DEFENSE.info

Perspectives from November/December 2021 Articles

December 5, 2021

A Discussion with Major General James F. Glynn: The CG of MARSOC

11/30/2021

By Robbin Laird

The Marine Forces Special Operations Command provides an interesting case study for the USMC transformation path. It was stood up in 2006 and was clearly part of the response to the land wars and to enable the Marines to work more effectively within the key role which Special Operations Forces were playing in how the land war was being fought.[1]

With the land wars over (although counter-terrorism operations sadly not) should MARSOC be abolished? Some have argued this. But as the Marine Corps is reworking how to operate force distribution and integration, why isn't the small unit operational capabilities of the Raider teams not a key element of the next phase of transformation?

The idea behind the Inside Force is to find ways that smaller clusters of Marines can deploy within a Weapons Engagement Zone, and connect with an Outside Force, either to empower that Outside Force or to deliver decisive effect in a special area of operations.

Also, a key element of the peer fight is to understand how to deal with a core challenge posed by our peer competitors, namely, being able to counter their focus on operating at a level of lethality below outright war but using military and other means to coerce outcomes in their favor.

It would seem that MARSOC forces could contribute significantly to working at this level of warfare, and with focus on ways to connect more effectively indigenous or partner groups with the Outside Force, whether Marines, or the joint or coalition forces, the work which MARSOC has done with joint and coalition forces in the past would seem as well to be a key asset to leverage going forward.[2]

MARSOC while preparing for a peer fight could also provide a significant real world force element for innovation at the small group level, which can be leveraged and introduced into the wider Marine Corps force. They also could assist in rethinking how to use the assets the Marines already have to enhance combat capability now rather than waiting for whatever innovations arrive and are credible the decade out.

Given the importance of small group operations distributed but integratable with a larger force, the Marine Raiders should be a key part of this next phase of transformation. In effect, the Marines need to take full advantage of MARSOC opportunities and to leverage their potential contributions to shape change going forward.

I had a chance to discuss in November 2021 the challenges and opportunities for shaping the way ahead for MARSOC within the overall transformation of the USMC and its role in the Joint Force with Major General James F. Glynn, the CG of MARSOC. Major General Glynn assumed command of

Marine Forces Special Operations Command (MARSOC) in June 2020. His previous assignment was the Commanding General of Marine Corps Recruit Depot Parris Island and Eastern Recruiting Region. A native of Albany, New York, his service as a Marine began in 1989 after graduating from the U.S. Naval Academy with a Bachelor of Science Degree in Mechanical Engineering.

His initial assignment was with 3rd Battalion, 3rd Marine Regiment, in Hawaii where he served as a rifle platoon commander throughout Operations Desert Shield/Desert Storm and later as the Mortar Platoon Commander. He has served in a variety of command and staff billets at: Marine Barracks 8th & I, Washington, DC; 1st Battalion, 4th Marine Regiment, Camp Pendleton, California; Marine Corps Recruiting Station, San Antonio, Texas; I Marine Expeditionary Force, 2nd Battalion, 4th Marine Regiment, Camp Pendleton, California, and Marine Corps Forces Special Operations Command's (MARSOC) Special Operations School, Camp Lejeune, NC.

More recently, MajGen Glynn served as the Deputy Commanding General of Special Operations Joint Task Force, Operation Inherent Resolve (Forward).

Previously, he served at Headquarters Marine Corps (HQMC)—first as the Military Assistant to the Assistant Commandant of the Marine Corps, and then as the Director of the Office of U.S. Marine Corps Communication.

We started by discussing the nature of the change being focused upon at MARSOC. As MajGen Glynn put it: "From the outset of the standing up of MARSOC, we focused on a concept often referred to as I-3: Interoperability, Integration, and Interdependence. And I believe, based on competitors and what their study of our Joint Force capabilities are, the time is now to focus very purposefully on interdependence as a core element going forward."

"How are we going to be ready for the future? A stand in force approach means that we need to be very deliberate about the development of our capabilities going forward, with a thought towards the interdependencies of what special operations forces are expected to do in support of, and as part of, such a force."

"By virtue of Title 10, services tend toward the responsibility to engage in crisis response as a core function, and certainly the Marine Corps is crucial to such a mission. The Navy performs some actions in competition, such as freedom of navigation, and all the services focus on reassuring partners and allies. But SOF in general, and MARSOC in particular, focuses on activities that begin before crisis. We are part of the overall engagement in pre-crisis actions and do so by operating and developing relationships with partners and allies to enable them to do their own crisis prevention and response and enable them to tamp down violent extremist organizations that can turn into insurgencies. What we do on behalf of the naval services is provide access and placement to friends, partners and allies in shaping relevant capability in that pre-crisis to crisis phase."

We then discussed the advantages which flow from smaller group operations to drive innovation in the larger force. I argued that one of the advantages of having small groups like MARSOC is you can be more cutting edge because you're smaller, and you have less large force consensus building to try something new. And in my view, the Marines have capabilities from the aviation side, right now, Ospreys, F-35s, Vipers/Yankees, and CH-53Ks which can be tapped in new ways to shape innovation

going forward while other innovations are shaped in the decade ahead, which in my view will be shaped by actual modular task forces in operations and combat.

MajGen Glynn provided his perspective on this aspect of driving change as follows: “Our size is our strength. We have the agility to make a decision, take one step and pivot 90 degrees to enable that decision. We’ve demonstrated that in a number of areas. That’s obviously considerably more cumbersome to larger formations.”

“What that enables SOCOM, and the Marine Corps is an outsized return on investment for a relatively miniscule investment in time, money and equipment. We can leverage the SOCOM acquisitions mindset of buy, try, decide; in other words, get one, try it. If it’s not good, then don’t use it. If it just needs to be modified, make some modifications, and try it again. And if it’s worthy of investment, then on behalf of the service we can turn it into a program of record and a larger scale investment.”

“We are focused on strategic shaping and reconnaissance with a specific emphasis in the electromagnetic spectrum and information environment. Our ability to bring multi domain awareness and effects to the pre-crisis and crisis phases to, for example, the MARFORPAC commander in his role with the Joint Force Maritime Component Commander, is a key focus for us.”

“Returning to my point with regard to interdependencies, I look at MARSOC operations as part of a Venn diagram, or the image of the Olympic rings. If the capabilities of the service and the SOF component are thought of as rings, how purposeful can we be about where, how, and why they overlap? What are those capabilities that intersect and represent purposeful interdependencies? The Marine Corps prides itself on mission analysis and task organizing for the mission. We have that opportunity on a larger scale right now, and MARSOC, as the Service SOF component, is optimized to be the vanguard of experimenting with interdependencies required for stand-in forces.”

The focus on MARSOC as an Inside Force or Stand in Force, as the Marines call it, does highlight the interdependency nature of their operations. What do they bring to an area of operation? What do they link to enhance their own impact, and to enhance the other elements of the force which operates in or comes to an area of interest? Working innovations in interdependencies to shape effective pre-crisis and crisis responses is a core driver of change for the evolving MARSOC force.

This is how MajGen Glynn put it: “Our name, Marine Raiders, highlights an innovative tradition dating back to 1942. Our company commanders in this organization are Majors and each unit has the capability to engage in multi-domain operations. Throughout these initial 15 years, MARSOC units have significant experience in expeditionary operations, sets and reps as expeditionary advanced operators and that experience is crucial in shaping the way ahead as we work with new approaches and new technologies. At the same time, we have joint and coalition experience, and working with partners and allies is a key part of our operational DNA.

“For the naval forces, our approach to basing and logistics is a key driver of change as well. We are agnostic to where we operate from, but it is influenced by aspects of support like logistics. As long as we get what we need to operate, we are not concerned with how it arrives. If it is by a CH-53, or an unmanned USV, it’s that the logistics capability contributes to enabling where we are. We operate from ships, ashore, can be air dropped, however, we will stay where necessary for the time needed, and a noteworthy aspect of it is about logistical enablement for what can be done in the area of interest.”

"From this perspective, we are clearly interested in adopting new technologies. We can operationally test, evaluate, and take equipment and techniques to a remote location where we're training or deployed and learn from it. With that experience, we've said, "Hey, we're going to need to fix that thing, but the other thing works. From there, we've been able to influence the pace of investment and adoption. I think this approach can become very impactful to the way ahead for the coming Marine Littoral Regiments."

"Our ability to leverage what we already have, but to do so in new ways, is crucial to innovation with today's force, as we develop tomorrow's force. Our ability to operate with the Viper, with the 53K, with the F-35 now, we definitely have an opportunity and are working towards realizing enhanced combat effects from such interdependencies."

We then concluded by discussing the changing nature of warfare, and how MARSOC can enable the force to enhance its ability to prevail within that changing warfare calculus. In my view, the 21st century authoritarian powers who are peer competitors operate in the warfare spectrum from the use of lethal force designed to achieve tactical or strategic objectives below the threshold of triggering a wider conventional conflict up to the level of nuclear force informed conventional operations.

MARSOC from this perspective is a clear player in frankly both ends of the spectrum, but certainly is a meat and potatoes player in deploying to counter the lethal force supporting the political objectives of what people like to call "hybrid warfare" or operating in the "gray zone." And with its focus on shaping the kind of relevant interdependencies with other force elements, which can play from either partner or coalition or joint forces, can learn how to be an effective tip of the spear, but even more importantly help shape what indeed the most relevant spear would be in such situations. From this perspective MARSOC is not a force focused on irregular warfare, but on regular warfare 21st century peer competitor style.

MajGen Glynn noted that from such a perspective one could consider MARSOC as focused on optimizing for the 21st century version of regular warfare. "We're leveraging capabilities in order to bring cross domain awareness of peer adversary actions and activities that are going on right now."

He argued that bringing their combat experience to the evolving warfare context is a key advantage for the MARSOC force. "The reality of our deployments around the world is that our force is getting very relevant warfighting sets and reps. They know what it's like to be in a denied environment, at least for a period of time, they know what it's like to be in a contested environment for extended periods of time. That they're adapting and adopting both the technology, the techniques, and the manner in which they do business on an evolving basis to operate in such environments.

"We take lessons from our deployed forces now and apply them into the process that we have to certify, validate and verify every formation that we send in support of Special Operations Command. We run a validation process flexible enough to adapt to emergent requirements to make sure we stay relevant and remain current, because that's our assessment of how quickly things are changing, particularly below the threshold of declared armed conflict."

[1] Sgt. Jesula Jeanlouis, "Marine Forces Special Operations Command Celebrates 15th Anniversary," (February 22, 2021), https://www.dvidshub.net/news/389559/marine-forces-special-operations-command-celebrates-15th-anniversary.

[2] An interesting look at some of these dynamics is an article by Paul Baily, “Enabling Strategic Success; How MARSOC can help overcome ‘simple minded’ militarism,” *Small Wars Journal* (January 11, 2021), https://smallwarsjournal.com/jrnl/art/enabling-strategic-success-how-marsoc-can-help-overcome-simple-minded-militarism.

Challenges Going Forward for the USMC: The Perspective of Lt. General (Retired) Robling

11/10/2021

By Robbin Laird

I had the chance to work with Lt. General (Retired) Robling both when he was Deputy Commandant of Aviation from 2011-2012 and when he was the MARFORPAC commander from 2012 to 2014.

We started by looking back at his time as the MARFORPAC Commander, and the beginning of the “pivot to the Pacific” and the challenges faced by the USMC at the time.

Question: Looking back, when you came to the Pacific command, the Osprey really was the key tool for USMC transformation in the region. In effect, it was the spear in the ground from which you built out a new way ahead. You also began the process of expanding the USMC relationship with Australia as well. How important was the Osprey in this transformation process?

Lt. General (Retired) Robling: The Osprey was transformational for us. There are 25,000 plus islands in the Pacific and half of the globe in the INDOPACOM theater. We were actually the main air-enabled ground force at the time in the region. The Army brigade was coming back from the Middle East to establish the Brigade on Oahu, and they tried their Pacific Pathways approach which failed miserably.

For us, the MV-22 opened the entire theater for us. We could air refuel the aircraft, we could island hop, and we could operate from Japan all the way to Australia. It was a game changer for how we approached theater operations and how the Joint Force Commander considered how he would use the Marines in the joint fight.

Question: Since you were there, and even though you were anticipating them, the F-35s are now operating in the theater. There are now two squadrons of Marines operating from Okinawa and they are operating every day in the first island chain. That is a big change from when you are there, and how would describe that change?

Lt. General (Retired) Robling: It is a big change. Most importantly the Marines flying the F-35 will support the USAF’s initial air campaign in any Korean contingency. This will give the Joint Force Commander unprecedented stealth capability until the rest of the joint force can close on the region.

Secondly, the F-35’s will support our partners and allies in the region by training and operating off of the ships in the 31st MEU.

