

BOLD ALLIGATOR 2012



THE FUTURE OF POWER PROJECTION

THE EMERGENCE OF THE “NEW AGE” EXPEDITIONARY STRIKE GROUP

Bold Alligator 2012: The Emergence of the “New Age” Expeditionary Strike Group

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Bold Alligator 2012 was the largest Amphibious exercise in more than a decade. After a decade of land wars, the “return” of the USN-USMC team to littoral engagement operations is a core skillset, which needs to be highlighted and further, enhanced and developed.

Because it is called an amphibious exercise, outsiders who attended the exercise tended to focus upon the amphibious ships themselves, the landing ships, the vehicles and the assault on the beach. This is the trouble with what one sees.

The reality was that this was a power projection exercise, it was a maneuver of forces from the sea inland and out again.

Bold Alligator 2012 was a shift towards a new paradigm.

With the U.S. and its allies turning from the land wars of the past decade to formulating new approaches for the decade ahead shaping new approaches to the use of joint and coalition forces is clearly required.

In an interview after the exercise, Adm. Kevin Scott, 2nd Expeditionary Strike Group commander, underscored that the core effort was to bring the Navy-Marine team and the allied team together into an enhanced capability to operate from the sea. Re-crafting maneuver warfare from the sea is not just about technology and new capabilities; it is based on a concept of operations where collaborative team efforts become seamless.

With global challenges not going away, and financial constraints biting, the need to get best value out of current assets while adding new ones is a key element of strategic change.

The seabase can provide new maneuver warfare from the sea capability, seen off of the shores of Tripoli and practiced then off of the shores of Virginia and North Carolina.

The Navy-Marine Corps team just completed the largest amphibious exercise in more than a decade. But what did people see? What did they recognize in the Bold Alligator exercise and focus upon?

Because it is called an amphibious exercise, outsiders who attended the exercise tended to focus upon the amphibious ships themselves, the landing ships, the vehicles and the



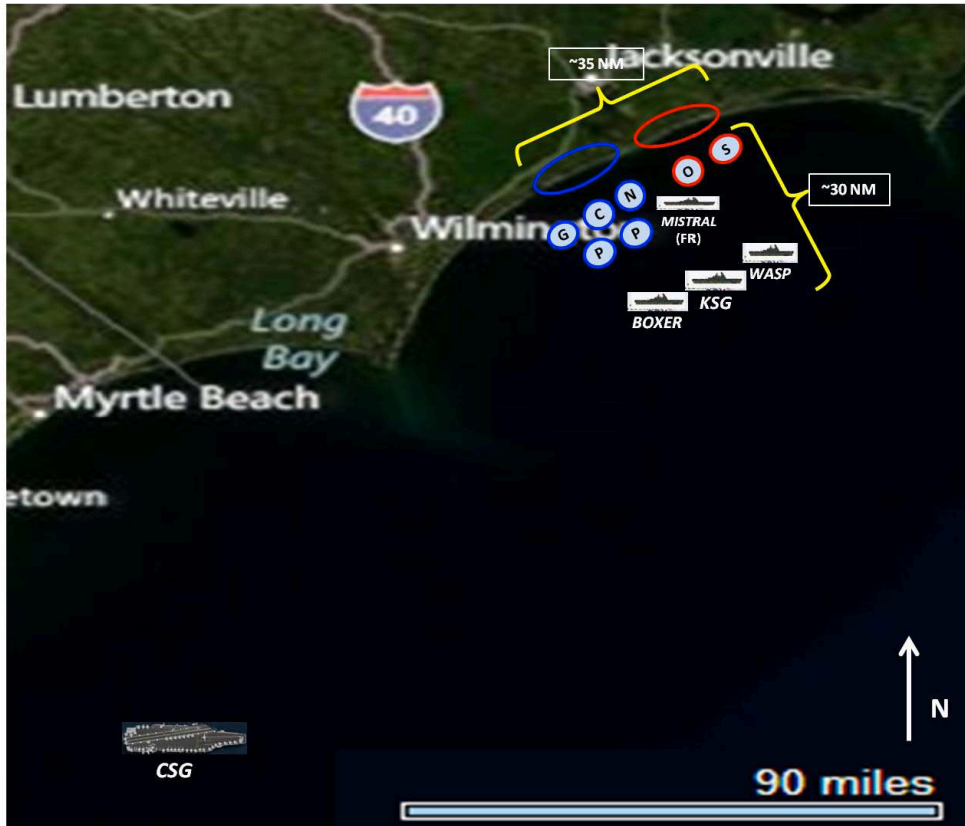
assault on the beach. This is the trouble with what one sees.

(The graphic shows location of assault ships on D-Day of the exercise, February 6, 2012) Credit USMC).

So what images of change were embedded in the Bold Alligator picture?

First, an assault raid was conducted from the seabase deep inland (180 miles) aboard the Ospreys with allied forces observing or participating. The Osprey was the key element operating in this exercise, which was not there during the last big "amphibious" exercise.

As the key coalition officer (Lt. Commander Pastoor) in the planning process, a Dutch naval officer, underscored: "We had Dutch observers and they were very impressed with the game changing capabilities of the Osprey in terms of range and speed. Normally, in such an exercise we would take the beach and operate 30 miles inland. With



this new capability we can operate throughout the entire battlespace and move forces as if across a chessboard."

Let us hover over this image. Instead of assaulting the beach, the forces aboard

the sea base are maneuvering within and over the battlespace inserting, moving and withdrawing forces. This is a far cry from just looking at photos of the landing ships and assault vehicles.

(The graphic shows the location of the large deck carrier with regard to the assault fleet on D-Day, February 6, 2012, Credit: USMC).

Second, one would have looked at the BAC1-11 aircraft carrying the F-35 combat systems and see many things, notably the capacity to provide information to the MARSOC insertion forces about the battlespace in real time.

Third, if one had visited the exercise team before the exercise, one would have seen an incredible process of integration of coalition partners into the planning process. And a core focus of these planners has been upon sorting out to more effectively managing information, distributing information and operating with a common operational picture.

Returning to our coalition planner, Lt. Commander Pastoor said:

Coalition is a key part of Bold Alligator. It's been there from beginning. From the very first concept development conferences in the beginning a year ago, coalition engagement was central. Nowadays operations aren't done without coalitions. The Bold Alligator process is U.S. and coalition as one team from beginning onwards. It's really working well, getting to the same goals, doing the planning process together, working in close coordination with the French Task Group, having their plan's over, having 6 to 10 officers from New Zealand flying in for planning conference. We have a lot of coalition participants in our staff for the operation itself really emphasizes the importance of coalition.

