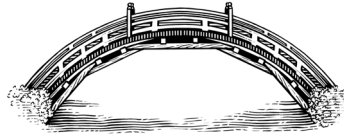


ROUNDTABLE

Asia in Space: The Race to the Final Frontier



John M. Logsdon

Kevin Pollpeter

James Clay Moltz

Saadia M. Pekkanen

Hyoung Joon An

Namrata Goswami

Kai-Uwe Schrogl and Christina Giannopapa

Introduction

More than half a century since the United States and the Soviet Union jockeyed to be first in space and to put a man on the Moon, a new contest for space dominance has developed in recent years. In 2019, China successfully landed an unmanned craft on the Moon, and the country aims to both launch a Mars explorer in 2020 and complete its own space station around 2022. The Indian Space Research Organisation has plans to launch a variety of observation and communications satellites in 2020, and the Indian Regional Navigation Satellite System now covers the entire Indo-Pacific. Though still recovering from the Fukushima disaster, the Japan Aerospace Exploration Agency is preparing to launch its prototype Space Solar Power System this year, with full operational capacity scheduled for 2030.

In contrast to the growth of Asian space programs, Russia's reorganized state-led program Roscosmos struggles to maintain the country's Soviet-era capabilities. The European Union has only recently revived its Space Council and is determining objectives for joint European programs. The United States, for its part, has shifted toward robotic missions and a focus on military security applications, although there is renewed public- and private-sector interest in manned space missions.

Amid this global scramble by countries and private companies to launch satellites and spacecraft, a range of critical issues still must be addressed. For example, the aging International Space Station is now in its 22nd year, and space debris remains an unregulated, increasing problem. To better understand Asia's emerging role in the space domain, this *Asia Policy* roundtable surveys the space programs of key states and analyzes their present technological capabilities, strategic goals, and private and public R&D to determine policy implications for space activities, international law, and security.

The roundtable opens with John M. Logsdon's analysis of the United States. The essay examines the country's historical and current commitments to space as well as the important matters on its policy agenda. As one of the two veteran space powers—and the only one to maintain relevance in the 21st century—the United States faces different issues than its Asian allies and rivals. As Logsdon notes, Washington has a hand in nearly every international space initiative. The United States, as the country with the most seasoned space program, must rise to the pressing challenge of crafting “innovative and appropriate rules to govern the world's space activities, if they are to produce their maximum social, economic, and

security benefits.” In so doing, it will continue to play a significant role in international space forums.

At the same time, the influence of China in space is increasing. Kevin Pollpeter’s essay for the roundtable succinctly summarizes the challenges the country poses vis-à-vis the United States: “China’s use of space as an instrument of national power poses military, economic, and diplomatic challenges for the United States, much as its increasing capabilities and expanding global presence challenge other terrestrial domains.” Like in other domains, China strives to reshape space governance to better suit its own geopolitical objectives in areas such as arms control and natural resource extraction in space. Pollpeter suggests that the United States could easily lose preeminence in space should it ignore China’s rise and fail to invest in its own space program.

James Clay Moltz assesses the status of the Russian space industry and its transition from being a government-led powerhouse in the Soviet era to a program with joint civil and military capabilities. He concludes that “Russia’s heavily state-run strategy is ill-suited to the rapid technological pace of the 21st-century space marketplace, leaving the country searching for a new formula for success.” By contrast, Saadia Pekkanen argues that Japan has positioned itself well in the space domain through developing innovative technologies across the civilian, military, and commercial realms. Through international and regional engagements, the country has situated itself so as “to influence the policy positions of other countries on the principles governing outer space activities and the types of collaborative frameworks necessary for advancing peaceful governance.” Japan has thus effectively adapted space diplomacy to meet its national interests. Hyoung Joon An next discusses South Korea’s aspirations in space. Now that the country possesses a competitive space force with indigenous capabilities, he argues that it is imperative that South Korea become “a more active participant in developing an international legal framework for space activity.”

Namrata Goswami’s essay details the great advances India has made in its space program and the full range of capabilities the country has developed, including those needed for Moon and Mars missions and for various satellite activities. With the growth of its civil and military programs, and, controversially, by testing its anti-satellite capabilities despite international protest, India “has ensured that it will be included in any future space governance regime.” The roundtable closes with Kai-Uwe Schrogl and Christina Giannopapa’s analysis of the ambitions and

contributions of Europe in space, as well as its potential for cooperation with new space entrants. In particular, they consider the implications of Asian space programs for the region and “whether developments in Asia will lead to concerns regarding not only economic competition but also stability and security interests in space.”

This question frames an important theme of this roundtable. The countries of Asia are already shaping space policies and governance for the new era. It is thus paramount that any actor interested in the opportunities that this final frontier has to offer—whether military, civilian, or commercial—take note of the developments in Asian space programs. ♦

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