




STRATEGIC VISION for Taiwan Security

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Celestial Ambitions US-China Space Race No Rehash of Cold War

Tonio Savina

Japan Steps Up in Indo-Pacific Region
Nguyen Vo Huyen Dung

China Cool to Suffering in Myanmar
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Trump's Trade War With China
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Intelligence Community in South Africa
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CONTENTS

Japan steps up in Indo-Pacific region	4
<i>Nguyen Vo Huyen Dung</i>	
Space Race with China unlike that of Cold War.....	12
<i>Tonio Savina</i>	
Chinese national interests and the suffering in Myanmar	19
<i>Hon-min Yau</i>	
Trump's trade war with China	26
<i>Shao-cheng Sun</i>	
Problems with South Africa's Intelligence community	32
<i>Bheki Mthiza Patrick Dlamini</i>	

Submissions: Essays submitted for publication are not to exceed 2,000 words in length, and should conform to the following basic format for each 1200-1600 word essay: 1. Synopsis, 100-200 words; 2. Background description, 100-200 words; 3. Analysis, 800-1,000 words; 4. Policy Recommendations, 200-300 words. Book reviews should not exceed 1,200 words in length. Notes should be formatted as endnotes and should be kept to a minimum. Authors are encouraged to submit essays and reviews as attachments to emails; Microsoft Word documents are preferred. For questions of style and usage, writers should consult the *Chicago Manual of Style*. Authors of unsolicited manuscripts are encouraged to consult with the executive editor at xiongmu@gmail.com before formal submission via email. The views expressed in the articles are the personal views of the authors and do not necessarily represent the views of their affiliate institutions or of *Strategic Vision*. Manuscripts are subject to copyediting, both mechanical and substantive, as required and according to editorial guidelines. No major alterations may be made by an author once the type has been set. Arrangements for reprints should be made with the editor. Cover photograph of US sailors performing a no-load evolution on a catapult on the flight deck of the *Nimitz*-class aircraft carrier USS *Abraham Lincoln* (CVN 72) is courtesy of Jeremiah Bartelt.

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From The Editor

THE EDITORS AND staff at *Strategic Vision* would like to express our thanks to our loyal readers, and we hope we can continue to provide the most timely and reliable analysis and information on topics affecting cross-strait and regional security. To that end, we are pleased to offer this, our latest issue.

We open this issue with an examination of Japan's recent moves, under Prime Minister Shinzo Abe, to take on a more proactive role in the Indo-Pacific region, by Nguyen Vo Huyen Dung, who is head of the International Relations Division at the University of Danang in Vietnam. Following this, Tonio Savina, a doctoral student at the Italian Institute of Oriental Studies at Rome's Sapienza University, examines the competition between China and America in the realm of space, and how this differs substantially from the space race with the Soviets.

Next, regular contributor Lieutenant Colonel Hon-min Yau, a military instructor at the ROC National Defense University, looks at the reasons behind Beijing's use of its UN veto power to prolong the ongoing humanitarian crisis afflicting Myanmar's Rohingya people.

This is followed by an article by Dr. Shao-cheng Sun, an assistant professor at The Citadel, who looks at the ins and outs of the ongoing trade war between the Trump administration and China. Finally, Bheki Mthiza Patrick Dlamini, a Master's student at National Defense University's Graduate Institute of Strategic Studies, explains the problems that South Africa is experiencing with an intelligence apparatus that has insufficient oversight.

We hope you enjoy this issue, and we look forward to following the topics that affect our lives in the Asia Pacific as we move in to the autumn season.

Dr. Fu-Kuo Liu
Editor
Strategic Vision



photo: Jaymantri

The first space race ended with the first successful US mission to the moon in 1969. The new one was launched as China seeks a greater global presence.

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Celestial Ambitions

New space race between China and America breaks the Cold War mold

Tonio Savina

ON JANUARY 3RD 2019, China's lunar probe dubbed the Chang'e 4 landed on the far side of the moon, deploying the rover Yutu 2 on the lunar surface. Only a few months later, on 13 May, US President Donald Trump announced the ambitious goal to send American astronauts back to the moon by 2024—four years earlier than the previous target of 2028.