The F-35's ability to operate together and to distribute data to the joint force and operate in concert with the MV-22's have simply expanded how we operate in the Pacific and how the Joint Force Commander looks at the role of the Marines and their contribution to the joint force. Combing the two provides a unique airborne capability in the Pacific which can deliver force insertion throughout the region at significant speed and range.

Question: When I visited you in Hawaii during your time as MARFORPAC Commander, you and your staff were clearly focused on what you saw as an upsurge in "amphibiosity" with regard to our allies. Significant progress has been achieved along these lines since 2014. How should we view this progress?

Lt. General (Retired) Robling: We were especially focused on Japan and Australia and since that time both nations have augmented their amphibious capabilities. We helped those nation's to think differently about warfighting and how to defend their interests.

For example, with the both the MV-22 and the F-35B operating from amphibious ships, the Japanese can think differently with regard to defending their outlying islands and, more generally, about the defense of Japan. The three – MV-22s, F-35Bs, and amphibious aviation ships – are transformational for both the USMC and our allies.

Question: For the USMC, the recent transformation process started in 2007 with the coming of the MV-22. Now General Berger, the current USMC Commandant, is adding a new chapter with regard to the next transformation module for the USMC. How should we understand the approach and how does it blend in with what has come before?

Lt. General (Retired) Robling: I believe the Commandant was courageous in getting out ahead of the Joint force in facing what everyone is calling the pacing threat; China. Our nation has to face that threat and decidedly prepare for it now. But the challenge is that he is out in front of the other services in their preparation for a fight with China. I do not believe we as a country have decided what the strategy or that fight might look like and we don't have a full understanding of China's improved war fighting capabilities, how they will use them, how we will counter them, or what the USMC's role should be in that fight.

Question: The approach to building a more distributed USMC is certainly in line with past USMC practice, but the challenge is to ensure force cohesion and force integrability, first with regard to a deployed MEU or MAGTF, and with whatever joint or coalition partners are working with that distributed USMC force. How do you see the challenge of distribution and integration?

Lt. General (Retired) Robling: The danger here is that we develop a niche force incapable of participating in high-end fights operating as some type of reconnaissance role or rear area security operation. In an escalatory war with China, I don't believe it would be long before North Korea starts looking seriously about taking South Korea and likely encouraged to do so by China.

As a previous III MEF Commander and later MARFORPAC commander, I would argue that the Marine Corps' unique aviation and amphibious capabilities give it a decided advantage to the Joint

Force Commander in other near peer campaigns. The redesigned force as envisioned by the Commandant will not necessarily support those type of activities.

While we work towards becoming a light force focused on forward positioning and persistent inside the weapons engagement zone activities, we do not have the kind of sensors which are needed for this type of operation. As a force that will collect and distribute data back to the joint force, we are woefully incapable of doing so much less operate low signature bases with low signature force structures.

This requires the right kind of C^2, ISR accessibility, strike support, logistical support and an ability to be inserted and extracted at the time of our choice. C^2 will not be persistent, and neither will data transmission capabilities. We need a networked force that can operate even when we are not always tied into the joint force.

Logistical support is another weakness in our development of EABO operations that seriously needs overhauling. The Navy will likely need to prioritize their missions in full spectrum crisis management operations against China. Logistical support to small units of Marines on obscure islands will likely fall out of that their decision mix and the commercial capabilities to support the force in a maritime centric China fight will be sorely inadequate.

The Commandant posed this weakness himself in remarks at the recent Marine Corps Aviation Symposium where he stated in the case of limited logistical support, the Marines may have to resort to foraging. How long can we forage on a pacific island?

I do believe however, that the Commandant is correct in his vision of investing in HIMARS and Maritime Strike Missile (both long and short range) to help in anti-access and aerial denial operations. These rockets and missiles are game changers and can significantly advance the Marines war fighting capabilities both in limited maritime and extended land operations.

I concur with the Commandant that the MAGTF cannot be the Marines only solution in warfighting operations. Yet we are building a force now that decidedly understates the role of aviation in all our warfighting activities. Both in EABO operations and in our role in near peer conflict.

Over the last thirty years we have developed and acquired MV-22, CH-53, and F-35 aircraft with significant capabilities not otherwise brought to the joint force. This aviation triad has increased our value to the Joint force tenfold. It has made the Joint warfighting commander think differently how he will prosecute a campaign because of our decided advantage this triad of aviation capabilities alongside our Marines gives us.

Aviation cuts in constrained budget environments (we have always been in constrained budget environments) is inevitable, but once again, we must ensure the cuts are not so deep that we cannot recover from them if we are wrong about our role in the Indo-Pacific fight. We may be.

China may not care that Marines will be rooting around on islands inside the Second Island Chain. If our purpose is to be part of a naval force capable of ensuring sea control and denial operations, China may have already taken those considerations into their war fighting equation.

If I am right, then we need to give them pause to change their equation so our presence actually does what we say it will do. While I applaud the Commandant's focus on returning to our core mission of support to the Naval Fleet Commander through our role as the Fleet Marine Force Commander, our ability to work with the Navy in an ecosystem that requires insertion and support to focus inside the weapons engagement zone is not there now and will not likely be for quite some time.

This will take a larger investment by the Navy in capabilities and training that they have so far been unwilling to invest.

Training for the Interoperable and Integratable Force: Preparing for the High-End Fight

12/01/2021

By Robbin Laird

To get the kind of combat effect which U.S. forces seek, integratability of key elements of the force is crucial. It is not the old concept of network centric warfare being pursued, but rather integration of modular capability-based task forces to deliver the desired combat effect in the distributed battlespace.

But how do you resolve the integration challenge?

And how do you measure the capabilities of the adversary to counter our intentions with their own integrated capabilities and to what extent?

As Paul Averna of Cubic Corporation put it in a recent interview with me: "For interoperability and integration to be realized, it is necessary to determine the aggregate effect of different capabilities working together. Rather than just acquiring a variety of systems and training to get good at using those different systems, we need to integrate key force elements and to determine aggregate effect for the different ways we might choose to meet Commander' Intent. And with regard to peers, we know that they are fielding capable or potentially capable systems but how good are they at force integration?"

Put in other terms, mixing and matching capabilities and training to blend them together into an integrated force package and understanding various potential combat effects from different force packages is a key way for the U.S. and its allies to fight and win against peer competitors.

But as Averna noted, it is not simply acquiring a system or capability and then training to operate that system or deliver that capability, it is about training to generate various integrated combat effects.

Recently, the U.S. Navy successfully completed a training effort which provides a solid foundation for reshaping training in a way that will achieve more effective paths to force integratability.

As Carrie Munn and Erin Mangum of PMA-265 put it: "The F/A-18 and EA-18G Program Office (PMA-265) completed a successful technology demonstration for the Secure Live Virtual Constructive

Advanced Training Environment (SLATE) at Naval Air Station Patuxent River, Maryland last month. The event included four flight tests, supported by Air Test and Evaluation Squadron (VX) 23 and industry partners, The Boeing Company and Cubic Corporation.

"The demonstration showcased the Synthetic Inject to Live (SITL) – Live Virtual Constructive (LVC) system's maturity and performance in supporting training against near-peer threats, while validating its technology readiness level with the F/A-18E/F Super Hornet and EA-18G Growler.

"The resulting SLATE SITL capabilities, technical specifications and lessons learned are currently in work for transition into the Navy's Training Program of Record, the Tactical Combat Training System (TCTS) Increment II. Merging the two technologies presents the quickest way to get the best capabilities into the hands of the fleet as quickly as possible.

"The SLATE system connects Live (manned aircraft) with Virtual (manned simulators) and Constructive entities (computer-generated forces) in a robust training environment that replicates the threat density and capability required to prepare military forces for the high-end fight.

"These LVC capabilities fully link "Live" aircraft with the common synthetic environment used across U.S. Navy and U.S. Air Force training enterprises, providing efficiencies for both Services.

"The SITL LVC capabilities demonstrated by SLATE are essential to providing our warfighters with a complex and realistic training environment that promotes combat readiness," said Megan Sullivan, PMA-265 SLATE Integrated Product Team lead. "The event's completion informs planning and enables more rapid fielding to the fleet."

This is a good description of the training effort, but what it does not do is highlight that this really is about training as a weapon system enabling modular task force integration.

That perspective was very clear from talking with Paul Averna of Cubic Corporation who was a key participant in the training effort at Pax River.

What the exercise allowed was for the Blue Side to bring a number of disparate assets into an air-surface offensive and defensive force which confronted a Red Force operating at much greater range than the live exercise area provided. And the Blue Force was able to integrate assets against a Red Force operating a force package designed to attack an air-maritime force operating off of the waters of the Pax River range.

The live range was off of Pax River and the live aircraft – Super Hornets – had SLATE pods attached to them which allowed them to operate with the ground based testing teams operating both Red and Blue assets. The SLATE pods allowed for the simulated capabilities to integrate into the live aircraft's combat systems and be part of the integrated air and combat picture available to the pilots of the live aircraft.

There were four live events during the month of September during which various parts of the technical data package that the technologies and training architecture embodied were tested. The technical data

package is owned by the government which allows it to work with industry to deliver capabilities rapidly to the fleet.

The training exercise was the first time that live Super Hornets operated together with virtual F-35s and worked their integration in terms of when they would interact and what they would expect while interacting during a mission working together. They connected with MH-60 Romeo ASW helicopters operating from the simulators at NAS JAX along with surface fleet assets working froma Aegis combat simulator as well.

This was the first time that the Navy had fielded their simulated training system in a pod onboard a live aircraft so testing involved working through the integration between ground test systems and the live flight aircraft.

With regard to the Red Side, they used guising technologies to turn live training aircraft into simulated advanced Red aircraft with the flight profile and various capabilities of those aircraft. Other Peer capabilities were included as well into the Red Side package.

The exercise highlighted why DoD needs to pivot to SITL-LVC enabled training. It is crucial to provide realistic threat emulations, to allow red and blue assets to operate beyond the physical ranges themselves, and to provide for the level of security to conduct operational proficiency training for force integration. The September flight events used currently available capabilities developed through the Secure Live Virtual Constructive Advanced Training Environment technology led by NAVAIR's PMA-265 Advanced LVC team.

Put another way, one of the key aspects of the exercise was that realistic employment ranges were not confined to the Pax River live training airspace.

The Red Force operated well outside of the physical range to operate against the air-maritime force operating within the physical training range.

The training environment allowed for multiple skills to be tested concurrently in the simulated combat situation. Live platforms worked with constructive weapons and trained in an integrated manner with the Blue Force to shape a dynamic sanctuary from which to prevail against the Red Force.

And with the training technology, they were able to exercise fighter integration TTPs which encompassed both kinetic and non-kinetic effects. With third party targeting capabilities as a key part of the evolving kill web approach, working who the sensor is and who is the shooter is a key part of combat integration needed in a peer fight. The September exercise demonstrated that the training technology clearly can facilitate such combat learning.

The ability for each platform community to figure out how to plug into this training environment is facilitated by the common standards and protocols providing by the training system. This is true for both the air and surface communities in the Navy, with the potential to bring additional Fleet assets into the common training environment through integration of the Minotaur fusion system into the advanced training system already shaped and exercised in September 2021 at Pax River.

This is not a nice to have capability, but a necessary one if winning is the goal of combat. Understanding integrated combat effects generated by diverse force packages is a key way-ahead for the kill web force; but training to do so is a work in progress.

Russia's Space Shot across NATO's Bow

11/22/2021

By Richard Weitz

The Russian military obliterated a defunct Soviet-era Tselina radio-surveillance satellite, Cosmos 1408, that had been orbiting almost 500 kilometers above the Earth since 1982, with a single-short anti-satellite (ASAT) weapon on November 15.

Though intended to intimidate the West, like the Russian military mobilizations near Ukraine and the manufactured border crisis in Belarus, the ASAT test highlighted Russia's growing capacity to attack U.S. and NATO space assets. Russian Defense Minister Sergey Shoigu said that the "cutting-edge system" Moscow employed hit its target "with precision worthy of a goldsmith."

Though it is unclear that Russia's Civilian Space Agency, Roscosmos, knew about the planned test in advance, Roscosmos Director General Dmitry Rogozin later explained that "Anti-satellite weapons have been developed in Russia for a long time, so there is no secret about it. It is simply that time has come when the Defense Ministry has conducted tests."

U.S. Army Gen. James Dickinson, U.S. Space Command commander, warned that the test demonstrated how "Russia is developing and deploying capabilities to actively deny access to and use of space by the United States and its allies and partners."

Russia has amassed a portfolio of powerful counterspace capabilities to disrupt, degrade, deny, or destroy space objects and systems.

The most recent incident involved a direct-ascent (DA) kinetic kill vehicle, launched from the Earth on a ballistic missile, that destroys exo-atmospheric targets through force of impact.

