

NASA is pleased to release this summary of the agency's recent work on future human space exploration capabilities and missions, largely performed by our Human Exploration Framework Team (HEFT).

The agency established the HEFT last year to analyze exploration and technology concepts and provide inputs to the agency's senior leadership on the key components of a safe, sustainable, affordable and credible future human space exploration endeavor for the nation. The team's work helps provide a context for the next stage of NASA's diverse portfolio of activities and a basis for ongoing architecture analysis and program planning. HEFT's analysis focused on affordability, cost, performance, schedule, technology, and partnership considerations, while also identifying capabilities and destinations for future exploration as we move out, step by step, into the solar system.

HEFT has found that the most robust path for NASA in human space flight is a capability-driven approach where evolving capabilities would enable increasingly complex human exploration missions over time. A capability-driven framework also provides increased flexibility, greater cost effectiveness, and sustainability. Our strategy will open up many potential destinations for human spaceflight throughout the solar system, including the moon, near Earth asteroids, and Mars.

In NASA's framework, the four initial priorities are:

- 1) a human-rated Space Launch System, or heavy lift rocket;
- 2) a Multi-Purpose Crew Vehicle;
- 3) commercial crew and cargo services to low Earth orbit, including the International Space Station; and
- 4) mission-focused technologies to support expanded exploration capabilities in the future.

This summary provides information to facilitate discussions as the agency moves into the implementation phase of its new direction established in the NASA Authorization Act of 2010. Our intention is to provide effective assessment of the available information to support a roadmap that is affordable, sustainable and realistic. In line with future budget allocations and policy, we will continue to refine our strategic approach to short, mid and long term plans that will be leveraged by increasing capabilities and deepening partnerships with other nations. As we continue our analysis, NASA looks forward to working closely with the Congress and the public to build a space program that is forward thinking and also serves critical needs of the American people today.