RESEARCH SUMMARY

What China's Presence in Cislunar Space Represents to the U.S.

This summary describes IDA's research on China's cislunar space activities, a component of the nation's broader plan to establish a long-term presence in space. It also notes the effect these intentions have on the U.S. and provides possible response options.

In alignment with the Outer Space Treaty of 1967, the People's Republic of China (PRC) has often stated its support for and adherence to the peaceful use of outer space, maintaining international laws against the territorial sovereignty of outer space and celestial bodies. However, entities within the U.S. have expressed concern over China's presence in cislunar space, the volume of space between the Earth and the Moon with particular interest in regions beyond geostationary orbit (GEO) to include the upper altitude limit of lunar orbit. China has placed significant investment in research and development of cislunar space technologies and missions, from landing on the far side of the Moon, on January 3, 2019, to the envisioned Russian-Chinese International Lunar Research Station. IDA researchers Kelsey Schoeman and Irina Liu offer insight into the ambitions and motivations for China's interest in cislunar space and the implications of China's actions on U.S. space policies. Through analysis of official documents, press releases, and statements by officials, Kelsey and Irina identified several motivations for the PRC's cislunar activities: international and domestic prestige, scientific discovery, economic benefits and potential military advantages. For example, in addition to the promise of scientific discoveries, the cislunar economy is estimated to be worth trillions due to

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its resources: titanium, Helium-3, water and rare Earth metals.

Beyond resources, the IDA report highlights prestige as a driver for the PRC's space activities to demonstrate how cislunar activities configure into PRC's national priorities. Under Xi Jinping's leadership, PRC endeavors to achieve the "China Dream" or "Strong Country Dream," meaning that PRC is on the path to increasing its comprehensive national strength. Within this strategic objective, the PRC stresses the importance of having a strong aerospace industry in order to obtain international prestige and compare itself to other great powers. The lunar missions' success has validated the country's technical capabilities and buoyed China's self-confidence and domestic prestige as a science and technology leader. For example, China's 2019 landing on the far side of the Moon received international and domestic recognition as a milestone in space exploration.

The PRC's cislunar exploration plans have implications for the U.S.-China space competition, including areas like space norms and governance, space domain awareness, knowledge sharing, and coordination. For example, U.S. freedom of access to strategic locations in space for security and trade would be severely limited if China asserted economic- or defense-related controls over access to zones in cislunar space, and if it has the capabilities to enforce those controls. This would enable the PRC to monopolize lunar assets, such as resource-rich regions and Lagrange points.

But not all encounters need to be confrontational. The authors also propose that U.S. policymakers consider sharing knowledge of cislunar space with the PRC to create opportunities for shaping norms and governance. A recent successful example is an announcement by the Chinese National Space Agency soliciting international groups to submit research proposals for portions of lunar samples gained from its 2020 lunar exploration probe.

IDA suggests that U.S. officials consider China when establishing strategic messaging and strategy for cislunar space. Developing this awareness will help U.S. policymakers and stakeholders create more informed decisions on their own strategy and responses on cislunar space issues.

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