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ECONOMIC AND NATIONAL COMPETITIVENESS IMPACTS OF THE ARTEMIS PROGRAM

Abstract

NASA's Artemis Program will return humans to the lunar surface in the 2020s, create a sustainable American presence for years to come, and provide the experience and technology to conduct the first human missions to Mars. While providing scientific returns, geopolitical leadership, and the enduring value of human and robotic space exploration, the program also offers the prospect of substantial economic growth and enhanced U.S. national competitiveness.

This study summarizes the economic and national competitiveness impacts of the Artemis program to complement its inherent values of scientific discovery, technology development, space exploration and global leadership. It includes a brief background on the success of NASA's historical commercial space initiatives and how the Artemis program is an extension of the Commercial Orbital Transportation Services and Commercial Crew programs. It also examines how the Artemis program may provide economic benefits by driving innovation and new capabilities, lowering the cost of access to space, improving market competition and expanding the potential customer base. Finally, it provides an assessment of the Artemis program's role in helping U.S. firms compete in the global marketplace and the role of government in funding early stage technology development. The study primarily focuses on evaluations of commercially acquired elements of the Artemis program (e.g., Human Landing System, Commercial Lunar Landing Services).