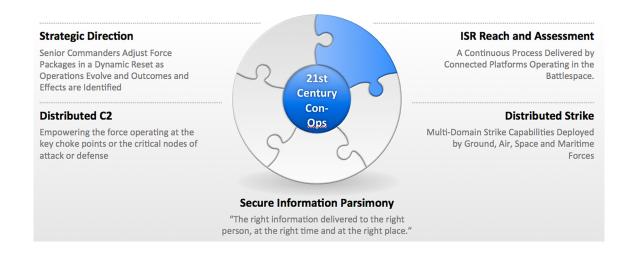


# Mobile Basing as a Key Combat Capability: Perspectives and Capabilities

#### **Operating and Prevailing in the Extended Battlespace**

The Offensive-Defensive Enterprise Operating As a Kill Web



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## Re-shaping Forces for the High-End Fight: The Challenge of Overcoming the Legacy of the Land Wars

10/29/2021

With the return of the high-end fight, and the challenge of delivering tailored military capabilities to ensure escalation dominance in the maritime domain, a broadened focus on maneuver warfare in the maritime space has emerged. Distributed operations within a wider capability to integrate the force is a key focus of shaping a way ahead for the high-end fight and crisis management.

For North Atlantic defense, Second and Sixth fleets are working with the joint force and allies to shape distributed forces which can integrate to deal with various Russian threats, from the hybrid to the gray zone to high-end warfare. For the Pacific, the defense of the outer islands of Japan through to Guam to Australian defense provides the core defense zone from which power is projected into the areas where the Chinese are pushing out for greater influence and combat effects.

But for effective capability to leverage distributed operations to deliver an integrated effect is a work in progress. It is an art form which requires significant training as well as capabilities to deliver C2 at the tactical edge.

Connectivity among the pieces on the chessboard is required to provide for the kind of escalation dominance crisis to engage effectively in full spectrum crisis management. With the development of flexible multi-mission platforms, there is an ability to flex between offensive and defensive operations within the distributed battlespace. It is clearly challenging to operate such a force, delegate decision making at the tactical edge, but still be able to ensure strategic and area wide tactical decision-making.

The strategic thrust of integrating modern systems is to create a grid that can operate in an area as a seamless whole, able to strike or defend simultaneously. This is enabled by the evolution of C2 and ISR systems. By shaping an evolving ISR enabled C2 systems inextricably intertwined with platforms and assets, which provide for kill web integratable forces, an attack and defense enterprise can operate to deter aggressors and adversaries or to conduct successful military operations.

With the Biden Administration's Blitzkrieg withdrawal strategy, the curtain was drawn on the core commitment of the U.S. military to stability operations and counter-insurgency efforts in Afghanistan. With this comes a significant historical shock – the U.S. military has been focused by its political masters on fighting a non-peer competitor and has built a force structure optimized for such operations.

But the Chinese and the Russians as peer competitors have not been focusing on Afghanistan or fighting what the U.S. military has been optimized for. This is a significant strategic disconnect which the U.S. military is working to correct.

This is a short- and long-term challenge. The world is not going to wait while the U.S. military goes into a long-term retooling. As Secretary Wynne noted when discussing a military force twenty years out: "you already have 80% of that force today."

But what if you have stockpiled equipment for stability operations and counter-insurgency and your Commander and Chief simply decides to end this effort, but now faces direct threats from China and Russia?

What do you do then? What are core war winning capabilities?

You have a military which has not really thought about nuclear weapons. They have not really focused on a major theater war. They have not really integrated their forces for a high-end fight, During the land wars what passed for joint operations was what the services provided the U.S. Army leadership who dominated the definition and execution of joint operations. Now the maritime and air arms of the U.S. military clearly recognize the need to work force integration, but how they have done so for twenty years is not the same as fighting peer competitors.

Note this comment from the commander of the USS Carl Vinson strike group made this August.

"This is the first large-scale exercise held in decades and I am excited about the high-end integration of the carrier, and all that it brings, at sea," said Capt. P. Scott Miller, Vinson's commanding officer. "Carl Vinson and our embarked air wing are trained and ready to participate in the first Naval and amphibious large-scale exercise conducted since the Ocean Venture NATO exercises of the Cold War."

To say that there is a disconnect between the force you have inherited and what you need to do today is certainly where one has to start. The United States has significant combat capability for the high-end fight, but unfortunately it resides in services that largely do Piaget's notion of young children doing parallel play, rather than working together to achieve a combined result.

Force integration can be a key advantage for the United States if it can achieve it. The problem is that there is too much long-range "planning" for force integration for the future force. We will not get to that future unless we deliver enhanced capability in the short term.

A key way to do so is to ramp up efforts to integrate distributed forces packages which are more survivable but also integratability across the services with the C2/ISR capabilities built into those force packages to deliver an aggregated effect. To be blunt, this is not about working the entire gamut of U.S. forces as an integrated force, for frankly, this is not within the ken of the current force and might never be.

