



# How is DOD Addressing Challenges with its Mobile User Objectives System (MUOS) Program?

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Based on published GAO report: [GAO-21-105283](#)

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## Research Issue and Methodology

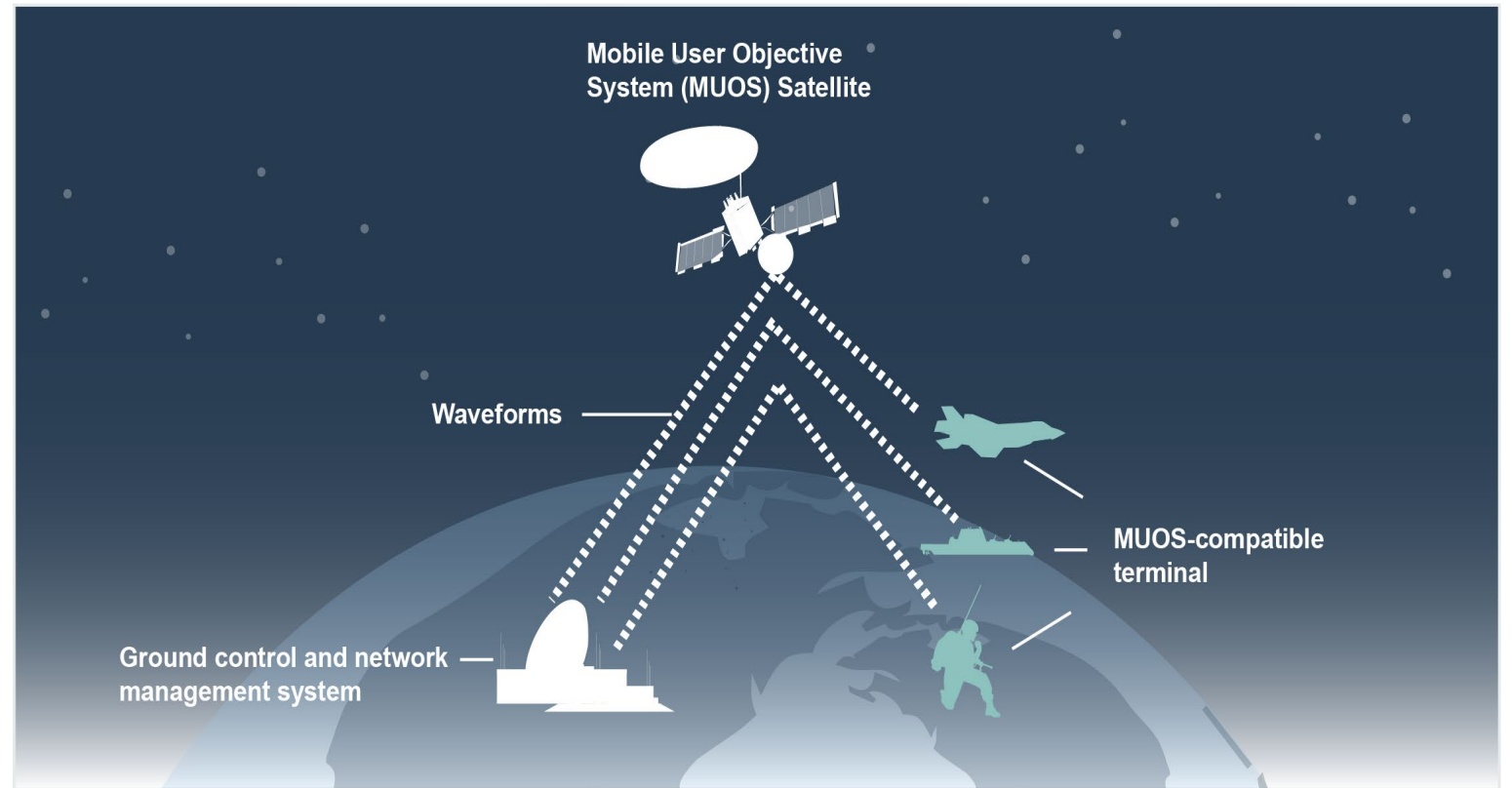
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- DOD has invested \$7.4 billion to develop, build, and begin delivering MUOS. However, longstanding gaps between the fielding of the satellite system and compatible user terminals have limited DOD's ability to fully use the system.
  - The Senate 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.
  - 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.
  - This is a public version of a CUI report, issued in March 2021
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# Background

DOD uses military satellite communications (SATCOM) to support air, land, sea, and space operations critical to U.S. national security between commanders at a base and soldiers in the field carrying out operations.

MUOS is DOD's latest ultra-high frequency (narrowband) military satellite system.



Source: GAO analysis of Navy and Johns Hopkins Applied Physics Lab Documents. | GAO-21-105283

## DOD Was Not Using Full Capabilities of MUOS

- The full MUOS constellation (5 satellites) has been on orbit for over 4 years but DOD is not using its advanced communications capacity.
- Why? Delays to fielding the necessary user terminals and transitioning communication networks.



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



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## **DOD Faced Other Challenges to its Narrowband Communications Capabilities**

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- In the near-term, users rely on the legacy UHF system which was oversubscribed and will remain so while DOD works to field terminals and transition users to MUOS.
  - Meanwhile, MUOS satellites are aging on orbit and additional satellites won't have the legacy UHF capability.
  - At the time of our review, DOD had not explored and adopted narrowband communication options to help meet unmet near-term communication needs.
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## **DOD had not determined its future narrowband satellite communication needs**

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- Meanwhile....
  - Over the last 7 years, DOD has recommended that the Navy identify and assess solutions for meeting users' future narrowband SATCOM needs.
  - DOD has not updated its narrowband requirements since 2010 and had no plans to do so at the time of our review.
  - At the same time, narrowband SATCOM uses, technology and threats to communications have changed!
    - SATCOM needs for users have increased
    - Technology has advanced
    - Space is a contested operational environment
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## What We Recommended to DOD

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- Ensure that the Office of the Under Secretary for Defense (Acquisition and Sustainment) (OUSD (A&S)) explore and implement an additional option for providing narrowband satellite communication capabilities in the near-term.
  - Update future narrowband satellite communication requirements for the Space Force to prepare for an analysis of alternatives to begin as early as FY22.
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