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The contents of this paper reflect my own personal views and not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract

How are Expeditionary Riverine Forces relevant to a Fleet Commander?

Within the United States Navy, there is a “*security guard* on the water” stereotype with regards to expeditionary riverine forces. This, in turn, results in expeditionary riverine forces being underemployed, creating an unrecognized loss of combat potential for fleet commanders. Subsequently this leads to overkill with the assignment of larger and more capable forces that are, at best, distracted from upper tier assignments and, at worst, unable to conduct primary mission functions. Broadening the scope of expeditionary riverine forces employment improves combat potential to achieve fleet level objectives across the conflict continuum. Expeditionary riverine forces remains relevant for the following three reasons. First, expeditionary riverine forces are able to achieve localized sea control. Second, expeditionary riverine forces are able to simultaneously alter relative combat potential assessments favorably for friendly forces and negatively for enemy forces. Finally, expeditionary riverine forces are able to conduct missions that require particular forces rather than high-end surface combatants or exquisite special operations forces.

Introduction

Within the United States Navy, there is a “*security guard* on the water” stereotype with regards to expeditionary riverine forces (ERF). This, in turn, results in ERF being underemployed, creating an unrecognized loss of combat potential for fleet commanders. This leads to overkill with the assignment of larger and more capable forces that are, at best, distracted from upper tier assignments and, at worst, unable to conduct primary mission functions. However, broadening the scope of ERF employment improves combat potential to achieve fleet level objectives across the conflict continuum. ERF remains relevant for the following three reasons. First, ERF are able to achieve localized sea control. Second, ERF are able to simultaneously alter relative combat potential assessments (RCPA) favorably for friendly forces and negatively for enemy forces. Finally, ERF are able to conduct missions that require particular forces in lieu of high-end surface combatants or exquisite special operations forces (SOF).

In conventional thought, riverine warfare does not currently play a major role in naval warfare. Since victory on open oceans decide the issue, riverine boats and Mk VI craft will only play a minor part, where needed, in the areas where surface combatants are contested or unable to travel. Current doctrinal ERF follow-on actions ashore and on inland waters are only critical to maintaining already established maritime superiority. In particular, ERF activities will contain brown water environments that ERF exploit in support of ground commanders’ objectives. However, this lack of creative employment comes from a stereotype that ERF are nothing more than waterborne security forces that are limited to defending assets moored pier-side. This underestimation of capabilities results in other assets being assigned to roles that limit the full employment of their multi-mission capabilities. By more creatively employing ERF, the bar is

raised for all forces through the ability of ERF to accomplish specific missions more rapidly and frequently, along with enabling multi-mission assets to establish maritime superiority.

Historical Context

The United States Navy (USN) has a long and steeped riverine history of achieving fleet level objectives. Examinations of past employment of small naval forces give insight for future creative assignments of ERF. USN endeavors have encompassed pursuits on inland waters to influence enemies since the American Revolution when General Arnold's "bold operation on Lake Champlain" delayed the British southern advance.¹ These operations have shaped the character of American naval war-fighting.² The history of riverine warfare is divided into five major periods, three that are defined by the Naval History and Heritage Command with two supplementary periods involving the disestablishment and reestablishment of dedicated riverine forces.³ Each period gives highlights into the nature of the American conduct of war and successful contributions of riverine forces. In actuality, USN began with an ERF focus, not until the Modern Period with the introduction of the Great White fleet, in a show of force, did the main focus shift to blue water. Furthermore, it was not until World War II (WWII) that demonstration evolved into application. However, even with the focus on blue water operations, ERF provided war-fighting actions to achieve fleet commander goals through Vietnam until its disestablishment in 1975.

Useful for analysis of ERF employment is how the Naval History and Heritage Command breaks down riverine history into the "Early Period, Middle Period, and Modern

¹ Willis, *American Independence and the Naval Factor*, 16-23.

² Willis, 16-23

³ Naval History and Heritage Command, *Riverine Warfare: The U.S. Navy's Operations on Inland Waters*.

