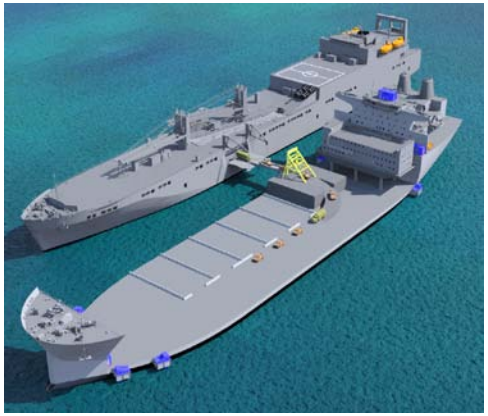
– Enhanced command and control, aviation, and berthing capabilities on Maritime Prepositioning Ships ISO SSSP, IW, presence missions

Increased speed, flexibility & versatility for in-stream offloads (no port)
But still requires secure airfield and staging area ashore for MAGTF employment

Proposed MLP Lite

- Allows access to LMSR vehicles when ports are not available or the threat precludes pier side off-load
- Provides improved capability for at-sea selective offload of vehicles and equipment compared to today's lighterage offload systems





T-AKE

- **Convert selected MPSRON containerized supplies/equipment to pallet/QUADCON level and load aboard T-AKE's**
- **Gain immediate selective offload capabilities across wide range of MPS sustainment stocks**
- **Sustain MEB size unit for 1 month**
  - **Acting as a station ship for shuttle ships could support MEB indefinitely**

LMSR

- **The addition of the three LMSRs to today's MPSRON fleet will provide a net increase of over 400,000 square feet, or 18% Facilitates reconfigured loads across MPSRON and enables selective offload of selected items**
- **Combined with MLP, LMSR provides for accelerated in-stream vehicle and equipment offload rates**

What's the Improvement from Today's MPS?

Near Term:

- Flo-Flo testing & demonstration
- Joint High-Speed Vessel ramp upgrades to sea state 3
- Sea state 3 cargo handling via Pendulation Control System (PCS) crane technology
- Roll-on/Roll-off Discharge Facility (RRDF) interoperability with JHSV and LCAC
- Enhanced command and control, aviation, and berthing via existing USNS STOCKHAM LMSR mods
- T-AKE sustainment selective offload
- Afloat and land-based prepositioned load-out configurations to better support IW missions

Mid Term: In addition to near term MPS improvements, overall enhancements in…

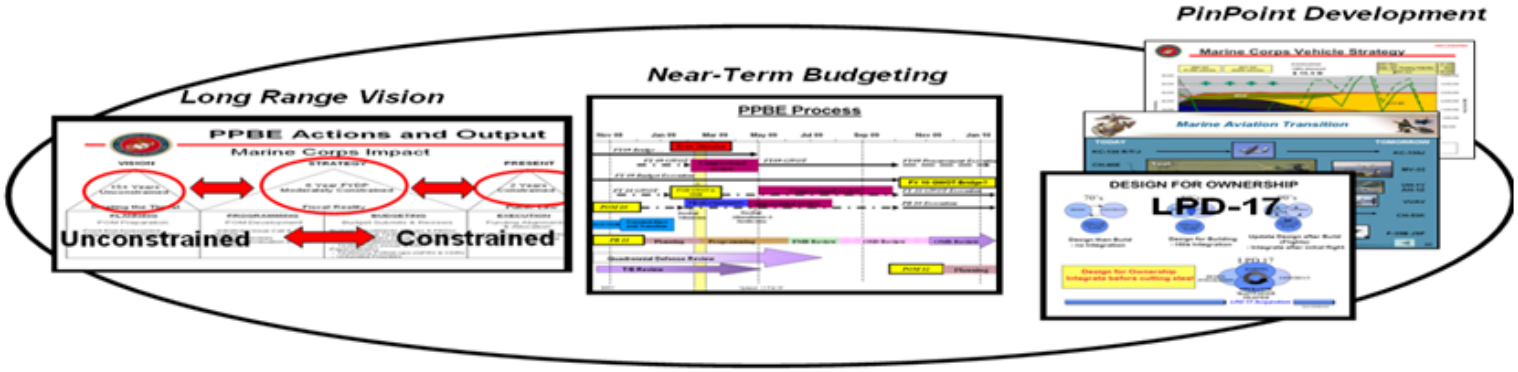
- Flo-Flo sea state 4 at-sea arrival and assembly and vehicle & equipment transfer
- Aviation operations across Flo-Flo, LMSR, T-AKE
- Selective offload & sustainment across T-AKE & LMSR
- Vertical and surface maneuver from the seabase
- C2
- Medical
- Berthing

