

GAO@100 Highlights

Highlights of [GAO-21-105283](#), a report to congressional committees

Why GAO Did This Study

DOD has invested \$7.4 billion to develop, build, and begin delivering MUOS. However, longstanding gaps between the fielding of the satellite system and compatible user terminals have limited DOD's ability to fully use the system.

The Senate Armed Services Committee report to the bill for the National Defense Authorization Act for Fiscal Year 2020 contained a provision for GAO to review DOD's use of MUOS capabilities and any plans for a MUOS follow-on capability. In this report, GAO (1) provides information on the extent to which DOD is using MUOS advanced communications capabilities; (2) assesses DOD's challenges and steps taken in transitioning to these capabilities, and (3) assesses efforts DOD has underway to meet future narrowband satellite communications needs. This is a public version of a sensitive report that GAO issued in June 2021. Information that DOD deemed to be sensitive has been omitted.

GAO reviewed DOD planning documents, system assessments, and test reports. GAO also analyzed the services' terminal fielding and network transition plans. GAO interviewed oversight and acquisition officials across DOD.

What GAO Recommends

GAO recommends DOD (1) explore and implement an option for narrowband satellite communications capabilities to meet near-term needs, and (2) reexamine its future narrowband satellite needs. DOD concurred with our recommendations and provided comments, which we incorporated as appropriate.

View [GAO-21-105283](#). For more information, contact Jon Ludwigson at (202) 512-4841 or ludwigsonj@gao.gov.

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SATELLITE COMMUNICATIONS

DOD Should Explore Options to Meet User Needs for Narrowband Capabilities

What GAO Found

The Department of Defense (DOD) is not using the full capabilities of its latest ultra high frequency (narrowband) military satellite communications system, the Mobile User Objective System (MUOS). MUOS provides secure communications less vulnerable to weather conditions or other potential impediments. The full constellation of MUOS satellites has been on orbit for over 4 years, but DOD has not been able to use the system's advanced capabilities—such as its 10-fold increase in communications capacity. A key reason is the military services' delayed delivery of compatible radio terminals to users (see figure). DOD is funding and developing plans to accelerate procurement and delivery of these terminals.

Army Soldiers Using a Mobile User Objective System-Compatible Portable Terminal



Source: Army Handheld, Manpack, and Small Form Fit program office. | GAO-21-105283

DOD faces other challenges to its narrowband communications capabilities.

- In the near term, users continue to rely on the communications system that preceded MUOS, which is oversubscribed and will remain so while DOD works to field terminals and transition to MUOS. DOD has not explored and adopted narrowband communication options, which, if implemented, could help to meet unmet near-term communication needs.
- In the longer term, the five MUOS satellites that are on orbit have limited design lives. DOD plans to buy and launch additional satellites to sustain the constellation's availability, but without the legacy capability of the older system.

DOD has not determined its future narrowband satellite communication needs after MUOS. DOD has not updated its narrowband requirements since 2010 and has no plans to do so, although the uses, technology, and threats to communications have changed. Reexamining its narrowband communications needs will enhance DOD's ability to field a timely replacement for MUOS and ensure warfighters have needed communications tools in the future.