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COMMITTEE ON ARMED SERVICES

STATEMENT OF

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LOGISTICS, MAINTENANCE AND INDUSTRIAL OPERATIONS

NAVAL SEA SYSTEMS COMMAND

ON NAVAL SHIPYARDS

BEFORE THE

HOUSE ARMED SERVICES COMMITTEE

READINESS SUBCOMMITTEE

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Chairman Wittman, Ranking Member Bordallo, and distinguished members of the House Armed Services Readiness Subcommittee, I appreciate the opportunity to testify about the Naval Shipyards' role in meeting Navy operational requirements. I am here representing the more than 33,000 hardworking, dedicated and patriotic professionals—both civilian and military—who work in the Naval Shipyards. Today, I will discuss the challenges the Naval Shipyards face in improving performance and reducing the maintenance backlogs that have prevented us from getting ships back to the Fleet on time. The primary solution is to resolve the workload-to-workforce imbalance by increasing the workforce to the right level so that we can get the required maintenance completed on time and on budget. This challenge involves training the new workforce and its management team, but more importantly to transfer knowledge at a faster rate. We will achieve this through the Registered Apprenticeship Programs and other training in conjunction with productivity improvement initiatives. We have also begun to increase the efficiency of the workforce through recapitalizing our infrastructure. The workforce of the Naval Shipyards stands with me and is undertaking these initiatives and tackling these challenges every day so that we are successful at delivering the warfighters their weapons systems.

Overview

The four public-sector Naval Shipyards (Portsmouth, Norfolk, Puget Sound, and Pearl Harbor) are wholly government-owned. They provide a vital service to sustain the Fleets' operational availability and ensure mission success. As the owner of the Naval Shipyards, the Fleets provide the funding, and as the operator, the Naval Sea Systems Command oversees their operation. The Naval Shipyards provide the essential organic capability to perform depot- and intermediate-level maintenance, modernization, refueling, emergency repair work, and inactivations on nuclear-powered aircraft carriers and submarines. They also maintain the specific core capabilities to support conventional surface ship maintenance. The Naval Shipyards provide combat-ready ships and weapon systems required by our Navy.

The Naval Sea Systems Command seeks to operate the Naval Shipyards efficiently and effectively and improve Fleet operational availability. Accomplishing this requires correctly predicting the ship maintenance required; optimizing schedules with operational requirements;

properly sizing the workforce; embedding the correct critical skillsets in the workforce; and enabling our people by equipping them with the right tools, facilities, and processes.

Our top priority is our people, who efficiently and effectively maintain the core capability to perform critical maintenance on aircraft carriers, submarines, surface ships, and ship weapons systems. We also augment our shipyard workforce with private-sector ship repair workers to mitigate workload imbalances. It is vitally important to have a properly trained and skilled workforce to support the Fleets' mission.

While work is primarily performed onsite at the Naval Shipyards, it is also performed as underway voyage repairs and work at far-ranging locations, such as Guam and Japan. Our workforce will go wherever and whenever needed to execute repair work. On any given day, hundreds of Naval Shipyard workers are on travel to conduct critical maintenance on Navy ships.

We continually strive to develop our newer employees to become the Naval Shipyards' highly trained craftsmen, engineers, technicians, and business professionals. The required depth and breadth of their training and experience is essential to properly perform maintenance on the Navy's complex nuclear-powered ships and weapons systems.

Workload-to-Workforce Imbalance

Naval Shipyard performance has been challenged in the past three years due to increased workload and an increased number of new and less experienced workers. In fiscal year 2014 (FY14), the Naval Shipyards executed 4.7 million mandays of workload. This workload continues to increase in FY15 through FY17, and will likely peak in FY18. This increase has been caused in part from the high operational tempo of the Fleet and extended deployments. To meet this increased shipyard workload, the Naval Shipyards are focused on increasing workforce productivity by improving throughput and overall efficiency and performance.