He also emphasized that managing information from the SIPRNET was and is a problem. This is why the default for future operations will need to be CENTRIX or the NATO standard. During the exercise CENTRIX was used as the coin of the realm. Pastoor underscored that planning needs to be done in CENTRIX so that there is a seamless flow to exercise and operational collaboration.

Fourth, the French amphibious ship Mistral was the centerpiece of a physical allied contribution. The ship and its team arrived early for bilateral operations and the ship was cross-certified with U.S. equipment and procedures. It was one of the stars of the Libyan operation and worked closely with the allies in dealing with those challenges.

But the Mistral was not just a solo French contribution. It represented an entire class of ships of various sizes being built by allies – Spain, Italy, South Korea, Australia, etc. – that will carry significant aviation assets evolving over the years ahead and give this capability longer reach and impact. The F-35B will be added to several decks, the Opsrey, the Tiger and X-3 helicopters, the CH-53K, the NH-90, unmanned aerial vehicles of various sizes and kinds. In short, the future belongs to clusters of these types of ships.

Fifth, the Mistral image would raise another image. No platform fights alone. The Mistral deploys with other ships, notably frigates which provide for air defense. Images could be seen if one looked of ships like the Aegis which engaged and deployed to provide a protective cover along with the Big E and its deployed assets.

(French Helos are seen operating off of the Mistral during Bold Alligator 2012. Credit: Murielle



Delaporte, Second Line of Defense).

Sixth, the images of the Harriers operating off of the Kearsarge raised another prospect of capabilities and changes.

Some 16 Harriers operated off of the large deck amphibious ship, in an approach which was very un-ARG like.

Normally, the Navy and Marine team operates in three

ship formations called Amphibious Ready Groups with a Marine Expeditionary Unit or MEU onboard. This exercise worked at a much more aggregated level with many more ships.

The Harriers based on the USS Kearsarge worked closely with land-based air to provide for a significant air combat capability to shape the battlespace. This model can be followed immediately in the Middle East with Arab, Israeli or western air forces deployed temporarily on Arab soil. The point is that the organizer of the spear is on the sea-base. This capability can be conjoined with the various air combat centers extant or being developed in the region.



Seventh, the MV-22 landed on a T-AKE ship. This means that this new aviation asset can connect supply ships with combat ships to potentially allow a much more efficient use of the combat ships.

What this in turn means is that by building more of these new supply ships, the combat power of the fleet can be enhanced, and the Navy-Marine Corps team get its combat ship numbers up. This is not a substitute for adding new amphibious ships to the fleet. But with the new approach and new concepts of operations the combat capabilities can become extended and more sustained. It is about sustainable maneuver warfare from the sea. And the new VM-22 T-AKE combination is a potential war winner.

Finally, one could focus on various capabilities to deal with asymmetrical threats. A clear message from the past decade is that one needs to define, respond and anticipate asymmetrical threats. The images of various assets dealing with the counter-mine threat, whether they be French special forces or SEALs in the water, the Canadian counter mine vessel, the riverine forces, or the mammal insertion from the virtual en-



gement of West Coast USN teams were prevalent and clear. A seabase will not survive if the asymmetric threats are not taken into account.

Re-shaping maneuver warfare from the sea by encompassing allied and US land-based air and other support and strike capabilities is a crucial element of the way ahead.

New uses of the sea base, new capabilities deployed from the sea base will allow the U.S. and its allies to deploy scalable forces and to shape a force appropriate to the mission. An economy of force approach can be shaped to ensure that mission and forces match, but, with scalability, other capabilities can augment the force to ensure mission success.

The Re-Shaping of Maneuver Warfare From the Sea

The Libyan operations and Bold Alligator 2012 provide important inputs to re-thinking maneuver warfare from the Sea. Both operations involve amphibious capabilities and the leveraging of sea bases to re-shape how the US and its allies can operate in a new approach leveraging the available operational bases to achieve tactical and strategic dominance.

At the heart of the new approach is the ability to engage and to dominate through SUSTAINED operations. Such operations will require forces able to strike, to control the battlespace and then to prevail through the necessary period of the operation to achieve strategic and tactical objectives.

To sustain will mean that the sea bases will not just show up for a show of force, but be part of a sweep and sustainment operation. This will mean that the ability to operate from land, whether in close proximity or distance will be integrated into the thinking about the USN-USM strike force.

Approximately 40 ships, from the US and coalition partners were involved in the exercise. These ships constituted the sea base which was leveraged to project power ashore.

The Gator Navy is moving from being a Greyhound Bus to becoming a strike force. Although an amphibious exercise, the capabilities being exercised are really those of leveraging the sea base to insert and withdraw forces. The key effort is to take a combined force (both combat as well as a humanitarian) and support that force ashore from the sea. Such a force is really a test of what we have called the agile response group, even more than the amphibious response group.

The USN-USMC team is taking what capabilities they currently have now and shaping greater capabilities from those assets by working on the con-ops of a 21st century approach.

What we saw in Libya is being continued in Bold Alligator 2012. The new and the old are being combined in shaping a very flexible force able to operate across the spectrum of warfare. And a force able to be augmented by scalable forces, which can provide for re-enforced capabilities as the case requires.

The agile response group is built around an economy of force whereby what is needed to meet the mission is applied, and make it possible NOT to deploy a very large force package (such as a Carrier Battle Group) when not required.

But at the same time, like a Lego block set, the forces can be augmented to ensure strategic superiority.

Bold Alligator 2012 is as well an exercise space whereby significant innovation was generated and experimented with. BA-12 was not just an amphibious exercise to demonstrate what the allies and the USN-USMC CAN do, but operated as a platform for innovation in shaping what these forces WILL be able to do in the future.

First, the team at the USMC warfighting lab shaped an experimental capability aboard the amphibious ships to try out new ways to connect the sea base directly to the ground forces. They focused upon their ability to work coms links and capability between the amphib ships and a deployed force approximately 165 miles inland. They looked at how to connect between the company and the ship.

They have invested in upgrading shipboard communications through the Distributed Tactical Communications System. This is an Iridium based capability. They are using the TrellisWare Radio to do what they call there functional equivalent to JTRS for the deployed force. They also have invested in the ability for mobile vehicles to connect directly to the airborne assets (MAGTF Enabler Light).

