

The Standup and Evolution of 2nd Fleet and Joint Force Command Norfolk: Shaping A Core Capability for North Atlantic Defense



By Robbin Laird and Ed Timperlake May 26, 2021

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Shaping the Way Ahead for the Maritime Integrated Distributed Force: The Perspective of VADM Lewis

2/10/21

The U.S. Navy is already shaping the foundation for the way ahead to build a more lethal and survivable force in dealing with the challenges posed by peer competitors.

Such a foundation is built around a distributed force which is integratable.

And most notably, not just across the U.S. joint force, but across the entire network of allied forces.

No command is more focused on building this template than U.S. second fleet and its commander VADM Lewis.

It is not about working towards the distant future of a U.S. led Joint All-Domain Command and control (JADC2) force with ghost fleets and artificial intelligence led forces, it is about delivering a more integrated fighting navy working in such a manner with key allies.

In a recent interview with <u>Major General Anders Rex</u>, the head of the Danish Air Force laid out the "future is now" approach with regard to integratability.

As the well-regarded Nordic military leader put it: "For me, joint all domain C2 is clearly the future. But at the same time we have to work on enhanced capabilities with the current force. We need focus on both in parallel. Denmark does not have the muscle to shape the future of all domain command and control, but we also need to drive the change – we need now to get the job done. What I have been focused on over the past couple of years, is to make our force better now. Today."

This is clearly the view of the commander of both 2nd Fleet and the newly established Joint Force Commander Norfolk.

This is probably not surprising in that the Danes are very smart players in terms of what Major General Rex discussed in a 2015 seminar in Copenhagen with regard to "coalitionability," a core capability which he saw then as now as a key way ahead to deter and when necessary fight the Russians.

Recently, VADM Lewis delivered a speech to DSI's 5th Annual Joint Networks Summit.

What follows is that speech, which really does not need further comment, but both its clarity and forcefulness about the way ahead provides guidance on how force building driven by operations means in today's strategic environment.

DSI's 5th Annual Joint Networks Summit Speech

Greetings – I am honored to join all of you here today, to discuss our Navy's efforts toward advancing the concept of a network that is fully integrated across the joint force.

At the beginning of the new year CNO Gilday introduced our Navy's Navigation Plan. Forefront in the plan is fielding a robust operational architecture that supports the joint all-domain command and control concept.

Last year the Navy launched Taskforce Overmatch in the same spirit of NASA's race to the moon, and the ingenuity of Polaris and Aegis to ensure we are ready to compete and win in today's operational environment. The future fight is over the horizon and will rely heavily on AI and unmanned systems.

My job, however, is to be ready to fight more effectively with the fleet we have today. As such, while many of the conversations here will focus on the aspects of our networks and technology that will drive future battle plans, I want to take the time today to step back and discuss the direction we are heading as a combined force.

My perspective differs from the other warfighters you have heard from, and will hear from. Every strategy has ends, ways, and means. The ends are characterized by those here in the beltway, the means by our budget and relationship with industry, but my role is to focus on the "ways." Translating the strategic plan into tactical activity in the maritime.

The competition will be driven by investments in gray matter as much as gray hulls, airplanes, or tanks. Adversary technology and weapons development are catching up to us. We must create an advantage through how we train and fight.

"Combined" is used intentionally because the only way we will truly have the force we need to face today's security challenges is to strengthen relationships not only within the U.S. armed forces, but also with our Allies and Partners, both in and out of uniform, to include industry, NGO's and academia.

Simply put, a discussion about connection and integration is not complete without our Allies.

Strategic Overview / Background

I have had the honor of being the commander of both U.S. 2nd Fleet and Joint Force Command Norfolk Since 2018. While there are many things I will take from this tour, one realization stands out more clearly in my mind than any of the others.

That is: the importance of cultivating strong relationships cannot be overstated. Maintaining security and stability in the Atlantic is a responsibility shared amongst many in order to ensure the international waters where we all operate remain free and open.

Our collective security and interconnected global economy depend on open shipping lanes, unhindered air travel, and uninterrupted flow of data.

The Atlantic is a critical link to the world-wide fight. Whether our ships are ultimately deploying to the High North, the Eastern Med, the Arabian Gulf, or through the straits of Malacca into the Far East: East Coast ships must first sail across the Atlantic and be prepared to face whatever threats may present themselves in this contested space.

Our history proves this to be true, and has been recognized by American leaders time and time again. I am reminded of this every day, as I am lucky enough to live at the threshold from which President Roosevelt launched the Great White Fleet over 100 years ago.

The strength of our military is dependent upon our ability to get to the fight, and sea control must start in the Atlantic.

Furthermore, the Atlantic isn't simply defined as what floats on or through it, but rather the battlespace from seabed to space, including space, cyber, and the information domains.

As new trade routes open in the Arctic, we must work to ensure they remain free and open for all to safely navigate, but not monopolize, militarize, or restrict.

To achieve this, we are focusing on building and demonstrating our collective strength through interoperability, integration, and ultimately interchangeability as an Alliance.

Together we are more than the sum of our individual parts.

Interchangeability

As such, we organized both Second Fleet and JFC Norfolk as fully integrated. Naval, joint, allied, combined, and active/reserve forces are the foundation of the two commands. As commands in our infancy, we rely heavily on perspectives that come from a diversity of thought, background, and experience.

At C2F, we have integrated officers from multiple allied nations directly into the fleet staff. The U.S. Marines, reserve component officers, and foreign exchange officers are fully functioning staff members—not just liaison officers—and they include a two-star Royal Canadian Navy officer as the vice commander of C2F.

At JFCNF, an initial team of fewer than ten individuals stood up the command with the help of reserve, joint, and international officers—a testament to integration from its inception.

We are also integrating the staff by functional codes (C2F N-codes in the same building with their JFCNF J-codes), and we aspire to use NATO standards for everything from classification to mission orders and associated command-and-control systems to realize our full potential.

It is not enough that we build and procure systems to further our fighting force. We must break down cultural barriers. As all of us know, we tend to be fairly tribal, especially in the Navy. It's important we look for similarities instead of differences and take the time to open the aperture of conversation to those who think and operate differently than ourselves.

We are doing this through fleet battle problems—challenging our assumptions and testing new concepts and hypotheses to further our understanding of the environment and changing tactics.

We are participating in exercises with allies and partners, such as Operation Nanook, where the USS Thomas Hudner (DDG-116) worked with Canadian, Danish, French, and U.S. Coast Guard ships north of the Arctic Circle. And we are working with other newly formed commands such as Submarine

Group Two to test, practice, and refine antisubmarine warfare tactics as seen in the most recent iteration of exercise Black Widow.

This past summer JFC Norfolk hosted a tabletop exercise to analyze the dynamics of our current engagement in the emerging "Fourth Battle of the Atlantic." NATO and U.S. commanders talked through vignettes addressing command relationships, resources, mission priorities, and authorities in the Atlantic.

The exercise's goal was to create a shared understanding of the maritime security environment in the Atlantic amongst all participants, and ultimately to define JFCNF's role in the battlespace as the new command matures.

Spectrum of relationships

Relationships drive all operations, especially in the maritime. In order to operate in the same body of water, we must have awareness of one another, and we must have an understanding of both the battle space, and the intentions of others operating in that space. Awareness is critical with both friends and foes.

This is why it is so critical that all that consider themselves professional mariners adhere to international laws and codes.

Next, interoperability. Interoperability is defined as "the ability to act together coherently and efficiently to achieve tactical, operational, and strategic objects" often involving the ability to exchange information or services by means of electronic communications.

We must then be integrated. The ability for forces to not only work toward a similar mission, but to do so as one unit. An example of this is the Mendez Nunez, who deployed as part of the Abraham Lincoln Carrier Strike Group in 2019.

The final step in the spectrum of relationships is interchangeability. That is the ability to accomplish the mission, regardless of which nation is executing a particular role.

The CNO discusses interchangeability in our NavPlan, saying that our naval power is amplified by sailing and integrating with like-minded navies, and that we must strengthen our alliances and partnerships to ensure our success across the continuum of day-to-day competition, crisis, and conflict.

It continues that "we must continue operating interchangeably with key allies to expand the reach and lethality of our collective forces across the globe." An example of this interchangeability would be the UK's Queen Elizabeth operating with a U.S. Marine Corps squadron of F-35s – the pinnacle of integration and interoperability!

But, in order to support this vision set forth by our leaders, we must first focus on the most three basic tenants of interoperability and integration. People, Processes, and Technology, or more plainly—relationships, procedures, and stuff.

People

First People – since the establishment of both our commands, we have been moving rapidly to build our capability and capacity through partnerships, training and operations; many of which have been hand in hand with our sister services, Allies and Partners across the Atlantic.

No one nation can face today's security challenges alone. The Joint service, allies and partners are force multipliers. Serving together, studying together, and participating in exercises together only increases our combined operational readiness.

However, these relationships require time, effort, and we cannot assume that because they exist today, they will exist tomorrow. We value these relationships and it takes concerted effort to build and maintain them – a critical advantage we hold over our competitors.

I would wager that I spend more than 80% of my time maintaining relationships – both up and down the chain of command, and outward and externally with my counterparts in various organizations on both sides of the Atlantic.

Relationships don't cost anything, and though hard to see immediate success and measured results, if cultivated correctly, these force multipliers will lend themselves to more efficient processes and coordination, and ultimately interoperability, by which we operate.

As I said at the start, maintaining security and stability in the Atlantic is a responsibility shared amongst many in order to ensure the international waters where we all operate remain free and open.

Rather, it is a shared responsibility to ensure we are making changes to the way we operate TODAY, vice waiting until after hostilities start. We cannot afford to learn those lessons the hard way.

Processes

Which brings me to my second point – Processes.

We recognize in the Navy and the Joint Force that we have capability gaps that require our attention – one of which is what we are here to discuss today – C2 networks and the integration into a single structure.

As we work to create a more networked force, we need to be agile in the way we think and how we operate with one another.

And I'll take it one step forward, as a dual-hatted commander of a U.S. and NATO command, if we are going truly operate as a joint force and an alliance, we need to implement processes at the beginning and provide more opportunities to train to the NATO standard – in addition to a standard across the Joint force.

We put a premium on "local knowledge" and we look to leverage the knowledge and expertise from our Allies in operating under the NATO umbrella as we drive towards a new standard.

An example I mentioned before, we recently sent the destroyer USS Thomas Hudner up to the Arctic to participate in Operation Nanook with our Canadian, Danish, and French counterparts. Operating alongside our allies and partners in a region where we haven't operated frequently in the past decade helps us better understand the operating environment, especially those where we see communication degrade at higher latitudes.

When we lose our ability to effectively communicate – by GPS or satellite communications, or even line-of-sight or digital communications, we have to revert back to our basic training and the processes by which we execute operations.

As I mentioned previously, our competitors are engaged in operations just below the threshold of conflict— in the gray zone. More and more the electromagnetic spectrum is infringed upon and manipulated by nefarious actors and as such we need to rely upon mission orders – or processes – in order to maintain the initiative.

Technology

Which bring me to technology – the "things" that connect us together – and for all intents and purposes, the reason many of you are here at this forum today.

There is no doubt our military leaders recognize the importance of a connected network across the joint force. A networked fleet of the future requires a resilient operational architecture to integrate our command and control, sensors, shooters, and weapons – and one in which naval forces play a critical role as we frequently operate in multiple domains.

The vision includes joint forces operating in multiple warfighting domains while using emerging technologies.

From a naval perspective, if we can focus on organizing and merging cooperation surrounding our carrier strike groups, underwater superiority, navy-marine corps integration, and future unmanned and artificial intelligence warfighting capabilities across the joint force, we WILL remain on the leading edge of this great power competition.

The Navy will continue to participate with other services in JADC2 experimentation venues as we also work at the fundamentals of interoperability.

Re-Crafting North Atlantic Defense: The Impact of the 2nd Fleet and Joint Force Command Norfolk

3/15/21

A recent article in the London *Times* highlighted the new role of the Royal Navy in the Arctic. "The Royal Navy will have a regular presence in the Arctic Circle to counter the Russian strategic advantage over trade routes that will open as the ice caps melt, sources have revealed."¹

What this story does not highlight is the dynamic defense infrastructure which is being built underlying such an effort. That infrastructure is a combined effort for the new version of the 2nd Fleet and the only operating NATO command on U.S. territory, the Joint Force Command Norfolk. These two commands are headed by a U.S Navy Vice Admiral, Andrew "Woody" Lewis.

The significant and dynamic innovation with these interactive and in many ways integrated commands has largely been unnoticed, although not by the Russians. With the concern with the Chinese and their policies in the Pacific and beyond, it can be forgotten that the most immediate and direct military threat to the United States emanates from the Russian Kola peninsula. Here is to be found the highest concentration of Russian military force in the world.

When the 2nd Fleet in 2011 was sunsetted, it was a nadir of the peace dividend. Only Putin had a different agenda, which already was evident in his actions in George in 2008 and then Ukraine along with many of his public declarations since then.

With the return of Crimea to Russia via the hybrid strategy underwritten by military force, it was difficult to miss that the North Atlantic threat was back.

But Russia is not the Soviet Union. And Russia does not have a Warsaw Pact with the geography to surround Western Europe; those former Warsaw Pact members now face Russia as a competitor or partner, but outside of the direct occupation of Russian troops.

The Kola challenge is a primary one to the United States and its direct defense.

It is also a key definer of what the North Atlantic Alliance faces. This is an alliance which is not facing the core challenge of a central front and an inner-German border. For the United States, the airmaritime challenge is the core one for our direct interests; and for the relevant nations to the maritime regions in the Alliance, the Russian threat is a direct and extensional one.

A key element of the way the defense threat plays out now is a defense arc from Poland to the UK through the Nordics and from there down the path of Greenland, Iceland, Canada and the United States.

What the standup of the 2nd Fleet in 2018 and of the Joint Force Command Norfolk more recently, these two commands signify a clear focus on shaping a credible 21st century defense capability and infrastructure for deterrence and warfighting in the region.

The geography has returned as a core part of the North Atlantic defense challenge, but to meet the challenge new command relationships, new technologies and innovative concepts of operations are being shaped by the commands, and under the leadership of Vice-Admiral Lewis.

¹ Larisa Brown, "Royal Navy to defend Arctic trade as ice melts," *The Times* (March 10, 2021).

The Vice-Commander of Second Fleet is a very experienced Canadian Rear Admiral. The Vice-Commander of JFC is the first commander of HMS Queen Elizabeth, and a very well regarded British Rear Admiral. Those Admirals, along with a Norwegian, French, and German Admirals and a RN Commodore all have tremendous command experience at sea in navigating some of the most challenging sea states in the world.

This advanced state of very senior defense collaboration is a key incubator for the shaping of new defense capabilities, add in the emerging role of Sweden and Finland and it is an important and significantly enhanced command element compared to the Cold War period of deterrence.

These are just some of the most obvious changes.

Another one is the scope of the territory covered, as the *Times* article highlighted, namely the key role of defense efforts in the High North.

When the CNO in 2018, Admiral Richardson, stood up the new version of the 2nd Fleet, this is how he described the new scope of operations: "A new 2nd Fleet increases our strategic flexibility to respond — from the Eastern Seaboard to the Barents Sea. Second Fleet will approach the North Atlantic as one continuous operational space, and conduct expeditionary fleet operations where and when needed."

The new operational area covered by 2nd Fleet synergistically shaped as well by the JFC experienced Admirals clearly includes the Arctic, the High North more generally, and the Nordic waters.

At the time of the standup, CNO Richardson highlighted that change in this new approach. Admiral Richardson made clear the focus will be on projecting force.

"This one will be high-end, blue-water warfare using major elements of maritime power."

Under the leadership of Vice-Admiral Lewis, the commands – for the two together really constitute the shaping of the new defense infrastructure – have pursued a very innovative approach to building out capability.

We have recently visited 2nd Fleet and JFC, and in the weeks ahead will lay out and highlight what we have learned about the significant innovations which have been generated in shaping a maritime distributed force.

The evolving integrated distributed force is crafted to deliver the kind of defense capability required for deterrence and warfighting capabilities with the current Russian and evolving Chinese engagement in the High North Sea routes requires.

The 2nd Fleet and JFC working relationships provide a case study of how the U.S. Navy and its evolving shift in its warfighting approach interact significantly with changes in how the cluster of "relevant" nations in the area of operations are approaching defense as well.

And the reshaping of navy concepts of operations along with the integratability with the efforts of the "relevant" nations is providing a significant way ahead for innovation in both deterrence and warfighting approaches to the Russians.

The Second Fleet has not just been reestablished; it has been transformed.

Editor's Note: It should be noted that the stand-up of the new command occurred on the carrier named for the U.S. President who was heavily involved in the emergence of the new Europe, with the creation of a unified Germany and building upon President Reagan's efforts to end the Soviet Union.

C2 for a Distributed Maritime Force: A Key Building Block for 21st Century Defense

3/17/21

It is clear that C2 is a key element for shaping the way ahead for maritime operations. The U.S. Navy highlights the importance of distributed maritime operations as it reworks its way ahead with regard to 21st century deterrence and warfighting.

As Navy Vice Adm. Phil Sawyer, Deputy CNO for Operations, Plans and Strategy, has put it: "DMO is a combination of distributed forces, integration of effects, and maneuver. DMO will enhance battle space awareness and influence; it will generate opportunities for naval forces to achieve surprise, to neutralize threats and to overwhelm the adversary; and it will impose operational dilemmas on the adversary."²

From the beginning, the stand up of Second Fleet has been built around C2 to enable DMO. In many ways, the standing up of Second Fleet in 2018, with Vice Admiral Lewis and had a seed corn staff, focused from the outset on C2, notably mission command. How to work tailored distributed task forces across the U.S. and allied fleets to get the kind of crisis management and combat effects crucial to North Atlantic defense?

From this point of view, the standup of Second Fleet can be looked at as a "startup firm" within the U.S Navy as it is the newest fleet in the force, and one birthed precisely as new concepts of operations and technologies were being prioritized by the leadership of the U.S Navy.

Mission command is as old as Lord Nelson, as a British Rear Admiral recently reminded us. But the challenge is that for the past twenty years, such command has been overshadowed by the OODLA loop. Observe, Orient, Decide, hand over to the lawyers and then Act. Obviously, such an approach when one needs to fight at the speed of light is a war loser

For the Second Fleet, a key part of shaping a way ahead with regard to C2 for a distributed maritime force is to enhance the capabilities for mobile command posts and to ensure that the right kind of command connectivity is generated.

² https://seapowermagazine.org/dmo-is-navys-operational-approach-to-winning-the-high-end-fight-at-sea/

When we visited 2nd Fleet this month, we talked to a number of members of C2F about the current exercise in mobile command posts underway. But earlier stories released by C2F provided insights in how they were working the challenge.

For example, in a September 24, 2019 story about leading the force from Iceland, this is how distributed operations were described:

U.S. 2nd Fleet (C2F) has temporarily established an expeditionary Maritime Operations Center (MOC) in Keflavik, Iceland, to provide the U.S. Naval Forces Europe (NAVEUR) commander an additional ability to lead forces from a forward-operating location.

"I welcome C2F back to the European theater for the second time this year," said Adm. James G. Foggo III, commander, Naval Forces Europe and Africa. "The additive capacity that 2nd Fleet brings to the European theater when operating forward alongside U.S. 6th Fleet (C6F) contributes to the overall success of our naval forces' ability to address challenges and threats to safety and security in the maritime domain."

The expeditionary MOC, made up of approximately 30 members of C2F staff, has the ability to command and control forces, provide basic indicators and warnings for situational awareness, and is able to issue orders while maintaining reach-back capability to C2F's headquarters in Norfolk, VA.

"Iceland is a key ally, and its strategic location in the North Atlantic provides a perfect opportunity to test out our expeditionary MOC for the first time," said Vice Adm. Andrew Lewis, commander, U.S. 2nd Fleet. "Operating out of Iceland reinforces our partnership while allowing us to practice operating in an expeditionary manner and test our ability to surge forward."

The C2F expeditionary MOC is executing command and control of ships assigned to the recently deployed Surface Action Group (SAG), which is comprised of the Ticonderoga-class guided-missile cruiser USS Normandy (CG 60) and the Arleigh Burke-class guided-missile destroyers USS Lassen (DDG 82), USS Forrest Sherman (DDG 98), and USS Farragut (DDG 99), as well as embarked aircraft from Helicopter Maritime Strike Squadron (HSM) 72.

While in the Atlantic, the SAG is operating in support of naval operations to maintain maritime stability and security, deter aggression, and defend U.S., allied, and partner interests.

C2F's temporary operations out of Keflavik mark the second time the new fleet has operated at a forward location. C2F first demonstrated this expeditionary capability through command and control of exercise Baltic Operations (BALTOPS) in June 2019, when the majority of its staff embarked USS Mount Whitney (LCC 20).

"Successful operations in the Arctic require practice, and we will take the lessons learned from this deployment to further refine the expeditionary MOC concept for future operations in the North Atlantic and Arctic regions," said Capt. Chris Slattery, director, C2F expeditionary MOC.

The expeditionary MOC concept is scalable and temporary in nature. While the C2F expeditionary MOC is currently operating out of Iceland, there is no predetermined or permanent operating location in the European theater.



Figure 1 ATLANTIC OCEAN (Sept. 16, 2019) The Ticonderoga-class guided-missile cruiser USS Normandy (CG 60), front, and the Arleigh Burke-class guided-missile destroyers, USS Farragut (DDG 99), left, USS Forrest Sherman (DDG 98), right, and USS Lassen (DDG 82), b

C2F exercises operational and administrative authorities over assigned ships, aircraft, and landing forces on the East Coast and the Atlantic. When directed, C2F conducts exercises and operations within the U.S. European Command AOR as an expeditionary fleet, providing NAVEUR an additional maneuver arm to operate forces dynamically in theater.³

And a February 26, 2020 story highlighted C2F commanding the force from Camp Lejeune:

U.S. 2nd Fleet (C2F) has established an expeditionary Maritime Operations Center (MOC) at Camp Lejeune in Jacksonville, North Carolina.

This expeditionary MOC, made up of approximately 30 members of C2F staff, has the ability to command and control forces, provide basic indicators and warnings for situational awareness, and be able to issue orders with a reach-back capability to C2F's headquarters in Norfolk, Va.

Participating naval forces include the Dwight D. Eisenhower Carrier Strike Group (CSG), which is comprised of the Nimitz-class aircraft carrier USS Dwight D. Eisenhower (CVN 69), the guided missile cruisers, USS San Jacinto (CG 56), USS Vella Gulf (CG 72), and the guided-missile destroyers USS Stout (DDG 55), USS James E. Williams (DDG 95), USS Truxton (DDG 103), and more than 6,000 Sailors all stationed a Naval Station Norfolk.

