

Early Observations on Use of the AAF to Accelerate Capability Delivery

ARMY

NAVY AND MARINE CORPS

AIR FORCE AND SPACE FORCE

JOINT DOD





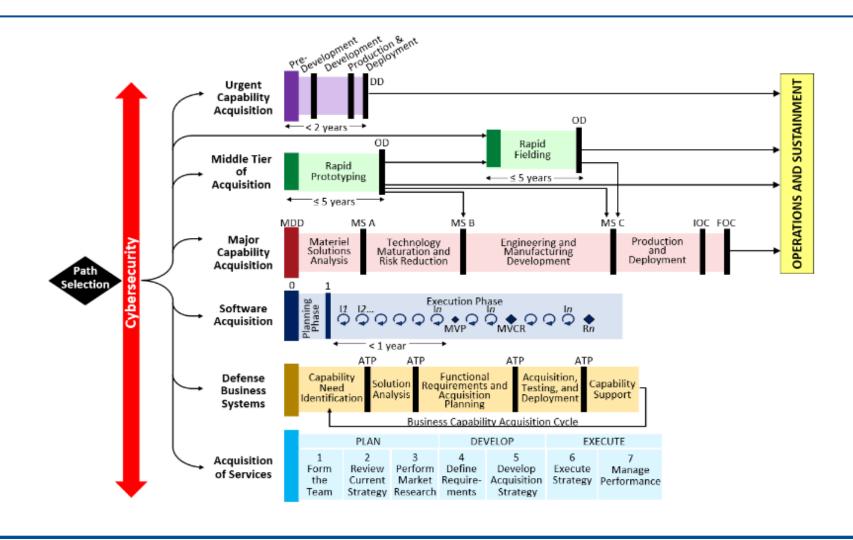


Source: Defense Visual Information Distribution Service. I GAO-21-222

Anne McDonough, Assistant Director
Contracting and National Security
Acquisitions



The AAF—More than Just New Pathways





MDAPs Continue to Struggle With Schedule

PLACEHOLDER – TO BE UPDATED WHEN DOD PROVIDES COMMENTS ON 2022 ANNUAL ASSESSMENT



Too Soon to Assess MTA Programs' Speed

Figure 21: Current and Planned Technology Readiness Levels for Middle-Tier Acquisition Programs That Identified Critical Technologies

Mature	9		ARRW IVAS I		LTAN	IDS	PTS 📥		▲ ERCA		F-22 Capability Pipeline
TRL	8	CPS			A					F-15EX	A
	7	A .	ESS	•		PTES	NG OPIR			A	
Fielding/production TRL threshold Immature TRL	6						A				
	5	•	TBD				•				
	4		•								
	3										
	2										
	1										
		Rapid prototyping	Rapid fielding				Development		Pro	duction	Unknown
		Programs transitioning to another middle-tier acquisition effort					Programs transitioning to major capability acquisition pathway				

A Planned TRL at completion of the current middle-tier acquisition effort

Current TRL

Satellite technologies that have achieved TRL 6 are assessed as fully mature

TRL = Technology Readiness Level ERCA = Extended

CPS = Conventional Prompt Strike

ARRW = Air-launched Rapid Response Weapon

ESS = Evolved Strategic SATCOM

IVAS = Integrated Visual Augmentation System

LTAMDS = Lower Tier Air and Missile Defense Sensor

PTES = Protected Tactical Enterprise Service

ERCA = Extended Range Cannon Artillery

F-15EX

Next Gen OPIR = Next Generation Overhead Persistent Infrared

PTS = Protected Tactical SATCOM

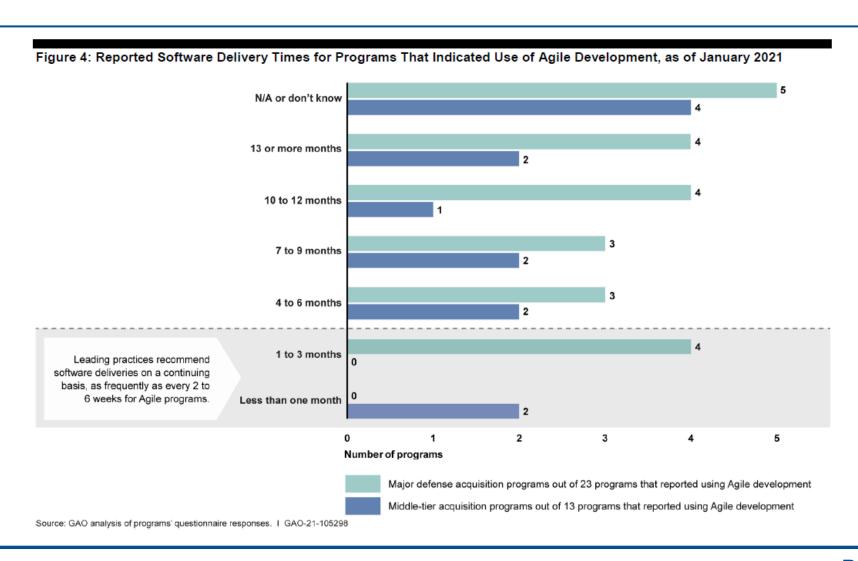
F-22 Capability Pipeline
TBD = To be determined

