

CHINA AND MUSK'S ROW IN SPACE

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

A child stands near a giant screen showing the image of the Tianhe space station on the country's Space Day at China Science and Technology Museum in Beijing, China April 24, 2021. | Photo Credit: [Reuters](#)

The story so far: On December 28, China said its astronauts aboard the Tiangong Space Station had to take evasive measures on two separate occasions to avoid potential collision with two of SpaceX's Starlink satellites earlier this year.

The world's second-largest economy, which is growing its presence in space, complained to the United Nations detailing the alleged space incidents.

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Both U.S. and China are parties to the Outer Space Treaty, which is formally known as the 'Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies'. The multilateral treaty, adopted by the UN General Assembly, provides the basic framework on international space law.

China has referred the articles V and VI of the treaty in the complaint filed with the UN. According to article VI, nations will be responsible for national space activities whether carried out by governmental or non-governmental entities. That means the U.S. can be held responsible for the activities of the U.S.-based aerospace firm SpaceX founded by Elon Musk. Moreover, article VII states that nations will be liable for damage caused by their space objects, such as satellites.

In its complaint, China also highlighted article V of the treaty, which requires parties to immediately inform other parties or the UN Secretary-General of any phenomenon they discover in outer space, "which could constitute a danger to the life or health of astronauts". China said its space station had "two close encounters" involving the Starlink-1095 and the Starlink-2305 satellites, and added that, "For safety reasons, the China Space Station implemented preventive collision avoidance control on July 1, and October 21, 2021, respectively."

On Tuesday, China Foreign Ministry spokesman Zhao Lijian said, "The US, while talking about the concept of responsible outer space behaviour, is in practice ignoring its obligations under the treaty."

The U.S. State Department spokesman Ned Price declined to respond specifically to the Chinese accusations, according to a report by *Agence France-Presse*.

"We have encouraged all countries with space programs to be responsible actors, to avoid acts that may put in danger astronauts, cosmonauts, others who are orbiting the Earth or who have the potential to," Price said.

SpaceX has not made official comments on the alleged "close encounters" with the China Space Station.

The United Nations Office for Outer Space Affairs was created to service the ad hoc Committee

on the Peaceful Uses of Outer Space. The committee, which was established in 1958 shortly after the launch of the first artificial satellite, Sputnik-1, has been serving as a focal point for international cooperation in the peaceful exploration and use of outer space.

The Outer Space Treaty came into force on October 10, 1967. Subsequently, four other treaties were adopted to strengthen the framework set by the space treaty.

The principles embodied in these international treaties have facilitated the orderly conduct of activities in outer space. But, over the years, there have been challenges involving in space activities, that were mostly resolved through mediation processes or diplomatic channels.

For instance, the cosmos 954, a nuclear-powered surveillance satellite launched by the Soviet Union in 1977, crashed in northern Canada on January 24, 1978. It scattered an enormous amount of hazardous radioactive debris over the Canadian territory. The USSR paid C\$3 million to Canada as compensation for the clean-up operation. The claim was made as per the Liability Convention of 1972, which establishes the standards of liability for damage caused by space objects.

The time taken for the settlement of disputes can vary depending on the method used, such as mediation, negotiation, arbitration or a judicial settlement. In the aforementioned incident, the settlement of the claim was done on April 2, 1981.

Space-related conflicts have occurred in the past and will most likely continue to happen in the future as well, considering the growing number of activities in the space, involving different parties.

In 2009, Iridium 33, an active communications satellite, collided with an inactive Russian military communications satellite, Kosmos 2251, at a speed of about 42,000 km/h in the low-Earth orbit (LEO), destroying both satellites, creating thousands of pieces of debris in the process.

Nearly thirteen years later, Starlink satellites are at the centre of the alleged outer space incidents. SpaceX's internet satellite network operates at 550km above the Earth's surface in LEO, which is increasingly getting crowded. The firm has deployed about 1,900 Starlink satellites. Then there are other companies like Amazon and OneWeb that are working on their LEO-based internet service. Mega-constellations from these companies will add thousands of satellites in the LEO.

The International Space Station and China's space station, Tiangong, which is under construction, operate in the LEO, where much of the space debris can be found. Besides, there are about 30,000 satellites and other pieces of debris in Earth's orbit that can reach speeds of nearly 29,000 km/h, raising the possibility of international incidents in the outer space.

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