"Camp Lejeune is the ideal location for Navy-Marine Corps integration opportunities," said Vice Adm. Andrew Lewis, commander U.S. Second Fleet. "For the purpose of this expeditionary MOC, our

 $^{^3}$ https://www.navy.mil/Press-Office/News-Stories/Article/2239829/2nd-fleet-leads-naval-forces-from-iceland/

USMC counterparts are providing C2F with the supplies and equipment essential to the successful execution of this exercise."

In CNO's Design for Maintaining Maritime Superiority 2.0, C2F was tasked to be expeditionary—whether from a maritime platform or an austere location. Regularly operating C2F's expeditionary capability ensures our ability to respond expeditiously and proficiently when called upon.

Maintaining and expanding upon the ability to command and control forces away from headquarters is central to C2F's employment of forces in the Atlantic. During this iteration of the expeditionary MOC, II Marine Expeditionary Force assisted with infrastructure development. Both C2F and II MEF will draw lessons learned from this operation to inform future employment of an integrated command and control center in the future.

"We are implementing lessons learned from previous expeditionary MOC operations which will directly influence the way we employ naval forces at the operational level going forward," said Capt. Craig Bangor, Second Fleet MOC director. "To accomplish our assigned mission this time, we have included intelligence, logistic, cyber, information, and maritime operations and planning capability organic to the expeditionary MOC. While the team in Norfolk is leading and planning for a wide array of operations, our team in Camp Lejeune is solely focusing on the employment of the Eisenhower Strike Group as it crosses the Atlantic utilizing the expeditionary MOC capabilities."

The expeditionary MOC concept is scalable and temporary in nature, and the iteration in Lejeune marks the third for C2F sing it's establishment in August, 2018. C2F first demonstrated this expeditionary capability through command and control of Exercise Baltic Operations (BALTOPS) in June 2019 when the majority of staff embarked aboard USS Mount Whitney. Most recently, C2F employed a forward deployed expeditionary MOC in Keflavik Air Base, Iceland.

C2F exercises operational authorities over assigned ships, aircraft, and landing forces on the East Coast and the Atlantic.⁴

And this focus upon C2 has meant that Vice Admiral Lewis can approach both his U.S. Navy and NATO commands with a similar re-working of C2 which is, in itself, a key driver for change.

Shaping a Way Ahead for 2nd Fleet (C2F): The Perspective of Its Vice Commander

3/19/21

During our visit to C2F in March 2021, we had an opportunity to discuss the standup of the command in 2018 and its evolution since then. One clearly important fact cannot be missed when visiting VADM

⁴ https://www.dvidshub.net/news/364051/us-2nd-fleet-commands-naval-forces-camp-lejeune

Lewis, the CO of C2F. In his frugal office space, one finds his office flanked on one side by a Canadian Rear Admiral and on the other by a British Rear Admiral. The first is his C2F deputy, and the second is his NATO deputy. It is hard to miss the point: this is a command focused on integration of maritime capability across the North Atlantic.

The importance of having a Canadian Rear Admiral within the American command cannot be overstated. This is how C2F described the importance of this appointment as follows in a story published by them on November 12, 2019.

In the cavernous three-story Maritime Operations Center, amidst a sea of television monitors and projection screens, a mass of uniforms gathers huddled around a cluster of desks. Interspersed throughout the crowd of mostly U.S. Navy uniforms are a smattering of Marines and a few livelier uniforms from France, the U.K, and Norway.

"Standby," is anonymously called and all conversation ceases. Everyone stands in quiet anticipation for the arrival of the admiral who is leading the briefing. "Attention on deck," rings out and everyone snaps to rigid attention.

In walks the admiral, not dressed in the uniform of a U.S. Navy Sailor, but in that of a Royal Canadian Navy Rear Admiral. He is U.S. 2nd Fleet's vice commander, and the fact that he is a part of 2nd Fleet's chain of command represents the commitment that the U.S. Navy has not only to its mission, but to its partners who are vital to accomplishing that mission.

When U.S. 2nd Fleet was reestablished on Aug. 24, 2018, it was done with the vision to create a force that was able to confront the very real resurgence of great power competition in the North Atlantic and Arctic. The. U.S. Navy recognized early that relying on allies and partners in the Arctic region would be key to confronting future threats. To that end, 2nd Fleet has taken the unusual step of integrating officers from allied nations directly into the fleet's staff. Chief among the five foreign national officers serving on the staff is Canadian Rear Adm. Steve Waddell, vice commander of U.S. 2nd Fleet.

Waddell, a native of Temagami, Northern Ontario, and a 30-year member of the Royal Canadian Navy, stepped into the number two role at the Navy's newest fleet to not only bring alternative perspectives to the command, but to revive a partnership that existed before U.S. 2nd Fleet was disestablished in 2011.

"We have had, and continue to have Canadians working in and amongst units and organizations here in Norfolk," said Waddell. "But this is the first time someone so senior has been here since the disestablishment of the NATO Allied Command Atlantic (SACLANT) in 2003. Having a permanent Canadian Rear Admiral as the C2F Vice Commander is a return to that way of doing business."

"Rear Adm. Waddell brings a wealth of knowledge and experience to the staff, and we are grateful to have him," said Vice Adm. Andrew Lewis, commander of U.S. 2nd Fleet. "Especially when operating in the cold, rough, northern Atlantic environments that we are today, in a coalition manner, having a senior perspective from Canada provides immeasurable insight and expertise."

While it is not unheard of to have members of partner militaries embedded within large U.S. commands, U.S. 2nd Fleet has taken this further by integrating them into the actual command and decision-making structure of the fleet at a very senior level.

International cooperation and coalition building is key to having a force that is capable of operating

together, in peacetime as well as war. Integration does not begin at the senior level. Waddell has worked with and embedded with the U.S. Navy throughout his career.



Figure 2 NORFOLK, Va. (Aug. 12, 2019) Vice Adm. Andrew Lewis, commander, U.S. 2nd Fleet, left, stands alongside U.S. 2nd Fleet Vice Commander, Rear Adm. Steve Waddell.

"Much like the U.S., we in Canada have an entire generation of Sailors and naval officers, myself included, that have routinely deployed around the world, often integrated as part of a NATO task group or a U.S. carrier strike group," said Waddell. "Those opportunities have allowed my colleagues and me to become accustomed to working with partners and the U.S. Navy. Trust is built over time."

As the U.S. Navy begins to shift its attention from decades of operations in the Middle East back to blue water and high-north engagement, ensuring strong partnerships between the U.S. and allied Arctic nations becomes of paramount importance. Waddell and the other allied officers on U.S. 2nd Fleet's staff bridge gaps in understanding, strengthen relationships, and are central to U.S. 2nd Fleet's mission accomplishment.⁵

Not surprisingly, Rear Adm. Steve Waddell has a very impressive background, which includes serving in the Pacific Area of Operations, most recently at Canadian Forces Base Esquimalt from July 2014 through June 2017. In other words, he brings a perspective on the challenges facing maritime forces in both the Pacific and the Atlantic to his work as the Vice Commander.

 $^{^{5} \}underline{\text{https://www.dvidshub.net/news/351404/royal-canadian-navy-plays-key-role-2nd-fleet-mission\#} \\$

In our discussion with him, he underscored how important the standup of this command was from his point of view to defend the interests of the United States and its partners in the Atlantic area of operations. He underscored that C2F is best understood as a startup command, rather than having stood up an existing command template as seen elsewhere in the U.S. Navy, and as such sees this effort as a driver for change for 21st century naval operations.

According to Waddell: "We will not be as large a command as other numbered fleets. We are designed to max out at about 250 people and currently are around 200 now. We have to be different and innovative in how we get after the missions. We need to make sure we're using tools and alternative resources, because we don't have that depth and capacity of people, so you have to find a different way."

As a startup command that is FOC, they are not emulating other numbered commands in many ways. "We are not primarily focused on the business of force generation, but we focus on how to use assigned forces to shape a desired outcome. We don't want to get in the space of those responsible for force generation: we just want to be able to advocate for timely, effective outputs that optimize the use of the fleet."

He noted that the assumption that the 2nd Fleet was going to be the 2nd Fleet of old was misplaced. "The old 2nd Fleet was interested in sea lines of communication. But the new 2nd Fleet is focused on strategic lines of communication. This is an all-domain perspective, and not just the convoy missions of past battles of the Atlantic."

He referred to C2F as the maneuver arm in providing for defense, deterrence and warfighting but as part of a whole of government approach to defending the United States, Canada and NATO allies against threats.

He underscored that "we are flexible and unconcerned with regard to whom we will work for. Operationally, we work for NAVNORTH (Fleet Forces Command) for the Homeland Defense Mission, but we can seamlessly transfer and work for NAVEUR/ EUCOM to defend forward, or to work in the GIUK Gap for an Allied Joint Force Command."

Rear Admiral Waddell drove home the point throughout our discussion that they were building an agile command structure, one that can work through mission command and with expeditionary operations centers. As he explained it, "For us a Maritime Operations Center is not a room with equipment. It is a capability, based on technology, process and people. We distribute it all the time, whether it's been afloat or ashore. Previously, we were in Iceland. Right now, they're down in Tampa for an exercise. I'll be joining them in a couple of days."

How did we end up with a Vice Commander who is Canadian?

As Rear Admiral Waddell tells it, VADM Lewis was asked to stand up 2nd Fleet and given much latitude to do so. He went to a senior Canadian official to ask for a Royal Canadian Navy officer to serve as his deputy. Waddell felt that bringing a Canadian officer into the force made a lot of sense for a number of reasons. First, because of the partnership nature of operations in the area of interest. Second, because the Canadians have experience in operating in the high north, which could be brought to the renewed efforts on the part of the United States side to do so. Third, as Waddell himself works the C2F experience he can weave what he learns into Canadian approach to operations.

"It's not lost on me that we as a Canadian service honed our teeth in the battle of the Atlantic in the Second World War in the North Atlantic and then in the ASW fight through the Cold War. Those competencies, although we were collectively distracted a little bit from iterations to CENTCOM and in the Persian Gulf for some time, are crucial going forward. I think we've reinforced those capabilities and are investing in new capabilities at home in Canada, such as with the Type 26 surface combatant program, a very robust platform."

He highlighted that the distances involved in the High North are generally not realized. "People forget that it's a longer distance to go from, not even Norfolk but Halifax up into the Arctic than it is to cross the Atlantic."

The logistics infrastructure in the High North is very limited compared to Europe, which means that for C2F, working through the kind of operational infrastructure needed to operate in the area is part of the equation as well.

"There is renewed focus on getting the East Coast Fleet involved in more northern activities. Canada does a series of annual Arctic exercises called NANOOK. C2F is involved in this exercise. Typically every other year there is a major warfare exercise off of Halifax called CUTLASS FURY, where we will send ships and aircraft to participate as well. We are working to be able to reinforce operations in more northern latitudes."

Rear Admiral Waddell emphasized that the focus was upon the Atlantic challenge, and not narrowly focusing on a specific COCOM's area of interest. "You need all of that to have an informed and meaningful conversation that really comes down to priority, level of effort, and force apportionment. Our reality is that combatant commanders are assigned resources, but the fight needs to be contiguous across COCOM boundaries. It's not a NORTHCOM problem. It's not a EUCOM problem. It's an Atlantic problem."

He discussed various tools and approaches being used to understand how to scope the challenges and priorities, including hosting a Battle of the Atlantic tabletop exercise. The goal of efforts like these are to scope out the various interactions across an extended battlespace to understand how fights influence one another.

All of this leads to a very significant conclusion about the U.S. Navy and allies integrating across an extended battlespace and operating distributed forces. "For the web of capabilities, you need to be ready to fight tonight, you need to be able to seamlessly integrate together across the fleet, inclusive of U.S. and allied forces. You fight as a fleet." That means fundamental change from a cultural assumption that the US Navy has run with for many years.

"You need to understand and accept that a fighting force needs to be reconfigurable such that others can seamlessly bolt on, participate in, or integrate into that force. That might mean changes from the assumptions of how the Navy has operated in the past in order to successfully operate with allies."

In short, as we noted in our earlier piece: "The Second Fleet has not just been reestablished; it has been transformed."

Appendix to Article:

This story by C2F published on August 4, 2020 highlighted their participation in the Canadian exercise NANOOK.

The Arleigh Burke-class guided-missile destroyer USS Thomas Hudner (DDG 116) is joining members of the U.S. Coast Guard, Canadian Armed Forces, French Navy, and the Royal Danish Navy, to participate in the maritime component of Operation NANOOK-TUUGAALIK 2020.

Operation NANOOK is the Canadian Armed Forces' signature northern operation, comprising a series of comprehensive, joint, interagency, and multinational activities designed to exercise the defense of Canada and security in the region. NANOOK-TUUGAALIK is the maritime component of the NANOOK series of deployments and training events and designed as a maritime presence operation and domain awareness of the seas in the Eastern Arctic.

"The U.S. is an Arctic nation, and this region is important to our national security, this is why we participate in events like Operation NANOOK," said Vice Adm. Andrew Lewis, commander of U.S. 2nd Fleet. "A stable, rules-based order in the Arctic benefits all Arctic nations by facilitating economic development, fostering regional cooperation on shared challenges, and ensuring a stable, conflict-free Arctic."

The United States is one of eight Arctic nations and the National Defense Strategy calls upon the military to increase its presence in the Arctic over the long term and to conduct joint operations with Arctic allies to strengthen situational awareness and information sharing.

"Operating together in or near Canada's Arctic waters presents a mutually beneficial opportunity for allies to enhance their Arctic capabilities," said Canadian Rear Adm. Steven Waddell, vice commander of U.S. 2nd Fleet. "The opportunity to work with allies and partners in challenging environments only makes us better as we develop and hone unique skillsets to improve the readiness of all participants."

Operation NANOOK has taken place each year since 2007, normally during the months of August and September. Due to the current COVID-19 pandemic, this iteration will be shorter than past years, with no planned port visits or community relations activities.

This year's maritime component for Operation NANOOK includes the Royal Canadian Navy ships HMCS Glace Bay, HMCS Ville de Quebec, and MV Asterix; the U.S. Navy Arleigh Burke-class guided-missile destroyer USS Thomas Hudner (DDG 116), the "Misfits" of Helicopter Maritime Strike (HSM) 46.2; the U.S. Coast Guard cutter USCGC Tahoma, French Navy coastal patrol vessel FS Fulmar, and the Royal Danish Navy frigate HDMS Triton.⁶

This story by C2F published on July 1, 2020 highlighted a tabletop exercise.

Joint Force Command Norfolk (JFCNF), the North Atlantic Treaty Organization's (NATO) newest operational level warfighting headquarters, in partnership with U.S. 2nd Fleet, held the Fourth Battle of the Atlantic tabletop exercise (TTX) virtually for leaders from multinational commands to discuss the future warfighting strategy in the Atlantic.

 $^{^6 \ \}underline{https://www.navy.mil/Press-Office/News-Stories/Article/2299799/us-forces-participate-in-canadian-operation-nanook/}$

Navy Warfare Development Center (NWDC) facilitated the TTX, which presented commanders with vignettes to address command relationships, resources, mission priorities, and authorities in the Atlantic. The exercise's goal was to create a shared understanding of the maritime security environment in the Atlantic amongst all participants, and ultimately to define JFCNF's role in the battlespace as the new command matures.

"The importance of cultivating strong relationships with organizations across the Atlantic cannot be overstated," said Vice Adm. Andrew Lewis, dual hatted commander Joint Force Command Norfolk and U.S. Second Fleet. "The security environment is continually evolving and no one nation can do it alone. Maintaining security and stability in the Atlantic is a responsibility shared amongst many in order to ensure the international waters where we all operate remain free and open."

During the TTX, senior leaders from NATO and Partner Nations shared perspectives on the security environment in order to challenge strategic and operational warfighting assumptions, ultimately with the goal of developing a shared understanding of the challenges faced in the North Atlantic. Leaders present represented 30 different commands, both within the NATO command structure and outside.

"This table top exercise is an important step in building solidarity and mutual strength amongst our nations as we work to ensure that NATO is ready to meet any challenge in the North Atlantic," said Deputy Commander, Joint Force Command Norfolk, Rear Adm. Andrew Betton, OBE Royal Navy. "And we look forward to continuing the dialogue with Allies and Partners as JFC Norfolk approaches Initial and Full Operational Capability in the near future."

The exercise, originally scheduled for an in-person conference, shifted to a virtual enabled platform in order to maximize participation while minimizing travel and risk of infection during the COVID-19 global pandemic – a sign of transatlantic connectivity and resilience across the Atlantic.

"Those of us gathered represent maritime nations, and the ability to assure freedom of navigation is a cornerstone of our collective defence," said Vice Commander, U.S. 2nd Fleet, Rear Adm. Steven Waddell, Royal Canadian Navy. "We are responding to the new security environment in the Atlantic with innovation and flexibility in both posture and mind set; this is an iterative and ever developing process, and one we will assuredly get right."

The name "Fourth Battle of the Atlantic" acknowledges a return to great power competition by recognizing the first three "battles of the Atlantic," first during World War I, next in World War II, and most recently during the Cold War. The Fourth Battle of the Atlantic TTX is one way NATO is strengthening its joint presence in the North Atlantic, which it reduced at the end of the Cold War as threats subsided.

NATO commands participating in the TTX included Joint Force Command Norfolk, Allied Maritime Command, Allied Joint Force Command Brunsum, Allied Air Command, Naval Striking and Support Forces NATO, Submarines NATO, NATO Allied Command Transformation, Combined Joint Operations from the Sea Center of Excellence, Standing Joint Logistics Support Group.

Several European countries participated, with the French Maritime Forces Atlantic, United Kingdom Strike Force, Norwegian Joint Headquarters, Danish Joint Operations Center, the Danish Joint Arctic Command, as well as representation from Iceland.

Non-NATO participation included representatives from partner nations of Sweden and Finland.

Participation from U.S. commands included Naval Forces Europe-Africa / U.S 6th Fleet, U.S. Fleet Forces, U.S. 2nd Fleet, II Marine Expeditionary Force, U.S. 4th Fleet, U.S. 10th Fleet, Air Forces Northern, Military Sealift Command, Expeditionary Strike Group Two, Submarine Forces Atlantic, Patrol and Reconnaissance Group, Submarine Group Two, and Naval Meteorology and Oceanography Command.

Joint Force Command Norfolk is among the new commands established as part of NATO Command Structure Adaptation, in order to meet the challenges of the evolving security environment. It is headquartered in Norfolk, Virginia and provides a U.S.-led, joint multi-national operational command from NATO's home in North America.

The North Atlantic Council created Joint Force Command Norfolk at the 2018 Brussels Summit to focus on protecting the transatlantic lines of communication. Since then, the command has gradually grown from its modest beginnings, and was activated by the North Atlantic Council in July 2019 as an International Military Headquarters. Joint Force Command Norfolk will increase NATO's readiness across the North Atlantic and High North, strengthen the transatlantic bonds with Allies and Partners, and ultimately deter aggression from any potential adversaries.

The Fourth Battle of the Atlantic TTX is one of the ways NATO is strengthening its presence in the North Atlantic, which was reduced at the end of the Cold War as threats subsided. The exercise helped to develop staff expertise within JFC Norfolk's operating area, improve interoperability and coordination, and increase overall NATO capability as Joint Force Command Norfolk continues to build toward Full Operational Capability.

NWDC develops and integrates innovative solutions to complex naval warfare challenges to enhance current and future warfighting capabilities. Command professionals are focused on operational-level concept generation, warfighting development, and cross-domain integration to strengthen U.S. Navy warfighting.

U.S. 2nd Fleet exercises operational and administrative authorities over assigned ships aircraft and landing forces on the East Coast and the North Atlantic and will be closely integrated with JFCNF.⁷

The Evolution of a Startup Command: Second Fleet and the 4th Battle of the Atlantic

3/21/21

As the Commander of 2nd Fleet and of JFC Norfolk put it in a recent article in *The Proceedings*:

⁷ https://www.dvidshub.net/news/373268/trans-atlantic-leaders-gather-fourth-battle-atlantic-tabletop-exercise

"In response to Russia's military resurgence, the U.S. Navy reestablished Second Fleet (C2F) in 2018, and NATO's North Atlantic Council announced the formal activation of Joint Force Command Norfolk (JFCNF) in 2019. Both commands are headquartered in Norfolk, Virginia, and are led by a single U.S. commander. In October 2020, the NATO- accredited Combined Joint Operations from the Sea (CJOS) Center of Excellence was added. The focus of all three organizations is to ensure the strategic lines of communication across the Atlantic and through the Arctic remain secure and free.

"Great power competition will be driven by investments in gray matter as much as gray hulls. Adversary technology and weapons development are catching up to those of NATO. We must create an advantage through how we train and fight. As a fleet commander, I am tasked with the employment of naval forces, and as a joint force commander, with the employment of joint and multinational forces. As these commands continue to develop, we must focus on operational learning to assess our own strengths and weaknesses and to understand the competition and the battlespace in which we will operate.

"For example, in July, Navy Warfare Development Command facilitated the Fourth Battle of the Atlantic tabletop discussion, which presented U.S. and allied commanders from both sides of the Atlantic with vignettes to address command relationships, resources, mission priorities, and authorities. Insights derived from the exercise are creating a shared understanding of the maritime security environment in the Atlantic and Arctic among all participants and will help to define JFCNF's role as the command matures.

"Both JFCNF and C2F are shifting their mind-sets from predominantly operating from the sea to fighting at sea—which requires mastery of the domains below, on, and above the sea. We are executing high-end maritime operations from seabed to space.

"Our collective security and interconnected global economy depend on open shipping lanes, unhindered air travel, and uninterrupted flow of data. While C2F is a maritime operational command focused on Atlantic operations, JFCNF's mission is joint and combined—requiring close coordination across all domains, with cooperation among various national and allied commands in the region. With a shared commander, mission, and geography, C2F and JFCNF are natural partners—each advocating for the other and working in unison."

What might not be clear to the casual observer is that both commands are startup commands generated by a core leadership team taking a fresh look at the geography, the technology, the effective forces operated by the relevant nations in the region, and the nature of the Russian, not the Soviet, challenge to the region and to the United States.

We have both had the opportunity to work for innovative leaders and leadership teams in the past, although never as often as one would like., and we indeed did so for the same leader, USAF Secretary Mike Wynne, at one point in our careers.

And visiting the two commands, it was very clear that we were in the presence of both innovative leadership and an innovative command. And given the central importance of dealing with the Russian challenge and to reworking the forces to craft a distributed integrated force, clearly re-thinking the questions and the answers to those questions are crucial. This is not your father's 2nd Fleet, nor your

⁸ Vice Admiral Andrew Lewis, "Strengthen the Trans-Atlantic Alliance," *Proceedings* (March 2021).

grandfather's NATO. But because the names are the same, one could clearly miss the scope and quality of the innovation being driven from Norfolk but seen through the distributed force.

