

To Modernize Our Corps

Forward-thinking, technically sound, and timely acquisition

by BGen A.J. Pasagian & Mr. Timothy B. Ferris

"Equipment is useful only if it increases combat effectiveness."

—MCDP 1, Warfighting

The Marines, Sailors, civilians, and contractors of Marine Corps Systems Command and supported Program Executive Offices are moving out smartly on our urgent, high-stakes mission to equip and sustain the individual Marine and FMF. The driving purpose: to field or deliver to the warfighter's hands—"at the speed of relevance"—the modernized capabilities required as part of the U.S. joint and naval expeditionary force to deter and, if necessary, fight and win against emergent and competitive revisionist militaries.¹ The essential operational necessity in the *38th Commandant's Planning Guidance (CPG)* describes our end state:

The Marine Corps will be ... equipped as a naval expeditionary force-in-readiness and prepared to operate inside actively contested maritime spaces in support of fleet operations.²

The massive challenge at hand requires nothing less than to "transform our traditional models for ... equipping the force to meet new desired ends, and do so in full partnership with the Navy."³ For example, we face a compelling requirement for Marine Corps ground-based long range precision fires. As the Commandant recently emphasized in "Preparing for the Future: Marine Corps Support to Joint Operations in Contested Littorals" (May 2021), we will deliver modernized lethal fires capabilities to the fleet, not as an end but a critical means, part of fielding the Marine Littoral Regiment with advanced systems to combat adversary command, control,

>BGen Pasagian is the Commander, Marine Corps Systems Command.

>>Mr. Ferris serves on the G-3 staff for Marine Corps Systems Command and is a retired Marine.

communications, computers, cyber, intelligence, surveillance, reconnaissance, and targeting (C5ISR-T). The design is for our organic fires to be able to "hold these targets at risk ... and perhaps more importantly, provide critical links for highly lethal naval and joint fires kill chains."⁴ Ultimately, envision our own joint and combined C5ISR-T developing the capability to deny adversary disruption of the information domain, as we create resilient "kill webs" that are "able to link available sensors and shooters."

Understood as constituting future readiness, modernization has always posed multi-faceted challenges, such as the urgency and consequence of acquisition decisions and their execution. With the emergent and transformative capabilities preparatory to how we fight, in support of joint operations in contested littorals, these challenges multiply. Situational awareness of emerging competition informs the efforts of Marine Corps acquisition leaders to deliberately strategize the most effective and timely material solutions.

The Threat

The pacing threat, the People's Republic of China has a well-integrated, systematic, long-view strategy to achieve its goal of being No. 1 in the world in technology.⁵ More specifically, their People's Liberation Army's

objective is to become a "world-class" military by the end of 2049—a goal first announced by General Secretary

Xi Jinping in 2017 ... likely that Beijing will seek to develop a military by mid-century that is equal to—or in some cases superior to—the U.S. military.⁶

Meanwhile, Russia is engaged in an extraordinary military buildup in the Arctic region; tension between Russian and Ukraine forces continues near the border in the east; and North Korea and Iran remain significant concerns.

Amid the array of potential threats to our national defense, Marine Corps acquisition professionals are laser focused on *Force Design 2030*, specifically the weapon and equipment modernization priorities. Our sense of mission, purpose, and urgency recognizes the parallels of the moment with our history: the production and delivery of the right equipment for the right purpose in the right place and time played a decisive part in the Pacific campaign of World War II. The "Higgins Boat" enabled the Marine Corps to adapt the way we fought and is credited as a decisive factor in the victorious amphibious assault at Normandy.

About the current situation and future outlook informing our work, INDO-PACOM Commander ADM Davidson's testified on 9 March before the Senate Armed Services Committee Hearing on INDO-PACOM:

- The military balance is "becoming more unfavorable for U.S. and allies ... accumulating risk ... may embolden China to unilaterally change the status

Program	Operational Capability	Status
M27 Infantry Automatic Rifle	Increased lethality/lighter weight	Fielded
JLTV	Maneuver/Protection	Fielding
MAGTF EW Ground Family of Systems	Electronic Warfare	Legacy mounted CREW Systems replaced; fielding anti-jam capability
Target Handoff System v2	Fires/Lethality/C5ISR-T	Fielded
MAGTF Common Handheld (tablet)	C5ISR-T	Fielding Early Release Capability
Amphibious Combat Vehicle	Maneuver/Protection	Fielding
High Mobility Artillery Rocket System	Fires/Lethality	Fielding
Organic Precision Fires - Mounted (on LAV)	Fires/Lethality/C5ISR-T	Initial Delivery FY25
Multi-role Anti-Armor Anti-Personnel Weapon System	Fires/Lethality	Fielding 3QFY21
Marine Corps Wideband Satellite Expeditionary	C5ISR-T	Fielding
NMESIS	Long Range Fires/Anti-ship Lethality/Maneuver	Initial Delivery FY23
Long Range Unmanned Surface Vessel	Long Range Fires/Maneuver	Experimenting to inform requirements
Family of Littoral Explosive Ordnance Neutralization systems	Maneuver/ISR/Logistics	Initial Delivery FY23
Lightweight .50 Cal Polymer Ammunition (polymer cartridge case/nylon links/polymer can)	Logistics	Field User Evals thru 4QFY21
Tactical Fabrication System (Additive Manufacturing)	Logistics	Initial Delivery FY23
Marine Corps Wargaming Capability	Modernized Wargaming/Concepts/Capabilities Development	Initial Capability FY24

Table 1.

quo before our forces may be able to deliver an effective response.”