Period,” ending with the Vietnam War.⁴ The Early Period is best characterized as Guerilla Warfare that is separate and distinct from the Continental “Fleet in Being” as defined by Corbett.⁵ Though the end consequence often resulted in similar effects as the blue water navy, riverine tactics displayed unique ingenuity from their larger siblings. In particular, Washington’s crossing the Delaware River is one of the most iconic, if not the most recognized, images of Revolutionary American thought with complimentary martial results.⁶ Following the Early Period employment of guerilla tactics was the professionalization of American military forces and the focus on defending the homeland. This aptly named Middle Period following the wars with Great Britain and the engagements of WWII demonstrated riverine force versatility of missions from countering piracy in the Gulf of Mexico and Caribbean to navigating large iron ships on rivers and sounds. The Middle Period also established the ability of riverine forces to deliver heavy firepower to accomplish missions. Inland and coastal forces did not have to rely on large surface combatants but could instead employ organic might to achieve objectives.⁷ Finally, the Modern Period of riverine history is characterized by projecting power well beyond the coastal influence of American shores. In WWII motor torpedo boats (PT) were added to screens for larger fleets, increasing overseas firepower and scouting. For example, a U.S. PT squadron initiated the Battle of Surigao Strait and contributed to the near annihilation of Vice Admiral Nishimura’s task force.⁸

Two supplementary periods define the time following the Modern Period, The Disestablishment Period and the Contemporary Period, the current period,. The Disestablishment

⁴ Naval History and Heritage Command.

⁵ Corbett, Julian S. *Some Principles of Maritime Strategy*. 209-211.

⁶ Norton, Louis Arthur. *Leading on Land and Water*.

⁷ Naval History and Heritage Command.

⁸ Vego, Milan. *The Battle for Leyte, 1944*. 261-266.

Period began shortly after the Vietnam War in 1975 and lasted until the Iraq War.⁹ The Contemporary Period began in 2006 when riverine forces were reestablished and trained by Marines who had taken on the mission following the Vietnam War as a means of executing security cooperation missions.¹⁰ The first deployment to Iraq by USN riverine forces during this period came in 2007. They were tasked with offensive missions, and equipped with the capabilities and infrastructure to execute them. These offensive missions greatly varied along the conflict continuum from support to open hostilities.¹¹ In 2012 riverine and maritime expeditionary security forces merged with the security side dominating the culture and resultant affixation of the “security guard on the water” stereotype.¹²

This examination of past employment and evolution of riverine forces reveals similarities to the imaginative prospect of ERF assignments. Currently, ERF forces spend the majority of their operational time patrolling 25 to 50 yards away from ships in various ports. ERF activity is relegated to waterborne security. They are not employed as capable offensive assets. More audaciously and intentionally employing ERF holistically raises the collective potential for all forces. The ability of ERF to accomplish specific missions more rapidly and frequently allows multi-mission assets to shed distracting missions that ERF are able to accomplish. ERF, throughout the history of the USN and when creatively employed, have been force multipliers that have tipped the scales of combat in favor of friendly forces and should not be consigned to “beat cop” duties. Thus, there is the imperative for fleet commanders to shirk the moniker of generic custodial forces from ERF.

⁹ Benbow, Robert, Fred Ensminger, Peter Swartz, Scott Savitz, and Major Dan Stimpson, *Renewal of Navy’s Riverine Capability: A preliminary Examination of Past, Current and Future Capabilities*. 8.

¹⁰ Benbow, Robert, Fred Ensminger, Peter Swartz, Scott Savitz, and Major Dan Stimpson, *Renewal of Navy’s Riverine Capability: A preliminary Examination of Past, Current and Future Capabilities*. 8.

¹¹ Rowlands, Kevin. *Riverine Warfare: Exploiting a Vital Maneuver Space*. 64.

¹² Rowlands, 64.

Establishing Sea Control

ERF achieve fleet level objectives through gaining and exploiting sea control. First, sea control must be defined in order to understand the potential for ERF capability. Second, it must be accepted that small maritime craft, not just large ships, are able to positively influence the outcome of hostilities between maritime forces. Finally, employment of ERF as small maritime crafts bridges the gap between theory and capacity in the establishment and utilization of sea control. As Milan Vego states, triumphant Navies must be “a balanced composition ... capable of operating successfully in all types of operating areas, from the open ocean to inshore waters.”¹³ It is this imperative that is the driving vociferation to ERF offensive employment.

