NUCLEAR ENTERPRISE

DOD and NNSA Could Further Enhance How They Manage Risk and Prioritize Efforts

Why GAO Did This Study

In the 2018 NPR, DOD described its commitment to planned and ongoing DOD and DOE sustainment and replacement programs to modernize the U.S. nuclear enterprise. DOD’s portfolio includes a mix of delivery platforms for nuclear weapons. NNSA’s Weapons Activities portfolio involves the research, development, and production infrastructure that produces and maintains nuclear weapons.

A House Armed Services Committee report includes a provision for GAO to assess DOD’s and NNSA’s development of risk mitigation plans for modernization efforts recommended by the 2018 NPR, and plans for prioritizing these efforts. GAO addresses the extent to which DOD and NNSA have (1) developed processes to manage risks across the U.S. nuclear enterprise and (2) prioritized the programs, projects, and activities within their respective nuclear portfolios. GAO reviewed DOD’s and NNSA’s guidance, documentation, and practices to assess the processes used to manage risks and how nuclear enterprise systems are prioritized.

What GAO Found

The U.S. nuclear enterprise comprises two portfolios managed by the Department of Defense (DOD) and the Department of Energy’s (DOE) National Nuclear Security Administration (NNSA). DOD and NNSA have begun implementing some processes to improve risk management within their respective nuclear portfolios. However, they have not established joint processes to periodically identify, analyze, and respond to risks that affect the joint U.S. nuclear enterprise, and report information about these risks to stakeholders. DOD and NNSA have interdependencies among their nuclear programs, including among the weapon and delivery platform systems of the strategic nuclear triad (see fig.). These interdependencies may result in additional risks to individual program schedules and costs. Absent a risk management process for the joint enterprise, senior leaders may not be able to effectively manage risks, make informed resource decisions, or accept risks.

Current Strategic Nuclear Triad Systems

Airborne strategic deterrent
- B-52 and B-2 bombers
- AGM-86B air launched cruise missile
- W80-1 warhead
- B61-7, B61-11, and B83-1 bombs

Land-based strategic deterrent
- Minuteman III intercontinental ballistic missile
- W76 and W97-0 warheads

Sea-based strategic deterrent
- Ohio-class ballistic missile submarine
- Trident II D-5 ballistic missile
- W76-1, W76-2, W88 warheads

DOD and NNSA have not prioritized efforts within their respective nuclear portfolios. DOD has identified the nuclear enterprise as one of its strategic priorities, but the department has not established criteria to prioritize among the individual programs, projects, and activities within its nuclear portfolio. By establishing and applying criteria to prioritize its nuclear efforts, DOD would be better prepared to make informed resourcing decisions and respond to changing conditions, and better positioned to develop the next Nuclear Posture Review (NPR). Additionally, by prioritizing among its nuclear efforts, DOD could provide NNSA with information about DOD’s priorities for use in NNSA’s own portfolio management processes. In June 2021, GAO recommended improvements to NNSA’s portfolio management processes including the establishment of prioritization criteria.

What GAO Recommends

GAO is making four recommendations for DOD and NNSA to establish joint risk management processes and for DOD to establish prioritization criteria and then prioritize within DOD’s nuclear enterprise. DOD partially concurred with the recommendations directed to it, and NNSA concurred with the intent of the recommendation to it; however, neither identified plans to implement them. GAO continues to believe that the recommendations should be fully implemented.

View GAO-22-104061. For more information, contact Joseph W. Kirschbaum at (202) 512-9971 or KirschbaumJ@gao.gov, Allison Bawden at (202) 512-3841 or BawdenA@gao.gov, or Shelby S. Oakley at (202) 512-4841 or OakleyS@gao.gov.