This decision has triggered an intensive international debate, with experts raising concerns about a possible new space race between China and the United States. According to this view, both countries seem to follow a primacist strategy in pursuit of their

Astropolitik interests.

However, it is important to note that we are not in the 20th century competition between two Cold War rivals, and that the space race paradigm is no longer enough to understand the current national space programs. Interpreting space strategies requires us to take different variables into account, such as the emergence of new space nations, the growing role of non-state actors, and the role of economic and socio-political factors.

The Chang'e 4 moon mission was part of a larger Chinese lunar exploration program originally divided into three steps: the first one included the

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orbital missions Chang'e 1 and Chang'e 2, respectively accomplished in 2007 and 2010; the second one incorporated the Chang'e 3 mission (achieved in 2013) and the aforementioned Chang'e 4 mission; the third phase will entail the sample-return mission of Chang'e 5, which is expected to be launched by the end of this year.

However, following the success of the Chang'e 4 mission, the State Council Information Office of China (SCIO) held a press conference unveiling new details about the future of the Chinese lunar exploration program. Among the future goals is the launch of the Chang'e 6 (to bring samples back from the moon's south polar region), the Chang'e 7 (to focus on the moon's south pole environment and composition), and of the Chang'e 8, whose mission would be to test new technologies, such as 3D printing.

Turning to the United States, in December 2017, Trump signed a memorandum that prioritized the moon over Mars, departing from his predecessor's space policy and its rejection of any American return

to lunar soil. The new program is based on a moon-to-Mars exploration approach because it directs the National Aeronautics and Space Administration (NASA) to focus on returning humans to the moon, thus to develop the technology needed to eventually send astronauts to Mars.

Twin of Apollo

The new lunar exploration program will be called Artemis, after the twin sister of Apollo and the Greek goddess of the moon. Artemis will rely on the Space Launch System (SLS)—a massive rocket that is running years behind schedule—and on the capsule Orion. Orion will carry astronauts to the Lunar Gateway, a space station that will orbit the moon and from which astronauts will eventually go down to the lunar surface.

According to the space race perspective, the rivalry between the ongoing Chinese lunar program and the American plan to go back to the moon could be



Army Astronaut Lt. Col. Anne McClain takes the oath of office during an underwater promotion ceremony in NASA's Neutral Buoyancy Laboratory.

interpreted as an attempt by the two countries to be the first to land (or re-land, in the US case) astronauts on the moon, thus enhancing their power in the international arena.

This interpretation seems to be reinforced by the statement made by US Vice President Mike Pence during the fifth meeting of the National Space Council held 3 March, 2019: “We’re in a space race today, just as we were in the 1960s and the stakes are even higher. “China became the first nation to land on the far side of the moon and revealed its ambition to seize the lunar strategic high ground and become the world’s preeminent spacefaring nation,” Pence added.

This statement reveals what could be called an Astropolitik view. Astropolitik, as defined by Everett Dolman, is a determinist political theory that manipulates the relationship between state power and outer-space control for the purpose of extending the dominance of a single state over the whole of the Earth.

Drawing on geography’s strategic thinkers, Dolman conceived Astropolitik as a classical geopolitics of outer space. Inspired by Mackinder’s Heartland theo-

ry, Dolman distinguishes between four astropolitical regions: Terra, or Earth; Earth Space; Lunar Space; and Solar Space. The first region includes the Earth and its atmosphere, stretching from the Earth’s surface to the Kármán line, the imaginary and theoretical boundary between Earth’s atmosphere and outer space located 100 kilometers above sea level. The second region extends from the Kármán line to geosta-

“Space, like the sea, is crossed by natural corridors that facilitate the movement of spaceships.”

tionary orbit (about 36,000 Km). The third region is described as the region just beyond geostationary orbit to just beyond lunar orbit. The last region—Solar Space—includes everything in the solar system beyond lunar orbit. In this sense, American and Chinese lunar exploration programs could merely be read as an attempt by each to extend their control over Lunar Space, with the ultimate goal of achieving hegemony over the first astropolitical region: the Earth.

