

GAO Highlights

Highlights of [GAO-22-105075](#), a report to congressional committees

Why GAO Did This Study

Since MDA was established in 2002, the Department of Defense has spent over \$174 billion to equip operational commanders with a network of sensors, interceptors and command and control capabilities collectively called the Missile Defense System. Since 2017, MDA's mission has broadened to include hypersonic weapons, which are difficult to track and defeat because they are capable of maneuvering during flight.

Congress included provisions in legislation for GAO to annually assess MDA's progress toward meeting its acquisition goals. This report—the 19th to date—assesses (1) MDA's progress achieving its delivery and testing goals for fiscal year 2021, and (2) MDA's efforts to defend against hypersonic weapons. To conduct this work, GAO reviewed MDA's baseline reports, test plans, and the agency's responses to detailed question sets. GAO also interviewed officials within MDA and DOD.

What GAO Recommends

GAO recommends that the Undersecretary of Defense for Acquisition and Sustainment ensure that MDA obtains an independent technical risk assessment and cost estimate for the GPI effort.

GAO also recommends that, for the HBTSS effort, the Secretary of Defense ensures the responsibilities for satellite development and operation in the missile defense and missile warning domains are properly delineated.

DOD concurred with GAO's recommendations.

View [GAO-22-105075](#). For more information, contact John D. Sawyer at (202) 512-4841 or SawyerJ@gao.gov.

June 2022

MISSILE DEFENSE

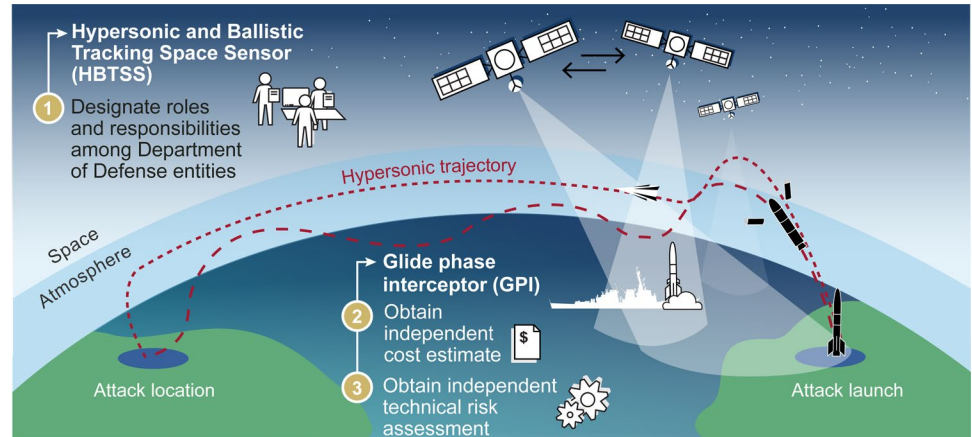
Better Oversight and Coordination Needed for Counter-Hypersonic Development

What GAO Found

The Missile Defense Agency (MDA) continues to build components of the Missile Defense System (MDS), test its capabilities, and plan for countering evolving threats. In fiscal year 2021, MDA made progress, but continued to fall short of its goals for asset deliveries and testing. For example, MDA successfully delivered many of the planned interceptors and conducted developmental and operational cybersecurity testing for MDS elements; however, MDA did not conduct any planned system-level cybersecurity tests—leaving MDA without knowledge of its systems' vulnerabilities and contributing to programmatic delays. The shortfalls to planned system-level tests were partially attributable to the COVID-19 pandemic.

MDA's efforts to address hypersonic threats include the Glide Phase Interceptor (GPI) and Hypersonic and Ballistic Tracking Space Sensor (HBTSS). These efforts represent technologies that have considerable risks, but MDA has not taken necessary steps to reduce risks and ensure appropriate oversight from the Department of Defense (DOD) or stakeholder involvement.

Missile Defense Agency's Hypersonic Efforts in a Notional Scenario



Source: GAO analysis of Missile Defense Agency documentation. | GAO-22-105075

- GPI is a missile designed to shoot down a hypersonic weapon in the middle (or glide phase) of its flight. Contrary to a DOD directive with which MDA has aligned its effort, at the time of our review, MDA did not plan to obtain an independent technological risk assessment to determine the maturity of the technologies before proceeding with development. In addition, MDA did not plan to obtain an independent cost estimate.
- HBTSS is a concept of space-based sensors to track the unique flight path of a hypersonic weapon. However, MDA has not adequately coordinated the HBTSS effort with DOD's Space Development Agency and Space Force.

Increased DOD oversight and involvement would reduce risk. In addition, more clearly delineated roles and responsibilities would help avoid duplication, overlap, or fragmented capabilities among MDA and other DOD space agencies.