But by focusing on force distribution, integrated modular task forces can be in the very short term.

But this requires focusing on the kind of C2 and ISR available within a modular task force tailored to combat wherever that task force is operating. By working integrated distributed force packages and operating as kill webs to train and fight in terms of joint or coalition aggregated effect, the adversaries face a force which is more survivable and more lethal across the spectrum of warfare. And you weed out of the equation those forces that simply not cannot operate this way.

Doing a self-blitzkrieg defeat is not a path to victory; getting on in the short term with more integrated USAF-US Navy-USMC and where appropriate U.S. Army force packages is.

And as the forces learn to do so, a path is opened to a broader strategy of force integratability.

The future is now; we don't have time to what till the results are in for force structure redesign 2030, 2040 or 2050.

### Working the Distributed Piece in the Extended Battlespace: The Impact of Basing Architecture

11/01/2021

As the services focus on modular task forces, how they will be formed is determined in part by the basing architecture available for distributed force operations. A key element for shaping such a force is its ability to operate the geo-political chessboard from mobile bases able to operate in the areas of key combat or crisis management effects.

Basing is part of the capability to generate a desired aggregate effect from a modular task force sanctuary force operating at a point of significant impact on the adversary and his actions.

For example, the navy's working approach to force distribution is what they call distributed maritime operations or DMO. But to be fully effective such capability is part of a larger effort, one in which the joint forces are working force mobility and basing flexibility to intersect with DMO to deliver a much more lethal, and survivable force. It is also one that is agile and can operate at the point of impact within a crisis environment.

The USMC has been for a very long time the core joint force specialists with regard to force mobility. The build out of their aviation capabilities over the past two decades, even while being tasked with Middle East land war duties, has put in place key assets which allow for force mobility. The Osprey has brought speed and range to the assault force. The F-35B has brought a sensor rich, C2, strike aircraft to naval aviation by the Marines paving the way. The coming of the CH-53K adds another key capability to enable the expeditionary force.

The USAF has certainly gotten the point, and innovations like Rapid Raptor, which is designed to allow for force dispersion in times of crisis is clearly a case in point. We first heard of Rapid Raptor in a discussion in Hawaii with the then head of the Pacific Air Force, General "Hawk" Carlisle, in 2014. He indicated in that discussion that the Rapid Raptor concept was being implemented whereby 4 F-22s are supported by a C-17 at an airfield different from where they took off is a clear indicator of the projected trend line. And from discussions with the PACAF staff at the time, it is clear that a major effort is underway to shape the logistics and support approach to allow for the operation of a dispersed air force executing a distributed operational approach throughout the region.

Later discussions at the USMC center of excellence for air-enabled combat training, MAWTS-1 highlighted the recognition which the USAF has for USMC domain knowledge with regard to delivering force mobility. We learned in various visits over the past five years to MAWTS-1, that they were working closely with the Air Warfare Center at Nellis Air Force base with regard to expeditionary air operations.

The experience the Marines have had with F-35B, the most expeditionary of all versions of a fifth-generation aircraft, has clearly impacted the reworking of mobile basing as well. For example, in a 2020 discussion at MAWTS-1 with Maj. Brian "Flubes" Hansell, MAWTS-1 F-35 Division Head, the

expeditionary nature of the USMC and its intersection with integration with the F-35 was underscored. "The Marine Corps is a force committed to expeditionary operations. When it comes to F-35, we are focused on how best to operate the F-35 in the evolving expeditionary environment, and I think we are pushing the envelope more than other services and other partners in this regard. One of the reasons we are able to do this is because of our organizational culture. If you look at the history of the Marine Corps, that's what we do. We are an expeditionary, forward-leaning service that prides itself in flexibility and adaptability."

The USAF operating from protected land bases – building revetments and working the lost art of rapid runway repair – can provide key elements for providing force to the air-maritime fight that defines both of the threat areas highlighted by Adm. Gortney. And the extant bombers and even more significantly the coming of the B-21 will add a very flexible, and scalable force to the distributed seabase chessboard.

An example of the shift in USAF efforts could be seen in the WestPac exercise of January 2020.<sup>1</sup> The exercise had the stated purpose of distributing airpower throughout the operational area and working integratability to shape the desired combat effect. But not overtly noted in the official statements was the growing concern and focus which the USAF, working with the U.S. Navy and the USMC, and where relevant the U.S. Army, on dealing with a major threat to its operational basing — the maritime strike threat from Russia and China in the Pacific.

When the B-21 comes to the force, it will have a significant role in the reworking of the kill web approach to dealing with the air as well as maritime strike threats to USAF operational basing. With the US Navy highlighting a distributed maritime operations approach along with the USAF highlighting its ACE approach, a key question is how these will dovetail and shape an effective kill web capability in the Indo-Pacific and European regions?

