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A Look Back at Seabasing



What's in the Joint Seabase?



Carrier Strike Group



Maritime
Prepositioning Group



Combat Logistics
Force Ships

**Task organized forces
to meet
COCOM mission requirements**

Coalition Force and
Sister Service Ships



Expeditionary
Strike Group

Connectors



Seabasing is more than just MPF(F)...

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I am working a new series on mobile basing, within which seabasing is a key element. As part of that effort, I am re-engaging in discussions with Jim Strock, a leading expert on seabasing who worked for many years with the USMC. We will be publishing some new interviews with Strock after a several year gap in doing so.

In this report, I wanted to bring together the earlier interviews and assessments we published on Second Line of Defense as a backdrop to our current discussions and interviews

Robbin Laird

Evolving the Amphibious Fleet: The Coming of LX(R)

By Robbin Laird

March 27, 2015

The supply side of the amphibious fleet has gone down over the past two decades.

The amphibious ship fleet inventory has been reduced by 50% over the past twenty years and will operate in the range of 28-33 ships in the foreseeable future.

The demand side on the amphibious fleet is growing and significant.

At the same time, the number of core amphibious ships is not going to significantly increase in the foreseeable future.

And this gap is opening at a time when the role of the fleet is being recast under the influence of significant impacts of technology, training, and concepts of operations changes as well.

The coming of the Osprey has dramatically affected the concepts of operations of the fleet. The operating concept has evolved and the core ships in an amphibious task force operate further away from one another as the Osprey can connect the fleet with its range and speed of operation. The concept of amphibious assault is being refined to allow for the USN-USMC team to aggregate force and to operate at initially greater distances to project power into the objective area.

With the coming of the F-35B to the large deck amphibious ships, another evolution is on the way.

The combat capability delivered from the amphibious task force goes up along with the ability to extend the range of the C2 and ISR capabilities organic to the fleet. Enhanced C2 is crucial for the amphibious fleet in augmenting its capabilities.



Feb. 9, 2012) An MV-22 Osprey assigned to the Fighting Griffins of Marine Medium Tiltrotor Squadron (VMM) 266 makes a historic first landing aboard the Military Sealift Command dry cargo and ammunition ship USNS Robert E. Peary (T-AKE 5). The Osprey landed aboard Robert E. Peary while conducting an experimental resupply of Marines during exercise Bold Alligator 2012. Credit; USN

As one Marine Corps source put it:

“Independent operations demand robust C4I capability to enable Command and Control across the warfighting functions and the expanding battlespace.

Fifth generation aircraft, unmanned air system payloads, and cyber engagement are rapidly expanding in capability and will require significant network, communication and spectrum agility.”

New ship types are being added which are also providing options for thinking differently with regard to operating the amphibious task force.

The Mobile Landing Platform adds a very flexible ship to enable at-sea offload of heavy equipment from Maritime Prepositioning Ships to landing craft for maneuver ashore in support of operations.

The Maritime Prepositioning Force’s T-AKE ship is a 42,000 ton supply ship which, with its elevators and ability to offload pinpoint supplies and deliver them to objectives ashore via the Osprey.

And that capability will provide significant enhancements to the operational flexibility of the fleet as well.

The shortfall is significant as well, notably with the distributed operations unfolding in the Pacific and the significant distances involved for operations. As [Lt. General Robling](#), then head of the Marines in the Pacific put it:

Distance means that I need to have assets forward deployed and operational.

This means for the USMC, an ability to train with partners and allies in what you have called the strategic quadrangle.

This means an ability to have enough capable amphibious ships forward deployed to operate with those partners and allies.

Seabasing is a key element of providing persistent presence.

And amphibious ships are real part of a whole sea-basing capability and engagement capability. The amphibious requirement in the Pacific goes well beyond our support to South Korea. It is a key element in building partnership capacity and overcoming presence gaps and needs. This is why we need more platforms and more capable platforms of the sort we are building now.

Many of our partners in the region do not want us to be the Uncle that visited and never returned home. They want us engaged and present but not permanently based in their countries.

This means that seabasing and its augmentation is a fundamental requirement. When we add strategic lift aircraft, high-speed vessels or super ferries to the ARG-MEU lift equation we extend our strategic reach and significantly enhance our ability to enhance partnership capacity.

As the Navy and Marine Corps look to modernize the amphibious fleet, the team is looking at ways to provide cost effective relevant solutions moving ahead.

This means building ships which FIT the evolving concepts of operations and anticipated aviation assets, and modernization plans.

It is also the case of trying to leverage the lessons learned from the shipbuilding side of the house as well with regard to harvesting the best shipbuilding experience and leveraging that moving forward. This is clearly the case with USMC-USN thinking with regard to the plans for replacing the 12 aging Whidbey Island/Harpers Ferry (LSD-41/49) class amphibious ships, the first of which will reach age 40 in 2025. The plan to replace these ships would be with a new class of 11 amphibious ships – the LX(R) – with the first bought in 2020. The Navy wants to procure the first four LX(R)s in FY2020, FY2022, FY2024, and FY2026, and the remaining seven ships at a rate of one per year during the period FY2028-FY2034. And you have already seen the basic ship – namely the LPD-17.

The approach is to build the same hull and baseline configuration of the LX(R) based on the successful hull design of the LPD-17 class. The ship had its difficulties at first, but those difficulties have been dealt with and the class is being built without any substantial problems. Why not leverage the know-how of building that ship with transitioning to a new build configuration of a successful ship class?

To discuss the approach to LX(R), I visited Quantico and sat down with Jim Strock, Director of Seabasing Integration, at the USMC Combat Development and Integration Command at Quantico.

Question: How did the Navy and Marine Corps end up with the current approach to building the LX(R)?

Strock: We went through the complete LXR analysis of alternatives between the summer of 2012 and the summer of 2014.

That AOA looked at replacing the LSD's in kind with a similar sized and capable ship.

It looked at new construction designs, it looked at foreign commercial designs and it looked at the LPD 17 hull form and derivatives of that hull form.

In April of 2014, the analysis of alternatives was signed off. In October of 2014, the SECNAV, the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN RD&A), the current commandant, the future commandant and the CNO signed off a decision memo agreeing to use the LPD 17 hull form to replace the dock landing ship, the LSD, and so we are now in the throes of the detailed requirements development.