Russia has tested this PL19/Nudol DA-ASAT system, which has been under development for almost a decade and can be launched from fixed or mobile platforms, on several occasions in recent years. Until now, these tests had intercepted specific locations in space and time to simulate hitting moving targets in orbit.

Furthermore, the Soviet Union and Russia have conducted extensive research and development of "co-orbital" systems. These satellites and other orbiting space vehicles maneuver near other space objects to study, shadow, disrupt, grab, hack, or smash them.

Additionally, satellites that conduct rendezvous and proximity operations (RPO) for inspecting, servicing, refueling, repairing, and removing other space objects can potentially support military activities (such as placing explosives on another body or damaging it with a collision or robotic arm).

These co-orbital ASATs could establish a persistent presence in space to stalk a target (such as a high-value spy satellite), and then promptly attack it on command with microwaves, chemical sprayers, lasers, generated debris, or other means.

Russian academics have studied the employment of aerosol obscurants and nanoparticles in orbit that might block optical and radiofrequency signals from a targeted satellite or conceal Russian satellites from ground-based sensors.

Moscow's Soviet-designed *Burevestnik* co-orbital system has the capability to disrupt space objects and potentially intercept communication links between satellites.

Additionally, Russian "nesting doll" satellites have expelled smaller objects that, traveling more than 17,000 mph, have the potential to damage a target through kinetic collision.

The Russian government claims the purpose of these nested satellites is to approach and assess the status of Russia's own orbiting objects.

In 2020, however, one of these "inspector" satellites maneuvered near USA 245, a National Reconnaissance Office KH11 satellite in high geosynchronous orbits that provides geospatial imagery to the U.S. intelligence community.

After moving to a different location, that same Russian satellite configuration launched a projectile that sped at 700km per hour, a velocity sufficient to damage a target with kinetic energy alone.

Even if Russian satellites only "inspect" U.S. satellites through close-in data interception and photography, they still can study where these valuable assets are located, what capabilities they possess, and how they can be disabled and destroyed.

Despite the publicity surrounding Russia's recent high-visibility test, Moscow's most threatening ASAT weapons may comprise those capable of non-kinetic means of attack.

By using "soft-kill" technologies such as directed energy or cyber weapons, these weapons make attribution of any satellite loss more difficult since there are plausible alternative explanations for any damage, such as technical failures or natural phenomena. Furthermore, they tend to produce few if any debris, be more narrowly targeted, and can be more easily ended or reversible than kinetic strikes.

Russia's national security space programs have explored directed energy weapons–such as laser, particle, or microwave beams with advanced pointing and control systems–that can track, disrupt, or, if sufficiently strong, destroy space objects.

Russia's experimental Sokol-Eshelon ("Falcon-Echelon") airborne laser project, started during the Cold War, has researched the application of a modified Il-76MD military transport plane, designated the Beriev A-60, equipped with a laser powerful enough to disable space- or air-based sensors.

Russia has constructed a Kalina stationary laser in the Krona space surveillance facility in the North Caucasus. Its purpose is probably to blind the electro-optical sensors of overhead reconnaissance satellites.

The Peresvet mobile laser dazzler system, declared operational in late 2019, has been deployed on missile transporter erector launchers at several of Russia's road-mobile ICBM fields. The Peresvet has a limited-range point defense laser for temporarily dazzling the optical systems of low-flying reconnaissance satellites, as well as planes and drones, which might help track Russia's mobile strategic missiles.

Like other Russian so-called "hybrid" offensive tools, such as employment of paramilitaries in Ukraine or militarizing migrants in northeastern Europe, using these instruments aims to allow Moscow to remain below the level of U.S. detection, attribution, and response.

Whether responding to a direct attack on the United States or its forces or coming to the aid of allies and partners, the U.S. defenders would face the dilemma of risking escalation with major kinetic retaliation or appearing too weak to dissuade follow-on Russian aggression.

To deal with the Russian space threat, the United States requires more comprehensive and detailed space monitoring. The USSPACECOM's Space Surveillance Network, comprising telescopes and radars, can only track space objects in LEO that are 10 centimeters in size or larger.

U.S. defenders also need to prepare for the rapid degradation of U.S. space assets. A DA-ASAT can destroy a satellite in under ten minutes after launch. Co-orbital systems already positioned near a target can attack it suddenly without warning, while laser or cyber weapons can inflict damage almost instantaneously.

Other recommended measures include hardening satellites against different kinds of attack, ranging from kinetic strikes to cyber sabotage; deploying more satellites of various kinds and locations; and making critical national security space-based assets easier to replace through expanding the prompt-space-launch capabilities of the United States and its space partners.

Moving Beyond Its Legacy Fleet of Mirages and F-16s: The UAE Adds Rafales to Its F-35 Buy

12/03/2021

By Pierre Tran

Paris – The United Arab Emirates signed Dec. 3, 2021 contracts worth a total €17 billion ($19 billion) for 80 Dassault Aviation Rafale fighter jets, MBDA missiles, and 12 Airbus Helicopter Caracal H225M helicopters, the armed forces ministry said.

The UAE Tawazun arms acquisition authority signed Rafale orders worth €14 billion with Dassault, and with MBDA contracts worth €2 billion for Mica Next Generation air-to-air missiles and Black Shaheen cruise missiles, the private office of armed forces minister Florence Parly said in a telephone press conference.

There was also a deal for 12 Caracal military transport helicopters worth a further €1 billion.

President Emmanuel Macron was in Dubai for the contract signing, on a two-day visit to the Gulf. The UAE was the first stop, then Qatar later on Friday, and on to Saudi Arabia on Saturday.

“This is an historic contract: I am proud to see the excellence of French industry at the summit,” Parly said in a statement.

Meanwhile, a UAE official said the negotiations on the Rafale had been held in strict confidence, with the talks separate from UAE plans to acquire the F-35 joint strike fighter. The UAE’s interest in the Rafale hit headlines just last month after lengthy silence.

The UAE has been in talks with the U.S. for a prospective order for 50 F-35s, after the then president Donald Trump authorized the sale to Abu Dhabi. That green light for a big U.S. arms deal followed the UAE agreeing to open bilateral ties with Israel.

The Biden administration pursues negotiations with the UAE on the F-35, although the pace of talks has slowed, Reuters reported.

Washington sees Abu Dhabi’s ties with China as too close, particularly the use of Chinese 5G communications and data networks, permission for local port access for the Chinese navy, and Chinese offers of sensitive military technology.

The French arms deals with the UAE will not require authorization under the U.S. International Trade in Arms Regulations, the French defense ministry official said.

ITAR, which clears overseas sales of U.S. components, had previously held up delivery of the Scalp cruise missile to Egypt.

France eventually managed to clear that hitch and shipped the airborne weapons, part of Cairo’s initial order for 24 Rafales. Egypt went on to confirm an option for a further 12 Rafales.

The then French president François Hollande, on a visit to the White House, had to ask his U.S. counterpart Barack Obama to get clearance for delivery of the Falcon Eye spy satellite to the UAE, after ITAR withheld authorization for shipment of US components.

More Than a Decade in Waiting

France has been in talks on and off with the UAE on the Rafale for more than a decade, with presidents Nicholas Sarkozy and Hollande in pursuit, until Macron sealed the mega-deal, the largest single export order for the French fighter jet.

Talks on the Rafale deal started a year ago, the defense ministry said. The first delivery will be in 2027, with the last in 2031.

The Rafale will be in the F4 version, which is under development for the French services.

The UAE has requested for the same standard as that operated by France, the Gulf official said.

The fighter is now more capable than it was 10 years ago, the French ministry official said.

A key feature of the Rafale F4 will be connectivity, for sharing information among pilots, based on the Thales Contact software defined radio network.

This capability aims to cut dependence on voice communications and allow data, such as targeting information, to be shared with fellow pilots over the network.

The F4 is also to be equipped with a Multi-Function Array, combining radar, electronic warfare, and communications.

Thales worked on the MFA in a feasibility study for the Future Combat Air System-Development Program, a joint Anglo-French project launched under the 2010 Lancaster House defense treaty.

Another F4 feature includes satellite communications.

The UAE deal secures a decade of activity, with output of the Rafale rising to two or three per month from the present one per month or 11 per year. Dassault closes the production line in August for the annual company holiday. A Rafale takes three years to be built.

Dassault has looked into that increased production for some time, following export deals signed with Egypt, India, and Qatar.

More recently, deals for second hand Rafales flown by the French air force were agreed with Greece and Croatia. The former has added a further six Rafales to an initial batch of 12 units, with the latter is acquiring 12 used fighter jets in a deal worth almost €1 billion.

France has sold a total 236 Rafales in foreign markets, after failing to sign export orders for many years, beaten by orders for the F-15 and F-35.

France ordered a 12-strong batch of Rafales to replace those being sold to Greece.

The UAE has long been a client nation for French weapons, being the only other operator of the Leclerc tank.

The UAE bought the Mirage 2000-9 in the 1990s, which flew alongside the Lockheed Martin F-16 Block 60.

France last year won arms export orders worth €4.9 billion, down from €8.3 billion in the previous year.

The forecast for this year was to rise above €10 billion, the defense ministry spokesman, Hervé Grandjean, said June 2.

Black Shaheen is the export version of the French Scalp cruise missile, co-developed with the UK, where it is known as Storm Shadow.

The major contractors on Rafale are Dassault, electronics company Thales and engine builder Safran.

The Bataclan Attack in 2015: Now the Trial Six Years Later

11/30/2021

By Pierre Tran

Paris. Can you remember where you were on Friday 13 November 2015 is the big question, following the opening of a criminal trial for what has become known as the Bataclan attack.

The court hearing, which opened Sept. 8,2021 has heard survivors, police, intelligence officers, and political leaders give testimony on that night when assailants claiming allegiance to the Islamic State killed 130 people and wounded 400 in the French capital six years ago.

Salah Abdeslam, the sole survivor of that cell of extremists armed with AK 47 assault rifles and suicide bomb vests, is on trial for murder. Nineteen other suspects are charged with lesser offences for helping the attack team. The latter include six being tried in absentia, some of whom are thought to be dead.

There have been other killings by Islamist extremists but the sheer scale of that attack has marked that date in November as a date of mourning. The authorities spent €8 million ($9 million) to fashion a special room for the hearings held at court rooms of the Palais de Justice, cordoned off for high security.

A high-profile, far-right political commentator, Eric Zemmour, who may or may not stand as candidate in the presidential election in April, has used the closely followed trial to stir up public controversy on the vexed issue of immigration. Zemmour, standing in front of the Bataclan concert hall, said Nov. 13

the then president François Hollande failed to stem the flow of migrants into France and was to blame for the deadly attacks. Those assailants had French nationality.

Zemmour has stoked public feeling against the Moslem community in France, including calling for the compulsory use of European names for baptism and banning foreign names such as Mohammed for the child's first name, while allowing their use as middle names.

"They knew and they did nothing," Zemmour said in his attack on Hollande, who had given testimony Nov. 10 in the court hearing, the first time a former French head of state has been called as witness to a trial. "The authorities knew of the danger and they preferred French people die rather than stop the 'migrants' from coming into France," he said. "François Hollande didn't protect the French and he took an absolutely criminal decision, leaving the borders open."

Zemmour, who has attracted media coverage in his remarks against migrants, has recently seen a drop in public opinion polls. Previously, Zemmour had enjoyed a rise in the polls, eroding support for Marine Le Pen, leader of the National Rally, a rebranded far-right political party previously known as National Front.

Hollande rejected Zemmour's remarks and called on the former journalist to show some "dignity" to the victims of the Nov. 13 attack. "I took decisions, the sense of those decisions was to assure the security and protection of our citizens, to fight against Islamist terrorism and to watch over the unity of the country," Hollande said, while denouncing the nationalist polemics being used to split the nation.

A family association of victims of the attack also rejected the remarks of Zemmour. Zemmour was using immigration as a political issue, a senior executive at an arms company said, but that topic will decline as the election date draws nearer, when other concerns such as employment will rise in the campaign debate.

"All the political parties agreed not to politicize the Bataclan," said Gilles Dorronsoro, political science professor at Paris Panthéon-Sorbonne university. "Zemmour broke that."

The far-right commentator was promoting the idea of the "great replacement," he said, a "neo-Nazi" idea assumed by the French far right after the second world war and which has since gained political ground.

A French writer, Renaud Camus, has popularized the racist nationalist idea of people from North Africa and the Middle East, mostly Muslim, taking over France from white Europeans, with his 2011 book titled *The Great Replacement*, television channel France 24 has reported.

That notion of cultural purity dates back to 1900, when the French father of nationalism, Maurice Barrès, wrote of the concept of a foreign population taking over, leading to the "ruin of our homeland." That appealed to the idea of racial purity for the Nazi party in Germany, which the French far right adapted to cultural purity after the second world war, leading to a spread of the idea of great replacement around the world.

