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THE HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON READINESS

STATEMENT OF

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BEFORE THE

HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON READINESS

ON

THE AAV MISHAP INVESTIGATION:
HOW TO BUILD A CULTURE OF SAFETY TO AVOID PREVENTABLE TRAINING
ACCIDENTS

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Chairman Garamendi, Ranking Member Lamborn, and distinguished members of the Subcommittee, I appreciate the opportunity to testify on the circumstances surrounding the tragic sinking of an Assault Amphibious Vehicle (AAV) on July 30, 2020.

First and foremost, the sinking of this AAV and the deaths of eight Marines and one Sailor were preventable. We mourn the loss of Private First Class Bryan Baltierra, Lance Corporal Marco Barranco, Private First Class Evan Bath, Navy Hospital Corpsman Third Class Christopher Gnem, Private First Class Jack-Ryan Ostrovsky, Lance Corporal Guillermo Perez, Corporal Wesley Rodd, Lance Corporal Chase Sweetwood, and Corporal Cesar Villanueva and share the families' enduring grief. We will honor their memory and make the necessary changes to prevent a tragedy like this from ever happening again. We owe this to these servicemembers and their families.

The July 2020 AAV sinking is one of several fatal Marine Corps training mishaps in recent years. Although each mishap is unique, our safety reports and investigations often identify similar causal and contributing factors. In many cases, deviations from standard operating procedures, operating equipment outside of its specifications, or departures from confirmed plans are to blame. I am also concerned that one of the strongest aspects of Marine Corps culture—a “can-do” attitude—may lead to preventable accidents and loss of life. This attitude helps us win our Nation's battles, but the level of risk we may accept in combat is not necessary in a training environment. When Marine leaders indiscriminately accept that our profession is dangerous and fail to mitigate risk, they may put themselves and their fellow Marines and Sailors in unnecessarily perilous situations.

Our string of serious mishaps demonstrates that our safety culture must change and Marines at all levels must make better risk decisions. While we can never eliminate all risk, we

have to get better at recognizing and mitigating hazards before they cause loss of life or equipment. Marines must internalize that there is a right way to do things, what the right way is, and the importance of choosing to do things the right way every time. Every Marine must be empowered to assess risk and to speak up when they see something unsafe. Commanders must provide the necessary oversight and guidance to mitigate risk and stop operations when the risk is too high. Commanders must also develop command climates that value and reward hazard reporting because it makes our units better and safer. At an institutional level, we must provide the guidance and resources that support good decision-making. We must also manage operational tempo such that our Marines and Sailors have the opportunity to complete necessary training in a safe and productive manner. We are committed to providing the leadership and resources to make these changes.

This statement discusses the 2020 AAV tragedy, completed and ongoing investigations, and the institutional actions we are taking to prevent a loss like this in the future. Additionally, this statement updates the subcommittee on broader Marine Corps initiatives to affect substantive change in our safety culture and performance across the entire Marine Corps.

July 2020 AAV Sinking

On the morning of July 30, 2020, thirteen AAVs with embarked personnel from 15th Marine Expeditionary Unit (15th MEU) conducted a mechanized raid from USS Somerset to an objective on San Clemente Island. This raid included a planned return to the ship once actions were completed ashore. Later in the afternoon, following a series of delays due to maintenance issues with AAVs, a portion of the AAV platoon and embarked infantry company remained ashore, while another element began the transit back to USS Somerset. This transit occurred much later than originally planned. During the return transit, water began to enter the mishap

AAV through multiple points of leakage. The transmission failed, bilge pumps were unable to expel water rapidly enough due to the transmission failure, and the AAV began to sink. The vehicle commander gave the distress signal, known as a “November flag,” but no safety boats were in the water. The AAV was slowly sinking for approximately 45 minutes before another AAV with embarked personnel pulled alongside to assist. The mishap AAV crew prepared to evacuate embarked personnel by opening a hatch on the top of the vehicle. The AAVs collided, causing the mishap AAV to turn broadside to a swell. A large wave swept over the AAV and water entered the troop compartment through the open hatch, causing the AAV to sink rapidly with eleven personnel on board. Despite an extensive search and rescue effort, eight Marines and one Sailor perished at sea. In addition, two Marines suffered serious injuries. This was the deadliest AAV mishap in Marine Corps history.

Investigations and Accountability

The Marine Corps initiated a command investigation into the sinking of the AAV immediately after the incident occurred. The command investigation determined the cause of this tragedy was a combination of maintenance failures, delayed and improper evacuation procedures used by AAV crewmen, and improper egress training of embarked personnel. Additionally, endorsing officials highlighted unsafe conditions that may have contributed to the loss of life, including a lack of safety boats in the water. In addition to the command investigation, we have completed a safety investigation that details specific safety-related causal and contributing factors. Although we do not publicly release safety investigations, we have integrated the findings of this investigation into our actions moving forward.

