

# Human Exploration / Spaceflight Study

The NRC study on human spaceflight originated in the 2010 NASA Authorization Act. The Senate Commerce Committee took the lead with support from the House Science Committee. The core instruction in the congressional language is to review “the goals, core capabilities, and direction of human space flight”.

## 2010 NASA Authorization Act 2010

### SEC. 204. INDEPENDENT STUDY ON HUMAN EXPLORATION OF SPACE.

(a) IN GENERAL.—In fiscal year 2012 the Administrator shall contract with the National Academies for a review of the goals, core capabilities, and direction of human space flight, using the goals set forth in the National Aeronautics and Space Act of 1958, the National Aeronautics and Space Administration Authorization Act of 2005, and the National Aeronautics and Space Administration Authorization Act of 2008, the goals set forth in this Act, and goals set forth in any existing statement of space policy issued by the President.

(b) ELEMENTS.—The review shall include—

(1) a broad spectrum of participation with representatives of a range of disciplines, backgrounds, and generations, including civil, commercial, international, scientific, and national security interests;

(2) input from NASA's international partner discussions and NASA's Human Exploration Framework Team;

(3) an examination of the relationship of national goals to foundational capabilities, robotic activities, technologies, and missions authorized by this Act;

(4) a review and prioritization of scientific, engineering, economic, and social science questions to be addressed by human space exploration to improve the overall human condition; and

(5) findings and recommendations for fiscal years 2014 through 2023.

# Status

- The key desire of the congressional sponsors of the study is that the NRC can define a foundational and enduring rationale for human spaceflight that is robust against changes in policy or focus from different administrations and congresses.
- Following April 2011 ASEB/SSB mtg, a small planning group developed and iterated white papers for HSF study approach. The boards were updated at their Fall Meetings.
- In the months that followed, NRC met with NASA to discuss the task statement where we received suggestions for changes.
- NRC also negotiated a separate agreement for an initiation activity to do advance planning before the main task was fully funded.
- Following the conclusion of negotiations in early 2012 and the approval of the task statement by the NRC, a proposal was sent to NASA at the end of February with a well defined task statement.
- That proposal is under review by the agency. When the proposal is accepted and the contract in place the NRC will post the detailed task on the web site.

# Status

- The overarching goal of the study as negotiated with NASA is to describe the rationale for and value of a long-term strategy for human space exploration in pursuit of national needs and in accordance with NASA's mission to "drive advances in science, technology, and exploration to enhance knowledge, education, innovation, economic vitality, and stewardship of Earth."
- The intent of the study is to provide findings and recommendations that guide the U.S. human spaceflight enterprise in a sustainable manner that responds to stakeholder needs.
- The committee will be appointed and the study will start as soon as NASA fully funds the proposal. The report will be released, according to the proposed plan, 22 months after the study is funded and starts.
- If funded as proposed a committee will be assisted by two NRC panels. The study will include a structured public and stakeholder input and a review of previous relevant independent studies and NASA planning activities.
- The committee will be comprised of a broad range of experts from across the whole breadth of interests of the NRC.