Clearly, there will be some differences between the configuration of today's LPD-17 and the LXR. And that is what the requirements development process will yield.

Question: When I visited the LPD-24 with regard to the rethink leaning forward to LXR, clearly the mast is going to change, and the team is looking to augment aviation support as well.

Could you provide some thoughts on what is envisaged?

Strock: We are looking at how to leverage the LPD 17 ship design to provide more effective operational capability. The Marine Corps position is that we will as a baseline ensure that we will not lose any of the current LPD-17 functionality and design towards enhancements. Clearly, how that functionality will be achieved is through certain changes within the ship.

Command and control is of course of increasing importance, given that the LPD-17 class often operates independently, which was not anticipated when the ship was built. Enhancements are being looked at fleet-wide as C2 is of growing salience to the deployed amphibious fleet, especially with the F-35 coming to the fleet as well.

The LPD 17 has robust medical spaces onboard so we preserved all of that. We probably will take a slight reduction in troop berthing compared to the LPD 17, but the number we settle at is far greater than what the LSD has today. The super structure, stealth mast construct will probably not be used for a variety of reasons to include that stealth mast is difficult to maintain. It will be replaced most likely by a conventional type mast.

From where we sit, today's LSD's are 15 to 16,000 ton ships in dead-weight tonnage. The LPD 17 is a 25,000-ton ship so your vehicle stowage capacity goes from 11 to 12,000 to 20,000 square feet. Your berthing of 408 on an LSD is going to go to 550 or greater with the LXR. Your cargo cube will be dramatically better as well.

Inside the ship, there may be changes to the propulsion and engineering plants, but that's up to the ship designers to decide as part of a wide variety of cost reduction initiatives aimed at providing Marines a very capable ship at an affordable price.

For the Marine on the flight deck or the Marine in the well deck or the Marine in medical spaces that will be relatively transparent changes.

The basic interior configurations will be the same but they're pretty doggone good.

You've been onboard and seen that the passageways are so wide and generous that two Marines carrying all their stuff can actually walk down the passageway without bumping into each other.

The most important reason that we want the LPD 17 hull form for the LSD replacement is to give us a credible ship to conduct independent operations. Today's ARG-MEUs are operating either split or disaggregated.

What is the difference?

With regard to split, the three ships will operate within the same Area of Operation (AOR); disaggregated they will be operating in adjacent AORs.

Hence, the importance for that ship to operate independently, to have the right balance of C2, aviation, medical, vehicle square, cargo cube, vertical and surface interface capabilities to enable Marines to operate across the full range of military operations. That's very important.

Question: I would like to raise a final question.

When I interviewed the Captain of the USS Arlington, he was adamant on the need for enhanced C2 for his ship.

Clearly, with the Osprey and F-35B combination, and the innovations in Command and Control going on at 2nd MEB, there is a clear need to provide for enhanced C2 within the amphibious fleet.

What is the thinking with regard to this requirement and challenge?

Strock: We publish annually, signed off at the 3-star level, the Afloat MAGTF C4 Required Capabilities letter, about an inch thick.

It lays out all of the afloat MAGTF C4I requirements that we need on those ships. That letter goes up to N95, and from there we go shoulder to shoulder with N95 when dealing with Navy's budgeteers, because the Navy has Navy Blue C4 requirements on that ship as well. We work through a collaborative process called the Enhanced Naval Afloat Baseline as we build a unified resourcing plan for shipboard amphibious command and control capabilities.

In other words, do we have a deliberate, planned way ahead to incrementally build and install and fund the necessary upgrades across the entire amphibious fleet?

We do, but it will take time. For some system installations you'd have to wait until the ship goes into a 6-to-8-month yard period to have those systems installed. Do we know what needs to go on those ships? Yes. We have worked with the OPNAV staff to plan for funding and installing those capabilities.

Equally important is that we're using the same approach for planning the operational deployment of the F-35 on board amphibious ships. N95 created a formal F35 Ship Integration Council as a forum to deliberately address F-35 requirements and impacts on the fleet.

In short, we have been stressing the need to make sure at the very least when the new ships are built, they are built with necessary space and weight margins to accommodate evolving C2 systems. Also, they need to be built with the necessary backbone, fiber-optic and other C2 backbones into the ship to accommodate the innovations on the way.

What actual box sits on the communications rack 10 years from now? You probably don't want to buy that today, but you have the space and weight and backbone reservations built into the ship. Just call it open architecture, and then the requirements documentation that we have that are working through the resource sponsors, we don't want to get into a trap that we had with LPD 17 when the San Antonio got delivered where some of the C2 systems were already outdated.

The landing force operations center, remember, used to have the desks with the clear glass tops and you had this big cathode ray tube below the glass and you are looking in this outdated TV screen with green letters. That is what the San Antonio was equipped with.

Why? It was about seven years flash to bang between contract award and ship delivery, and by the time the ship got delivered the landing force operation center had been overtaken by an entirely different electronic environment

Adding Capability to the Evolving Seabase: The Coming of the USNS Montford Point

By Robbin Laird

February 11, 2013

Unfortunately, the debate about the littoral combat ship, and the confusion of building a fairly limited ship with disruptive change, has obscured the real transformation at sea.

The dynamics of change affecting the seabase are truly significant. The ARG-MEU is being transformed into an expeditionary strike group. With the addition of new aviation assets, the F-35B and

the Osprey, the whole impact of a seabase is being transformed. With the addition of a new flagship for the seabased force – the USS America – the ability to shape significant flexibility is evolving as well.

And the supply side of the seabase is undergoing significant change as well. The new T-AKE ships for Maritime Prepositioning Squadrons are bringing new capabilities to the seabase, notably an ability to identify pallet loads onboard and deliver to where they are needed. Hitherto, the supplies on prepositioning ships were loaded in 20-foot containers which would take days of sorting through to make them ready to support a combat force.



An artist concept of a mobile landing platform ship which has been built at the General Dynamics National Steel and Shipbuilding Company (NASSCO) shipyard in San Diego, Calif. MLP-1 is the first-of-class ship, delivering a flexible platform to support Maritime Prepositioning Ship squadrons. (Photo illustration courtesy of NASSCO) 6/3/11

And now a new “floating” port at sea is being added to the mix. To be christened in early March, the USNS Montford Point will bring a whole new capability to the fleet and to support of the seabase enabling the USN-USMC team.

