

Why GAO Did This Study

The ability to repair and maintain ships plays a critical role in sustaining Navy readiness. After the Cold War, the Navy divested many wartime ship repair capabilities. With the rise of great power competitors capable of producing high-end threats in warfare, the Navy must now be prepared to quickly salvage and repair damage to a modern fleet.

House Report 116-120, accompanying a bill for the National Defense Authorization Act for Fiscal Year 2020, included a provision for GAO to assess the Navy's efforts to identify and mitigate challenges in repairing battle-damaged ships during a great power conflict. GAO's report (1) discusses the challenges the Navy has identified in using its regular maintenance capability for battle damage repair, and (2) evaluates the extent to which the Navy has begun developing the battle damage repair capability it requires to prevail in a great power conflict. GAO reviewed relevant guidance and assessed reports on naval war games and other documentation to identify challenges that may impede the planning and repair of battle-damaged ships and efforts to improve the repair capability for a great power conflict.

What GAO Recommends

GAO is making three recommendations, including that the Secretary of the Navy designate an organization to lead battle damage repair efforts and periodically assess and update ship vulnerability models to reflect the ship's mission-critical systems. The Navy partially concurred with these recommendations, which GAO continues to believe are warranted.

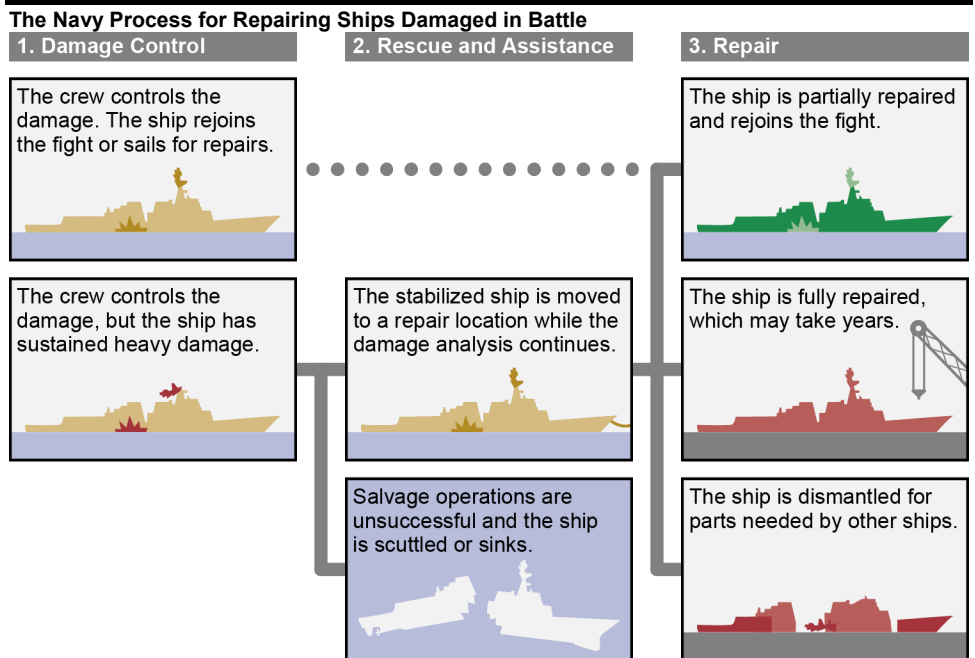
View [GAO-21-246](#). For more information, contact Diana Maurer at (202) 512-9627 or MaurerD@gao.gov.

NAVY SHIPS

Timely Actions Needed to Improve Planning and Develop Capabilities for Battle Damage Repair

What GAO Found

The Navy has identified several challenges with using its regular maintenance capability (which restores ships to fully operational status) to provide battle damage repairs during a great power conflict. Challenges include—the lack of established doctrine for battle damage repair, unclear command and control roles, and a shortage of repair capacity.



Source: GAO analysis of Department of Defense information. | GAO-21-246

The Navy is in the early stages of determining how it will provide battle damage repair during a great power conflict. Eight organizations are responsible for the Navy's 15 battle damage repair planning efforts, however the Navy has not designated an organization to lead and oversee these efforts. Without designated leadership, the Navy may be hindered in its efforts to address the many challenges it faces in sustaining its ships during a great power conflict.

The Navy develops ship vulnerability models during a ship's acquisition to estimate damage during a conflict. These models are also used to inform war games that refine operational approaches and train leaders on decision-making. However, the Navy does not update these models over a ship's decades-long service life to reflect changes to key systems that could affect model accuracy. As a result, it lacks quality data on ship mission-critical failure points to inform its analysis of battle damage repair needs. Without periodically assessing and updating its models to accurately reflect the ship's mission-critical systems, the Navy has limited its ability to assess and develop battle damage repair capabilities necessary to sustain ships in a conflict with a great power competitor.