And this experience has led the Lab to look at adding communciations capabilities to the T-AKE supply ships as an important lesson learned going forward.

Second, the exercise highlighted the challenge of shaping the best way to utilize ALL the deployed assets in a sea-based insertion force. For example, the exercise featured the use of the Lewis and Clark Class T-AKE dry cargo/ammunition ships. The ships operate as integral elements of the ARG, and represent a new capability since the last big amphibious exercise in the mid-1990s and will be a key element of the evolution of the Expeditionary Strike Group.

Featured in the exercise is the use of the VM-22 as a logistical enabler leveraging the flight decks on the T-AKE ships. The Libyan operation of the ARG underscored a central role of the VM-22 as the Fed Ex Service re-supplying the ARG to, among other

things, keep the Harriers at a much higher sortie generation rate than would have been possible by more traditional re-supply.

The VM-22 T-AKE combination opens up significant new ways to incorporate the T-AKE ships into the ARG-MEU or ESG-MEB strike force and to expand the operations for which they would be capable of performing. It gives the MEU or MEB commander as well as the Strike Commander a wider range of operational capabilities as the sea base maneuvers to execute its missions.

Third, the F-35 combat systems were part of the exercise as well. The BAC1-11 aircraft carrying the F-35 radar, distributed aperture system as well as other systems provided contributions to the exercise in anticipation to the arrival of the F-35B as a core element of the newly enabled ARG or ESG.

Fourth, allies were integrally engaged as well. The blending of allied and American sea-based capability so evident in the Libyan operations will be carried forward during this exercise.

Fifth, the Enterprise strike group operated in support of the ARG. This is an effort that matters now in providing for force augmentation to a sea-based insertion force built around the ESG and will matter even more in the future as capabilities evolve. What it suggests is that the CBG is not the only template within which large deck carriers can be expected to operate in the period ahead, and indeed the ESG construct might be of increasing importance as an organizational operational construct.

The large deck amphibs will be able to feature as many as 19 F-35Bs off of an amphibious ship, which will provide unprecedented combat power projected from the Gator Navy. The new class of aircraft carriers – the Gerald Ford – will provide a significant force enhancement over what the large deck amphibs will bring. The Gerald Ford compared to legacy aircraft carriers is the smart carrier – significantly C4ISR enabled and with significant electric power able to power new weapons for both strike and defense.

In other words, Bold Alligator 2012 starts the process of shaping the post-Afghan US military; and it is the beginning of an exciting decade of innovation. It is not a question

of being financially challenge; it is the intellectual side of the equation, which is central to shaping an effective future.

Looking Back: The Osprey Difference

When one looks back at that last “big” amphibious exercise more than a decade ago, what leaps out is not only the size of the forces, but the Osprey difference. There was no Osprey, and more traditional means of force insertion were used, such as relying on airborne forces.

The Osprey in Bold Alligator 2012 provided the ability to range the battlefield, operate at speed, and to insert and withdraw force. It is a key element for integrating a dispersed fleet and supporting distributed operations.

What was the baseline exercise against which BA-12 could be compared?

According to a senior USMC officer:

Operation Purple Star during 1996 timeframe the last large MEB/MEF level Joint/Combined amphibious exercise we did.

It was U.S.-British exercise with about 38,000 U.S. troops and 15,000 British troops, but the reference to the last 10 years should be re-stated as the largest MEB level amphibious exercise in 10 years.

BA12 is closest thing to a MEB we have sortied since ATF East/West. This is making reference to the fact that with the USMC involved in basically two ground wars for the last 10 years, and that large-scale amphibious operations were not a priority at the time. With the drawdown of both AORs, forces, ships, and assets are now available to re-focus efforts back out at sea.

Not only was it a MEB level exercise, it incorporated 2 x CSGs (one live, one synthetic).

Also, there were a total of nine countries participating. It should be stated that in addition to a MEB level exercise, there was significant CSG/ARG MEU play and certifications, experimental concept development, and coalition participation.

It had a much wider scope than just a MEB exercise.

Scoping out the literature there is not much on Operation Purple Star but fortunately there was a piece published in *Jane's Defence Weekly* on July 1, 1996 by Bob Morrison which provided insight with regard to the exercise.

The exercise took place from April 21 to May 20 1996. It involved nearly 16,000 UK sailors, soldiers and airman with 38,000 US personnel. This was the largest Allied peacetime amphibious and airborne operation since WW II. It operated off of the East Coast of the United States.

It involved US Army as well as USAF forces. The US Army contributed Airborne forces. And



command and control and deployment of air forces in conjunction with concurrent amphibious, land and airborne operations in an overseas non-NATO theater with coalition forces in a combined scenario was exercised.

From 30 April to 5 May, UK and US contingents cross-trained in the fictitious neighboring country of Telari, with soldiers having the chance to fire each other's weapons and pilots flying sorties in the other nation's aircraft. During parachute training and the subsequent airborne op-

eration, US paratroopers used UK LLP parachutes and 5 Airborne Brigade used the US T10 model.

By 6 May, with Korona still refusing to back down, the CJTF set sail from Telari in preparation for a massive amphibious assault to terminate the Koronan aggression. Under the command of USN Vice Adm Vern Clark, 53 ships of the USS Enterprise Battle Group, the USS Saipan Amphibious Ready Group and the UK Task Group put ashore more than 13,000 Marines from II Marine Expeditionary Force, 24 Marine

Expeditionary Unit and 3 Commando Brigade on four separate beaches near Camp Lejeune. Simultaneously, 5 (UK) Airborne Brigade and UK Special Forces conducted diversionary raids to pin down Koronan forces and secure an airfield for a Tactical Airland Operation (TALO).

By dawn on the 10th, the US and Royal Marines had secured the beachhead and advance units were fighting their way inland against sporadic Koronan counter attacks. Behind them the logistic build-up continued, although a tragic helicopter accident three hours into the operation, which cost 14 US Marine lives, severely curtailed the flying side of the operation for most of D-Day. Behind the beach US combat engineers had built a floating bridge over the Coastal Waterway which 3 Commando Brigade used to push inland.

After mopping up Koronan defenders occupying villages and towns in the coastal region, using well-rehearsed FIBUA tactics, 3 Commando Brigade joined with USMC Regimental Landing Team 8 to cross the New River estuary by helicopter and landing craft. Once across, they linked up with 5 Airborne Brigade, which had secured the region around the deserted Camp Davis airfield which was now being used both by the RAF Support Helicopter Force and C-130 Hercules transport aircraft.

