

NASA Advisory Council Recommendation

Destination Selection 2012-01-01 (HEOC-01)

Recommendation:

The Council recommends selecting a human spaceflight destination.

Major Reasons for the Recommendation:

With the approval of a Space Launch System (SLS) Booster, the Orion spacecraft, and Exploration Ground System, planning can now begin on the destination mission. With initial crewed flight in 2021, the first operational flight could occur as early as 2022. Given the budget reality and development time for new hardware and software (which is estimated to be at least ten years), now is the time to pick a specific destination in order to focus the NASA, international agencies, and contractor teams on a specific destination, such as Mars. In addition, the near and interim steps in order to achieve the ultimate objective should also be defined. We believe that a focused mission with a specific end objective, as has been the case for over 50 years for human spaceflight programs, would also greatly benefit the NASA workforce, current and future domestic and International Partners and the public stakeholders.

Consequences of No Action on the Recommendation:

Without selecting a mission, we will delay a human flight to a destination. In addition, it will be difficult for the International Partners to determine where they can contribute to the human exploration program. Further, without a specific program definition, it will become increasingly difficult to get the American public excited about the future of NASA.

NASA Response:

NASA concurs with the intent of this recommendation. NASA's ultimate destination for human exploration in the next half century is Mars. Consistent with policy and law, NASA is planning an asteroid mission as the first part of a capability-driven approach to explore multiple deep-space destinations. Mission analysis and international discussions supporting these efforts are ongoing. NASA will ramp up our capabilities to reach – and operate at – a series of increasingly demanding targets, while advancing our technological capabilities with each step forward. This will include early test and demonstration activities in cis-lunar space as called for in the 2010 NASA Authorization Act. Along these lines, we will fully tap the potential of the International Space Station. We will also conduct a series of test and demonstration flights. For example, we plan to test flights of an uncrewed Orion spacecraft in 2014 and of the SLS in 2017, followed by a crewed mission in 2021 as part of developing the foundation for our longer journeys. NASA's Orion and SLS will enable the Agency to send astronauts beyond Low Earth Orbit for the first time since 1972 and will provide the Nation a capability and architecture designed to also allow flexibility, partnering, and technological on-ramps. This approach provides a path for a sustainable program to extend human presence into the solar system.