Due to disparate definitions and similar terminology, a solidifying view of sea control is needed to demonstrate ERF relevancy to a fleet commander. Milan Vego provides a succinct definition useful for this analysis. Sea control is “one’s ability to use a given part of the ocean/sea and associated air (space) for military and nonmilitary purposes and to deny the same to the enemy in a time of open hostilities.”¹⁴ Vego goes on to caveat that sea control does not have to be continuous or absolute but has the ability to be bound by variations in time, space, and completeness. Important misconceptions to avoid are equating sea control to power projection and sea denial. Power projection is conducted in times devoid of open hostilities. Also, sea denial, though conducted during hostilities, is preventing the use of the ocean/sea by an enemy without the associated friendly control over the defined space. The difference is the fulfillment of a negative aim instead of a positive goal. The scope of this argument is directly centered on

¹³ Vego, Milan. *Maritime Strategy and Sea Control*. 61.

¹⁴ Vego. 24.

the role of ERF's ability to gain and exploit "a given part" of an objective area "in a time of open hostilities" as it pertains to fleet commanders.¹⁵

With a common definition of objective, a shift to theory of force application examines the impact of small maritime craft on the outcome of hostilities between maritime forces, not just large ships. The dynamic employment of small craft reflects back to the application of the Jeune École theory of fleet design and employment. The Jeune École concept begins in the 17th century.¹⁶ The principle tenant proposes utilizing "technology to undermine ... numerical superiority in a new way, [to promote] a form of asymmetric warfare"¹⁷ through large volumes of specialized ships. Shifting the mindset toward application of high-density small assets will allow the fleet commander to "enhance [his] naval power through the application of [small craft], rather than just adding to the budget."¹⁸ It is not simply small ships conducting *guerre de course* (commerce raiding) or defending the coast, but overwhelming numbers of small maritime craft conducting *guerre d'escadre* (fleet engagements) against unwitting ships of the line.¹⁹ Competitions of fleet against fleet require the provision of "covering force[s] of battle units specially adapted for fighting" that account for both strengths and weaknesses of friendly and enemy forces.²⁰ Developers of the Jeune École force concept "concluded that, instead of attacking [the] strongest point—the twenty thousand cannon of the [enemy]—[friendly forces] should aim for its weak spot ... this was a form of warfare in which [friendly forces] would be able to engage for an indefinite period."²¹ Friendly forces are strengthened through the

¹⁵ Vego. 24-26.

¹⁶ Hamilton. 491.

¹⁷ Canuel, Hugues. *From A Prestige Fleet To The Jeune École: French Naval Policy and Strategy Under the Second Empire and the Early Third Republic (1852-1914)*. 104

¹⁸ Hamilton, C. I. *The Jeune École: The Strategy of the Weak*. 491.

¹⁹ Canuel. 105.

²⁰ Corbett. 111.

²¹ Canuel. 104.

application of small maritime craft to achieve fleet objectives. The degree to which they are able to exert sea control aligns with Corbett's appreciation for specialized forces within the constitutions of fleets.²²

Carrying the concepts of *Jeune École* forward, ERF are small offensive maritime craft capable of establishing and utilizing sea control. ERF are able to play an important part in removing the enemy's means of fighting by attriting its material abilities to destroy friendly forces through a myriad of employment models. A few examples are the execution of surface-to-surface engagements, delivering expeditionary mine countermeasure forces, and supporting amphibious landings. Historical mission sets that ERF are conduct. By creatively employing ERF, fleet commanders can foil the enemy's ability to use designated water space by conducting rapid insertion presence missions that create an opportunity for control in order to achievement follow on objectives. This conduct of sea control in turn allows other more capable units to further extend sea control through the exploitation of the enemy's loss.

