

Review of U.S. Human Space Flight Plans Statement of Task

This Statement of Task establishes and informs a review to be conducted in support of planning for U.S. human space flight activities beyond the retirement of the Space Shuttle. The purpose of this effort is to develop suitable options for consideration by the Administration regarding a human space flight architecture that would:

- Expedite a new U.S. capability to support utilization of the International Space Station
- Support missions to the Moon and other destinations beyond low Earth orbit (LEO)
- Stimulate commercial space flight capability
- Fit within the current budget profile for NASA exploration activities

The review will be led by an independent, blue-ribbon panel of experts who will work closely with a NASA team and will report progress on a regular basis to NASA leadership and the Executive Office of the President. This independent review will provide options and related information to involved Administration agencies and offices in sufficient time to support an August 2009 decision on the way forward. As necessary and appropriate, the team may seek early decisions from the Administration on some of these options. A final report containing the options and supporting analyses from this review also will be released.

Scope

The review should:

- Evaluate the status and capabilities of the agency's current human space flight development program;
- Evaluate other potential architectures that are capable of supporting the mission areas described above;
- Evaluate what capabilities and mission scenarios would be enabled by the potential architectures under consideration, including various destinations of value beyond LEO;
- Consider options to extend International Space Station operations beyond 2016;
- Examine the appropriate degree of R&D and complementary robotic activities necessary to make human space flight activities affordable and productive over the long term;
- Examine appropriate opportunities for international collaboration; and
- Not rely upon extending Space Shuttle operations in assessing potential architectures.

The review may evaluate architectures that build on current plans, existing launch vehicles and infrastructure, Space Shuttle-related components and infrastructure, the two Evolved Expendable Launch Vehicle (EELV) families, and emerging capabilities. It may also consider architectures that vary in terms of the capability that would be delivered beyond low Earth orbit (e.g., the number of crew and the duration of these missions), while describing the implications of such choices for possible mission goals and scenarios. In addition to new analyses required in support of this effort, the review team should consider, where appropriate, other studies and reports relating to this subject.

Evaluation Parameters

The review should examine potential architectures relative to the following key evaluation parameters:

- Crew (and overall mission) safety;
- Overall architecture capability (e.g., mission duration, mass delivered to low Earth orbit and other selected destinations, flexibility);
- Life-cycle costs (including operations costs) through 2020;
- Development time;
- Programmatic and technical risk;
- Potential to spur innovation, encourage competition, and lower the cost of space transportation operations in the existing and emerging aerospace industry;
- Implications for transition from current human space flight operations;
- Impact on the nation's workforce, industrial base, and international competitiveness;
- Potentially expanded opportunities for science;
- Potential for enhanced international cooperation as appropriate;
- Potential to enhance sustainability of human space activities;
- Potential for inspiring the nation, and motivating young people to pursue careers in science, technology, engineering and mathematics subjects;
- Benefit to U.S. Government defense and intelligence space-related capabilities; and
- Contractual implications.

Budget

Budget options considered under the review must address the development of a human space flight architecture, robotic spacecraft to support and complement human activities, and R&D to support future activities. The review should assume the following 2010-2014 budget profile for these activities:

2010	2011	2012	2013	2014
3,963.1	6,092.9	6,077.4	6,047.7	6,274.6

(\$ in millions)

Based on the results of this review, the Administration will notify Congress of any needed changes to the FY2010 President's Budget Request.