



A scout deploys from an MH-60S Knighthawk helicopter over Apra Harbor, Guam, on 1 February 2024. The interservice training event included elements from U.S. Coast Guard Station Apra Harbor; 3rd Squadron, 4th Cavalry Regiment, 3rd Infantry Brigade Combat Team, 25th Infantry Division; and U.S. Navy Helicopter Sea Combat Squadron 25 out of Andersen Air Force Base, Guam. (Photo by Josiah Moss, U.S. Coast Guard)

Scouts on the Water

A Critical Asset in the Pacific Theater

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The Pacific theater presents military planners with a complex problem: the area of operations is saturated with jungles and large urban centers. Given the resulting significant mobility problems, water infiltration can be a viable alternate means for a trained waterborne force. Access, control, and the ability to rapidly move on these waterways is critical for a military force. The Russian invasion of Ukraine and Ukrainian army counteractions have shown the importance of maintaining a waterborne force for bridging, raids, and security operations.¹

The U.S. Army, especially in the Pacific, must continue to build and maintain a waterborne capability. This capability provides commanders options and flexibility in an otherwise highly restrictive terrain environment. An important truth with waterborne operations is that a unit cannot build the capability or capacity overnight. Over the past two years, the “Raiders” of the 3rd Squadron, 4th Cavalry Regiment, 3rd Infantry Brigade Combat Team, 25th Infantry Division (hereinafter 3-4 CAV), have worked to build an internal waterborne capability. This article discusses the importance of a waterborne program and some friction points experienced along the unit’s training progression.

Waterways act as natural highways that allow the rapid transport of personnel and equipment through severely restricted terrain, serving as an alternative to air or ground movements. The Pacific area of operations is dominated first by the Pacific Ocean and second by dense jungles, mountains, and cities. Countries in the Pacific such as Indonesia and the Philippines are comprised of hundreds and thousands of smaller islands, where boats are the primary means of transportation. Other countries like China, Bangladesh, Myanmar, and Vietnam have major rivers that provide routes throughout key regions of the country. In tactical situations where air infiltration is not feasible due to accessibility of assets, weather, or even noise signature, the utilization of waterways as high-speed avenues of approach quickly becomes the best option for transportation. A unit operating in the Pacific theater will likely be close to a body of water, a river, or a coast. These water features can empower whichever combatant can utilize its advantages of speed and stealth. A multiday dismounted movement, which would be physically and mentally taxing on soldiers,

can be mitigated by a properly planned and resourced waterborne movement.

Specific Army units, like dismounted reconnaissance troops and engineer companies, have Combat Rubberized Raiding Craft (CRRCs) authorized on their modified table of organization and equipment. These CRRCs are 15.5 ft. long, can carry a maximum of ten personnel or 2,756 lb., and mount a 55–65 hp engine.² While this may work in flat water, the capacity can quickly drop when operating in open ocean conditions, with maximum capacity at six to seven personnel. A dismounted reconnaissance troop has nine CRRCs capable of transporting sixty-three to ninety personnel based on water conditions.³

CRRCs and their engines are specialized equipment requiring unique maintenance efforts and specially trained mechanics. The CRRCs’ employment requires fuel, usually in five-, nine-, or eighteen-gallon cans or bladders. The amount of fuel a unit can bring will directly determine the distance and time it can conduct operations.

Additionally, these rubber watercraft are vulnerable to puncture from existing obstacles, coral, bullets, shrapnel, or debris and trash in the water. Their vulnerability necessitates a thorough route plan and understanding of obstacles while mitigating all chances of enemy contact. While CRRCs can transport a unit through restricted terrain, they should not be employed where contact with an enemy element is likely.⁴

The Army often overlooks the skills required to operate in the water and with CRRCs. Waterborne capability—including developing subject-matter experts (SME), confident soldiers, and proficiency with equipment—cannot be produced overnight. It took 3-4 CAV over two years to build the waterborne program from initial familiarization to complete mission execution, consisting of a night infiltration through the surf with

combat equipment and weapons.