One hour after last light on D+5, over 4,300 men of 5 (UK) Airborne Brigade and 82nd Airborne Division plus vehicles and equipment, were dropped by 40 C-141 Starlifter and 104 C-130 Hercules aircraft on three separate zones about 175 km inland of the beachhead. It was the largest Allied parachute drop since the Rhine crossing in 1945.

As the Paras advanced against Koronans and linked up with US armour advancing from Telari, 60 UK and US helicopters flew 3 Commando Brigade forward in what is believed to have been

the largest single UK airmobile operation ever undertaken. By 0900 on D+8, about 20 hours ahead of schedule, all objectives had been taken and Endex was called.

Bold Alligator 2012 and the Expeditionary Strike Group

The organization of a large sea-basing exercise NOT built around current operational constructs – neither the CBG nor the ARG-MEU was the organizing construct – and meant that a new phase in the sea base was introduced. An ESG and in this case MEB operation provides a template for a much large seabased insertion force to do littoral engagement operations.

Such a force has several core advantages appropriate to 21st century operations. It provides an economy of force. One is seeking to put the right number of assets up against a problem. It is scalable which means that an ability to add capabilities is inherently built in. Reachback is crucial to ensure capability to bring more resources to the fight as needed. And it is allied centric. Allies can lead the operation, augment the operation, or supplement the operation.

One way to describe the ESG-MEB construct is simply to go back into history and describe the evolution FROM the ARG-MEU. The core ARG-MEU prior to the Osprey operated in a three ship formation within roughly a 250 square mile box. With the addition of the Osprey, over the past five years, the ARG-MEU has been capable of operating in a disaggregated fashion. This means that the three ships can operate “separately” but the Ospreys have the range and speed to support the formation along with the fast jets, the Harriers.

As Colonel Mark Desens, Commander of the 26th MEU put it:

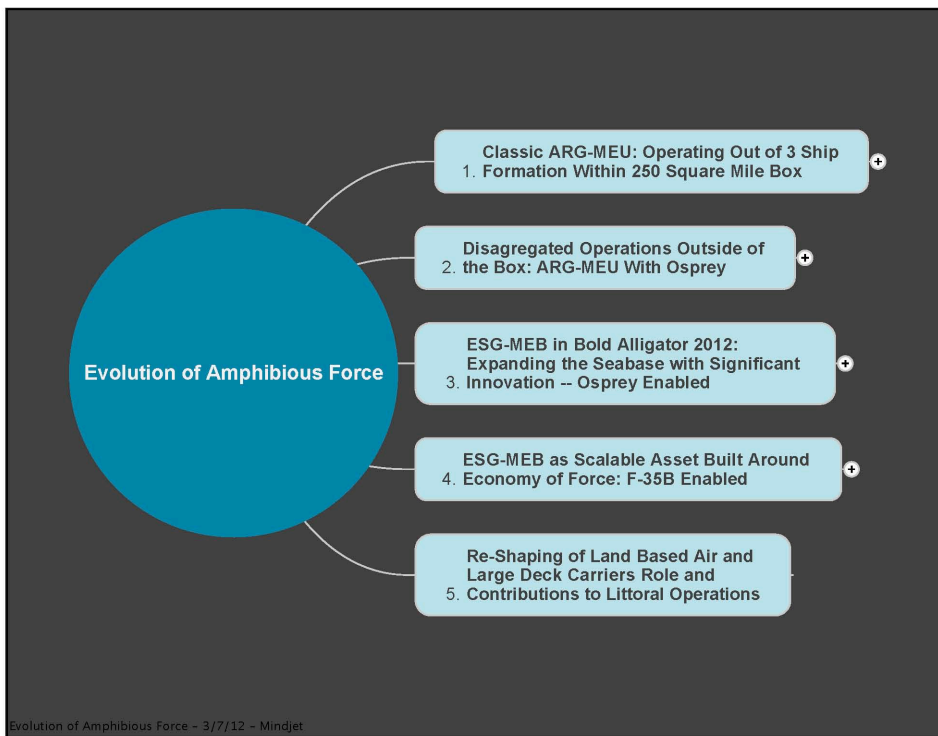
In the middle of November 2010, we were spread over 3,000 miles ranging from Kenya, to Jordan, to Djibouti to Pakistan. We concurrently supported three Combatant Commanders. This is not unique to our deployment....

Every day you're looking at a mission. Do I have the capabilities matched up correctly? Tomorrow, by the way, that mission stands down, and a new one stands up over here. Are you pos-

tured correctly for it? Do you have the C2, mobility, and logistical support? Force Protection? How am I migrating command and control, to include satellite coverage? How am I using my aircraft? What are the Combatant and Component Commanders providing? What's theater and organic lift doing for me? The MV-22, by the way, has become a game changer in this discussion. Moreover, our organic KC-130s are ubiquitous and a key enabler to everything we do.

Then there is the people piece. We need small teams that we can task organize and put into unfamiliar environments and know they will succeed. We're talking about small, maybe five man

teams, with a sergeant in charge. So does that sergeant understand what I want him to do if I can't talk with him through the C2 system? In order to conduct truly disaggregated operations, you have to use a lot of commander's intent and have built trust and confidence into your Marines and sailors.



ary Strike Group (ESG) and MEB represent not just a quantitative increase in assets but a qualitative evolution. With the ESG construct you are organizing a mission defined and mission ready set of ships and onboard capabilities into a floating strike and sustainment force. The ESG is scaled as appropriate to the mission and to the tasks.

But the Expedition-

As one Marine explained, in this sense the ESG-MEB is not simply and “ARG-MEU on steroids.” One of the two squadron commanders in the exercise explained what he meant in these words:

Most of our experience, whether it be on the Marine side or the Navy side, is with the ARG-MEU. That is where experience lies, and we’re constantly at sea going out, operating and executing along those lines.

Breaking that mold of the ARG-MEU cultural mindset will be important. Three big deck amphibians can actually bring to the fight a different type of capability.

This exercise was very good in helping us realize that we can’t just do business like we normally do on a MEU, and just make it bigger. Some of the challenges that we ran into, whether it be air-space control, or sea space control, or just working the battle rhythm on the deck itself and working through the flight window, and setting priorities, we realized that the ESG-MEB is not just a ARG-MEU on steroids.

