

Why GAO Did This Study

Since the 1960s, the United States has deployed nuclear weapons on three types of strategic delivery vehicles collectively known as the strategic triad. The triad comprises the sea-based leg (submarine-launched ballistic missiles), ground-based leg (intercontinental ballistic missiles), and airborne leg (nuclear-capable heavy bombers). As a result of arms control agreements and strategic policies, the number of U.S. nuclear weapons and strategic delivery vehicles has been reduced substantially; however, the strategic triad has remained intact. DOD and the Department of Energy are planning to invest significant resources to recapitalize and modernize the strategic triad in the coming decades. The departments projected in 2015 that the costs of maintaining U.S. nuclear forces for fiscal years 2016 through 2025 would total \$319.8 billion, and DOD expects recapitalization and modernization efforts to extend into the 2030s.

GAO was asked to review DOD's analysis of the decision to retain all three legs of the strategic triad. This report describes the processes DOD used in supporting that decision. GAO reviewed documentation and interviewed officials from DOD and the military services on the key reviews DOD carried out from 2009 to 2014—including the 2010 Nuclear Posture Review—in analyzing its strategic force structure.

What GAO Recommends

GAO is not making any recommendations in this report. DOD provided technical comments, which were incorporated as appropriate.

View [GAO-16-740](#). For more information, contact Joseph W. Kirschbaum at (202) 512-9971 or kirschbaumj@gao.gov.

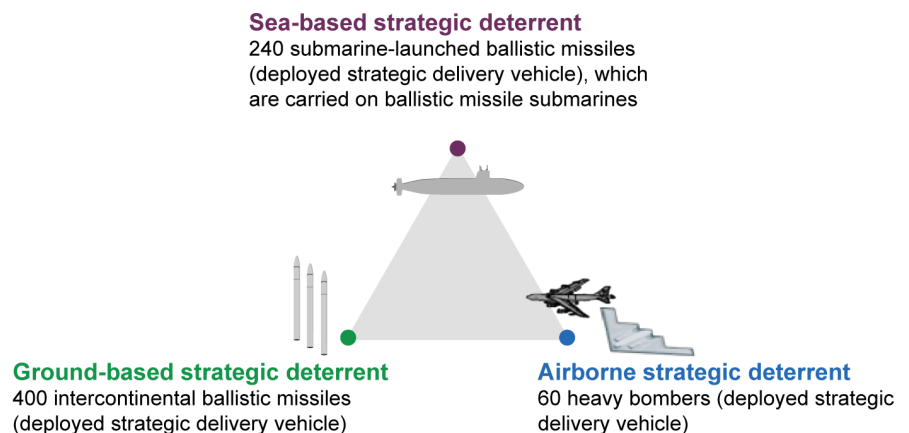
NUCLEAR WEAPONS

DOD Assessed the Need for Each Leg of the Strategic Triad and Considered Other Reductions to Nuclear Forces

What GAO Found

The Department of Defense (DOD) assessed the need for each leg of the strategic triad in support of the 2010 Nuclear Posture Review and considered other reductions to nuclear forces in subsequent reviews. The department identified advantages of each leg of the triad and concluded that retaining all three would help maintain strategic deterrence and stability. The advantages DOD identified include the survivability of the sea-based leg, the intercontinental ballistic missiles' contribution to stability, and the ability of the nuclear-capable bombers to visibly forward deploy. The 2010 *Nuclear Posture Review Report* states—and DOD officials also told GAO—that the administration has considered various options for the U.S. nuclear force structure, including options in which DOD would eliminate one leg of the triad. For example, Strategic Command, Air Force, and Navy officials told GAO that they had analyzed alternative strategic force structures in preparation for the 2010 Nuclear Posture Review. DOD officials also told GAO that the department had assessed nuclear force reductions as part of reviews conducted after the Nuclear Posture Review, including during the development of the President's 2013 nuclear employment guidance, the 2013 Strategic Choices Management Review, and DOD's 2014 plan to implement the New Strategic Arms Reduction Treaty (New START) with Russia. The figure shows DOD's current planned strategic force structure for implementing New START, including the number of delivery vehicles that would be retained for each leg of the triad.

DOD's Current Planned Strategic Force Structure for Implementing the New Strategic Arms Reduction Treaty, Grouped by the Three Legs of the Strategic Triad



Source: GAO analysis of Department of Defense documents. | GAO-16-740

This is a public version of a classified report GAO issued in May 2016. It excludes classified information on warhead levels, the specific advantages of each leg of the triad, and some of the analyses of alternatives that were considered.