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Author: Dr. Svetla Ben-Itzhak
Air University, United States

THE FUTURE OF INTERNATIONAL COOPERATION IN SPACE

Abstract

In January, 2022, NASA released its International Space Station (ISS) Transition Plan, detailing how it plans to decommission the space station by 2030. Russia had already announced its decision to leave this joint space venture by 2024. The ISS originally began as a collaborative US-Russia effort in 1998 and welcomed its first long-term visitors in 2000. Since then, 244 people from 19 different nations have visited the space station. For more than 20 years, the ISS has been the bedrock of international cooperation in space, even when relations on the ground soured. What will happen to international cooperation in space once the ISS retires?

This paper discusses three possible paths that international cooperation in space could follow in a post-ISS world, namely: (1) no cooperation: each state going solo in space, similar to China's Tiangong space station; (2) strategic cooperation: states working together based on shared interests, like the planned Gateway lunar space station or the Artemis accords initiative, or (3) commercial cooperation: commercial entities working with states to achieve specific objectives, similar to current projects to develop human habitats and commercial destinations in space.

To probe the likelihood of each scenario, this paper examines documented current dyadic and polyadic space cooperative blocs, in terms of (1) main players, (2) capabilities, and (3) objectives. Using social network analysis, I map out the current state of international cooperation in space and discuss its potential future evolution. The analysis includes (a) both state and nonstate actors, (b) military, governmental, and nongovernmental cooperation in space, and (c) current initiatives in near-Earth orbits as well as planned ones on the Moon, Mars, and select asteroids. Overall, while cooperative blocks in space tend to mirror strategic alliances on the ground, international cooperation in space has several distinct features. Those include significant presence of commercial actors engaged in cooperative space projects and the prevalence of bilateral space agreements between leading spacefaring countries and other states or international organizations. Based on this analysis, I present the most likely scenario for future international cooperation in space.