Overview

• Seabasing Background
• Seabasing Overview
• Logistics challenges
• Summary
Sea Power 21

Sea Shield
Projecting Defense…
Assured access, sea-based homeland defense

Sea Strike
Projecting Offense…
Agile, sustainable, precise, persistent

Sea Basing
Projecting Sovereignty…
Worldwide access, secure, adaptable

FORCEnet

Sea Trial
Sea Warrior
Sea Enterprise
Seabasing Logistics

Seabasing Foundation

• Defense Science Board Study
  “...Seabasing will be a critical future joint military capability for the United States.” AUG 2003

• National Defense Strategy
  “DOD is changing... placing more emphasis on the ability to surge quickly to trouble spots across the globe, and making U.S. forces more agile and expeditionary. The new challenge is to project joint power more rapidly to confront unexpected threats.” SECDEF 17 FEB 2005

• QDR

• Naval Transformation Roadmap
  “We are developing joint sea bases that will allow our forces to strike from floating platforms close to the action, instead of being dependent on land bases far from the fight.” President George W. Bush 2005 USNA Commencement Address
Seabasing Principles

- Use the sea as maneuver space
- Provide joint forcible entry capability
- Provide scalable, responsive joint power projection
- Sustain joint operations
- Leverage forward presence
- Create uncertainty for adversaries

...From the sea
This is not Seabasing!
Nor is this!  (Popular Science, April 2003)
This is!
Seabasing Overview

CLOSE
Within 10-14 days of execution order

ASSEMBLE
Joint capabilities within 24-72 hours of arrival

EMPLOY
At least one brigade over-the-horizon AND within one period of darkness (8-10 hrs)

SUSTAIN
At least two joint brigades with selected joint maint and level III medical support

RECONSTITUTE
Reemploy one brigade operating ashore within 10-14 days

Framing the range of capabilities
A New Capability Emerges

Sea State 4 operations

**MPS: 2004**
- Shore Based Operations
- 18 knot SOA
- Prepo USMC MEB Equipment
- Secure Port Offload or via LOTS
- Assembly in Port
- Iron Mountain ashore
- Sustainment flows Via Port
- Part of Common User Pool
- Dense Stowage
- Last-in / First-out

**MPF(F): 2020**
- Sea Based Operations
- 20-24 knot SOA
- Prepo USMC MEB Equipment
- No need for a port or HNS
- At-Sea Arrival and Assembly
- >20 DOS at Sea Base
- Sustained from the Sea Base
- Remains at Sea Base or in JOA
- Combat Configured
- Tailored Logistics packages
### Platform List

#### 2 LHA(R) & 1 LHD
- Selectively off-loadable
- Combat allowance + ≥ 5 DOS
- Aviation Class IX (non F/W)
- Quick reaction

#### 3 LMSRs
- Carry: RFI and selectively off-loadable
- Initial combat load for forces carried
- Selected commodities
- DOS (tbd)
- Carry Class IX for shops

#### 3 TAKEs
- Selectively off-loadable
- Large volume break-bulk
- ≥15 DOS between 3 ships
- Carry FBE ordnance

#### 3 MLPs
- Mobile Landing Platform
- Connects LMSRs, troops and LCACs

#### 2 MPS(L)
- Container RO-RO
- Dense packed
- Primary source of SOA material
- Carry FBE material

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**ACE fixed wing aircraft location**

is not on MPF(F) ships – either on an ESG or ashore
2015 Baseline MEB Organization

Seabasing Logistics

14,484 personnel & 1,886 major pieces of equipment

Command Element (769 CE pers)

Reinforced Infantry Regiment
- 3 Inf Bn
- 2 Tank Co
- 2 LAR Co
- 2 AA Co
- 3 Arty Btry
- 1 EFSS Btry
- 1 HIMARS Btry
- 2 Cbt Engr Co

(5,585 pers)

Composite Marine Aircraft Group
- 3 JSF Sqdn
- 1 EA Sqdn
- 1 HMLA Sqdn
- 1.25 CH-53 Sqdn
- 4 VMM Sqdn
- 1 KC-130 Sqdn

(5,660 pers)

Brigade Service Support Group
- DS Co ACE (FW)
- DS Co ACE (RW)
- 3 Inf Bn DS Co
- Mech Unit DS Co
- Arty Unit DS Co
- GS Bn

(2,470 pers)

Major Items of Equipment

<table>
<thead>
<tr>
<th>Equipment</th>
<th>MEB</th>
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<tbody>
<tr>
<td>EFV</td>
<td>106</td>
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<tr>
<td>LAV</td>
<td>54</td>
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<tr>
<td>M1A1</td>
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<tr>
<td>HIMARS</td>
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<tr>
<td>JTRS</td>
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<tr>
<td>HMMWV</td>
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<tr>
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<tr>
<td>LVS</td>
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<tr>
<td>JSF</td>
<td>30</td>
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<tr>
<td>EA-6B</td>
<td>5</td>
</tr>
<tr>
<td>KC-130</td>
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<tr>
<td>MV-22</td>
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<tr>
<td>CH-53E</td>
<td>20</td>
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<td>UAV</td>
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</tr>
<tr>
<td>PERSONNEL*</td>
<td>14,484</td>
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</table>