With the two services clearly focused on ensuring their capabilities to work integrated distributed operations, how do they view the strategic direction they would most like to see from the USMC? What kind of mobile basing and expeditionary operations will be best aligned with where the USAF and the U.S. Navy are shaping their strategic trajectories in their warfighting approaches?

For the U.S. Navy, the evolving approaches to distributed maritime operations involve fighting as a distributed fleet but with integrated combat effects. This involves working on fleet operations which operate over 360-degree space with multi-domain operations and combat effects. This entails reworking how the strike fleet works together into modular task forces as distributed combat clusters.

A key part of reworking the sea bases as a chessboard force is finding new ways effectively to cross-integrate U.S. and allied maritime assets, such as using aviation assets differently to provide for cross-decking and more effective use of land mass as part of maritime sea control and sea-denial efforts.

As the Navy rethinks how to use its aircraft carriers, how to use its amphibious forces and how to use the whole gamut of its surface and subsurface forces to fight as a fleet, an opportunity for change is

<sup>&</sup>lt;sup>1</sup> 18<sup>th</sup> Wing, Joint Partners Execute First WestPac Rumrunner Exercise," 18<sup>th</sup> Wing Public Affairs (January 10, 2020), <a href="https://www.pacom.mil/Media/News/News-Article-View/Article/2054808/18th-wing-joint-partners-execute-first-westpac-rumrunner-exercise/">https://www.pacom.mil/Media/News/News-Article-View/Article/2054808/18th-wing-joint-partners-execute-first-westpac-rumrunner-exercise/</a>.

clear: why not rework how air assets move across the sea bases to provide the Fleet a wider variety of combat capabilities tailored to specific combat scenarios? Notably, moving helicopters and tiltrotor assets across the Fleet provide for a wider variety of options than simply having a set piece of equipment onboard each class of ship.

The mobility of the fleet is a baseline capability which the seabase brings to a more agile combat force. Ships provide for presence, but mobility at sea, with variable degrees of speed and stealth. But added to this are a range of other mobility capabilities which can work effectively with the fleet to expand its reach, range and lethality. This is certainly part of the wider kill web approach.

The first is the use of land either as protected base from which air assets, manned or unmanned (for that is what weapons are), can operate as reachback forces to enhance the scalability of a modular at sea task force. We discussed earlier, how the USAF can expand its role in this regard, and in the next section will discuss how the U. S. Army could do so as well.

The second revolves around how the Marines can leverage their expeditionary history and capabilities to operate more effectively with the DMO fleet. One way is to enhance how they can operate off of the amphibious fleet to play an expanded role in sea control and sea denial at sea. Rather than looking at the amphibious fleet as providing greyhound buses to jump off to fight at land, the focus is upon how the amphibious fleet today and redesigned into the future can be part of the wider DMO sea control and sea denial mission sets.

A second way is to enhance their capabilities to operate their crisis management integrated forces, such as marine expeditionary units or marine expeditionary brigades to operate from mobile bases. These capabilities have clearly expanded as they are building out the Osprey-F-35B-CH-53K triad. The focus here is upon having an integrated modular force capability survivable and lethal enough to fight as an integrated combat force while operating from distributed bases.

The third way is what the current Commandant has labelled expeditionary basing. This is the Commandant's version of a wider focus by navies on how to deploy an Inside Force to support the outside force. By the Inside Force, one is referring to a small force operating inside an adversary's weapons engagement zone. The challenge of course is to not have these forces compromise the larger outside force, or to simply put in play chess pieces on the chess board which the adversary can use more effectively than can the U.S. forces can. Given that the key focus is crisis management, providing adversaries with hostages is not something one would want to do.

An example of how the U.S. Navy is looking at how to leverage this approach can be seen in a recent exercise led by the USS Eisenhower. This is how a February 19, 2021, Second Fleet story described this exercise: "The Nimitz-class aircraft carrier USS Dwight D. Eisenhower (CVN 69) and the ships and aircraft of Carrier Strike Group Two (CSG 2), the Eisenhower Carrier Strike Group (IKE CSG), departed for deployment Feb. 18, after successfully completing a historic Composite Unit Training Exercise (COMPTUEX), that included a NATO vignette and training with SEALS from an East Coast-based Naval Special Warfare (NSW) Group for the first time in recent history.

"COMPTUEX provided graduate-level training that simulates the full spectrum of operations, low intensity to high-end combat that IKE CSG must be ready for," said Rear Adm. Scott Robertson, commander, Carrier Strike Group Two. "The live, virtual and constructive training with a NATO backdrop enabled the team to hone its application of integrated, multiple domain warfare. We are ready to deploy!"

"The inaugural NATO vignette, developed by Carrier Strike Group Four (CSG 4) and Combined Joint Operations from the Sea Centre of Excellence (CJOS COE), consisted of familiarity training designed to facilitate Allied maritime interoperability and integration, in practical terms using NATO procedures, messaging formats and chat capabilities. The vignette developed and refined a clear list of interoperability requirements for future Navy force generation and improved Allied maritime Command and Control (C2) linkages.