Zemmour sought to tap into that nationalist fear by using the Bataclan killings in his criticism of Hollande, Dorronsoro said. Recent opinion polls show he has lost ground, with Marine Le Pen regaining in the polls.

It remains to be seen whether Zemmour will declare his running for the presidency, but commentators note the center right has moved toward seeking votes from the far right. Michel Barnier, a former commissioner on the European Commission, seeks to run as candidate for the center-right party The Republicans, and says he would suspend immigration if he were elected as president of France.

The trial of the Bataclan attack is expected to run to May, with the voters going to the polls in April.

Six years ago, the attackers claiming allegiance to the Islamic State used guns and suicide bomb vests to kill 130 people, including 90 concert goers at the Bataclan, where the American rock band Eagles of Death Metal was playing. The coordinated assault included the Stade de France football stadium just outside the capital, when Hollande was among the spectators watching a friendly match of France playing against Germany. The then head of state was evacuated at the sound of the first suicide vest bomb going off outside the stadium.

There were people enjoying a sociable Friday night at cafés and restaurants, until the militants swept in with drive-by shootings and detonated their vest bombs. The Islamic State was reported to have ordered the attack in response to Hollande ordering French air strikes against the IS in Iraq and Syria in 2014 and 2015.

The then U.S. president Barack Obama made his first stop at the Bataclan, to lay down a white rose in mourning, when he flew Nov. 30 2015 into Paris for the United Nations COP 21 conference on climate change. Hollande accompanied the then American head of state.

The Bras de Fer of Bo Jo and Macron

11/02/2021

By Pierre Tran

Paris – Britain and France, once close friends and military allies, are at each other's throat.

The cultural approach of the British is pragmatism, while the archetypal French character is the intellectual.

A sample of both those qualities may be what is needed to defuse the tension, but it remains to be seen whether such a concoction will be found or even wanted.

British prime minister Boris Johnson and French president Emmanuel Macron may say how much they admire each other's country, and yet the airwaves have been crackling with threats of legal recourse, acts of retaliation, and the need to meet crisis deadline.

There is a weighty list of grievances, which just does not go away. Where does one start?

– There is the French claim for a fair share of fishery rights in British territorial waters around the islands of Jersey and Guernsey in the Channel;

– Border control of trade between Northern Ireland, which is part of the United Kingdom, and the Republic of Ireland, which is a member of the European Union;

– Control of illegal immigrants crossing the Channel in attempts to enter the UK;

– And a deep pool of French resentment over being ejected from a prospective multi-billion euro program to design and build conventional attack submarines for the Australian navy.

Even if one of the points of contention were resolved, it looks likely the bitter tone of relations between London and Paris will drag on for some time.

One of the reasons each side likes to lambast the other is the perceived need to deflect domestic discontent — shortage of truck drivers in the UK or immigration concerns in France – by holding up the wretch on the other side of the Channel as the cause of concern.

Johnson and Macron may well have been in Rome over the weekend for the Group of 20 meeting of world political leaders, but the bitter dispute over the French call for British licenses for small French fishing boats hogged UK headlines and social platforms.

As the COP 26 UN climate change conference opened on Monday in Glasgow, Scotland, there was the UK imposing a 48-hour deadline for Paris to agree a deal on the fishing licences or face the anger of London in the courts of European law.

That had been the UK's reaction to a French threat that as of Monday midnight there would be tighter border checks and British fishing boats would be banned from entering certain key French ports, a threat which Macron suspended by 24 hours to give more time for talks with Britain to defuse the fisheries dispute.

Relations between France and the UK are at a new low in response to Australia's cancellation of a French project for a fleet of attack submarines, due to a deal with the UK and the US for a nuclear-powered boat.

That strain on the military front can be seen in France holding off the signing of a memorandum of understanding for work with the UK on a planned future cruise and anti-ship weapon, business website La Tribune reported Oct. 4.

The French defense minister, Florence Parly, called off a Sept. 23 meeting with her British counterpart, Ben Wallace. The two ministers would have signed the MoU, opening up the way for the assessment phase, the next step in the bilateral missile project.

European missile maker MBDA has completed the €100 million ($116 million) concept phase on the FC/ASW missile, which will replace the UK Storm Shadow and French Scalp cruise missiles, and Exocet and Boeing Harpoon anti-ship weapons.

MBDA is a joint venture held by Airbus (37.5 percent), BAE Systems (37.5 percent) and Leonardo (25 percent).

The political friction between Britain and France hitting MBDA points up a certain irony. It was the green light from London and Paris of a joint cruise missile program which led to the 1996 creation of the Anglo-French joint venture Matra BAe Dynamics, forerunner to MBDA, the core of European missile building.

It remains to be seen whether and when France regains appetite for cooperation with the UK on that missile project, one of the deals cited in the 2010 Lancaster House treaty, a bilateral agreement on close industrial and military cooperation.

That deterioration in cross-Channel relations can be tied to the Brexit move and an effective puncturing of political goodwill. Macron is an easy target for the UK conservative media outlets, while British politicians point up his need to prop up public opinion with the French elections due in April.

There is also anger in Paris with Canberra, stemming from the surprise announcement of an Australia, UK and U.S. alliance, dubbed AUKUS.

A core part of that exclusive coalition is the switch by Australian prime minister Scott Morrison to a future Australian fleet of nuclear-powered attack submarines based on British and U.S. technology, and dropping the French warship builder Naval Group, which had been working on a plan to design and build an Australian diesel-electric boat, dubbed Shortfin Barracuda.

The depth of Gallic ire can be seen in Macron telling Australian reporters on Sunday night on the sidelines of the G20 meeting that Morrison had allegedly lied when he said he had told Macron on the change of direction on the submarine program.

That open display of French presidential accusation of Australian falsehood was in contrast to U.S. president Joe Biden admitting that there had been room for improvement on announcing the AUKUS deal and the cancellation of the French boats.

“What we did was clumsy,” Biden said Oct. 29 after meeting Macron at the French embassy in Rome. “I was under the impression that France had been informed long before that the deal was not going through, honest to God.”

Increased U.S. support for French military operations in the sub-Saharan Sahel region, increased European defense autonomy, and greater clarity on U.S. authorization of arms exports under the International Traffic in Arms Regulations (ITAR) were among the U.S. pledges for better relations with France in the wake of AUKUS.

France has struggled with delivering weapons such as SCALP cruise missiles to export clients due to problems of securing ITAR clearance for U.S. components.

Reshaping Maritime Security and Defense Capabilities in Eastern Mediterranean

11/16/2021

By Robbin Laird

The Abraham Accords set in motion enhanced maritime security and defense capabilities in the Eastern Mediterranean.

The UAE, Bahrain, the U.S. and Israel cooperated in a five day exercise in the Red Sea to reinforce defense and security relationships in the maritime domain,.

Vice Admiral Brad Cooper, commander of NAVCENT, U.S. 5th Fleet and Combined Maritime Forces, said: "It is exciting to see U.S. forces training with regional partners to enhance our collective maritime security capabilities. Maritime collaboration helps safeguard freedom of navigation and the free flow of trade, which are essential to regional security and stability."

Last week, Israeli Air Force F-15s escorted two US B-1B strategic heavy bombers and a KC-10 refueler over Israeli airspace on their way to the Gulf.

It was the second such flight in two weeks.

According to an IDF statement, it was "a significant step in maintaining the security of the skies of the State of Israel and the Middle East".

Last month, the IDF held their Blue Flag exercise with seven other air forces, including the USAF, the RAF and other European partners, which including Egypt, Jordan, Bahrain and Saudi Arabia.

As one source noted: "More joint military exercises among Abraham Accord partners are also anticipated in the future."

The U.S. Fifth Fleet is headquartered in Bahrain.

During my two visits to Bahrain in 2019, I had a chance to talk about the evolving defense and security capabilities being reshaped in the region and in October 2019 provided a presentation on the final day of the BIDEC 2019 Conference.

One of the subjects which I raised during my presentation was the coming of maritime autonomous systems and the value to Bahrain of such systems,.

Significant investments are being made in Bahrain in science and technology, and applications to he maritime autonomous systems domain make a great deal of sense.

Also, the ISR capabilities which such systems can provide to Bahrain as a pillar for their evolving information base for security and defense also make a great deal of sense as well.

In a September 23, 2021 press release by NAVCENT, the cooperation between the U.S. Navy and Bahrain in this domain was highlighted.

BAHRAIN – During a visit to the U.S. Navy installation in Bahrain, Sept. 23, Bahraini leaders committed to partnering with U.S. Naval Forces Central Command (NAVCENT) to accelerate integration of new unmanned systems into regional maritime operations.

Major Gen. Ala Abdulla Seyadi, commander of the Bahrain Coast Guard; Rear Adm. Mohammed Yousif Al Asam, commander of the Royal Bahrain Naval Force; and Vice Adm. Brad Cooper, commander of NAVCENT, U.S. 5th Fleet and Combined Maritime Forces discussed future opportunities for cooperation.

"We have an enduring strategic relationship with the Kingdom of Bahrain and our mutual commitment to advancing new unmanned systems demonstrates us strengthening the partnership in a new way," said Cooper. "This initiative enables us to expand maritime domain awareness on, above and below the water and enhance regional deterrence."

NAVCENT commissioned Task Force 59, Sept. 9, to rapidly integrate unmanned systems and artificial intelligence into U.S. 5th Fleet operations and drive discovery in human-machine teaming technologies.

Cooper briefed the Bahraini leaders on NAVCENT's latest unmanned surface, underwater and aerial vehicles on site at U.S. Naval Support Activity Bahrain.

In October, Bahrain's maritime forces will be the first regional partners to collaborate with Task Force 59 on a manned-unmanned teaming exercise to evaluate advanced unmanned surface vessels. The at-sea event will kick off a series of maritime exercises that integrate manned and unmanned systems during operations with regional and coalition partners.

The Middle East region's unique geography, climate, and strategic importance offer an ideal environment for unmanned innovation. The area includes the world's largest standing maritime partnership and three critical choke points at the Strait of Hormuz, the Suez Canal and the Strait of Bab-al-Mandeb at the southern tip of Yemen.

And in October 26, 2021 update from U.S. Naval Forces Central Command, the evolving work in the region with allies with regard to maritime autonomous systems was provided:

U.S. Naval Forces Central Command is leading the way as the Navy tests out new operational concepts for unmanned surface vessels in front-line operations. On Monday, NAVCENT completed

exercise New Horizon, the first at-sea trial for its new unmanned task force, which is among the first Navy units to integrate USV technology into real-world service – in this case, ensuring maritime security in the Persian Gulf.

During the two-day training exercise, the command's newly-established Task Force 59 tested out its MANTAS T-12 USVs alongside U.S. Navy, U.S. Coast Guard and Bahrain Defense Force manned vessels. It was the first time that NAVCENT has integrated USVs with manned assets at sea in the U.S. 5th Fleet area of operations.

The first phase of New Horizon, conducted Oct. 20, saw operators controlling the USVs aboard the Cyclone-class patrol ship USS Firebolt, while the small surfboard-shaped vessels conducted high-speed maneuvers in formation. Participating units included the cutter USCGC Maui, a Seahawk helicopter, a V-BAT unmanned aerial vehicle and a Royal Bahrain Naval Force patrol craft. Both U.S. and Bahraini forces practiced operating the vessels in formation.

"This is a significant milestone for our new task force as we accelerate the integration of unmanned systems and artificial intelligence into complex, cross-domain operations at sea," said Capt. Michael Brasseur, commander of Task Force 59. "Real-world evaluation is essential."

NAVCENT established the task force on September 8, and it is the first unit of its kind in the Navy. Extended unmanned trials are key to the service's push to figure out how to use (and sustain) these systems in the real world. In the years ahead, the Navy hopes to deploy full-size, oceangoing unmanned warships to augment the fleet's lethality at low cost. In order to get there, the Navy's leadership is well aware that it will have to work out several thorny technical problems – particularly comms, command and control, and keeping propulsion running – and operations like Task Force 59 will help with the practical shakedown process.

Poland Faces the Belarus/Russia Migrant Battering Ram

11/15/2021

By Robbin Laird

I have visited Belarus in the past and have very clear memories of my time there. And with my recent visit to Poland, was reminded again of how Belarus is a border country in many respects, but one dominated by Russia.

The use of migrants by the Russians through the Belarus conduit operating as a battering ram against Poland, particularly, and Europe more generally, is something which the Poles have clearly focused upon and see as a direct threat to them and to Europe.

When I attended the Defence 24 Conference held in Warsaw in September, the topic of the "hybrid war" character of what was happening on the Polish border was discussed frequently throughout the

conference. And when the Commanding General of the territorial forces discussed the formation of a new brigade to support border security, there was a clear sense of a direct threat to Polish security which had to be dealt with. When a humanitarian crisis is actually hybrid war then simply treating in the former terms misses the point.