Dolman explicitly draws on Alfred Mahan’s dis-



photo: Michael Perry

The *Yuan Wang 6* supports the People’s Republic of China’s space and military programs with its satellite tracking capability.



photo: US Air Force

The Joint Interagency Combined Space Operations Center, or JICSpOC, at Schriever Air Force Base in Colorado was activated in 2015.

discussion of naval choke points. As is well known, for Mahan, a state does not need to have control of every point on the sea; it only needs to manage strategic narrow international waterways (like the straits of Dover, the Suez Canal, the St. Lawrence Seaway, and so on). Similarly, for Dolman, there is no need for a state to command every point of outer space: space, like the sea, is crossed by natural corridors that facilitate the movement of spaceships. Consequently, as Mahan advocated the establishment of naval bases at point locations with strategic or commercial value like the Philippines, so Dolman suggests controlling strategic locations in outer space like the Lagrange Points: five points of gravitational equilibrium (L1, L2, L3, L4, L5) where the force of gravity exerted by the three celestial bodies—the Earth, Sun and moon—essentially balance each other out, thus allowing a satellite to remain stable.

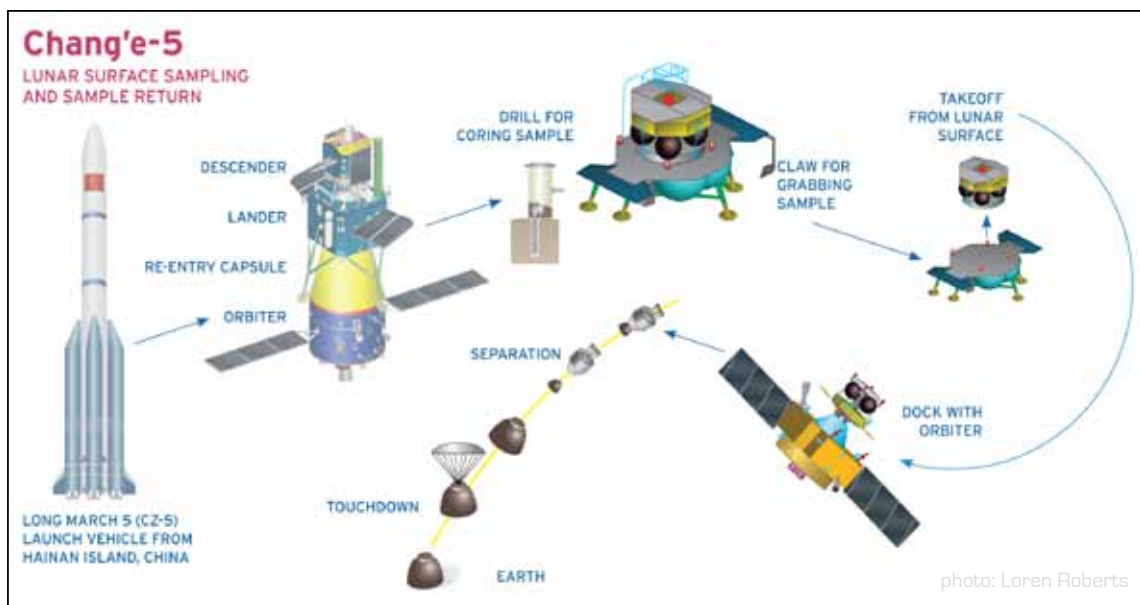
Indeed, the effectiveness of Lagrange points has already been tested by different countries, including China. In 2011, Chang'e 2 lunar probe completed its lunar mission and subsequently proceeded to the

L2 point in order to test Chinese telemetry, tracking, and command systems. Moreover, since direct communication between the Earth and the far side of the moon is not possible, China put a communication relay satellite in a halo orbit around L2 before launching its Chang'e 4 lander and rover.