The ship is named in honor of African American Marine Corps recruits who trained at Montford Point Camp, North Carolina, from 1942 to 1949.

And at a price equivalent to an LCS, this “floating” port is a bargain. Unfortunately, current plans call for only two, with the second to be only deployable after several days necessary to mobilize.

In preparation for the christening of the USNS Montford Point at the NASSCO shipyard in March 2013, *Second Line of Defense* sat down with Jim Strock, a widely recognized expert on seabasing for the USMC.

He is the Director Seabasing Integration Division and members of his Connectors and Doctrine (C&D) Branch at the Marine Corps Combat Development Command MCCDC), Quantico.

SLD: The ship, which we will see in March, is not the same as originally conceived. Could you describe the shift from original concept to the ship that is in the water?

Strock: The original Mobile Landing Platform was an entirely different ship under the MPF Future Construct and there was a complete capabilities document that was written. There was a ship design team put together. We were in the throes of working the design when in the summer of 2009, the Department of the Navy made a conscious institutional decision to no longer pursue the MPF Future Construct but rather seek ways to enhance our current Maritime Prepositioning Ships program. A Tiger team was formed and came back with recommendations, which led to the current ship design.

When the NAVSEA PEO Ships came forward with a revised Mobile Landing Platform, that revised platform was downscaled significantly, but it preserved two essential seabasing capabilities.

The two essential capabilities that we wanted upfront was the ability to skin-to-skin marry to an LMSR at-sea, sea-state 3, come along side, tie those two ships together and then be able to move heavy rolling stock equipment up to and including tanks from the LMSR to the MLP. Secondly, the MLP would then be able to interface with LCACs to maneuver equipment ashore. It has been designed to provide for at-sea transfer of rolling stock at no less than sea-state 3.

In effect, it is a pier in the ocean. One could selectively offload from the LMSR to the MLP, and/or interface with LCACs. The LCACs would have to be provided by amphibious ships. The MLP is not designed to husband its own LCACs. One is not going to husband them or maintain them onboard the MLP.

In other words, the MLP, even though it's part of a prepositioning squadron, does not preposition any equipment itself.

SLD: The cost containment of the program is built around the ability to leverage a commercial hull and construction techniques. Could you explain the approach?

Strock: The MLP hull form is based on the Alaska-class crude oil carrier that NASSCO had been building for BP. They cut the center section out, installed ballast tanks so you could put nine feet of water over the main deck so you could float on and float off the raised vehicle deck and the LCAC lanes and such. It thereby can be characterized as a float on/float off vessel.



USNS Montford Point (MLP-1) undocking at General Dynamics NASSO. November 2012.

SLD: How does the MLP fit in to the prepositioning squadron?

Strock: In 2009, we went to the Undersecretary and we said, “The MPS squadrons already have LMSRs, which we got from TRANSCOM to replace the aging Mærsk-class ships that we had acquired in the early ’80s.

We asked the Under to take the T-AKEs, which were originally three of those were bought from the MPF Future program, and we asked the Under to reassign those to MPS.

One T-AKE per squadron will take roughly 20 percent of supplies that were previously kept in 20-foot containers and you would re-stow at the pallet level for selective offload of supplies.

So between the MLP and LMSR combination and the T-AKE capabilities, you can now within each pre-positioning squadron get to a certain percentage of the rolling stock and the supplies for at-sea selective offload.

You could never do that before with MPS ships because rolling stock was densely packed and the supplies were stuffed in containers and the only way to get at the supplies was to send the containers ashore and un-stuff them.

Now back to a discussion of the role of the MLP in this effort.

LMSRs already part of the maritime prepositioning ships squadrons. They’d been around for years. We simply acquired the operating rights for some of them from TRANSCOM, and the T-AKEs for MPF Future were funded in 2009/2010 so they were already bought and paid for and were part of a 14-ship run.

So we had the T-AKE piece. We had the LMSRs.

The missing link was the MLP.

In August of 2009, Mr. Art Divens, a senior executive at NAVSEA, came forward during the brief to the Under with the revised Mobile Landing Platform idea. He said we think NASSCO can build this based on the Alaska-class crude carrier design.

The Under agreed, and plans were initiated to pursue that design.

In the FY11 Navy shipbuilding plan, the Navy funded one of them. In the resource management decision signed off by Secretary Gates in March of 2010 for FY11, the Sec Def RMD 700 stipulated that the Navy would buy a total of three of these MLPs and OSD provided an extra \$1 billion to do so.

The first two MLP's were funded in FY11. Now since then, we've come down to two squadrons, so at this juncture for prepositioning purposes, MLP's 1 and 2 are crucial.

MLP-1 is getting christened in March and we expect delivery later in 2013. The keel was laid for MLP-2 in December, and it will be named after Senator Glenn.

After she's delivered, MLP-1 will go through probably a year's worth of post delivery shakedowns and so on. And in the meantime, the Marines, in concert with the Navy are holding various working groups and meetings. We're developing tactics, techniques, procedures, operational handbooks, working with the assault craft units, LCAC operators, particularly the experimental LCAC crew down in Panama City, Florida, who did all of the original 90-degree approach and departure testing and demonstrations on a MLP surrogate, the motor vessel Mighty Servant, to get it in all place.

To recap: the MLP is currently designed and built. We'll do skin-to-skin marriage to an LMSR, at-sea transfer of rolling stock from the LMSR to the MLP using the LMSR's existing side door and the LMSR's organic ramp and then interface them with LCACs. In sea state-3 conditions, we'll be able to transfer vehicles, up to and including M1 tanks, from LMSRs to MLPs to LCACs.

But this will just be the beginning. As we begin to employ these new capabilities, there will be an evolution, if not revolution, of tasks and working relationships with ship and aviation assets which can be rolled out.

SLD: Could you give an example of some of the ramp up possibilities for the MLP?

Strock: For example, one could potentially put a berthing barge on the MLP. The Navy's had berthing barges for years in the shipyards.

When you have to get the crew off a ship when she's in dry dock, you put them in a floating hotel. It's called a "Berthing Barge."

You could design a self-contained berthing barge to house 200, maybe 300 people, with classrooms, showers, head facilities, dining hall facilities.

