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THE HOUSE ARMED SERVICES COMMITTEE  
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES

STATEMENT OF

FREDERICK J. STEFANY  
PRINCIPAL CIVILIAN DEPUTY, ASSISTANT SECRETARY OF THE NAVY  
(RESEARCH, DEVELOPMENT AND ACQUISITION)

AND

LIEUTENANT GENERAL KARSTEN S. HECKL, USMC  
DEPUTY COMMANDANT, COMBAT DEVELOPMENT AND INTEGRATION  
COMMANDING GENERAL, MARINE CORPS COMBAT DEVELOPMENT COMMAND

AND

LIEUTENANT GENERAL MARK R. WISE  
DEPUTY COMMANDANT FOR AVIATION

BEFORE THE

SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES

OF THE

HOUSE ARMED SERVICES COMMITTEE

ON

MARINE CORPS MODERNIZATION

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Chairman Norcross, Ranking Member Hartzler and distinguished members of the Subcommittee, thank you for the opportunity to appear before you today to address the Department of Navy's Fiscal Year (FY) 2023 budget request for U.S. Marine Corps modernization. The Marine Corps' modernization efforts over the last three years have enhanced our warfighting concepts and capabilities. Our combat ready forces are better postured now to campaign, deter, and if necessary, fight and win conflicts in support of the Joint Force. The Navy and Marine Corps team is one of America's unmatched and enduring advantages. Working together, we remain committed to the execution of campaigns that deter authoritarian state and non-state actors who challenge internationally accepted norms and threaten the relative peace that the United States and its allies and partners have worked to sustain. Through the application of new concepts and capabilities, Marines and Sailors will be better equipped and postured to support future campaigns against these adversarial threats.

The Marine Corps supports an overarching theme of integrated deterrence. By winning the reconnaissance and counter-reconnaissance fight, alongside allies and partners, we support a maritime defense in depth on behalf of the Joint Force and the interagency community. Success in the daily reconnaissance and counter-reconnaissance fight requires advanced sensors, networks, mobility, and precision fires—all of which the Marine Corps has advanced through iterative experimentation and rapid development. The Marine Corps' newly released *A Concept for Stand-in Forces* articulates how Marines will be employed as a strategic force, persisting within an adversary's engagement areas, detecting, deterring, and if necessary, aiding in the defeat of the adversary.

The necessity for the Marine Corps' shift in its strategic outlook is validated in the daily activities of China in the South China Sea, Russia in Eastern Europe, or in the actions of violent

extremist organizations across Southwest Asia. Over the last three years, the Marine Corps, with the support of Congress, has reprioritized and realigned existing funding to invest in its highest priority programs. With congressional support, we have begun to modernize capabilities while maintaining warfighting readiness. Operating from the littorals as part of the Naval Expeditionary Force, the Marine Corps will continue to support campaigns that disrupt China and other threats. We will maintain readiness to compete and win today, as we continue the imperative to modernize our most important warfighting capabilities.

### **Long-Range Precision Fires**

The Marine Corps will hold adversary maritime threats at risk through its employment of precision fires from air, land, and surface platforms, thus enabling fleet maneuver. Over the last year, the Marine Corps has successfully tested its land-to-sea fires employing the Navy/Marine Corps Expeditionary Ship Interdiction System (NMESIS) and Long Range Fires (LRF) programs. These tests demonstrated the benefit of repurposing mature technologies to create highly effective capabilities able to impose significant cost upon our adversaries. This potential of cost imposition adds a significant secondary benefit to our modernization effort. It will alter and destabilize adversary decision and planning cycles, which lends additional deterrence value. Fires capabilities such as these, and others, will serve to deter, and if necessary, defeat adversarial threats in and around littorals across the globe.

#### ***Navy/Marine Corps Expeditionary Ship Interdiction System***

In this budget request, the Navy/Marine Corps Expeditionary Ship Interdiction System (NMESIS) continues to be the Marine Corps' top modernization priority and is the critical lethality component to our anti-ship missile capability. In conflict, NMESIS will allow the Stand-in Force to

deny or protect key maritime terrain from the enemy. Additionally, this system can be employed to herd the enemy into areas where Joint and Coalition forces can exploit their relative advantages. NMESIS will create cost impositions for adversaries by introducing a credible threat into their decision-making at a relatively low cost to U.S. Forces.