As evidenced by the American employment of PT boats in the Pacific Theater of WW2, riverine activity against capital ships brought about significant loss for the Japanese Navy.²³ In particular, PT boats considerably "complicated ... Japanese efforts in the Solomons, especially their nocturnal resupply and reinforcement missions known as the Tokyo Express"²⁴ through substantial numbers of craft armed with various anti-ship capabilities. These PT boats, in the Solomon Islands, "scouted [and] attacked enemy coastal transports and sometimes torpedoed regular warships many times their size"²⁵ all in direct support of the larger fleet exerting sea control. This employment demonstrates forces similar to ERF are able to achievement fleet level

²² Corbett, 111.

²³ Naval History and Heritage Command

²⁴ Nash, Philip. *Into the Dark Water: The Story of Three Officers and PT-109*.

²⁵ O'Brien, Francis A. *PT-Boat Officer in the Pacific*.

objectives in establishing and exercising influence over a defined objective area against a peer enemy. Application of Jeune École concepts within a larger Corbettian fleet constitution enables fleet commanders to harness assets that are not currently being used in an offensive capacity. Thus, the fleet will be able to more effectively achieve objectives. Extrapolating offensive ERF actions into contemporary planning enables a fleet commander “to use a given part of the ocean/sea and associated air (space) for military and nonmilitary purposes and to deny the same to the enemy in a time of open hostilities.”²⁶ Therefore, ERF achieve fleet level objectives through gaining and exploiting sea control.

Fleet Arrangement and RCPA

ERF are also able to simultaneously alter RCPA favorably for friendly forces and negatively for enemy forces. Fleet combat focuses on the process of attrition through the auspicious delivery of *firepower*. Captain Hughes defines firepower as “material means of a fighting unit to reduce enemy forces.”²⁷ First, enemy forces must be appropriately located to a level of granularity to deliver the firepower through a process called *scouting*. This process includes “acts of search, detection, tracking, targeting, and enemy damage assessments, including reconnaissance, surveillance, signals intelligence, and all other means of gathering information that may be used in combat.”²⁸ Second, through a *command and control* process, the scouting information is correlated, delivered to the commander for decisions, and then propagated to assigned forces. Third, this transformation of scouting and firepower is the commander’s means of converting the fleet’s potential strength into the reality of delivered might. Finally, *counterforce*, *antiscouting*, and *command and control countermeasures* are

²⁶ Vego, Milan. *Maritime Strategy and Sea Control*. 24.

²⁷ Hughes, Wayne P., Robert R. Girrier. *Fleet Tactics and Naval Combat, Third Edition*. 335.

²⁸ Huges, Grrirer. 336.

equally important actions to interfere with the enemy's firepower, scouting and command and control processes, respectively.²⁹ Naval combat is a force-on-force process that tends towards simultaneous attrition on both sides. Therefore, in order to achieve victory one must attack effectively first with all available resources. Adequate preparation, through the framework of RCPA, requires examining anticipated combat in order to inform the commander's intuition.

Presenting the enemy fleet commander with additional ERF offensive components induces the reassessment of anticipated firepower required to attrite friendly forces. Furthermore, increasing friendly force numbers simultaneously incites the recalculation of required defensive measures to protect the enemy fleet. The introduction of scalable friendly forces increases the fleet commander's ability to target enemy forces and complicates the enemy's ability to deliver effective firepower. As demonstrated with Jeune École concepts within a larger Corbettian fleet, ERF are untapped assets that bring added combat potential to RCPA.

ERF are capable of adding to the fleet commander's offensive combat power by enhancing available firepower and scouting through generating "a mass effect at a decisive place and time"³⁰ ideally suited for these particular scalable units. It is paramount to remember that "operations in which riverine forces have been involved display common, enduring characteristics ... across the spectrum of operations, from major combat to stabilization and peace support"³¹ that make ERF unique. These agile, scalable, and lethal small crafts contain inherent offensive capability through the ability to mass in number from varying vectors of approach and attack. Therefore, the integration of ERF into a larger force structure would

²⁹ Huges, Grierer. 334-6.

³⁰ Vego. 63.