It’s much more than that. It is much more capable, and we can be smart about how to leverage the increased numbers and qualities of the assets to gain full capabilities out of what we had out there.

Looking Forward: The Potential Roles for an ESG

As BA-12 was unfolding, the Iranian threat to mine the Straits of Hormuz was a real world event which seemed to remind folks of the need for amphibious capabilities and the sea basing approach. And indeed, the DOD is re-fitting the USS Ponce for duty in the Middle East. The Department stopped the decommissioning in order to re-fit for deployment.

Although one report focused on the ship as a launch point for Navy seals, a more likely focus is upon de-mining operations and the need for significant helo and related capabilities aboard the USS Ponce. The Ponce was one of the stars of the Libyan engagement and due to significant shortfalls on the US side is being pressed into duty.

If you ever wanted a poster child for the USN-USMC call for more amphibs this clearly is it. A real world event is being handled by a Band-Aid approach. If we don't simply want to buy more Band-Aid solutions, we need to buy and deploy appropriate kit for the new con-ops now.

In fact, the Libyan operations as well as evolving events in the Middle East suggest even more strategic relevance of the rapid evolution of the sea-basing approach into a broader understanding of maneuver warfare from the sea.

The "new" Middle East is rapidly creating the need for such a capability, and such a transformation of US and allied forces. And remember the core role, which allies played in BA-2012.

With the Arab Spring, the security and defense framework, which the West has underwritten over the past thirty years, is shattered. The Arab Spring states are in upheaval, the Iranians are preparing to enter the stage as a nuclear power, the Conservative Arab states have to prepare to defend themselves against Iran, and the interaction between Arab Spring forces and the stability of the key conservative Arab states is significant.

- Who will the West be aiding and abetting if the Arab Spring continues to pull the rug out from under the de facto Conservative Arab, Israeli and Western alliance?
- Will Western states be able and willing to deploy land based forces, whether ground or air, on Arab soil?
- And given uncertainties even in key Arab allied states, how might the West best defend its interests, and to ensure energy security in the region?

The Bold Alligator 2012 approach highlight that sea-basing and engagement forces associated with sea basing are clearly well placed to provide for security of choke points and transit in the Mediterranean and the Gulf.

In the exercise, Harriers based on the USS Kearsarge worked closely with land-based air to provide for a significant air combat capability to shape the battlespace. This model can be followed with Arab Air Forces, the Israeli Air Force or Western Air Forces de-

ployed temporarily on Arab soil. The point is that the organizer of the spear is on the sea-base, and this capability can be conjoined with the various air combat centers extant or being developed in the region.

The threat of an Iranian nuclear state coupled with the festering upheavals associated with the Arab Spring can create a perfect storm for the ability of the West to defend its interests in the Middle East.

Shaping an effective engagement strategy in this period of uncertainty and deploying realistic capabilities into the Mediterranean and the Gulf will be a key imperative in the period ahead.

Key Elements of the Re-Think on Maneuver Warfare Built Around an ESG

The core element is a distributed seabase capability, which can leverage U.S. and allied assets and operate throughout the depth and range of a wide battlespace. By operating off the seabase, aviation and other strike assets can operate off of a variety of vectors and come and go and marry up to the moving seabase. By putting the sustainment piece on the ships, one does not need to move an “iron mountain” of support ashore as well.

There are a number of core elements for an operational ESG of significance.

First, viable C4ISR to connect the battlespace is obviously central. The ability to manage aviation assets, to manage strike assets, to manage defense in depth, to insert force, to withdraw force, etc. rests on the ability to manage the entire battlespace.

Second, the ESG task group needs to be able to operate safely in the clutter of a littoral engagement operational area. This highlights the need to counter mine threats and associated challenges.

Third, the ability to insert force against a determined enemy and a “learning enemy” requires a balanced force structure, which includes defensive, offensive and multi-mission capabilities.

Fourth, the ability to sustain the operation from the sea is highlighted as well so that a relatively light footprint can be inserted and withdrawn as makes operational sense.

Fifth, meshing the various ships involved in the operation into a coherent fighting whole is central as well. This means supply ships, oilers, large deck amphibs, frigates, destroyers, submarines etc. Organizing an ESG task force will require rethinking how the Gator Navy becomes a lead strike element, not simply an extension of the Military Sealift Command.

The Bold Alligator 2012 exercise highlighted a number of these elements and suggested ways ahead. The extensive interviews conducted before, during and after the exercise underscored both the nature of the challenges and paths towards meeting those challenges.

The Expeditionary Strike Group can become a key organizational construct for military and security operations in the 21st century. Bold Alligator 2012 essential provides a teaser of the opportunities and possible ways ahead. We will now look at some of those opportunities and ways ahead.

The C4ISR Challenge and Opportunity: “Putting the right force, at the right place at the right time against the right enemy”

Col. Kevin Iiams, currently the standardization officer for 2nd MAW, laid out in an interview a basic understanding of the C4ISR challenge for the ESG.

Question: Based on your experiences, how do you see the command and control challenge for an ESG-MEB level of operation being quite different than ARG-MEU?

Col. Iiams: I'd say that the ACE element has to have command and control while they're afloat. If we expect to do operational maneuver from the sea (OMFTS) and keep the core logistics assets out at sea, we must strive to keep command and control as much as possible out at sea so that we don't put those assets ashore that aren't required to be there.

We have to find some way for the Marines to conduct Command and Control from afloat, if we are to truly embrace our amphibious concepts and the new capabilities of our emergent tactical platforms.

We have historically divided the Command authorities between the Navy, having command and control at the outset of the amphibious operation (afloat) and the Marines having command and control once established and ready to assume Command ashore. The age old lessons from AWS and EWS are that the Commander of the Landing Force (CLF) picked up command from the Commander of the Amphibious Task Force (CATF) once the preponderance of assets were ashore and the CLF was ready and able to Command.

However, under OMFTS and STOM there's a conceptual hurdle, that if we're keeping as much at sea as possible, when and how do we transition these authorities. For example, does the USMC TACC have to actually be ashore to Command and Control? Does command and control of aviation remaining "at sea" mean that it must stay with the Navy?

I believe Command and Control of amphibious aviation operations can stay "at sea," and can still transition to the Marine Corps, but to enable this concept, the Navy-Marine Corps Team must find and adopt new methodology.