Long Term:

- MPS recapitalization into MPF(F)

Discipline the Process

Today's Linear Formula ≠ **Integrated Solutions**



Tomorrow's Holistic Approach: *Analytically Defendable and Creditable Solutions*

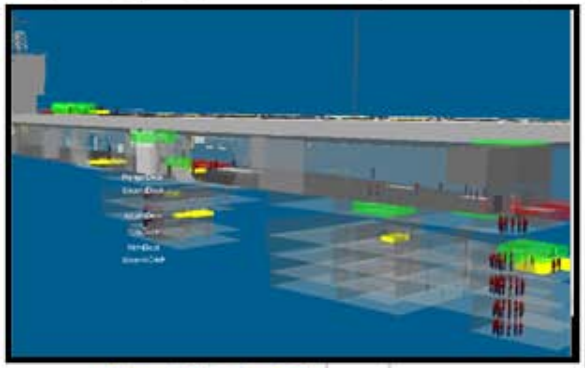
Multi-Path Integration → **Through MSIC** = **Integrated Solutions**

Right Platforms; Right Transition; Right Cost

Integrating M&S for MAGTF-Ship Integration

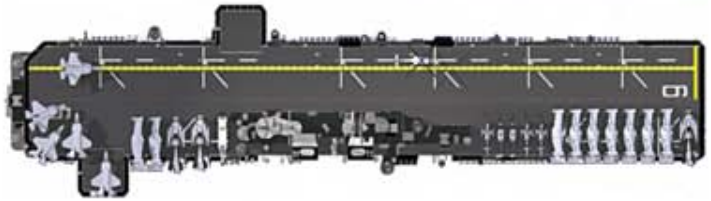
I

MAGTF Maintenance & Supply Model (M^2SM)



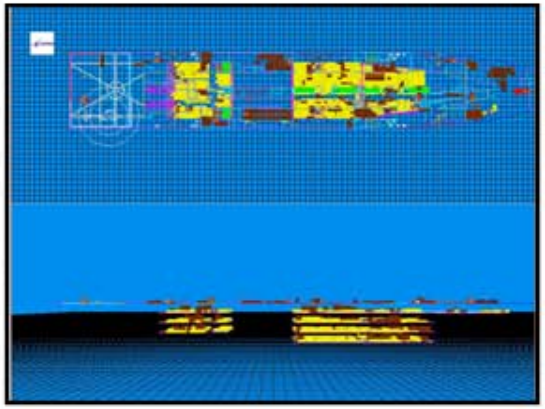
II

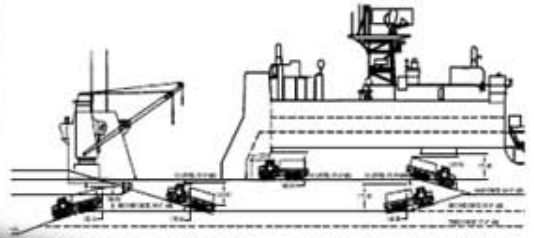
Flight Deck Model (FDM)



III

Surface Interface Integration Model (SIIM)

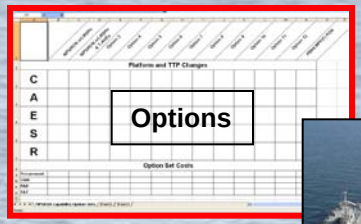


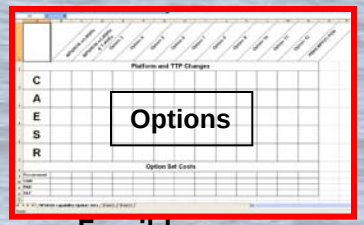


MSIC

MAGTF-Ship Integration Center

Endstate: Improved Naval Expeditionary Capabilities





Seabasing Integration Division
Points Of Contact

ROW WELL…AND LIVE!

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Questions
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Discussion