PERSONNEL* 14,484 personnel & 1,886 major pieces of equipment
Developing Joint Concepts

Seabasing Logistics

- Seabasing Joint Integrated Concept (JIC)
- Joint distribution pipeline
- Joint Logistics JIC
- Joint theater logistics management

Opportunities to integrate efforts

Non-Navy programs
- Austere Access HSS (AAHSS)
- Theater Support Vessel (TSV)
- Army Strategic Flotilla (ASF)
- Heavy Lift VTOL (HLVTOL)
- DLA Deployable Distribution Depot

Navy programs
- Rapid Strategic Lift Ship (RSLS)
- High Speed Vessel
- MPF(F)
- CH-53X
- T-AKE

Joint programs
- Combine?
- JHSV
- Complement?
- Complement?
- Integrate?

Seabase enablers with in service relevance
### Notional Army application

**Brigade centered building blocks**

<table>
<thead>
<tr>
<th>Battalion Type</th>
<th>Approximate Personnel</th>
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<tbody>
<tr>
<td>Infantry BCT</td>
<td>~3500 pers</td>
</tr>
<tr>
<td>Airborne/Air Assault BCT</td>
<td>~3500 pers</td>
</tr>
<tr>
<td>Stryker BCT</td>
<td>~3900 pers</td>
</tr>
<tr>
<td>Heavy BCT</td>
<td>~3800 pers</td>
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<tr>
<td>Aviation Expeditionary Brigade</td>
<td>~2500-2700 pers</td>
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<tr>
<td>Fires BDE</td>
<td>~1100 pers</td>
</tr>
<tr>
<td>Sustainment BDE</td>
<td>~1000 pers</td>
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<tr>
<td>Maneuver Enhancement BDE</td>
<td>~600 pers</td>
</tr>
<tr>
<td>Battlefield Surveillance BDE</td>
<td>~1000 pers</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7100</strong></td>
</tr>
</tbody>
</table>

*Personnel numbers current as of 3 Dec 2004*

Volume appears achievable, “devil’s in the details”
Can the Navy’s seabase accommodate…

- Lift heavy forces from sea platforms
- Accommodate complex RSOI
- Address anti-access littoral threats (MCM, missiles)
- Provide force protection when JSB must approach the shore
- Provide supporting fires to shore forces
- Joint logistics common operating picture
- C² for Joint Force Land Component Commander

...From the sea
Supporting Two Brigades Ashore

Short Tons / Day Consumed

- CL V
- Dry (Non CL V)
- Bulk POL
- Water

Two Brigade consumption:
- 1 T-AO every 40-80 days
- 1 T-AFS every 20-40 days

~ 1,000
Logistics Enabling Capabilities

Interface & Transfer Capabilities
- Skin-to-Skin Transfers
- At-Sea Container Transfer
- Heavy Unrep
- Integrated Landing Platform
- Networked connectivity

Intra-Ship Capabilities
- Modular Packaging Designs
- Selective Offload
- Improved Internal Cargo Handling
- Total Asset Visibility

Capabilities required to provide interface between connectors to facilitate the transfer of containers, quadcons, pallets, personnel, ordnance, and equipment.

Without them …
- Limited to current methods of resupply
- Unable to meet throughput requirements
Seabasing Capability Timeline

• Today:
  – Project MEU ashore with 15 days sustainment
  – Project and sustain SOF support
  – Support major humanitarian operations

• Future: Project an entire MEB ashore
  – Continuously support 2 joint brigades ashore

Developing capability

Limited capability

2 brigade JFEO
Summary

• A strong concept with joint support
  • Approved Joint Integrating Concept
  • Capabilities must be refined
  • Jointness needs to be matured
  • Logistics CONOPS must support warfighting requirements
• Capabilities will mature as new technology/platforms mature
• Opportunities abound as capability development continues

Work in progress
Questions?
• Future Sea Bases will require four separable at-sea cargo transfer processes
  – Selective cargo movement within ships
  – At-sea transfer from vessels to lighters inside well decks
  – At-sea transfer to and from lighters alongside Sea Base ships
  – At-sea transfer from black hull commercial vessels to Sea Base ships
• For heavy loads, these processes differ
• Stabilized cranes, together with means to stabilize ships, offer limited technological options for at-sea cargo transfer
CLF Advanced Development

• Improved Underway Replenishment
• Shipboard Material Handling
• Standardized Containerization
• Asset Visibility & Planning

Naval Logistics Integration with USMC
We need to improve the handling and reduce retrograde, waste, and storage requirements as sustainment moves through the supply chain.

Standardizing the packaging through the transportation system
Sizing the Sea Base -- Jointly  
(What capacity is required?)