We should be able to network a new architecture, combined with assets, in with the Ground Combat Element (GCE), to provide them the aviation support that they need, but provide a means to keep all of those assets afloat if tactically/operationally prudent. We should not have to rely solely on the Navy if we want to do that. Once we are conceptually ashore we want that traditional CLF/ Marine mindset to be preeminent, but how do we do that?

I think we can still do all of that from afloat, by either one of two approaches.

The first would be to have the Marine Command and Control, the TACC) embarked on a vessel and man the TACRON spaces, such as possibly the Kearsarge during BA-12. As the Navy is conducting command and control from the Wasp, the TACC staff on the Kearsarge would be in essentially in an observe mode. The Marine TACC would monitor the fight and have all networks up and operational.

When the transition of command and control is warranted, the Marine TACC Afloat (aboard the Kearsarge in the TACRON spaces, in this case) would then take command of air operations inside the amphibious battle space as the Wasp stood down and reverted to a monitor status.

A second method would be to have a single staff that would run air operations for an entire amphibious op of this nature. The intent here would be to have a trained-homogenous “blue and green” staff in the TACRON spaces and two Commanders.

The complexities of battle handover would be much simpler with one staff. One commander, a blue suitor, would run the initial portion of the assault, and when operational requirements are met, he would hand off the battle to the second Commander, a green suitor, who would step in to run the next phase in the battle space.

This would allow the utilization of the same communication means, the same command and control, and the same controllers, ensuring far less confusion.

This would still achieve that same traditional mindset shift from a maritime perspective on managing the battle to an amphibious land focused commander of the landing force perspective on the battle.

Another take on the C4ISR challenge was provided by Lt. Shawn Hermley, one of the two Harrier squadron commanders aboard the USS Kearsarge during the exercise.

Question: The exercise certainly highlighted the need as one shifts from ARG-MEU operations to ESG-MEB operations to get better C2 and Air Traffic Control capabilities aboard the large deck amphibs. It is different when you are managing the force of three ships versus many more ships and their combat elements.

Lt. Col. Hermley: I absolutely agree with you. It is a question of getting the proficiencies right for the air traffic control piece. And we could have used more time to work through the ATC parts of the challenge. The close proximity of the large deck amphibs, the level of proficiency from an airspace control standpoint as well as some radar degradation issues were elements of the problem. We need improved systems to reduce that risk that’s inherent in an ESG-MEB sized operations and have backup systems that can give us a bigger picture and better integration.

Flight deck manning is another issue. We are currently limited to a ten-hour flight window. The problem was managing the flow of ship ops and air ops, which made that flight window a constraint. We needed to manage that ten-hour fly window to match all the competing priorities, and that's where it becomes a challenge, notably for nighttime ops, where you may want to oper-



ate most of your strike assets. But during the day you want to do some other things, movement between ships and that kind of thing.

The result was that we were not able to execute the sortie generation rate we would want to do to maximize offensive air support effectiveness.

And we did not really integrate operations with the large deck carrier. They were a significant distance of 70-80 miles from us, which probably gave them a lot more beneficial maneuver space. But working with the land based Hornets out of Beaufort, SC, that sortie actually went extremely well.

Shaping New Force Insertion Approaches: Expanding the Toolset

Lt. Col. “Uber” Williams who served as Col. Shorter’s deputy from MAG-14 headquarters during Bold Alligator 2012 outlined how to understand the new force insertion approach.

Question: One of the most powerful images from the exercise was Ospreys come off of a supply ship to operate more than 180 miles inland to do a raid near Fort Picket. The flexibility inherent in this event is definitional for the future. What is your take?

Lt. Col. Williams: I think the large number of ships that were afloat, the number of assets that were afloat, and the number of different countries and capabilities that they bring in a broad sea base mindset, you can draw upon several different specialized capabilities.

You can dramatically expand the toolset.

For example with the raid on Fort Pickett, the raid may be originally driven by a special operations force, that is launched from the sea base, but then may very quickly transition to a conventional mission, coming from the same sea base, allowing detailed planning and coordination.

The duration of an operation is critical to the discussion. For a raid, the time in the objective area can range from a couple hours to days or longer. With this in mind, an array of ships within the V-22s range can provide the logistical support for either immediate retrograde or a limited time in the area without the requirement for resupply from a land base.

In addition, we’d want to provide aerial escort for a raid force to attrite any air or surface threat to the V-22 assault force. This is enabled by the STOVL strike aircraft deployed in a MEU or MEB sized element.

Once the objective is met, we can bring those forces back very quickly, to prepare for the next mission.

The flexibility of Sea Basing allows us to put the right force ashore with the logistics and aviation support and for the right duration.

This approach provides you with a broad breadth of influence over the battle space that gives the commander great flexibility and great sustainability in conducting missions throughout the spectrum of operations.

The Commander of the MEB underscored a similar approach to thinking about the ESG approach. BGEN Owens commented:

Question: A key aspect of the exercise was shaping an approach to maneuver warfare, whereby the USN-USMC and Coalition team was looking to insert force across the battlespace. What is your sense of the maneuver warfare approach practiced in the exercise?

General Owens: On the Navy side we need to show the agility and the flexibility to maneuver. We've got to use our shaping capabilities for both kinetic and non-kinetic operations; we've got to use solid deception operations, demonstrations and so forth.

And we've got to basically show the enemy that we can hold his entire coastline at risk, and force him to make decisions either to spread his forces out that will allow us to find a weak spot. Or force him to concentrate forces in the wrong area, in which we can go into an area that he either hasn't reached yet or simply can't cover because he doesn't have enough forces. We've got to hit them where they're not.

In doing so, we get away from that image of amphibious assault where we're going into a limited area, and that you have limited places you can land, so the enemy knows you're coming to one of these two places. And once they know you're coming to the island, there is no surprise left.

In most situations, we're not going to be assaulting an island less than ten miles in length; we're going to be holding a larger coastline at risk. And we will force the enemy to make decisions, and through that, hopefully make mistakes that we can exploit.

And that's kind of how the scenario played out in Bold Alligator. We ended up landing where the enemy was not quite able to reach us yet, and even though we did have some threats in the beach area, we were able to mitigate those so that the forces came ashore without taking casualties.

Shaping New Approaches to Managing Littoral Threats

A key element of getting the ESG operationally effective is managing the front end counter mining and related littoral threats.



COL Bradley Weisz, Deputy Commander, Expeditionary Strike Group TWO, highlighted the importance of mine warfare (MIW), particularly mine countermeasures (MCM), in the joint/combined-forces Bold Alligator 2012 exercise conducted in February.