The MLP's have space and weight to potentially accommodate those additional capabilities, just on the basic design of the ship.

SLD: In effect, the MLP is part of the evolution of seabasing that when considered with the transformation of aviation assets can allow for some significant change in capabilities and operations.

Could you address this possibility?

Strock: If you look at my brief towards the end where at the "Seabasing What's Next" you can see some of the possibilities of change.

We've already been down to talk to the Army Chief of Transportation at Fort Lee, Brigadier General Stephen E. Farnen. The Army has host of ocean-going watercraft. We need to test if Army LCUs or Army Logistic Support Vessels could do a 90-degree ramp down marriage to the MLP for possible equipment transfer.

We need to see if the Navy's landing craft utility, the 1610 Class LCUs, could they do ramp down, what we call athwart- ship, 90-degree approach, on the MLP for at-sea transfer.

We need to examine: Can you bring a joint high-speed vessel alongside the MLP, slew its ramp 45 degrees and do at-sea transfer between JHSV and MLP?

And the combinations become endless, so you look at all of the various Army watercraft, and as you look at other military sealift command assets, and all the various multinational capabilities.

The lance corporals and the gunnery sergeants are going to figure a lot of this out. The petty officers, the gunnery sergeants, the seamen, the lance corporals, these are smart people. They're going to find ways to make stuff work together that we haven't even thought about at the start of the effort.

SLD: Where will the ships be home ported?

Strock: The first one will be going to go to Diego Garcia. The second one, due to funding constraints, will be put it into reduced operating status five.

This means it can be available for tasking in five days. This means that within five days you can get it underway. If you put it in reduced operating status, you have a skeletal crew onboard, just to keep it warm.

But the beauty of the MLP is since you don't carry any prepositioned equipment, in order to activate the ship in five days, that essentially is sending a shuttle bus to the Mariner's union hall to pick up the rest of the crew and get her underway.

SLD: Could you identify how it might be used in a crisis?

Strock: Once that thing gets delivered, it would be available for crisis response. If you've got another Tsunami where shore infrastructure gets wiped out, an LMSR with an MLP, coupled with amphibious ship LCACs, and a T-AKE coupled with amphibious force V22s, you can operate from the seabase and selectively send supplies and equipment ashore without having to offload all of your prepositioning stocks in some arrival and assembly area and sort them out.

With what we call the "Seabasing-enabled MPS Squadron" you can selectively offload and reinforce and support from the seabase long before you take the other densely packed ships and send those ships pier side for a traditional afloat prepositioning offload and the arrival and assembly process.

Augmenting the Capability of the Amphib: A Key Element in the Evolution of the Seabase

By Robbin Laird

May 12, 2010

In mid-March, Second Line of Defense talked with Jim Strock, Director, Seabasing Integration Division, Capabilities Development Directorate, Headquarters, U.S. Marine Corps Combat Development and Integration based at Quantico.

Jim Strock is one of the nation's leading experts on seabasing and an innovative thinker with regard to the evolution of U.S. Naval and Marine Corps forces. In this interview, Strock highlights innovations in the decade ahead in augmenting the capability of the seabase, notably under the impact of the Osprey and the F-35B.

SLD: There has been a recent Navy document that's looked at the role of sea basing in low and mid-intensity operations. What are the findings of that report? What's the significance for someone who works with sea basing?

Jim Strock: This report was put together by Commander, Fleet Forces Command in Norfolk. It's a tremendous effort representing three or four years worth of work, taking the seabasing focus and looking at it in terms of what can the Navy operating forces do today. So the conops is not something that's looking way out into the future. Instead, it's a comprehensive overview of what today's Navy forces are capable of doing in a seabasing operational environment. It's a solid first step in setting the foundation for framing our future seabasing capabilities.

SLD: Let's turn to the question of the evolution over the decade ahead. What new capabilities could be added to the seabase effort?

Jim Strock: In a general sense, the capabilities that we need in the sea base are the ability to conduct at-sea transfer of personnel, equipment, and supplies between large vessels and maneuver those

capabilities ashore via all forms of surface craft. The last time we talked, we talked about the MPF future program and how we were going to have the [LMSR](#), the large, medium-speed, roll-on/roll-off ship coupled with a fully functional mobile ending platform. With such platforms in the seabase, you'd be able to transport troops to the seabase by aircraft and the Joint High-Speed Vessel and conduct at-sea arrival and assembly of troops, equipment and supplies, transforming them into an operationally capable unit able to maneuver ashore by both aviation and surface landing craft.

We're clearly heading in that direction, but we're not getting there as fast as we want to. We've had tremendous support from the Under Secretary of the Navy, Mr. Bob Work, who clearly understands the need to develop seabasing capabilities, even under the most intense fiscal pressure we've seen in years. Secretary Work was very influential this summer in reiterating that MPF future is not cancelled, but rather is being deferred and restructure. He made it clear that investing in near-term seabasing enhancements to today's Maritime Prepositioning Ships program will help illuminate how we recapitalize that program in the mid-term as part of attaining the MPF Future capabilities we originally envisioned.

The MPF future program originally had three big deck amphibious ships, three new construction LMSR's outfitted with troop berthing and other seabasing capabilities, three new construction TAKE's, and three new construction mobile platforms complete with troop berthing, substantial vehicle stowage, and six Landing Craft, Air-Cushioned (LCAC) spots.

But, for now, that program has been deferred. So what are we going to do instead of that? The answer comes in three parts.

First, the Marine Corps fortuitously, for other reasons, acquired three LMSRs from U.S Transportation Command to replace some of our aging MPS ships. While those LMSRs are not outfitted with the MPF Future enhancements we were seeking, they are LMSR's nonetheless, and they are extraordinarily capable ships. The Marine Corps went to Transcom and said we would like to acquire the operating rights of three of those ships and put them in our MPS program.

The LMSR's are nearly a thousand feet long with three to four hundred thousand square feet of rolling cargo space. They were built in the mid 90s as part of the Army's overall strategic mobility program. That's a story unto itself, but we wound up acquiring 19 — half of them are the Bob Hope class, the other half are the Watson class.

The vessels are very good utility infielder, 24-knots, and you can load substantial amounts of cargo. Those ships were one of the principal means for getting combat equipment in theater for OIF and OEF.