In our meeting with Captain David Thames, the 2nd Fleet Chaplin Chaplain, we were provided with the key command brief during our visit. Captain Thames is a very impressive man with several decades of experience in and working with the U.S. military. He is a former U.S. Army armored cavalry officer and served with the Marines including the Al-Fallujah battle, in the Middle East land wars. He was one of the original seven people who stood up the command in 2018. And if one factors in the COVID-19 disruption, the command has had to do a lot in a very short period of time, and one characterized as well by the pandemic disruption.

This is a crisis management command, and as such, supports efforts to deal with challenges throughout the region, including those identified associated what Department of Homeland Security S and Northcom deal with.

Captain Thames was assigned as the liaison officer to work with the Navy's hospital ship, USNS Comfort, working in New York during the COVID-19 crisis and demonstrated real crisis management leadership on site. We will deal with this aspect of the 2nd Fleet in a separate story. In this piece, we will focus on our discussion with the Captain of the standup and evolution of 2nd Fleet from its first days.

Captain Thames told us that in the 2018 beginning of the command, there were seven people, of whom he was one. "Everybody was involved in what felt like a tech startup. It was challenging but with a significant sense of being a band of brothers and sisters. Vice Admiral Lewis clearly was not focused on establishing an existing model, but upon shaping something new.

"The focus that first year was to bring in new personnel to work with the envisaged approach which was a cross-specialty command, and not one built around a stove-piped and large N-code or Napoleonic structure. We were faced quickly with the challenge of working BALTOPS-19 and the officer assigned to that certainly did not come from the expeditionary warfare community.

"The Admiral has focused from the outset on the maritime headquarters' operating as a weapon system, rather than being focused on force generation management. His focus has been upon warfighting and operations from the outset.

"He wanted the maritime headquarters weapon system to be able to pick up and go where it needed to go in order to deliver effective command and control."

Captain Thames emphasized that Vice Admiral Lewis has been focused from the startup process on three key dynamics: People, Platforms and Partnerships, or the three Ps. By the people side, Lewis has not sought to hire a very large command team. It needs to be lean and agile, which will not happen with creation of many bureaucratic layers, with people managing people, and getting the flexible combat engagement approach lost in the shuffle.

According to Thames: "He really emphasized mental agility. "I want you to think outside of the box. I want you to find strange and unorthodox resources to pull information from." And a part of the personnel vetting process was, "Are you a little bit unorthodox?" This command does not live by the guidance of the last Power Point Slide."

"This was going to be a headquarters focused on the people and the skill sets that they bring, the experience they bring, the expertise they bring. And his intention has been to keep us from ossifying into a standard Napoleonic N-code structure and remain fluid enough to easily transition into the deployable Maritime Operations Center (MOC) which is a cross-functional team approach to ensuring that the maritime headquarters is a weapon system."

By platforms, he has focused on distributed C2 and how to integrate the force through distributed maritime operations concepts rather than top-down legacy C2 approaches. This obviously is a work in progress, but it is about what different platforms, both U.S. and allied, bring to the fight and how to get the best of synergy rather than aggregation. As Thames put it: "The platforms piece, referred not so much to ships, but to command-and-control structures. And these are platforms for command and control that could easily move, and that could operate in a dispersed fashion."

The final piece is partnerships. As Thames put it: "Vice Admiral Lewis knew and acted upon the knowledge that his commands were going to be an integrated partnership in order to be successful. The intent from the outset is to build a sense of allied partnership into the DNA of Second Fleet. In this context was born the germ of the idea to establish JFC in Norfolk and co-locate it with Second Fleet."

Put in other words, rather than highlighting fleet alignments, it is about integrated concepts of operations. According to Thames: "it was very important in his mind and his vision for us to conceive of ourselves as an integrated part of a partnership force, from the very start. We are not a go it alone organization."

This symbiotic relationship is at the heart of these startup commands; we hope that is effort continues to evolve, and acts as an incubator for other Navy commands going forward.

The Role of Allied Joint Force Command Norfolk in Atlantic Defense: The Perspective of its Deputy Commander

03/24/2021

When you visit 2nd Fleet and JFC Norfolk, you are acutely aware of the key role they play in working together to build out 21st century North Atlantic defense.

Vice Admiral Lewis is the head of both commands, and the two commands work closely together in shaping the kind of integrated distributed force crucial to 21st century warfighting and deterrence.

JFC Norfolk was created at the 2018 Brussels Summit as a new joint operational level command for the Atlantic. It reached an important milestone in September 2020 when it declared Initial Operational Capability.

JFC Norfolk is the only operational NATO command in North America and is closely integrated with the newly reactivated U.S. Second Fleet.

JFC reached its initial operating capability in September 2020.

As a NATO press release dated September 18, 2020 put it:

NATO's new Atlantic Command was declared operational in a ceremony in Norfolk, Virginia on Thursday (17 September 2020). Joint Force Command Norfolk, established to protect sea lanes between Europe and North America, is the first NATO headquarters dedicated to the Atlantic since 2003.

NATO Secretary General Jens Stoltenberg welcomed the milestone, saying: "NATO is a transatlantic Alliance, and the North Atlantic is vital for the security of Europe. Our new Atlantic Command will ensure crucial routes for reinforcements and supplies from North America to Europe remain secure."

Co-located with the U.S. Second Fleet, the Atlantic Command is led by U.S. Vice Admiral Andrew Lewis. It will provide coherent command arrangements for Allied forces, maintain situational awareness, conduct exercises, and draw up operational plans covering vast geographic areas, from the U.S. East Coast, past the Greenland-Iceland-U.K. gap and into the Arctic. Day-to-day NATO maritime operations will continue to be run out of Allied Maritime Command (MARCOM) in the United Kingdom.

NATO Defence Ministers decided in June 2018 to adapt the Alliance's command structure with a new Atlantic command in Norfolk, and a command for support and logistics in Ulm, Germany. Joint Force Command Norfolk joins NATO's two existing Joint Forces Commands, located in Brunssum, Netherlands, and Naples, Italy.

And after JFC became operational, an additional NATO capability was added to the command.

According to an October 1, 2020 C2F story:

Combined Joint Operations from the Sea Centre of Excellence (CJOS COE), a NATO-accredited, multi-national military think tank, transferred directorship from the deputy commander of U.S. Fleet Forces (USFF) Command to commander, U.S. 2ndFleet (C2F), Oct. 1.

The transition from Vice Adm. Dave Kriete, deputy commander, USFF, to Vice Adm. Andrew Lewis, who is commander, C2F, and dual-hatted as commander, Allied Joint Force Command Norfolk, will strengthen the relationship between CJOS COE and C2F, and build upon previously established networks at USFF.

Established in May 2006, CJOS COE represents 13 nations and is the only COE in the U.S. As one of 26 NATO-accredited centers worldwide, they represent a collective wealth of international experience, expertise, and best practices, critical to operations in the North Atlantic.

"By linking C2F, JFC Norfolk, and now CJOS COE, national and NATO commands will further align, catalyzing the development of modern warfighting capabilities in the North Atlantic, and increasing readiness across the joint force," said Lewis. "We must be postured to respond to existing multi-

domain threats tonight, yet make urgent efforts to adapt now to the new challenges of the security environment of tomorrow."

The realignment comes shortly after Joint Force Command Norfolk's initial operational capability ceremony on Sep. 17.

"The important partnership between the Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) and the United States Fleet Forces Command has been superb," said Kriete. "This key relationship will continue between CJOS COE and C2F and help ensure maritime security in the Atlantic."

U.S. 2nd Fleet, reestablished in 2018 in response to the changing global security environment, develops and employs maritime forces ready to fight across multiple domains in the Atlantic and Arctic in order to ensure access, deter aggression and defend U.S., allied, and partner interests.

"This more direct relationship between CJOS and C2F will enhance allied interoperability and further expand on CJOS COE's connections with U.S. commands assigned to train, operate, and deploy with NATO maritime forces, said Commodore Tom Guy, Royal Navy, deputy director of CJOS COE. "It is a logical and really welcome step as we collectively work to maintain our warfighting edge in the North Atlantic."

Vice Admiral Lewis noted at the time of JFC Norfolk reaching its IOC of how important the working relationship between C2F and JFC Norfolk was for shaping a comprehensive and integrated way ahead for Atlantic defense.

"This is the first command of its type within NATO," Lewis said. "It's the first command on the continent of North America that NATO has established in a long time."

While Lewis leads JFC Norfolk, he noted that his deputy commander is U.K. Royal Navy Rear Admiral Andrew Betton. The command also includes three one-star leadership positions held by one officer from Denmark, one from France, and one from Norway, Lewis said. JFC Norfolk's chief of staff will toggle between an officer from Spain and Germany. Meanwhile, Lewis' deputy for his 2nd Fleet command is Canadian Rear Admiral Steve Waddell.

"JFC Norfolk will make our lives stronger and help defend North America as well as Europe, by providing continued situational awareness across the North Atlantic, deterring aggression, and if necessary, rising to defend our shared values," Lewis said.

"We will aid [Supreme Allied Commander Europe] in developing — in achieving this 360-degree approach to the collective defense of the allies," he added. "We will both lead and contribute to NATO contingency planning, actively participate in multi-national exercises, and develop a high readiness capability to respond in the event of an emergency crisis."

In the next year, as it gears up for full operational capability by the conclusion of 2021, the command will focus on an array of assignments from Supreme Allied Commander Europe, which Lewis said will include planning for different types of exercises.

Specifically, JFC Norfolk will strategize for and participate in a NATO exercise called Steadfast Defender that is slated to take place this summer.

"There's parts of that in the lead-up to the actual live exercise that will flex the tasking that we need to have to be able to declare full operational [capability]," Lewis said of the exercise.

Betton described Steadfast Defender as an exercise focused on moving forces across the Atlantic Ocean to continental Europe, as the United States and its allies might have to do in the event of a real-world emergency.

"For JFC Norfolk, it is also a key training opportunity for the team here in the headquarters so we can identify our shortfalls, address those, and ensure that we are ready to declare full operational capability later in the year," Betton said. "So it's a multi-faceted thing."

NATO established JFC Norfolk in July 2019, a little over one year after the United States reestablished 2nd Fleet as the Pentagon recalculated its strategy due to Russia's increased activity in the North Atlantic.

Lewis said NATO has authorized both a new strategy and an execution of that strategy, known as "Deterrence and Defense of the Euro-Atlantic Region." But the specifics of the strategy are under classification, according to Lewis.

"We're in . . . lockstep right now in planning toward implementation of that strategy and what that operational concept looks like," Lewis said. "In fact, there's a commander's conference in about a week and a half's time and that's the main topic of the commander's conference. And we have submitted our approach to that from this command already."

A very good piece by Dave Ress published by *The Daily Press* on November 12, 2020 provides an overview of how Vice Admiral Lewis and his JFC Norfolk deputy look at the way ahead.

"Joint Force Command Norfolk brings the North Atlantic back to NATO," Lewis said. "Our space goes from Florida to Finnmark, from the sea bed to satellites in space. ... In essence, it is what draws the continents together"

That North Atlantic focus marks a shift from NATO's traditional land-centered defense of the European continent. "The trans-Atlantic bridge is vital ... it connects all the members of the alliance in North America and Europe." said Joint Force deputy commander, British Rear Adm. Andrew Betton. "What links us all is lying on the bottom of the ocean" he said, referring to the cables that telecommunications and Internet services depend on.

In a sense, the two admirals say, Joint Force Command is responsible for operations in what more and more strategists are calling the Fourth Battle of the Atlantic. The first, in World War I, pitted two relatively new types of ships — submarines and destroyers — the first of which was trying to sink ships bring material and troops to Europe, the second, aiming to protect those troops and goods. The second Battle of the Atlantic, in World War II, introduced widespread use of naval aircraft. The third, during the Cold War, mainly brought NATO and Soviet submarines into confrontation. The fourth, the

admirals say, will introduce new domains to defend, including satellites and cyber threats, as well as threats to shipping and commerce that were the main focus of the first two battles and the submarine threats that dominated the third.

The challenges of the North Atlantic are unlike those of other seas, Lewis said. "Right now, we've got a hurricane off Key West, ice floes moving fast in the north," Lewis said. "Up in the High Arctic, with ship communications, we've got some physics to think about with satellites, we need to think about line of sight communications ... these are dangerous waters."

The experiences of his colleagues from other nations matter. "The Norwegians are operating all the time up in the Arctic; so is Iceland and Canada," Lewis said. The British and French have experience with carriers and submarines and with operating them in tandem with the U.S. Navy's own.

Other navies bring experience in local waters and with smaller ships, deputy commander Betton said, and while "most of our domain is wet, so most of our people are naval" the command includes air force. marine and army personnel from several nations.

As an operational command, Joint Force has to go beyond looking at the the logistics of moving troops and gear to thinking of what needs to to defended, what threats are there, and how to be sure warfighting resources of the 30 different nations in NATO can be called on to get there and how they will coordinate. "Our job is to say what needs to happen; tactical commands figure out which ships and which soldiers need to be where and do what for that," Betton said.

The fast-moving command doubled in size over the summer, with a staff that now numbers 88 and will reach 144 when it reaches full capability next year. Its assignment is to create coherent command arrangements for Allied forces, maintain situational awareness, conduct exercises, and draw up operational plans, NATO says.

The command is already working on planning for NATO's big Steadfast Defender 2021 exercise, which will involve tens of thousands of thousands of troops deploying to several different training spanning Europe.

Joint Force is NATO's third, geography-defined joint force operation command — and the third NATO unit in Hampton Roads, along with the strategists of Allied Command Transformation and the Combined Joint Operations of the Sea Centre of Excellence. "It's really important that Norfolk is NATO's home in North America; that's something I hope people in Hampton Roads will see," Lewis said.



Figure 3 Royal Navy Rear Adm. A. Betton, Deputy Commander, JFCNF, (left) and U.S. Vice Adm. A. Lewis, Commander, JFCNF at JFCNF's Initial Operational Capability ceremony at Naval Support Activity (NSA) Hampton Roads, Virginia – Photo Petty Off. 1st Cl. Th. Green

We had a chance to visit with Rear Admiral Betton during our March 2021 visit to Norfolk.

Laird had already met with and interviewed Betton when he was the Commander of the UK Carrier Strike Group, centered around large deck aircraft carrier, HMS Queen Elizabeth. I

t is notable that Betton comes to this command as part of the Royal Navy's significant reworking due to the impact of the new carrier and its onboard F-35s. The Queen Elizabeth class is the only carrier built around the F-35 and for the Brits, it also drives integration between the RAF and the Royal Navy.

Notably, the head of carrier air integration in the MOD is now head of the <u>new UK space</u> <u>command</u> which is clearly suggestive of how the Brits are looking at the way ahead to multi-domain force integration.

The sense we had from the C2F staff of the excitement of working a startup command and innovating from the ground up was underscored as well by Rear Admiral Betton with regard to his command.

"Coming here 18 months ago has been a really exciting professional opportunity, and genuinely a pleasure to have another run at setting up a team pretty much from scratch. The Second Fleet team was well on the way by the time I got here, but the NATO team was just about at conception, but not much beyond that."

The geography and three-dimensional operational space of the NATO zone of responsibility is very wide indeed.

As Betton put it: "SACEUR's area of responsibility, goes all the way from the Yucatan peninsula in the Gulf of Mexico to the North Pole. I've always loved the phrase from Finnmark to Florida, or Florida to Finnmark. But it is also important to realize all domain challenges and threats that we face. It's everything from seabed infrastructure, through the sub sea water column, the surface, the airspace above it, and up into the satellite constellation above that."

As the former commander of the Queen Elizabeth Strike Group, Rear Admiral Betton is very familiar with the coming of the F-35 as an allied capability to Atlantic defense. The USMC has been a key partner of the UK as the Brits have stood up their F-35B capability afloat, have integrated with the British carrier in the North Atlantic and have generated with the new aircraft, new ways to integrate USMC-Naval forces.

Betton also noted that first the Italians and now the Norwegians have brought their F-35s to conduct air patrols from Iceland. Indeed, one could note that the F-35 capability operational today in the North Atlantic is indeed largely allied or put another way, the most advanced combat airpower in the region is provided by the allies.



Figure 4 Royal Navy Cdre. Andrew Betton, commander of the U.K. Carrier Strike Group, meets with leaders of Marine Fighter Attack Squadron (VMFA) 121 at Marine Corps Air Station Iwakuni, Japan, Jan. 25, 2017. The VMFA-121 leaders informed Betton about the air sta

We also discussed the importance of innovation in the maritime domain awareness NATO community as well. The <u>Brits preserved their ASW skill sets</u> after having cancelled Nimrod and in anticipation of adding the P-8, which is being deployed from RAF Lossiemouth in Scotland, where there are P-8 facilities for allies as well. The Norwegians are operating P-8s as well. With P-8s and the U.S. Navy operating Triton which operates <u>in an orbital cycle</u> complementary to the sortic generation approach of the P-8s, there is a continuous belt of ASW and anti-surface fleet information being provided for the US and allied forces in the North Atlantic.

These new capabilities have their most important impact in supporting rapid decision-making cycles. The C2F focus on reworking C2 to provide for effective mission command and distributed operations is a key effort for JFC Norfolk as well. And the two staffs work interactively on shaping a way ahead in the crucial C2 domain.

In the recent book by Laird and Delaporte on the <u>return of direct defense in Europe</u>, we highlighted the key importance of "clusters" of key states working specifically on tailored defense tasks, rather than simply considering the Alliance as whole. For Rear Admiral Betton, our notion of the operational clusters of the coalition of the willing is better understood as the operational cluster of the relevant nations.

And there is certainly no greater example of this than the Europeans focused on North Atlantic defense, with the new carrier operational groups for the UK, and enhanced Nordic collaboration in the region.

As Betton put it: "The U.S. is by far the dominant figure of NATO, but it's not the only piece. And it's not always just the heavy metal that is relevant. It's the connectivity, it's the infrastructure and the architecture that enables the 30 nations of NATO to get so much more than the sum of the parts out of their combined effort. But it's particularly the relevant nations in the operational area and their ability to work together which is an important consideration."

The Rear Admiral underscored the importance of the only operational NATO command on U.S. soil. "The idea of integrating it with the second fleet headquarters under a dual hatted command was a fantastic move because it emphasizes bluntly to Europe that the U.S. is fully committed to NATO. It's not NATO and the U.S., the U.S. is part of NATO. And having an operational headquarters here in CONUS really emphasizes that point in both directions."

He noted that there are 16 nations at the command currently with three more arriving in the next few months, namely, Portugal, the Netherlands and Bulgaria. It is crucial to shape a better understanding of how central the air-maritime is to NATO defense with the more historical memory of the European landmass as the former epicenter of NATO defense in the Soviet period and with the geographical encirclement which the Warsaw Pact provided against the West European fragment of Europe.

And reworking how to do the most effective defense is also a work in progress.

As Rear Admiral Betton put it: "One of the key efforts we are pursuing in this integrated command is not just stitching together NATO and U.S. assets, but it's also stitching together teams within teams. It could be the U.S. cooperating with Norway, Sweden, and Finland, with Admiral Lewis commanding a multinational command.

"And a crisis might grow and evolve into something that the North Atlantic Council agree to respond to and therefore activate the JFC to command in a NATO sense.

"But because the Commander has that flexibility to go from a unilateral U.S. only under second fleet, through a growing coalition, there's the opportunity to coordinate activity with a whole diverse range of entities before it becomes a formal NATO response."

It is clear that agility and scalability are a key part of the way ahead for 21st century full spectrum crisis management. And the JFC working in an integrated manner with C2F certainly is working such capabilities. This is a case of startup fleets working core capabilities which are clearly needed across the combat force.

This is why what is happening in Norfolk is certainly of strategic impact and significance.

The Nordics and North Atlantic Defense: Their Key Role in Allied JFC Norfolk

03/26/2021

The standup of C2F and Allied JFC Norfolk has occurred as allies are significantly reworking their approaches to deterrence and warfighting in the North Atlantic at the same time. It is the blend of the U.S. efforts with those of the allies which is shaping a 21st century approach to integrated defense in support of Western interests.

While the United States has significant elements of the Western defense forces to bring to bear, allies are key players in reshaping North Atlantic defense as well. This is in terms of force modernization, local knowledge and, certainly, in the case of the Nordics a profound understanding of how both to work with the Russians as well as the need to take them very seriously as an authoritarian threat to their neighborhood.

For the Nordics, the Russians are a very close Naval and Air Force in being. In naval warfare, a "fleet in being" is a naval force that extends a controlling influence without ever leaving port. A "fleet in being" can be part of a sea denial doctrine, but not one of sea control.

During our visit to Norfolk in March 2021, we had a chance to talk with RDML Staale Pedersen, head of Allied JFC Norfolk, Operations.[1] The RADML is an experienced maritime officer who has been in the Norwegian Navy since 1985. He has had one FFG command, with three different ships but with the same crew. He has done eight Stanavforlant/SNMG 1 tours with NATO. Four of these tours included operations, including counter piracy and counter terrorism. Of those four operations, he was CO on two of them. He has extensive experience at the Norwegian Joint HQ as well was head of future operations, submarine operations and ASW. His sea fairing domain knowledge is formidable, and he brings that hard earned experience to play in the efforts of both C2F and JFC Norfolk.

As he put it: "When you look at the Western navies operating in the Atlantic, you see several blue dots on the ocean. Our task is to ensure that those blue dots are aware of what each of them is doing and to bring them into a more integrated operational force."

He sees this as crucial for deterrence, and if necessary, warfighting to ensure U.S. and Allied integrated balance in the region. For the Norwegians, there is clear concern with the threat of Russian coercion, but also significant understanding that Russia is a neighbor important to work through a number of key shared challenges as well.

This question of balance was put very well in an interview done in 2017 in Norway with the head of security policy in the Norwegian Department of Defence.

As Keith Eikenes, Director, Department for Security Policy and Operations in the Ministry of Defence of Norway, put it:

"Our policy is to engage with Russia where it's possible, and we do have examples of pragmatic good cooperation that we've had historically, and in some areas, that it's still ongoing. For example, we cooperate on safety incidents at sea, and on fisheries with regard to common management, and cooperation. We also have border guard cooperation, so there are certainly areas where we can have a pragmatic cooperation as well."

He made this point after underscoring the change which he saw over the past three years, that is from 2014 through 2017. "When I was in Washington, we were primarily focused on out of area operations, counter insurgency and counter terrorism.

Now with the Crimean crisis and the modernization of Russian forces, questions of national defense and protecting the North Atlantic have returned to the fore.

We are seeing a Russia that is becoming less predictable, more assertive about its interests, and also, undergoing a fundamental military in modernization, which makes it far more militarily capable than it was. And indeed, Russia is modernizing more rapidly than many anticipated.

And those new capabilities are being joined to a growing debate about sea control and sea denial strategy."