“Both ESG-2 and 2d MEB [Marine Expeditionary Brigade] staffs had very little experience, knowledge and familiarization working with the mine warfare community, current mine threats and associated tactics, techniques and procedures (TTPs), so BA12 was truly a great learning experience for all involved,” he explained.

In a related interview, BGEN Christopher Owens, 2nd MEB Commander noted, “The most ubiquitous threat that we’re going to face is mines. In the exercise, we faced a

very robust mine capability. We had a wide range of capabilities on the Navy side to help deal with those threats, but we also integrated the MEB in that, particularly our air.”

We conducted live and synthetic counter mine warfare operations using aviation, surface and sub-surface assets and capabilities off both the Coast of North Carolina as well as off the Coast of California, in the vicinity of San Diego,” COL Weisz continued. “The West Coast mine warfare operations were geo-synchronized to support our operations off the East Coast. This training venue worked great and we should, we need to conduct more of these types of training opportunities in the future as our scare.

“This was definitely one of the most valuable training events throughout all of BA-12,” he underscored.

But what the ESG approach might well highlight is the ability to operate robotic elements off of the ESG ships – supply or combat – to deal with the clearing tasks inherent in a littoral engagement.

Counter mining has been the task of helos and specialized counter mine ships. But there is a technological change, which might lead to “de-platforming” the counter mine capabilities the fleet might use. Currently, one focuses on a platform’s characteristics – non-magnetic signature, operating over the mine area etc – to spearhead the counter mine efforts.

But the evolution of underwater Robotics might well shape in the near term, tools which can be used by a variety of helos and ships to spearhead the effort.

As one senior USN mine analyst put it: “If robotics can be tossed over the side of a ship, and dive and prosecute the mine threat, then a much wider range of ships can manage the effort and focus on direct kills of mines. For example, one could through robotic underwater vehicles over the side of a T-AKE supply ship and the robots would start their operation. Another ship could manage the overall counter-mining effort and the data crucial to determining the condition of the threat in the littorals. And the latest T-

AKE supply ships will receive enough bandwidth and communication capabilities actually to play a role in this effort.”

Shaping New Strike Force Options

Two key elements shaping a way ahead with regard to air strike options was highlighted during the exercise.

First, 16 Harriers operated off of the USS Kearsarge. Eventually, this ship can take around 18 F-35Bs aboard the ship, which exponentially increase the combat power of the ship.

As Col. Weisz, the Deputy 2nd ESG Commander put it:

And when you start looking 5, 10, 15 years down the road, when our F-35 Bravo Joint Strike Fighters become fully operational, our LHDs and LHAs, our Big Deck Amphibs truly become mini aircraft carriers, they really do.

(Photo of F-35B aboard the USS Wasp, October 18, 2011. Credit: SLD. Photo was shot from an Osprey.)

The F-35B gives you that much capability and potential in a single platform, it's phenomenal. Now, the LHDs and LHAs may not provide you with 48 plus TACAIR assets that you would see and experience on a CVN, but you're still going to have 16-20 F-35s on a LHD and LHA that will still give you significant strike, ISR, EW and C2 capabilities.

In addition to ESG/MEB deployments, this is a great capability for our routine and forward deployed ARG/MEUs. And when you bring the ARG/MEUs together with the ESG/MEBs, you just increase your expeditionary strike force's capabilities that much more.

At the same time, depending on the situation, the threat and the operating environment, one could easily argue that you could leave your large deck carrier, the CVN further out to sea in order to support follow-on operations or even other operations outside of the immediate area.

The other key element was the Osprey. Here the Osprey demonstrated a re-defining capability for the ESG. **Useful in rapid ship-to-ship operations, ship to shore opera-**

tions and shore to ship operations, the range and speed of the Osprey is at the heart of re-shaping an understanding of force insertion of ground forces within the entire battlespace.

The squadron commander for the Ospreys involved in the exercise referred to the “tsunami of change



coming” associated with the impact of the Osprey and other capabilities coming to the amphibious fleet, which in turn would enable a very different understanding of the ESG.

I think that first of all, the comparison to the V-22, and the CH-46 is an old argument that needs to move on. This thing

changes how we do business.

The ability to go from an ARG-MEU or an ESG-MEB concept of putting marines ashore and supporting them has astronomically increased our abilities.

The speed and range of the Osprey is a game changer. We can go from 250 miles, 500 miles? Why can't we go 1,000 miles? Why can't we go 1,500 miles and be able to support this concept.

And I kind of think of it like sort of a chess game. I think of an ARG-MEU as being able to move a pawn right at the beginning of conflict one space at a time.



With the speed range and reliability of the Osprey, I can move that chess piece, instead of one spot, I'm moving behind the chessboard off the board. And you kind of say well, that isn't fair. And coming in from the back of the other side's chess pieces, and

you're right, it isn't fair.

There is a tsunami of change coming when we talk about the abilities to support Marines ashore. We can increase our area of influence because we can spread ships out; now we have an aviation connector that can move Marines. Not just 50 miles ashore, but we'll move them 200 miles ashore, and we're doing it at the same speed or an increased speed and increased range.

And a lot of arguments that will be made well, how are you supporting those Marines ashore? How are you giving the firepower? Harriers can easily support this task already. We integrate them with tankers to increase range, and endurance.

The F-35 is going to bring a concept that's unbelievable and off the charts. We're able to move so much ashore. And with that being said, the ability to support us with ships like the T-AKE is also a key dimension.

Shaping New Approaches to Sustainment

The shaping of a new approach or ESG construct is rooted not only in new maneuver from the sea capabilities, but to sustainability. This element was highlighted in discussions with the MEB commander, BGEN Christopher Owens.

The only way we're going to build significant combat power ashore that involves motorized mechanized forces, or a relatively heavy force is from a ship. I asked our logisticians to do a computation and figure out how many C-17 load equivalents we're projecting from the MEB. And right now, the initial rough estimate is somewhere between 500 and 1,000 sorties. And that would be what we could offload from amphibious shipping over the course of about three days.

Granted you have to factor in the transit time for the amphibious taskforce, but once it comes time to project the force, you want mass. You want mass and mobility. 500 to 1,000 sorties by air would take weeks, if not months.

Now, there are a lot of capabilities that can come in via air, the best thing to bring in via air is people right now. You can have people that come in to the airfields that we secure or if necessary that we build that will then marry up with additional combat capability. They can come in via secured ports, via black-bottom shipping etc.