³¹ Rowlands, Kevin. *Riverine Warfare: Exploiting a Vital Maneuver Space*. Naval War College Review 71, no. 1 (Winter, 2018): 62

increase offensive effectiveness with more freedom to maneuver since “the enemy would usually make much more of an effort to destroy a large ship, such as a cruiser or destroyer, than a small surface combatant.”³² In this way, ERF are able deliver firepower at an optimal time and place. Successful employment of ERF that spans the gap between the modern and reestablishment periods is evidenced by Columbian Marines against the FARC “[in] the core roles of riverine assault, surveillance, interdiction, and support ... [that] has provided a high degree of success in their long-term efforts”³³ can be mirrored by fleet commanders today. Also, due to the abundance of resources within each ERF, fleet commanders are able to send these low observable craft to *scout* with less risk than larger units and more frequently.

Defensive combat power is also bolstered through ERF ability to reduce the effect of enemy firepower, weaken enemy scouting effectiveness, and complicate enemy command and control. These agile, scalable, and lethal small crafts contain natural defensive capability through low radar detection and speed that complicate detection by the enemy. The accomplishment of *antiscouting* by ERF is achieved through blending into the existing environment. This intertwinement complicates the enemy’s job of locating the friendly fleet by forcing the “examination of hundreds of vessels plying the waters with little to differentiate them”³⁴ from surrounding commercial shipping. The various sizes of ERF craft are similar in hull construction and size to privately owned vessels. Each ERF unit has the potential to deliver *counterforce* through inducing expenditure of enemy *firepower*. Through the addition of friendly forces, enemy salvo calculations are diluted through simple arithmetic. Assuming the enemy is not able to regenerate *firepower* until returning to port, the numerator for available

³² Vego. 61.

³³ Rowlands. 65.

³⁴ Cutler, Thomas J., *Brown Water, Black Berets: Coastal and Riverine Warfare in Vietnam*. 93.

weaponry is fixed or decreased as fired. Furthermore, the denominator in the enemy salvo calculations goes up through the addition of available targets.³⁵ Therefore, simple ERF presence operations immediately dictate more favorable RCPA conditions for friendly fleet commanders. *Defensive awareness* further advantages the salvo equation as a multiplicative factor.³⁶ This additional variable is the actions to enable a ship's or group's defenses to detect and optimally defend that is further aided through ERF scouting. As a result of positive ERF contributions to offensive and defensive combat power, there are concurrent modifications of RCPA constructively for friendly forces and deleteriously for enemy forces.

Operationalize ERF

Finally, ERF are able to conduct missions that require particular forces in lieu of high-end surface combatants or exquisite SOF. Large surface combatants are required to win the high-end fight and conduct of lower tier missions reduce the potency of primary functions. Thus reducing the available resource pool to complete multiple missions. In contrast, SOF require unique modes of employment, tactics, techniques, procedures, and equipment. They are often conducted in hostile, denied, or diplomatically sensitive environments. Employing ERF in lieu of large surface combatants and SOF will stave off or reduce the impact of Hughes's warning that "[I]n the next war at sea we will see ships with empty magazines and little to show for the expenditure of what should have been the decisive weapon."³⁷ To avoid such a scenario, small ERF combatants are able to achieve specialized effects that both enable and free larger surface combatants and SOF to execute other fleet missions.

³⁵ Spaeder, Leo. *Get Small Or Get Shot*. Marine Corps Gazette 103, no. 12 (12, 2019): 30-33.

³⁶ Originally coined "alertness" by Huges, Grrirer, later modified to "defensive awareness" in MAWS Lecture 23 Introduction to Fleet Tactics given October 28, 2019.

³⁷ Huges, Grrirer. 195.

Multi-mission ships of the line are essential for victory in maritime domain. However, the environments in which they are employed often neutralize the ability to conduct certain warfare responsibilities due to the constraints of “their speed and maneuverability [being] drastically reduced when operating in shallow and confined waters”³⁸ for which ERF are ideally suited. Thus, the primary missions of anti-surface warfare, anti-air warfare, and anti-submarine warfare of *Ticonderoga* cruisers and *Arleigh Burke* destroyers are compromised when conducting missions for which ERF 40 PB and Mark VI patrol boats craft are uniquely capable.³⁹ As an example, USS Normandy (CG 60) conducted a boarding of a stateless dhow on February 9, 2020.⁴⁰ This conduct of a visit, board, search, and seizure (VBSS) operation took *USS Normandy* off station for several days prior to and following the mission. Compounding the issue of being off station are the manpower requirements to accomplish VBSS operations. Furthermore, since VBSS is not a primary duty, vital skill sets for VBSS members aboard large surface combatants atrophy over time, presenting dangerous challenges when conducting these specialized missions.⁴¹ Crew efficacy is further reduced in primary missions, as the draw of VBSS personnel come from the crew conducting essential functions on board ships. Accordingly, the available resource pool to complete the prerequisite multiple missions is compromised. ERF craft operating in these environments have the ability to free large surface combatants since these types of specialized missions are core ERF competencies. When applying the right tool for the right job, efficiencies are gained instead of the losses incurred when sending overmatched assets. It is akin to utilizing a sledgehammer to drive in a finishing