"To ensure truly effective deterrence and defense in the North Atlantic, we need to make sure that the navies of NATO can work as one team, and that means interoperability is vital," said Commo. Tom Guy, Royal Navy, deputy director CJOS COE. "This NATO vignette has been a great step forward in pursuing allied interoperability. CJOS COE looks forward to continuing to develop this for future deploying Strike Groups."

"Additionally, Naval Special Warfare (NSW) SEAL, Boat and Reconnaissance units integrated with the IKE CSG team to enhance warfighting lethality in the maritime domain and to educate Fleet leadership on unique NSW capabilities. The SEAL Team focused on supporting COMPTUEX in maritime strike warfare. During the training, personnel helped with over-the-horizon targeting, directed combat aircraft's action in close-air support, and other offensive air operations. NSW forces-controlled operations from a Task Group headquarters. To extend the IKE CSG reach, NSW forces employed multi-mission combatant craft, which allowed operators to get closer to simulated enemies and send the real-time operational picture back to decision-makers on the ship and beyond. The SEAL Team also sent an advisor to the training cell to provide expertise on NSW capabilities.

"The opportunity to support IKE CSG objectives by showcasing NSW's unique contributions to Distributed Maritime Operations improved integration and interoperability with the Fleet. NSW was able to validate near-peer maritime and land-based tactics, techniques and procedures to demonstrate NSW's critical role in Global Power Competition."<sup>2</sup>

In this statement the Inside Force for the outside force referred to by the U.S. Navy was a SEAL team. But the Marines participated as well in a similar role, and that is really what the expeditionary basing motif is all about. And the article by Megan Eckstein on the exercise highlighted their participation and their role. "During the simulated operations, Robertson (Rear Adm. Robertson, the commander of the IKE Carrier Strike Group) took the first crack at a carrier commanding SEAL platoons and special boat detachments, as well as Marines conducting Expeditionary Advance Base Operations focused on surface-to-air and surface-to-surface strike. The EABO operations, though virtually inserted into the exercise, were supported by Expeditionary Strike Group 2 and the 2nd Marine Expeditionary Brigade staff ashore.

"We were able to actually test some of our draft C2 (command and control) elements on how we would actually fold in Marines in an EABO capacity into the [composite warfare commander] construct, which was a big step for us, figuring out how do we sit there and do mutual fire support irrelevant of

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<sup>&</sup>lt;sup>2</sup> USS Dwight D. Eisenhower Deploys Upon Completion of Historic COMPTUEX," Second Fleet (February 19, 2021), <a href="https://www.dvidshub.net/news/389252/uss-dwight-d-eisenhower-cvn-69-deploys-upon-completion-historic-comptuex">https://www.dvidshub.net/news/389252/uss-dwight-d-eisenhower-cvn-69-deploys-upon-completion-historic-comptuex</a>.

whether it's coming from an aircraft, a surface ship or an EAB established ashore somewhere," Robertson said."<sup>3</sup>

The challenge is that while Marine Corps forces operating at sea in an expanded sea denial or sea control role, or from mobile bases where parts of a MEU or MEB or MAGTF are deployed, the Inside Forces are not part of a deployed force large enough to be easily survivable by themselves. For a force deployed around expeditionary basing, the challenge is how that force nests among the key elements of the outside force which it is supporting.

How survivable is this force and how effectively does it empower the wider or outside force?

#### Basing, Geography and Maneuver Warfare at Sea

11/17/2021

In a 2020 Congressional Research Service note on geography and U.S force structure, a key argument was made along these lines: "The goal of preventing the emergence of regional hegemons in Eurasia is a major reason why the U.S. military is structured with force elements that enable it to deploy from the United States, cross broad expanses of ocean and air space, and then conduct sustained, large-scale military operations upon arrival in Eurasia or the waters and airspace surrounding Eurasia.

Force elements associated with this objective include, among other things:

- "An Air Force with significant numbers of long-range bombers, long-range surveillance aircraft, and aerial refueling tankers.
- "A Navy with significant numbers of aircraft carriers, nuclear-powered (as opposed to non-nuclear-powered) attack submarines, large surface combatants, large amphibious ships, and underway replenishment ships.
- "Significant numbers of long-range Air Force airlift aircraft and Military Sealift Command sealift ships for transporting ground forces personnel and their equipment and supplies rapidly over long distances.

"Consistent with a goal of being able to conduct sustained, large-scale military operations in Eurasia or the oceans and airspace surrounding Eurasia, the United States also stations significant numbers of forces and supplies in forward locations in Europe, the Persian Gulf, and the Indo-Pacific."

