GAO assessed 18 NASA projects with a combined life-cycle cost of more than $50 billion. Of those, 10 out of 13 projects that had entered the implementation phase experienced significant cost and/or schedule growth. For these 10 projects, development costs increased by an average of 13 percent from baseline cost estimates that were established just 2 or 3 years ago and they had an average launch delay of 11-months. In some cases, cost growth was considerably higher than what is reported because it had occurred prior to the most recent baseline. Many of the projects we reviewed experienced challenges in developing new technologies or retrofitting older technologies as well as in managing their contractors, and more generally, understanding the risks and challenges they were up against when they started their efforts.

GAO's previous work has consistently shown that reducing the kinds of problems this assessment identifies in acquisition programs hinges on developing a sound business case for a project. In essence, this means establishing firm requirements, maturing technologies, and assuring other vital resources, such as time and funding, are sufficient before making long-term commitments to acquisitions. NASA has acted to adopt practices that would ensure programs proceed based on a sound business case and undertaken an array of initiatives aimed at improving program management, cost estimating, and contractor oversight. Continued attention to these efforts should help maximize NASA's acquisition investments.