

Equip the Mobile Reconnaissance Battalion Now

More than a new platform

by Maj Brent Jurmu, Capt Brandon Klewicki & Maj Matthew Tweedy

The 37th Commandant of the Marine Corps 2016 *Marine Corps Operating Concept (MOC)* laid the groundwork for what the 38th Commandant, Gen Berger, coined *Force Design 2030 (FD2030)*. In the *MOC*, Gen Neller expressed that “mission success more than ever depends on the ability of commanders and forces to act quickly and effectively based on the most accurate and timely data available.”¹ The *MOC* emphasized critical tasks focused on preparing and enabling the Marine Corps to “integrate with the Naval force to fight at and from the sea” and to “train and experiment with the other Services, nations, governmental agencies, and non-governmental organizations to develop and sustain Combined/Joint capabilities.”² From 2019–2022, *FD2030* focused heavily on achieving these critical tasks; particularly through the light armored reconnaissance (LAR) community’s transformation to become mobile reconnaissance battalions (MRBs). In Gen Berger’s final of three annual *FD2030* updates, he directed the LAR community to continue its transformation to multi-domain mobile reconnaissance, including “maritime reconnaissance (waterborne) companies, light mobile companies, and light armored companies,” based on the guidance outlined in the 2018 *National Defense Strategy (NDS)*,³ which was subsequently reaffirmed in the 2022 *NDS*.⁴ The Marine Corps’ primary mobile reconnaissance platform is 40 years

>Maj Jurmu is a career Light Armored Reconnaissance (LAR) Officer. He currently serves as 2d LAR Battalion’s Executive Officer.

>>Capt Klewicki is 2d LAR’s Light Mobile Reconnaissance Company (LMRC) Commander. He and the LMRC deploy annually with Task Group 61/2.4, supporting maritime domain awareness for the Navy’s 6th Fleet. He previously served as a Rifle Platoon Commander and Company Executive Officer with 1/3 Mar.

>>>Maj Tweedy is a career Infantry Officer having served at both the platoon and company levels at 3/2 Mar and 2/2 Mar, respectively. He currently serves at the Capabilities Development Directorate.

old and the operational environment, character of war, and threats to U.S. national security have evolved since the first light armored vehicle (LAV) rolled off the General Dynamics assembly line. In the late 1970s and early 1980s, the DOD was predominately focused on potential conflict with the Soviet Union in the Fulda Gap on the plains of Northern Europe. In 2024, we are experiencing a resurgent era of great-power competition where rapid technological advancements have prompted modernization efforts through *FD2030*. Continuing to challenge the utility of heavy, logistically constrained platforms, *FD2030*’s next task is to address the comprehensive transformation of mobile reconnaissance formations. This transformation begins and ends with a transparent exchange concerning the manning, training, and equipping of future mobile reconnaissance formations. After multiple years of mobile reconnaissance operational planning team efforts, worldwide experimenta-

tion, and countless passion-filled debates within the LAR community, it has become clear that the success of the LAR-to-MRB transformation will be contingent upon objective, threat, and fact-based discourse that we trust this article will encourage.

In this article, veteran LAR stakeholders and newcomers to the MRB transformation discussion will find a discussion about the importance of the “LAR mindset” and how we argue this mindset should drive transformation; a brief history of the mid-2010s “Armored” Reconnaissance Vehicle (ARV) initiative and its transition to today’s “Advanced” Reconnaissance Vehicle project; an explanation of the development and operational deployments of 2d LAR’s Light Mobile Reconnaissance Company (LMRC), including its integration of enhanced sensor networks into the broader naval, Joint Force, and ally and partner command and control architecture; and tangible near-term (two to three years) recommendations

that we believe can help our Corps most effectively realize the *FD2030* MRB vision. We trust this deck plate, on-the-ground, on/under-the-water, remotely in the air, and information space perspective will provide our senior leaders, reconnaissance organizations, and our infantry formations with valuable, real-time, and operationally relevant insight concerning ongoing mobile reconnaissance transformation efforts.

