

GAO Highlights

Highlights of [GAO-13-831](#), a report to congressional committees

Why GAO Did This Study

U.S. nuclear weapons—both the bombs and warheads and their delivery systems—are aging beyond their intended service lives. The 2010 Nuclear Posture Review recommended that the Nuclear Weapons Council study options for extending the life of ICBM warheads, including the potential for developing a warhead that is interoperable on both Air Force and Navy missiles. In 2013 DOD will initiate a study to identify a replacement for the Minuteman III missile. This report addresses the extent to which (1) DOD has assessed the capability requirements, potential basing options, and costs for the follow-on to the Minuteman III ICBM; and (2) DOD and DOE have explored the feasibility of incorporating an interoperable warhead concept into the long-term nuclear weapons stockpile plan. GAO analyzed DOD and NNSA policies, plans, guidance, and other documents; and interviewed officials responsible for planning the Minuteman III follow-on and the warhead life-extension program.

What GAO Recommends

GAO is making seven recommendations to provide complete cost estimates to the Nuclear Weapons Council and improve synchronization between DOD and DOE; to identify long-term Navy funding to support the interoperable warhead life-extension program; and to issue or revise existing DOD and Nuclear Weapons Council guidance. In written comments on a draft of this report, DOD concurred with all of GAO's recommendations, and DOE concurred with the three recommendations requiring joint action between the two departments.

View [GAO-13-831](#) or key components. For more information, contact John Pendleton at (202) 512-3489 or pendletonj@gao.gov.

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ICBM MODERNIZATION

Approaches to Basing Options and Interoperable Warhead Designs Need Better Planning and Synchronization

What GAO Found

The Department of Defense (DOD) has identified capability requirements and potential basing options for the Minuteman III follow-on intercontinental ballistic missile (ICBM), and the Department of Energy (DOE) has begun a parallel study of options to extend the life of its warhead, but neither department plans to estimate the total system costs for the new missile and its warhead. GAO's work on cost estimating has found that a reliable cost estimate is critical to any program by providing the basis for informed decision making. The Nuclear Weapons Council—the joint activity of DOD and DOE for nuclear weapons programs—is responsible for coordinating budget matters related to nuclear weapons programs between the departments, and is engaging in an effort to broadly synchronize nuclear weapons life-extension programs with delivery-system modernization efforts, but has not asked either department to provide estimates of the total system cost. In the absence of such a request, neither department is developing total cost estimates. Further, DOD's plan to study ICBM follow-on options does not include the council as a stakeholder to synchronize the missile and warhead efforts to help ensure that the study considers an enterprise-wide perspective. Without timely cost estimates and updates on the status of the ICBM follow-on study, the council may be unable to provide guidance and direction on the study, or consider its implications and potential effects on other nuclear weapons modernization efforts.

DOD and DOE have prepared a long-term plan that incorporates interoperable warheads into the stockpile, and although they have begun studying the feasibility of designing such a warhead, the Navy has had limited participation thus far. The 2010 Nuclear Posture Review recommended the Nuclear Weapons Council study the development of an interoperable warhead that could be deployed on both Air Force and Navy ballistic missiles, and the council has requested the Air Force, Navy, and the National Nuclear Security Administration (NNSA) to commit resources to the study. Although the Air Force and NNSA have been examining warhead concepts, the Navy has not fully engaged in the effort because (1) other, ongoing modernization programs are higher Navy priorities, and (2) it has concerns about changing the design of the warhead. The Navy's further participation is uncertain because it has not identified the resources needed to continue with the program once the study is completed, if the interoperable warhead is adopted. Consequently, the Navy will be poorly positioned to perform the more-detailed analyses needed to validate the approved design, potentially resulting in program delays. The Nuclear Weapons Council guidelines governing nuclear weapons refurbishments, and the corresponding DOD instruction, do not require the Air Force and Navy to align their programs and resources before beginning joint-service warhead studies. For example, DOD's instruction states that the military departments are to develop procedures for certain joint DOD-DOE activities, but it is unclear about aligning their programs and resources with each other. If the guidance and DOD instruction are not updated, the services may not be prepared to participate in future joint-service studies.