

Why GAO Did This Study

DOD spends billions of dollars on sophisticated weapon systems and technologies to maintain military superiority. Such technologies are vulnerable to exploitation when exported, stolen, or lost during military missions. To identify critical technologies and help minimize these risks, DOD established the MCTL—a technical reference—as well as a compendium of worldwide emerging technologies. In 2006, GAO reported that the MCTL was out of date and not meeting users' requirements, and subsequently included the list as a key component of GAO's high risk area on protecting critical technologies. This report updates GAO's 2006 work and reviews the extent to which 1) DOD has addressed weaknesses in updating and maintaining the MCTL, and 2) agencies use the MCTL as a resource in identifying critical technologies. GAO reviewed laws, directives, and guidance, as well as documentation of DOD actions since 2006 to address MCTL concerns and interviewed officials from DOD and the Departments of Commerce, State, and the Treasury.

What GAO Recommends

GAO recommends that DOD take steps to (1) determine the best approach for meeting users' requirements for a technical reference to consistently identify critical technologies, whether it be the MCTL or an alternative and (2) ensure adequate resources are available to sustain the approach chosen. Further, if DOD determines that the MCTL is not the optimal solution, it should seek necessary relief from its responsibility to develop the list. DOD concurred with GAO's recommendations.

View [GAO-13-157](#). For more information, contact Belva Martin at (202) 512-4841 or martinb@gao.gov.

PROTECTING DEFENSE TECHNOLOGIES

DOD Assessment Needed to Determine Requirement for Critical Technologies List

What GAO Found

While the Department of Defense (DOD) took steps to address previously identified weaknesses in updating and maintaining the Military Critical Technologies List (MCTL), the list remains outdated and updates have ceased. For example, DOD has solicited users' requirements and feedback on the MCTL, and added a search engine capability to improve navigation of the list and updated each technology section at least once. DOD also determined the list's purpose is to support export control decisions and in October 2008, issued an instruction that (1) recognized the list's usefulness for other DOD programs and activities and (2) outlined the roles, responsibilities, and procedures for updating and maintaining the list. However, in 2011, DOD cut funding for the program from \$4 million in prior years to about \$1.5 million and ceased MCTL content updates. Subsequently, DOD removed the public version of the list from the Internet, and officials posted a disclaimer for the restricted version noting that the list should only be used for informational purposes as it had not been updated. Similarly, the compendium of emerging technologies is outdated and two sections have not been updated since 1999. Program officials from the Military Critical Technologies Program have devised a plan to improve how MCTL content will be updated in the future, including relying on contributions from the user community, but implementation of the plan has been limited due to funding constraints. However, program officials have yet to get input from users to agree to this approach and would still require additional funding to implement it.

The MCTL is not used to inform export decisions—its original purpose. Export control officials from DOD and the Departments of Commerce and State reiterated their longstanding concern that the MCTL is outdated and too broad to meet export control needs. DOD officials who provide input on the criticality of technologies as part of export license determinations and reviews of foreign acquisition of U.S. companies told us that they do not rely on the MCTL to inform their decision making despite DOD guidance to do so. Instead, they consult their own network of experts, which they consider to be a more reliable source to get current technology information. Other DOD programs to protect critical technologies need a technical reference such as the MCTL and have integrated the list to help inform decision making. For example, the MCTL has been fully integrated into DOD's anti-tamper critical technology tool, which is designed to facilitate analysis and decision making to protect the most valuable military assets from tampering when exported or lost in military missions. Also, to inform its analysis of industrial espionage activities such as foreign targeting of U.S. technologies, the Defense Security Service relies on the MCTL to identify overlap and connections between different technology categories. With the suspension of MCTL updates, these programs are seeking alternatives, and in one case, developing their own technical reference which could result in inefficient use of resources. DOD officials working with MCTL users have an opportunity to coordinate efforts and help minimize inconsistent approaches to identify critical technologies and any potential duplication of effort.