One of the obvious advantages of operating from the sea base is reducing that footprint ashore. And our traditional model is as the forces go ashore; they're supplied initially from the amphibious warships. And then, subsequent sustainment would come in via a port or airfield, and we would build what we refer to as an iron mountain ashore from which to supply frontline units.

Where we want to get to be a point where we can do selective offloading of these black-bottom ships, these maritime sealift command, maritime prepositioning force ships at sea, and provide that sustainment directly from the ships to the forces that will need them, to the consumer.

We can thereby cutting out that iron mountain, which not only increases the number of folks we have to put ashore to manage it, but also, the amount of transportation assets, to move it ashore. And then, the force is required to protect it.

That in turn, increases our agility if we need to backload rapidly and move onto another crisis, there's less materiel on the beach that has to be back-loaded or else abandoned if we don't have the time to backload it.

Developing that selective offload capability, where we can put Marines aboard these commercial ships, and prepare and deliver the sustainment that's needed, the ammunition, the fuel, the food, the water that what's needed, and when it's needed, we can limit that footprint ashore.

Shaping Alternatives to Land-Based or Large Deck Carrier Based Aviation

Either one needs to bring a range of specialized assets – ISR, C2, strike, air defense, etc. – or one will need to bring the F-35 Bravo to the ESG party. During the BA-12 exercise a taste of what the F-35B can bring to the operation was provided by the testbed aircraft, the BAC1-11 which carried several of the F-35 combat systems, including the mature radar system.

The CG of the 2nd Marine Air Wing, Major General “Dog” Davis, provided important insights into what he saw and what he expects from the F-35 to the future of the force and to the ESG.

Currently, we put up 16 Harriers off of the USS Kearsarge during the exercise. You have sensors on each plane with a range of 40-50 miles of scan capability, limited to using one sensor at a time. And you are not connected to the link (no Link-16). You function as a node and pass information back via voice or Rover (video down-link).

What I saw on the BAC1-11, I have exponentially greater ability to scan and “see” the battlespace with exponentially greater fidelity than ever before, locating and positively identifying everything from air to sea targets. I can look at the battlespace with the radar, the DAS, a host of other sensors and basically can bring all that information together into one data system, fuse that information — which makes it a flying sensor.

The V-22 changed things physically with regard to projecting power from a sea base. With the F-35 we will change things physically again, but on another level we will bring in another huge

leap forward in capability from its sensors and its ability to see and share information – from our sea base.

I just witnessed tremendous potential on the BAC1-11 to bring in high fidelity data, not only to know what is out there but also to be able to target at a much higher degree of accuracy than I have ever been able to do before. I almost felt like I was in an E2D, able to see that much battle space. What was missing for me was there was not another BAC1-11 out there to tie into and to share the sensor data, as we will do with the operational F-35s.

But even as a single platform, it was exponentially better than anything that I have seen in any platform. And I fly both the F-18s and Harriers now.....

The F-35 community of users – sea based and land based – will be able to create a pretty tight air grid over the top of the distributed battle space so we can share information very freely out there.

To me, the key is to have these airplanes networked overtop, where they're able to see deep into the enemy battle space, or the objective area, but also sharing that information. I want not just the airplanes to share their information, but the ships as well to be able basically pass that information back and forth freely.

(The picture of the Osprey and the F-35 Bravo was shot during the F-35 Bravo Sea Trials in October 2011 and is credited to SLD).

To me that is the next big step we need to take. We need to take the information, which these planes are bringing to us and sharing them with the ships and other combat elements in the operation.

With regard to the evolution of the ESG-MEB with the introduction of the F-35B, you can disaggregate your forces because you can bring them under an umbrella that has the kind of protection currently only available with the Prowlers or the Growlers off of the large deck carrier.

Now I will have my own organic capability that I can protect these assets. Now I can spread out, like that tsunami that Colonel Boniface talked about. I can actually move my forces out and I can protect them. They can be separated from the ESG, or from the land based assets in our ex-

peditionary Forward operating bases our MWSSs (Marine Wing Support Squadrons) build and sustain.

And Col. Iiams, also a rider aboard the BAC1-11 during the exercise added:

I think the capability of the platform to generate information, and then transmit that information in this environment is going to be crucial to those commanders that are afloat.

To be able to sense the battlefield that is downrange, over the amphibious horizon, and be able to provide that back to a commander who is far afloat, out of range of enemy assets in the maritime dominated area is essential to our concept.

This asset will have the necessary reach, to be able to control assets such as the tilt rotor MV22 and will be able to provide time sensitive information to enable long-distance operations from these types of platforms.

This is where operational maneuver from the sea is going. This is ship to objective maneuver. The F-35 asset is a key piece in essentially generating the intelligence, and the information needed for decision making for the Marine Corps to able to achieve its objectives.

The platform is a key asset to the way we want to fight with regard to operational maneuver from the sea, and ship to objective maneuver.

In these concepts we're going to require a great deal of flexibility, as we reach farther and farther inland. We're right-sizing our assault so that we put the right force in the right place, at the right time against the right enemy and objective, while minimizing overall footprint/exposure ashore.

We need to ensure that in real time, we know exactly what is happening in that piece of the battle space, or at least we know as much as possible about what's happening in that piece in the battle space, so we can ensure we get it "right."

If the Commander senses that something has changed on the battlefield with this asset's real time information capability, he can reshape the battlefield, or change his own plans in real time. This is the asset that gives the Marine Commander the ability to outpace and out-tempo the enemy in OMFTS/ STOM.



Conclusion

There is no better conclusion than that provided by Lt. Commander George Pastoor, a Dutch naval officer who operated as the chief BA-12 planner:

A key take-away for me is the flexibility of the seabase for future operations. It's all about power projection from the sea. We can fix an enemy brigade on the shores by just showing up on the horizon with large amphibious force; it forces the enemy to react, either re-enforcing in place or moving.

But by operating from the seabase, we can quickly move from one space to another space, a couple of 100 miles per day; the enemy has not the same capability as we have doing that on land because land maneuvering is slow by comparison.

Photo Credits: The photos of USN and USMC forces in action during the Exercise are credited to the USN. The pictures of the F-35 Bravo and the Osprey aboard the Wasp during the sea trials of the B on October 18, 2011 are credited to Second Line of Defense. The picture of the French helos operating aboard the Mistral were shot by Murielle Delaporte during the exercise.