We still have the AMSEA and Waterman class dense-pack ships in our MPS program, but with the addition of three LMSRs, we now have the beginnings of at-sea transfer capabilities.

Secondly, the Navy's Fiscal Year 2011 shipbuilding budget contains funding for three revised Mobile Landing Platforms. These MLPs will initially have two basic seabasing capabilities: at-sea, sea-state three transfer of personnel, cargo, and equipment between the MLP and the LMSR, and the ability to transfer those assets from the MLP to LCAC's for maneuver ashore.

Finally, the original MPF Future program called for three T-AKE supply ships, carbon copies of the T-AKE's that are being acquired for the Navy's Combat Logistics Force. The MPF Future T-AKE's were funded in Fiscal Years 2009 and 2010, and we were able to retain the commitment for those ships to become part of our MPS program. By adding one T-AKE to each of our three MPS squadrons, we'll be able to convert 20-25 percent of supply stocks, previously packaged in 20-foot containers, into pallet-level stowage configuration, thereby enabling selective offload of small-unit sustainment packages for pinpoint delivery ashore by aircraft for surface craft.

Put all that together, the MPS squadrons operating in the seabase effectively becomes a very credible new node within a much larger theatre operations and distribution network. With those enhancements to today's MPS, we will have far greater seabasing capabilities – at-sea transfer, maneuver ashore, and selective offload – that will enable our Navy and Marine Corps operating forces to employ our afloat prepositioning capabilities across a far greater array of military operations in support of Combatant Commander mission assignments.



The LMSR Sisler

(Photo credit : <http://gcaptain.com/maritime/blog/taq/boston/>)

SLD: It seems to me that given your focus on the seabase, that the amphibious fleet becomes more important as the capabilities onboard are enhanced, namely, the Osprey and the F35-B which enable a 3-dimensional capability for the sea base that it currently doesn't have. Could you speak a little bit to the question about these new aviation assets interactive with the surface assets that allow one to do? Because I just don't think it's widely understood.

Jim Strock: I think what the nation needs to know about amphibious ships and amphibious forces is number one; that out of all the ships in the fleet — all the ships in the fleet — the only ships that can truly extend the full range of seapower ashore are amphibious ships. Aircraft carriers and surface warfare ships have tremendous strike capabilities, and the upcoming Littoral Combat Ships will provide enhancements to our surface combat, anti-submarine warfare, and mine warfare capabilities. But amphibious ships are armed with operationally ready Marine Air-Ground Task Forces (MAGTFs). Those ships can project and sustain those forces ashore, and can recover them to the seabase when and where required. That's a degree of operational flexibility that significantly the range of options available to the Combatant Commander. That's very important in today's security environment.

Equally important is the fact that amphibious ships can loiter virtually indefinitely with those operationally ready forces fully capable of operating on a rheostat. Other ships can't do that, or they

can't do it to the extent amphib ships can. The amphib ship with its onboard ability to care and feed and train and refresh and resupply those troops, and house and maintain their aviation and landing craft, those are critical capabilities necessary to support today's national security strategy.

With the respect to the V-22 and the F35B, what do they bring? With the V-22, you now have a geometric increase in your operational reach and speed of extending those forces ashore. With a CH-53's key performance parameter of 27,000 pounds traveling 110 nautical miles on a high hot day, that's a level of operational reach we have never seen before. With that elongated operational reach, you could go farther inland; you can enable that sea base to stand off a little bit more that enhances your force protection.

With respect to the F35B, we're talking about a fifth-generation aircraft with greatly expanded capabilities over its predecessors. It's a multi-mission aircraft. I'm not an aviator, but it's clear that this aircraft will bring far more than improved kinetic strike to the battle space. It will give the commander on the ground vastly improved eyes and ears. It's an incredible aircraft.

We have a whole lot of ship integration work to do to get that aircraft onboard the amphibians and have it operated from the amphibians.

Sometimes I think that's lost on the nation about the there's loss going certain people that across the full range of military operations in the flexibility of what our amphibious ships can do. They are exceptionally versatile platforms, and they're always in high demand.

SLD: A final question: for ground operations, another key contribution of the sea base is to provide extended support for ground forces, notably insertion forces. What changes do you see here?

Jim Strock: I think if you ask three people what a sea base is, you'll get four, maybe five answers. No two sea bases will ever be the same. The sea base's capability is limited only by the imagination of the lance corporal through the four-star flag or general officer who is going to organize, deploy, and employ the sea base. You take a look at those platforms out there and what's coming online with the LMSRs, T-AKE's and the new mobile platforms. In a few short years, we'll be far better positioned to operate our maritime prepositioning ships in seabasing operational environments. Couple that with our amphibious ship capabilities, our nation's forward presence, engagement, and crisis response capabilities will be vastly improved over what we have today.

The platoon commander on a hilltop, 100 to 200 miles inland, doesn't want a 20-foot container full of stocks. He wants precision delivery of critical, unit-level supplies he can pick up and run with. Right around the corner we'll be able to do that with our MPS squadrons. Combine that capability with the V-22's and CH-53's extended operational reach, and we'll see a whole new dimension in our seabased sustainment capabilities.

Imagine what these MPS squadron enhancement could have done for the opening efforts in Haiti, when nothing else was there and the port was clobbered. Your only limitation in providing support from those ships would have been the time to move the ships into position. From there, they would have

been able to provide humanitarian support in those critical first days after that tragic. Capabilities like that can make our Nation proud.

Haiti Relief as a Case Study: Seabasing and JLOTS in Action

By Robbin Laird

February 22, 2010

The Haiti relief operation featured a number of key U.S. and allied military assets in shaping the overall capability.

In this interview, I talked with one of the most knowledgeable U.S. analysts of the seabasing concept in the US military.

Jim Strock is Director, Seabasing Integration Division of the Capabilities Development Directorate Marine Corps Combat Development Command.

Question: Most people don't understand the function of a sea base, but in Haiti, virtually the entire world could see a sea base in operation. Could you comment a bit on how sea-basing capability was demonstrated in Haiti?

Jim Strock: Number one, as we've always said, there's no cookie cutter definition of a sea base. Sea bases are assembled out of resource pools available to joint force commanders, and they're tailored for specific missions. So if you look at Haiti, I think the first thing down there was the USS Truman carrying helicopters. The Truman effectively went down there as a transport deck to get some vertical lift assets in there. The 22nd MEU on the USS Bataan instantly back loaded. They had just gotten back from a routine deployment on 7 December and turned right around and back loaded on the very ships that they'd just come off of.