The sense of balance suggested by Eikenes profoundly came through in our discussion with the Norwegian Admiral. He saw the standup of the two commands in Norfolk as a crucial step forward in working integration, and in his time there, welcomed the kind of subject expertise resident in C2F being made available to JFC Norfolk. He was focused on JFC Norfolk build up to deliver the kind of integrated force capabilities required for operational deterrence.

In particular, he noted that the Norwegians, the British and the Danes were enhancing national maritime domain awareness operations and saw an very important role for JFC Norfolk in working a more integrated joint surveillance operational approach.

The Admiral was very much focused on concrete effects which current forces can create and developing ways to enhance what extant forces can do together. He saw the standing up of an operational NATO command on U.S. territory as an important contributor to shaping better understanding on the U.S. side of what allies bring specifically to the operational capabilities in Atlantic operations.

"We are focused on joint effectiveness; we are pioneers in this process and the two commands working this is a key driver for the right kind of change."

We have significant respect for our Nordic colleagues, and in the joint book by Laird and Delaporte, a significant part of the book focuses on their renewed defense efforts since 2014. And we both attended a unique symposium in Copenhagen in 2015 which certainly highlighted one Nordic country's way ahead with regard to modernization, but clearly in the alliance context.

On April 17, 2015, a joint symposium on the evolution of airpower was co-sponsored by The Sir Richard Williams Foundation (Australia) and the Centre for Military Studies of the Department of Political Science of the University of Copenhagen. Both organizations are partners with Second Line of Defense.

This was <u>an unusual conference</u> given that it launched an Australian effort to broaden the working relationship with non-Asian partners in shaping new approaches to airpower and was, in turn, the beginning of a broader intellectual outreach by the Danish Centre as well.

While 21st Century Technology Training and Tactics were being discussed in Copenhagen, it was important to have a moment of historic humility as well.

Earlier Viking heroic nautical efforts are still being honored with original long boats displayed in a famous Danish museum. Fortunately, because of the nature of cold-water preserving wood the Danes have a brilliant museum paying homage to the undaunted nautical courage of all Nordic countries. The epic Viking heritage begin a thousand years ago. Open Viking "long boats" challenged the North Atlantic and ultimately around to the Mediterranean. To see the exact size of their vessels is amazing in contemplating the courage it took to challenge sea states of the North Atlantic.

Taking a Viking fleet across the North Atlantic to Iceland, Greenland and ultimately North America was a legendary and courageous naval endeavor. And today the geography of the ocean that Vikings crossed is still of huge strategic importance. Fast forward to the 21st Century and make no mistake 2nd Fleet commanders know the importance of the geography of their area of operations in protecting strategic sea commerce both east west and with the opening of Artic passages, north and south.

In short, the Nordics have much to contribute to better U.S. understanding of the evolving challenges from the High North and the expanded Atlantic defense geography.

Featured photo: NORFOLK (Feb. 20, 2020) Vice Adm. Andrew Lewis, Commander, U.S. Second Fleet, met with Rear Adm. Nils Andreas Stensønes, Chief of the Royal Norwegian Navy, during a visit to Norfolk, Feb. 20. U.S. 2nd Fleet's mission is to develop and employ maritime forces across multiple domains in the Atlantic and Arctic in order to ensure access, deter aggression and defend U.S., allied and partner interests.(U.S. Navy photo by Mass Communication Specialist 2nd Class Joshua M. Tolber

This story was published by C2F on <u>February 21, 2020</u> with regard to the visit of a senior Norwegian delegation to the fleet:

A Norwegian delegation of military officers, led by Rear Adm. Nils Andreas Stensønes, Chief of the Royal Norwegian Navy, held a key-leader engagement with U.S. 2nd Fleet and Joint Force Command Norfolk leaders aboard Naval Support Activity Hampton Roads, Feb. 20, 2020.

The Norwegian delegation participated in bilateral multilevel discussions with Vice Adm. Andrew Lewis, Commander Joint Force Command Norfolk and U.S. 2nd Fleet, as well Rear Adm. Andrew Betton, Deputy Commander, Joint Force Command Norfolk and Rear Adm. Steve Waddell, Vice

Commander, U.S. 2nd Fleet, to discuss areas for cooperation as the two navies continue to enhance integration and cooperation.

"Our relationship with Norway is critical to naval operations," said Lewis. "Norway is a key maritime partner and by working together, we will surely improve maritime security and prosperity while strengthening the relationship between our navies. Our meeting today provided an important opportunity for us to solidify our foundation and align our focus on shared interests in support of a stable maritime environment."

International partnerships run deep within the makeup of 2nd Fleet. As the U.S. Navy's newest Fleet, 2nd Fleet leverages the diversity of thought that comes with the integration of allies and partners.

These partners not only serve in an advisory role, they integrate into senior-staff level positions. Currently, 2nd Fleet has officers from Canada, France, the United Kingdom, and Norway, holding positions as fleet planners, logisticians, and operators.

"Having perspectives from other nations is invaluable and provides immeasurable insight and expertise," said Lewis. "With them, they bring knowledge from their own naval experiences, and they help bridge the gaps in our own understanding while strengthening the relationships that are central to mission accomplishment."

C2F exercises operational and administrative authorities over assigned ships, aircraft, and landing forces on the East Coast and the Atlantic. When directed, C2F conducts exercises and operations within the U.S. European Command AOR as an expeditionary fleet, providing NAVEUR an additional maneuver arm to operate forces dynamically in theater.

<u>Note:</u> In U.S terms, RDML Staale Pedersen is a one-star Admiral but in Norway as in the UK, he is identified as Commodore (CDRE).

21st Century USW: A Kill Web Team Sport

03/28/2021

Last Fall, 2nd Fleet hosted the 2020 version of Black Widow, an Atlantic-focused USW exercise.

But to be completely accurate, although the term ASW is most commonly used, what we are discussing is undersea warfare. USW is an integrated fight against all undersea threats, with submarines being a key, but not the only threat. ASW is part of USW.

As one Naval officer put it: "When we tend to discuss an integrated fight, we try to use the term USW, but when we are specifically hunting for just a submarine, ASW is the correct term."

This is not classic USW, but one in which new capabilities are being woven into shaping a 21st century version of USW to deal with a 21st century threat posed from the sea. USW is becoming reshaped by

the interactive kill web approach of multi-domain assets focused on a core warfighting capability and set of relevant skill sets.

U.S. Navy aircraft, surface ships and submarines will participate in <u>Exercise Black Widow 2020</u> in the North Atlantic Sept. 12-18.

During Exercise Black Widow our Fleet warfighters employ, hone, and evaluate tactics, techniques, and procedures to enhance our readiness for real world operations, with specific focus on advancing our theater undersea warfare advantage in a multi-domain environment. This exercise will allow us to develop new doctrine and innovative tactics that address the capabilities of our near-peer competitors across the range of missions we expect to encounter in major combat operations.

This year's participants include the amphibious assault ship USS Wasp (LHD 1), the Arleigh Burke-class guided-missile destroyers USS Arleigh Burke (DDG 51) and USS McFaul (DDG 74), a Virginia-class fast-attack submarine, a Los-Angeles class fast-attack submarine, Patrol and Reconnaissance Wing 11, and Helicopter Maritime Strike Squadrons 46 and 72.

This marks the first time U.S. 2nd Fleet (C2F) and Commander, Submarine Group (SUBGRU) 2 will lead the force.

"The reestablishment of Submarine Group 2 enables the Navy and our Allies to finely tune our efforts in this resurgent battlespace, and reinforces the critical trans-Atlantic link," said Vice Adm. Andrew Lewis, Commander, U.S. 2nd Fleet. "Exercises like Black Widow give the undersea force a venue to showcase how we are agile, persistent, flexible, interoperable, and resilient."

Participating units will refine communication techniques between platforms and simulate real-word application to enhance the lethality of the team as one cohesive fighting force. Black Widow also provides a chance for an increased focus on training in anti-submarine warfare on multiple platforms to enhance strategies and heighten the combat readiness of the fleet.

Vice Adm. Daryl L. Caudle, Commander, Submarine Forces. "We train like we fight, and strive for innovation, development, and improvement across all spectrums of warfare. To maintain superiority, we must be more agile in concepts, geography and technology."

We had a chance to get further insights into the evolving "team sport," from Rear Admiral Jim Waters, Commander Submarine Group Two (SUBGRU2) during our visit to Norfolk in March 2021. The Admiral has a distinguished career with significant operational experience in both the Pacific and the Atlantic.

When <u>SUBGRU2</u> celebrated its first anniversary of its establishment in September 2020, the Commander was quoted in a story published by the command on September 30, 2020.

Submarine Group 2 (SUBGRU 2) celebrated its first anniversary after reestablishment on Sept. 30, 2019. SUBGRU 2 was reestablished a little more than a year after the reestablishment of U.S. 2nd Fleet in August 2018, and was aimed at enhancing the Navy's capacity to command and control its undersea warfare (USW) forces in the Western Atlantic.

Rear Adm. Jim Waters, SUBGRU 2 commander and Ellington, Connecticut native, highlighted the importance of reestablishing the command.

"We are tasked with advancing the art of undersea warfare through the combined efforts of our air, surface, submarine, and other underwater capabilities and to provide exquisitely trained forces to ensure undersea dominance in the Atlantic...I am honored to be a part of developing and leading this command into the future of integrated undersea warfare."

SUBGRU 2 serves as the Theater Undersea Warfare Commander (TUSWC) for 2nd Fleet and 4th Fleet in response to increasing near-peer competition in the Atlantic. SUBGRU 2 has the authority to command and control air, surface, and undersea forces to execute integrated multi-domain undersea operations in defense of the homeland.

In our discussion, a number of themes emerged and what clearly was especially hammered home was a significant focus on innovation in working a wide variety of platforms to deliver the desired combat effect.

In fact, the Rear Admiral underscored that for Vice Admiral Lewis, many Navy platforms maybe considered an USW platform since they all have the ability to see, to communicate, and as necessary provide weapons as contributors to what is now known as the USW Team Sport.

Clearly, the submarine remains the number one sub killer with weapons deployed for this purpose.

But with the expanded capability of surface and air-borne assets to find, track and kill submarines, the role of the underwater U.S. Navy force changes as well. It can be the cutting-edge stalker or killer or work through the kill web force to get the desired result. In fact, having a wider range of options for prosecution and destruction of adversary submarines than in the past is a key element for 21st century maritime operations and warfare.

Over the past few years in interviews with aviators in the transformed Maritime Patrol community with the P-8 and the Triton., along with a more focused integration of the Romeo helicopters we saw the U.S. Navy reshape airborne forces working together to deliver a desired kill web combat effect. Along that journey we saw the establishment of fleet level Maritime ISR (MISR) officers reflect the importance of the Information (note we are calling it "I" for Information vice Intelligence), Surveillance and Reconnaissance capability availability for maritime warfare, including ASW in particular.



Figure 5 ATLANTIC OCEAN (Sept. 13, 2020) Capt. Kevin Zayac, executive officer of the amphibious assault ship USS Wasp (LHD1), sits at the controls of an MH-60R Seahawk helicopter in preparation for takeoff.

Command guidance reflected in what is known as the "Commanders Intent" side of this effort is the key focus of Vice Admiral Lewis and is clearly seen in the work of Submarine Group 2. Mission command is crucial and Command guidance intent is clearly distributed to the fleet to shape and task forces that can deliver the desired combat effect.

Obviously, how communications and how ISR is shared between an undersea, surface and airborne force varies in terms of operating theaters and is a challenge; working interactivity across the domains is a key part of exercising an ASW team approach.

Rethinking how to use platforms is an essential part of the process because the U.S. Navy can practice like Black Widow demonstrated, employing amphibious platforms as part of sea control and sea denial. In Black Widow 2020, they did so in the form of the USS WASP.

The WASP was used as an ASW helo platforms, and the Rear Admiral underscored that the seaworthiness of the WASP and its deck space allowed for the team to use the Romeos operating off of the WASP to provide a key capability for the integrated fight.

Another driver for change in USW operations in the Atlantic is clearly new capabilities being operated by our allies, whether they be new diesel submarines or nuclear attack submarines in the case of the French and British, or new USW frigates, or new maritime patrol aircraft capabilities, whether they be the new P-8s as in the case of Britain or Norway, or new capabilities on older aircraft, as in the case of Canada.

As <u>Rear Admiral Garvin</u>, then the MPRA commander, put it last year; "In effect, we are shaping kill web "matesmanship."

"Our policy frameworks simply need to catch up with our technologies."

"Our allies understand the fundamental nature of their region better than we do.

"If you have properly maintained these important working relationships, both interpersonal and technological, then you will have access to the cultural knowledge and human geography that might otherwise would not be available to you.

"We clearly have closer relationships with some allies than with others, which shapes policy and data sharing. However, the technology is now out there which can allow us, within the right policy framework, to provide data at appropriate security levels much more rapidly than in the past.

"Those partnerships need to be nurtured and exercised now to help shape our interactive webs into a truly effective strike force over the extended battlespace."

Rear Admiral Waters certainly reinforced this point, as in the Atlantic, we have a number of key partners who work ASW and anti-surface warfare as a core competence for their national navies, and their domain knowledge is a key part of the equation in shaping enhanced warfighting capabilities and re-enforcing deterrence.

"Because of the complexity of the underwater domain, it is necessarily a team sport. There are people that would love to say, "It's the submarines. And they do ASW and that's what they do."

"And certainly, it's a major mission for the submarine force. But the threat is so complex, and the environment is so challenging, that you can't rely on one particular platform to do this mission.

"We as a navy have evolved a very robust structure of training and assessing and preparing and innovating. We're really good at carrier-centric integration.

"But our ability to integrate a non-carrier-centric force, like a theater undersea warfare task force, needs to be enhanced. And that was what Black Widow represented. We operated as a fleet or a task force to deliver the desired combat effect."

Finally, there is the question of the coming of maritime autonomous systems and how they might fit into the concepts of operations which the Rear Admiral is shaping and executing.

Recently, the Navy released its plan for developing and then integrating maritime autonomous systems into the force.

Clearly, one domain where this may well happen is in the ISR side of providing information for both ASW and anti-surface warfare. The promise is there, but also the question of the readiness of the networks to handle data and where that data will go remains a work in progress.

This is how Rear Admiral Waters put it: "Unmanned systems will play an important role in the future.

"The fact that they can dwell for long periods, and we don't have to worry about feeding the people on board, will provide an important contribution in the undersea warfare area.

"Unmanned systems have the ability to stare for a long time and if you could put a platform out there that can either stay in the air a really long time or stay in the environment with acoustic sensors for a really long time, that gives you the ability to sense the environment.

"The challenge comes with regard to how what information you have gathered becomes useful.

"We have to have the place where they plug in, and how to use that information in the area of interest?"

It is clear that the undersea domain which is the focus of attention of Rear Admiral Walters is best understood not only in terms of its own dynamic, but how it interacts with the threats and challenges across the multi-domain theater of operations which C2F and Allied JFC Norfolk focus upon.

As <u>Vice Admiral Lewis</u> noted the change in his March 2021 *Proceedings* article:

"Both JFCNF and C2F are shifting their mind-sets from predominantly operating from the sea to fighting at sea—which requires mastery of the domains below, on, and above the sea. We are executing high-end maritime operations from seabed to space. Our collective security and interconnected global economy depend on open shipping lanes, unhindered air travel, and uninterrupted flow of data., C2F and JFCNF are natural partners—each advocating for the other and working in unison.

"Russia has increased its military posture during the past decade, to signal its ability to threaten allied capabilities, infrastructure, and territory. Russia has invested in capability versus capacity—it knows it will never have more ships, aircraft, or submarines than all of NATO—with an eye toward asymmetric capabilities. So, we carefully monitor Russian investments in force multipliers such as hypersonic weapons, submarine quieting, extended-range missile systems, and information warfare."

"Russia's activity in the gray zone notably includes its underwater reconnaissance program and information operations. In recent years, Russia intensified its submarine activity around the undersea cables, which are essential for global communications—including the internet. The ability of an American user to access a website in Europe or vice versa largely depends on a network of several hundred fiber-optic communication cables that run across the ocean floor—and Russia has deployed submarines to map out the cables, likely in preparation for nefarious activity."

In short, the undersea domain is a key field of action, where dominance is best ensured by having a 360-degree operational capability encompassing the surface, air and space domains.

Clearly, Rear Admiral Waters not only understands this, but is leading the way in shaping the kind of innovation crucial for the defense of the homeland and U.S. interests abroad.

Enhancing Coalition Combat Capability: The Role of Joint Force Command, Norfolk

03/31/2021

The standup of both Second Fleet in 2018 and Joint Force Command, Norfolk in 2019 have had very similar goals: how to enhance the combat capability of the entire allied maritime force in the North Atlantic? From this point of view, these are not two commands under Vice Admiral Lewis, to two interactive commands working a more effective distributed integrated force.

Post-2014, in the wake of the Crimean takeover, the United States and a number of core allied nations, reversed course on the Cold War peace dividend and engagement in the Middle East land wars and began to refocus on the challenges posed by the Russians with the return of direct defense challenges in Europe. And with it the need to rebuild North Atlantic 360-degree sea lines of communication was a key challenge.

This is how Rear Admiral Waddell, the Vice Commander of C2F has put the challenge:

"The old 2nd Fleet was interested in sea lines of communication. But the new 2nd Fleet is focused on strategic lines of communication. This is an all-domain perspective, and not just the convoy missions of past battles of the Atlantic."

He referred to C2F as the maneuver arm in providing for defense, deterrence and warfighting but as part of a whole of government approach to defending the United States, Canada and NATO allies against threats.

What JFC Norfolk facilitates is more effective coordination of the relevant nation's responses to the new threat environment and to work ways to forge these efforts into a more integrated approach, one which enhances the lethality, survivability and effectiveness of the fleets involved in North Atlantic defense.

During our visit to Norfolk in March 2021, we had a chance to discuss JFC Norfolk with the head of plans in the command, Rear Admiral Hilaire Ducellier.

He is a very experienced naval officer with service in both the Pacific and the Atlantic/Mediterranean regions. He has commanded three ships throughout his career and the Maritime Operational Center for the Atlantic.

The French Navy is a somewhat unique asset within the European region, as it has operated full spectrum maritime operations throughout the Cold War and after, with carriers, boomers, nuclear attack submarines, maritime patrol aircraft and has a robust maritime strike missile capability as well. It is both a conventional and nuclear navy with its carriers carrying nuclear qualified Rafale pilots onboard as well.

It is also a navy which operates globally, as the recent operations of a nuclear attack submarine in the Pacific clearly demonstrates.

As <u>Murielle Delaporte</u> recently noted: "Because France has been itself a medium-sized Pacific power for more than two centuries, it feels directly threatened by the growing instability impacting its territories and communities, some of them in risk of vanishing because of climate change and consequent water rising. Strengthening strategic autonomy is also a shared concern, hence the well-known Rafale deal with India and submarine "deal of the century" with Australia.

"But military ties between France and its main allies in the Pacific go increasingly way beyond industrial partnerships towards more comprehensive operational relations between not only "likeminded" states, but also comparable military formats."

The planned <u>new nuclear aircraft carrier</u> underscores how closely the U.S. Navy and the French Navy work together to shape integrated capabilities.

And in a French presentation at the <u>International Fighter Conference</u>, <u>2020</u>, the role of the fleet in nuclear operations was also raised.

"The only mention of the nuclear dimension was during a discussion about the French aircraft carrier Charles De Gaulle and its approach to operations.

"Here the readiness in being during deployment to deliver nuclear strike by onboard Rafales was discussed.

"The French indeed have been the clearest among of the Western nuclear powers on the need for tactical air delivered strike and have continued their work, including modernization of weapons to indeed deliver this capability in their neighborhood as part of their deterrent posture."

As <u>Pierre Tran</u> has put it with regard to the most recent French defense budget and the nuclear weapons commitment: "The draft budget includes €1 billion of studies to develop the nuclear ballistic missile submarine, and a fourth generation nuclear-tipped, air-to-ground missile, the air-sol nucléaire 4ème génération (ASN4G) to replace the present nuclear-armed cruise missile, dubbed air-sol moyenne portée amélioré (ASMPA)."

And one should note that <u>the training</u> to execute an air delivered tactical nuclear mission, provides pilots with an overall understanding of a complex strike mission which then carried over into the capabilities to excel at non-nuclear strikes as well.

When one discusses defense in the North Atlantic, it is about full spectrum crisis management with three nuclear powers within the Alliance and the Russians who increasingly under President Putin has built up nuclear capabilities.

Shaping a distributed force provides for more effective capabilities across the spectrum of warfare.

But what a JFC Norfolk allows one to do is to more effectively coordinate national efforts into a coalition capability.

This is what Europeans routinely do, given the need to augment the size of national forces through force collaboration.

And by having JFC Norfolk working closely with the next C2F, the U.S. forces can work through how to have a more coordinated force with allies as part of a more integrated force with both European national and U.S. forces more capable of working together.

Rear Admiral Ducellier highlighted that France is focused on coalition operations with its maritime force throughout the Cold War, into the period up to 2014, and into the post-2014 period. And the new JFC is not replicating what is being done in Naples.

"We are a lean command. You are not going to do with a 150 in our command what you can do with 1,000 in Naples."

It occurred to us that in learning about C2F and the JFC Norfolk, that keeping it lean and focused on coalition warfighting there is a huge opportunity to leverage the modernization efforts of the United States and the relevant nations to sort through how to make best use of one another's capabilities, through coalition exercises and cross learning, rather than shaping a large top-down bureaucratic effort.

Rear Admiral Ducellier highlighted that the coalition approach through a connected C2 structure provides for significant flexibility on how the key aspects of the force can work creatively together.

"Rather than characterizing platforms as primarily a supporting or supported capability, we are seeing much more flexibility whereby a platform can play a role as either a supporting or supported capability dependent on the mission."

Distributed modular task forces can provide redundancy, flexibility, and enhanced survivability for the overall combat fleet.

Clearly, the approaches being pioneered by C2F and JFC Norfolk can provide a significant impact to rethinking C2 and distributed combat capability through coalition integration in the period ahead.

Featured Photo: One of the ships commanded by Rear Admiral Ducellier was the French frigate Tourville which is seen in the featured photo.

"Tourville is the lead ship of F67 type large high-sea frigates of the French Marine Nationale. The vessel is specialized in anti-submarine warfare, though it also has anti-air and anti-surface capabilities. She is named after the 17th century admiral Count Anne-Hilarion de Cotentin de Tourville. Between 1994 and 1996, Tourville (and sister ship De Grasse) was refitted with the modern SLAMS anti-submarine system, an active Very Low Frequencies sonar."

The French certainly are no strangers to the Virginia coast with one of their most famous engagements being in support of the Americans in the <u>Battle of Yorktown</u> in the Revolutionary War.

The sister ship is named for French Admiral Francois Joseph Paul, Marquis de Grasse.