No military service has provided greater deep knowledge competence and experience with regard to flexible basing than the U.S. Marine Corps. Thus, it is no surprise that a key part of the rethink with

<sup>&</sup>lt;sup>3</sup> Megan Eckstein, "IKE Carrier Strike Group Commands SEALS, Marine Missile Teams in First-of-a-Kind, Large-scale drill," USNI News (February 17, 2021), <a href="https://news.usni.org/2021/02/17/ike-carrier-strike-group-commands-seals-marine-missile-teams-in-first-of-a-kind-large-scale-drill">https://news.usni.org/2021/02/17/ike-carrier-strike-group-commands-seals-marine-missile-teams-in-first-of-a-kind-large-scale-drill</a>.

<sup>&</sup>lt;sup>4</sup> "Defense Primer: Geography, Strategy and Force Design," Congressional Research Service," November 5, 2020.

regard to blue water expeditionary operations and maneuver warfare is seeing greater focus on innovations in terms of the U.S. Navy working with the U.S. Marine Corps.

In a September 2020 visit to MAWTS-1, the USMC's premier weapons training integration facility in the USMC located at MCAS Yuma, we talked with the CO of MAWTS-1, Col. Steve Gillette, about the way ahead with regard to U.S. Navy-USMC integration. That interview highlighted the way ahead, and the key role of flexible basing by the USMC in support of core U.S. Navy combat missions.

We started by focusing on ways the Marines might best contribute to the sea control and sea denial mission with the U.S. Navy and allies. Colonel Gillette argued that: "Working through how the USMC can contribute effectively to sea control and sea denial for the joint force is a key challenge. The way I see it, is the question of how to insert force in the Pacific where a key combat capability is to bring assets to bear on the Pacific chessboard. The long-precision weapons of adversaries are working to expand their reach and shape an opportunity to work multiple ways inside and outside those strike zones to shape the battlespace.

"What do we need to do in order to bring our assets inside the red rings, our adversaries are seeking to place on the Pacific chessboard? How do you bring your chess pieces onto the board in a way that ensures or minimizes both the risk to the force and enhances the probability of a positive outcome for the mission? How do you move assets on the chessboard inside those red rings which allows us to bring capabilities to bear on whatever end state we are trying to achieve?

"For the USMC, as the Commandant has highlighted, it is a question of how we can most effectively contribute to the air-maritime fight. For us, a core competence is mobile basing which clearly will play a key part in our contribution, whether projected from afloat or ashore. What assets need to be on the chess board at the start of any type of escalation? What assets need to be brought to bear and how do you bring them there? I think mobile basing is part of the discussion of how you bring those forces to bear.

"How do you bring forces afloat inside the red rings in a responsible way so that you can bring those pieces to the chess board or have them contribute to the overall crisis management objectives? How do we escalate and de-escalate force to support our political objectives? How do we, either from afloat or ashore, enable the joint Force to bring relevant assets to bear on the crisis and then once we establish that force presence, how do we manage it most effectively? How do we train to be able to do that? What integration in the training environment is required to be able to achieve such an outcome in an operational setting in a very timely manner?"

One way to do this is to reshape the current amphibious fleet to provide for sea control and sea denial capabilities. This fleet is changing with the addition of the new America-class ships being a key driver for change. We discuss this more fully in the next chapter, but Colonel Gillette provided insight into the way ahead. "The traditional approach for the amphibious force is to move force to an area of interest. Now we need to look at the entire maritime combat space, and ask how we can contribute to that combat space, and not simply move force from A to B.

"I think the first leap is to think of the amphibious task force, as you call it, to become a key as pieces on the chess board. As with any piece, they have strengths and weaknesses. Some of the weaknesses are clear, such as the need for a common operational picture, a command-and-control suite to where the assets that provide data feeds to a carrier strike group are also incorporated onto L-Class shipping.

We're working on those things right now, in order to bring the situational awareness of those types of ships up to speed with the rest of the Naval fleet."

"There is a significant shift underway. The question we are now posing is: "What capability do I need, and can I get it from a sister service that already has something that provides the weapons, the C2 or the ISR that I need? I need to know how exploit information which benefits either my situational awareness, my offensive or defensive capability of my organic force. But you don't necessarily need to own it in order to benefit from it.

"And I think that when we really start talking about integration, that's probably one of the things that we could realize very quickly is that there are certain, assets and data streams that come from the Air Force or the Navy that make the USMC a more lethal and effective force, and vice versa.

"The key question becomes: "How do I get the most decisive information into an LHA/LHD? How do I get it into a marine unit so that they can benefit from that information and then act more efficiently or lethally when required?"

You need to train as you fight; and you train to reshape how you fight. As a premier training command, Colonel Gillette underscored how to think about the shift in training as well for the evolving concepts of operations. According to Col. Gillette: "So long as I've been in the Marine Corps and the way that it still currently is today, marine aviation exists to support the ground combat. That's why we exist. The idea that we travel light and that the aviation element within the MAGTAF provides or helps to provide the ground combat element with a significant capability is our legacy. We are now taking that legacy and adapting it. We are taking the traditional combat engagement where you have battalions maneuvering and aviation supporting that ground element and we are moving it towards Sea Control, and Sea Denial missions.