Looking back over the past two years, sequestration has had a significant impact on the Naval Shipyards, which continues to today. The hiring freeze and overtime restriction in FY13 resulted in workload-to-workforce imbalances. In conjunction with restricted overtime, ship

maintenance availabilities were extended or rescheduled. Additionally, the hiring freeze left key positions unfilled. The hiring freeze lasted for several months, and once lifted, economic uncertainties associated with government work, including furloughs, resulted in hiring becoming increasingly difficult. This challenge was exacerbated by increased attrition rates (up to 2,000 personnel per year for all the Naval Shipyards). Although most Naval Shipyard personnel were not subject to the FY13 administrative furlough, the furlough of other support organizations caused significant disruptions to human resources and logistics support services.

The challenges that the Naval Shipyards face to alleviate these workload-to-workforce imbalances include

- hiring to meet increased workload demand that is occurring simultaneously with higher-than-average retirement rates;
- developing our new workforce through mentoring, trade and skill training, and leadership/management training;
- recapitalizing and modernizing the Naval Shipyards' infrastructure; and
- implementing modern solutions to maintenance information systems that will address critical cybersecurity vulnerabilities and improve workforce productivity.

Hiring

In FY13, the Naval Shipyards had about 29,000 full-time equivalents (FTEs). With the impact of sequestration, a hiring freeze, and increased workload, accelerated hiring has been necessary. We continue to aggressively hire apprentices and experienced workers to support the increased workload and to improve on-time delivery of aircraft carriers and submarines back to the Fleet. The FY16 budget supports an increase in the shipyard workforce to a high of 33,500 direct and indirect full time equivalents in FY17. This number was determined to be the appropriate size of the workforce to execute the increasing workload and reset the workload-to-workforce imbalance. These new workers need extensive training, and we continue to invest in workforce training and development.

In conjunction with increased hiring, we have had to make other adjustments to meet shipyard workload. These involved contracting with the private sector and deferring some work, given the shortfalls in Naval Shipyard workforce capacity as we aggressively hire and train.

Apprenticeship Programs

I am pleased to tell you that the Registered Apprenticeship Programs for the Naval Shipyards have been recognized by the U.S. Department of Labor as model programs. These programs seek to produce highly skilled trades people who are capable of executing the Naval Shipyards' technical and complex maintenance needs to meet readiness requirements. They are a critical investment in workforce development that builds a quality workforce for the ship repair industry today and lays the foundation of a longer term investment in our future leaders. In 2014, we inducted over 800 apprentices, and for 2015 we will bring in over 1,000 new apprentices.

Productivity Program Initiatives

The Naval Shipyards invest in the following major productivity program initiatives:

- Continuous Training and Development, which uses practical hands-on training with learning centers and mock-ups to accelerate production-worker skill and proficiency development. These methods create an environment where it is safe to fail—meaning that the workers have a simulated environment where it is okay to make mistakes and to learn from them. The training method is dynamic in that it is given to new employees, mid-level mechanics, and journey-level workers for critical skills proficiency and qualifications to accelerate and leverage knowledge transfer from subject matter experts to our newly hired workforce. Continuous Training and Development improves our ability to get work "right the first time."
- Industrial Processes Corporate Communities of Practice bring multi-disciplined, multi-yard groups together and create opportunities to stimulate innovation, promulgate best practices, and significantly expand knowledge sharing to improve performance. These communities have the involvement of engineering and production organizations that are aligned to similar work products and processes.
- Continuous Process Improvement efforts are focused on Lean Principles, which maps processes to identify and eliminate waste in order to improve throughput and cycle time to

drive efficiency. In addition, a Cumbersome Work Practice Task Force is helping the Naval Shipyards challenge requirements to maximize efficiency and effectiveness while minimizing cost. New technology insertion is used to keep abreast of technology changes and evaluate them for incorporation into Naval Shipyard industrial processes for improvements in safety, quality, and cost performance.

- Integrated Work Teams responsible for planning and executing work with the use of Lean principles are being implemented to improve work coordination and efficiency. Project management specifies what work is required to be accomplished and when, and the integrated work teams determine who does the work and how it is accomplished. Efficiencies are created as the work teams perform the same type of work across multiple projects or availabilities. By creating stable work teams, the execution of work is improved and waste is eliminated.