MPF(F) configuration fully supports 2015 MEB Sea Based Echelon, and must be able to sustain throughput for a 2<sup>nd</sup> brigade.

Force structure to be supported has a huge impact, JIC calls for support to two brigades.
Seabased Forcible Entry Requires

- All functions performed on the Sea Base
  - Moving forces, materiel, and weapons from an advanced base (or CONUS) to the Sea Base
  - At sea reception, staging, onward movement and integration
  - Getting the force to the objective and sustaining it
  - Sea, air and land platforms working in concert to project power to the objective
  - Defense suppression

- A *joint system* extending across interoperable platforms, netted together and sustained *from the sea*

*It’s much more than logistics – it’s operations*
### Operational Implications

#### Key Mission Capabilities

- Close the Force
  - Assembly at sea/enroute
- ATF Interoperability
  - At-sea interface
  - RW platform
  - UNREP capable
  - Selective offload
  - C4I
- Sustainment
- Medical
- Joint C2
- Maintenance

#### Sea Based Logistics

- Cargo transshipment capability
  - Logistics Throughput Node
  - AB to Sea Base Shuttle Ship
- Personnel & aviation basing
- Open ocean air and surface craft interface
- Selective Offload of Cargo
- Total Asset Visibility
  - Intransit Visibility
- At-Sea Container Handling
  - Internal & External
- At-sea Cargo Warehousing
Experimentation

- At sea transfer to/from lighters
- Rolling stock transfer to smaller vessels
- Standardized packaging
- Selective offload of vehicles
- Skin-to-skin transfer
Measures of Performance

Capacity  How much joint force capability can be supported.

Rate  How fast can things be accomplished to support joint force capability over a given time under standard sets of conditions.

Infrastructure  What physical requirements and facilities are needed to support and sustain the joint force capability.

Interoperability  To what degree can we seamlessly integrate/support joint force capability.

Survivability  To what degree can we protect joint force capabilities.

Accessibility  How easily can we operate within the physical constraints presented by terrain, hydrography, weather, depth of operations, and threat.

Framing the measures of effectiveness
Essential personnel who have to deploy within the 14-day window are from the SBE and FBE only.

Arrival of the SOAE could occur outside of the 14 days and not necessarily go to the Sea Base.
**Future Surface Connector Concepts**

**Seabasing Logistics**

**WALRUS**
- Speed: 76 KT
- Range: 5,607-10,000 NM
- Avg Payload: 238 ST

**High Speed Sealift**
- Speed: 38 KT
- Range: 6,000 NM
- Payload: 8,000 ST
- 158,000 SQ FT

**LCH(X)**
- Speed: 30 KT
- Range: 200-300 NM
- Payload: 2200 ST

**LCAC(X)**
- Speed: KT
- Range: NM
- Payload: ST

**Articulated Tug Barge**
- Speed: 15 KT
- Range: 12,000 NM
- Payload: 13,000 ST, 750 TEUs
- 175,000 SQ FT
- 30-55,000 bbls

**Rapid Strategic Lift Ship**
- Speed: 36 KT
- Range: 8,000 NM
- Payload: 5,000 ST
- 131,000 SQ FT

**JHSV**
- Speed: KT
- Range: NM
- Payload: ST
- SQ FT
Future Air Connector Concepts

Seabasing Logistics

- **Heliplane or Carter Copter**
  - Speed: 365 KT
  - Range: 800 NM
  - Payload: 22 ST
  - 150 PAX

- **AMC-X**
  - Speed: 480 KT
  - Range: 1-3000 NM
  - Payload: 30-40 tons
  - tbd PAX

- **KC-130J**
  - Speed: 375 KT
  - Range: 3000 NM
  - Combat Radius: 1000 NM
  - Payload: 21 tons
  - 128 pax

- **UH-1Y**
  - Speed: 140 KT
  - Range: 300 NM
  - Combat Radius: 1000 NM
  - Payload: 2 tons
  - 12 pax

- **MV-22**
  - Speed (int. load): 275 KT
  - Speed (ext. load): 110 KT
  - Range: 240 NM
  - Payload: 10 tons
  - 24 pax

- **Seaplane**
  - Speed: 325 KT
  - Range: 2000 NM
  - Payload: 30 tons
  - 180 PAX

- **Quad-Tilt Rotor**
  - Speed: 280 KT
  - Range: 2000 NM
  - Payload: 20 tons
  - 67 PAX

- **CH-53X**
  - Speed (int. load): 150 KT
  - Speed (ext. load): 110 KT
  - Range: >540 NM
  - Combat Radius: >200 NM
  - Payload: >16 tons
  - 55 pax
S&T Investments

Seabasing Logistics

Compact / Agile Material Mover

Automated Warehouse

38MW Axial Flow Waterjet

Large Vessel Interface
Lift-On / Lift-Off (LVI LO/LO)

High Rate Vertical/Horizontal Material Movement