"We are reimagining the potential of what the infantry does. That doesn't mean that they do that exclusively because, although I think that our focus in the Marine Corps, as the Commandant said, is shifting towards the Pacific that doesn't relegate or negate the requirement to be ready to respond to all of the other things that the Marine Corps does. It might be less of a focus, but I don't think that that negates our requirement to deal with a variety of core missions.

"It's a question of working the balance in the training continuum. What does an infantry battalion train to? Do they train to a more traditional battalion in the attack or in the defense and then how do I use my aviation assets to support either one of those types of operations?" As opposed to, 'I might have to take an island, a piece of territory that we're going to use a mobile base, secure it so that we can continue to push chess pieces forward in the Pacific, in the Sea Control, Sea Denial end-state.'

"Those are two very different kind of skill sets. If there's one thing that the Marine Corps is very good at it's being very versatile and being able to switch from one to the other on relatively short order. But in order to do that, you have to have a very dedicated and well thought out training continuum so that people can do both well, because if you say that you can do it the expectation is that you can do it well.

"We are shaping a new Marine Littoral Regiment, MLR, but we're still in the nascent stages of defining what are the critical tasks that something like that needs to be able to do and then how you train to it. How do we create not only the definition of the skill sets that we need to train large formations to, but then what venues must we have to train? How to best combine simulated environments with real world training out on a range?

"We're working through all that right now and it'll be interesting to watch how that process unfolds, But it is definitely a mind shift to rethink the context in which our Ground Combat forces will conduct offensive of defensive operations, and specifically, what tasks they are expected to be capable of in this environment."

"We're constantly looking at new venues and new methods to start to do the things that we need to do with the new approach. For example, we are taking our TACAIR Community up to the Nellis range for large integrated strike missions. We do face-to-face planning with the Air Force and Navy so that our students can understand the capabilities and limitations of these different platforms. They rub elbows with the USAF and Navy operators and gain first-hand knowledge of the strengths and weaknesses of these different platforms.

"Then we fly them all back home and then the next night we go out with this huge armada of joint assets. And it's, out of the assets that play on this, it's probably 50% Marines and the other 50% are Growlers, Air Force platforms et cetera. And then we do a mass debrief.

"And this starts to chip away at the legacy perspective: "Okay, I'm a master of my machine." They come to WTI and learn how to think an integrated manner. But more importantly, they get exposed and actually go out and do the integration with joint service assets to see the strengths and weaknesses so that they understand the planning considerations required for the joint fight against peer competitors and how to work beyond what their Marine Corps platform can do."

The USMC has mobile basing in its DNA. With the strategic shift from the Middle Eastern land wars to full spectrum crisis management, an ability to distribute a force but to do so with capabilities which allow it to be Integratable is crucial. For the Marines, this means an ability to operate an Integratable force from seabases, forward operating bases (FOBs) or forward arming and refueling points (FARPs).

As the Marines look forward to the decade ahead, they are likely to enhance their capabilities to provide for mobile bases which can empower the joint and coalition force by functioning as a chess piece on the kill web enabled chessboard.

But what is required to do mobile basing?

What are the baseline requirements to be successful?

#### Shaping a Way Ahead for Mobile Basing

11/23/2021

A very good place to start to shape answers to these questions if the USMC's center of excellence on warfighting training, MAWTS-1 located at MCAS Yuma. In two 2020 discussions with Lt. Col. Barron, Tactics and Evaluation (ADT&E) Department Head at MAWTS-1. ADT&E is focused on the core task of fighting today with the current force but also looking forward to how to enhance that force's capabilities in the near to mid-term as well.

The discussion with Lt. Col. Barton highlighted six key takeaways. The first one is the crucial need for decision makers to determine why a mobile base is being generated and what the tactical or strategic purpose of doing is. It takes time and effort to create a mobile base, and the mobile base commander

will need to operate with mission command with regard to his base to determine how best to operate and for what purpose.

The second one is the importance of determining the projected duration of the particular base.

This will have a significant impact in shaping the question of logistics support. What is needed? How to get it there? And from what supply depot, afloat or ashore in adjacent areas?

The third one is clearly the question of inserting the force into the mobile base and ensuring its optimal capabilities for survivability. What needs to be at the base to provide for organic survivability? What cross links via C2 and ISR will provide for an extended kill web to support the base and its survivability?

A fourth one is to determine what the base needs to do to contribute to the wider joint or coalition force. With the evolution of technology, it is possible now to have processing power, and strike capabilities distributed and operated by a smaller logistics footprint force, but how best to configure that base to provide the desired combat effect for the joint or coalition force?