It should be remembered that in the past border incursions have been used by authoritarian leaders to breach Polish territory and to ramp up conflict against Poland itself. It should therefore be no surprise that Poles are deeply concerned with these events, which have little to do with migrants but everything to do with the state of permanent war with the West that is described in the July 2, 2021 version of Russian military doctrine.

For those who don't remember, this is how the German attack on Poland began in 1939. In an article by Wojciech Zurawski published on August 29, 2014, this is how the prelude was highlighted:

Joachim Fulczyk still remembers the fateful radio broadcast 75 years ago this weekend that provided Adolf Hitler with a pretext to launch his invasion of Poland that sparked World War Two.

Now 83, Fulczyk listened with his mother and aunt to a brief address supposedly given by Polish saboteurs who had seized the local radio station in Gleiwitz, then located inside Nazi Germany, a few km from the Polish border.

"My mother, hearing the news (that Poles had taken the radio station), told her sister 'this can't be true'," said Fulczyk, who still lives in Gleiwitz, now known by its Polish name Gliwice. The town became part of Poland after border changes following the 1945 defeat of Hitler's Third Reich.

As Poles and Germans prepare to mark the 75th anniversary on Monday of Hitler's invasion of Poland, historians and residents of Gliwice recalled the seizure of the radio station – still today Europe's tallest wooden structure – and drew parallels with the role of media in modern conflicts such as Ukraine.

Andrzej Jarczewski, director of the museum now at the site of the radio station, recounted how Germans posing as Poles staged the attack on the evening of August 31, 1939, with the aim of providing justification for a German invasion of Poland.

The seven-strong band, led by SS officer Alfred Helmut Naujocks, broadcast a short anti-German message in Polish.

Hitler made a speech in Berlin the next day citing the Gliwice attack and other similarly orchestrated incidents to justify his decision to storm Poland. World War Two began two days later when Britain and France declared war on Germany.

"The provocations in Gliwice and in some other places too were necessary to allow Hitler to make his speech, to say 'we are innocent, the Poles started this war'," said Jarczewski.

The Russian/Belarusian provocations that for the Poles defending their border against authoritarian states is not just important in itself but recalls a history which they have no intention of repeating.

Seam Warfare and Polish Defense

12/03/2021

By Robbin Laird

In working the direct defense of Europe under the impact of the diverse tools sets of the global authoritarian powers, Russia and China, what is required is crafting effective defense and security forces integrated with core allies across the spectrum of conflict.

For Europeans, the challenge is to have the kind of secure and robust infrastructure combined with viable conventional forces to deter the authoritarians from being tempted for a broader scale attack, but even more likely, the pursuit of seam warfare.

Effective crisis management requires escalation control ranging from HADR operations through gray zone conflict to higher levels of lethal combat.

A core challenge to be met is what one might call the ability to conduct effective seam warfare, namely through working with partners and allies to reduce the seams left open in European defense which the authoritarian powers can exploit.

Force integratability and mobility are key elements in the ability for a country's forces to collaborate with allies at the point where the adversary is working a seam to enhance their ability to maximize their political or military advantage.

The Russians focus on what the West calls hybrid war but in my view is better understood as working the seams in their geography to expand their influence and to recover strategic space lost in the collapse of the Soviet Union and the decline of Russia.

For Poland, in addition to providing for their own territorial defense, the Russians are working the seams in the Polish political space, notably, with regard to the Nordic and Baltic regions, the Black Sea region, Romania and Ukraine.

This a region which remains contested from the Russian point of view, and for the defense of Polish interests, an ability not only to enhance the defense of Polish territory, but the ability to move force packages to close seams which the Russians pressure is crucial as well.

With the Nordics, the building of new frigates for the Polish Navy open up opportunities to work with the Nordics on maritime security and defense in the region. With the acquisition of the F-35, the Poles will work with the Nordics, the Americans, the British, the Dutch and the Belgians in training for integrated air operations in the region, with a significant capability to operate throughout the region and to close gaps.

With the Russians mobilizing "migrants" as a battering ram through Belarus against the Balts, the Poles and more broadly the Europeans, the security capabilities are being enhanced, but again, security can become a defense challenge very rapidly as the authoritarians mingle their defense forces with "migrants" for hybrid actions.

The mobilization of force by the Russians against Ukraine or the Black Sea allies is an ongoing challenge by which the Russians manage brinkmanship and prepare for escalation dominance when they will exploit the seams within European defense.

This means that Poland needs force mobility as well defense in depth to deal with the Russian challenge. And by having mobile forces that can be integrated for defense in depth, they are better positioned than simply having a more classic territorial defense force which begins to look like a 21st century version of the Maginot Line.

When I visited Poland during the Defence 24 conference I had a chance to discuss with participants at the conference and with others the challenges facing Polish defense.

My own interpretation of the challenge was how to balance capabilities to take on a wide-ranging Russian assault against Poland and thus NATO with the much more likely challenge of closing the seams which the Russians are working with hybrid warfare and other gray zone means.

And how to do so with limited resources and to get best value out of the military equipment, training and concepts of operations which Poland is developing along with its allies.

One path being taken is to work integratability.

The most obvious example of this is the acquisition of the IBCS system. This Northrop developed system for the U.S. Army is designed to provide integrated C^2 for their missile defense systems and by so doing options for better integration with the entire force are enabled.

As noted by Jakub Palowski in a September 24, 2021 article published by Defence 24:

"In both the U.S. Army and the Polish Armed Forces, IBCS will become a key building block for integrated ground-based air defense. The next step may be the use of this system for multi-domain operations. Of particular importance from Poland's point of view is the ability of this system to cooperate with F-35 fighters, such as those acquired under the Harpia program. Once integrated, this will enable the air defense system to fight targets that are not visible to ground-based radars but have been detected by the fighter aircraft.

"However, recent IBCS trials of integration with the Cooperative Engagement Capability system used by the U.S. Navy also demonstrate the capability of cooperation with naval systems. If properly configured, a similar capability could also be introduced in Poland for the newly acquired Miecznik frigates, which are expected to have extensive air and missile defense capabilities. IBCS can thus combine ground-based air defense with maritime and airborne systems, providing multi-domain cooperation capabilities."

This impacts directly on the whole notion of how one acquires a platform but ensuring that the acquisition fits into the integrated force.

This was evident with the announcement of the intent to acquire an MBDA missile system but to ensure that it works with IBCS.

A second path which I found quite interesting from the standpoint of combing force mobility with deterrence in depth is how the Poles have addressed the use of their Naval Strike Missiles acquired from Norway.

They have formed mobile units which can operate throughout the relevant defense areas for Polish interests, by moving to those areas of interest, rather than operating from a fixed base and solving relevance by growing over time the range of the missiles.

Notably, the USMC is working new and innovative ways to move NSMs to distributed areas of interest in support of the U.S. Navy.

And the Marine Corps approach to integrated distributed operations in the era of seam warfare is something I am detailing in my forthcoming book, *The USMC Transformation Path: Preparing for the High-End Fight.*

With the significant threat which Russian strike missiles pose to the Polish and allied forces, in addition to active defense and forward strike of our own, force mobility and an ability to cluster combat capabilities throughout a distributed battlespace but integratable in terms of effect is a key competence.

As Poland thinks about its acquisition of attack helicopters, the USMC Viper helicopter paired with Yankees could clearly deliver the kind of force mobility to support distributed combat clusters integratable across the battlespace.

In my discussions with Marines over the past two years, I have been struck by several key aspects of the Viper transition which are clearly relevant to the Polish context.

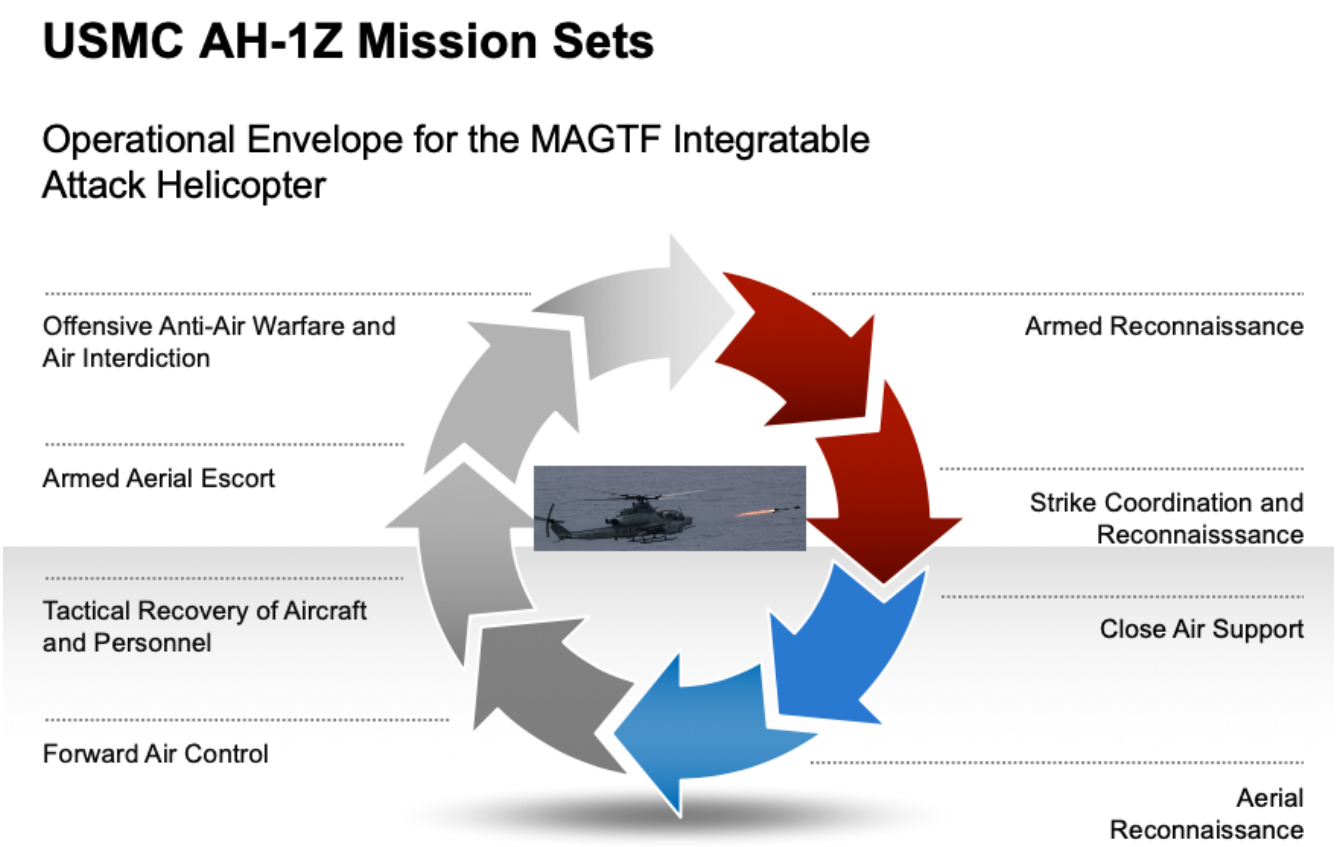
The first is the integration of the aircraft with the Link 16 and full motion video networks.

As one Marine put it to me: “We are not just drawing from the network but now contribute to the network and provide situational relevant information for our Marine or joint or coalition force.”

The second is the ability to use its sensors, missiles, or guns against a wide variety of threats at sea, in the littorals or ashore and to do so while operating with an expeditionary logistical footprint.

They don’t need Walmart type bases to support them, and again going back to the Polish situation, basing and threats to basing is a key consideration, in addition the ability to move rapidly to close a seam along with allies in times of crisis, which is to say the new normal.

The flexible weapons load out is a key enabler for full spectrum crisis management operations of the sort being faced by the Polish forces as well. In an article which wrote in April 2020, I highlighted some of the Viper combat flexibility and included a chart which I created to highlight this core point:



The third is the flexibility being worked in the current phase of USMC transformation to move assault capability throughout a distributed battlespace, and to use the Viper/Yankee pairing to do so.

This point was driven home to me in a visit to 2nd Marine Air Wing last year. In that article entitled "Visiting HMLA-269 and 167," this is what I noted:

"The Commandant has asked the Marines to rethink how to do expeditionary operations, and to promote tactical innovations to do so. HMLA-269 has been focused on this effort.

"Notably, they have been exercising with the Ground Combat Element (GCE) at Camp Lejeune to work small packages of force able to be inserted into the combat space and able to operate in austere locations for a few days to get the desired combat effect and then move with the GCE to new locations rapidly.

"HMLA-269 has been working closely with 3rd Battalion, 6th Marines to shape innovative ways to deploy expeditionary force packages. "We are working ways to work distributed force operations with the battalion." They have a security mission currently with regard to II MEF in reinforcing Norway. The question being worked is: how, in a multi-basing environment, can one provide the kind of firepower that the maneuver force would need?

