

SYMPOSIUM ON STEPPING STONES TO THE FUTURE: STRATEGIES, ARCHITECTURES,
CONCEPTS AND TECHNOLOGIES (D3)

Strategies and Architectures to Establish a “Stepping Stone” Approach to our Future in Space (1)

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US-BASED NASA INITIATIVES FROM THE OFFICE OF THE CHIEF TECHNOLOGIST:
POTENTIAL MODELS FOR ENCOURAGING INNOVATION IN COMMERCIAL SPACE

Abstract

The sustainable future for space exploration requires a vibrant commercial space industry to provide low cost space access and utilization services. The success of commercial space utilization can be facilitated through government-sponsored initiatives to provide infrastructure, eliminate impediments, and provide funding to stimulate the development of technologies and services.

NASA’s Office of the Chief Technologist (OCT) is leading several initiatives to effectively stimulate the US commercial space industry in each of the two main functions of OCT: the development and execution of the Space Technology program and the coordination of technology and partnerships across NASA. Within the ten Space Technology programs, OCT competitively selects teams to develop new concepts and technologies for future spaceflight missions. These ten programs span across the technology readiness levels from idea inception to spaceflight demonstration. As part of the coordination effort, the Partnership, Innovation and Commercial Space (PICS) activities work across NASA to encourage partnerships within NASA’s programs and foster government practices to facilitate non-government activities in space. This paper describes three of the Space Technology programs and some recent activities of the PICS Office to support the commercial space industry in the US.