

E A R L

East Asia Resource Library/ Raziskovalno središče za Vzhodno Azijo

CHINA'S ROAD TO SPACE INITIATIVE

by Manuel Fischer

EARL analyses

01/2022

CHINA'S ROAD TO SPACE INITIATIVE

Whenever we discuss China's emergence, we tend to focus on its economic progress and the enormous impact it has on the global economy. However, its ascent outside of our planet's atmosphere - into outer space, goes mostly unnoticed. China is on its way to becoming the most important (state) actor in outer space.

Space capabilities have been an asset of great power competition since the beginning of the Space Race during the Cold War between the US and the Soviet Union and are seen as one of the most prestigious assets that a country can have, displaying its technological (and military) power. But why is outer space so important? Its importance can be linked to the significant discoveries made by space projects, without which we would not have GPS, accurate weather forecasts, solar cell technology, and UV filtering. However, even more relevant to “Space Powers” is the large number of satellites deployed, which are crucial for the government’s intelligence when monitoring the ‘enemies’ on the ground and also because of the likely hacker attacks on the ground and in outer space. Moreover, satellites are essential for the information they provide to the deployers in war times - mainly for keeping track of the adversary’s movements, weather conditions, and precise GPS for the troops. As a result, a country’s capabilities in outer space serve as its “eye” on the Earth.

The Chinese government believes that space control is a natural extension of other forms of territorial control, such as sea control or the control of the nation’s airspace. Therefore, it integrated outer space into China’s dream of the great rejuvenation of the Chinese nation, where outer space must contribute to making China the number one technological great power by 2049, on the 100th anniversary of the People's Republic of China.

The fear that China may one day assume the leading role in outer space has been observed at various times, most notably when the US barred China from participating in the International Space Station (ISS) due to concerns that China might steal American technologies. Nevertheless, China did not need to steal those technologies, as it developed them by itself and is currently building its own, first one-state-only built space station, the Tiangong space station (Chinese for "Palace in the sky" - TSS), which will be the sole active space station after the ISS mission comes to an end, scheduled for 2024. To increase international cooperation, China has engaged other nations, particularly some developing ones, in its TSS programs, a departure from the more elitist developed-countries-only approach of the ISS.

China began its first human space program in 1992 in order to catch up with the other space powers. It comprises three pillars known as the "Three Steps" in its human spaceflight plan. The first step was to construct a spaceship. Between 1999 and 2003, China successfully launched four crewless spaceships. The second step was to successfully launch a manned space lab into orbit, accomplished in 2003. The next step was to construct a space station, which has been in the works since 2012 and is nearly finished and expected to be fully functional in 2023.

Therefore, after the end of the ISS mission, the Tiangong space station, which is already presented as an international cooperation space lab, could provide China with the *de facto* leading position in space-based scientific cooperation. Moreover, with its capabilities, China is increasingly independent of other space powers, including its self-reliance in the Global Positioning System by installing its system - Beidou. It will no longer be dependent on the US-owned GPS and thus vulnerable to eventual signal disruptions. Beidou is currently in use in many developing Asian and African countries and forms part of the Belt and Road Initiative (BRI), as it will help promote cooperation between China and the countries along the BRI.

However, China's activities in outer space are mostly unknown to the rest of the international community, sparking fearful sentiments towards it, especially after the 2007 anti-satellite (ASAT) test destroyed a satellite, spreading dangerous debris in Low Earth Orbit. By doing so, China has shown that it can shoot down satellites and that other Space Powers have to consider it as their equal. Since then, however, such acts were not seen anymore, and China opted for a more multilateral path by becoming one of the most critical proposers of treaties that would impose a ban on weapons in outer space, which shows how China works towards exclusively peaceful use of outer space. However, the US has vetoed such a treaty at various times.

China has already achieved history in outer space, with successes such as landing on the far side of the Moon, as well as numerous other delicate missions on the Moon and Mars. China's excellent infrastructure-building abilities will be critical for the future growth of its space capabilities, and if it maintains its current rate of success and breakthroughs, it may be able to establish the first base on the Moon by 2030, as planned. Although China might well become the leader in outer space, it will have to keep up with significant innovations, which will outperform the current US's capabilities and the fast-rising private enterprises, such as SpaceX, Blue Origin, and Arianespace.