A Platform Agnostic Model

While attending Command and Staff College in 2011, now-Colonel Philip Laing wrote, “it is the LAR mindset and not the equipment that makes the LAR unit a combat multiplier on the battlefield.”⁵ In his thesis, Laing emphasized that decades of tasks

concept emerged as the Corps’ multi-domain mobile solution to conducting armed reconnaissance and *surveillance* operations in the littorals against peer and near-peer threats.⁷

Building on Laing’s emphasis of mindset over platforms, Gen Berger stated in the May 2022 *FD2030* annual update that “our LAR battalions must transition from their current ground vehicle-centric approach to an all-domain mobile reconnaissance approach.”⁸ To achieve this intent, our current and future mobile reconnaissance Marines require highly mobile and multi-domain platforms for various R&S missions, on land, water, air, and in the information space. Laing’s argument for investing in the LAR mindset promotes a broader understanding of the R&S mission

ing the LAV family of vehicles (FoV) with an ARV FoVs. This FoV would include, for example, a modernized 30mm chain gun as an improvement over the LAV-25’s 25mm chain gun. Not until *FD2030* did attention shift toward transformational, cross-domain, mobile reconnaissance capabilities distinctive from the LAV FoV and capable of persisting and thriving in the littorals within an adversary’s weapons engagement zone. Despite lessons learned from recent wargaming and experimentation, and near-daily realities gleaned from the ongoing war in Ukraine, the LAR transformation to MRB remains wedded to the pre-*FD2030* ARV initiative costing \$6.6 billion through 2032 on top of the hundreds of millions already spent on platform research and development.⁹ Transparency regarding these cost estimates, to include future ARV operating and maintenance costs, is missing; however, most concerning is our Service’s all-or-nothing approach to ARV acquisition. ARV’s uncertain future must be divorced from our community’s immediate access to battle-tested technology such as organic precision-fire loitering munitions, first-person view drones, Next-generation Light Anti-tank Weapon, and Javelins. Additionally, R&S doctrine remains largely stagnant 40 years after the LAV was fielded. Yet, the ARV initiative persists without even a basic understanding of how a vehicle, larger and heavier than the LAV, will enable the Service to execute more distributed and lower signature mobile reconnaissance operations as envisioned in the *MOC*, *FD2030*, and concepts for expeditionary advanced base operations (EABO) and Stand-in Forces (SIF).

To be clear, as best we can tell, our limited Department of the Navy/Marine Corps research and development funding continues to be invested into legacy, mid-2010s concepts with impunity. Without a comprehensive analysis of littoral, integrated Navy-Marine Corps and joint mobile reconnaissance and surveillance requirements the Service risks settling once again on ground-centric platforms when the moment calls for multi-domain platform development and acquisitions ingenu-

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related to mobile groundbased reconnaissance and screening operations had left LAR battalions atrophied in their ability to develop and advance doctrine aligned with missions more conducive to current and future operating environments. Decades of suboptimal employment and a lack of near-peer threats have led to a shift from LAR’s traditional reconnaissance/counter reconnaissance (RxR) mission toward offensive and security operations.⁶ Given the modern and projected threat environment, Laing’s now thirteen-year-old argument for updating mobile reconnaissance and security (R&S) doctrine and concepts of employment remains highly relevant. Before committing to new multi-billion-dollar vehicle contracts, such as the proposed ARV, the LAR community’s decades-long focus on groundbased reconnaissance and *security* operations must adapt to the threat environment. Distinct from LAR’s doctrinal origin, the MRB

through a platform-agnostic approach that enables sensing, communications, and organic over-the-horizon strike capabilities. The successful transformation from LAR battalions to MRBs thus warrants an open-minded, transparent, threat-based assessment prior to the acquisition of any long-term platform solution, ARV or otherwise. The LAR mindset, coupled with the right training and equipment, will be the ingredients that decide our community’s effectiveness in supporting the MAGTF, all numbered fleets, and the Joint Force

Where Did the ARV Come From?

Directly tasked with replacing the LAV, the Marine Corps ARV initiative was established nearly ten years ago as an “armored” capability platform replacement program reminiscent of the legacy LAV’s foundational RxR purpose. Up until 2019, the vision for our Service’s LAR community involved replac-



Current prototypes to replace the LAV, left to right: Textron's Cottonmouth (courtesy of Textron) and General Dynamics' Land Systems' ARV (courtesy of General Dynamics).

ity. Unfortunately, as illustrated in the images below, for nearly ten years, capability analysis has predominately focused on armor requirements and replacement goals rather than transformative capabilities and comparative advantages across domains in the current and future operational environments.