³⁸ Vego, 61.

³⁹ United States Navy Fact File.

⁴⁰ Vergakis, Brock. *Norfolk-Based Cruiser Seizes Iranian-made Weapons in Arabian Sea*. *Daily Press*, Feb 14, 2020.

⁴¹ Connolly, Lance M. *Visit, Board, Search, and Seizure Teams Need More Time to Train*. Vol. 142 United States Naval Institute, 2016.

nail. Certainly it is able to do the job, but a finer instrument is better to wield than such a blunt utensil. Fleet commanders must also understand that “operating highly capable but also highly expensive platforms outweigh[s] the potential benefits”⁴² of moving these ships into the littorals or narrow seas.

SOF are employed in highly demanding situations that command the utilization of exclusive skills to achieve effects. SOF services are often conducted in hostile, denied, or diplomatically sensitive environments. However, SOF are high-demand-low-density units. ERF and SOF are in alignment of all the SOF truths, save one. ERF are capable of mass production.⁴³ The mass production of narrowly focused ERF allow for the adoption of lower tier SOF missions. Accordingly, ERF are able to alleviate a portion of the demand on SOF. Infrastructure for ERF has increased and standardized since 2006 when they were reestablished. Correspondingly, “the Navy has boosted and improved training and communication,”⁴⁴ allowing for consistent sailor throughput. Furthermore, ERF are an asset that satisfies all the SOF Truths and can be the units that complete waterborne missions that require unique capabilities, but not at the exquisite level of SOF. ERF are able to “execute a variety of operations across all phases of military operations, including port security, troop insertion or extraction, inland counter-insurgency operations, organic air and fire support, organic unmanned aerial vehicle support, maritime interdiction, and command and control.”⁴⁵ Assumption of these roles and creative employment by fleet commanders allows ERF to remove what would be pedestrian to SOF, but completely within ERF historical usage.

⁴² Vego. 61.

⁴³ United States Special Operations Command Official Website. <https://www.socom.mil>

⁴⁴ Larter, David B., *The US Navy's Riverines are Up-Gunned, High Tech and Ready to Lean into Great Power Competition*. Defense News, July 7, 2019.

⁴⁵ United States Navy Fact File.

Therefore, employing ERF in ways that require precise strength in lieu of multi-mission surface combatants or exquisite SOF increases capacity and options to fleet commanders. Broadening the scope of ERF employment also improves combat potential to achieve fleet level objectives across the conflict continuum. Employing ERF in every avenue possible in place of cruisers, destroyers, and SOF will prevent or reduce the premature culmination of high-end forces. Therefore, making these assets available for decisive use at a time and place of the fleet commanders' choosing.⁴⁶ Avoiding overkill allows small ERF combatants to achieve specialized effects that both enable and free larger surface combatants and SOF to execute other fleet missions.

Counterargument

Some argue that making use of ERF are helpful only to individual units as augmentations, but not as offensive assets at the fleet level. Furthermore, ERF are low endurance craft that do not carry the required firepower to influence the enemy. First, in regard to ERF size, even with at-sea replenishment the on-station endurance is limited to several days compared to weeks or months of larger surface combatants. Also, due to the shallow draft of ERF vessels, environmental factors limit the opportunities to employ ERF in an offensive capacity.⁴⁷ Vessels of such shallow draft are more susceptible to high sea states.⁴⁸ Consequently, even if ERF are employed offensively, their sea limitations hinder offensive employment to the degree that they would be relevant to a fleet commander.