"The Gunrunners took a section of aircraft to work with a ground combat unit and to live together in the field for a period of time and sort out how best to operate as an integrated force package. They

operated in the field without a prepared operating base and worked through the challenges of doing so. They worked with an unmanned aircraft ISR feed as part of the approach.

'Obviously, this is a work in progress, but the strategic direction is clear. And there are various ways to enhance the capability of the force to be masked as well. Movement of small force packages, operating for a limited period of time, moving and using various masking technologies can allow the attack utility team which is operational now to be a key player in shaping a way ahead for Marine Corps expeditionary operations."

In short, the Viper fits right in to the challenge of providing for enhanced direct defense of Polish territory but a core capability to move to the seams and engage the adversary.

The Evolution of the Viper Attack Helicopter: JAGM Testing

12/05/2021

Recently, VMX-1 tested the Viper Attack Helicopter with the JAGM weapon, and for the purpose of enhancing the Marine Corps's capability to support maritime/littoral missions.

This is how the December 2, 2021 USMC press release described the effort:

HEADQUARTERS MARINE CORPS – Marines from Marine Operational Test & Evaluation Squadron 1 (VMX-1) conducted an operational test and evaluation of the joint air-to-ground missile (JAGM) from an AH-1Z Viper, Nov. 3-7 at Eglin Air Force Base in Florida.

VMX-1 fired and evaluated the JAGM to determine its suitability and effectiveness to support expeditionary advanced base operations, such as conducting sea denial operations within the littorals and supporting sea control operations.

Personnel from Air Test and Evaluation Squadron Two One (HX-21), Naval Air Systems Command Direct and Time Sensitive Strike program office (PMA-242), Army Program Executive Office Missiles and Space, Air Force 780th Test Squadron, as well as industry partners were on location to observe and analyze the data from the test event. This event can lead to significant improvements in lethality of attack helicopters by arming them with newer munitions equipped with two sensor technologies and optimizes missile performance on maritime targets.

"Watching these professionals from across the services and industry come together to test the effectiveness and work on improvement for this weapon system is truly a phenomenal experience," said VMX-1 Commanding Officer Col. Byron Sullivan. "The team is doing everything possible to ensure this capability will be the needed upgrade that enhances our ability to use precision strikes against fast-moving maritime targets."

The team observed the test from locations across Eglin Air Force Base, honing in on weather considerations, telemetry and instrumentation, coordinating with the pilots, and observing the impact

zone. Ultimately, the data collected will be analyzed to determine overall system effectiveness and develop the tactics, techniques, and procedures for its employment.

"Executing this type of concept development is very critical to get it right on paper and put more effective systems in the hands of the warfighter," said Maj. Thomas Hutson, the Assault Support department head at VMX-1 and member of the JAGM test team.

This test is part of a larger effort to upgrade the AH-1Z and UH-1Y aircraft, in alignment with the Commandant's vision of force modernization vision to maintain a competitive edge against potential adversaries.

The mission of VMX-1 is to conduct operational test and evaluation of Marine Corps aviation platforms and systems.

And in an interview we did last year, we discussed the way ahead with regard to Viper modernization which included the coming of the addition of the JAGM capability to the fleet.

That article was entitled: "The AH-1Z and Its Evolving Contribution to Marines in the Maritime Fight," and was published on April 15, 2020:

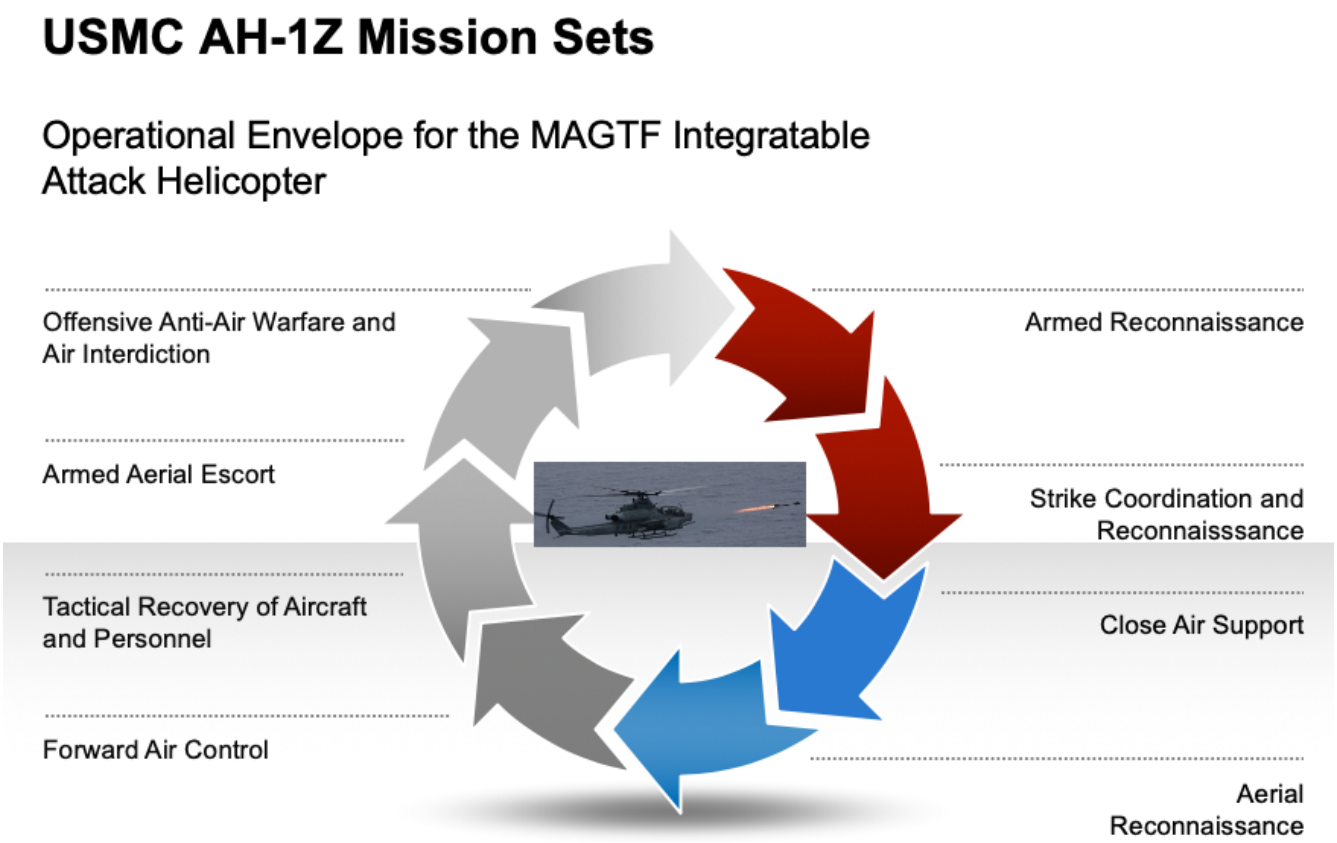
By Robbin Laird

My recent discussions with Major Thomas Duff and Mr. Michael Manifor, HQMC Aviation, APW-53, Attack and Utility Helicopter Coordinators, about the Viper maritime attack helicopter provided insights into how this asset is evolving as the MAGTF itself is being reshaped for its broader spectrum missions beyond the land wars, to maritime operations, and support for embarked Marines being inserted into various types of land operating bases, including distributed expeditionary bases.

The APW-53 leaders underscored that "the Viper contributes to the entire span of assault operations. Marines are inserted in places where they can influence the fight, and it requires synchronized assault support operations involving aviation assets to do it quickly and effectively."

They emphasized as well that the two-man team in the Viper works closely with the Ground Combat Element and with their training and operational experience are an integrated part of the C2 process with the GCE commanders. As a result, "with the Viper crew you've got a dedicated fires team that lives, breathes, eats, and thinks 'how do I destroy the target, and support the ground scheme of maneuver'."

As noted in the last article, "the Viper is involved in the entire span of assault operations. Prior to an assault, they prep the battlespace, including doing armed reconnaissance. They support fixed wing aircraft in a deep air support role, and when the Ospreys and CH-53s advance to the objective area, they provide an air escort role. With Marines in the objective area, they provide direct ground support for ground movement working directly with the Ground Combat Element."



USMC AH1-Z Mission Sets. Credit Graphic: Second Line of Defense

What I am going to do in this article, is to look at the organic systems on the Viper which allows the 2-man crew to be able to deliver this wide-ranging mission set, and then to highlight how the additions coming with the digital interoperability upgrades allow the Viper to expand its capabilities to both contribute to the fight and to pursue an integrability con-ops which allows it to play an even broader role within the evolving maritime domain.

The baseline NAVAIR chart of what is currently on the Viper provides a catalogue of the systems onboard the aircraft, but by discussing with the APW-53 team, these systems come to life in terms of how operators work with these systems to be able to be "involved in the entire span of assault operations."

AH-1Z Major Systems

What follows is my interpretation of what I have learned about the systems onboard the Viper and how the Marines have used them and in the case of the impact of the digital interoperability upgrades, how they could be used in the return to the sea and enhanced priority on maritime missions.

The Two-Man Crew and Strike Capabilities

A good place to start is that this is an attack platform with two crew, each with their own cockpit, placed in a front to back position. Each cockpit with the exception of about a half dozen switches is essentially the same.

But in each cockpit, the Marines can fire weapons and do so in support of one another. The Marine aviator can fly and fight from either cockpit and can fight simultaneously from those cockpits. And they can track different mission solutions, such as an air-to-air mission for one, and an air-to-ground for the other.

The systems slide above refers to a fully integrated cockpit and fire control system. The sensors and the fire control system onboard the aircraft allow the two-man team to take on multiple targets using a variety of weapon systems simultaneously. In other words, the two-man teams have a flexible ability to use the onboard weapon systems because of the nature of the fire control system on the aircraft.

The fire control system is capable of tracking multiple targets which allows for efficient engagement. This can be especially useful against moving targets in the maritime environment,

With the upgrades coming soon via the digital interoperability initiative, the Viper through its Link 16 upgrade along with its Full-Motion video access upgrade, can have access to a much wider situational awareness capability which obviously enhances both its organic targeting capability and its ability to work with a larger swath of integrated combat space.

This means that the Viper can broaden its ability to support other air platforms for an air-to-air mission set, or the ground combat commander, or in the maritime space.

A key capability which the Viper has is its high-powered machine gun. Given that the Viper can easily land on virtually any ship which the Navy or MSC operates, it can bring its machine gun as well as its Hellfires, or its rockets with a laser seeker into the sea control domain.

The increasing threat from small boats and unmanned air vehicles or the coming threat from unmanned surface vessels highlights the importance of having a platform which can use a variety of strike capabilities to destroy these relatively low value assets with potentially a high impact on the fleet.

Unmanned assets may look smart, but when running into a machine gun, they return to simply being drones.

The combination of what the organic asset can do with its expanded span of SA and shared targeting information through the DI upgrades provides a new role for the Viper within the maritime force.

This role is inherent within its current configuration coupled with the DI upgrades.

The Weapons Onboard
The systems slide above highlights the organic weapons capabilities carried by the Viper.

The first is the M197 20mm turreted gun.

The Viper carries a three-barreled machine gun. for close-range (up to 2km) engagement and 750 rounds of ammunition.

“With the gun in a fixed-forward position, the pilot can aim by maneuvering the helicopter.

“Either crew member can slave the turret to the helmet-mounted sight and aim the gun by looking at the target.”

The second is the AGM-114 Hellfire. This missile provides a significant ground attack capability which has been used throughout the land wars, but also has a significant capability to strike maritime surface targets as well.

The Viper will soon (IOC FY20) have the ability to fire the Joint Air-to-Ground Missile (JAGM). This missile provides increased lethality through dedicated maritime modes, enhanced moving target capability, and selectable fuzing; providing capability against both fast attack craft and small surface

combatants. Millimeter wave (MMW) guidance increases survivability by providing a true fire-and-forget capability, removing the requirement for a terminal laser.

The third are APKWS rockets which is a 70-millimeter rocket with a laser guided seeker.