The Office of Naval Research has stated that it “is sponsoring research to develop the next-generation *Armored Reconnaissance Vehicle (ARV)*, in preparation to replace the Marine Corps’ current *Light Armored Vehicle (LAV)*.”¹⁰ However, the Service’s shift to ARV lacks a realistic, threat-informed, multi-domain reconnaissance capabilities-based assessment, which is essential for the transformational shift needed to build future MRB formations. Open dialogue about research, development, testing, and experimentation dollars and procurement decisions benefits both our Corps and the Joint Force writ large. For this reason, the *Congressional Research Service* has also recently recommended that Members of Congress seek from our Corps an “official position on the operational requirement to procure the advanced reconnaissance vehicle (ARV).”¹¹ Absent careful examination and realtime operational feedback tied specifically to efforts to achieve the intent envisioned in *FD2030* and concepts such as EABO, our current LAR community risks continuing on a trajectory of long-term adoption of obsolete technologies based on 40-year-old armored reconnaissance concepts. We argue continuing down

this path will result in missed opportunities to fully reimagine mobile reconnaissance formations, purpose-built to fight for information in modern, integrated Navy-Marine Corps, joint, and combined environments.

Light, Mobile Reconnaissance Now

In the 2021 *FD2030* annual update, Gen Berger specifically directed LAR battalions to begin experimenting with a more operationally relevant reconnaissance force capable of competing in and winning the battle for information. Shortly after this update, the Service released *A Concept for Stand-In Forces*, outlining how our Corps will integrate with the fleet and joint forces by operating with much lower signatures within the range of adversary sensor networks and strike capabilities while complicating adversary decision making.¹² A few months later, our then-Assistant Commandant (now the current Commandant) published an article in *Proceedings* entitled, “Stand-in Forces: Adapt or Perish,” which opened with the following words: “Small, mobile, and lethal, Marine Corps stand-in forces will be ready to deploy on short notice to disrupt an adversary’s plans at every point.”¹³ Woven throughout the SIF concept and article was the need, as the 2018 and 2022 *National Defense Strategies* both direct to “integrate with allies and partners, leveraging to the maximum extent possible the access and placement afforded by the hosts to move freely within the ‘contact layer.’” Thorough integration with our allies

and partners also enables our Marines, in addition to becoming an extension of the fleet, to become a part of and leverage our allies’ and partners’ sensing abilities.

Our Commandant and Assistant Commandant’s guidance informed an aggressive year of experimentation across 2d LAR, 2d MarDiv, and the II MEF. This experimentation accelerated further when the 2022 *FD2030* update directed LAR to transition from the traditional “ground-vehicle-centric” approach to a more robust and capable mobile reconnaissance construct.¹⁴ This transition materialized into 2d LAR’s first of three RxR Baltic and broadened European deployments with Task Force (TF) 61/2. For readers unfamiliar with TF 61/2, it provides an integrated naval headquarters (HQ) capable of commanding and controlling Navy and Marine forces in support of the U.S. 6th Fleet across all of Europe and Africa. A key responsibility of this HQ is to facilitate the employment of the SIF, whose “mission(s) include operational preparation of the environment, amphibious reconnaissance, maritime domain awareness, and strike coordination.”¹⁵ Over the past three years, 2d LAR has been intimately involved in supporting these TF 61/2 missions, particularly through the operational experimentation of our Light Mobile Reconnaissance Company (LMRC).

Despite these noteworthy operational experimental efforts, some of which garnered direct praise from the European Command (EUCOM) com-



Ultra-Light Tactical Vehicle (courtesy of Polaris Government), **the Flyer** (courtesy of General Dynamics), **Joint Light Tactical Vehicle** (courtesy of Oshkosh), **Multi-Mission Reconnaissance Craft** (courtesy of Ullman), and **Hydrofoiling Wing-in-ground Effect Seaglider** (courtesy of REGENT).

mander in testimony before the House Armed Services Committee, and ever-clearer guidance from the Commandant, the mid-2010 envisioned ARV remained—and remains—the backdrop upon which any discussion about LAR’s future hinges. For unknown reasons, the community still lacks all-domain mobile R&S advocacy at the Headquarters Marine Corps level. As best we can tell, the future of the mobile R&S community is unequivocally tied to pre-existing ARV visions rather than being informed by innovative all-domain, integrative, inclusive programs of record and lines of accounting available across the DOD. To increase the probability of success in transformation to the all-domain MRB, the Corps should leverage the lessons learned from the LMRC’s past three years of operational experimentation, predominately executed in support of integrated fleet headquarters and combatant commander requirements.