A fifth one is clearly a crucial one for operating in a contested environment. Here the need is for signature control, or an ability to have as small a signature footprint as possible commensurate with achieving the desired combat effect. Signature management could be seen as a component of survivability. However, the management of signatures down to the small unit level requires a disruptive shift in our mindset.

The sixth one is clearly having an exit strategy in mind. For how long should the force be at the mobile base? For what purposes? And what needs to be achieved to enable the decision to move from the mobile base? In effect, the discussion highlighted what one might refer to as the three Ss. An insertion force operating from a variety of mobile bases needs to be able to be sustainable, survivable, and signature manageable.

With regard to current USMC capabilities, the MV-22, the C-130, the Viper, the Venom, the CH-53E and the F-35 are key platforms which allow the Marines to integrate and move a lethal combat force to a mobile base. But the C<sup>2</sup>/ISR enablement is a key part of the requirement and the digital interoperability efforts are a key part of shaping a more effective way ahead. And in the relatively near term, the Ch-53K replacing the E is a key enabler for an enhanced mobile basing strategy.

It is clear as well as the U.S. services work their way ahead in the evolving strategic environment, that the USMC core skill set with mobile basing will figure more prominently and become a key part of the Marines working with the joint and coalition force in shaping a more effective way ahead for the integrated distributed force.

The Marines have added new capabilities which allow them as well to enhance their capabilities to work mobile and accretionary basing.

For example, the heavy lift element, which is a bedrock capability for the insertion force, is older, not easily Integratable, and is in diminishing numbers. The CH-53K which is to replace it will provide significant capabilities enhancements for an insertion force operating from afloat or ashore mobile bases but needs to be ramped up in numbers capable of raising the combat level of the current force.

In a 2020 discussion with Maj. James Everett, head of the Assault Support Department at MAWTS-1, we discussed the force that we have and some ways ahead for enhanced capability in the near to midterm. The Assault Support Department includes a number of key divisions: CH-53, MV-22, KC-130, UH-1, and AH-1.

Maj. Everett underscored the importance of the digital interoperability effort under way within Marine Corps innovation is not just a nice to have effort, but a crucial one to ensure that the insertion force package can work more effectively together and to leverage other key support assets which might be available from the joint or coalition force. After all, a mobile base is being put on the chessboard for a strategic or tactical objective and survivability is a key requirement.

Sustainability is another key element for successful mobile basing. Sustainability is a function of the lift assets which can bring the kit and supplies needed for the duration of the mission. For the Marines, this is defined by KC-130J, CH-53E, MV-22, and UH-1Y lift support. And it is also defined by air refuellable assets to the assault force as well. The Marines have limited indigenous assets to provide aerial refueling which, dependent on the mission and the time scale of the force insertion effort, might need to depend on the Navy or Air Force for this capability.

With the shift from the land wars, where the Marines were embedded within CENTCOM forces, C<sup>2</sup> was very hierarchical. This clearly is not going to be practicable or efficacious with a distributed insertion force.

Working mission command for a force operating in a degraded environment is a key challenge, but one which will have to be met to deliver the kind of distributed mobile based force which the Marines can provide for the joint and coalition force, and not just only in the Pacific, but would certainly provide a significant capability as well for the fourth battle of the Atlantic.

And as digital interoperability is worked there will be expanded effort to find ways to support the insertion force operating from a mobile base. This will be an interactive process between what C<sup>2</sup>/ISR assets are available in the kill web, and how the Marines ashore or afloat can best use those resources.

We have seen such a migration with the U.S. Navy as the CSG and fleet is adding MISR or Maritime ISR officers, and this change actually was inspired by the operations of 3rd MEF in Afghanistan. What we might envisage is simply the next iteration of what was done ashore with now the afloat and insertion forces in the maritime environment.

Timeliness is crucial when considering a mobile basing option. It is about the insertion force operating within the adversary's decision cycle and operating to get the desired combat effect prior to that adversary being successful in getting his combat result, namely, eliminating or degrading the insertion force. This is another way to understand the key significance of how C<sup>2</sup>/ISR is worked between the insertion force and the wider air-maritime force.

In short, the Marines will fight with the force they have; and as far as near-term modernization, ensuring that digital interoperability is built in and accelerated, full use of what an F-35 wolfpack can bring to the insertion force, and the continuing modernization of the assault force staring with the coming of the CH-53K in sufficient numbers, these are all keyways ahead.

## Blue Water Expeditionary Operations: The Role of Mobile and Expeditionary Basing

11/30/2021

As the USMC focuses on how it can best help the U.S. Navy in the maritime fight, two key questions can be posed: "How is the Marine Corps going to contribute most effectively to the Pacific mission in terms of Sea Control and Sea Denial? And how to best contribute to the defensive and offensive operations affecting the SLOCs?"

