

Space Exploration 3.0 about to begin

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Space exploration is about to enter a third age where nations will cooperate to explore the solar system.

Nicolas Peter, a research fellow at the European Space Policy Institute (ESPI), told the meeting in Vienna that the era of launching space missions to bolster national prestige was long past and that new opportunities for cooperation had emerged since the end of the Cold War. He predicted that an imminent third phase of space exploration could inspire nations to work together in a spirit of discovery.

The Vienna conference Humans in Outer Space – Interdisciplinary Odysseys on October 11-12, was billed as “the first comprehensive trans-disciplinary dialogue on humans in outer space.” It brought space scientists face to face with historians, lawyers, political analysts, philosophers, sociologists, psychologists, anthropologists, writers and others. It was organised jointly by the European Science Foundation (ESF), the European Space Agency (ESA) and the Vienna-based ESPI.

Until recently the humanities had little input into European space policy which has been dominated by political and industrial as well as scientific considerations. The conference is developing the ‘Vienna Vision on Humans in Outer Space’ which will establish a clear voice for a new and broader constituency to contribute to the future of human beings in space.

Peter said there had been two phases of space exploration since the first Sputnik satellite was launched 50 years ago. The first phase, up to the

early 1990s, was driven by Cold War rivalry between the US and the former USSR with cooperation extended to political allies of the two principal space powers. The second phase, up to the present, has seen the emphasis shift to scientific and practical applications of space with many new countries developing space programmes.

The number of space agencies in the world has been steadily rising since the 1990s and reached 36 in 2005. Bilateral and multilateral agreements between agencies are also growing. The advent of the International Space Station has made it possible for many countries to take part in long-term, structured programmes of space research.

What Peter described as “Space Exploration 3.0” is about to begin.

He said that while humans will play a major role in space in future it would no longer be in the context of competing states but in cooperation between many parties. “It will involve industry, universities and other non-governmental organisations. This adventure will be driven primarily by a quest for knowledge, involving not only the hard sciences but arts and humanities as well. We’re evolving towards an open market situation where a lot of new actors will be able to join the new space race.”

The catalyst for the third phase of space exploration, Peter said, was a speech by US President George Bush in January 2004 in which he called on other nations “to share the challenges and opportunities of this new era of discovery.”

Fourteen space agencies – including big players from the US, Russia, China, Japan, India and Europe – agreed a new global exploration strategy last May. It provided for collaboration on robotic and human exploration of the solar system including the Moon, Mars, the asteroids and the moons of the giant planets.

Peter said that cooperation allowed partners to make the best use of resources and to mount missions that would not otherwise be possible. Cooperation lent legitimacy to space projects and made them internationally credible. He pointed out that internationally agreed projects were also less vulnerable to cancellation through domestic political or financial problems. “So in this context international cooperation is not only seen as a political driver but a building block, a critical enabler for any long-term space activities and in particular, exploration activities.”

He added that it was important for space to be open to all countries and not just those with the technical means to build and launch spacecraft. He said there was no conflict between exploratory and economic motives for being in space and called for a future of “utilitarian exploration”.

Space exploration, he said, could inspire nations to work together for a common purpose. “For anyone who had the chance to witness the first Moon landing, it was certainly something really important to a lot of people and not only in the US,” he said. “However, that was not international cooperation. A global exploration strategy will allow humanity to assemble behind a peaceful goal. Space exploration is mankind’s next grand challenge.”

Source: European Science Foundation

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