Light Mobile Reconnaissance Company

In addition to being heavily informed by our Commandant and Assistant Commandant’s direction, 2d LAR’s LMRC efforts were, and have been, strongly influenced by an October 2020 *Marine Corps Gazette* article, entitled “Rethinking Mobile

Reconnaissance.” In this article, Maj Jacob Clayton and Col Michael Nakonieczny described the vision for this future multi-domain reconnaissance formation, explicitly stating:

To deliver the value that the Commandant’s Planning Guidance requires, the Marine Corps cannot replace the LAV with a single vehicle. Rather, the Marine Corps should design a family of unmanned and minimally manned reconnaissance platforms to operate in the maritime security area. These new capabilities require the transformation of light armored reconnaissance units organized around a single mobility platform to a new unit, a mobile reconnaissance squadron, organized around multiple mobility platforms.¹⁶

Throughout their article, the authors outlined the need for multiple, low-signature mobility platforms, including light groundbased vehicles and small watercraft capable of being rapidly transported across domains. In their view, which 2d LAR’s three years of operational experimentation in direct support of the EUCOM commander’s requirements have validated, the MRB would be defined not by any single platform, but instead by the multi-domain reconnaissance activities of which it must be capable. In short, rather than the future of the MRB centering on a

single LAV platform as the LAR battalions have been, the MRB must retain the flexibility to experiment with and employ a diverse tool kit of existing and future cross-domain capabilities.

Informed by ideas like Clayton’s and Nakonieczny’s, and as directed in the 2022 *FD2030 Annual Update*, 2d LAR’s LMRC is a task-organized, manned, trained, and equipped R&S formation purpose-built to conduct maritime domain sensing, and if required, strike operations in the brown-water littorals. In the spring of 2022 and 2023, the LMRC deployed under TF 61/2 in direct support of the Navy’s 6th Fleet’s maritime domain awareness priorities, providing “an enhanced understanding of a potential adversary’s activities.”¹⁷ Operating in elements of no more than eight Marines, the company’s mobile reconnaissance teams have employed small, unmanned aircraft, commercial off-the-shelf navigation radars, and secure digital communications systems to provide a low-signature asset to the fleet commander as part of his information, surveillance, and reconnaissance plan. During these periods, numerous U.S. allies enabled the company to have nearly unfettered access to the entirety of the Baltic coast (and other parts of the European theater) along with their local economies and military



Left: LMRC operating from Swedish maritime platform (courtesy of Sgt Victor Mancilla–DVIDS, MFEA). **Right: LMRC disembarking from Estonian's ENS Wombola in Tallinn** (courtesy of Chief Warrant Officer Izzel Sanchez–DVIDS, 6th Fleet).

infrastructure. The LMRC, combined with these enabling factors, continues to provide invaluable, survivable, and low-signature assets to the 6th Fleet, while simultaneously reassuring vulnerable American allies.¹⁸

Platform-Agnostic

Throughout these deployments, as well as in separate experimental exercises in the United States, the LMRC has operated from a variety of mobility platforms with a variety of sensing, organic, and non-organic strike capabilities as well as communications equipment that enable R&S operations in the information environment. For example, in August 2022, during a joint Marine Corps and Army exercise, the LMRC experimented alongside an Army multi-domain reconnaissance troop providing the fleet with a combat-credible maneuver element capable of multi-domain intelligence collection to penetrate and degrade an adversary anti-access, aerial denial threat. From this experience, we learned that highly trained, disciplined scout units capable of operating from both commercial and tactical ground and maritime platforms, as well as dismounted operations, provided an ideal solution to bring the whole of the joint and coalition fire assets to bear on an adversary's anti-access, aerial denial system, similar to what is called for in the SIF concept.¹⁹

