

GAO Highlights

Highlights of [GAO-23-105481](#), a report to congressional requesters

Why GAO Did This Study

The Navy reported more than \$4 billion in estimated damages from fires that occurred onboard ships undergoing maintenance from May 2008 through December 2022. The Navy also lost two ships to fires during this period, including the USS *Bonhomme Richard*.

GAO was asked to review issues related to fires during maintenance. This report examines, among other things, the extent that the Navy has (1) addressed lessons learned from fires and developed a process to improve the collection, analysis, and sharing of lessons learned; (2) collected and analyzed data about the effects that fires during maintenance have on ships; and (3) assessed the effectiveness of training provided to personnel to implement fire-safety policies on ships during maintenance.

To conduct this work, GAO reviewed Navy documents, best practices, policies and procedures, fire-safety training materials, and Navy reports on fires from 2008-2020. GAO staff interviewed officials from Navy organizations responsible for fire safety, prevention, and response. GAO also visited ships undergoing maintenance at a naval base, and naval and private shipyards.

What GAO Recommends

GAO is making three recommendations to the Navy, including that it establish a process for consistently collecting lessons learned; an organization to analyze the effects of fires; and service-wide goals, performance measures, and a process for monitoring and reporting progress for fire-safety training. In written comments, the Navy concurred with all three recommendations.

View [GAO-23-105481](#). For more information, contact Diana Maurer at (202) 512-9627 or maurerd@gao.gov.

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NAVY SHIP FIRES

Ongoing Efforts to Improve Safety Should Be Enhanced

What GAO Found

U.S. Navy ships undergoing maintenance face a high risk of fire, in part because repairs can involve sparks or welding in confined areas with flammable material. Navy organizations collect and analyze lessons learned from fires through a number of processes. However, the Navy does not have a process for consistently collecting, analyzing, and sharing these lessons learned. As a result, the Navy has lost lessons learned over time—such as steps that a ship can take to improve fire safety. Organizations that GAO interviewed collected lessons learned from fires; however, they had not consistently used the approved Navy-wide system to store and share them. Establishing a process for the consistent collection, analysis, and sharing of fire-related lessons learned would assist the Navy to improve behavior and reduce the risk of ships repeating costly mistakes.

Fire aboard the USS *Bonhomme Richard* in San Diego, California, July 2020



Source: U.S. Navy/Lieutenant J. Mike. | GAO-23-105481

Although the Navy has begun improving the collection of data related to fires aboard ships during maintenance in the Navy's safety database, no organization is analyzing the broad effects of fires on the Navy's operations and strategic resources. Without conducting such analyses, the Navy will not have a complete picture of the magnitude of risks associated with ship fires. In addition, senior leaders and policymakers can use these analyses to inform their prioritization of resources for fire prevention and mitigation relative to other competing interests.

Navy organizations responsible for training have assessed the effectiveness of their individual training efforts in multiple ways—such as conducting course evaluations and fire drills. However, the Navy has not assessed the effectiveness of its collective training efforts service-wide. The Navy has not set service-wide goals, performance measures, and a process to monitor progress for its collective training efforts to improve fire safety and response. By establishing these practices service-wide, Navy leadership would have the information needed to determine the extent to which its training efforts are effective in reducing the incidence and severity of fires.