French Admiral Francois Joseph Paul, Marquis de Grasse Tilly arrived in the West Indies with a French fleet in April 1781. He sent word to French General Comte de Rochambeau, in Newport, Rhode Island, that he was under orders to sail his fleet north to assist the French and the American armies. General George Washington hoped to use De Grasse's fleet and Rochambeau's army to assist the American army in an attack on the British at New York City. Rochambeau and Washington sent word to De Grasse that his fleet was desperately needed and that any troops and money that De Grasse could bring with the fleet would also be of great help. They suggested that De Grasse come to either New York City which Washington favored; or to the Chesapeake Bay to assist General Lafayette's American army opposing British General Cornwallis and his army that had recently moved into Virginia; a course of action favored by Rochambeau.

De Grasse decided to bring his fleet to the Chesapeake Bay because of the shorter sailing distance to it and it was more navigable than the New York harbor. In Santo Domingo, on the island of Hispaniola, (Dominican Republic), De Grasse loaded 3000 French troops from the Gatinais, Agenois and Touraine infantry regiments aboard his ships. He also raised 1.2 million livres (worth approximately 6 million US dollars today) in Havana, Cuba from the local government, banks and citizens to assist the American and French armies in America. On August 5, De Grasse set sail with his fleet of 37 ships including 28 ships-of-the-line, (large battleships), 7 frigates and 2 cutters, headed to the Chesapeake Bay. De Grasse took a dangerous route through the straits of the Bahamas to avoid the British fleets of Admiral George Rodney and Admiral Samuel Hood, who were protecting British interests and commerce in the West Indies.

When General Washington received news on August 14 that De Grasse was sailing to the Chesapeake Bay instead of New York, he quickly changed his plan. Four days later he began moving the American and French armies to Yorktown, Virginia to surround Cornwallis's army that had just two weeks earlier begun setting up a British naval base there, but the success of Washington's daring plan depended on De Grasses' fleet controlling the Chesapeake Bay.

The Alliance Aspect of Shaping the New Second Fleet: The Role of CJOS COE

04/04/2021

When 2^{nd} Fleet was stood up in 2018, it was not the case of it being re-established. It was an older name but was being stood up in a new historical and military context. It was being stood up in the context of the rise of 21^{st} century authoritarian challengers, an Alliance being reworked in the wake of the Crimean events in 2014, and in the context of shift from the land wars to reshaping the force to deal with those challengers.

It was also being shaped as new military capabilities were being generated both on the blue and red sides of the equation. It is a command which can leverage the practical capabilities which fifth generation aircraft operating in the UK and the Nordics can deliver as well.

It is an incubator of change with VADM Lewis as the dual hatted commander of 2nd Fleet and Allied Joint Forces Command Norfolk. But there is a third key element of the effort as well, and the three taken together are operating as an incubator for change in reworking a distributed integrated maritime command shaping 360-degree combat capabilities from the sea.

According to the <u>Centre's website</u>:

The Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) was established in May 2006. Representing 13 nations, CJOS is the only Centre of Excellence in the United States, and one of 27 NATO accredited Centres worldwide, representing a collective wealth of international experience, expertise, and best practices.

Independent of the NATO Command structure, CJOS COE draws on the knowledge and capabilities of sponsoring nations, United States Fleet Forces, United States SECOND Fleet, and neighboring U.S. commands to promote "best practices" within the Alliance. CJOS COE also plays a key role in aiding NATO's transformational goals, specifically those focused on maritime-based joint operations. We enjoy close cooperation with Allied Command Transformation (ACT), Allied Maritime Command (MARCOM), other NATO commands, maritime COEs, and national commands.

Comprised of 30 permanent staff and 20 U.S. Navy reservists, CJOS COE is highly flexible and responsive to its customers' needs. The Centre cooperates, whenever possible, with industry and academia to ensure a comprehensive approach to the development of concept and doctrine.

But the story is even more interesting than this description provides. For the Centre continued to exist while 2nd Fleet did not. And in that period of time between its stand down in 2011 and its standup again in 2018. The Centre worked hard to shape the reworking of how maritime operations NATO wide contribute to Atlantic defense and, in the wake of the events of 2014, focused on the coming reset of North Atlantic maritime operations. When Admiral Lewis came, he understood how important what the Centre was doing was to the core operations of 2nd Fleet itself, not just in terms of managing a NATO effort, but the kind of distributed integrated force which needs to be shaped to deal with the new strategic environment.

The importance of shaping the kind of C2 that could fully leverage new capabilities like fifth generation aircraft where the allies are key players. Combining the new Queen Elizabeth carriers, the P-8 enterprise operating with the ever-improving F-35 enterprise while preparing for the coming of the new Ford class carriers, all are in synergistic support of the U.S. Navy's shift to fighting as a fleet and is a huge strategic move for U.S. and Allies to fight and win at sea.

This is a significant shift, and one which requires leveraging all assets because it is clear that the Sea Centre of Excellence indeed provides a significant strategic contribution filtered through leadership with extensive well-earned tactical sea service.

Ed Timperlake had a chance to interview the Deputy Director of the Centre, Commodore Tom Guy from the Royal Navy on March 5, 2021. Guy comes from the Surface Warfare Community and has significant experience with the Royal Navy and in operating in coalition operations as well.

During the interview, he underscored that 2nd Fleet was focused on its role as a coalition and joint command and control force; Vice Admiral Lewis has focused from the outset on distributed command and control and shaping the command as a warfighting instrument. This was simply not going to happen unless the U.S. Navy becomes much more part of the European NATO navies, and to work more effectively as an integrated force.

As Commodore Guy put it throughout the discussion, they were supporting the 2nd Fleet's mission of being able to more effectively fight tonight. To do so means, finding ways for the U.S. and the allies to integrate the current capabilities more effectively. And this requires in many cases, relatively low technology solutions, but requires ensuring that NATO C2 systems are compatible with U.S. ships and for U.S. Navy training exercises to encompass C2 with European NATO navies.

As Commodore Guy put it: "In Second Fleet terms, we very focused on the practical C2 aspects, notably making sure that US Carrier Strike Groups and Expeditionary Strike Groups are familiar with NATO tactics. We are focused, for example, on working with CSG-4 to ensure that NATO familiarity is built into their training approach. And we work on the reverse as well with European NATO navies ensuringfamiliarity with U.S. Navy procedures."

He added: "We are far from being alliance navies being completely integrated, and we are focused on the low hanging fruit. Some of this is about technology; some of it is about different operational cultures. Vice Admiral Lewis has been focused on having NATO C2 installed on U.S. Navy ships and upon shaping exercises and training whereby the operational cultural differences are attenuated. We must ensure that Second Fleet has what it needs to be the most effective multinational maritime component command it can be, on Day Zero."

To make a very important point on a Fight Tonight Command Fleet attitude,- the Center of Excellence effort is near to mid-term. In other words, it is very much "the art of the possible," leveraging the practical near-term can greatly inform discussions for insightful longer-range planning for future maritime operations.

Commodore Guy underscored that getting that paradigm right allows for future iterations of combat technology to be worked in a more integrated manner going forward. Here the Centre plays a key supporting role to Allied Command Transformation, which is also located in the Norfolk area.

Because the foreign military community in Norfolk is very up close and in a practical sense a place where folks know one another and thus allows for a significant cross fertilization between the Centre's role in support of 2nd Fleet with ACT's longer term thinking as well As Commodore Guy put it: "We need the second fleet staff to innately to have the understanding about what it takes to integrate with a UK or French or Italian carrier strike group.

Clearly, this is a work in progress. This one where culture and technology need to be worked interactively to shape a more effective inter-allied force. The recent experience of the Marines

operating with the Brits of the Queen Elizabeth in the Atlantic certainly is photo op of a keyway ahead in shaping such a force. As one British naval officer involved in the effort put it to us: "The Marines and Brits using the same aircraft thinking as a wolfpack is a significant step forward towards advanced integration."

Appendix to Article

This story by C2F published on October 1, 2020 highlighted the transfer of directorship of Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) to C2F.

Combined Joint Operations from the Sea Centre of Excellence (CJOS COE), a NATO-accredited, multi-national military think tank, transferred directorship from the deputy commander of U.S. Fleet Forces (USFF) Command to commander, U.S. 2ndFleet (C2F), Oct. 1.

The transition from Vice Adm. Dave Kriete, deputy commander, USFF, to Vice Adm. Andrew Lewis, who is commander, C2F, and dual-hatted as commander, Joint Forces Command Norfolk, will strengthen the relationship between CJOS COE and C2F, and build upon previously established networks at USFF.

Established in May 2006, CJOS COE represents 13 nations and is the only COE in the U.S. As one of 26 NATO-accredited centers worldwide, they represent a collective wealth of international experience, expertise, and best practices, critical to operations in the North Atlantic.

"By linking C2F, JFC Norfolk, and now CJOS COE, national and NATO commands will further align, catalyzing the development of modern warfighting capabilities in the North Atlantic, and increasing readiness across the joint force," said Lewis. "We must be postured to respond to existing multidomain threats tonight, yet make urgent efforts to adapt now to the new challenges of the security environment of tomorrow."

The realignment comes shortly after Joint Force Command Norfolk's initial operational capability ceremony on Sep. 17.

"The important partnership between the Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) and the United States Fleet Forces Command has been superb," said Kriete. "This key relationship will continue between CJOS COE and C2F and help ensure maritime security in the Atlantic."

U.S. 2nd Fleet, reestablished in 2018 in response to the changing global security environment, develops and employs maritime forces ready to fight across multiple domains in the Atlantic and Arctic in order to ensure access, deter aggression and defend U.S., allied, and partner interests.

"This more direct relationship between CJOS and C2F will enhance allied interoperability and further expand on CJOS COE's connections with U.S. commands assigned to train, operate, and deploy with NATO maritime forces, said Commodore Tom Guy, Royal Navy, deputy director of CJOS COE. "It is a logical and really welcome step as we collectively work to maintain our warfighting edge in the North Atlantic."

In his introduction to the 2021 CJOS COE publication on Cutting the Bow Wave, Vice Admiral Lewis highlighted how he saw the importance of the Centre to his command's efforts:

2020 has seen sweeping challenges to international relations across the globe. Even to the layman, it is obvious that we are not operating in the same security environment as we were at the start of the 21st century; we now face the reality of multiple near peer competitors operating across multiple spectrums of instruments of power.

The North Atlantic is a more contested and complex space, and more than ever we need to ensure alignment and cohesion within and across NATO's maritime domains. As NATO continues to evolve to maintain its strategic advantage, there has been an evolution here too, and a subtle shift in emphasis, with the Directorship of CJOS COE being aligned with the Command of US SECOND Fleet and Joint Force Command Norfolk.

While CJOS will continue providing the support to the Alliance as it always has, under the direction of its Sponsor Nations, this shift helps to better align missions and their interconnectedness. I am really excited about the positive effect this will have on improving allied maritime interoperability across the North Atlantic, while linking the really valuable forward-looking conceptual work that CJOS does with operational and tactical maritime commanders.

CJOS brings a wealth of knowledge and expertise, from providing practical advice and education to support Allies working together effectively in the maritime domain now, to thinking about how we harness unmanned systems and artificial intelligence in the future maritime battle-space.

With our ambitious program of work for 2021, we will continue to drive Alliance maritime warfare development, and specifically support SECOND Fleet and JFC Norfolk in their deterrence and defense missions. This alignment effort must move the yardsticks not only on interoperability but bring more effort on integration, interchangeability and resilience at a level that provides "reflexive responsiveness" to any challenge presented by our adversaries. I am committed to developing these themes through a networked approach.

In his introduction to the same document, Commodore Guy highlighted the importance of working the low hanging fruit with record to integratability across the NATO navies:

As our Director has outlined, security challenges abound, and CJOS COE is firmly focused on supporting NATO in maintaining the edge in the maritime domain.

But whilst our focus is on the maritime domain, 'multi-domain' and 'cross-domain' thinking is coming increasingly to the force, and the commanders of the future will be 'domain agnostic' as they grapple with ever increasing amounts of information, sorted and delivered by rapidly advancing technology.

They will wield weapons with levels of range and precision that stretch the boundaries of areas of interest, both geographically and conceptually. Notwithstanding the increasing porosity of domain boundaries, as Allied Command Transformation (ACT) defines its warfare development priorities for the coming decades, and Allied Command Operations (ACO) refines its deterrence strategy, CJOS

COE's work in support of both of those is focused on those factors affecting operations over, on, under and from the sea.

As SACEUR, General Tod Wolters, notes in his foreword to John Andreas Olsen's excellent 'Future NATO' Whitehall Paper, NATO needs to be challenged, conceptually and intellectually: "We must replace old ideas with new thinking." You will see in this edition some of our new thinking on the implications of developments in hypersonics, big data and cyber interoperability.

However, our focus is not solely technical; geopolitics, strategy and command and control are also key factors in how warfare develops, and the reader will find thoughts on strategic developments in and beyond NATO's traditional area of responsibility, from the Black Sea to the Baltic to the High North and the Far East.

From a practical perspective, we have an equally vital discussion on future sea-basing and sustaining maritime operations, and the necessary interoperability basics to keep the Alliance effective at sea and from the sea.

Re-shaping North Atlantic Defense: JFC Norfolk as a Startup Command

04/07/2021

There has been public discussion of the state and fate of NATO over the past few years. One European leader energized the discussion by referring to NATO as "brain dead." But underlying the political exchanges of the past few years, there has been real progress in shaping a new approach to North Atlantic defense.

But because the new approaches do not fit the Cold War images of what North Atlantic defense look like, in many ways the changes are not fully grasped, and the new approaches fully appreciated.

Certainly, a key driver of change has been the dynamic growth in <u>Nordic defense cooperation</u> and the commitment of NATO members as well as EU members Sweden and Finland in strengthening their capabilities to work together.

In the book authored by Laird with Delaporte, a significant part of the analysis on the reworking of European direct defense focuses on the impact of this Nordic dynamic on reworking how collaboration of the "coalition of the willing" or the "relevant nations" working together with key NATO partners is reshaping European defense.

As we put it in that book: "Europe and its defense are not one narrative but several. The Russians face an increasingly unified Nordic Northern Flank with enhanced UK focus on the region, backed by reach into North America.

"The central part of Europe is a mosaic of former Warsaw Pact states with varying degrees of concern about the Russian challenge, backed by a German French alliance with the nuclear-armed France in this key area.

"And the southern zone of Europe in which Greece, Turkey, Spain, and Italy have about as much solidarity today as they have had historically, which means that aggregation management is crucial to deal with any alliance-wide challenges."

And the Nordic Northern flank and the redesign of direct defense is highlighted in that book as follows: "A key part of shaping a new approach to direct defense in Europe is winning the fourth battle of the Atlantic. (which rests on dealing with) a key aspect of the Russian challenge, which is crucial for the Nordics, namely, the need to hold the Russian Kola bastion at risk.

"For the United States and Canada, it is about reinforcing Europe and holding the Russians at bay, notably with Putin threatening a nuclear strike via his projected new hypersonic missile to be launched via a submarine. But for the Nordics, it is about homeland defense, and not letting the Russians have a free ride to use the Kola Peninsula and its extended perimeter defense without a significant capability by the West to attrite and destroy the Russian bastion.

"When you come out from the land into the air and sea corridors, is where the West for sure needs to be able to operate its own anti-access and area denial capability. Two can play at this game."

What one sees in Norfolk is reshaping how the startup command called Second Fleet has been launched interactively under Vice Admiral Lewis's leadership with the NATO startup command called JFC Norfolk to shape new ways of combing national efforts into a more integrated and effective defense effort.

And that effort is reinforced by another trend line which we have examined over the past decade, namely, the standup of the F-35 global enterprise, whereby U.S. allies are often leading the way in the acquisition, development, and use of their aircraft in advance of what the United States itself is providing for regional defense efforts.

All of this can be seen in the dynamics of change unleashed by the integrated efforts being generated by the two commands working together. Recently, the Vice Admiral returned from a visit to SHAPE and to Europe and upon his return we had a chance to talk with his political advisor, a senior Icelandic diplomat.

And it is hard to miss the point of why having a senior Icelandic diplomat as the political advisor to the U.S. Admiral is significant. Given that the United States shifted its attention to the Middle East and withdrew from its engagement in Iceland in the George W. Bush Administration, and policy which continued under the Obama Administration, which shuttered 2nd Fleet in 2011.

But with the Crimean crisis wakeup call, the U.S. Navy reached out to Iceland and there was return to maritime patrol activities, but this time with a new MPA asset, namely the P-8.

But for the <u>Icelandic government</u>, their strategic importance was never in doubt, notably with the growing impact of High North defense issues, but for the United States has been for a considerable period of time a "reluctant" Arctic power.

But for Iceland, it was clear that the strategic focus of the famous Greenland-Iceland-UK gap was no longer simply an East-West transit point but a North-South one as well. And it was clear that when Admiral Richardson sought to establish the new second fleet, that it was going to need to build to the new strategic reality and not simply replicate the past Cold War-generated command.

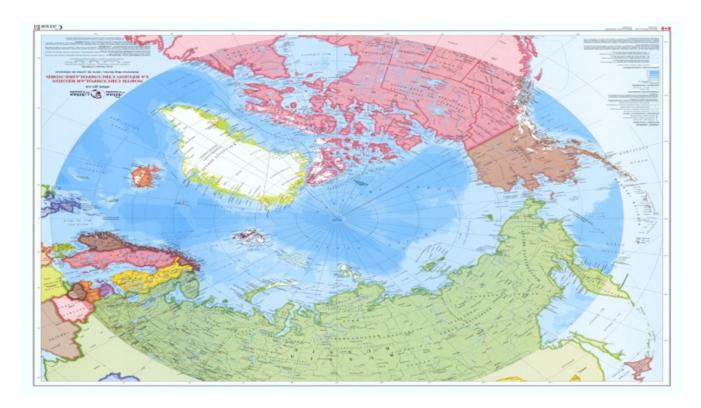


Figure 6 The graphic provides a view of the High North seen from the Norwegian perspective.

We had a chance during our visit to Norfolk to talk with the Vice Admiral's political advisor located in JFC Norfolk. Snorri Matthiasson, is a senior Icelandic diplomat, who had just returned from the European visit of Vice Admiral Lewis. We conducted the interview by phone because of COVID-19 restrictions, but his insights were very significant about the "startup" command.

Matthiasson noted that he first met Vice Admiral Lewis on a visit with the Icelandic Chief of Defense to Norfolk, shortly after C2F had been stood up. This was going to be Lewis's first NATO command, and he sought out a political advisor to assist in his efforts. He was the first foreigner to join the NATO command, just prior to the arrival of Rear Admiral Betton.

He underscored how the standup very much felt like a startup which allowed them to think through how best to work the efforts for U.S.- European collaboration. He underscored that a number of key Nordic states were engaged in defense and security activities in the region, and as they worked coordination efforts, there was a clear need to better coordinate with U.S. and other allied efforts, such as the United Kingdom, France, and German forces operating in the region as well.

As Matthiasson put it: "Vice Admiral Lewis looks at the area from the East Coast of North America to Finnmark as a continuous battlespace, but there was an opportunity to do a much better job coordinating national efforts in the area to shape enhanced coalition capabilities.

For example, <u>the Danes</u> have been working for decades in Greenland and working maritime situational awareness.

How to better leverage what they are doing, and how best to bring the capabilities of new maritime domain awareness systems into their operations?"

As working crisis situations entails whole of government responses., doing a better job of bringing together military operational concepts of operations with tactical or strategic diplomatic options is an important challenge to be met in North Atlantic defense. And that is clearly one thrust of the startup commands rethinking process for the evolving approaches to North Atlantic defense.

It is clear that the commands are not engaged in recreating the Cold War infrastructure but are engaged in shaping a very different approach. And the F-35 enterprise is part of that new approach as an information and C2 asset.

With regard to Iceland, first <u>the Italians</u> and currently the Norwegians are operating F-35s from Iceland as part of the NATO air policing missions. The Brits will operate F-35s from their base in Mahram or at sea off of their new Queen Elizabeth carriers. And this is prior to the U.S. Navy operating their F-35s in the region, but, of course, the U.S. Navy has an ability to work with those allied fifth generation aircraft. And this is true whether they come from Danish, or Norwegian, or British or potentially Finnish air bases in the future.

The impact on interoperability of U.S. with European forces is clearly enhanced by operating <u>a</u> common combat aircraft.

This is how Matthiasson put it: "The Norwegians we met in Iceland emphasized that the F35 is an incredible capability, but it also allows them to jointly train with U.S. forces which creates a new opportunity for joint and coalition warfighting approach as well."

As we wrapped up our discussion, NATO innovation was a key focus of attention. Obviously, the direct NATO missions and operations are tasked by SHAPE and SACEUR, after a NAC decision. But under that broader remit, JFC Norfolk provides a flexible umbrella organization to allow for cross-learning and cross-sharing of national efforts which can be combined to provide for enhanced coalition capabilities.

As Matthiasson put it: "The nations have been very keen on working with us from the very beginning with the vision that we had of being an umbrella or nexus for the North Atlantic, because there is so much national activity that is ongoing with some very advanced equipment. How best to shape collaboration and coordination in such a situation.?

"Much of the activity in the region is under national rather than NATO mandates. But for the Russians, any NATO members national activity is interpreted as being a NATO activity, so why not do a better job coordinating national efforts to get the right kind of coalition effect?"

It seems that this kind of approach suggests that NATO is not brain dead after all.

Allied Joint Forces Command Norfolk: The Uber Command

04/09/2021

As NATO continues to work its capabilities as an alliance going forward, the common operating procedure protocols, and communication systems provide a 21st Century information based framework for each individual nation to work more effectively together. This also will allow as well for non-NATO European states to become effective coalition partners.

For example, Norway, Finland and Sweden do joint airpower training based on NATO procedures. They do their common airpower training based on leveraging the common NATO language and operating con-ops. For example, in 2018, Laird visited Bodø airbase where he discussed with Norwegian officers how they trained collectively with their two non-NATO air partners, Finland and Sweden.

Since 2015 the three air forces have shaped a regular flexible training approach which is driven at the wing and squadron pilot level.

According to Major Trond Ertsgaard, Senior Operational Planner and fighter pilot from the 132 Air Wing, "We meet each November, and set the schedule for the next year, but in execution it is very, very flexible. "It is about a bottom-up approach and initiative to generate the training regime." Squadron pilots regardless of nationality are, if allowed creative tactical freedom, are a unstoppable force for innovation.

The impact on Sweden and Finland has been significant in terms of learning NATO standards and having an enhanced capability to cooperate with the air forces of NATO nations.

The Allied JFC Norfolk is working coalition integration and is very close to accomplish this approach. MoUs have been agreed upon with relevant nations, allowing nations to work more effectively during Joint Operations in concert with operating allied forces; this has been pursued through a collaborative integration approach rather than a top down hierarchical command centered approach.

Ed Timperlake interviewed RADM Stefan D. Pauly, JFCNF, Chief of Staff on March 5, 2021 during our visit to Norfolk. RADM Pauly is an experienced submariner with the German Navy with a strong intelligence background as well. He explained that they are a small command, with less than one hundred officers with a target goal of around 150.

