

APS1012 Management of Innovation – Final Team Projects, Spring 2012

Mars Exploration - Managing Innovation through Economic and Political Dilemmas

Missions to discover Mars have centered on expanding our understanding of the red planet by exploring, using, and enabling the development of innovative space technology. Presently, long-term human missions to Mars are being planned and organized. The infrastructure of such missions includes surface habitats, laboratory modules, long-range communication systems and many other challenges. The most important challenge of all is maintaining the safety and health of the crew. As such these new plans require enormous capabilities and supporting technologies. However with the current economical and political crisis facing the nations of the world, it is difficult to characterize how these missions and plans will progress.

Research by the project team addresses the following aims:

- Provide a history of past, current, and future Mars exploration projects
- Analyze political, economical, social, and technical factors as related to Mars missions
- Characterize economical and technical barriers
- Provide recommendations based on the critical analysis of various case studies
- Define the work forward for governments and entrepreneurs