Question After the initial insertion what other elements were deployed for the sea base?

JS: The hospital ship, USNS Comfort, I believe, got underway and went down. Then DoD activated one of the crane ships, one of the T-ACS crane ships. These ships are from the Military Sealift Command Ready Reserve Force, which is able to sandwich itself between an ordinary container ship and some sort of lighterage or a pier and very quickly trans-deck or trans-load containers off container ships to lighterage and things like that, more on that in a minute.

Then, very fortuitously in the existing MPS Program that we've had for years as you're probably aware, we have a facility at Blount Island, Jacksonville, Florida, where our MPS ships routinely go in on a periodic basis. All the assets are downloaded. The ships are sent off to Charleston for American Bureau of Shipping Inspections and meanwhile the equipment at Blount Island is refurbished and updated and restocked and so on. So we had the USNS Lummus in Blount Island empty. She'd just

been off-loaded and so instantly at Blount Island, they back loaded the Lummus with a variety of engineering equipment: water purification, power generating, bulldozers, earthmovers, forklifts, things like that. Then I believe the US Agency for International Development rushed other supplies down to Blount Island, and they back loaded that on the Lummus and sent the Lummus into Haiti. Then one of our other pre-positioning ships, the USS James E. Williams, was sitting in Charleston, and they pulled her out and sent her to the common user pool for military sea lift command, so that she could perform logistic shuttling.

And boom: You have a sea base! They also took down – I think either the Lummus or the Williams – took down the Navy's Improved Lighterage System (INLS), which gave you the ability to transit supplies and equipment to shore because, obviously, there was no usable port infrastructure. So other than getting airplanes into the Dominican Republic and also outlying airfields in Haiti, and other than having helicopters down there to lift supplies off of the amphibious ships and such, this was a new capability to deliver supplies.

For the initial, critical grueling period of that event, the only way that you could extend any sort of relief capabilities to shore was through the sea base.

Comment: Your point being it's a very flexible concept, which can be tailored to the solution presumably if the assets are available.

JS: That's correct.

Comment: But there must be tremendous pressure on the assets with the global deployments in Afghanistan and Iraq.

JS: There are but it was surprising what was available on the East Coast at the time. Of course, the Comfort was sitting up near Baltimore. They got her underway in short order. The crane ship got underway in short order, which speaks highly of the ability to maintain ships under reduced operating status yet activate them very quickly.

You had elements of the amphibious fleet ported in Norfolk. You had obviously a carrier homeport in Norfolk. You had the 22nd MEU and the Battalan who were crucial for landing support parties ashore to help organize the air heads and organize each landing areas where they could in order to move supplies to shore. The maritime pre-positioning ship came out of Blount Island. The amphibians came out of Norfolk.

Question: The crane ship: you were describing how has it had been activated?

JS: This belongs to military sealift command. It's in there generically. It's in their Ready Reserve Fleet, and these types of vessels are available on call in a reduced operating status. I don't know if it was a 5-day or a 30-day – probably a 5-day because they got her underway pretty quickly – and so you had key players out of the Navy, obviously 2nd fleet.

You had military sea lift command involved with the crane ship; the hospital ship and the MPS ships are all military sea lift command assets. So that speaks highly of the fact that you can designate a joint

task force commander, and you can make assets available to him. I'm sure the combat logistics force had one of their new T-A-K-E's down there, I believe, one of their underway replenishment ships. And you had coalition ships operational as well.

The purpose of the sea base was really to establish the initial ability to introduce bulk supplies and equipment into the country in the absence of a port and infrastructure: I don't even think the pier is fixed yet. Generically we call it JLOTS – Joint Logistics Over the Shore – which can be brought to bear very quickly to setup effectively a surrogate pier facility, so you can get supplies from ship to shore.

Question: Let me ask you a final question then, which is kind of in summary. In your view, what does Haiti show about the sea basing capability?

JS: It shows how quickly a seabase can organize, deploy, and respond to an assigned mission.

The USMC and Crafting the Seabase Enterprise

By Robbin Laird and Murielle Laird

September 18, 2009

The USMC has become more of a land army as a consequence of the Iraq War. General Conway, the USMC Commandant, is worried the Corps is losing its expeditionary focus. Marine officers who have joined the USMC during the Iraq period are very likely NEVER to have been aboard ship. According to Conway, "They have been to Iraq two or three times in most instances but, in some cases, now are leaving us never having stepped aboard a ship."

But the essence of the USMC is to be a flexible, expeditionary force. Indeed, in their operations in Afghanistan and Iraq they have conducted flexible operations built around their aviation capabilities.

Indeed, in a famous moment in the initial Afghanistan operation, the USMC operated from ships to move deep inland to operate against the Taliban. Task Force 58 was in essence a sea basing operation as the USMC leadership sees it, and an example of what the USMC needs to be prepared and supported to do in the years ahead.

Task Force 58's (TF-58) combat operations in Afghanistan during Operation Enduring Freedom (OEF) in 2001 covered 450 nm to establish Camp "Rhino" and then operated over 750 nm to Kabul. "On 25 November TF 58 opened a second front in the south by commencing the longest ship-to-objective maneuver in history, moving 400 miles inland to seize the desert airstrip south of Kandahar.

Renamed "Forward Operating Base (FOB) Rhino," it supported the introduction of additional joint forces as well as the isolation and the eventual seizure of Kandahar, the last political and military

stronghold of the Taliban regime. Supported and sustained from a sea base 450 miles away, FOB Rhino facilitated the projection of combat power several hundred miles further inland.”¹



Seabasing...the enabler!



**Imagine the next TF 58...
anyplace else in the world!!!**



Expeditionary power projection sustained from the sea

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Figure 1 General Amos, The Competition for Access and Influence "Seabasing" presented at the 12th Annual Expeditionary Warfare Conference, Panama City, Florida, 2007

The flexibility of operations essential to the USMC was underscored by the release of the USMC's Combat Development Command at Quantico's evolution of the concept of the "Strategic Corporal." The "Strategic Corporal" was invented by former USMC Commandant General Krulak and referred to the flexible training and capability of the individual marine operating in variety of organizational settings, notably the "three block war."

