

## Abstract

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### The U.S. Response to China's Space Strategy

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This study reviews Xi Jinping's space strategy and the Biden administration's response to China's space program, and its implications for South Korea. Existing space-related studies have focused on ROK-U.S. space cooperation, China's space program, space development efforts of Washington and Beijing, and China's rising space power amid U.S.-China competition. However, there is limited research on the Biden's administration's perception and response to Xi Jinping's space ambitions threatening space security. Hence, this study confirms the importance of space security in U.S.-China strategic competition, discusses the Biden administration's response to China's

space threat, and explores the implications for South Korea's space security.

The Russia-Ukraine war has reaffirmed the significance of strategic space assets. The U.S.-China strategic competition has ironically created boundaries in the boundless outer space, and security issues regarding technology, cyber, and the environment have contributed to complicating the rivalry. The two countries seem to have gradually shifted their battleground to the infinite universe. Washington and Beijing are also vying to establish space norms, which define the behavior of countries in space, while actively supporting each nation's space program in the race to secure space capabilities.

Xi Jinping's development of space power is in line with China's "strong military dream" to realize the "Chinese dream." Xi continues to underscore the need for military strength to advance the "Chinese dream" of the "great revival of the Chinese nation" and believes space power will enable efficient military operations in a favorable

strategic environment. The establishment of the Strategic Support Force in 2015, the expansion of related defense budgets, and continued investment to secure space capabilities reflect China's recognition of the importance of space assets. In addition, Beijing is pushing to develop space weapons and enhance space capabilities to secure effective operational capabilities in space, resulting in China's "rise in space."

The Biden administration has adopted three main approaches to restore U.S. leadership in space. First, Biden has continued the space strategy of the former administration by pursuing space leadership through commercialization. Second, Washington has set up new security strategies that include outer space and focus on military modernization. Third, in response to China's space threats, the U.S. is strengthening cooperation with allies and partner countries in the Asia-Pacific region. Japan announced its plan to participate in NASA's Artemis program for lunar exploration, and South Korea, in May 2022, agreed to enhance cooperation with the U.S.

in space, the cyber domain, quantum technology, and biology.

The implications of the U.S.-China space security competition regarding South Korea are as follows: First, the U.S. will require more active cooperation from South Korea to secure its deterrence against China. An intensified U.S.-China strategic competition will likely increase the level of involvement for allies or partner countries. Thus, South Korea will need a flexible diplomatic strategy to manage the security situation on the Korean Peninsula and its relations with neighboring countries.

Second, the commercial use of space necessitates an expanded concept of security and enhanced space capabilities. For example, U.S. export controls on strategic materials such as dual-use items are an issue for South Korea's space development. Therefore, South Korea and the U.S. should establish and maintain a cooperative coordination system for sharing policy interests. Third, South Korea needs to ramp up systematic support for its

aerospace industry and science and technology sector. The successful launch of the Korean projectile Nuri (KSLV-II) was a great leap forward for South Korea's aerospace industry. As such, South Korea should establish a systematic and long-term strategy for its space industry. A national security strategy that reflects the rapidly changing space environment is also necessary to protect the property and safety of the Korean people.

<b>Keywords</b>
Biden, Xi Jinping, strategic competition, space, threat, South Korea