As such, they will not have a top-heavy staff directing in a hierarchical manner. But because they report to the nations, distributed C2 becomes a natural focus of attention—national engagements with national C2 systems plugging-in into JFC Norfolk. The challenge is all nation's combat assets need to be leveraged and coordinated synergistically with all partners in day-to-day operations.

How best to organize that to create convergent capability?

That is a key focus of how the command works. Similar to other aspects of innovation seen throughout the command cluster, VADM Lewis has focused on having his teams work through new ways to operate to deliver the appropriate combat effect. With regard to NATO, this has meant working new ways to shape coalition integratability, and by shaping agreements with key nations which facilitate such an approach.

They are far from being just a classic "maritime" command because they are focused on the 360-degree Joint Security and Combat Operational High North and North Atlantic Theater, from seabed to space. Critical infrastructure defense is a key point of attention for the command as well, which means that they are focused on the spectrum from peacetime vigilance to war.

RADM Pauly, based on his long service with well-earned submarine and Intel experience, argued that the command is focused on building a command network such that nations can more effectively contribute to a successful coalition combat campaign outcome.

The Admiral unmistakably pointed out that mission coordination across all warfighting domains will ensure that the North Atlantic community can increasingly continue to effectively defend its interests in the Joint Theater of Operations against Russia and other adversaries.

The Russians may have clients they sell weapons platforms and munitions to but do not have allies as do the Europeans or the Americans. Further than that, the Headquarters is already positioned to cope with future challenges within the HQ's designated Vigilance Area.

The command is finalizing a Joint Operation Guidance.

This is not intended to be an order, but rather a guidance approach to providing coalition leadership. The focus is upon how best to leverage the "coalitionability" of the core MOU nations in the command.[1]

He noted: "The C2 and operational coordination is done in the nations. But how to take that effort cross-nationally and shape a more Joint effective coalition capability?" And that is a key focus of Allied JFC Norfolk.

This approach is clearly innovative and fully in line with how European nations who are serious about defense are addressing ways to enhance their capabilities to defend themselves.

He cited an American officer who suggested an Uber analogy. "UBER meets a need to deliver transport capability to a region. They don't own the vehicles, but they coordinate those vehicles to

deliver the capability." Substitute "transport capabilities / vehicles" for "operational effects", and you understood JFC Norfolk's ambition.

So perhaps one might call this unique NATO Headquarters the Uber command.

[1] For the concept of "coalitionability," see the presentation by Major General Rex at a Danish-Australian conference in 2015 in Robbin Laird, *Joint by Design* (2021), pp. 67-69.

Shaping a 21st Century U.S. Navy: The Perspective from Second Fleet

04/12/2021

The advantage of visiting two startup commands – C2F and Allied JFC Norfolk – under one Vice Admiral is that one can see how the 21st century navy is being shaped. We started our March visit by meeting with VADM Lewis's Chief of Staff for C2F, CAPT Hallock Mohler, who gave us a tour d'horizon of the challenges of setting up the new command and navigating a way ahead.

Captain Mohler is a four-decade U.S. Navy veteran whose significant experience has been crucial in setting up the command. When we asked him which ship was his favorite one on which to serve, his answer came quickly: The USS Wisconsin. Going from a battleship to shaping the newest command in the Navy is definitely an interesting path.

When we visited his office, he was working from an old desk and with no secretary. The command wishes to be lean, and frankly, everything we saw when visiting it, was that the command clearly is focused on driving innovation from the standpoint of having a lean command structure.

We followed up with the visit on-site with a phone interview this month to discuss the startup approach and to look back at his career, as he is retiring from the Navy this month. He has very significant leadership management experience at all ranks in the U.S. Navy and his experience has been a key part of what he has brought to the process of standing up the new command. Among those assignments: Director of Management at JFC Norfolk, Department of Defence, Executive Security in the office of OSD, and Director for Training and Quality Assurance, Navy Recruiting command.

We started by asking him, how one went about finding the right talent for a new command.

Captain Mohler: "You start by looking for the right people in terms of having vision, and capabilities to shape something new and innovative. What you don't do is pigeonhole people in terms of this person is a human resources person, this one is a public affairs person, and so on. You are looking for people who have experienced growth and would nurture it in the command. Not every starting quarterback from a college football team can go to the pros and play quarterback in the pros. Sometimes they're a wide receiver.

"We were given no blueprints. We were given no resources. We were just told to do it. And it's all about relationship building, and that's all it is. And we're not going to know how good we really are until about 20 years from now.

"We have lieutenants, lieutenant commanders, and commanders working alongside of officers and enlisted from foreign nations who will take that experience to their next jobs and will build in a capability for foreign officers to work more effectively with us or vice versa.

"And I think that's really what's Admiral Lewis' vision, namely getting the people that have gumption, the people that don't mind working hard, the people that don't mind figuring out how to work together to shape new capabilities for the United States and our allies."

We then asked him to go back to his long career and highlight what he considered major changes which have energized the Navy as an institution. He had pride in his service that recognizes a constant quest for meritocracy is a touchstone for the future.

Captain Mohler: "That it doesn't matter what color skin you have. You can do anything you have to. It doesn't matter that you're a female, male, or what your gender says, or your deers marker says, you can do a job. It doesn't matter. Sailors can do anything, and the opportunity' to do so in the Navy is incredible.

A key lesson of leadership is the saying "if you cannot delegate you are dead."

"But you have to allow for creativity. We have too much micromanaging because of social media and because of electronics, And I think eventually we're going to get rid of that, and we're going to start going back to letting people be leaders. The zero-defect accountability on leadership, I think that's going to go away eventually."

"And during my Naval career, every command I've ever gone through, it's been a different chapter in my career life book. It's about ready to close, but it's not going to close for good because it continues on because I feel like I'm a recruiter for the United States Navy and for the military until I have no more breath.

"I have seen incredible change during my 41-year career. But one thing has not changed – we need to be the best fighting force, and that means shaping a meritocratic force which draws from our innovative society going forward."

The Navy Re-Focuses on the High-End Fight: What Implications for the Navy Reserves?

04/26/2021

In working on our book for USNI press, we have focused on how the U.S. Navy is reworking its approaches to shape new capabilities for the high-end fight. Obviously, a refocus from a two-decade primary role in supporting land wars to a return to blue water expeditionary operations is a significant one. And clearly one which affects the Navy's reserve forces as well.

Recently, we had the privilege to talk with Vice Admiral John Mustin, Chief of Navy Reserve, N095, to find out how he was working the way ahead to make sure the reserves integrate into full spectrum crisis management which if deterrence fails will lead to a high-end US and Allied Air/Sea combat campaign.

The key point which he made in the guidance he released last Fall on the way ahead for the Navy reserves is visionary: "... the changing geopolitical environment forces us to modernize our thinking, our force structure, our training and our operations to address the realities of a future conflict. Simply said, we cannot assume tomorrow's war will look like yesterdays. Hence my Theory of the Fight includes accelerating our transformation to ensure we get, and remain, 'future-ready."

Vice Admiral Mustin went on insightfully to state: "The reserve force today is optimized perfectly to support the global war on terror. Many of our processes, our unit structures, billets, training procedures, even the way that we mobilize sailors do a fantastic job meeting the specific requirements of a counterinsurgency, counterterrorism, non-maritime, land-based conflict, particularly in CENTCOM and the horn of Africa.

"My comment in my commander's guidance was that is not likely to be effective to address the next conflict, and if I am reading the tea leaves properly in this era of great power competition, we're going to need very different skills.

"The Navy has recognized this, and the Navy is transforming. And I did not feel that the reserve force was working quickly enough to reflect that transformation in our reserve-specific force structure, processes, and procedures.

"We are working very closely with the fleet commanders. We are focusing on answering their needs. 'What is it that you need and value?" And equally important; "What does the reserve team do for you today that you don't value?

"My job has been to take fleet feedback and then shape the future structure of the reserve force, to address those specific needs. For the numbered Fleets there are several capabilities that leap to the fore, specifically emphasis on their maritime operations centers, both capacity and capability. Related but not explicitly tied to the maritime ops center is expeditionary logistics that are explicitly tied to our distributed maritime concept of operations. And one echelon down is a focus on expeditionary advanced base operations.

"Everything I just described is ripe for reserve force contribution. We've begun the process now to determine where we have elements of the reserve force that are relatively low value as it relates to CNO and fleet priorities. How can I harvest some of the current existing units and billets to meet priority needs, and how can I take our sailors out of low value jobs and create new high value jobs given the strategic shift to the high-end fight?

"That's an initiative underway right now, and I'm happy to report there's a number of things that I'm able to do in this fiscal year. There are also certainly things that are on the roadmap for fiscal

year 22 and some for 23 and 24 and beyond. But I want to move out now because I just don't know that we're going to have a lot of time to make those changes when the shooting starts."

In World War II a well-respected historian Max Hastings in a seminal work, "Inferno" determined that after a difficult start the US Navy was at the end of the war the most effective fighting force of all combatant forces of all nations. Admiral Mustin took pride in that historical example but correctly observed that today the U.S. Sea Services may not have the luxury of time. They must be trained and equipped to win the fight and get it right, right now.

Question: We are focused on the strategic shift and how that demands significant change in warfighting and escalation dominance.

A different set of skill sets are clearly required.

Clearly, we have seen at Second Fleet, that a key priority is C2 for a distributed integrated fleet.

This requires different skill sets as well.

There is a whole new generation of digital warriors in our society as well.

How are you focusing on re-shaping the reserves to harvest the opportunities in civil society and to focus on the critical skill sets for the "new" Navy, so to speak?

Vice Admiral Mustin: "That's a perfect scene setter. I completely agree that what made us successful over the last 20 years, post 9/11 is not what's going to make us successful into the next few decades.

"Working with Vice Admiral Lewis has been important as well. As Second Fleet Commander, he clearly understands that we need to shape a new approach. When I was in High School in the 80's, my father was Second Fleet Commander, so I can legitimately say that "The new Second Fleet is not your father's Second Fleet.

"What he wants and what we are offering started with a clean sheet of paper as it relates to the design of the reserve force for C2F.

"I've looked at every other numbered fleet to determine which model works best for us. And then, perhaps not surprisingly, I recognized the reserve design supporting each fleet was different. What that tells me is that there is a need for us to establish a template where we can get at 80% of the core competencies, the missions, functions, andtasks associated with the C2 in the maritime element. And then there's certainly some peripheral amount, call it 20% hypothetically, tailored to the region, the AOR, the theater. Shaping a template for C2 is a key element around which we can shape fleet design going forward, as well as shaping the skills required to support that design.

"If you go on the second fleet watch floor right now, there will be a handful of reserve officers and sailors that are standing watch. And early in my tenure I mentioned to Vice Admiral Lewis, that rather than build a team that shows up a weekend a month, two weeks a year during exercise support requirements, why don't we build a team that's fully integrated so that they work with their chiefs of staff, their division directors, their N codes as we call them, their department heads by function. And let's have them plugged in every day, not just on weekends.

"And I don't mean 365 days, but if an average sailor can do roughly 38 days a year — that's just the sum of a weekend a month, and two weeks a year. There's nothing that says it has to be a weekend a month and two weeks a year, I could do 30 days consecutively and then not see them again for six months, or we could do groups of five days or 10 days., We can be as flexible as we want.

"If we invest time upfront to training them to their watch station, then we get production time out of them by having them show up and actually stand the watch. And that's good for second fleet as well as for the reserve sailors, because they earn a credential that is permeable and enduring. So they can then take a billet at their next job at another fleet. That means that the skills that we've invested in them are permeable and they can plug in immediately to another fleet.

"Admiral Lewis was very receptive to the idea and frankly, after hearing it said, "Okay, this isn't a course of action. This is your tasking, make it happen." He has been very receptive to saying, let's build full integration. I don't want there to be a distinction. And I told him if we do this right, no one will ever know the difference between a reserve and an active sailor. You're just a sailor. And you're a sailor that's contributing to the requirements of second fleet, whether that's at an expeditionary environment or operating at the headquarters building."

Question: The reserves bring significant experience to the active-duty force.

This has been a key to navy success in the past, how do you see this going forward?

Vice Admiral Mustin: "The focus on fleet ops is critically important to me. I just had a conversation with CNO today about the strategic imperative to restore seagoing ratings to the reserve force. Right now, we do a fine job in staff headquarters, but when it comes to getting folks on the waterfront, it's more of a challenge. For every sailor that says I've got the time and the inclination, we can get them afloat, so that's a goal of mine.

"A key problem we face is not having a lot of time to mobilize in the face of significant conflict. With regard to our reserve component, there are two kinds of readiness. There is mobilization readiness, and there's warfighting readiness. Mobilization readiness is the cost of being a reserve sailor. You need to maintain your readiness to mobilize when asked. And that means you've done your dental checks and your medical checks, and you've done your physical fitness assessments and your general military training. That's kind of the standard stuff that title 10 pays for in the number of days, the weekend a month and the two weeks a year, and that's up to you.

"You don't get a Navy Achievement Medal for being mobilization ready. In fact, if our sailors can't maintain mobilization readiness, I will ask them to leave the service because it's a privilege to serve, not a jobs program.

"The more challenging side is the warfighting readiness piece. And that's where I'm investing a lot of time and effort to understand the training pipelines, the timelines, the costs, the billets, the units, et cetera, because my assumption is we need to be ready on day one of a conflict. I'm also working very diligently to improve the processes to mass mobilize our people.

"And I've committed to the CNO that in January of 2022, we will be able to mobilize 49,000 sailors in 30 days, which is about 15 times the throughput capacity we had when I took office here.

"We need to be ready to go because we're not going to have five years to ramp up, to get good at our jobs like we did in World War Two. We have to be good at our jobs now. I want to use every penny of training dollars and every iota of time when we have our precious sailors in uniform, and get them training to be good at their billets, because I just don't feel like we've got the luxury frankly, of waiting.

"And that said, I will tell you, I'm thrilled that we just celebrated our hundred- and six-year anniversary as a reserve force. And though we have contributed in every significant conflict in our nation's history, post-World War I, we've never been caught by surprise in mobilizing the reserve force.

"What does that mean? Well, I told you, we have to be ready because it's likely to be short notice. This means having the reserves as a key contributor to the active-duty force, particularly as its builds out for conflict, and that means having the kind of experienced reserve sailors that you referred to as key players in the process."

Question: Do you see the transition of the technological revolution embodied by people being involved with the Navy as reserves as having value added?

Vice Admiral Mustin: "I absolutely do. And you hit the nail on the head. I can write a book on the countless stories of folks who have a unique set of civilian skills, that are ready to serve the nation in uniform.

"There are a wide variety of critical skills that the reserve force brings to bear: think big data and analytics, data visualization, predictive analytics, 3D manufacturing, space, cyber, unmanned and autonomous systems. We've got folks who work in all of those program areas as civilians, and also in units that support the operations or the concepts of employment.

"We've got Silicon Valley folks, we've got venture capitalists, private equity players who understand what's happening in the technology sector and areas where we can take advantage and apply their skills and insights to what we do in uniform. The challenge I wrestle with frankly, is how do you scale that?"

In short, we focus in our forthcoming book on the evolution of the Navy as it is reshaped into a distributed, integrated force, which we see operating through kill web. What we learned from Vice Admiral Mustin is that the reserve force that he is involved in building will give the Navy a unique capability to staff out such a force. What we learned is that the reserve force that is being shaped going forward, we'll be able to empower the fleet to operate that way.

The Mid-Atlantic Tech Bridge and Second Fleet

05/02/2021

During our visit to Norfolk in March 2021, we had a chance to meet with CDR Bobby Hanvey, Executive Director of the Mid-Atlantic Tech Bridge. The US Navy has set up a number of Tech Bridges to foster greater collaboration with the private sector in a way that does not rely on the traditional acquisition process. In addition, the Mid-Atlantic Tech Bridge is different from the others in that it is the only Tech Bridge with a formal tie to the operational Navy via its support of Second Fleet.

This is how the Department of the Navy has described the <u>Tech Bridge</u> concept:

"The NavalX Tech Bridges are a connected network that enhances collaboration between Naval Labs, industry, academia, and other military branches.

"A NavalX Tech Bridge offers a collaboration space in a commercial business space, rather than on base. An off-base location offers a more easily accessible landing spot to foster a collaboration ecosystem to build productive partnerships and accelerate delivery of dual use solutions to the warfighter.

"A NavalX Tech Bridge offers access to State and Local government and academic agencies creating a richer regional innovation ecosystem and further supporting economic development."

As the US Navy looks to modernize, it can be categorized in three ways;

- To gain some new capabilities not previously available;
- To add new components which provide for enhanced or more reliable operation of existing equipment-software upgradeable weapons and platforms;
- Simply replace worn out equipment that is no longer economical to operate or militarily useful.

Traditional methods to achieve the above have proven slow, and sometimes, unresponsive to existing and emerging threats. To expand the Navy and Marines ability to meet those threats, they have set up a number of Tech Bridges to foster greater collaboration with the private sector in a way that does not rely on the formal acquisition process.

Linking a Tech-Bridge operating philosophy with an operational fleet has tremendous potential for increasing the value of any technology modernization initiative by looking at the final output which is the condition of the operational inventory at a given point in time. This is a very significant change in

how innovative technology initiatives can be validated much quicker by the operators who will fight the Fleet.

CDR Bobby Hanvey is a graduate of the Naval Academy. After about 10 years of active duty service, he entered the Navy Reserves and later joined the Reserves in a full time capacity, called Full Time Service, or FTS. Working in this capacity he led substantial efforts to create a learning culture and feedback framework in the Navy Reserves, conceived and launched a feedback portal for sailors to submit ideas to improve the Navy, and introduced design thinking and human centered design as methods to attack complex problems. With his wide experiences he has come to really understand the kind of cultural change which faces a 21st century naval force.

He discussed with us the crucial role Assistant Secretary of the Navy for Research, Development and Acquisition, (ASN RDA) Jim "Hondo" Geurts, has played in shaping what is now known as the Tech Bridges. Geurts came from SOCOM where he established <u>SOFWERX</u>, which has been a key force for innovation within the Special Forces. It is described as follows on the SOFWERX web page: "SOFWERX is a platform that helps solve challenging Warfighter problems at scale through collaboration, ideation, events, and rapid prototyping."

Geurts brought that same mentality to the Navy, but recognized the SOFWERX model was not well suited for the Dept. of the Navy, (DON). The DON, unlike the other services, did not divest themselves of their multiple laboratories. These labs, called Warfare Centers, contain rich engineering, science expertise and knowledge, and are valuable assets which are not centralized in nature.

The Navy and Marine Corps have 22 warfare centers and many other laboratories.

According to CDR Hanvey, the problem is that "they aren't designed to work together. They have what is called a working capital model and need to prove their value to ensure continued funding. In a simplified description, they must earn the work and only get funded for the work program offices and other entities award them to perform. This has positive and negative impacts. The positive impact is they must prove their worth or they don't earn continued funding, thus ensuring they stay sharp in their field and continue to prove their value to the Navy and Marines. The negative is they have little freedom to explore outside what is funded and assigned."

With the above, the opportunity to tap into the private sector innovations and the significant investments in that sector, is greatly reduced. Innovation and investment in the commercial markets dwarf what the government is able to do and tapping into those markets is key to increasing, maintaining, or even closing gaps in naval capability as compared to our peer competitors.

With NavalX, the approach is to cross these silos and discover cross-cutting innovations. They started with a key effort to "super-connect across the silos" as there is already substantial innovative solutions and approaches within the Navy and Marines.

Initially, NavalX was established under ASN RDA Geurts and is now largely part of the Office of Naval Research, while still working heavily with the ASN office. A key focus for Secretary Guerts, which he brought from SOCOM, is on ensuring that the Navy can find ways to talk with industry, and in particular, industry that doesn't normally deal with or talk to the government.

This is how Hanvey characterized the focus: "What about industry? Industry is where stuff's happening. Startups in the garage, entrepreneurs, small businesses. How do I get them to work with us?"

The process started by Guerts forging the Agility Cell, of which CDR Hanvey was a member. They visited the many "silos of excellence" with the Navy and Marines to understand how best to scale those efforts. This included visiting other services and their innovation efforts to include SOCOM and SOFWERX to scope out how they did their approach to innovation. From these visits, the cell worked with Guerts to sort through how to adapt a similar approach in the Navy and this evolved into the NavalX effort and spawned the Tech Bridge concept.

With the establishment of the Tech Bridges, CDR Hanvey's focus has clearly been upon how to establish an effective tech bridge in the very large naval operational world of Norfolk/Hampton Roads. His tech-bridge is different in that they work directly with Second Fleet. And because VADM Lewis and his team have prioritized C2 and distributed C2, the Mid-Atlantic Tech Bridge is also focused on those challenges.

For VADM Lewis, the team is working with current systems to deliver mobile command and control capabilities. The role then of the associated tech bridge is to look at evolving technologies which can do this better than current systems.

The process of examination is not just about new technologies, but also about technologies being used by other organizations which could be adapted to the Second Fleet environment.

According to CDR Hanvey: "Second Fleet is focused on a distributed C2 network, not just a unitary and centralized capability. We're going to use DJC2. We're going to potentially use NETC2 and that's great. Well, there's a lot of commercial technology out there that can do this on a smaller and more agile scale. There's a lot of technology already in the government, the Secret Service and the Special Operations user base, which does exactly what Admiral Lewis wants to be able to do. We can be disaggregated and distributed and work through a coalition network, or a commercial network, and still securely connect, consume and participate. We look to adapt such technologies and bring them to Second Fleet."

"We are not here to replace existing innovation efforts, or avenues to solve complex problems. The goal of the Tech Bridge is to enable finding solutions faster, better and which are less expensive. If the Tech Bridge can't do it faster, better, or for less cost than the existing avenues we have through the Navy or the Marines, then we shouldn't be doing it. But if I can make it happen faster, give you a much better result, and/or significantly less cost, that is our sweet spot."

To achieve these goals, they are working ways to partner differently with organizations the Navy and Marines do not normally work with in order to make this work. They are utilizing <u>Partnership Intermediate Agreements (PIA)</u> which allow them to work with <u>non-profits</u> to work the evolving <u>ecosystem of technological innovation</u> as well.

During our visit to Norfolk in March 2021, we have had a chance to deal with the two startup commands which are driving change in how to best shape maritime capabilities for the maritime fight –

Second Fleet and Allied Joint Forces Command. Along with the Combined Joint Operations from the Sea Centre of Excellence (CJOS COE), the three organizations clearly understand the central importance of shaping effective C2 mission command capabilities.

The focus is on the fight tonight, which means they need to leverage what exists but to work these capabilities into an enhanced warfighting capability. But they are doing so with an eye to shaping the kind of template which can embrace significant change, the kind of change which their working relationship with the Mid-Atlantic Tech Bridge can help shape.

