

Columbus launch puts space law to the test

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Whose law will apply when Europe's Columbus space laboratory joins the US-led International Space Station in December? And what happens if astronauts from different countries get into a fight? Those were two of the questions posed at a meeting in Vienna last month to examine the contributions made by the humanities to the exploration of space.

Columbus is due to be launched into orbit aboard the US space shuttle Atlantis on December 6. It will become part of the International Space Station (ISS) and the most important module supplied by the European Space Agency (ESA).

The conference Humans in Outer Space – Interdisciplinary Odysseys held 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 scholars from the humanities including experts in space law. It was organised jointly by the European Science Foundation (ESF), ESA and the Vienna-based European Space Policy Institute (ESPI).

Dr Ulrike Bohlmann, of ESA's legal department, told the conference that space law was based on the Outer Space Treaty of 1967 which she described as “the Magna Carta of spaceflight”. It has been ratified by 98 states. Following the tradition of maritime law, the treaty recognises that states have legal jurisdiction within spacecraft registered to them.

Dr Frans von der Dunk, of the International Institute of Air and Space Law at the University of Leiden, said that the space station posed new

legal problems as it is being assembled from modules supplied by the United States, Russia and Japan as well as ESA.

The partners rejected an initial proposal that US law should prevail throughout the space station.

“It was agreed that each state registers its own separate elements, which means that you now have a piece of the US annexed to a piece of Europe annexed to a piece of Japan in outer space, legally speaking.”

But that didn't solve the problem of Columbus. As a collaborative European project it cannot be registered to any one state and there is no such entity as “Europe” which can exercise legal jurisdiction. So the partners had to find some novel solutions.

First was criminal law - what if one astronaut gets into a fight with another? “They decided that if somebody performs an activity which may be considered criminal, it is in the first instance his own country which is able to exercise jurisdiction,” Dr von der Dunk explained.

Another solution was found for patent law. An invention created on the ISS will be patented in the country which has jurisdiction over the module in which the work was done. For Columbus the inventor will have the choice of patenting in either Germany or Italy, the principal contributors to the module. In practice, because of European patent agreements, it does not much matter in which country a patent is filed.

The parties also agreed a new approach to civil liability. What happens if a US astronaut damages equipment in the European part of the space station? “The basic idea is that we all accept our own risks,” said Dr von der Dunk. “We are all there together, we all have the same purpose to make the ISS into a big success and we don't want that attitude, that mentality, to be disturbed by the threat of one party suing the other.”

Further ahead, whose law will apply if bases are established on the Moon and even on Mars? The Outer Space Treaty says that no nation can lay claim to the Moon. “Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means,” said Dr Bohlmann.

She dismissed investment schemes which purport to sell property rights on other planets. “You cannot buy a piece of the Moon nor Mars, they are not subject to appropriation and they cannot be sold. You get a beautiful certificate but you do not have the right of ownership on any celestial body. That is like if I were selling you the Eiffel tower.”

Jurisdiction on the Moon is not covered by existing treaties, said Dr von der Dunk. “Jurisdiction is not possible on a territorial basis. A base on the Moon can never qualify as the territory of any country in the world, so you have to find other means.”

It is also not clear what legal nationality a child born on the Moon would have.

With many nations now active in space, and the prospect of commercial ventures such as tourism and even mining, the need for a clear and binding legal framework to govern space activities is more important than ever. The likelihood of further international agreement on space law seems remote, however, in the present political climate. The UN Moon Agreement of 1979 sets out how states should behave when exploring the Moon and other planets but has only been ratified by 13 countries, none of which has the means to go to the Moon.

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.

Source: European Science Foundation

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