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Soldiers must spend time developing the individual and unit skills required to operate safely and effectively in the water and on CRRCs. While waterborne skills are not difficult to understand, mastery involves plenty of time and an expert's eye to reach a sufficient level of proficiency and be deemed trained. Establishing a joint relationship with Marine Corps counterparts was a significant factor in developing the squadron's capability. Instruction from the Marine Corps Amphibious Raid Branch, Expeditionary Warfare Training Group, Pacific, out of Coronado, California, provided the expertise injection required for the Raider Squadron and soldiers. Marine instructors are highly professional and eager to teach, coach, and train Army units seeking waterborne proficiency.⁵

The Army faces many challenges in preparing for and executing waterborne operations, but building that capability before conflict provides options to Army commanders. Three critical aspects of waterborne operation preparation are equipment, maintenance, and training.

Equipment and Maintenance

While CRRCs are vulnerable to puncture, they are resilient watercraft that can navigate calm water, surf zones, and open water. They can be quickly inflated and employed or deflated and stowed or transported. CRRCs are the ideal watercraft for light infantry and can carry an effective fighting force into areas larger vessels cannot navigate. The primary enablers for CRRC equipment are the engines and the associated fuel systems. While soldiers can propel CRRCs with oars, engines are essential for ocean travel and exponentially increase the maximum effective range. Thus, high-quality engines with submersible capability and fuel bladders (nine- or eighteen-gallon bladders are preferred) are essential equipment. The maintenance of this equipment requires the personal involvement of leaders and soldiers who both study the technical manuals and conduct research. Units with CRRCs and engines should have designated educated mechanics for the boat engines and SMEs for the inflatable crafts. The Raider Squadron saw significant benefits in sending Army maintainers to the Marine Corps CRRC Repair Course. After attending the course, Army maintainers could troubleshoot and fix outboard motor issues at the boat landing site (BLS).

Training

Succeeding in waterborne operations requires Army units to have trained soldiers and maintain expertise in five areas: scout swimmers, coxswains, CRRC and engine maintenance, waterborne operation planning, and individual swimming proficiency.

First, having trained scout swimmers who stealthily secure a BLS in urban, riverine, or ocean conditions ahead of the main body is essential to mitigate the risk of committing CRRCs into an area with an unforeseen enemy or obstacle presence. Scout swimmers are tasked to confirm, change, or abort a CRRC insertion due to an overwhelming enemy presence, dangerous obstacles, or other mission variables (METT-TC, or mission, enemy, terrain and weather, troops and support available, time available, civil considerations). Second, a unit performing waterborne operations must have individuals trained and confident in safely driving CRRCs; operating in all water conditions, day and especially night; conducting remedial actions; and taking charge of all types of passengers.

Units must take the time and allocate money to train soldiers to maintain the CRRCs and engines because they are unique equipment items. Use in water (especially salt water) carries a higher toll on the equipment. During- and post-mission maintenance are critical actions to ensure the equipment is ready when needed again.⁶

Waterborne and amphibious operations are by nature high risk. Due to the unique planning considerations and limitations, teams with waterborne capability must teach leaders the principles of waterborne operations. A failure to understand them could result in improper or unsafe employment, putting soldiers at greater risk.

Waterborne METT-TC considerations highlight the increased complexity. CRRCs should not enter an area with expected or likely enemy presence. Routes must factor in subsurface obstacles, and the BLS must be obstacle-free, facilitate moving to the objective, and be easily identifiable at night. The unit and especially the supporting staff must understand the sea state and weather. These two elements are leading factors for the mission's go-no-go criteria. Planners must understand the limits of their unit's level of training and capability, especially if a team is early in the training progression. Additionally, planners must mitigate the risk that other watercraft operating in the area present to CRRCs.



A U.S. Army scout swimmer with Comanche Troop, 3rd Squadron, 4th Cavalry Regiment, 3rd Infantry Brigade Combat Team (IBCT), 25th Infantry Division (ID), transports soldiers with Bravo Company, 2nd Battalion, 35th Infantry Regiment, 3rd IBCT, 25th ID, in a combat rubber raiding craft off the coast of Pyramid Rock Beach, Marine Corps Base Hawaii, on 17 May 2023. Scout swimmers secured a beach landing site to insert soldiers and facilitate their raid on an urban operations training site during training to ensure the units are ready to conduct a full spectrum of waterborne operations. (Photo by Sgt. Julian Elliott-Drouin, U.S. Marine Corps)

Finally, soldiers conducting waterborne operations must be capable and confident swimmers comfortable treading and swimming in open, calm, or surf zone water conditions. All individuals participating in waterborne operations must pass a combat swim test at the commander's discretion to mitigate the natural risk of being in and on the water.⁷

Staff Running Estimates

From an operational standpoint, CRRC operations have their unique challenges. First, as mentioned, the rubber boats are vulnerable to puncture and do not offer protection or the ability to mount heavy weapons. Leaders must restrict CRRCs to areas least likely to receive enemy contact. The CRRCs have separate chambers that protect the boat from sinking if there is a puncture; however, a leak would severely reduce the CRRC's mobility and leave the unit vulnerable.

