

25th IAA SYMPOSIUM ON SPACE ACTIVITY AND SOCIETY (E5)
Models for Successfully Applying Space Technology Beyond Its Original Intent (2)

Author: Ms. Nona Minnifield Cheeks

National Aeronautics and Space Administration (NASA), Goddard Space Flight Center, United States

STRATEGIES FOR TRANSFORMING SPACE INNOVATIONS TO OTHER PUBLIC BENEFITS

Abstract

In recent memory there have been fewer space missions that have excited the interest and imagination of the public. However, investments in the space program are constant and depending on the source of funding the emphasis and priorities of space program missions vary. Recognizing the focus of the space program is generally on looking away from the Earth and peering into the depths of the cosmos for science findings as well as exploring near and distant planets, along with looking back at the Earth for global observations of the atmosphere, land, and oceans there are numerous scientific objectives and viewpoints coupled with challenging technical aspects considered and applied. The space program mission managers concern themselves with achieving their objectives and goals through innovative business management approaches. This of course is coupled with making investment decisions for research and design requirements for conventional and cutting edge component technologies, constructing complex instrument systems, and having access and use of various launch platforms and vehicles. With that said there are three areas of significance to managers of space program missions that correlate very well with the public's interests in the space program and they are: 1) exceeding expectations; 2) exploring the unknown; and, 3) experiencing something that yields benefits beyond the initial intent of the investment.

Therefore, critical to the United States government's investment in space program missions is a requirement to disseminate information from new findings that can be transferred for innovative uses that effect valuable personal probabilities. This requires capturing knowledge of new research and development (RD) discoveries and maintaining a level of awareness regarding important national and global needs as well as current and near future technology trends. These insights provide the basis for a balanced strategy for space organizations to strategically work in partnership with entrepreneurs and industry to advance new commercial products and create new experiences for the public as a result of initial investments in the space program. This paper will outline different tools for managing knowledge and technology transfer in a space research and development culture. And it will define the practicality for approaching space mission initiatives with a wider forward thinking perspective to help instill a mindset of space program innovators and managers the importance of timeliness for considering applications of their RD concepts above their original purpose.