757 Accelerate: Contributing to the Evolving Ecosystem for Innovation

04/23/2021

During out visit to Norfolk in March 2021, we learned that Second Fleet was working a direct relationship with the Navy's Mid-Atlantic Tech Bridge. The Mid-Atlantic Tech Bridge is described as follows: "The Mid-Atlantic Tech Bridge (MATB) is the first of what we believe will be many Tech Bridges to formally tie the Operational Navy to the Science and Technology capabilities for the Navy and Marine Corps.

"Commander 2nd Fleet, in partnership with the Naval Information Warfare Center Atlantic Hampton Roads Detachment, Naval Surface Warfare Center Dahlgren Division Damneck Activity and Naval Surface Warfare Center Carderock Division Norfolk Detachment, will connect warfighters with those who can provide agile technology solutions.

"Leveraging a connection to a robust ecosystem spanning well beyond the Commonwealth of Virginia, MATB will facilitate innovative technology solutions of interest to the region and the DoN. In the coming months, MATB will establish an off-base facility space for collaborative events; this will allow a low-barrier connection with Dept of the Navy people."

Clearly, modernization of a military force can be carried out for three reasons;

- To gain some new capabilities not previously available;
- To add new components which provide for enhanced or more reliable operation of existing equipment-software upgradeable weapons and platforms;
- Simply replace worn out equipment that is no longer economical to operate or militarily useful.

Linking a <u>Tech Bridge</u> operating philosophy with an operational fleet has tremendous potential for increasing the value of any technology modernization initiative by looking at the final output which is the condition of the operational inventory at a given point in time. This is a very significant change in how innovative technology initiatives can be validated much quicker by the operators who will use it in fleet operations.

While visiting with CDR Bobby Hanvey, Mid-Atlantic Tech Bridge Director, we had the chance to tour where they were planning to establish their new headquarters. The building was being designed to house a number of small technology companies looking to drive innovation in the region and beyond.

And we met as well with their regional partner for the Mid-Atlantic Tech Bridge, namely, 757 Accelerate. 757 Accelerate a firm with a small innovation hub in the new building will share office space with Mid-Tech Bridge, as well as coordinate regional Tech Bridge outreach, scouting, and SBIR education events.

There is a partnership in place between the two organizations. Their relationship can shape new ways to innovate with the Tech Bridge able to be in a better position to support Second Fleet innovation,

And it is at this level of driving ecosystem innovation where <u>757 Accelerate</u> can be found. According to their website: "757 Accelerate is a selective startup accelerator program providing founders with capital, connections, and customers."

Two opening comments in their 2019 impact report provide a good insight into the effort.

According to Monique Adams, 757 Accelerate Board Chair:

"757 Accelerate is part of a community of interconnected, inclusive, and impactful entrepreneurial resources serving founders, investors, and the regional economy. With eleven companies accelerated, over 680 hours of mentorship, and nearly 50 jobs created, 757 Accelerate has made an incredible impact in just two short years. 757 Accelerate was born out of a collaboration between six cities, four universities, and the leadership of TowneBank. Ferguson Ventures has since joined the coalition, underscoring the belief that we are better together.

"We continue to focus on building an inclusive ecosystem that supports the growth of all founders, including women, people of color, and military vets. We are proud that well over half of 757 Accelerate's companies have underrepresented founders on their management teams, further illustrating that we drive greater impacts when we leverage the power of the collective."

According to Evans McMillon, executive director of 757 Accelerate:

"The last two years has been an amazing voyage filled with collaboration and community creation. 757 Accelerate alumni have helped us exceed national averages for accelerators and they are poised to continue their growth. We feel incredibly lucky to have played a part in their entrepreneurial journey. By remaining true to our commitment to put entrepreneurs first and give before we get, we have attracted committed mentors, active investors, and strong community partners to drive real impact for our founders and the regional economy."

We met with Evans McMillon during our tour of the new building within which the organization has office space and then followed that up with a telephone interview after we had returned to Northern Virginia.

According to the 757 Accelerate website: "Evans is passionate about solving problems through innovation and collaboration. As an attorney, she helped growing businesses rethink their options and knock down the hurdles in their path towards growth. Most of Evans' opportunities materialized because she was willing to say "yes" and then get to work. Prior to joining 757 Accelerate, Evans worked as an attorney counseling big and small companies at all stages of growth from entity formation through IPO. She has practiced in law firms in Seattle and Virginia Beach, as well as serving as corporate counsel to ADS, Inc. Evans attended Dartmouth College and Duke University School of Law."

In our discussion with McMillon, she emphasized that 757 Accelerate works with startups at all stages but the sweet spot is those who have an early but operational product or prototype and need help validating product-market fit, gaining traction, and raising the capital needed to scale. Their three-month program "wraps founders in key resources" and mentor founders to help them accelerate their growth and attract investors.

757 Accelerate is only three years old, but their focus on being founder-focused, providing rigorous and impactful programming, and connecting startups to mentors, investors, and customers helps them reach critical mass, enter the market, attract private capital and scale, enhancing their chances for success.

As McMillon put it: "We are building an ecosystem that founders would want to be part of."

About the U.S. Navy, they have struggle with how to talk to companies at this stage of evolution, and many of these companies are at the cutting edge of generating new technologies. This means the Navy Tech Bridge leadership would like to be able to enter this space; 757 Accelerate makes a good partner to facilitate the process of translating Navy needs into early entrepreneurial language.

The challenge can be put this way: How does one shape an ecosystem on the Navy side to find early innovative technology and apply it to the fleet? What is the relationship between cutting edge technologies and the problems which the Navy needs to solve?

If indeed the Tech Bridge approach can embrace working with an innovative ecosystem shaping group like 757 Accelerate, they are well on their way to answering these questions.

The challenge is to source problems and find a way to get beyond engineering thinking and rely on design thinking.

As McMillon put it: "Connecting to design thinking is a major challenge for the Navy. For example, the design thinking behind the I-Pad was the need to make computing more mobile. And when you open the design aperture to examining all the various ways in which one might make computing more mobile, the tablet emerged as a leading answer. Apple did not initially set out to build a tablet; it was around how to design mobile computing, and the iPad was the best solution produced. It is about problem sourcing, rather than engineering driven design of an already envisaged product."

This is a very good example of the ecosystem in which the Navy will need to find new solutions, beyond the build process for major weapon systems. For example, we have seen with regard to C2F that VADM Lewis has focused central attention on how to do distributed C2 for an integratable fleet. He has had his team leverage what is already available to provide for such capabilities.

But if one were to follow McMillon's notion of design thinking versus engineering thinking, the question is: How might be able to achieve more effective distributed C2? What are all the possible ways? And what are the solutions which might be within reach in the commercial, security or military space?

In short, as the Navy pursues Tech Bridges, the challenge will be to break the engineering design/acquisition models and to incorporate a design thinking approach. And clearly, an organization like 757 Accelerate can help in shaping a new approach and connecting the Navy to new ecosystem paradigms.

C2 and Fleet Innovation in the North Atlantic

05/06/2021

With the standing up of Second Fleet in 2018, the stand up of Allied Joint Forces Command and the incorporation of the NATO Centre — Combined Joint Operations from the Sea – it is clear that Vice Admiral Lewis, who oversees all of this, has a clear focus on C2. To do distributed maritime operations or to build an integrated distributed force, one has to build around mission command C2.

This is totally at odds with the last twenty years of war in the Middle East. It is not hierarchical management at the tactical edge; it is about reshaping the force into modular task forces able to function on the basis of mission command and integrated as a coherent fighting unit. And because of the nature of the North Atlantic, this means from the ground up that the U.S. Navy and the sea services must be integratable with allied navies. And this requires training to do so as well as NATO C2 equipment on board.

Because the focus is on the ability to fight tonight, this effort is not about waiting for the optimal 2030 technology solution, which almost certainly will not come in any case. C2F from the beginning of its new life has been focused on how to do distributed C2 with the technology at hand. VADM Lewis has asked a simple but direct question: What can we do now with the technology which exists to deliver enhanced capability for an integrated distributed force?

He has tasked C2F to do this; he has tasked CJOS COE to provide a NATO input to how to do this. And at the same time, Lewis has generated the demand set to find ways to do this better with technology that is already out there or could be coming. He has done this in two ways – one with regard to NATO and the CJOS COE which is plugged into ACT's efforts to look at future warfighting capabilities and one with regard to the Mid-Atlantic Tech bridge and their working with a variety of technology companies to shape solutions relevant to the evolution of the fleet concept of operations.

During our visit to C2F in March 2021, the Command was working an exercise with a distributed command post deployed to Tampa at MacDill AFB. Vice Admiral Lewis was on a visit to NATO Europe, but as he commented when returning, "exercise ran smoothly with the team in place, which underscores the importance of exercising our ability to do the kind of innovative C2 which a distributed maritime force needs to operate with today."

The Tampa exercises was simply the latest in a series of ongoing distributed C2 exercises, with earlier ones having been done elsewhere, such as in Iceland or at Camp Lejeune (see stories in the appendix to the article below.)

We had a chance to discuss the expeditionary MOC approach with two members of C2F during our visit. Our first discussion was with LCDR Sean McDonnell in his office at the command. He has been in the U.S Navy since 1994 and is the Command's JICO or Joint Interface Control Officer. Among other things, he works with the Fleet's Global Command and Control System through which the ships and other C2 nodes connect to provide the commander with the most comprehensive picture that he has to command forces.

With the new C2F, Lewis has been focused as mentioned above on distributed C2 which means that LCDR McDonnell when he joined the command focused on how best to support this Distributed Maritime Operations (DMO) transition. The command is working expeditionary communications as a core capability or a core enabler of the force.

And by opening the aperture to do so, further innovation is enabled to shape a more interactive and integrated distributed force working with allies as well. A key task which has focused his attention is upon getting the US Navy more capable of working in an integrated manner with NATO European navies. He noted that "we are making significant progress In U.S. Navy assets communicating early and often over NATO networks and we have just installed BICES installed in our office." BICES is NATO's version of SIPRNET.

C2F is clearly focused on getting U.S. Navy strike groups much more familiar with NATO procedures as well. He noted that the COMPTUEX exercises (CSG-4) are "now including a NATO vignette where the strike groups have a BICES computer at their battle watch captain station, through which they give updates and communicate regularly with simulated NATO European fleet forces."

Our next conversation was with Captain Craig Bangor over the phone for he was deployed to Tampa for the C2 exercise. Captain Bangor was one of the very first members of the new C2F and was tasked by VADM Lewis from the outset to work the kind of C2 innovation he was looking for in the fleet.

As Captain Bangor: "C2 has become a bureaucracy unto itself. We focused on the outset on ways to unify the fleet in the Atlantic that could be distributed, work closely with allies, and be very integratable given the demands or the tasks."

He argued that "expeditionary C2 is a key tool we need in the tool box; it is not just sitting back somewhere and watching the show. We need to have intimate feedback from the commanders who are actually doing the work and expeditionary C2 allows me to have a much more effective force."

For the C2F team, then doing the C2 piece from the beginning is really a key effort. As Captain Bangor noted: "We need to have the ability to have C2 deployed to where it needs to go; and able to be well positioned to take advantage of adversary actions because the commanders that are doing the fighting can be enabled by the most effective C2 the fleet can provide. Interactive mission command is a key part of working effective distributed C2."

A third conversation was with CAPT Troy Denison. CAPT Denison is a Surface Warfare Officer and was the XO and then the Commander of the USS Truxtun (DDG 103) for three years from 2016-2018. Denison enlisted in the Navy in 1993 and became a commissioned officer in 1999 after graduating from the Virginia Military Institute.

Captain Denison provided significant insights into how working C2 differently allowed for what we have referred to more flexible modular task force operations. He noted that in 2019, the USS Normandy led a four-ship task force into the High North. This task force did not operate with organic U.S. counter air from a U.S. aircraft carrier, but allies provided such air cover as part of the integration effort.

The tie between a mobile command center and the deployment was evident.

The four vessels, the Ticonderoga-class guided-missile cruiser USS Normandy and Arleigh Burke-class guided-missile destroyers USS Lassen, USS Forrest Sherman, and USS Farragut and a helicopter maritime strike squadron are part of the <u>newly-reactivated U.S. 2nd Fleet</u> intended to counter Russian activity in the Arctic and North Atlantic.

The vessels sailed from their home base in Mayport, Florida earlier this month and on arrival formed a Surface Action Group.

As the 2nd Fleet does not have any permanent operations center in Europe, around 30 of its staff <u>set up</u> <u>a temporary Maritime Operations Center in Keflavik, Iceland</u>, which will coordinate the SAG's activity.....

"Iceland is a key ally, and its strategic location in the North Atlantic provides a perfect opportunity to test out our expeditionary MOC for the first time," <u>confirmed Vice Adm. Andrew Lewis, the commander of 2nd Fleet</u>. "Operating out of Iceland reinforces our partnership while allowing us to practice operating in an expeditionary manner and test our ability to surge forward."

Captain Denison noted that the deployment in 2019 was more by accident than design as the Truman was not available. But now they are focused on deliberate ways to design different types of task forces, which of course, works effectively with C2 as a key enabler.

It was clear in discussing the high north experience from this exercise and other developments, that working the High North with core allies or what Rear Admiral Betton calls the "relevant nations" allows for shaping of new paradigm of collaboration. The logistics and communications challenges, just to mention two of those challenges, certainly drives thinking through new ways to collaborate and to operate in the region.

We discussed this more fully with a fourth officer during our visit, CDR Shaun Servaes. He arrived at the beginning of the standup of C2F and was immediately tasked to work on the BALTOPS Exercise held in 2018. BALTOPS was the first exercise to be managed by C2F and this put them in the thick of a key part of the North Atlantic region affected by the return of Russia as a direct military threat to Europe. They embarked on the USS Mount Whitney to work the C2 part of the exercise and did so with significant NATO participation. So the first exercise presaged what was to come for C2F. The bulk of the force was provided by NATO, not the United States.

CDR Servaes underscored that the BALTOPS exercise underscored priorities for VADM Lewis in the initial standup of C2F. "Admiral Lewis has said since the beginning, he wants to integrate the Marine Corps with naval forces, basically be one force. He wanted to demonstrate as well that the US command element could command subordinate forces that were offered from other nations, as well as embarking international command elements with us. Our deputy commander was a UK commander of the taskforce."

We then went on to discuss the challenge of shaping an effective U.S. and Allied high north force. Here the logistics challenges are formidable. As CDR Servaes underscored: "If you look from St. John's,

Canada, which is the last place we can get gas heading north, go touch the Arctic Circle and come back to St. John's it is a longer transit than from San Diego to Pearl Harbor, which is the longest transit we have in the Pacific." Obviously, to address these challenges allied has to be built in from the ground up and with it an effective C2 structure.

In other words, the command is a warfighting weapon. Its value is driven by how the fleet can integrate across the combined air-maritime forces operated by NATO nations across the domain of the Atlantic. And this is about 360-degree defense operations, inclusive of undersea assets as well as space assets. It really is a kill web approach built around a comprehensive focus on C2, mission command, and an open aperture to encompass the best of new C2 technologies and leaving the rest.

By forging C2F as the command element working with Allied JFC, the real-world interaction between national fleets and C2 integration can be worked to ensure the capability to fight to night as well as evolving the template for incorporating new technologies and capabilities into the evolving force.

Appendix

June 2019: Expeditionary Command Post for C2F in Iceland

U.S. 2nd Fleet (C2F) has temporarily established an expeditionary Maritime Operations Center (MOC) in Keflavik, Iceland, to provide the U.S. Naval Forces Europe (NAVEUR) commander an additional ability to lead forces from a forward-operating location.

"I welcome C2F back to the European theater for the second time this year," said Adm. James G. Foggo III, commander, Naval Forces Europe and Africa. "The additive capacity that 2nd Fleet brings to the European theater when operating forward alongside U.S. 6th Fleet (C6F) contributes to the overall success of our naval forces' ability to address challenges and threats to safety and security in the maritime domain."

The expeditionary MOC, made up of about 30 members of C2F staff, has the ability to command and control forces, provide basic indicators and warnings for situational awareness, and is able to issue orders while maintaining reach-back capability to C2F's headquarters in Norfolk, Virginia.

"Iceland is a key ally, and its strategic location in the North Atlantic provides a perfect opportunity to test out our expeditionary MOC for the first time," said Vice Adm. Andrew Lewis, commander, U.S. 2nd Fleet. "Operating out of Iceland reinforces our partnership while allowing us to practice operating in an expeditionary manner and test our ability to surge forward."

The C2F expeditionary MOC is executing command and control of ships assigned to the recently deployed Surface Action Group (SAG), which is comprised of the Ticonderoga-class guided-missile cruiser USS Normandy (CG 60) and the Arleigh Burke-class guided-missile destroyers USS Lassen (DDG 82), USS Forrest Sherman (DDG 98), and USS Farragut (DDG 99), as well as embarked aircraft from Helicopter Maritime Strike Squadron (HSM) 72.

While in the Atlantic, the SAG is operating in support of naval operations to maintain maritime stability and security, deter aggression, and defend U.S., allied, and partner interests.

C2F's temporary operations out of Keflavik mark the second time the new fleet has operated at a forward location. C2F first demonstrated this expeditionary capability through command and control of exercise Baltic Operations (BALTOPS) in June 2019, when the majority of its staff embarked USS Mount Whitney (LCC 20).

"Successful operations in the Arctic require practice, and we will take the lessons learned from this deployment to further refine the expeditionary MOC concept for future operations in the North Atlantic and Arctic regions," said Capt. Chris Slattery, director, C2F expeditionary MOC.

The expeditionary MOC concept is scalable and temporary in nature. While the C2F expeditionary MOC is currently operating out of Iceland, there is no predetermined or permanent operating location in the European theater.

C2F exercises operational and administrative authorities over assigned ships, aircraft, and landing forces on the East Coast and the Atlantic. When directed, C2F conducts exercises and operations within the U.S. European Command AOR as an expeditionary fleet, providing NAVEUR an additional maneuver arm to operate forces dynamically in theater.

U.S. 2nd Fleet Commands Naval Forces from Camp Lejeune

JACKSONVILLE, North Carolina (NNS) — U.S. 2nd Fleet (C2F) has established an expeditionary Maritime Operations Center (MOC) at Camp Lejeune in Jacksonville, North Carolina.

This expeditionary MOC, made up of approximately 30 members of C2F staff, has the ability to command and control forces, provide basic indicators and warnings for situational awareness, and be able to issue orders with a reach-back capability to C2F's headquarters in Norfolk, Va.

Participating naval forces include the Dwight D. Eisenhower Carrier Strike Group (CSG), which is comprised of the Nimitz-class aircraft carrier USS Dwight D. Eisenhower (CVN 69), the guided missile cruisers, USS San Jacinto (CG 56), USS Vella Gulf (CG 72), and the guided-missile destroyers USS Stout (DDG 55), USS James E. Williams (DDG 95), USS Truxton (DDG 103), and more than 6,000 Sailors all stationed a Naval Station Norfolk.

"Camp Lejeune is the ideal location for Navy-Marine Corps integration opportunities," said Vice Adm. Andrew Lewis, commander U.S. Second Fleet. "For the purpose of this expeditionary MOC, our USMC counterparts are providing C2F with the supplies and equipment essential to the successful execution of this exercise."

In CNO's Design for Maintaining Maritime Superiority 2.0, C2F was tasked to be expeditionary—whether from a maritime platform or an austere location. Regularly operating C2F's expeditionary capability ensures our ability to respond expeditiously and proficiently when called upon.

Maintaining and expanding upon the ability to command and control forces away from headquarters is central to C2F's employment of forces in the Atlantic. During this iteration of the expeditionary MOC, II Marine Expeditionary Force assisted with infrastructure development. Both C2F and II MEF will draw lessons learned from this operation to inform future employment of an integrated command and control center in the future.

"We are implementing lessons learned from previous expeditionary MOC operations which will directly influence the way we employ naval forces at the operational level going forward," said Capt. Craig Bangor, Second Fleet MOC director. "To accomplish our assigned mission this time, we have included intelligence, logistic, cyber, information, and maritime operations and planning capability organic to the expeditionary MOC. While the team in Norfolk is leading and planning for a wide array of operations, our team in Camp Lejeune is solely focusing on the employment of the Eisenhower Strike Group as it crosses the Atlantic utilizing the expeditionary MOC capabilities."

The expeditionary MOC concept is scalable and temporary in nature, and the iteration in Lejeune marks the third for C2F sing it's establishment in August, 2018. C2F first demonstrated this expeditionary capability through command and control of Exercise Baltic Operations (BALTOPS) in June 2019 when the majority of staff embarked aboard USS Mount Whitney. Most recently, C2F employed a forward deployed expeditionary MOC in Keflavik Air Base, Iceland.

C2F exercises operational authorities over assigned ships, aircraft, and landing forces on the East Coast and the Atlantic.

02.26.2020

Commander, U.S. 2nd Fleet

Information Warfare and the Second Fleet

05/12/2021

The standup of the Second Fleet has occurred as the Russians have returned as a direct defense threat to Europe and have ramped up their nuclear capabilities against the United States.

But Russia is not the Soviet Union, so understanding Putin's Russia and its military is a key part of shaping an effective warfighting and deterrent strategy.

Russia has a very different geography to operate from than did the Soviet Union and the Warsaw Pact.

The newly formed C2F and its partner Allied Joint Force Command Norfolk is shaping its understanding as well of what the Russian threats in this new geographical context and how best to deal with them, notably in terms of the mandate C2F has.

In his recent <u>Proceedings article</u>, Vice Admiral Lewis put the challenge as follows:

Great power competition will be driven by investments in gray matter as much as gray hulls. Adversary technology and weapons development are catching up to those of NATO. We must create an advantage through how we train and fight. As a fleet commander, I am tasked with the employment of naval forces, and as a joint force commander, with the employment of joint and multinational forces. As these commands continue to develop, we must focus on operational learning to assess our own strengths and weaknesses and to understand the competition and the battlespace in which we will operate.

For example, in July, Navy Warfare Development Command facilitated the Fourth Battle of the Atlantic tabletop discussion, which presented U.S. and allied commanders from both sides of the Atlantic with vignettes to address command relationships, resources, mission priorities, and authorities. Insights derived from the exercise are creating a shared understanding of the maritime security environment in the Atlantic and Arctic among all participants and will help to define JFCNF's role as the command matures.

Both JFCNF and C2F are shifting their mind-sets from predominantly operating from the sea to fighting at sea—which requires mastery of the domains below, on, and above the sea. We are executing high-end maritime operations from seabed to space. Our collective security and interconnected global economy depend on open shipping lanes, unhindered air travel, and uninterrupted flow of data. While C2F is a maritime operational command focused on Atlantic operations, JFCNF's mission is joint and combined—requiring close coordination across all domains, with cooperation among various national and allied commands in the region. With a shared commander, mission, and geography, C2F and JFCNF are natural partners—each advocating for the other and working in unison.