As this and other exercises have demonstrated, as well as our operational missions across multiple parts of the EUCOM area of operations, achiev-

ing the intent of the MRB cannot be accomplished if the community is designed around a single mobility platform. Inherently, carrying capacity for equipment and sustainment increases if the formation is mounted; however, any asset that can neither maneuver relatively easily in the operating environment nor be sustained often becomes more of a liability than a force multiplier. Importantly, Marine Rotational Forces-Southeast Asia, whose organization has been informed by TF 61/2 and 2d LAR's LMRC's experiences, is reinforcing many of the same positive lessons learned when operating across key parts of the first island chain.²⁰

After the June 2023 *FD2030* update tasked 2d LAR with experimenting with the configuration and equipment resident in a "light mobile" company, our unit redoubled efforts to help our Service determine the best approach for a future multi-domain MRB. Given 6th Fleet operational requirements, we did not have a single LAV in our formation. Instead, we have used platforms such as the Polaris MRZR, which is being replaced by the moderately upgraded ultra-light tactical vehicle. These vehicles can be inserted via Marine Corps assault support aircraft, are significantly smaller in signature than the LAV, and are comparatively inexpensive. While the MRZR has proven valuable in a variety of our missions, other mobility platforms utilized by the LMRC in the 6th Fleet area of operations have not included anything in the current LAR table of equipment. Our small,

dispersed, and highly survivable formations have relied on MRZR's, readily available all-domain commercial mobility, and other capabilities including U.S. and ally-provided maritime assets.

A key theme that the LMRC has repeatedly learned throughout the past three years, returning to Laing's thesis, is that the value of the LMRC is not its methods of mobility but rather its mindset and the associated capability that this mindset provides MAGTF, fleet, joint, and combined force commanders. If given the space to publish a 10,000-word article, along with the ability to capture a variety of classified missions, we could describe numerous operations where this point has been driven home time and time again. Outside of these operational missions, where the LMRC was specifically focused on answering TF 61/2's information requirements on adversary activity in EUCOM's contested littoral regions, the formation's tasks during FORMIDABLE SHIELD 2023 also highlight why mindset has proven far more important than any single mobile platform. FORMIDABLE SHIELD is a NATO-integrated air and missile defense exercise in the North Atlantic, during which the LMRC employed its sensor suites *completely on foot*. This employment method included the equipment and fuel for power generation and personal sustainment. Executing this mission required LMRC Marines to summit hundreds of meters of mountainous terrain to attain a position of advantage, extending their maximum sensor range and enhancing

the combined commander's operational reach, situational awareness, and targeting cycle.

Finally, through the LMRC's operational experiments, we have learned that Amphibious Ready Groups (ARG)/MEUs and SIF are distinct yet complementary. One does not hold primacy over the other, and they each perform specific, critically important mission sets, which can often directly support one another. Exercise HEDGEHOG 2022 and BALTOPS provided examples of the LMRC enabling the ARG/MEU and TF 61/2 more broadly.²¹ During these exercises, the LMRC was already positioned—executing operational missions directly in support of 6th Fleet tasking—along the Baltic coastline, when the ARG/MEU transited into the Baltics. The LMRC served as a screening element for the ARG/MEU as it prepared for and executed a variety of amphibious operations in and around Estonia. The maritime domain awareness provided by the LMRC facilitated the safe entrance of the USS *Kearsarge* and the rest of the ARG into the congested mouth of the Gulf of Finland. Likewise, when an LMRC mobile reconnaissance team attached to the Battalion Landing Team (BLT) 2/6 during BALTOPS 2022, this team enabled the BLT to establish a sensing expeditionary advanced base on the coast of Latvia, which subsequently supported the answering of ARG and 6th Fleet information requirements used to locate, identify, and target adversary shipping for the NATO combined naval task force.

Recommendations

To effectively transition the LAR community to the MRB construct, we recommend that the Commandant considers the following actions: change the LAR capabilities integration officer (CIO) to MRB CIO, shift focus on the acquisition of available R&S bridging solutions available in the next two-three years versus establishing high dollar, long-term programs in the next eight-plus years, and continue to seek and develop the right Marines for the job while maintaining platform flexibility.