⁴⁶ Huges, Grirrer. 195.

⁴⁷ United States Navy Fact File.

⁴⁸ Barber, James Alden, 1934. *Naval Shiphandler's Guide*. Annapolis, Md: Naval Institute Press, 2005.

Additionally, it must be equally emphasized that the absence of ASCM within ERF does not allow them to enter offensive to the fleet fight.⁴⁹ In the twenty first century, guns have been eclipsed by the invention and mastery of ASCM. In order to influence a battle on the high seas or littoral environment, full-sized ships with the ability to project power with deep magazines are required. Large surface combatants can carry a variety of munitions into the fight to conduct precision strike with land attack missiles or defend designated assets ashore through ballistic missile defense. Against peer threats, large surface combatants are able to deliver the largest and longest-range weapons.⁵⁰ Therefore, small ERF craft serve no purpose in larger fleet actions and do not merit the attention of a fleet commander.

Rebuttal

Though it is true that small craft are limited in sea-keeping conditions and firepower, the inherent agility, scalability, and lethality of ERF ensure the combat potential of ERF and relevance to a fleet commander. As referenced by the Jeune École, within a properly constituted Corbettian fleet, a mixture of forces best suits the needs of all fleet commanders. ERF would operate in company with the larger fleet. The appropriate sized force garrisoned onboard an Afloat Forward Staging Base would be able to shelter from the sea and reconstitute combat power. A group onboard an Expeditionary Staging Base or a squadron embarked within Expeditionary Fast Transport gives fleet commander options for scalability. Utilizing a “mother-ship” concept allows for concurrent crew rest, regeneration, and refuge. Thus, ERF would be able to increase endurance equal to any ship of the line with the addition to increase command

⁴⁹ Huges, Grirrer.

⁵⁰ United States Navy Fact File.

and control potential with group or squadron staff embarked aboard the AFSB on scene with their combat forces.

Finally, firepower is more than the ability to deliver ASCMs. ERF in aggregate create formidable firepower through the volume of small caliber guns. Also, ERF craft could easily be outfitted with the Army FGM-148 Javelin fire-and-forget anti-tank Missile or the Marine Corps 84-mm man-portable reusable anti-tank Carl Gustaf Recoilless Rifle that are autonomous and in the inventory today. Furthermore, large proven and capable ASCM can be added to small craft ERF platforms, as evidenced by Strategic Concept Office (SCO) modeling.⁵¹ In addition, the more lethal and capable Naval Strike Missile is two fifths of the SCO conceptualization of the Long Range Anti-Ship Missile.⁵² This weight consideration would ease sea-keeping concerns, in heavier seas, or increase missile load out for ERF ASCM shooters, to maximize firepower.

Recommendations

The following conclusions for employing the ERF are made, and corresponding recommendations for fleet commanders are offered.

ERF is underemployed, creating an unrecognized loss of combat potential for fleet commanders. In a time where ASCM rule the day, fleet commanders will be limited to forces in theater. In a “fight tonight” scenario, the resources on hand will comprise the only assets until the fog of war lifts days later.

Recommendation. Transform current ERF employment from a defensive “wait and see” posture to an offensive “proactive and intentional” stance. Fleet commanders must direct their

⁵¹ Navy Recognition. *Lockheed Martin Studying Integration of LRASM Anti-Ship Missile on USV Platforms*. SNA 2018 Show Daily News. January 22, 2018.

⁵² United States Navy. Vol. 63 Navy League of the United States, 2020.

commanders and staffs to inculcate ERF into planning measures. In addition, the signal must be sent to Naval Expeditionary Combat Command (NECC), the ERF type commander, to increase the ability to deliver lethal force. First, a reintroduction of combat skills training at Camp Lejeune is required. Inculcating a warrior mindset begins with training. Second, fleet commanders must ask for platform lethality to be increased. Either incorporate weaponry already in the Joint inventory or expend research and development money to achieve lethal effects in the maritime domain. If the fleet truly wants to maximize offensive capability at a time and place of their choosing, then applying the implement of all elements available during peacetime is required. ERF need not abandon a core mission set of security, but should prevent the offensive skills from atrophying through deliberate planning, training, equipping, and exercising. Positive and calculated inclusion of ERF assets from schoolhouse to battlefield will increase fleet commander capacity and capability.