While no "battle" is currently under way, Russia has increased its military posture during the past decade, to signal its ability to threaten allied capabilities, infrastructure, and territory. Russia has invested in capability versus capacity—it knows it will never have more ships, aircraft, or submarines than all of NATO—with an eye toward asymmetric capabilities. So, we carefully monitor Russian investments in force multipliers such as hypersonic weapons, submarine quieting, extended-range missile systems, and information warfare.

Russia's activity in the gray zone notably includes its underwater reconnaissance program and information operations. In recent years, Russia intensified its submarine activity around the undersea cables, which are essential for global communications—including the internet. The ability of an American user to access a website in Europe or vice versa largely depends on a network of several hundred fiber-optic communication cables that run across the ocean floor—and Russia has deployed submarines to map out the cables, likely in preparation for nefarious activity.

A key element of the competition revolves around information warfare – in terms both of shaping the adversary's perceptions and calculus as well as understanding how your adversary thinks, acts and operates. Russia is not the Soviet Union.

And the new Russia interacting with Europe and with the growing impact of China on Europe shapes perceptions of NATO allies and those perceptions are part of the information war calculus as well.

The importance of IW to the contemporary U.S. Navy is clearly underscored in many ways, one of these can be seen when visiting the new large deck aircraft carrier, the USS Gerald R. Ford.

The command deck of the carrier is significantly larger than the Nimitz class and the IW officer in the strike group is a key player in shaping how that command deck operates.

In <u>an interview last October</u> onboard the Ford, the CSG-12 Commander, Rear Admiral Clapperton along with Information Warfare Commander, Capt. Steve "Shep" Shepard, highlighted that "As a Strike Group, we are building IW into the ship from the ground up, and Shep and his team are working our mission planning and C2 systems with an eye to enhanced IW capabilities which can be delivered by the ship and interactive with the fleet and the joint force."

During our visit, we had a chance to talk with Captain David Wolynski, the Information Warfare Commander in C2F. He argued that his job was to know the adversary with the ultimate goal to be able to know the adversary better than they do themselves.

Obviously, this is challenging and not a static effort, for in combat certainly we have a reactive enemy, a learning adversary.

And in operations, the importance of learning what the adversary is doing, might do and with what combat of crisis management effect is a key part of the effort.

The way he put this was as follows: "How do we get better at getting within the adversary's decision-making cycle so that we can do a better job anticipating what they might do and for what purpose?"

Working with allies through the co-location of Allied JCF and the inclusion of the Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) provides an important input into working a more effective information warfare capability.

As Wolynski put it: "Many of our allies and partners have significant knowledge about Russian behavior and thinking. By working with these allies, we can do a better job of understanding the Russian decision-making cycle and ways to influence it as well." And notably if "we are in a localized conflict, local knowledge by allies can be a decisive information factor."

Vice Admiral Lewis has highlighted that it is not just about the gray hulls, but it is about the grey matter. As Captain Wolynski put it: "You are always looking for the tactical, operational or strategic limitations of the adversary to exploit for your advantage."

That is clearly a key part of working information warfare effectively.

But it is also very difficult to do, as the blue side may significantly mis-read the red side.

This is certainly something that we experienced in the years we worked on the Soviet threat and how to understand it, and to think through how to deter the adversary.

In the <u>Laird-Delaporte book on the return of direct defense in Europe</u>, the book started with such a case, namely, the Gordievsky affair. Gordievsky was a KGB operative who became a British agent and because of his inside knowledge of the thinking of the Soviet leadership was able to advise the Brits that they were significantly mis-reading NATO intentions.

MI6 set up a working relationship between what they were learning and presenting that in packages presented directly to the British Prime Minister. The most important package of information involved the launching of Operation RYAN by the Soviets. By the end of the 1970s the West had begun to pull ahead in the nuclear arms race, and tense détente was giving way to a different sort of psychological confrontation, in which the Kremlin feared it could be destroyed and defeated by a preemptive nuclear attack. Early in 1981, the KGB carried out an analysis of the geopolitical situation, using a newly developed computer program, and concluded that "the correlation of world forces" was moving in favor of the West.

General Secretary Andropov believed the United States was preparing to do just that and launched an operation to prove his conviction. "By implication, if proof of an impending attack could be found, then

the Soviet Union could itself launch a preemptive strike. Andropov's experience in suppressing liberty in Soviet satellite states had convinced him that the best method of defense was attack. Fear of a first strike threatened to provoke a first strike.

Operation RYAN was born in Andropov's fevered imagination. It grew steadily, metastasizing into an intelligence obsession within the KGB and GRU (military intelligence), consuming thousands of manhours and helping to ratchet up tension between the superpowers to terrifying levels."5 This particular affair underscores the key significance of senior leadership looking for information simply confirming what they already believe to be true rather than allowing for an honest intelligence effort to sort out what is really happening with regard to one's adversary. One might wish this was an historical comment, but it is much more an ongoing challenge in the intelligence and policy worlds. Self-licking ice cream cones for the intelligence to policy worlds can be fatal to both worlds.

"In launching Operation RYAN, Andropov broke the first rule of intelligence: never ask for confirmation of something you already believe. Hitler had been certain that the D-day invasion force would land at Calais, so that is what his spies (with help from allied double agents) told him, ensuring the success of the Normandy landings." The author added this priceless comment with regard to the self-licking ice-cream cone dynamic. "In a craven and hierarchical organization, the only thing more dangerous than revealing your own ignorance is to draw attention to the stupidity of the boss."

In his interview with another officer involved in VADM Lewis's two hatted command, that officer confirmed the challenge of how to read accurately what the adversary is really up to.

On March 5, 2021, Ed Timperlake interviewed RADM Stefan Pauly, JFCNF Chief of Staff. During that interview, the German RADM highlighted what he learned after the fall of the wall from examining how the East German navy was working during its Warsaw Pact days.

According to RADM Paul: "As a junior intelligence officer, I was one of the first officers who went to East Germany after the wall came down. I was able to read through their intelligence reports and got a sense of what they were really about as opposed to our projections of what we thought they were about.

"Let me give you two examples. When reading through East German assessments, I learned that when West German sailors had the weekend off and went home to visit their families, their movements were interpreted as moving those sailors toward West German ports and getting ready for action.

"A second example revolves around the East German practice of having their fast patrol boats always deployed facing the ocean. We interpreted this as being ready for deployment and moving out rapidly. We learned that a core reason for doing so was because they did not trust their guided missiles, because of concern that the fuel for the missiles could be ignited accidently. Because of such concern, they pointed the missiles away their ports."

In short, the core capability which Captain Wolynski underscored is a crucial one but requires a process that can deliver accurate perceptions guiding or informing combat operations.

In an interview Laird did last February in Norfolk with three Admirals, they all underscored the central of the Information function which needs to guide training as well.

What emerged from that discussion very much reinforced what we learned in Norfolk during our March visit.

"One key challenge facing training is the nature of the 21st century authoritarian powers.

"How will they fight?

"How will their evolving technologies fit into their evolving concepts of operations?

"What will most effectively deter or provide for escalation control against them?"

"There is no simple way to know this."

The Allied JFC Norfolk: Second Fleet's Portal to NATO Navies

05/23/2021

As the U.S. Navy works its 21st century approach to fighting as a distributed but integrated fleet, a key element of success in doing so will be its ability to work more effectively with allied navies as they evolve as well. As the maritime forces work through how to best to deter and to fight dealing with 21st century authoritarian powers, notably those who possess nuclear weapons, it is crucial that presence provides for an ability to shape capabilities which can allow for crisis management and escalation control when needed.

To do so, requires for the U.S. Navy as it evolves its warfighting and crisis management approach to not just engage with allied navies but to learn from them as well with regard to how to work more effectively together. The standing up of Allied Joint Force Command Norfolk, co-located with the newly established 21st century version of Second Fleet provides for such an opportunity.

During our March 2021 visit to Norfolk, we had a chance to discuss with a very experienced British Naval Officer serving on the JFC Norfolk staff. Captain Paul Russell is the Assistant Chief of Staff for Operations at the command. His experience spans global naval operations.

As examples of his experience, he deployed to the Falkland Islands for guard ship duties. He deployed down the West African coast and arrived as the first UK ship to go to Luanda for ten years. And his service has embraced working on the European Union Operation Sophia mission, which has been shaped to deal with the Mediterranean migration crises as well.

During most of his time with the Royal Navy, the size of the force was being reduced, and the Royal Navy had to focus on single ship deployments for their global operations. Obviously, this is challenging and requires significant seafaring competencies by the Captain and the crew. Captain Russell has navigated those waters for some time.

With the coming of the new carrier to the Royal Navy, there is a new focus on shaping task forces.

Notably, as the U.S. Navy shifts to thinking through new ways to fight as a fleet, in effect, what we call modular task forces are part of the recalibration as well. There is little doubt that as the Royal Navy

and Royal Air Force think through how to do air-sea task forces, their thinking will both influence and be influenced by the U.S. Navy as well.

As Captain Russell put it during the interview: "We provide a portal into NATO for the Second Fleet. Second Fleet is the tactical maneuver headquarters, but as a NATO command, we are focused on our role as an operational headquarters on protecting and defending the strategic lines of communication between Europe and America."

NATO Defence Ministers decided in June 2018 to adapt the Alliance's command structure with a new Atlantic command in Norfolk, and a command for support and logistics in Ulm, Germany. Joint Force Command Norfolk joined NATO's two existing Joint Forces Commands, located in Brunssum, Netherlands, and Naples, Italy.

Captain Russell argued that NATO European navies, in part because of their size, work closely together. He sees the co-location with C2F as an opportunity to bring that experience to be able to work more closely with the U.S. Navy. And as Vice Admiral Lewis has sought to put NATO C2 on U.S. Navy ships, this effort will become more widespread and effective as well.

According to Captain Russell, one focus of attention on working with the U.S. fleet is to ensure that it works to NATO standards, and not just U.S. Navy standards. "NATO procedures are well-founded and need to be incorporated on the US Navy side more effectively as well." Obviously, doing so will allow for a more effective integrated distributed force.

He also noted that changes in NATO policies are allowing for more flexible national engagements with other NATO nation's navies. Rather than a more rigid process of committing national platforms to a particular joint command, more flexibility is being generated whereby national deployments for national purposes can provide capabilities to task forces for a specific duration to achieve a particular policy or combat effect.

He argued that as the size of fleets will not grow to the scale of the challenge, a clear way ahead is shaping more effective integratability.

And he underscored, that he saw this as not only a technological development.

As he put it: "When you discuss the kill web, I would argue that the most gains in being able to do so will come for changes in policy, not simply technology."

The kind of policy changes crucial to progress in better integratability revolve around shaping more effective security management systems, such as foreign disclosure agreements, better use of software gateways to allow for more effective sharing of information, and the key element of shared training and warfare integration.

Captain Russell noted that with regard to the <u>Royal Navy and the United States</u>, the common aircraft, the common training and common operations being shared between the USMC and the Royal Navy onboard HMS Queen Elizabeth is a key element of the kill web.

"That engagement demonstrates an element of trust and information sharing beyond anything that has been shown before."

In short, NATO is evolution; the U.S. Navy is in evolution.

The goal of the Norfolk commands is to shape effective convergence upon effective operational capabilities.

Authors Note:

Having a Royal Navy Surface combatant as performed by Captain Russell deployed to the Falkland Islands for guard ship duties makes several seminal points about the legacy of the Falkland Island War for all seafaring forces.

In 1982, Argentine Junta leadership comprised of former military officers including both army Generals and an Admiral known as the "Galtieri Government" chose to invade and occupy British territory.

The first overt act was actually an "information war" move with "scrap metal merchants" infiltrated by Argentinian Marines raising their national flag on South Georgia Island.

A RN ice patrol vessel, HMS Endurance, had been sent to investigate. The CO of HMS Endurance Captain Nicholas Barker RN gave warnings that an invasion of the Falklands was possible and on 2 April 1982 Argentine forces mounted Operation Rosario an amphibious assault.

Sensing trouble the British very early had begun to move submarines south to cover the approximate 8,700 miles.

That was a prescient move because the surface naval battle of the Falklands war was settled decisively by <u>HMS Conqueror</u>.

On 2 May Conqueror became the first nuclear-powered submarine to fire in anger, launching three Mark 8 torpedoes at General Belgrano, two of which struck the ship and exploded. Twenty minutes later, the ship was sinking rapidly and was abandoned by her crew.

It was not surprising that a submarine could remove all surface threats against an opponent that was tragically for them clueless in conducting successfully any form of ASW. Using a submarine was a perfect platform.

This combat move was brilliant and not surprising because British military operations in the Falklands War were given the codename Operation Corporate and commanded by Admiral Sir John Fieldhouse.

The British Commander had a very impressive career.

Entering the RN in 1944; "In July 1964 he took command of HMS Dreadnought, the Royal Navy's first nuclear submarine. He attended the Joint Service Defence College in 1966, after which he became second-<u>in-</u>command of the aircraft carrier HMS Hermes"

Operations lasted from 1 April 1982 to 20 June 1982.

There are many insightful after-action reports on how the campaign played out leading to the magnificent and courageous British victory.

However, there are two original source points that transcend the Falkland campaign that must be mentioned.

Ed Timperlake then 2nd Lt USMC was assigned to the TA-4 advanced jet training pipeline in Kingsville Texas and had Argentine fellow student pilots in his squadron. They were very good pilots. Over a decade later their courage in flying a max range strike over the bitter cold South Atlantic against the British fleet in a single seat light attack A-4s is beyond dispute and they paid the price.

What was not known was that they were attacking to low and releasing their bombs before the mechanical fuse had a chance to spin up. Consequently, what could have been devastating for surface ships turned out mostly to be a direct hit only of the kinetic energy of just heavy non-exploding metal punching holes. Consequently, RN shipboard damage control teams had less a problem to fix. However, bombs with "snake-eye" retarded fins could have had activated fuses with exploding warheads when they hit but apparently there were not many "snakes" in their inventory. The attacking force never figured this out.

Now enter 21st Century social media because even just one individual in the British forces, including merchant seaman, bragging on a cell phone or on the internet about the Argie mistakes in their attack profile and many more ships could have been mortally wounded. Operational security, Op-Sec, is that important in today's electronically interconnected world.

The second firsthand point was in Ed Timperlake taking over the OSD Office as Principal Director Mobilization and Planning and Requirements, a civilian political position appointed by President Reagan and reporting to Secretary Weinberger, he saw firsthand the action directed by the U.S. Secretary of Defense.

Secretary Weinberger ordered essentially "Give the Brits whatever they need."

The lesson learned is National Command authority leadership always focusing on "the second day" of the outbreak of any combat; Where are the logistics and will everything be enough?

Queen Elizabeth II honored "Cap" Weinberger for his unyielding support during the Falkland's War.

In a private audience Tuesday with Queen Elizabeth II, former Defense Secretary Caspar W. Weinberger was awarded the highest honorary knighthood that Britain can bestow on a foreigner.

"He's been a staunch friend to Britain and will be remembered most of all for his unfailing support and assistance during the Falklands war," the Foreign Office said in a statement explaining the award.

The nature of the honor reflects the Thatcher government's assessment of his contribution to Britain's victory over Argentina in the Falkland Islands War of 1982.

Few details of U.S. involvement in the Falklands war have been officially confirmed, but the United States is believed to have passed to Britain critical intelligence material gathered by satellite, including Argentine ship and aircraft movements.

Shaping a Way Ahead for North Atlantic Defense: The Perspective of VADM Lewis

05/26/2021

With the strategic shift from the land wars, and meeting the evolving Russian challenges, Admiral Richardson, then the Chief of Naval Operations (CNO), directed the re-establishment of the U.S. 2nd Fleet in 2018. He put VADM Lewis in charge of the command, but it was a new departure not simply a re-establishment of the 2nd Fleet.

Vice Admiral John Mustin, now head of Naval Reserves but former Deputy Commander of the newly established 2nd Fleet, commented: "As the 2nd Fleet Commander, VADM Lewis clearly understands that we need to shape a new approach. When I was in High School in the 80's, my father was the 2nd Fleet Commander, so I can legitimately say that "The new 2nd Fleet is not your father's 2nd Fleet."

We had the chance to meet with the three commands under his leadership, C2F and NATO's Joint Force Command Norfolk (JFCNF) and the Combined Joint Operations from the Sea Centre of Excellence (CJOS COE), which has been folded into C2F. That Centre has played an important role in working the kind of allied integration which Lewis has sought and is working to employ.

VADM Lewis provided insights throughout the span of our conversations and meeting with his commands, and we sat down at the end of those engagements to discuss with him in his office on May 10, 2021 how he saw the way ahead.

We started by discussing the original standup of the command in 2018. The CNO had a clear desire to re-establish a command that could address North Atlantic defense, and notably the growing importance of coalition operations in the high north. C2F is not a large command, certainly when compared with other numbered fleets. And VADM Lewis worked the first three months with less than 10 staff members, during which time he worked the foundation of how the fleet should be established and how best to work its concepts of operations.

Question: How did you do the initial launch process?

VADM Lewis: "We had a charter to re-establish the fleet. Using the newly published national defense strategy and national security strategy as the prevailing guidance; we spent a good amount of time defining the problem.

"My team put together an offsite with the Naval Post-Graduate school to think about the way ahead, to take time to define the problem we were established to solve, and determine how best to organize ourselves to solve those challenges. We used the Einstein approach: we spent 55 minutes of the hour defining the problem and five minutes in solving it. Similarly, we spent the first two and a half months of our three-month pre-launch period working to develop our mission statement along with the functions and tasks associated with those missions.

"From the beginning our focus was in developing an all-domain and all-function command. To date, we clearly have focused on the high-end warfighting, but in a way that we can encompass all aspects of warfare from seabed to space as well."

Question: We are very impressed with the template you and your team have put together in shaping a way ahead. It is clearly an integrated distributed approach encompassing the allies as well. As you mentioned, resources are tight, and clearly effectively organizing U.S. with allied resources in the region provides significantly greater capability than simply focusing on the U.S Navy alone. How would characterize the shift which you and your team are shaping?

VADM Lewis: "Our Allies and partners across the Atlantic and into the Nordic region are also rethinking collective defense. These are both NATO and non-NATO nations that are clearly engaged in enhancing their national and collaborative capabilities.

"With regard to new strategies and policies, they are not simply checklists. It is reworking the art of warfare, innovating, overcoming things that do not work, and leveraging tools and processes that do work in reshaping force capability. We are clearly focused with our Allies on reshaping what we can do now with the forces we have now, in order to ensure a solid foundation for adding new capabilities in the future.

"I think that the challenge with overarching guidance from above is when it is too prescriptive. It is a question of working at the operational force level on new ways of doing things effectively. For example, there is an emphasis on shifting to distributed maritime operations. At C2F we are focused on concrete ways to operate from distributed maritime operations centers as a way to exercise agility at the fleet level.

"Although it is conceptual, our focus is on how to develop the Maritime Operations Center – or MOC – as an effective weapon system. We're talking about a distributed operation center across the battle space that is able to command and control forces from various locations. This allows for ease of communication or the ability to command more effectively and provide command functions in order to receive timely feedback from the tactical forces.

"I think to do this you have to have some imagination and flexibility in order to put the pieces together. We have exercised this concept through several distributed operations centers to various locations – the USS Mount Whitney for BALTOPS 2019, Iceland, Tampa, Camp Lejeune, New York (with the Comfort), and again on the Mount Whitney this month for Steadfast Defender 2021."

Question: The template which you and your team have put in place, shaping an integrated distributed force, is well positioned to encompass a number of the new technologies, such as maritime autonomous systems. How do you see the relationship between reworking concepts of operations and technologies?

VADM Lewis: "I've become somewhat jaded with technology because technology is just a means to an end. Said another way, it's just a tool. You have to ask what are we trying to get out of it? What's the objective? And then, how are we going to use that technology? The key point is that our processes need to be agile enough to absorb new technology without missing a beat. That's where I think we need to focus our efforts."

Later in the conversation, VADM Lewis brought together in a very clear way the importance of getting the C2 piece right and leveraging technologies approach to that effort to do so.

According to VADM Lewis: "An operational headquarters or a high-end tactical headquarters is a weapons systems. Normally, when warfighters discuss weapon systems, they refer to their platforms.

But the operational or tactical headquarters should be looked at as being a key weapons system, the glue that pulls a multitude of different weapons systems together in a coherent manner – both kinetic and non-kinetic. They can mass fires, mass effects, and maneuver in a coordinated fashion at the fleet level. That's what operational and tactical headquarters do.

"But we need to get better at being able to craft, shape and leverage operational or tactical headquarters as a weapon system. We have to get a lot better at doing so, and new technologies can be helpful here, which is one of my objectives for working with the Mid-Atlantic Tech Bridge."

Question: There are other command challenges, such as the division between Second and Sixth fleets in the Atlantic or how C2F will work going forward with II MEF, for example. How do you see the way ahead?

VADM Lewis: "We are working hard on this challenge. My main effort as the Commander of two NATO commands and a U.S. Fleet command is to ensure there are no seams in the Atlantic – seams that our adversaries can exploit. By communicating and working closely with our counterparts on the other side of the Atlantic, we can ensure we are working to close any perceived gaps. As an example, we recently conducted staff talks with Second Fleet, Sixth Fleet and II MEF. We are making progress thanks to the relationships we have spent time developing.

"In terms of C2, we can always be better about how we talk about and exercise command and control. My focus has been on the principles of mission command in which you emphasize trust with your commanders to lead distributed forces. You have to first understand the environment, and then you have to give clear intent. Once you have given this guidance, you let the distributed forces operate in a way that allows them to self-organize in order to meet the mission. This doesn't involve a whole lot of detailed control from various headquarters, rather it only provides enabling guidance that allows them to take initiative at the right level and to manage risk at the right level."

"I believe my role with regard to my subordinate commands it to mentor the commanders below me. My goal is to give them the right guidance and then let them command.

"I have two discussions each week with the operational strike group commanders that work for me—the first is focused on man, train and equip issues, and the second is focused on mission command and operational issues. It's an opportunity for me to hear about various issues and spend time listening. At other times, we'll bring in a guest speaker and discuss operational dilemmas others have faced to use as case studies for the group. It is truly time well spent with the strike group commanders who make up our waterfront leadership."

Question: How do you view the way ahead with integration with the USMC?

VADM Lewis: "We have a fantastic relationship with our USMC counterparts, and because of that relationship we have made great progress with integration. We have a few Marine staff officers working at 2nd Fleet, but I think we would also benefit from an exchange of sorts at the Flag level. I think we could make additional progress if we integrate a Marine as the deputy commander of C2F, and vice versa, a Navy commander as the deputy commander at II MEF. I have such an approach with my NATO JFCNF command, and it works well as we shape very concrete ways ahead to build more effective fleet operations with our NATO counterparts.