

Highlights of [GAO-11-216T](#), a testimony before the Committee on Commerce, Science, and Transportation, U.S. Senate

Why GAO Did This Study

NASA projects drive critical innovation in and understanding of space, but our work has shown that most cost more and take longer to develop than planned. Today's fiscal environment highlights why that pattern is unsustainable, now more than ever.

The NASA Authorization Act of 2010 challenged NASA to develop new technologies for space exploration. GAO issued two legal opinions this summer based on a request from several members of the House of Representatives about whether NASA's actions related to the Constellation program complied with restrictions in the 2010 Appropriations Act. Building on that request and prior GAO work, this testimony discusses (1) how the Continuing Appropriations Act of 2011 continues the restrictions in the fiscal year 2010 Appropriations Act, and how they relate to the recently enacted NASA Authorization Act of 2010 and (2) steps NASA should take to increase the likelihood of success as it implements its new direction. This statement is based on prior and ongoing GAO work. The audit work was done in accordance with generally accepted government auditing standards.

What GAO Recommends

GAO has made several recommendations in prior work and NASA has implemented many. We are not making any new recommendations in this testimony, but are considering recommendations in our ongoing work.

View [GAO-11-216T](#) or key components. For more information, contact Cristina Chaplain at (202) 512-4841 or chaplainc@gao.gov or Susan Poling at (202) 512-2667 or polings@gao.gov

NASA

Issues Implementing the NASA Authorization Act of 2010

What GAO Found

NASA's fiscal year 2010 Appropriations Act contained a restriction prohibiting NASA from terminating any program, project, or activity of the Constellation program or creating new ones until provided for in a subsequent appropriations act. Currently, NASA is operating under a continuing resolution—a temporary funding mechanism that allows the agency to operate until a new appropriations bill is signed into law. The continuing resolution continues the restrictions of the 2010 appropriations Act. Therefore, NASA must carry out the recently enacted Authorization Act but without terminating or creating programs, projects, or activities of the Constellation program. In recent legal opinions, GAO found NASA had not violated any restrictions of its 2010 Appropriations Act. GAO found that while NASA conducted planning activities, this did not violate the restriction prohibiting it from using funds to begin a new program, project, or activity. Second, GAO found that NASA did not terminate a program, project, or activity, as it continued to fund the existing programs, projects, and activities. As long as NASA does not improperly create or terminate a program, project, or activity, it has discretion in how to carry out the Constellation program.

Regardless of its current restrictions, NASA will need to continue to implement new ways of doing business going forward to reduce acquisition risks that have plagued projects in the past. Critical to this will be ensuring the needs and expectations for a project match the resources available for it, effectively managing costs, increasing transparency into critical phases of development, and strengthening accountability. GAO work has shown a project's likelihood of success can increase when it has developed a sound business case, based on high levels of knowledge, before committing to a new development effort that matches the project's requirements to resources that are available or reasonably expected for it—including time, money, technology, and people. Over past several years NASA has taken steps to incorporate a more knowledge-based approach to managing its projects and instill a stronger focus on managing costs. However, recent studies and our ongoing work indicate that NASA has not fully addressed the following.

- Establish a common measure to assess design stability before allowing programs to move from the design phase to the test and integration phases of the development process. Recent studies and our work have tied acquisition problems to design issues.
- Provide enough transparency in the early, critical phases of development to help Congress identify risks and inefficiencies and ensure earlier accountability. For example, although NASA has already spent over \$9 billion combined on the Ares and Orion projects, they have yet to be baselined and therefore NASA is not required to publicly report cost and schedule data.
- Enhance its oversight and accountability functions to ensure that projects base their decisions on sound knowledge so that inherent risks are not exacerbated by poor management and oversight practices.