In the opinion of some experts, the pursuit of Astropolitik interests by the two countries is confirmed by trends toward the militarization of space. Indeed, both Chinese and American space sectors have recently been undergoing major transformations to enhance the role of the military in managing space operations.

New war-fighting domains

In 2015, Chinese General Secretary Xi Jinping launched a reform of China's military, aiming to respond to the growing importance of new technologies and war-fighting domains. Among other things, the reform included the replacement of the former People's Liberation Army Second Artillery



The mission profile of the Chang'e 5, a robotic Chinese lunar exploration mission scheduled for launch in December 2019.

Force (PLASAF) with a new service, dubbed the PLA Rocket Force (PLARF). Unlike the PLASAF, the PLARF is co-equal to the Army, Navy, and Air Force, and it is responsible for all missile-related activities. Moreover, according to a report published in 2017 by the RAND corporation, the PLARF would play a significant role in space operations.

More importantly, the reform led to the establishment of the Strategic Support Force (SSF), that is charged with developing and employing the PLA's space capabilities. The aforementioned report states that the creation of the SSF "signifies an important shift in the PLA's prioritization of space and portends an increased role for PLA space capabilities."

Revived space body

A reorganization of the space sector is occurring in the United States, too, though the process will not be completed easily. An initial step was taken in June 2017, when Trump issued an executive order to re-establish the National Space Council, appointing Pence as chairman. This body, formed in 1989 by President George H.W. Bush and disbanded four years later, has

now been revived with the aim of reviewing space policy and developing recommendations for national space activities.

The Trump administration is also trying to form a Space Force as a sixth branch of the armed forces. The establishment of the Space Force is an attempt to reform the Department of Defense and it would include the formation of three bodies: the US Space Command, the Space Operations Force, and the Space Development Agency. According to remarks by the vice president on the future of the US military in space, the first one, "will establish unified command and control for the Space Force operations, ensure integration across the military, and develop the space warfighting doctrine, tactics, techniques, and procedures of the future." The second one will be formed by military men and women who will support the combatant commands with their expertise in times of crisis and conflict. Finally, the Space Development Agency will be focused on innovation and experimentation to provide the Space Force with cutting-edge warfighting technologies.

Although the space race model seems to provide us with a suitable theoretical framework for interpreting

the recent developments of Chinese and American space programs, it would be naïve to think that it could give us a full picture of the current situation in the space sector. It is important to note that we are no longer embroiled in the 20th century competition between the United States and the Soviet Union, and that monitoring the developments of American and Chinese lunar exploration programs requires us to take into account a series of different factors.

New paradigm

First of all, China does not seem interested in joining the race. Beijing continues to follow a slow, gradual and step-by-step lunar exploration plan that seems not to be intended as a race against the United States, at least not officially. Indeed, in almost fifteen years, China has launched only four lunar missions: too few to fit a space race model, especially if compared with the number of Apollo missions launched by NASA in the same length of time during the 1960s.

Furthermore, China is not able to bear the costs of such a race. Even though it is difficult to determine the budget for China's space activities, it is certain that China's expenditures are far lower than those of the

United States. A report published by the Center for Strategic and International Studies states that, "in 2017, it was estimated that China spent almost US\$11 billion on space, while the United States spends almost US\$48 billion."

In addition, China may not be technologically ready for such a race. As Andrew Jones, an expert on China's space program, has recently pointed out, China's lunar missions could be facing delays due to an unspecified issue affecting the Long March 5, the heavy-lift rocket that has already suffered a failure in July 2017, and that was expected to launch the Chang'e 5 mission by the end of 2019. Hence, in this alleged race, the United States could end up striving against itself more than against China, in order to regain the capability of sending astronauts back to space—a ca-



A 1974 painting by artist Robert McCall depicts the docking of the American Apollo and Soviet Soyuz spacecraft.

pability that it lost with the Space Shuttle's retirement in 2011—and to reassert the symbolic dominance on the moon it enjoyed with the Apollo missions.