The NMESIS consists of two Naval Strike Missiles mounted on a remotely operated Joint Light Tactical Vehicle-based chassis. Due to the mature technology in NMESIS, the Marine Corps has reduced programmatic risks. Indicative of this, the Marine Corps has successfully tested NMESIS twice, once in November 2020 and more recently in August 2021. Given the performance metrics over the last two years of testing, we believe NMESIS will have immediate effects in the operational environment. This year's budget request builds the NMESIS launcher and missile capacity.

### ***Organic Precision Fires***

Organic Precision Fires (OPF) will provide multiple echelons of the Fleet Marine Force with an organic, loitering, beyond line-of-sight precision strike capability. The system is comprised of a surveillance capability, separate loitering munitions, and a command and control station. OPF will provide continuous surveillance before, during, and after conducting lethal strikes. OPF offers Marines less exposure to enemy fires by offering range outside of adversary direct fire weapons. The associated loitering munitions will have sufficient lethality to defeat armored, water-borne, and personnel threats. Funding requests will continue to support testing, experimentation, and user evaluations with OPF prototypes.

### ***Long-Range Unmanned Surface Vessel***

The Long-Range Unmanned Surface Vessel (LRUSV), approximately 45 feet in length, is intended to be capable of conducting semi-autonomous maneuver in the open ocean for extended periods of time. The vessels will also be capable of launching the Organic Precision Fires loitering munitions that are capable of engaging targets on land and at sea. The LRUSV, combined with Organic Precision Fires, will increase the effective range and lethality of formations, such as the Marine Littoral Regiment. This combination of capabilities will enhance Naval and Joint Force Commanders' sea denial campaigns.

The Marine Corps is taking a deliberate approach to capability development. By using prototyping, experimentation, and working closely with program vendors, we ensure delivered capabilities are in line with funded requirements. In the 1st quarter of FY22, the Marine Corps accepted the first of five LRUSV prototypes for experimentation and analysis. The Marine Corps anticipates receiving additional prototypes in the 3rd quarter of FY22 for continued testing and refinement. The Marine Corps remains on schedule and within budget to deliver an LRUSV Experimental Platoon to the Expeditionary Warfare Training Group – Atlantic for further development and unit training.

### **Resilient Sensors and Communication Networks**

To win the daily reconnaissance and counter-reconnaissance fight across the competition continuum against peer adversaries, Marines require resilient and interoperable sensors and communication networks. As the Stand-in Force, Marines use advanced sensors to enable the closing of Joint kill-webs by being able to sense, make sense, and share collected information. These efforts ensure the Marine Corps is an effective contributor to the Naval Tactical Grid and the Department's Joint All-Domain Command and Control. The following programs create information advantages for the Joint Force across the globe and provide decision space for national leaders.

### ***Ground/Air Task-Oriented Radar***

The Ground/Air Task-Oriented Radar (G/ATOR) is a proven platform that continues to exceed expectations. G/ATOR is a multi-role, ground-based, 3D radar system that is designed to detect air threats, rockets, missiles, and mortars. The radar is transportable by organic Marine Corps means and provides a significant “engage on remote” capability in support of Expeditionary Advanced Base Operations. The Marine Corps has fielded these radars throughout the force, with several located in the Indo-Pacific region.

The Marine Corps, as the forward element of the Joint force, continues to invest in and improve the sensor capabilities of G/ATOR. In 2021, at the Army’s Project Convergence exercise, G/ATOR successfully integrated with and supported a Navy-Marine Corps live-fire kill-chain event. This is yet another meaningful step towards greater Naval integration and adding existing Marine Corps platforms to the Joint and Naval Integrated Air and Missile Defense mission. The Office of Naval Research (ONR) also developed an advanced, complementary system to the G/ATOR, the Multi-Domain Radar for a Contested Environment (MuDRaCE). ONR is maturing the technology and will transition this capability to the Marine Corps for incorporation as a program of record.

### ***Marine Air-Ground Task Force (MAGTF) Electronic Warfare Ground Family of Systems***

The Marine Air-Ground Task Force (MAGTF) Electronic Warfare Ground Family of Systems (MEGFoS) is an electromagnetic warfare (EW) system designed to advance our capabilities in the electromagnetic environment. MEGFoS protects friendly spectrum access, senses spectrum usage, and provides a means for disrupting an adversary’s decision-making cycle. MEGFoS is comprised of three variants – mounted, dismounted, and team portable. All three variants are networked and able to share data and coordinate EW missions with one another. In the 1st quarter of

FY22, the Marine Corps began experimentation with a prototype of the MEGFoS team-portable variant. In this year's budget request, the Marine Corps is seeking to procure a mixture of mounted, dismounted, and team-portable systems.

