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PROFESSIONALS STUDY LOGISTICS: THE INTERNATIONAL SPACE STATION TRAFFIC
MODEL AND POTENTIAL IMPLICATIONS FOR LUNAR EXPLORATION

Abstract

Every day since November 2, 2000, humans have lived away from their home planet aboard the International Space Station. While there, they have been conducting ground breaking research into the effects of the unique environment of microgravity on nearly every scientific discipline, including biology, biotechnology, materials science, and fundamental physics. They have also been developing and refining the technologies that allow humans to live and work effectively in space, including air and water recycling, early investigations into food production, and the physiological and psychological effects of long-duration spaceflight. Amid this host of benefits, both to future exploration and to humanity on Earth, the ISS International Partnership has also been developing, demonstrating, and refining a supply paradigm for keeping these crews fed, clothed, and productive in space. While the ISS currently recycles up to 90