In the October 2007 release of the Combat Development Command, the "Strategic Corporal" became associated with the evolution of the seabase. Here the concept of the role of the "Strategic Corporal" is that of the USMC unit of operations from battalion on up able to operate flexibly from the sea many miles inland to influence events. Here the USMC is seen as able to operate in peacekeeping, stability, and low-to-high intensity operations with integrated equipment packages able to operate from the sea or redeployed on the shore or deep inland able to influence events.

¹ Grace V. Jean, "More Amphibious Ships are Needed, Marines Contend," *National Defense* (February 2008)

The notable point is the modular sea-base approach is seen as integral to the operation of the new USMC equipment, notably the Osprey and the F-35 in the years ahead. Flexibility, expeditionary, integrated operations and sea-basing are seen as closely integrated in evolving USMC doctrine and operations.

In a discussion with Jim Strock, Director, Seabasing Integration Division of the Capabilities Development Directorate of the USMC Combat Development Command the basic USMC approach was outlined.

Characteristics of Seabasing	Key Attributes of the Seabasing Enterprise
National capability for force projection	No secure beach or host nation required
Exploits sea as maneuver space 365 days a year	No “iron mountain” ashore to protect
Maximizes the effects of forward presence	Assembles troops and equipment at sea
Reduces dependence on vulnerable land bases, “steps lightly” on allies and partners	Selectively offloadable for different missions
Increased options for the President	Sustainment and reconstitution of fighting from the sea
Crafting of an enterprise which can cover the spectrum of political-military missions on a global basis	Deployed and sustained force afloat able to influence events ashore with ground forces engaged ashore
Enabler of joint and coalition operations in area denial and anti-access environments	Sea strike becomes a deployed joint force, not simply an aerospace strike force

The first and most compelling point made by Strock was that seabasing should be understood in a modular way. No two seabases will be alike. A mix of capabilities will be blended to allow the forces operating off of the seabase to influence events ashore. Modular mix and match will allow the seabased force to provide the flexibility necessary to operate in a variety of settings and for a variety of missions. The seabase is flexible and scalable. But without a sufficient robust mix of capabilities and without “sea shield,” the seabase will not be effective.



What's in the Joint Seabase?



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“Viewing the Sea Base as a capability, it can be formed by a one ship, a small group of ships, or a larger, more diverse force. No two seabases will ever be the same. The platforms shown on this graphic are all components that will play a role in the “system of systems” of the seabase enterprise. At the center of the Seabase will be the Maritime Prepositioning Force (Future).

“The Carrier Strike Group is built around an aircraft carrier, while an Expeditionary Strike Group provides the synergy of surface combatants with a Marine Expeditionary Unit embarked on Amphibious Warfare Ships. Various connectors will provide both intra-theater and inter-theater lift of aircraft, personnel, and equipment. The Combat Logistics Force ships provide sustainment, and Coalition Forces provide unique capabilities to the Sea Base that will be critical to our success.”

Seabasing is not about logistics support to forces put ashore. It is about logistics embedded in the sustainment of forces able to deploy from the seabase deep inland. It is about sustainment and engagement as two arms of deployed capability. Seabased forces maneuver directly to the objective rather than first establishing a presence on shore.

At heart, the seabase by combining its initial logistics support and providing a base for continuing operations with a possibility of sustained replenishment can operate effectively from the moment it arrives on station. By combining sustainment and deployable forces, the seabase embodies a force able to influence events ashore across a wide range of contingencies.

The flexibility of the seabase concept, Strock, maintains will be essential to U.S. and allied strategy in the years ahead, as access denial becomes more telling and the need to insert force rapidly or selectively becomes more important in shaping counter-terrorism or humanitarian missions. Insertion forces will become strategically important as the U.S. rethinks the desirability of deploying large land armies to do stability operations as a core motif of U.S. operations.

Also important to the USMC is getting the seabase approach in place and operating effectively as it brings online its new expeditionary equipment. The F-35, the Osprey and the expeditionary fighting vehicle all will provide greater range, lethality, and C⁴ISR capabilities to a deployed force. And the USMC will be able to operate its evolving doctrine of decentralized and reconfigurable forces (distributed operations) with the new equipment connecting the deployed elements. And with reachback to the seabase, the force can operate with sustainment in place.

Seabasing allows the USMC to focus on operations right away rather than primarily focusing on managing the offloading of equipment to port and shore facilities. Strock underscored that in current operations it is necessary to offload inventory ashore, then organize the inventory, then marry the supplies to the equipment, then assemble to equipment and *only then* begin operations.

This not only takes time, but enhances significantly the vulnerability of an embarked force. With the growing capabilities of adversaries to target fixed facilities ashore, the need to operate rapidly against those capabilities and to operate from various vectors of operations connected by the seabased forces networks and protected by sea-based defenses is growing. The seabase may provide the only viable insertion of ground force option in many future contingencies.

For operations beyond the initial insertion, the seabase will need to be replenished. And here a new vehicle (the Vehicle Transfer System or VTS) is being developed to provide offloading capability from replenishment ships and capable of transferring assets among elements of the seabase.

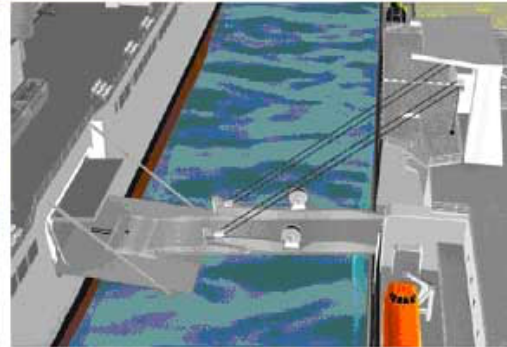
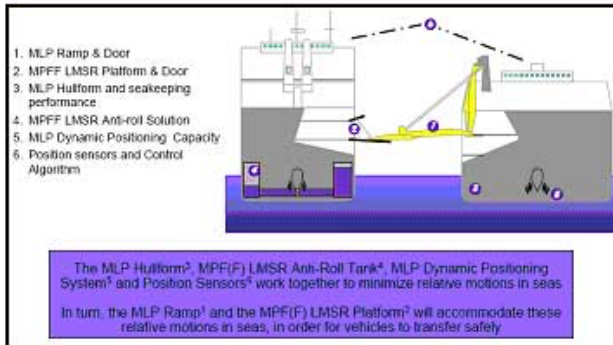
And indeed, R and D efforts are underway to enhance the capability for replenishment and transfer of assets to provide for greater sustainability and, therefore, operational capability for the seabase. The seabasing concept of the USMC places sustainment on strategic par with the forces able to be deployed. Twining of sustainment and operational capability is a core aspect of the evolving concept of the seabase.