The Registered Apprenticeship Programs and the productivity improvement initiatives are accelerating the learning and knowledge gained by our workers so that we will have the well-trained people we need to address the peak workload in FY18.

Infrastructure

Naval Sea Systems Command continues to prioritize the sustainment and recapitalization of the Naval Shipyards' infrastructure. Shipyard availability performance, warfighter readiness, and Fleet forward-deployed presence are directly linked to the capabilities provided by and the efficient operation of the Naval Shipyard facilities. Investments continue to focus on mission-critical facilities in the Controlled Industrial Area, which primarily include production shops, piers, wharfs, drydocks, and supporting utility systems. Naval Sea Systems Command is also focused on the Naval Shipyards' information technology systems. These systems are outdated and a challenge to support as we push to meet new cybersecurity standards. Naval Sea Systems Command is implementing solutions to the maintenance information systems to address critical cybersecurity vulnerabilities and improve workforce productivity. Overall, facility investments are prioritized to address the most critical capability, safety, and productivity deficiencies associated with mission-critical facilities.

The FY12 National Defense Authorization Act required that the Navy report to the Congress on the facilities and infrastructure requirements of the Naval Shipyards. The Naval Shipyards have extensive infrastructure capabilities to enable depot-level maintenance, nuclear submarine refueling and overhaul, aircraft carrier maintenance, and nuclear submarine defueling and inactivation. As cited in the report to Congress, the average shipyard facility age is 62 years, the average drydock age is 81 years, and many critical facilities are in a degraded condition, with the Naval Shipyards in worse condition than the average Navy installation. Much of the infrastructure was designed for WWII-era ship construction, not modern nuclear-powered ship repair processes. Examples of ongoing and planned improvements include reducing Puget Sound Naval Shipyard's extensive seismic vulnerabilities, investing in drydock modifications for the Gerald R. Ford-class aircraft carriers and Virginia-class submarines, and investing in training facilities due to recent increases in the size of the workforce. At the end of FY14, the Navy determined that the infrastructure condition and configuration backlog at the four Naval Shipyards was $4.1B. Although the infrastructure condition and configuration has not prevented any Naval Shipyard from sustained mission performance, the risks of a failure that would impact mission remain.

In concert with Commander, Naval Installations Command, the Naval Sea Systems Command is prioritizing military construction projects and continues to invest in Naval Shipyard facilities sustainment, restoration, and modernization at a level above the Navy average. The FY16 military construction funds of $90M will recapitalize infrastructure in the Naval Shipyards by improving utility system resiliency and reliability, aircraft carrier and ballistic missile submarine maintenance facility capabilities and efficiencies, and training facilities. Restoration and modernization projects will mitigate seismic vulnerabilities, maintain drydock certification, repair utility systems and improve energy efficiency through support aimed at reaching the goals established by the Energy Independence and Security Act of 2007. The capital investment in Naval Shipyard infrastructure continues to exceed the minimum level required by law for all Department of Navy Depots.

As part of the Navy's Nuclear Enterprise Review, the President's Budget submission for 2016 adds $42M in FY16 to help accelerate shipyard infrastructure improvements from a 17-year recapitalization plan to a 15-year plan. Increased funding for sustainment and for

restoration and modernization is intended to reduce the risk to the Nuclear Enterprise as supported by the shipyards.

Summary

As I have stated, the workforce of more than 33,000 hardworking, dedicated professionals across the Naval Shipyards stands with me to tackle the challenges we face. Through our Registered Apprenticeship Programs, ongoing training, and productivity improvement initiatives, we will continue to grow and improve this workforce. We will gain increased efficiencies through recapitalization of our infrastructure. Our goal each and every day is to get our Navy's ships back to sea when the Fleet needs them.

Again, thank you for inviting me here today before this Committee, and thank you for the continued and crucial support of our Naval Shipyards. I will be glad to take any questions you may have.