

GAO@100 Highlights

Highlights of [GAO-21-247](#), a report to congressional committees

Why GAO Did This Study

Since 2010, the Department of Homeland Security's (DHS) Coast Guard investigated over 50,000 maritime vessel accidents, including some resulting in casualties (dead or missing persons). The Coast Guard investigates accidents and requires vessels to carry lifesaving equipment to reduce the likelihood of casualties. Among this equipment are out-of-water survival craft to ensure no part of a person is immersed in water.

The Coast Guard Authorization Act of 2016 includes a provision for GAO to examine the extent of vessel-based casualties from water immersion and the efficacy of various lifesaving equipment. This report assesses the extent the Coast Guard has (1) data from 2010 through 2019 showing vessel-based casualties and survivability; (2) estimated costs and benefits of implementing out-of-water survival craft requirements for vessel owners; and (3) guidance for designating cold water areas and corresponding equipment requirements based on the best available data. GAO reviewed Coast Guard guidance and vessel accident data and interviewed Coast Guard and industry officials.

What GAO Recommends

GAO makes four recommendations, including that the Coast Guard require investigators collect data about people's use of lifesaving equipment in accidents, fully implement cost estimate best practices for out-of-water survival craft requirements, and if necessary, update cold water areas determinations. DHS concurred with 3 of 4 recommendations. GAO continues to believe the findings in the report support the recommendations.

View [GAO-21-247](#). For more information, contact Nathan Anderson at (206) 287-4804 or andersonn@gao.gov.

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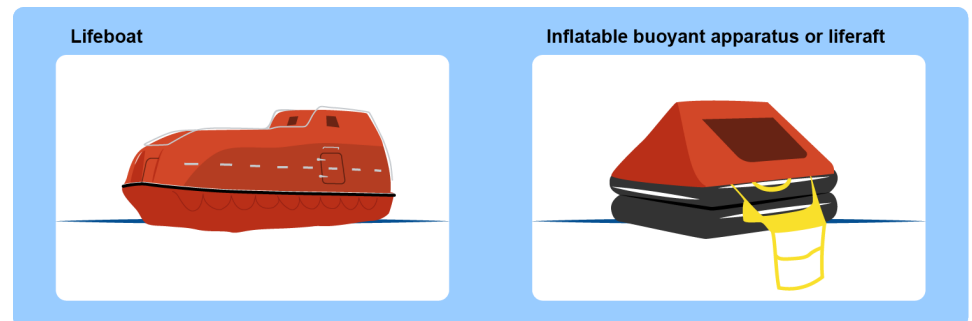
COAST GUARD

More Information Needed to Assess Efficacy and Costs of Vessel Survival Craft Requirements

What GAO Found

Coast Guard data show that during fiscal years 2010 through 2019 most people survived vessel accidents, and out-of-water survival craft, such as a lifeboat, was used more often than other types of lifesaving equipment. However, the Coast Guard has limited information about people involved in vessel accidents, such as their date of birth, potential disability, and type of lifesaving equipment used, if any. For example, Coast Guard data did not include the type of lifesaving equipment used, if any, for about 45 percent (1,733 of 3,847) of accident survivors. By requiring its investigators to collect date of birth, known disability, and use of lifesaving equipment information of survivors and casualties of vessel accidents, the service could better assess the efficacy of lifesaving equipment.

Examples of Out-of-Water Survival Craft



Source: GAO analysis of U.S. Coast Guard documentation. | GAO-21-247

The Coast Guard estimated costs and benefits of requiring vessel owners to carry out-of-water survival craft in its 2013 and 2017 reports to Congress, but the estimates were not fully accurate or complete. The Coast Guard did not use economically justifiable discount rates to account for the time value of money nor document its rationale, as recommended by the Office of Management and Budget (OMB). In its 2013 report, this resulted in estimated net costs \$32.3 million higher than if it had. By fully implementing OMB best practices, the Coast Guard can better ensure its future estimates are accurate and complete.

The Coast Guard's 1991 guidance for determining cold water areas (59 degrees Fahrenheit and below) is based on outdated water temperature data. The guidance designates cold water areas where commercial vessels are to carry certain lifesaving equipment. Our analysis of the most recent water temperature data found that temperatures increased off the Atlantic coast for all months and Pacific coast for 10 months of the year—which does not match temperatures in the guidance. For example, the data shows that, for the month of September, waters measuring over 59 degrees expanded across almost half the area in the Gulf of Maine that the Coast Guard designated as "cold water" in 1991. By reviewing its cold water areas determination guidance to determine if it reflects current temperature data, and if necessary revising it, the Coast Guard would better ensure commercial vessels are operating with appropriate lifesaving equipment.