More so than peacetime service, fleet commanders require dynamic and capable units to win the maritime fight. Thinking beyond maritime security allows for classified plans to add another tool to achieve objectives.

Recommendation. Request Fleet Forces Command and Pacific Fleet to include ERF in blue water employment during the next Comprehensive Training Exercise (C2X). First, assigning ERF to blue water operations is not something that is expected from USN adversaries. Even if the enemy adapts, it is now another complication to consider when engaging in hostilities. Fleet commanders that “think outside the box” will be the more likely victors, assuming everything else is equal. ERF give that opportunity to employ an agile, scalable, and lethal force at a time and place of their choosing. Whether conducting independent operations for low observability or combined in larger fleet actions, ERF are potent capable units from USN heritage that have a

place in future operations. For the next C2X, embark a Coastal Riverine Squadron onto an acceptable ship class that is capable of delivering assets at sea. Introducing additional assets in a controlled environment with dedicated assets during already established training avenues will demonstrate measurable results to fleet commanders. Second, developing the tactics, techniques, and procedures (TTP) during peacetime will allow for a streamlined process that fleet commanders are able to apply immediately. Developing proper command and control or unit positioning will be best established where there are senior war-fighters that can utilize schoolhouses and warfare development centers whose charter is to train. Relying on the breadth of experience from senior officers, government service, and senior executive service personnel is as important to TTP development as history context is to informing future ERF employment.

Underestimation of ERF capabilities results in other assets being assigned to roles that limit the full employment of their multi-mission capabilities. Applying this overmatch results in the further degradation of combat potential in tying up capital ships in environments that greatly reduce their multi-mission capacity.

Recommendation. Immediately assign ERF assets to execute VBSS, guard key maritime infrastructure, conduct escort operations, exercise with international partners, support special operations forces, and keep an eye on regional military moves. Sending ERF to handle what is a menial task for the cruiser or destroyer frees these larger assets to conduct the full range of their design. First, these assignments are well within the core capabilities of ERF, but slowly decaying missions for these 10,000-ton workhorses. Second, rejuvenating employment of ERF to routinely conduct these assignments further enhances current security missions while simultaneously removing distraction from the larger assets. By not conducting VBSS, these cruiser-destroyers are able to conduct anti-surface warfare, anti-air warfare, and anti-submarine

warfare without environmental or crew drain impediments. Consequently, ERF capability is enhanced through active employment and cruiser-destroyer crews are able to focus more on their core mission sets.

Conclusion

Examining the past employment and evolution of ERF illuminates the combat potential of these agile, scalable, and lethal small crafts. As demonstrated, ERF continue relevance for the following three reasons. First, ERF are indeed able to achieve localized sea control. Second, ERF as small surface combatants contain the ability to concurrently modify RCPA auspiciously for friendly forces and deleteriously for enemy forces. Finally, ERF are able to conduct missions that require particular forces in lieu of high-end surface combatants or exquisite SOF.

Broadening the scope of ERF employment improves combat potential to achieve fleet level objectives across the conflict continuum.

Therefore, do away with the stereotype, ERF have tremendous offensive capacity that is not being accounted for at higher levels. ERF are able to help fleet commanders support the Chief of Naval Operations (CNO) four lines of effort as a surge ready force that can adapt and respond when called upon.⁵³ Fleet commanders will immediately see increased capacity with this small force guarding key maritime infrastructure, conducting escort operations, exercising with international partners, supporting special operations forces, and keeping an eye on regional military moves. Furthermore, if hostilities begin, ERF offensive employment aligns with the CNO number one priority of “war-fighting ... in competition, crisis, and contingency”⁵⁴ through established lethal practice in peacetime.

⁵³ Richardson, John M. *A Design for Maintaining Maritime Superiority 2.0*. 2018.

⁵⁴ Gilday, Micahel M., *FRAGO 01/2019: A Design for Maintaining Maritime Superiority*. 2019.

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