GAO
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Highlights

NASA

Key Management and Program Challenges

Why GAO Did This Study

The National Aeronautics and Space Administration (NASA) is in the midst of many changes and one of the most challenging periods in its history. The space shuttle is slated to retire this year, the International Space Station nears completion but remains underutilized, and a new means of human space flight is under development. Most recently, the administration has proposed a new direction for NASA.

Amid all this potential change, GAO was asked to review the key issues facing NASA. This testimony focuses on four areas: 1) retiring the space shuttle; 2) utilizing and sustaining the International Space Station; 3) continuing difficulty developing large-scale systems, including the next generation of human spaceflight systems; and 4) continuing weaknesses in financial management and information technology systems.

In preparing this statement, GAO relied on completed work.

To address some of these challenges, GAO has recommended that NASA: provide greater information on shuttle retirement costs to Congress, take actions aimed at more effective use of the station research facilities, develop business cases for acquisition programs, and improve financial and IT management. NASA concurred with GAO's International Space Station recommendations, and has improved some budgeting and management practices in response.

What GAO Found

The major challenges NASA faces include:

- **Retiring the Space Shuttle**. The impending end of shuttle missions poses challenges to the completion and operation of the International Space Station, and will require NASA to carry out an array of activities to deal with shuttle staff, equipment, and property. This year the shuttle is scheduled to fly its final six missions to deliver hardware, supplies, and an international laboratory to the International Space Station. NASA officials remain confident that the current manifest can be accomplished within the given time, and add that should delays occur, the space station can still function. According to NASA, there are trade-offs the agency can make in what it can take up to support and sustain the station. However, failure to complete assembly would further reduce the station's ability to fulfill its research objectives and short the station of critical spare parts that only the shuttle can currently deliver. Retirement of the shuttle will require disposing of facilities; ensuring the retention of critical skills within NASA's workforce and its suppliers; and disposing of more than 1 million equipment items.

- **Utilizing the International Space Station**. The space station, which is nearly complete, faces several significant challenges that may impede efforts to maximize utilization of its research facilities. These include the retirement of the shuttle and the loss of its unmatched capacity to move cargo and astronauts to and from the station; the uncertain future for the station beyond 2015; and the limited time available for research due to competing demands for the crew's time.

- **Developing Systems**. A common theme in NASA projects—including the next generation of space flight efforts—is that they cost more and take longer to develop than planned. GAO again found this outcome in a recently completed assessment of NASA's 19 most costly projects—with a combined life-cycle cost of $66 billion. Within the last 3 years, 10 of the 19 projects experienced cost growth averaging $121.1 million or 18.7 percent, and the average schedule growth was 15 months. A number of these projects had experienced considerable cost growth before the most recent baselines were set.

- **Managing Finances and IT**. NASA continues to struggle to put its financial house in order. GAO and others have reported for years on these efforts. The NASA Inspector General identified financial management as one of NASA's most serious challenges. In addition, NASA remains vulnerable to disruptions in its information technology network. NASA has made important progress in implementing security controls and aspects of its information security program. However, it has not always implemented sufficient controls to protect information and systems supporting its mission directorates.