Recommendation #1. Commission the MRB Authority. Effective immediately,

establish the MRB CIO and Program Manager Mobile Reconnaissance as partner umbrella mobile reconnaissance organizations chartered, not only to integrate LAV/ARV program offices, Headquarters Marine Corps and FMF stakeholders, and defense industry partners but also to synchronize and cross-coordinate with sensing, communications, strike, operational energy, mobility and sustainment CIOs and program managers and their counterparts at Headquarters Marine Corps, across the Department of the Navy, and DOD.

Recommendation #2. Invest in MRB Capabilities Now. In the near term, capitalize on existing, proven technology via commercial off-the-shelf and broader DOD programs of record. As discussed, the long-term success of the MRB is tied to the short-term realities of game-changing lethal options available today. This collective, desired outcome must be decoupled from the success or failure of a single multi-billion, long-term idea. We highlight LtGen Adams' (Deputy Commandant, Programs & Resources) recent prioritization of procurement dollars for loitering munitions that “increase lethality, survivability, and sustainability.”²² As with scouts in infantry formations, mobile reconnaissance formations will only benefit from the acceleration of rapid procurement of a diverse set of lethal options and systems enabling an assortment of strike capabilities. To facilitate training pipelines and proficiency, the skills required to hold adversaries at risk over increased distances must be common to all combat formations on the tactical edge.

Additionally, the Marine Corps must be clear-eyed on two things: The LAV-25 is fast approaching the end of service life and an institutional appetite for another costly extension has proven non-existent; and the ARV remains on fiscal life support is not forecasted to come online until FY33—at the earliest. Our Corps faces the very real prospect of losing capability because we lack a fiscally prioritized and manageable, dependable, and deliverable set of tools that enable RxR missions called for in *FD2030*, EABO, and the SIF concept. These capabilities are in

ever-increasing demand by combatant commanders across the most contested regions in the world. In the interim, the mobile reconnaissance formations must deliver a usable alternative to bridge the capability gap between LAV and ARV. MEF and Marine Force Operations and Maintenance funds must designate funding for MRB experimentation and iterative operational deployments. In the short run, and on the cheap, we can continue to transform our formation while complementing concurrent infantry modernization efforts to achieve the EABO and SIF visions demanded by combatant commanders and directed by our national and military strategies.

Recommendation #3. Right Marines, Right Training. One truth about the changing character of war is that the need for Marines capable of managing and monitoring systems and networks will grow and normalize. The use of numerous all-domain, inexpensive, and attrite-able tools and platforms has been directed requiring new training pipelines and learning institutions, while the need for light armor and large caliber, direct-fire systems within R&S formations is less clear. What is evident is the need for a thorough and transparent review of RxR doctrine and a robust threat-based assessment steeped in environmental, operational, fiscal, and logistical certainties. 2d LAR's approach thus far has informed the R&S community and beyond that flexibility of platforms, a robust family of interoperable sensors, communications, and strike capabilities is just the beginning. Marines with the right maturity, demeanor, and training will continue to optimize all-domain sensing awareness and strike capabilities leading to new missions in new places with new capabilities previously inaccessible by our historically armored formations.

Summary

Employable in both permissive and non-permissive environments across all domains within the conflict continuum, the LMRC is tested, operationally relevant, and capable now. While long-term, multibillion-dollar contracts limit R&S formations' agility and devour fiscal maneuver space, the platform-

agnostic LMRC leans on existing DOD programs of record, contracts directly with industry, and embraces partners and allies to embody the mindset envisioned by Laing, Clayton, Nakonieczny, and others. As directed in *FD2030* and the concepts of EABO and SIF, appropriately equipped multi-domain mobile reconnaissance formations will provide intrinsic value in the Corps' fight for information now and in the future.

Notes

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6. Official Website of the U.S. Marine Corps. "Recon-Counter Recon," *marines.mil*. Recon - Counter Recon > United States Marine Corps Flagship > News Display (*marines.mil*) Reconnaissance operations, in any domain, use the full range of available detection methods to obtain information about the activities and resources of an adversary. Counter-reconnaissance seeks to prevent the adversary from doing the same to us.
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