Why GAO Did This Study

The possibility that an adversary may use chemical or biological weapons against U.S. forces makes it important for a weapon system to be able to survive such attacks. In the National Defense Authorization Act for Fiscal Year 2005, Congress mandated that the Department of Defense submit a plan to address weapon system chemical and biological survivability by February 28, 2005. This plan was to include developing a centralized database with information about the effects of chemical and biological agents on materials used in weapon systems. DOD did not submit its plan as mandated. GAO was asked to evaluate (1) the extent to which DOD addresses weapon system chemical and biological survivability during the acquisition process, and (2) DOD’s internal controls for maintaining a comprehensive database that includes chemical and biological survivability research and test data for weapon system design and development.

What GAO Found

The extent to which chemical and biological survivability is considered in the weapon system acquisition process is mixed and varied. Although DOD strategic guidance and policy has emphasized the growing threat of an adversary’s use of chemical and biological weapons for over a decade, DOD, joint, and military service weapon system acquisition policies are inconsistent and do not establish a clear process for considering and testing system chemical and biological survivability. To assess the extent DOD addresses chemical and biological survivability during the acquisition process, GAO conducted a non probability sample of nine major weapon systems based on high dollar value, whether the system was a joint program, and risk of exposure to chemical and biological weapons. Because DOD and joint acquisition policies do not require that survivability be specifically addressed, the military services have developed their own varying and unique policies. Thus, for the nine weapon systems GAO reviewed, the program offices involved made individual survivability decisions, resulting in inconsistent survivability consideration and testing. In the absence of DOD requirements, program offices also inconsistently document their decisions regarding how they consider and test chemical and biological survivability. Furthermore, DOD policies do not establish a clear process for responsibility, authority, and oversight for monitoring program office decisions regarding chemical and biological survivability. Without establishing consistent policies requiring that chemical and biological survivability be considered during weapon system acquisition, and a clear process for doing so, military planners and commanders are likely to face varying weapon system performance, availability, and interoperability issues. These could negatively affect system availability in a contaminated environment and limit DOD’s ability to identify risk and ensure that appropriate decisions are made.

What GAO Recommends

GAO is recommending modifications to DOD’s current weapon system acquisition policy to ensure that (1) weapon system chemical and biological survivability is consistently addressed and (2) that DOD’s chemical and biological scientific and technical information database is comprehensive. DOD concurred with GAO’s recommendations and currently has actions underway for their implementation.


To view the full product, including the scope and methodology, click on the link above. For more information, contact Davi D’Agostino at (202) 512-5431 or dagostinod@gao.gov.