

Highlights of GAO-07-940, a report to the Chairman and Ranking Member, Committee on Science and Technology, House of Representatives

July 2007

## NASA SUPPLIER BASE

# Challenges Exist in Transitioning from the Space Shuttle Program to the Next Generation of Human Space Flight Systems

### Why GAO Did This Study

The Space Shuttle Program is currently supported by over 1,500 active suppliers, some of whom are the only known or certified source of a particular material, part or service. The retirement of the Shuttle and transition to planned exploration activities, as called for in the President's *Vision for Space Exploration*, creates the need for NASA to begin making decisions today about its supplier base needs for the future.

GAO was asked to (1) describe NASA's plans and processes for managing its supplier base through the Shuttle's retirement and the transition to the Constellation's exploration activities; (2) address factors that could impact the effectiveness of those plans and processes; and (3) identify any other issues that NASA will likely encounter as the agency transitions to and implements the Constellation Program.

### What GAO Recommends

GAO is recommending that the NASA Administrator direct the Exploration Systems Mission and Space Operations Mission directorates to jointly develop cost estimates for transition and retirement activities beyond fiscal year 2010 so that NASA can include the funding needs for the required out-years in its fiscal year 2009 budget submission to ensure that Congress and NASA can balance investments and negotiate between competing priorities, including supplier needs. NASA concurred with this recommendation.

[www.gao.gov/cgi-bin/getrpt?GAO-07-940](http://www.gao.gov/cgi-bin/getrpt?GAO-07-940).

To view the full product, including the scope and methodology, click on the link above. For more information, contact Cristina T. Chaplain at (202) 512-4841 or [ChaplainC@gao.gov](mailto:ChaplainC@gao.gov).

### What GAO Found

NASA is developing and implementing transition plans and processes to manage its supplier base through the retirement of the Shuttle and transition to the next generation of human space flight systems. Such efforts include: various transition plans; a decision-making structure that should enable the agency to make necessary supplier decisions; and a communications strategy and metrics to gauge the progress of transition activities. In addition, NASA has identified risks associated with the shuttle's retirement and has begun identifying capabilities and suppliers needed for future exploration activities.

While NASA has developed plans and processes aimed at effectively managing the supplier base, several factors could impact their effectiveness. NASA may have to continue funding suppliers for work that would maintain the supplier's skills and capabilities, even when they are no longer working on Shuttle operations, until Constellation officials make a decision on whether or not they will be needed for future exploration activities due to a lack of detailed program requirements. In addition, relatively few supplier-related decisions have made it through the newly created decision-making process and NASA officials acknowledge the increasing number of decisions scheduled for upcoming years have the potential to overwhelm the transition decision-making process.

Other issues have been identified that NASA will have to face in order to successfully transition from the shuttle program to its next generation human space flight systems. Challenges exist in the continued use of obsolescent materials, maintaining the overall viability of the supplier base, managing the overall workforce, disposing of property and equipment, and completing environmental cleanup.

NASA has not developed cost estimates for transition and retirement activities past fiscal year 2010. Without cost estimates, NASA does not have the information needed to support the budget preparation process, assess the costs of addressing its supplier challenges, or account for how NASA will fund transition and retirement activities once the Space Shuttle Program comes to an end in 2010. Such knowledge is important because NASA and Congress will need to allocate funds among many competing priorities. In addition, it will be important for NASA to adjust its cost estimates every year as NASA gains more knowledge about its transition costs.