While the command investigation provided sufficient detail about the direct causes of the AAV sinking, it did not thoroughly examine higher headquarters oversight of the forming of

15th MEU. On April 2, 2021, I appointed a general officer with MEU command experience to serve as board president for a command investigation into the facts and circumstances surrounding the forming of the 15th MEU, training and material readiness impacts during its forming, higher headquarters oversight up to the Marine Expeditionary Force-level, and COVID-19 impacts. This investigation is currently in progress; we will share the findings of the investigation with this subcommittee after HQMC review. The U.S. Navy has also directed a command investigation into the facts and circumstances surrounding the AAV sinking, which will include Marine Corps representation on the investigation team.

The findings of fact, opinions, and recommendations in the original investigation were sufficient to permit accountability actions for individuals involved in this incident. To date, eleven individuals have been held accountable or are in the process of being held accountable for their actions and inactions, in accordance with applicable law and regulations. Some of these accountability actions are ongoing, including boards to consider suitability for future service. We make decisions regarding accountability based on an individual's responsibilities and their performance of duties. An individual's rank neither obligates nor excuses them from accountability. As we learn more about this tragedy through our additional investigation, we will take accountability measures as appropriate.

Another area to highlight from the investigation is the impact of COVID-related risks on this mishap. While COVID is not to blame for what happened, COVID impacts influenced leadership decisions at every level. These impacts were particularly pronounced in decisions made during February, March, and April 2020 as the AAV platoon was forming for the first time and we were simultaneously learning how to safely and effectively operate in the COVID environment. While COVID-related schedule changes and training cancellations may have

affected the units involved in this mishap, leaders should have intervened and mitigated the resulting risk. Our investigations so far have touched on COVID impacts, and it is an area that deserves greater attention in our broader readiness discussions.

Institutional Actions to Prevent Future AAV Mishaps

The command investigation provided valuable information to drive Service-level modifications to our procedures for amphibious operations. Based on investigation findings, the Marine Corps developed 54 tasks to help prevent a tragedy like this from happening again. We immediately took the below Service-level actions:

- The Commandant of the Marine Corps ordered an immediate suspension of all AAV waterborne operations on July 31, 2020, pending a comprehensive review of equipment, procedures, and training pertaining to safety during AAV waterborne operations.
- Program Executive Office, Land Systems ordered all AAV units to conduct additional inspections of every AAV with new criteria for hull watertight integrity, bilge pump function, and emergency egress lighting systems.
- Commanding General, Training and Education Command (TECOM) conducted a comprehensive review of all AAV-related publications and associated technical manuals as well as a course curriculum review board for Assault Amphibian School. These reviews resulted in immediate updates to course material and the AAV Common Standard Operating Procedures (SOP) concerning waterborne operational procedures, emergency procedures, and pre-operation checklists.

The following actions, among others, have been or will be taken across the Fleet Marine Force and U.S. Marine Corps Forces Reserve:

- Review all safety practices and procedures associated with waterborne and ship-to-shore operations and ensure commanders are directly responsible for safety structure.
- Clarify guidance on the provision of ready equipment and trained personnel to Marine Expeditionary Units.
- Ensure AAV waterborne and ship-to-shore operations are trained and evaluated during pre-deployment workup periods.
- Ensure personnel receive appropriate rest prior to high-risk training and operations.

- Ensure positive communications between AAV leaders and ships' personnel during ship-to-shore operations. Additionally, ensure appropriate personnel grant permission, based on sea state and safety boat status, to launch AAVs from a ship or recover them from the shore.

Additionally, appropriate agencies at HQMC have or will:

- Review the utility and effectiveness of the LPU-41 flotation device and field additional safety equipment that provides supplemental air in the event of a sinking.
- Review the Marine Corps Water Survival Program, AAV and Amphibious Combat Vehicle (ACV) embarked personnel training standards, the Submerged Vehicle Egress Trainer syllabus, and other associated training and publications.
- In coordination with the U.S. Navy, review employment of safety boats during waterborne and ship-to-shore operations to ensure consistent policies and doctrine within the Naval services.
- In coordination with the U.S. Navy, review the Common SOP for Assault Amphibian Operations and associated Navy publications, and develop applicable directives.
- Review the ACV program to ensure lessons learned from AAV mishaps are incorporated into ACV training, operations, and maintenance and that current ACV safety features adequately support emergency egress.
- Continue sustained funding of the AAV program for as long as the vehicle is in service. Currently, the AAV program will be sustained until the ACV is fully fielded. The ACV personnel variant will be fully fielded in 2026, and the 30mm gun and recovery variants will be fully fielded in 2028.
- Standardize water integrity testing procedures.

I will track the progress and completion of these and other actions to ensure we fully implement these changes throughout the institution.

Marines are the Nation's ready response force, and amphibious operations is one of our core capabilities. It is a Navy-Marine Corps imperative to train to standard for amphibious operations, and future operational concepts demand we increase our common understanding of the requirements of operations from the sea. We will present the above actions to the Navy and Marine Corps Board for senior leader awareness of the continued requirement for naval

integration and to gain insight on how we can create a repository of expertise in amphibious operations. HQMC will also present these issues to and seek the counsel of a “Blue Ribbon Panel” comprised of outside experts so we can capitalize on the generations of amphibious experience that exist in our retired community.

On April 9, 2021, HQMC published a list of requirements for units to resume AAV and ACV waterborne operations. These 18 requirements include specific training and qualifications, safety equipment, maintenance inspections, use of safety boats, timely sea state assessments, and positive communications. The first general officer in an AAV or ACV unit’s chain of command must certify that the unit has met all 18 requirements before commencing waterborne operations. Our first unit to meet all requirements conducted waterborne operations on April 14, 2021 at Del Mar Boat Basin, Camp Pendleton, California. This training did not include embarked personnel or ship-to-shore movement. We will publish requirements for embarked personnel and ship-to-shore movement at a later date. This first step in our deliberate and incremental return to AAV and ACV waterborne operations will help us ensure safe conditions and regain lost proficiency as we prepare our units for further training and deployments.

Institutional Safety Initiatives

Leadership remains the bedrock of Marine Corps initiatives to improve safety culture, reduce mishaps, and increase readiness. Through senior leader engagements at commanders courses, general officer courses, and other training and education venues, we are taking every opportunity to instill in our leaders the value of a strong safety culture and how emphasizing risk management and good decision-making saves lives and improves readiness. The Executive Safety Board, comprised of general officer leadership from across the Service, meets on a semiannual basis to provide the oversight, support, and resources that enable safety performance

and readiness. We are also committed to pursuing technological advancements, data analytics, and training improvements that will bolster our Marines' ability to mitigate risks and safely accomplish their missions. Active leadership, using lessons learned and the resources detailed in this statement, is the key to reducing mishaps.

We know that a vital part of a healthy safety culture is the ability and willingness of Marines to report hazards and mishaps. In April 2018, we fielded the Aviation Safety Awareness Program (ASAP) to all aviation units. ASAP allows individuals to anonymously report hazards directly to their safety officer and commanding officer, who can then take action and provide feedback on the reported hazard. Additionally, ASAP affords individuals the ability to submit comments on the command climate of the unit, providing valuable and timely information to the commander on problem areas without fear of retribution. Since its fielding, we have received over 6,600 ASAP reports that contained actionable information for safety improvements. Based on the successful use of ASAP in our aviation community, we are testing a ground-oriented version of ASAP—the Marine Corps Safety Awareness Program (MCSAP).

We have also made strides over the past year in safety management and information sharing. In October 2020, we completed a seven-year effort to create the Marine Corps Safety Management System (SMS), which consolidated 18 policy documents into a single systems-based approach to safety. The SMS, modeled on the Federal Aviation Administration's safety management system, focuses on operational excellence through risk management. We have also recently implemented the Department of the Navy's Streamlined Incident Reporting (SIR) system for air and ground mishap reporting. SIR replaces the outdated Web-Enabled Safety System and has improved mishap information sharing through easier inputs and better search functions. We are also in the process of fielding an online "mishap library," which will enable

Marines to easily access mishap lessons learned for individual and unit professional development. We will soon have this mishap library linked with our training and readiness manuals, which will enable Marines at all levels to quickly locate vignettes and lessons learned specific to the training event they are planning. The combination of ASAP, SMS, SIR, and the mishap library provides the structure for Marine leaders to encourage a healthy reporting culture and emphasize the importance of learning from our mistakes and near-misses.

Conclusion

The Marine Corps is committed to ensuring the safety of our Marines, Sailors, and civilians as we train to be the Nation's naval expeditionary force-in-readiness. We have consistently reduced vehicle rollovers over the past three years, and from 2019-2021, we achieved our lowest two-year aviation flight mishap rate on record. However, the July 2020 AAV mishap and other safety trends clearly demonstrate that Marine Corps safety culture is not where it needs to be. We must make significant cultural and institutional changes to ensure the Marine Corps prevents unnecessary loss of life and equipment and our Marines and Sailors can maximize their potential. We appreciate your support and oversight as we learn from our past, improve our adherence to safety standards, and create lasting institutional change.