Similarly, any motor issues will severely lessen a unit's maneuver capability. To mitigate this risk, ensure CRRCs cross-load personnel and equipment in the case of a "down boat" or "down motor" and conduct all transits with a trained mechanic equipped with essential tools and a repair kit for on-the-go repairs while being towed. Second, the water state (inland, calm, open water, surf zone, etc.) and the weight of the personnel and equipment transported determine the range of the CRRCs, which determines the fuel requirement. Failing to plan fuel consumption properly will result in catastrophic mission failure and, in the worst case, stranding CRRCs with oars as the only means of propulsion. Accommodating fuel consumption factors requires all key leaders and CRRC operators to be educated on fuel consumption calculations. To utilize CRRCs on waterways within jungle regions of the Pacific, the staff and unit must have accurate



Soldiers from 3rd Squadron, 4th Cavalry Regiment, train in the pool 9 January 2024 during the Marine Corps Scout Swimmer Course at Miramar Navy Air Station, California. (Photo by author)

charts of the area to avoid obstacles and understand what typical civilian watercraft on the waterway look like. Inaccurate charts would be the quickest way for a waterborne mission to fail, putting lives at risk and leaving a unit vulnerable in an unfamiliar area. CRRC utilization must be stealthy. Thus, we must know when other elements (friendly, enemy, civilian) are active on the water to avoid contact or help mask a movement. Ultimately, the best time to utilize CRRCs is under the cover of night. With properly trained individuals, a unit will quickly overcome these operational challenges and achieve mission success.

Conclusion

Maintaining a waterborne capability gives commanders another option for troop transportation and clandestine insertion; it transforms waterways from obstacles to high-speed avenues of approach. Units with a waterborne capability can react to a

full spectrum of critical situations, from humanitarian assistance missions to large-scale combat. In the Pacific, dense jungles and steep gulches severely restrict movement; however, utilizing waterways provide another means to move rapidly and efficiently within the theater. Many major population centers and small villages exist on bodies of water with bridges, canals, and harbors. Thus, waterborne mobility is applicable in the urban environment where canalizing infrastructure such as bridges, susceptible to destruction or enemy observation, can be avoided using waterways with CRRCs. While it is optional for every unit in the Army to have a waterborne capability, all infantry brigade combat teams aligned to the Pacific Theater should have a waterborne-focused asset and should have SMEs familiar with the principles of waterborne operations. This waterborne capability turns an obstacle into an asset and empowers the unit to move and fight unexpectedly, maintain tempo, and win the conflict. ■

Notes

1. Stavros Atlamazoglou, "British Commandos Have Trained Hundreds of Ukrainian Marines in the Art of Amphibious Raids," *Business Insider*, 13 September 2023, <https://www.businessinsider.com/british-royal-marines-training-ukrainian-troops-in-amphibious-warfare-2023-9?amp>.
2. "Combat Rubber Raiding Craft (CRRC)," *American Special Ops*, accessed 15 May 2024, <https://www.americanspecialops.com/boats/zodiac/>.
3. "C Troop, 3rd Squadron, 4th Cavalry Regiment Boat Modified Table of Organization," *FMSWeb* [CAC required], accessed 20 May 2024, <https://federation.eams.army.mil/pool/sso/authenticate//15?f=c&m=GET&p=8818&r=f&u=https%3A%2F%2Ffmsweb.fms.army.mil>.
4. Army Techniques Publication 3-18.12, *Special Forces Waterborne Operations* (Washington, DC: U.S. Government Publishing Office, 2016), 1-10.
5. 3rd Squadron, 4th Cavalry Regiment, lessons learned from training progression.
6. *Ibid.*
7. *Ibid.*