- With a wider base of long-range precision fires ... by land forces as well as sea and air, now crucial to the Western Pacific; ground-based missile capability is critical to Joint Force maneuver/positional advantage.⁷

To the lens of requirement urgency, add the budgetary perspective, as the U.S. armed forces face the potential of reduced spending power. A *Wall Street Journal* editorial on 19 April commented:

One of the People's Liberation Army's assets is its large arsenal of precision missiles designed to destroy American ships in the Pacific. More American long-range fires—especially if they are portable and ground-launched—can help the balance of power *at relatively low cost*.

(Our emphasis added).

Multiple C5ISR-T system acquisitions to shape the competitive environment and/or battlespace, enabling and complementing these fires, are well underway (see accompanying table).

Meeting the Challenge

To meet the pivotal Marine Corps anti-ship demand, in partnership with the U.S. Navy Program Executive Office for Integrated Warfare Systems, we are working to deliver the Navy and Marine Corps Expeditionary Ship Interdiction System. This capability from a groundbased launcher uses the Navy's existing Naval Strike Missile mounted on a remotely operated JLTV chassis. A long-range, precision strike weapon, the missile seeks and destroys enemy ships and land targets. We have built initial prototypes and conducted successful testing, including a November 2020

guided flight shot. Progress to date has demonstrated a capable lethal fires system that will integrate with our mobile inside force.

As Navy and Marine Corps Expeditionary Ship Interdiction System acquisition illustrates, modernization solutions must be inventive. We are leveraging and adapting existing, in-production capabilities of both the Naval Strike Missile and the Army-led JLTV program; using Modular Open Systems Architecture, a key, innovative approach that enables our program team to plan and execute concurrent actions adapting to faster cycle time in fielding and modifying warfighting capabilities through the use of those most prominent, stable, and technically mature major components. These techniques adapt long-lead materials production while developing prototypes for early user evaluation by Marines for our team to gain vital product knowledge before entering full rate production, saving years of development time.

Force Design 2030 has generated healthy discourse, and critical appraisal. This dialogue on the character and future of our Corps will ultimately yield decisions in material, infrastructure, training, and sustainment. Marines stand at an historical crossroads. The nexus of strategic competition, operating environment, fiscal reality, and national priorities requires constructive discussion and forward thinking across every warfighting domain and function, as the Marine Corps decides our most impactful investments. Marines will contribute to the joint fight and are engaged in more than 250 joint/collaborative acquisition efforts with the other armed forces and SOCOM across the warfighting functions. These partnerships enable battlespace interoperability, economies of scale, ready contract vehicles, and many other advantages.

The Acquisition Workforce

Today, the Marines, Sailors, and civilian professionals along with our contractors, across MARCORSYSCOM and its supported program executive officers, serve in delivering the future components of a more relevant Marine Corps. Across the organizations, those

leading this work are instilled with special trust and confidence, setting course and speed for each of their respective MAGTF element capabilities. These Marine acquisition leaders are commanders—a chain of specialized expertise necessary to the technical direction of our Corps, grounded in the operational experience achieved in their former primary occupational fields. Our civilian professionals comprise the deep technical skills, experience, and seasoned voices of the continuity required to maintain a stable, healthy series of programs and industrial base elements for capabilities sustainment. The bottom line in acquisition command and control: like their FMF counterparts, our portfolio and program commanders bring authority, decentralized execution, and maneuver (i.e., delivering modernization at the speed of relevance for our Marines and FMF to adapt to the global situation across all Marine Corps missions).

The urgency, scope, and scale of modernization required for the Marine Corps to remain relevant through *Force Design 2030* continue to demand critical reckoning and continuous improvement in our processes and decision-making. The challenges and their corresponding opportunities are clearly envisioned, threat-informed, and financially constrained. We will have to organize, innovate, and adapt in ways that enable responsive analysis, decision making, investment, and execution—delivering positive outcomes for our Marines, Navy shipmates, the U.S. joint force, and our Nation.

Notes

1. James Mattis, *Summary of the 2018 National Defense Strategy of the United States of America: Sharpening the American Military's Competitive Edge*, (Washington, DC: January 2018).

2. Gen David H. Berger, *38th Commandant's Planning Guidance*, (Quantico, VA: July 2019).

3. Gen David H. Berger, *Force Design 2030*, (Washington, DC: March 2020).

4. Gen David H. Berger, "Preparing for the Future: Marine Corps Support to Joint Operations in Contested Littorals," *Military Review*, (May 2021), available at <https://www.armyupress.army.mil>.

5. Michael Brown, "Keynote Address," (speech, NDIA National Security Artificial Intelligence Conference and Exhibition, virtual, March 2021).

6. Office of the Secretary of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China*, (Washington, DC: 2020).

7. U.S. Senate Armed Services Committee Transcript Hearing on INDO-PACOM, (Washington, DC: March 2021)





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