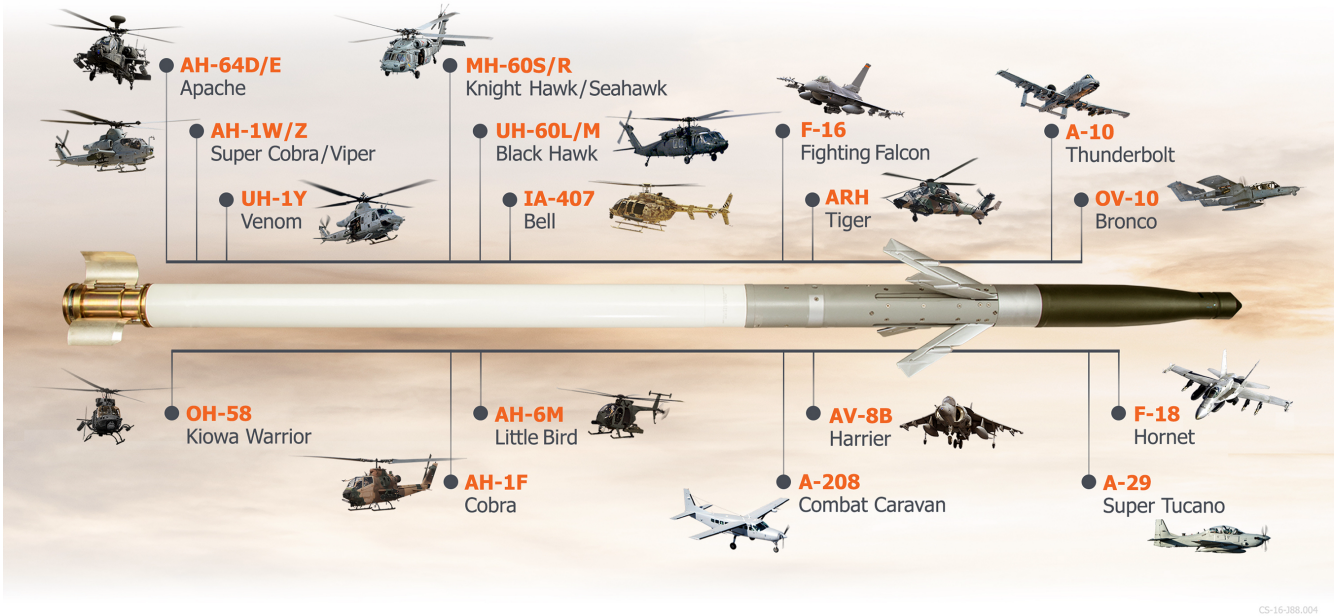
According to its manufacturer, BAE Systems:

There are other precision-guided weapons on the market, but few consistently hit their intended target with pinpoint accuracy, while leaving minimal collateral damage. Our guidance section is designed to lock onto targets from over 3 kilometers away, keeping your aircraft and laser designators at a safe distance from threats.

Innovative by design, the APKWS rocket includes advanced DASALS seeker optics located on all four guidance wings. Once fired, the wings deploy, and the optics lock in, guiding the rocket to the target – delivering accuracy when it matters most.

- *Wing slot seals protect optics from adjacent firings, sand, and moisture prior to launch to ensure no damage or debris inhibit the seeker from locking onto targets*
- *Optics lock onto moving or stationary targets in open or confined areas, supporting a wide variety of missions, and eliminating the possibility of a lost or uncontrolled rocket after launch*
- *40-degree instantaneous field of regard enables a broad capture area for the rocket to adjust mid-flight and stay on track to its target*

To date, 17 of the world's most utilized rotary- and fixed-wing launch platforms are qualified with BAE Systems' APKWS laser guided rocket system, including:



The fourth is an AIM-9M sidewinder.

This is a premier air-to-air strike missile, and is widely used by the United States and its allies in that role.

According to NAVAIR:

The Air Intercept Missile (AIM)-9 Sidewinder is a supersonic, short-range air-to-air missile developed by the U.S. Navy in the 1950s. Entering service in 1956, variants and upgrades remain in active service with many air forces after five decades. The U.S. Air Force purchased the Sidewinder after the Navy developed the missile at China Lake, California.

The Sidewinder is the most widely used missile the U.S. Armed Forces, employed on the Navy/Marine's F/A-18A-D, F/A-18E/F, AV-8B, AH-1 and the Air Force's F-16, F-15, F-22 and A-10 aircraft. Additionally, the Sidewinder is flown by over 30 international customers on over 12 different types of aircraft.

The missile's main components are an infrared homing guidance section, an active optical target detector, a high-explosive warhead, and a rocket motor.

The infrared guidance head enables the missile to home on target aircraft engine exhaust. An infrared unit costs less than other types of guidance systems, and can be used in day/night and electronic countermeasures conditions. The infrared seeker also permits the pilot to launch the missile, then leave the area or take evasive action while the missile guides itself to the target….

In short, the onboard weapons for the Viper provides a wide range of mission mixes which the aircraft can perform.

They range from air-to-air, to air-to-ground, from air-to-surface in a maritime domain provides a significant mission flexibility to which the aircraft can provide.

And because it is fully marinized, it can land and refuel with virtually any ship operating in the fleet, which means it can contribute to sea control, which in my view, is a mission which the amphibious task force will engage in with the expanded reach of adversarial navies.

Basing, Geography and Maneuver Warfare at Sea

11/17/2021

By Robbin Laird

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."[1]

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 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?

I will deal with these questions in the next piece in the series.

[1] "Defense Primer: Geography, Strategy and Force Design," *Congressional Research Service*," November 5, 2020.

Shaping a Way Ahead for Mobile Basing

11/23/2021

By Robbin Laird

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?

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^2/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 mid-

term. 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^2 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^2/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^2/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

By Robbin Laird

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.

Exercise Sea Breeze 2021: Information War at Sea

11/16/2021

By Defense.info Media Team

If one would read the latest version of Russian military doctrine published this July, one would learn that information war is a key part of the overall Russian engagement with the West, and not merely in terms of direct military operations.

The Sea Breeze 2021 exercise highlighted how the Russians are engaging in widespread information war, and one to which the United States and its allies responded.

But one would find with difficulty either a translation of the Russian July publication or discussion by the United States of the information warfare which went on at Sea Breeze 2021.

The current conflict between Belarus/Russia and Poland is part of the same tissue of how the Russians engage in conflict with the West, although one would struggle to find much analysis which would connect up Sea Breeze 2021 with the current "border" crisis facing the Poles and Europe.

A rare exception with regard to coverage of Sea Breeze 2021 is an article by Liubov Tsybulska, head of the Ukraine Center for Strategic Communications and Information Security.

That article was published by the Ukrainian website EUROMAIDAN Press.

The article follows:

Not a day goes by without news from the south of Ukraine. Russia has recently deployed all of its Black Sea Fleet submarines. This is its response to the Sea Breeze international exercises, large-scale military training from about 30 countries.

Vladimir Putin has signed a decree allowing the Federal National Guard Troops Service to block the Kerch Strait. All this happened immediately after the tense incident with the British Defender near Crimea. Of course, Britain's brilliant communication once again reminded everyone that international law exists and, according to it, Crimea is Ukraine. No matter how actively the Kremlin militarizes

Crimea, how many European politicians it brings there, and how persistently it lures international business in secret.

International military experts have been talking about the growing danger of conflicts in the Azov and Black Sea basin for several years, constantly emphasizing that Ukraine should enhance its Navy and the world community should be ready for Russia's most aggressive actions.

Sea Breeze exercises have been held annually for many years, and each time the Kremlin does not miss the opportunity to conduct provocations and information attacks. Even now, Russia is enacting a months-long disinformation campaign to discredit both the exercises themselves and NATO as such.

Such Russian operations are usually quite complex.

They involve all major Russian intelligence agencies, target several audiences at once, all messages are consistent, well-tested, and communication channels cover several levels – the high official, media, social networks, and the highest official – the Russian president himself. The stages are usually as follows:

- *gradual suspense;*
- *then escalation, aggressive attacks through the media and social networks;*
- *and finally normalization through pushing to accept their conditions at the highest political level.*

All this is carefully planned and coordinated.

And disinformation in each operation is given just one of the roles, albeit a significant one.

It all starts with the so-called "stirring up."

This is the longest and least intense stage, which includes announcements by officials – ministers, advisers, parliamentarians. They bombard the information field with theses that "something may happen." This usually refers to a provocation by Ukraine or its Western allies. Phrases like "our sources in Kyiv," "there is information that" indicate a typical beginning of the campaign. In the case of Sea Breeze, the stirring up took place throughout the spring and early summer.

In April, Mykola Patrushev, secretary of the Russian Security Council, announced that Ukraine would carry out a provocation involving the assassination of its servicemen in Crimea with the support of the US to force Russia to react.

At the same time, Russian Defense Minister Shoigu massively transfers troops to Crimea and announces a "check of the army's combat readiness."

The information support of this case is similar to the one that preceded the events in the Kerch Strait in November 2018, when Russia attacked Ukrainian ships and captured Ukrainian sailors.

Then, a few days before the incident, Russian propaganda talk shows went on the air with the message "Poroshenko ordered to take over the Sea of Azov," and Russian Duma deputy Leonid Kalashnikov actually "predicted" the event itself, calling it a Ukrainian provocation:

"This story may lead to some kind of provocation, as a result of which tomorrow, as in Salisbury, without any evidence it will be like 'Russians bombed some boat there or shot down something else.'"

Soon the suspense picks up momentum. At the beginning of the summer, a message appears from the Russian Ministry of Defense that the training is a cover for the secret transfer of weapons to Ukraine. The same statement is distributed by the Russian Foreign Ministry. This thesis is frankly absurd because the United States openly helps Ukraine with armaments, and the Sea Breeze training is not needed for that.

Then Russia starts intimidating and sputtering threats.

The day before the incident with the British destroyer, Putin says that NATO is expanding, breaking its promise not to do so. Another Putin's return to the thesis of "red lines that Russia will define for itself."

The next day, just hours after the British destroyer's innocent passage 12 miles from Crimea, the Russian embassy in the United States literally explodes with a tweet about the "aggressive character of the exercises" and calls on the US and NATO to stop them.

From this moment, a massive information bombardment begins.

Usually, the mechanism of this wave is quite simple: Russian intelligence sends "their" media, bloggers, and "experts" special "playbooks" with the main narratives that need to be actively disseminated.

Narratives largely depend on the audience.

For example, Western experts and journalists with links to the Kremlin argue that "Russia is forced to defend itself because the alliance itself is provoking it.." And if the West did not try to partner as actively with countries as Ukraine and Georgia, Russia would not be so aggressive.

The main thing for the Ukrainian audience here is, of course, the narrative of "external governance" on the dependence of the Ukrainian leadership on the Western allies and their readiness to start the Third World War on Ukrainian territory.

Interestingly, many regional media and Telegram channels in the south of Ukraine simultaneously began to disseminate the message that the Ukrainian side provides poor catering to NATO troops, like, "where is your famous borscht?!"

These are "niche" narratives – for the pro-Russian regions of Ukraine, aimed at discrediting the army and military-political leadership.

For Russia's domestic audience, Kremlin propaganda traditionally casts Russia as a victim. Here the good old theses about NATO stealing up to Russia's borders and the possibility of a Third World War at the initiative of the West are exploited. At the same time, the weakness and inability of Western countries to wage a full-fledged war are always emphasized.

Creating an image of the enemy is a method tested by authoritarian regimes, which allows to mobilize and consolidate the internal audience, give a sense of tension and distract from internal state issues.

At the same time, the Kremlin spreads news around the world that it is testing a new Kedr intercontinental ballistic missile. Of course, in the context of all events, this looks like a confrontation in the spirit of the Cold War.

The fact is that the Sea Breeze exercises are defensive in nature.

Their goal is to gain joint partner experience to maintain peace and stability in the region. Russia cannot but know that Sea Breeze exercises are peaceful because in 1998 it participated in them.

Therefore, another hostile information campaign against them is an attempt on the one hand to discredit NATO, and on the other – to justify their own aggressive actions in the region.

It is already obvious that the tension in it will only increase.

And our defense capacity depends largely on the behavior of our allies.

The case of the destroyer is a great example of how it is possible and necessary to respond to attempts to dominate the Azov and Black Seas.

At a time when Russia still seeks to divide the world into zones of influence and argues that it has the right to decide our fate for us and without us, such actions of our partners seriously warn those who began to give in to Russia's ambitions regarding Crimea and the surrounding waters.

Moreover, it will be increasingly difficult for Russia to raise the stakes further.

In the effort to scare everyone, it has already gone as far as to presume World War III.

After all, the peculiarity of constant tension is that over time you get used to it and it ceases to be exhausting. The same seems to be happening with Russia's threats.

They frighten the world less and less.

And an article published on July 1, 2021 and written by Pavel Felgenhauer highlighted the Russian approach evident during the exercise:

This year's Sea Breeze maneuvers began on June 28, and they are planned to last for about two weeks. Before that, on June 23, the United Kingdom's destroyer HMS Defender sailed from Odesa, Ukraine, to Batumi, Georgia. Passing the Crimean Cape Fiolent, close to Sevastopol (the main Russian naval base in the region), HMS Defender cut a corner by entering and then leaving the 12-mile territorial zone around occupied Crimea, in what is known as "innocent passage" under the 1982 United Nations Law of the Sea Convention (UNCLOS).

