

IAF SPACE EXPLORATION SYMPOSIUM (A3)  
Space Exploration Overview (1)

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**Abstract**

The Office of the Chief Scientist at the National Aeronautics and Space Administration (NASA) is responsible for representing and advocating all of the scientific endeavors in the agency, ensuring they are aligned with the administration's science objectives. With the signing of Space Policy Directive-1 (SPD-1) in December of 2017, NASA was directed to explore "across the solar system and to bring back to Earth new knowledge and opportunities." Charged to lead an expanded, sustainable program of human exploration with international and commercial partners, NASA's response to SPD-1 was to develop the National Space Exploration Campaign, which serves as a roadmap of plans to expand human activities in LEO and presence to the moon, to Mars, and to deep space. The campaign's five strategic goals include: (1) transitioning U.S. human spaceflight activities in LEO to commercial operations that support NASA and a future private sector market; (2) developing capabilities for lunar surface operations and missions beyond cislunar space; (3) performing a series of lunar robotic missions to better characterize lunar resources and scientific discovery; (4) returning U.S. astronauts to the surface of the Moon for sustained activities; (5) demonstrating the capabilities required for human missions to Mars and other destinations. This paper will provide an overview of NASA's scientific activities currently underway to support these objectives, including how various programs are aligned to promote collaboration for successful scientific outcomes. Future potential scientific trajectories within the agency will also be discussed.