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## THE SPACE RACE: ON CHINA'S MOON MISSION

Relevant for: Science & Technology | Topic: Space Technology & related matters

There are several reasons why China's achievement in landing a spacecraft on the far side of the moon could trigger a rivalry with the U.S. in outer space. For starters, China's January 3 landing on the mysterious "dark" side of the moon, the first by any country, gives Beijing a leg up on Washington over big ticket space exploration. Unlike the near side, the far side of the moon is shielded from radio transmissions from earth. The Chang'e-4 mission got around the problem of lack of communication with those on earth by using a relay satellite. The data that China obtains on the moon's craters could help it acquire an edge over other countries, including the U.S., in the highly competitive domain of space research.

The Chinese could also steal a march over the Americans by launching advanced rockets, which would explore new frontiers in space. Unlike earth, the moon has an abundance of helium-3. In the far future, this can serve as the ideal fuel to power a new generation of spaceships, with the moon as the launchpad, instead of earth.

Dark side of the moon: on China's moon mission

The Chinese may have also taken the lead over peers in exploring the possibilities of human habitation on the moon. The Yutu-2, the rover of the ongoing Chang'e-4 mission, is programmed to explore the South Pole-Aitken Basin. This vast impact region, 13 km deep and 2,500 km wide, has copious reserves of ice. The promise of water has persuaded international space scientists to peg the site as suitable for a permanent lunar outpost, which is on China's radar.

The promise of the moon's natural resources can add another layer of rivalry between the Chinese and the Americans. Space exploration buffs have considered asteroids as lucrative sources of precious metals such as gold, platinum, silver and iridium in the future. But if the relatively more accessible surface of the moon could yield precious resources, the race for lunar colonisation would begin, providing China a substantial early-mover edge.

So far, NASA has congratulated its Chinese counterpart on the impressive success of the Chang'e-4 mission. But its graceful applause is unlikely to yield step two: an offer of active space collaboration between the two countries. The popular mood within Washington's political class has been soured by the sentiment to contain China's rise. In China, an intense techno-war, furthered by the U.S.-inspired arrest in Canada of the scion of the telecom giant, Huawei, has bruised the country's nationalistic psyche.

A new generation of Chinese and American peace advocates, global citizens and cyber-activists have their task cut out — to step up their game and prevent outer space from becoming another arena of a budding Cold War between Washington and Beijing.

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India does not gain anything by escalating the nuclear arms race in the region with INS Arihant

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