Since 2014, Moscow considers Crimean territorial waters to be Russian, but the international community recognizes them as Ukrainian. The Brits had a number of journalists onboard, and the decision to spook the Russians by a freedom of navigation operation was taken by the UK Cabinet.

Two Russian Federal Security Service (FSB) Border Guard patrol boats and naval jet bombers intercepted the Defender. The Russians warned the British vessel to leave the area and eventually fired some warning shots—out of range and not directly aimed at the Defender. Both sides garnered lots of PR material, but the incident concluded without any injuries or damage (see EDM, June 24).

During the phone-in, Putin was asked about the HMS Defender: "Could the incident spook a world war?" He reassured his audience, "The threat was not real. This was a US and UK joint [sic] provocation to make us [the Russian military] open up while the Americans would be recording our response. We fed them [the Americans] false intel… But even if we would have sunk that ship [HMS Defender], this would not have provoked a world war, because the other side knows they cannot win such a war" (Kremlin.ru, June 30).

In March and April 2021, in a nation-wide mass mobilization of forces under the pretext of a "test of battle readiness," over 300,000 soldiers and immense amounts of heavy weaponry were deployed in the field—at least half of them close to the Ukrainian border. The Russian military demonstrated its ability to fight and win a large conventional regional war (with Ukraine) while prepared to take on the US and its allies in a global (nuclear) conflict in case of an uncontrolled escalation (Militarynews.ru, April 29).

According to Putin, the Russian exercises caused distress in the West: "I ordered the defense ministry to slowly curtail the exercise and withdraw from Ukraine. But now, they reply by coming to our borders with Sea Breeze 2021" (Kremlin.ru, June 30).

And a Radio Free Europe/Radio Liberty article published on July 9, 2021 highlighted Russian actions in the information domain against Ukraine.

Ukraine's Defense Ministry said Russian government hackers attacked the website of the Ukrainian Navy to spread disinformation about the ongoing multinational Sea Breeze military exercises in the Black Sea.

In a July 9 statement, the Defense Ministry said the "entire Kremlin propaganda machine" was involved in the hacking operation, which published false documents and fake news on the Navy's website related to the Sea Breeze drills.

"The threat has now been eliminated and the Navy's website will be restored in the near future," it said, adding that there have also been unsuccessful denial-of-service attacks (DDoS) on the Defense Ministry portal.

Joint by Design: The Evolution of the Australian Defence Strategy

11/20/2021

By Zsolt Lazar

For many of us, Australia has always been a somewhat mysterious, exotic continent, a great travel destination and a country from which kangaroos and koalas first come to mind. Very few people know

that as a reaction to the power shift and the more demanding environmental and strategic uncertainties in the region, its government has been undertaking an impressive defence and security reform that will very likely shape the future and will serve as an example for others to follow.

Destabilizing regional status quo on the one hand, new evolving policies ex post facto on the other hand: these are topics that could not be more contemporary and Robbin Laird unfolds and guides the reader through these matters in his new book in great detail.

The author's background in this subject area is very promising. Laird is a well-known military and security analyst who worked both for the U.S. government and for several think thanks, including the Institute for Defense Analysis and the Zbigniew Brzezinski-founded Research Institute on International Change. He is also an editor of two defence websites, Second Line of Defense and Defense Information and, since 2018, has been working as a Research Fellow at The Williams Foundation in Canberra, Australia. His book, *Joint by Design: the Evolution of the Australian Defence Strategy*, was born there.

Laird has met several decision-makers and conducted many interviews; he has visited not only military bases but also attended numerous seminars and workshops in Australia over the past few years. Therefore, the book contains all-inclusive interviews from which readers can gain an in-depth view of how decision-makers think. There are so many details about the different policies that if I did not know that it was written by a defence and security expert, I could easily say that the topic has been approached with the thoroughness and clarity of mind of a historian.

The accuracy of his work is immediately visible. He builds up the story of the development of the new defence strategy brick-by- brick and shows how the Australian Defence Force adapts to new security threats and modern warfare, how it works with its allies and how policymaking process evolves over time. Indeed, the author shares not just the raw facts, but also his and his interviewees' impressions about the strategy reset and related challenges. Therefore, readers can see the people behind the structured process and complex decisions.

It is a particularly interesting aspect, since policymaking has never been a simple exercise. Thus, the author starts by showing the final result, with the Prime Minister of Australia Scott Morrison's speech, in which he announces the country's Defence Strategic Update in 2020. It is a good choice, since the speech frames the subject, explains both the historical and geopolitical background of the initiative and gives a perfect foundation for the following chapters that introduce the way the new strategy was shaped. From these pages, even readers who are less familiar with the subject can see how strategic thinking and policymaking go hand-in-hand and understand the planning, budgeting and reorganizing work that had to be done in practice.

One of the main strengths of the book is that it presents how the key actors' different perspectives lead to different approaches to addressing the issues related to the more integrated and enhanced defence capabilities. Politicians, top-level decision-makers and high-level military officers were interviewed and provide their first-hand thoughts about the reform, transition and renewal. This is valuable information that otherwise would not be presented in sensationalist daily newspapers and could not be easily accessed by the wider public.

The same applies to the many anecdotes shared by the interviewees, which not only add colour to the story, but more importantly, complement, add depth and (in many cases) lots of technical details to help the reader better understand what the Australian decision-makers were facing during the policymaking procedure. An example, which as an aircraft enthusiast caught my attention, is the

spillover effect type of impacts that a fifth-generation aircraft's integration causes, not only in the Royal Australian Air Force (RAAF) but also in other military branches. It triggers the modernization of the whole RAAF fleet, enhances its international interoperability capabilities and increases interactivity between ground, air and maritime operations.

The more one reads of examples like this, the more interesting these stories get, not least because technological changes like these have inevitable influence on organizational culture and structure. This is a factor that Laird presents thoroughly. For instance, who would think that even small changes like having the combat squadron next door to the Systems Program Office, or facilitating Navy officers on airborne early warning and control aircraft, could drastically increase the readiness rates and overall effectiveness of the modernization process?

These are innovations that matter. Therefore, it is good to see that the book also reveals that the Australian decision-makers did not neglect the national defence industry and gave priority to the enhancement of the sector's innovation capability. In the strategic thinking and comprehensive approach, Australia's Defence Industry Policy Statement is one of the enablers that serves as force multiplier and catalyst for change. One of Laird's interviewees highlights that with the deepening cooperation with the sector, the Australian Defence Force can have an operationally driven and fifth-generation transformation process.

From these examples, what is probably the most striking to me is that the book precisely shows that the Australian government heavily built on national and international defence and security experts' opinions during the formation of the new defence strategy. This approach to policy- and decision-making is not so evident in many other countries or organizations, where the military's organizational culture is somewhat stuck in the twentieth century.

Generally speaking, although the author chose a risky format with the interviews, he is able to build a coherent story and find a way to smoothly transition from one interview to another without losing focus. In fact, in some cases, the interviews are linked with shorter explanations which nicely close the section or prepare the reader for the next. The interviews very effectively contextualize the topic and enrich the reader with a lot of background information. Moreover, besides the wealth of personal comments and additional data, they make this otherwise dry topic very enjoyable and personal.

It is obvious that Laird is not a simple military and security analyst. By reading his book, it turns out that thanks to his editorial work, he is also an experienced narrator with the necessary skillset to tell a complex story in an exciting way. Therefore, overall, it is important to note that *Joint by Design: the Evolution of the Australian Defence Strategy* is not just an academic book that develops the context and the making of the new defence and security strategy of Australia, but because of the wealth of reports about seminars and quotes from key actors, it is also a very credible source for historians. This is particularly valuable when its main topic is one into which it is very rare to gain such deep and detailed insight.

Droning Out Accountability

12/05/2021

By James Durso

Violent extremists have a secret ally in the Pentagon. No, not some military officer who voted for Donald Trump and wears a MAGA hat on weekends when he visits gun shows — the secret ally is the U.S. military's persistent failure to hold anyone accountable when a battlefield mistake kills innocent civilians.

The stock U.S. reply to the accidental killing of civilians in drone attacks is that it will conduct a thorough investigation, with the implication that punishment will be meted out — but that never happens. When you just lost a family member due to an inattentive or inexperienced watch stander in Indian Springs, the fact that his next promotion may be delayed six months doesn't look like justice. But if Russia or Iran screw up — and they did when they shot down MH17 and PS752 — the U.S. demands a trial at The Hague and new rounds of sanctions.

The military's explanation after every accidental killing is "mistakes were made, but no one did anything wrong."

The military's explanation after every accidental killing is "mistakes were made, but no one did anything wrong."

America's shambolic retreat from Afghanistan was made even more ridiculous by the not-so-funny killing of ten members of a family, including seven children, when the U.S. forces attacked who they thought was an ISIS facilitator, a rushed revenge attack justified as a "righteous strike"by Chairman of the Joint Chiefs of Staff, Gen. Mark Milley.

The truth came out because there were journalists in the capital city of Kabul, unlike many other errant strikes in isolated places in Afghanistan or Pakistan, and the Pentagon's story unraveled when The New York Times reported the deaths of the Ahmadi family, headed by a man who worked for a U.S.-based aid organization, who hoped to emigrate to the U.S.

Tragedy became farce when the military later admitted it couldn't find the safe house where the mythical ISIS facilitator was based, despite tracking Mr. Ahmadi all day as he drove around Kabul.

With the truth out, the U.S. military promised a full investigation and, a month later, the U.S. Air Force Inspector General (IG) announced that its review found that "execution errors" (no pun intended) caused the civilian casualties but recommended no disciplinary action, because the troops "truly believed" they were targeting a threat to U.S. forces. Well, OK then.

"Regrettably" was sprinkled throughout, a word salad that left the victims' survivors likely thinking the U.S. was using its laws to avoid justice.

The IG report was referred to the operational commanders who will probably issue a few letters of caution to some lower ranks, then cite the Privacy Act so they will be forever anonymous. In the hands of a decent lawyer, the "mistakes were made" IG finding will bind the hands of any commander who thinks punishment is warranted.

So, America's intelligence apparatus — all-seeing, but unknowing — misidentified a family residence as a safe house, tracked the wrong white Toyota Corolla, and killed the wrong people. Six armed drones, and layers of analysts and reviewers — probably 100 people — from Afghanistan to Qatar to Nevada, were involved … and they blew it.

These errors are a labor-saving device for America's enemies, who can make the case that the U.S. is careless when foreign lives are at stake.

If drones turn out to be a recruiting sergeant for ISIS, we may have to admit that while they're tactically effective, they are an expensive strategic liability that create more enemies than they kill.

For example, the U.S. tried five times to kill Qari Hussain, a deputy commander of the Pakistani Taliban, before getting lucky the sixth time on Oct. 15, 2010 — but in the process they killed 128 unlucky people, 13 of them children.

Regrettably.

After an accident, the military's priority is to shield its members from civil lawsuits in the U.S., or prosecution in a foreign court that would result in an Interpol Red Notice when the offending troops fail to appear. The U.S. wants to avoid a repeat of the trial in Italy of 22 CIA officers and a U.S. Air Force colonel for the 2003 kidnapping of the convicted terrorist, Abu Omar. All 23 were found guilty in absentia and one of the CIA officers was arrested when she later traveled to Europe.

Drones play to America's strength — technology — and put no Americans at risk, but the strategic downside is never priced in. The response to U.S. drones will be more drones, but deployed by the opposition, who — if they can't attack U.S. troops — will settle for soft targets like American embassies, or U.S. allies. And drones' low cost means civil conflicts — where U.S. troops may be deployed as peacekeepers — will get even deadlier as armed gangs, many styled as "militias," can now field an air arm for surveillance or attack.

So, America's drone attacks will prompt an asymmetric response that will be labeled "terrorism," justifying more drone strikes, and more responses, ad nauseum.

Defense Secretary Lloyd Austin said the Pentagon "must work harder" to reduce civilian casualties of U.S. air strikes. Coming 20 years after the first drone operation, on Oct. 7, 2001, which also failed, it proves the smell of cordite isn't enough to make the military move faster than government speed.

The resulting Pentagon bureaucratic to-and-fro will result in a more detailed pre-strike checklist, but the cat is out of the bag, and the U.S. no longer has the luxury of air superiority, ironically due to the drone technology it pioneered.

James Durso (@james_durso) is the Managing Director of Corsair LLC, a supply chain consultancy. He was a professional staff member at the 2005 Defense Base Closure and Realignment Commission and the Commission on Wartime Contracting in Iraq and Afghanistan. Mr. Durso served as a U.S. Navy officer for 20 years and specialized in logistics and security assistance. His overseas military postings were in Kuwait and Saudi Arabia, and he served in Iraq as a civilian transport advisor with the Coalition Provisional Authority. He served afloat as Supply Officer of the submarine USS SKATE (SSN 578).

This article was first published by The Hill on November 24, 2021 and is republished with the permission of the author.