July 2025

NASA

Assessments of Major Projects

Highlights

Highlights of GAO-25-107591, a report to congressional committees

Why GAO Did This Study

The National Aeronautics and Space Administration (NASA) plans to invest about $74 billion in estimated life cycle costs for its portfolio of major projects (those with costs over $250 million). House explanatory statements have included provisions for GAO to prepare status reports on these projects.

GAO assessed the (1) cost and schedule performance of NASA's major projects in development, and (2) historical cost performance of NASA's major projects included in GAO annual reviews since 2009. This report also includes summaries of NASA's 38 major projects.

GAO collected and analyzed data on the 38 current NASA major projects, visited NASA facilities, and interviewed officials. GAO analyzed cost and schedule performance for 18 projects in development with cost and schedule baselines. GAO also collected and analyzed cost data for 53 historical projects that have completed or are in the final stage of development.

What GAO Recommends

In its prior work, GAO made multiple recommendations to improve NASA's management of major projects. NASA generally agreed with these recommendations. As of June 2025, NASA had not yet fully implemented two recommendations that GAO identified as high priority to improve acquisition management.

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What GAO Found

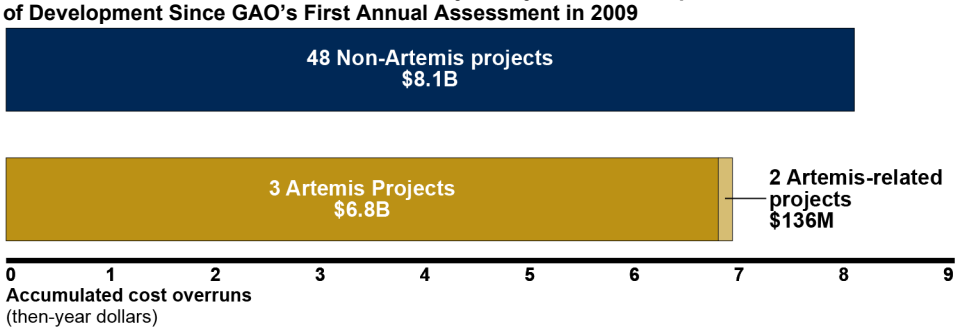
NASA major projects aim to explore the solar system, advance aeronautic technologies, and return U.S. astronauts to the lunar surface through the Artemis missions. These major projects are increasingly focused on Artemis—building a sustained human presence on the moon and ultimately traveling to Mars.

The cost and schedule performance of NASA's 18 major projects in development (those that are building and testing their designs) generally remained unchanged over the last year. The four projects that experienced annual cost growth collectively reported over $500 million in overruns. NASA's human spaceflight crew capsule, known as the Orion Multi-Purpose Crew Vehicle program, accounts for over $360 million of this total annual cost growth.

Most major NASA projects since GAO's first assessment in 2009 have avoided significant cost overruns. GAO found that of the 53 major projects that have completed development or are currently in the final phase of development, 30 remained under the statutory threshold for reporting cost overruns. Specifically, these 30 project's development costs did not exceed their baselined cost estimates by 15 percent or more. When a project's overrun rises to this threshold, NASA is required to take certain steps. For example, it must notify congressional committees of the overrun and update the project's cost or schedule plans.

At the same time, Artemis and Artemis-related cost overruns are an increasing proportion of the portfolio's overall overruns. Three Artemis projects account for nearly $7 billion of the total overruns—or almost half of the overruns collectively experienced by the 53 projects.

Accumulated Cost Overruns for 53 NASA Major Projects That Completed or Are in Final Phase of Development Since GAO's First Annual Assessment in 2009



Source: GAO analysis of NASA data. | GAO-25-107591

The growing Artemis portfolio could drive cost performance in the future, since NASA recently initiated nine new Artemis projects with estimated total costs over $20 billion. These projects are interdependent, meaning that challenges and delays in one can create challenges and delays for all of them. Further, delays to mission dates can also increase costs. As the Artemis projects progress in development, the agency has taken steps to help manage and mitigate risks, such as creating more oversight of programs through the Moon to Mars office.