



THE MARS SOCIETY

www.marssociety.org

Help us Support The Moon-Mars Program

The United States Congress and the next President of the United States must support an accelerated Moon-Mars program. This program needs to be allowed to continue without legislative restrictions on these goals.

1. Integrated Moon-Mars Program: If the United States is truly going to start human exploration of our solar system, the program needs to be designed with that in mind from the beginning. By so doing, NASA will be able to accomplish our Moon-Mars objectives with common hardware. This will cut overall program cost, risk, and schedule radically, since only one hardware set will need to be developed instead of two, and Lunar missions will validate Mars hardware directly. The design of the Ares 5 heavy lift vehicle, which will be able to launch hardware to the Moon and Mars, is a good start in this philosophy. Other program components, including the Crew Exploration Vehicle and Lunar surface systems, also need to be approached with Mars system requirements in mind. Otherwise, NASA will waste tens of billions of taxpayer dollars on a Moon program that does not prepare the way to Mars.

2. Accelerated Schedule: Accelerating the schedule for NASA's plans will also go a long way to guaranteeing both the efficiency and the ultimate success of the mission. We believe that NASA should set a goal of landing on Mars by the year 2025—a goal that can be achieved if an integrated Moon/Mars approach is adopted. In aerospace, cost is people times schedule. The more time this project takes to achieve, the more expensive it will be.

3. Technologies That Use Indigenous Resources: NASA should use resources that are indigenous to the Moon and Mars as often as possible in planning these missions. By so doing, NASA will be able to reduce the overall mission mass and will begin the process of making Moon and Mars bases partially self-sufficient. A key technology is liquid-oxygen/methane propulsion. With it, we will be able to use methane fuel manufactured “in situ” on the Martian surface for the return trip back to Earth. This technology has the potential to greatly reduce mission mass and costs. We hope that NASA and Congress continue to embrace and expand development in these technologies.

4. Support Full NASA Funding: In 2005, Congress overwhelmingly passed the NASA Authorization Act of 2005. **With the passage of this act, Congress gave their approval for not only the goals of returning humanity to the Moon and then on to Mars, but a funding level adequate to achieve the goals of that plan.** Although the Authorization is about to expire, NASA budgets have not come close to the authorized funding levels since 2005. On the contrary, as a result of the failure of Congress to pass the 2007 budget, NASA's budget was cut by over \$600 million from the original budgeted amount. Failure to fund NASA appropriately will not only extend the “gap” in which the United States will have no capacity to send humans into space, but it will risk the success of the mission as a whole.