### ***Networking On The Move***

Network on the Move (NOTM) is a satellite communications (SATCOM)-based command and control system mounted on a ground combat vehicle or aviation platform. NOTM provides terrestrial line-of-sight and beyond line-of-sight communications for Marines at-the-halt and while on-the-move. The system is purpose built for Marines fighting in a distributed manner, in alignment with naval and joint concepts, to effectively facilitate command and control of forces in a contested all-domain environment. The Marine Corps continues to procure and field these systems to distributed Fleet Marine Force units, enabling command and control, now and in the future.

### ***Wideband Satellite Communication***

The Marine Corps' Wideband Satellite Communications (WSATCOM) Family of Systems is a comprehensive, integrated, and sustainable solution designed to address current and future warfighting capability needs. WSATCOM uses military and commercial SATCOM systems in both contested and permissive electromagnetic spectrum environments. The WSATCOM will replace legacy and very-small-aperture terminal communications systems. This modernized system provides integrated, secure, and near real-time communications capability for Marines operating in a degraded communication environment. Moreover, it will be fully interoperable with naval and joint wideband SATCOM systems.

### ***Integrated Broadcast Radio***

Integrated Broadcast Radio (IBR) is the Marine Corps' family of terminals that provides direct, over-the-air access to the Joint-sponsored Integrated Broadcast Service. The IBR receives and processes near-real time multi-intelligence data from strategic, theater sensors, and tactical sensors, to include Theater Missile Defense indications and warnings. At the tactical level, IBR is compatible with intelligence analysts' equipment capabilities. To ensure the survivability of the network, the IBR is low-bandwidth and capable of operating in a degraded, intermittent, and emission-controlled environment. The FY23 budget request will provide for the modernization and procurement of over 600 additional receivers distributed across Fleet Marine Force units.

### ***Secure Expeditionary Resilient Positioning, Navigation, and Timing***

Secure Expeditionary Resilient Positioning, Navigation, and Timing (SERPNT) is the program formerly known as Military Global Positioning System (GPS) User Equipment (MGUE). SERPNT will enable Marines to effectively navigate and receive precise and accurate timing information for themselves and their platforms. Funding requests in the FY 2023 President's Budget will sustain current Positioning, Navigation, and Timing (PNT) capabilities across the enterprise while investing in future PNT capabilities. Under the SERPNT program, the Marine Corps will transition to modernized Military-Code (M-Code) PNT capabilities which provide upgraded protections against enemy jamming and spoofing threats. The program is also a critical enabler of the Marine Corps' participation in Joint All-Domain Command and Control.

### ***Marine Corps Enterprise Network***

The Marine Corps Enterprise Network (MCEN) is an enterprise program enabled by cloud technology, modern networking tools and applications, and core enterprise services. This network supports free flow of warfighting data across bases, stations, and tactical environments.



Modernization efforts of MCEN, such as the incorporation of Tactical Entry Points, will provide secure, Data-Centric information and services to Marine Corps personnel and enable integration with the Joint Force. MCEN forms the foundation for the Marine Corps' single warfighting network and is interoperable with and leverages other Department of Defense provided Data-Centric Enterprise Services, supporting the Joint Information Environment.

### **Rotary Wing Programs**

Rotary wing airframes play a critical role within Force Design, providing lethality, maneuverability, targeting, flexibility, and persistent sustainment to the Marine Air-Ground Task Force while operating from the sea and austere expeditionary basing.

#### ***CH-53K Heavy Lift Replacement Program***

CH-53K is an optimized vertical, heavy lift, sea-based, long-range solution for the naval force, providing agile maritime logistical connectors with greater payloads and speed than any current or emerging rotorcraft. The CH-53K will complement connectors to enable littoral maneuver and provide logistical support to a widely disaggregated naval force. The Marine Corps achieved initial operational capability in the CH-53K in April 2022. This closely follows completion of a thorough Initial Operational Test and Evaluation period that resulted in over 3,000 mishap free hours flown in various challenging environments and terrain, including an impressive real-world use of the aircraft to recover a downed Navy H-60, weighing 15,500 pounds, from an altitude of 12,000 feet in the mountains of California in September 2021.

A contract to procure the sixth Low Rate Initial Production Lot of nine aircraft was signed in January 2022, and the Department of the Navy has requested the authority to enter into a block buy contract for Lots 7 and 8 in FY23. A block buy contract leverages aircraft volume quantity to realize

significant cost savings, providing stability to the industrial base and improved production efficiencies while supporting the Marine Corps' plans to deploy the first CH-53K Marine Expeditionary Unit detachment in FY24.