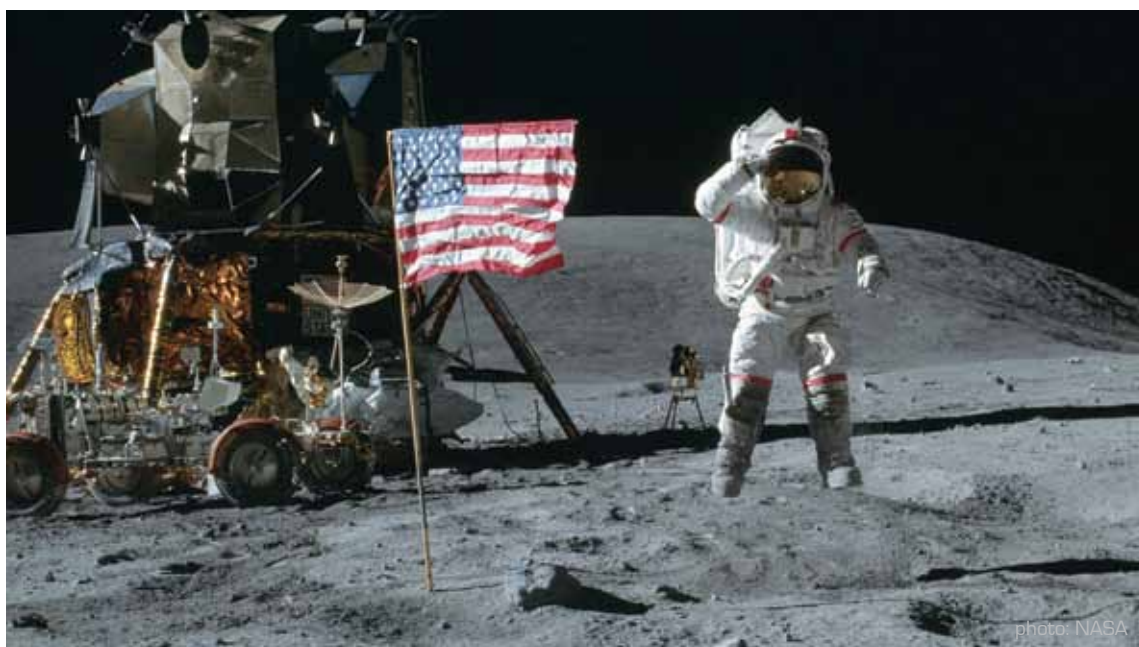
Moreover, the space race framework is based on a rivalry between two superpowers that does not fit to the current situation in space. The dichotomy of US vs. China risks oversimplification in its neglecting the role of emerging space nations. India, for example, is ready to launch its Chandrayaan-2 lunar exploration mission.

In addition to nation states, there are also non-state actors like private firms and organizations that are joining space exploration activities. Indeed, private companies are no longer simply engaged as contractors of national space agencies but are themselves playing a guiding role. In April 2019, for example, Israeli's organization SpaceIL tried but failed to launch its first privately funded moon mission, Beresheet.

Finally, even though the actual space legal framework is lagging behind the rapid development of space activities, it is important to recognize that

outer space is no longer terra nullius, as it was at the beginning of the Space Age. According to Professor Fraser MacDonald, “the legal character of space has long been enshrined in the principles of the Outer Space Treaty and this has, to some extent, prevented it from being subject to unbridled interstate competition.” Therefore, no nation—even the ones that seem to pursue Astropolitik interests by testing the military potential of outer space locations (like the Lagrange points) or by reforming its space sector—has or could claim sovereignty over space, or occupy it.

In conclusion, thinking out of the space-race box would lead to a better understanding of the current developments in American and Chinese lunar exploration programs; moreover, it would also help governments realize that it is time to thoroughly review current space policies and legislation, thus responding to the new challenges posed by the changing international context and contributing to a more sustainable and less rhetorical approach to space exploration. ■



Astronaut John Young salutes the US flag at the Descartes landing site on the moon in April 1972 during the Apollo 16 mission.

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