Skill sets associated with sea control, sea denial, SLOC offense and defense do not translate easily from the Middle East land wars. How then to shape the new skill sets? And what is the underlying combat architecture which shapes the approach around which skill sets can be identified? These are not easy questions to answer or even to frame properly. But if you are the center for excellence for Marine Corps air enabled operations you clearly need to find some sound answers, and to shape an effective way ahead. Currently, this is what MAWTS-1 is doing.

As the discussions in 2020 with officers at MAWTS-1 have highlighted, there is a major focus on how to do expeditionary and mobile basing in new ways to support the maritime fight. A key element for an evolving combat architecture clearly is an ability to shape rapidly insertable infrastructure to support Marine air as it provides cover and support to the Marine Corps ground combat element.

This clearly can be seen in the reworking of the approach of the Aviation Ground Support element within MAWTS-1 to training for the execution of the Forward Air Refueling Point mission.

During a visit to MAWTS-1 in early September 2020, a discussion with Maj. Steve Bancroft, Aviation Ground Support (AGS) Department Head, MAWTS-1, MCAS Yuma provide insights into how the Marines are reworking the Forward Air Refueling Points or FARP mission set, a key capability for effective delivery of payloads in a networked expeditionary basing engagement force. In this discussion it was very clear that the rethinking of how to do FARPs was part of a much broader shift in in combat architecture designed to enable the USMC to contribute more effectively to blue water expeditionary operations.

The focus is not just on establishing FARPs, but to do them more rapidly, and to move them around the chess board of a blue water expeditionary space more rapidly. FARPs become not simply mobile assets, but chess pieces on a dynamic air-sea-ground expeditionary battlespace in the maritime environment.

Given this shift, Maj. Bancroft made the case that the AGS capability should become the seventh key function of USMC Aviation. He argued that the Marine Corps capability to provide for expeditionary basing was a core competence which the Marines brought to the joint force and that its value was going up as the other services recognized the importance of basing flexibility,

But even though a key contribution, AGS was still too much of a pick-up effort. AGS consists of seventy-eight MOSs or military operational specialties which means that when these Marines come to MAWTS-1 for a WTI, that they come together to work how to deliver the FARP capability.

As Maj. Bancroft highlighted: "The Marine Wing Support Squadron is the broadest unit in the Marine Corps. When the students come to WTI, they will know a portion of aviation ground support, so the vast majority are coming and learning brand new skill sets, which they did not know that the Marine Corps has. They come to learn new functions and new skill sets."

His point was rather clear: if the Marines are going to emphasize mobile and expeditionary basing, and to do so in new ways, it would be important to change this approach. "I think aviation ground support, specifically FARP-ing, is one of the most unique functions the Marine Corps can provide to the broader military."

He underscored how he thought this skill set was becoming more important as well. "With regard to expeditionary basing, we need to have speed, accuracy and professionalism to deliver the kind of basing in support for the Naval task force afloat or ashore." With the USMC developing the combat architecture for expeditionary base operations, distributed maritime operations, littoral operations in a contested environment and distributed takeoff-vertical landing operations, reworking how to execute FARP operations is a key aspect.

FARPs in the evolving combat architecture need to be rapidly deployable, highly mobile, maintain a small footprint and emit at a low signature.

While being able to operate independently they need to be capable of responding to dynamic tasking within a naval campaign. Marines need to be configured and operate within an integrated distributed force which means that the C2 side of all of this is a major challenge to ensure it can operate in a low signature environment but reach back to capabilities which the FARP can support and be enabled by.

This means further that one is shaping a spectrum of FARP capability as well, ranging from light to medium to heavy in terms of capability to support and be supported. At the low end or light end of the scale one would create an air point, which is an expeditionary base expected to operate for up to 72 hours at that air point. If the decision is made to keep that FARP there longer, an augmentation force would be provided and that would then become an air site.

Underlying the entire capability to provide for a FARP clearly is airlift, which means that the Ospreys, the Venoms, the CH-53s and the KC130Js provide a key thread through delivering FARPs to enable expeditionary basing.

This is why the question of airlift becomes a key one for the new combat architecture as well.

And as well, reimagining how to use the amphibious fleet as "lilly pads" in blue water operations is a key part of this effort as well. In effect, an ability to project FARPs throughout the blue water and littoral combat space supporting the integrated distributed force is a key way ahead.

In short, the strategic shift is a crucial one for the liberal democracies. That strategic shift is from a primary focus on counter insurgency and stability operations to operating in a contested environment with high tempo and high intensity combat systems as a primary tool set. It is about managing conflict with peer-to-peer competitors.

Military capabilities are being reshaped to operate in such an environment, and there is a clear opportunity to leverage new platforms and systems to shape a military structure more aligned with the new strategic environment.

Mobile basing and recrafting combat operational architecture are clearly key parts in shaping military capabilities for the new strategic environment.

Mobile basing is an air-maritime-army effort to shape a chessboard of capabilities which can deal with the threats of peer competitors which deploy into the extended battlespace.