### ***AH-1Z and UH-1Y***

The Marine Corps' AH-1Z and UH-1Y provide combat capability to meet and defeat adversary threats across the entire spectrum of conflict. AH-1Z and UH-1Y with their multiple capabilities and mission sets serve a flexible role as sensors, shooters, and sustainers, especially as the Marine Corps must provide a variety of crisis response missions. In deterrence, AH-1Z and UH-1Y will be a contributor to a network-enabled force, an active player in the kill web, and a provider of lethality and sensing capability to distributed Stand-in Forces. The H-1 program of record is nearing completion, with final aircraft deliveries scheduled to take place this year.

The Marine Corps requests funding in the FY 2023 President's Budget to ensure continued battlefield relevance, lethality, survivability, and operational safety through the remaining aircraft service life. Specific efforts include avionics improvements (Link-16); sensors, weapons, and survivability improvements; and air vehicle structural improvements (Structural Improvement Electrical Power Upgrade (SIEPU). UH-1Y SIEPU structural modifications include cabin deconfliction and optimization to improve mission load out and aircrew safety, and are a top priority initiative to increase lethality and maintain H-1 platform relevance.

### ***VH-92A Presidential Helicopter Replacement Aircraft***

In addition to combat aircraft, the Marine Corps provides the President and Vice President of the United States, heads of state, and other official parties with safe and reliable global vertical lift air transportation with high levels of security and communication capability. Government testing to

validate system performance and execute Initial Operational Test and Evaluation was completed in April 2021, and initial operational capability achieved in December 2021. Total VH-92A inventory will be 23 aircraft (21 operational aircraft and two test aircraft), and final deliveries of all VH-92A helicopters are expected to be complete by 2023. Work is continuing on VH-92A improvements and follow-on test and evaluation activities, including Mission Communications System upgrades to both software and hardware, enhancements to required Wide Band Line Of Sight capabilities, test aircraft and facilities; and test and evaluation efforts for distributed network communications, high-hot aircraft performance enhancements, and cockpit upgrades.

### **Mobility Programs**

The Marine Corps requires sensors, communications, and lethality programs to conduct reconnaissance and act as a “blunt” force, and mobility programs to posture forward to respond to crisis and deter aggression. The Marine Corps operates through organic mobility programs, including ground, aviation, and surface programs.

#### ***Amphibious Combat Vehicle and Joint Light Tactical Vehicle***

This budget continues procurement of the Amphibious Combat Vehicle (ACV), which provides significant improvements over the legacy Assault Amphibious Vehicle in mobility, lethality, protection, and safety. The Marine Corps requests funding in the FY 2023 President’s Budget to procure 74 ACVs that will enable crisis response forces the ability to maneuver from amphibious warfare ships to the shore without a port facility. When required, ACVs launched from amphibious warfare ships enable a forcible entry capability. This fall, a platoon of ACVs will conduct its first operational deployment as part of a Marine Expeditionary Unit. Additionally, the Joint Light Tactical Vehicle (JLTV) has proven a capable and versatile platform, not only for its

primary mobility mission, but also to enable fires, command and control, and air defense systems.

This year's FY 2023 President's Budget continues JLTV procurement, as we modernize our tactical vehicle fleet.

### ***Amphibious Warfare Ships and Light Amphibious Warship***

In addition to ground programs, the Marine Corps' service-wide modernization effort is predicated on Navy shipbuilding programs. This includes amphibious warfare ships that provide the maritime mobility of our "crown jewel," the Marine Expeditionary Unit. In addition, the Department continues to invest in the development of the Light Amphibious Warship, or Landing Ship Medium. This ship will complement amphibious warfare ships and will provide added surface mobility for Marine Corps Stand-in Forces. The continued support of Congress for Navy amphibious ships is critical to the Marine Corps' ability to forward deploy and meet the requirements of our objective 2030 force.

### **Conclusion**

The highlighted programs enable the Marine Corps to close kill webs and deter strategic competitors. Some of the programs are emerging, while others are more mature in the acquisition process. Maintaining momentum for the Marine Corps' modernization efforts expedites our ability to meet the requirements for critical warfighting concepts, such as *A Concept for Stand-in Forces*. Our proactive modernization, balanced with the readiness needed to "fight tonight," will ensure your Marine Corps remains a naval expeditionary force-in-readiness. Our goal with this budget is to provide a relevant and modern force that can sense, make sense, and act today and in the future in support of Naval and Joint campaigns. Our Marines and Sailors around the globe thank you, and your constituents in industry that are building these systems, for your continued support.