Vehicle Transfer System (VTS)



VTS is the critical new technology that enables surface movement



- Primary system to transfer vehicles and personnel from the LMSRs to the MLPs underway
- Dynamic positioning (DP) of MLP to LMSR while underway
- 1 VTS per MLP (no redundancy)
- 24 hour ship transfer (notional) period through NATO SS3

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Some of the key technologies which must be developed to enable the seabased enterprise are: skin to skin transfer of cargo and related operations, automated cargo handling systems that will permit selective offload of cargo, cranes that can lift more and operate in higher sea states, and the ability to interface and offload rolling stock and cargo with other ships and connectors.



Joint Seabasing Experimentation

Science & Technology and Research & Development



Skin-to-Skin Transfer



High Capacity UNREP



Selective Offload



Stabilized Cranes



**Joint Modular
Intermodal Container
(JMC)**



**Mobile Landing Platform
Interface**



Automated Cargo Handling



At-Sea Arrival, Assembly, Employment, Sustainment

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Although seabasing is a core U.S. Navy and U.S. Marine Corps approach, the U.S. Army is becoming an increasingly important partner in the evolution of the seabase. In Iraq and Afghanistan, the US Army and USMC have increasingly cooperated in shaping common capabilities, e.g., the procurement of the Shadow UAV by the USMC and sharing of operational approaches with the US Army.

The US Army has become a partner with the USMC in shaping joint R and D with regard to vessel requirements and is sharing the acquisition of some elements of the seabase. US Army thinking was underscored in a recent US Army presentation on the seabase at the annual Expeditionary Warfare Conference in October 2007.²

² Chris Cavas, "US Navy Gambles on High Technology," *Defense News* (February 4, 2008).



Operational Maneuver Other Big Ideas

Joint Seabasing



Afloat Forward Staging
Base
(AFSB)*



Joint High Speed
Vessel
(JHSV)*



Austere Access
Joint High Speed
Sealift
(JHSS)*



* Conceptual drawings. Solutions to be determined.

A Campaign Quality, Expeditionary Army for 21st Century Full Spectrum Operations

071630 NDIA EWC (181630 Oct 07)

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Figure 2 From BG Martz Brief to Expeditionary Warfare Conference (2007)

In effect, what the Army is advocating is reshaping their logistics ship support from offloading equipment to a mixed fleet which could support operations from the seabase for a period of time before an offloading operation is embarked.



Joint High Speed Vessel (JHSV)



Mission: Provide high-speed, medium-payload, intra-theater lift; projected USN fielding FY11, Initial Operating Capability FY12.

- Primary mission areas include: operational / littoral maneuver; support Combatant Commander's Security Cooperation Plan and real-world GWOT missions; and Force Closure / Seabasing Support.



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Figure 3 The JHSV is being developed with the Army working through Navy program office (PMS 325). The JHSV is a 35-45 knot ship that will provide intra-theater life of equipment and personnel.

Although the USN and USMC both support the seabase concept, there is a difference. Due as much to the shipbuilding challenges as much as anything else, the USMC emphasizes amphibious assault and forceable entry. The USN tends to emphasize replenishment and resupply of forces which have moved ashore.

Clearly, the USMC would like a significant increase in the commitment in the shipbuilding budget to ships appropriate to the seabasing enterprise.³ Here additional amphibious vehicles, transfer vehicles, replenishment ships and other assets are required to achieve the promise of seabasing. Strock indicates that about 7% of the shipbuilding budget goes to the amphibious fleet. He would like to see this increased.

One might observe that the seabasing enterprise could become more significant to future Administrations. The current shipbuilding crisis is shaped by what *Defense News's* Chris Cavas calls a radical commitment to building many new ships at once for the surface navy.⁴

³ BG Joseph E. Martz, Director, Concepts Development and Experimentation Army Capabilities Integration Center, *A Campaign Quality, Expeditionary Army for 21st Century Full Spectrum Operations* (October 23, 2007).

⁴ *Naval Operations Concept 2006*, p. 28.

It is a hugely risky venture designed to build a strike fleet. In contrast, the seabase enterprise makes the combined ground, air and naval team (USMC and US Army) the naval strike force. The difference here is significant: is naval strike largely about missile and related strikes from a carrier task force or is it about influencing events ashore from a seabased enterprise? Indeed, one could see the U.S. Navy being recast as a littoral endurance force able to employ a seabased enterprise, provide for maritime security and provide global presence seeking to influence events in the littorals as the core US elements.

If the seabasing enterprise is to be realized, there clearly will have to be a sustained strategic and financial commitment. The challenge is that the Obama Administration is reviewing the entire gamut of amphibious operations. And support for sea-basing might be construed as part and parcel of any cuts to the amphibious fleet.

This would be unfortunate given the flexibility which the fleet provides and the utility of insertion forces globally and across the spectrum of operations. As the Administration considers the role of “hybrid warfare,” sea basing could prove an indispensable tool for flexible global operations. And the USMC is emphasizing the role of sea basing within what the USN is calling its global fleet station strategy. And the commitment to the F35 carries with it the opportunity to consider the role of the F-35B to a future sea-basing strategy.

The Obama Administration through the QDR process is very likely to change elements of what underlies the seabasing capability. Notably, with regard to the logistics ship which will underlie the capability. The Mobile Landing Platform of MLP is a centerpiece to the capability. But it appears that the Administration will not build a new ship for this capability, instead opting for an existing hull form. So the shift might be from the MLP to a MLP-like capability. The jury is out on whether the Administration supports a core capability; but the need is not.

An earlier version of this article was published in *Military Logistics International* in February/March 2008.

And here is a 2007 view of how sea basing can operate to provide options for the joint and coalition force from an unclassified USMC briefing from 2007:

