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# NAVY AND MARINE CORPS TRAINING

# Further Planning Needed for Amphibious Operations Training

Statement of Cary B. Russell, Director, Defense Capabilities and Management

Chairman Wilson, Ranking Member Bordallo, and Members of the Subcommittee:

Thank you for the opportunity to be here today to discuss our recent report on Navy and Marine Corps training for amphibious operations.[1] As you know, the Navy and the Marine Corps (collectively referred to as U.S. naval forces) maintain forces that are capable of conducting an amphibious operation—a military operation that is launched from the sea by an amphibious force, embarked in ships or craft, with the primary purpose of introducing a landing force ashore to accomplish the assigned mission. Training forces for amphibious operations requires extensive coordination and integration between the Navy and Marine Corps. For example, the services must schedule amphibious ships to be used for training, develop operational concepts, and design and execute exercises. This training also requires significant resources, including access to Navy ships, and an adequate amount of range space to realistically conduct live-fire training exercises. The Marine Corps, as well as the other military services, has stated that the use of virtual training—including simulators or computer-generated simulations—could help overcome some of the difficulties associated with training in a live-only environment.

According to the Department of Defense (DOD), the future security environment will require forces to train across the full range of military operations—including types of operations that have not been prioritized in recent years, such as amphibious operations. However, over the last 15 years, continued operational deployments have required U.S. naval forces to focus training for stability and counterinsurgency operations, while limiting training in amphibious operations, among other areas. The Navy has stated that the high demand for presence has put pressure on a fleet that is stretched thin across the globe. Our recent testimony on Navy readiness highlighted that the Navy has increased deployment lengths, shortened training periods, and reduced or deferred maintenance to meet high operational demands, which has resulted in declining ship conditions and a worsening trend in overall readiness.[2]

[1]GAO, *Navy and Marine Corps Training: Further Planning Needed for Amphibious Operations Training*, GAO-17-789 (Washington, D.C.: Sept. 26, 2017).

[2]GAO, *Navy Readiness: Actions Needed to Address Persistent Maintenance, Training, and Other Challenges Affecting the Fleet*, GAO-17-809T (Washington, D.C.: Sept. 19, 2017).

In this context, my testimony today discusses the findings from our recent September 2017 report on Navy and Marine Corps training for amphibious operations. Accordingly, this testimony addresses (1) the Navy and Marine Corps' ability to complete training for amphibious operations priorities and factors limiting that training; (2) steps taken by the Navy and Marine Corps to mitigate any training shortfalls, including the Marine Corps' use of selected virtual training devices; and (3) efforts to improve naval integration for amphibious operations. In addition, I will highlight several key actions that we recommended in our report that the Navy and Marine Corps could take to help mitigate training shortfalls and improve the integration between these services for amphibious operations.

To conduct this work, we analyzed unit-level readiness data from fiscal year 2014 through 2016 and deployment certification reports and compared those data against the services' training requirements;[3] reviewed service training initiatives; interviewed a nongeneralizable sample of officials from 23 Marine Corps units that were selected based on their training plans; and selected a nongeneralizable sample of six Marine Corps virtual training devices to review based on factors such as target audience. Our September 2017 report includes a detailed explanation of the methods used to conduct our work. We conducted the work on which this testimony is based in accordance with generally accepted government auditing standards.

In summary, Navy and Marine Corps units completed training for certain amphibious operations priorities but not others due to several factors. The most prevalent factor we found that hampered training completion was a lack of available amphibious ships on which to train. The Navy and Marine Corps have taken some steps to identify and address amphibious operations training shortfalls, but these efforts are incomplete. Specifically, the services' current approach does not incorporate strategic training and leading risk management practices. Further, the Marine Corps has not fully integrated virtual training devices into operational training. The Navy and Marine Corps have taken some steps to improve coordination, but the services have not fully incorporated leading collaboration practices that would help drive efforts to improve naval

[3]We performed data-reliability procedures on the unit-level readiness data by comparing the data against related documentation and surveying knowledgeable officials, and determined that the data were sufficiently reliable for our purposes.

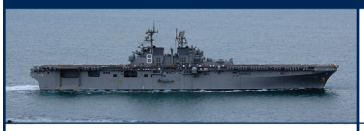
integration. We made recommendations to address these issues and DOD concurred with them.

## Background

An amphibious force is comprised of an (1) amphibious task force and a (2) landing force together with other forces that are trained, organized, and equipped for amphibious operations. The amphibious task force is a group of Navy amphibious ships, most frequently deployed as an Amphibious Ready Group (ARG). The landing force is a Marine Air-Ground Task Force—which includes certain elements, such as command, aviation, ground, and logistics—embarked aboard the Navy amphibious ships. A Marine Expeditionary Unit (MEU) is the most-commonly deployed Marine Air-Ground Task Force. Together, this amphibious force is referred to as an ARG-MEU.

An ARG consists of a minimum of three amphibious ships, typically an amphibious assault ship, an amphibious transport dock ship, and an amphibious dock landing ship. Navy ships train to a list of mission-essential tasks that are assigned based on the ship's required operational capabilities and projected operational environments. Most surface combatants, including cruisers, destroyers, and all amphibious ships, have mission-essential tasks related to amphibious operations. Figure 1 shows the current number of amphibious ships by class and a description of their capabilities.

**Figure 1: Navy's Fleet of Amphibious Ships**

| | Class | Number | Capabilities |
|---|---|---|---|
|  | **LHD 1 Wasp Class** | **8** | Landing ship, helicopter-capable, well deck;[a] large flight decks and hangar decks for embarking and operating numerous helicopters and vertical or short-takeoff-and-landing fixed-wing aircraft |
|  | **LHA 6 America Class** | **1** | Landing ship, helicopter-capable, assault; large flight decks and hangar decks for embarking and operating numerous helicopters and vertical or short-takeoff-and-landing fixed-wing aircraft |
|  | **LPD 17 San Antonio Class** | **10** | Landing ship, helicopter platform, well deck; smaller flight decks and hangar decks for embarking and operating smaller numbers of helicopters |
|  | **LSD 41 Whidbey Island Class** | **8** | Landing ship, well deck; smaller flight decks for embarking and operating smaller numbers of helicopters |
|  | **LSD 49 Harpers Ferry Class** | **4** | Landing ship, well deck; smaller flight decks for embarking and operating smaller numbers of helicopters |
| **Total number of amphibious ships = 31** | | | |

Source: Navy and Marine Corps (data); Marine Corps (images). | GAO-18-212T

Note: LHD is a multipurpose amphibious assault ship, LHA is a general-purpose amphibious assault ship, LPD is an amphibious transport dock, and LSD is a dock landing ship.

[a]A well deck is a large, garage-like space in the stern of a ship. It can be flooded with water so that landing craft can leave or return to the ship.

An MEU consists of around 2,000 Marines, their aircraft, their landing craft, their combat equipment, and about 15 days' worth of supplies. The MEU includes a standing command element; a ground element consisting of a battalion landing team; an aviation element consisting of a composite aviation squadron of multiple types of aircraft; and a logistics element consisting of a combat logistics battalion. Marine Corps units also train to accomplish a set of mission-essential tasks for the designed capabilities of the unit. Many Marine Corps units within the command, aviation, ground, and logistics elements have an amphibious-related mission-essential task. To be certified in the mission-essential task of amphibious operations, Marine Corps units must train to a standard that may require the use of amphibious ships.

The Marine Corps' use of virtual training devices has increased over time, and advances in technology have resulted in the acquisition of simulators and simulations with additional capabilities designed to help individual

Marines and units acquire and refine skills through more concentrated and repetitive training. For example, the Marine Corps utilizes a constructive simulation that provides commanders with training for amphibious operations, among other missions. The Marine Corps has introduced other virtual training devices to prepare Marines for operational conditions and for emerging threats, such as devices to replicate a variety of vehicles for driver training and egress trainers, among others. The Navy stated it does not utilize virtual training devices that simulate amphibious operations, including ship-to-shore movement.

## Navy and Marine Corps Units Completed Training for Certain Amphibious Operations Priorities but Not Others Due to Several Factors

In our September 2017 report, we found that Navy and Marine Corps units deploying as part of ARG-MEUs completed required training for amphibious operations, but the Marine Corps has been unable to consistently accomplish training for other service amphibious operations priorities. Specifically, based on our review of deployment certification messages from 2014 through 2016, we found that each deploying Navy ARG completed training for the amphibious operations mission in accordance with training standards. Similarly, we found that each MEU completed all of its mission-essential tasks that are required during the predeployment training program.[4] These mission-essential tasks cover areas such as amphibious raid, amphibious assault, and noncombatant evacuation operations, among other operations.

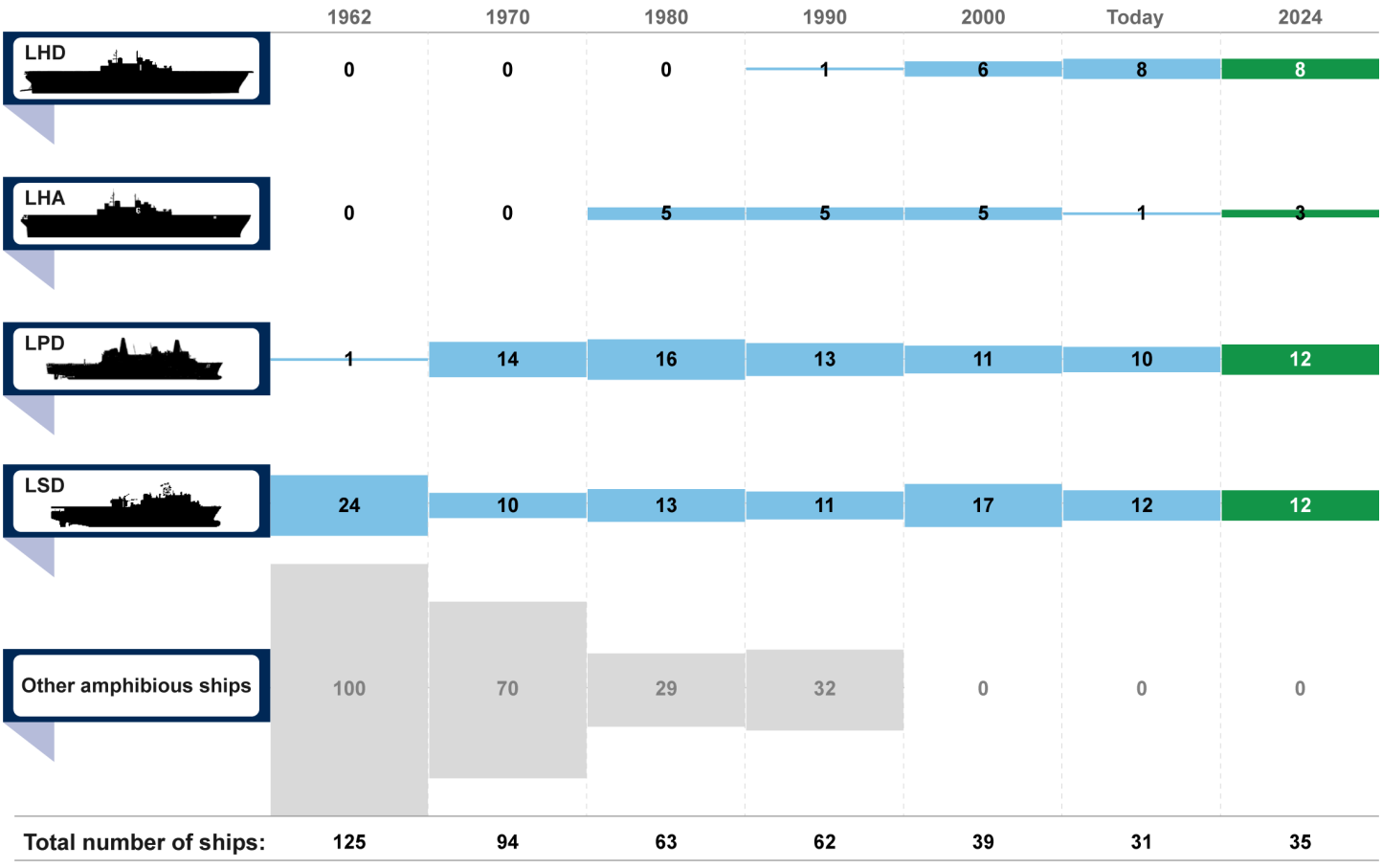
However, we also reported that based on our review of unit-level readiness data from fiscal year 2014 through 2016, Marine Corps units were unable to fully accomplish training for other amphibious operations priorities. These shortfalls include home-station unit training to support contingency requirements, service-level exercises, and experimentation and concept development for amphibious operations. For example, Marine Corps officials cited shortfalls in their ability to conduct service-level exercises that train individuals and units on amphibious operations-related skills, as well as provide opportunities to conduct experimentation and concept development for amphibious operations.

In our September 2017 report, we identified several factors that created shortfalls in training for amphibious operations priorities. Based on our analysis of interviews with 23 Marine Corps units, we found that all 23

[4]Marine Corps units that are scheduled to deploy as part of an ARG-MEU are to follow a standardized 6-month predeployment training program that gradually builds collective skill sets.

units cited the lack of available amphibious ships as the primary factor limiting training for home-station units. The Navy's fleet of amphibious ships has declined by half in the last 25 years, from 62 in 1990 to 31 today, with current shipbuilding plans calling for four additional amphibious ships to be added by fiscal year 2024, increasing the total number of amphibious ships to 35 (see fig. 2).

**Figure 2: Trends in the Size of the Navy's Fleet of Amphibious Ships**




LHA - Amphibious assault ship
LHD - Amphibious assault ship
LPD - Amphibious transport dock
LSD - Dock landing ship
Other amphibious ships - Includes various older ship types such as tank landing ships and amphibious cargo ships.

Source: GAO analysis of Marine Corps information. | GAO-18-212T

Marine Corps officials from the 23 units we interviewed also cited other factors that limit opportunities for amphibious operations training, including the following:

- **Access to range space.** Seventeen of 23 Marine Corps units we interviewed identified access to range space as a factor that can limit their ability to conduct amphibious operations training. Unit officials told us that priority for training resources, including range access, is given to units that will be part of a MEU deployment, leaving little range time available for other units.
- **Maintenance delays, bad weather, and transit time.** Ten of 23 Marine Corps units told us that changes to an amphibious ship's schedule resulting from maintenance overruns or bad weather have also reduced the time available for a ship to be used for training. The transit time a ship needs to reach Marine Corps units has further reduced the time available for training.
- **High pace of deployments.** Five of 23 Marine Corps units told us that the high pace of deployments and need to prepare for upcoming deployments limited their opportunity to conduct training for amphibious operations.

## The Navy and Marine Corps Have Taken Some Steps to Identify and Address Amphibious Training Shortfalls, but These Efforts Are Incomplete

### Services' Approach Does Not Incorporate Strategic Training and Leading Risk Management Practices

In our September 2017 report, we identified some steps that the Navy and Marine Corps have taken to mitigate the training shortfall for their amphibious operations priorities, such as by better defining the amount of amphibious operations capabilities and capacity needed to achieve the services' wartime requirements. However, we found these efforts are incomplete because the services' current approach for amphibious operations training does not incorporate strategic training and leading risk-management practices. Specifically, we found that:

- **The Marine Corps does not prioritize all available training resources.** For Marine Corps units not scheduled for a MEU deployment, officials described an ad hoc process to allocate any remaining available amphibious ship training time among home-station units. Specifically, officials stated that the current process identifies units that are available for training when an amphibious ship becomes available rather than a process that aligns the next highest-priority units for training with available amphibious ships.
- **The Navy and Marine Corps do not systematically evaluate a full range of training resource alternatives to achieve amphibious operations priorities.** Given the limited availability of amphibious ships for training, the Navy and Marine Corps have not systematically incorporated selected training resource alternatives into home-station training plans. During our review, we identified a number of alternatives that could help mitigate the risk to the services' amphibious capability due to limited training opportunities. These alternatives could include utilizing additional training opportunities during an amphibious ship's basic phase of training;[5] using alternative platforms for training, such as Marine Prepositioning Force ships; utilizing smaller Navy craft or pier-side ships to meet training requirements; and leveraging developmental and operational test events.
- **The Navy and Marine Corps have not developed a process or set of metrics to monitor progress toward achieving its amphibious operations training priorities and mitigating existing shortfalls.** Current reporting systems do not allow officials to assess the services' progress in achieving amphibious operations priorities or to monitor efforts to establish comprehensive amphibious operations training programs. For example, we found that the Marine Corps does not capture complete data on the full demand for training time with Navy amphibious ships that could be used for such assessments.

In our September 2017 report, we recommended that the Navy and Marine Corps develop an approach to prioritize available training resources, systematically evaluate among training resource alternatives to achieve amphibious operations priorities, and monitor progress toward achieving them. DOD concurred with our recommendation and stated that

[5]The training plan for amphibious ships is broken up into five phases: maintenance, basic, advanced, integrated, and sustainment. The basic phase focuses on development of core capabilities and skills through the completion of basic-level inspections, assessments, and training requirements, among other things.

the Secretary of the Navy would develop an amphibious operations training construct capitalizing on the application of primary and alternative training resources.

## The Marine Corps Has Not Fully Integrated Virtual Training Devices into Operational Training

While the Marine Corps has stated that the use of virtual training could help mitigate some of the limitations of training in a live-only environment and taken some steps to integrate these devices into operational training, we identified gaps in its process to develop and use them. Specifically, based on our review of a selection of 6 virtual training devices, we found weaknesses in three key areas:

- **Front-end planning.** The Marine Corps' process for conducting front-end planning and analysis to support the acquisition of its virtual training devices does not include consideration of critical factors for integrating virtual training devices into operational training, such as the specific training tasks the device is intended to address, how the device would be used to meet proficiency goals, or available time for units to train with the device. As a result, the Marine Corps does not have a reasonable basis to ensure that it is acquiring the right number and type of virtual training devices to meet its operational training needs.
- **Expected and actual usage data.** The Marine Corps does not consistently consider expected and actual usage data for virtual training devices to support its investment decisions. In the absence of these data, the Marine Corps risks sustained investment in virtual training devices that do not meet operational training needs.
- **Training effectiveness.** The Marine Corps does not consistently evaluate the effectiveness of its virtual training devices to accomplish operational training. Without a well-defined process to consistently evaluate the effectiveness of virtual training devices for training, the Marine Corps risks investing in devices whose value to operational training is undetermined.

In our September 2017 report, we recommended that the Marine Corps develop guidance for the development and use of virtual training devices to address these gaps. DOD concurred with the recommendation and stated it would work with the Commandant of the Marine Corps in its development and implementation actions associated with the use of virtual training devices.

## Incorporating Collaboration Practices would Further Naval Integration Efforts for Amphibious Operations

The Navy and Marine Corps have taken some steps to improve coordination between the two services, to include issuing strategic documents that discuss the importance of improving naval integration and establishing mechanisms to coordinate their amphibious operations training capabilities. However, in our September 2017 report we found that the services have not fully incorporated leading collaboration practices that would help drive efforts to improve naval integration. Our prior work on interagency collaboration has found that certain practices can help enhance and sustain collaboration among federal agencies.[6] I would like to highlight a few practices that would especially benefit the Navy and Marine Corps' efforts to improve integration for amphibious operations.

- **Common outcomes and joint strategy.** The Navy and Marine Corps have issued strategic documents that discuss the importance of improving naval integration, but the services have not developed a joint strategy that defines and articulates common outcomes to achieve naval integration. This first critical step will enable them to fully incorporate other leading collaboration practices aimed at achieving a common purpose.
- **Compatible policies, procedures, and systems.** The Navy and Marine Corps have not fully established compatible policies and procedures, such as common training tasks and standards and agreed-upon roles and responsibilities, to ensure their efforts to achieve improved naval integration are consistent and sustained. We also found that some of the Navy and Marine Corps' systems for managing and conducting integrated training are incompatible, leading to inefficiencies in the process to manage unit-level training events.
- **Leverage resources to maximize training opportunities.** The services are looking to better leverage available training resources for amphibious operations. However, we identified examples of potential training opportunities during surface warfare tactical training and community relations events where enhancing the services' collaborative efforts could take greater advantage of available training time for amphibious operations.

[6]GAO, *Results-Oriented Government: Practices That Can Help Enhance and Sustain Collaboration among Federal Agencies*, GAO-06-15 (Washington, D.C.: Oct. 21, 2005).

- **Mechanisms to monitor results and reinforce accountability.** The Navy and Marine have not developed mechanisms to monitor, evaluate, and report on results in improving naval integration and to align efforts to maximize training opportunities. Service-level strategy documents establish critical tasks to improve naval integration, but do not constitute a process or mechanism to jointly reinforce accountability for their naval integration efforts.

In our September 2017 report, we recommended that the Navy and Marine Corps clarify the organizations responsible and set time frames to define and articulate common outcomes for naval integration, and use those outcomes to develop a joint strategy, more fully establish compatible policies, procedures, and systems, better leverage training resources, and establish mechanisms to monitor results. DOD concurred with the recommendation and stated it will develop mutual service naval integration terminology, and training resource application and organizational monitoring constructs to achieve common amphibious operations training outcomes.

Chairman Wilson, Ranking Member Bordallo, and Members of the Subcommittee, this concludes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

## GAO Contact and Staff Acknowledgments

For questions about this statement, please contact Cary Russell at (202) 512-5431, or at russellc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Individuals making key contributions to this testimony are Matt Ullengren and Russell Bryan. Other staff who made contributions to the report cited in this testimony are identified in the source product.