

# GAO Highlights

Highlights of [GAO-22-104510](#), a report to the Committee on Armed Services, House of Representatives

## Why GAO Did This Study

During fiscal years 2015 through 2020, the Navy spent an average of \$2.1 billion per year performing high priority maintenance on submarines, surface ships, and aircraft carriers. The Navy's ships' crews and shore-based maintenance providers, located at homeports throughout the world, generally performed this maintenance—referred to by GAO as “intermediate maintenance periods”—to prepare the ships to get underway to execute their next missions.

The House Armed Services Committee, in a report accompanying a bill for the National Defense Authorization Act for Fiscal Year 2021, included a provision for GAO to review Navy ship intermediate maintenance periods. GAO evaluated the extent to which the Navy (1) collected and used data regarding the performance of intermediate maintenance periods for submarines, surface ships, and aircraft carriers during fiscal years 2015 through 2020, and (2) has addressed challenges affecting the performance of intermediate maintenance periods. GAO analyzed data related to Navy intermediate maintenance periods during fiscal years 2015 through 2020, reviewed key documents, and met with Navy crews and officials.

## What GAO Recommends

GAO is making four recommendations to the Navy, including to establish and implement procedures to collect and analyze reliable maintenance data; share best practices and lessons learned; and include the performance of intermediate maintenance periods in strategic planning efforts. The Navy concurred with all four recommendations.

View [GAO-22-104510](#). For more information, contact Diana Maurer at (202) 512-9627 or [maurerd@gao.gov](mailto:maurerd@gao.gov).

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## NAVY SHIP MAINTENANCE

### Actions Needed to Monitor and Address the Performance of Intermediate Maintenance Periods

## What GAO Found

The Navy collected, but did not analyze, limited data on the performance of intermediate maintenance periods—work often occurring while a ship is pier-side and capable of getting underway within 96 hours. Based on these data, GAO found that the Navy completed 191 of 414 (46 percent) submarine intermediate maintenance periods late from fiscal years 2015 through 2020, totaling 2,525 days of maintenance delay. The Navy did not collect several categories of data for submarines, surface ships, and aircraft carriers, including the planned and actual maintenance period costs. Without establishing and implementing procedures to collect and analyze these data, the Navy cannot effectively track and improve the performance of intermediate maintenance periods.

GAO identified four main challenges affecting the performance of intermediate maintenance periods for submarines, surface ships, and aircraft carriers based on discussions with ships' crews and officials from Navy organizations (see fig.).

#### Four Main Challenges Affecting the Performance of Intermediate Maintenance Periods



##### Crew/workforce shortages

Shortages of crew/shore-based workforce; and not replacing crew absent for medical/mental health reasons.



##### High operational tempo/scheduling

Long workdays underway and in port; and crew staying onboard in port and cancelling leave.



##### Limited maintenance/repair training

Training on obsolete equipment; limited training availability; and rely upon on-the-job training.



##### Parts and materials shortages

Long delays getting parts; cannibalizing parts from other ships; and obsolete parts being unavailable.

*The Navy relies upon the limited number of experienced, qualified crewmembers onboard ships and sailors at shore-based maintenance providers. These personnel must perform well at high operational tempos and while working long hours, and must also provide effective on-the-job training to new or inexperienced sailors.*

Source: GAO analysis of discussions with Navy ships' crews and officials. | GAO-22-104510

Ships' crews and shore-based maintenance providers have taken steps to address these challenges, but have had limited success because the Navy's efforts have been fragmented, have not generally included the sharing of best practices and lessons learned, and have not included the performance of intermediate maintenance periods in its strategic planning. For example:

- The Navy's aircraft carrier community independently created a working group to address some aspects of parts shortages, but has not shared this effort across the fleet. Implementing a mechanism to share best practices and lessons learned will better enable the Navy to address challenges affecting the performance of these maintenance periods.
- The Navy has not included the performance of intermediate maintenance periods for submarines, surface ships, and aircraft carriers in strategic planning efforts. Without including consideration of the performance of intermediate maintenance periods in its strategic planning and related initiatives, the Navy risks negatively affecting the readiness of the fleet.

Addressing these issues will better position the Navy to increase the readiness of submarines, surface ships, and aircraft carriers needed to perform their missions.