Highlights of GAO-23-106021, a report to congressional committees

May 2023

NASA

Assessments of Major Projects







Low Boom Flight Demonstrator



Dragonfly - Planetary explorer

Source: NASA, NASA, Johns Hopkins University Applied Physics Laboratory. | GAO-23-106021

Why GAO Did This Study

NASA plans to invest more than \$83 billion in its portfolio of major projects to continue exploring Earth, the moon, and the solar system. GAO defines these major projects as those with costs over \$250 million. A House explanatory statement includes a provision for GAO to prepare status reports on NASA's major projects. This is GAO's 15th annual assessment.

This report describes the cost and schedule performance of NASA's major projects and includes assessments of their technology development. It also includes individual assessments of the major projects.

GAO collected and analyzed data; reviewed project status reports; and interviewed NASA officials. GAO reviewed projects in the formulation phase (which takes a project through its preliminary design), and those in the subsequent development phase (which includes building and launching the system).

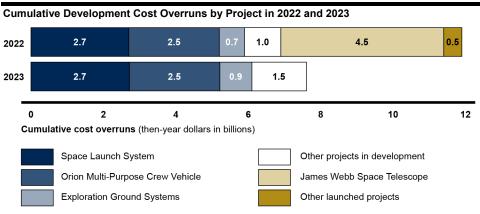
What GAO Recommends

In prior work, GAO made multiple recommendations to improve NASA's management of major projects. As of March 2023, NASA had not yet fully addressed 16 recommendations.

View GAO-23-106021. For more information, contact W. William Russell at (202) 512-4841 or russellw@gao.gov.

What GAO Found

Total cumulative cost performance for NASA's current portfolio of 16 major projects in development improved since 2022, with cost overruns significantly decreasing from \$12 to \$7.6 billion.



Source: GAO analysis of NASA data. | GAO-23-106021

Category 1 projects in development—NASA's highest priority and most costly, such as James Webb Space Telescope—drive NASA's cumulative cost performance. Cost overruns were smaller in 2023 than last year because the James Webb Space Telescope launched, and its \$4.5 billion in overruns from prior years are no longer part of the portfolio. In addition, compared to 2022 performance, some of the largest category 1 projects—the Space Launch System, Orion, and Exploration Ground Systems—had little to no new cost growth. Overall, since 2022, eight of the 16 major projects experienced some cost or schedule growth, with cost overruns totaling \$637.3 million and schedule delays ranging from 5 months to over a year.

As the portfolio of major projects evolves, NASA has identified opportunities to improve cost and schedule performance. For example, NASA plans to have earlier discussions on acquisition strategies. This and other initiatives are important as NASA plans to make cost commitments—estimated at nearly \$16 billion—for eight new category 1 projects in 2023.