

What GAO Recommends

GAO is recommending that DOD ensure that acquisition policies for programs rapidly delivering capabilities and integrating technologies, like those using the MTA pathway, require that programs start with mature technologies or develop associated immature technologies separately. DOD concurred with the recommendation.

Some programs began the MTA pathway with immature technologies, hindering timely transition. In multiple annual assessments, GAO found that almost half the MTA programs entered the pathway with immature technologies. Leading practices call for programs to have mature technologies prior to beginning development. Leading practices also call for programs to off-ramp immature technologies that could delay delivery of a minimum viable product (MVP), which establishes an initial set of capabilities on which DOD can iterate.

However, DOD policy does not clearly require programs entering the MTA pathway to start with multiple technologies that are mature or direct programs to develop immature technologies separately from the MTA pathway. For example, between 2018 and 2025, 18 out of 40 programs have entered the MTA pathway with immature technologies. In addition, MTA programs GAO reviewed are ending without delivering a fieldable capability.

For example, GAO found that technologies for seven of eight programs currently on the pathway remain immature and will require additional development. Since 2018, nine programs that entered the MTA pathway with multiple immature technologies made limited progress in maturing those technologies, which could delay delivering fieldable capabilities to the warfighter.

Some MTA Programs Entered the Pathway with Immature Technologies

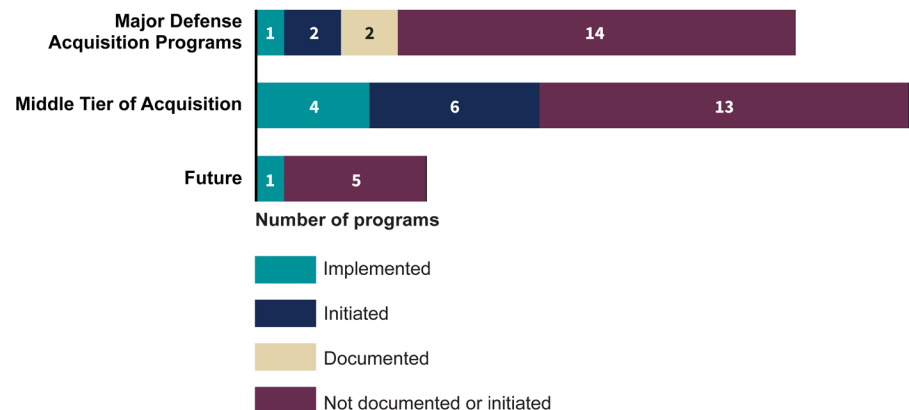
	MTA Initiation Year	Lowest Initial TRL	Lowest Current/Final TRL	Number of Critical Technologies
Air Launched Rapid Response Weapon	2018	3	6	2
Extended Range Cannon Artillery	2018	4	6	9
Hypersonic Conventional Strike Weapon	2018	5	5	2
Next Generation Overhead Persistent Infrared GEO	2018	5	6	18
Protected Tactical Enterprise Service	2018	4	6	9
Protected Tactical SATCOM	2018	4	6	5
Conventional Prompt Strike Phase 1	2019	4	5	6
Deep Space Advanced Radar Capability	2021	4	4	4
Hypersonic Attack Cruise Missile	2022	4	4	5

MTA Middle tier of acquisition TRL Technology Readiness Level

Source: GAO analysis of Department of Defense data. | GAO-26-108457

Weapon systems do not consistently implement leading practices to deliver innovative capability with speed. Most programs, including newer programs like MTAs and future weapon system acquisitions, that GAO reviewed do not fully implement leading practices to achieve efficiencies. In reports dating back to 2022, GAO has recommended that DOD revamp its weapon system acquisition, test and evaluation, systems engineering, and digital engineering policies to fully incorporate iterative development and other leading practices. DOD concurred with many recommendations but has yet to fully implement them.

Most Programs Have Yet to Fully Incorporate a Minimum Viable Product



View [GAO-26-108457](https://www.gao.gov/products/GAO-26-108457). For more information, contact Shelby S. Oakley at oakleys@gao.gov.

Source: GAO analysis of programs' questionnaire responses. | GAO-26-108457