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**Weapon Systems Testing: DoD Needs to Update Policies  
to Better Support Modernization Efforts**

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# Weapon Systems Testing: DoD Needs to Update Policies to Better Support Modernization Efforts

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## What the GAO Found

The Department of Defense (DoD) identified test and evaluation modernization as a crucial part of its effort to get capabilities to warfighters faster. DoD organizations, including the Office of the Secretary of Defense and the military departments, have undertaken modernization planning efforts with varying areas of focus and levels of detail. Nonetheless, these plans share themes, including the use of digital engineering tools and highly skilled workforces.

The GAO’s analysis of **DoD-wide test and evaluation policies** found they were not fully consistent with selected leading practices for product development as applied to test and evaluation: involve testers early, conduct iterative testing, use digital twins and threads, and obtain user feedback iteratively. These policies contained some tenets of the leading practices, particularly for the software acquisition and urgent capability acquisition pathways. However, these leading practices were largely not reflected in the policies for programs in the major capability acquisition and middle tier of acquisition pathways, which account for the majority of DoD spending on weapon systems acquisition.

## Key DoD-wide Weapon Systems Testing Policies Fall Short of Selected Leading Practices

Leading practices for product development applied to test and evaluation	Department of Defense (DOD) test and evaluation policy			
	Current developmental test policy		Current operational and live-fire test policy	
	Overall	MCA and MTA	Overall	MCA and MTA
Involve test officials in development of acquisition strategy	●	MCA ○ MTA ●	●	●
Conduct iterative testing to generate minimum viable product	●	○	●	○
Use digital twins and digital threads	●	○	●	●
Obtain user feedback throughout iterative testing	●	○	●	○

● Policy partially reflects leading practice      ○ Policy does not reflect leading practice

MCA = Major capability acquisition } Majority of DOD spending on weapon systems acquisition  
 MTA = Middle tier of acquisition }

Overall = overall assessment of test policy for four weapon system acquisition pathways: MCA, MTA, urgent capability acquisition, and software acquisition

Source: GAO analysis of DOD-wide policies applicable to test and evaluation. | GAO-26-107009

Further, the GAO found that the **DoD’s digital engineering policy** and the test and evaluation section of the **DoD’s systems engineering policy** do not describe specific processes to ensure application of leading practices to testing.



The GAO also found that **military department-level test and evaluation policies** generally did not reflect the leading practices beyond the level found in DoD-wide policies. The GAO similarly found that these leading practices were not reflected in key program documents, like acquisition strategies and test strategies, for selected weapon systems acquisition programs it reviewed.

The DoD has a unique opportunity to not only retool its existing test and evaluation enterprise, but to redefine the role that enterprise can play in enabling faster delivery of relevant capabilities to warfighters. Fully incorporating leading practices into policies relevant to weapon system test and evaluation could help pivot the test enterprise's current reactive role to a proactive one, informing and aiding defense acquisition efforts.

### **Why the GAO Did This Study**

The DoD has yet to realize its goal to rapidly develop weapon systems to get capabilities to the warfighter when needed. DoD acquisition programs have identified challenges discovered during test and evaluation as contributing to delays in development.

A House committee report includes a provision for the GAO to assess how the DoD is modernizing weapon system test and evaluation. The GAO's report (1) describes the DoD's plans to modernize test and evaluation to deliver capabilities faster to the warfighter, and (2) assesses the extent to which DoD-wide and military department policies for test and evaluation reflect selected GAO leading practices for product development.

To do this work, the GAO assessed DoD test and evaluation modernization plans and policies and weapon system acquisition documentation. The GAO visited three military department test organizations to observe tools in practice. The GAO also interviewed DoD and military department officials from test organizations and other entities.

### **What the GAO Recommends**

The GAO is making 13 recommendations, including that the Secretary of Defense and the Secretaries of the Air Force, Army, and Navy each should revise weapon system test and evaluation policies and other related policies to reflect selected leading practices for product development. Specifically, revisions should require involvement of testers in acquisition strategies; iterative approaches to testing, including use of digital twins and threads; and ongoing end user input. The DoD concurred with seven recommendations, partially concurred with five recommendations, and did not concur with one recommendation. The GAO continues to believe all 13 of its recommendations are valid, as discussed in this report.

Note: this is a highlights-level summary of a full GAO report. See [GAO-26-107009](#) for additional details.







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