Source: GAO analysis of programs' questionnaire responses. I GAO-21-222

Note: For programs with multiple critical technologies, the figure represents the lowest current TRL and the lowest planned TRL at program completion.

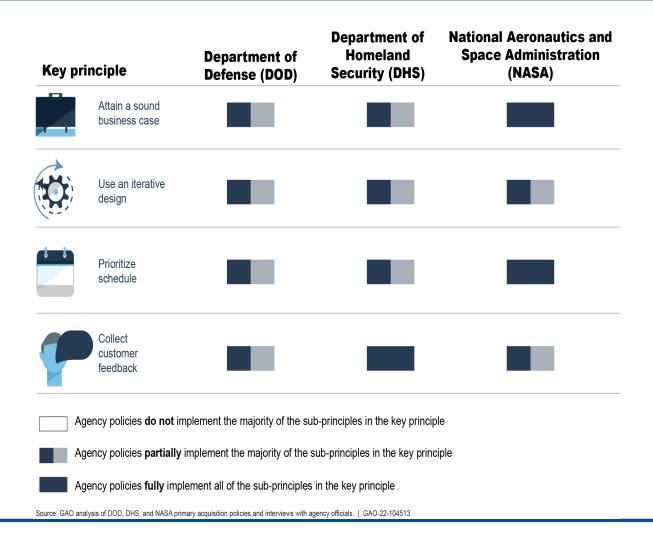


Room to Improve Software Delivery Tempo





AAF Policies Partially Implement Key Product Development Principles





AAF Requires New Oversight Considerations

Pathway Middle-tier Rapid Rapid Efforts 1 and 2: In this notional example, the program prototyping manager first starts with two sequential rapid prototyping of acquisition prototyping effort 1 effort 2 efforts using the middle tier of acquisition pathway 5 year limit 5 year limit ---Milestone B Milestone C Milestone A operational development operational Cybersecurity capability capability Engineering and Materiel Production and Major **Eventual capability** manufacturing deployment capability development analysis acquisition Efforts 3 and 4: The program manager then facilitates the transition from the rapid prototyping efforts to two concurrent efforts using two different pathways Software Execution phase Execution phase acquisition MVP <1 year <1 year <1 year

Figure 28: Notional Example of Use of Multiple Efforts and Multiple Pathways to Develop a Capability

MVCR = Minimum viable capability release

MVP = Minimum viable product

Source: GAO analysis of Department of Defense data. I GAO-21-222

Note: An effort refers specifically to the activities undertaken using a single Adaptive Acquisition Framework pathway or any of the paths provided by an Adaptive Acquisition Framework pathway (for example, the rapid prototyping path of the middle-tier acquisition pathway).



Many Open Questions Remain on Reporting

Figure 5: DOD Has Yet to Address Open Questions Related to Its Proposed Reporting Approach

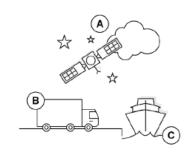
What information to report

What criteria to use for selecting acquisition efforts to report

How to improve reporting timeliness

How to provide congressional access









Examples

- · Data elements for each Adaptive Acquisition Framework (AAF) pathway
- · Performance metrics for each AAF pathway
- · New programmatic information
- · Programs that use multiple AAF pathways or multiple acquisition efforts in a single pathway
- · Information sensitivity

- · Cost thresholds
- · AAF pathways
- · Time frames to start and stop reporting
- · Reporting frequency
- · Automation of data reporting
- · Certification and approval process
- need access

· How many users will

· Training and support for users

· Access to web-based system

Source: GAO analysis of Department of Defense (DOD) documentation and interviews with DOD officials. | GAO-22-104687