

IAF HUMAN SPACEFLIGHT SYMPOSIUM (B3)  
Governmental Human Spaceflight Programmes (Overview) (1)

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NASA'S PLANS FOR HUMAN SPACEFLIGHT OPERATIONS

**Abstract**

Access to, and utilization of, low-Earth orbit (LEO) has been developed and spearheaded by NASA with our international and industry partners for over two decades aboard the International Space Station. The recent extension of space station until 2030 will enable expanded operational experience and commercial activity in LEO, with NASA as one of many users. This opportunity opens the door to greater innovation, scientific discovery, and technological advancement while NASA, our partners, and current and future crews prepare for safe and productive exploration of the Moon, Mars, and beyond. As we enter this new booming era of space exploration with many operators and beneficiaries, we are charged with the responsibility of transferring what we know and have learned to the future pioneers of this work while delivering a return on the investment that has been made in NASA. This paper will examine: 1) How NASA will enable future commercial growth of LEO in partnership with other entities and nations; 2) The scientific research and technological capabilities that are enabled by growing an innovative foundation of commercial architecture in LEO; 3) The economic value and possibilities of greater LEO utilization; and, 4) NASA's vision for commercial applications in our Moon to Mars campaign and how we will transfer development into operational models to keep the cycle moving forward.