

## Open Lunar Foundation Statement under agenda Item 4 "General Exchange of Views" Committee on the Peaceful Uses of Outer Space, Legal Subcommittee, 61st Session. 28 March - 8 April 2022

Thank you honourable chairperson and distinguished delegates. It's an honour to be back at this meeting in 2022. Open Lunar Foundation is a nonprofit dedicated to a peaceful and cooperative presence on the Moon, in support of all life in the Earth Moon system. We work at the intersection of technology and policy, with a focus on intentional precedent setting.

Today we will briefly comment on opportunities for concrete action towards space cooperation.

Space has always been a bastion of peace and cooperation. During the Cold War, leaders came together and chose to make space a domain exclusively for peaceful purposes. They showed that space could be an inspiration, a template for doing things differently.

Today we are seeing international space cooperation increasingly drawn into narratives of conflict. This is a critical moment for us to respond and show that space can continue to be a beachhead, a place to model what is possible. Now is a time to focus on personal relationships, small wins, and plant seeds from which we can grow trust and understanding.

Albert Einstein and Bertrand Russel wrote a famous manifesto in 1955 on the potential consequences of nuclear war. They said "We appeal as human beings to human beings: Remember your humanity, and forget the rest. If you can do so, the way lies open to a new Paradise [...]."<sup>1</sup> Open Lunar Foundation looks forward to working with the human beings of all delegations towards these aims. The Moon in particular, with its nascent norms and operational agreements, presents an opportunity to go beyond our national identities to consider what our contributions might be to this new paradise.

Now, Honorable Chair, Open Lunar's work involves analysing key areas where small interventions could have significant positive effects for our shared future in space. Today I would like to highlight three areas we see, where concrete action can be taken in the short term, to have a large impact in the long term.

Firstly, Member States can reassert their commitment to transparency by establishing norms of information-sharing regarding where, and when, activities are planned in the cislunar domain, and investing in open and international space situational awareness. As we all know, existing registries are limited to Earth-centred orbital elements and do not account for

<sup>&</sup>lt;sup>1</sup> Russell-Einstein Manifesto | Atomic Heritage Foundation



activities on the surface of celestial bodies, or the dynamic orbital environment of the Moon including lunar orbit instability, and the use of Lagrange points.

Just recently, amateur observers were able to observe the movements of two objects in cislunar space, for which no official or public information was available. In the first case, it was discovered by amateurs that a 4 tonne spent upper stage would impact the Moon in March—by accident<sup>2</sup>. Because this information was public, scientists were able to position themselves to learn as much as possible from the associated event, and spacecraft were able to prepare for potential operational side effects. In the second case, the Chang'e 5 orbiter which had previously been orbiting an Earth-Sun Lagrange point, moved into an orbit around the Earth-Moon L2 Lagrange point— the same orbit planned for NASA's future Gateway project<sup>3</sup>. This movement was detected by amateur observers. In the absence of official statements, there was a wide variety of speculation about the reasons for this movement. Together, these incidents highlight the practical utility and societal benefit of transparency. They also highlight how the absence of information may lead to unhelpful speculation, rhetoric and misunderstandings.

Secondly, and relatedly, we want to raise the topic of lunar communication standards. Communications protocols underpin basic transparency measures such as positioning, and are central requirements of all missions. We encourage Member States to invest in efforts to develop and share open standards for communications and frequency utilisation in the cislunar environment. We would like to see the space community work to develop pathways for, and commitments to, truly open inter-networking. Investing in open neutral communication systems will create confidence for commercial activity, and act as a trust-building measure for all.

Thirdly, we wish to point out the critical importance of scientific data-sharing and the central role it has to play in creating channels for communication and cooperation. International sharing of scientific data from space exploration activities has been a long-cherished norm. The recent sharing of information from the Chang'e 5 samples, and the encoding of this principle in the Artemis Accords, are both clear afformations of this norm. As more national and private operators begin to conduct missions at the Moon, Open Lunar Foundation would like to suggest that Member States define what qualifies as scientific data, and consider domestic guidance and support for open data repositories.

Honourable chairperson, distinguished delegates, we would welcome further collaboration with any parties interested in these topics and invite you to visit the Open Lunar Foundation website for more information<sup>4</sup>. Thank you for your kind attention.

<sup>&</sup>lt;sup>2</sup> <u>A rogue rocket part collided with the moon</u>

<sup>&</sup>lt;sup>3</sup><u>A Chinese spacecraft is testing out a new orbit around the moon</u>, Andrew Jones, February 15, 2022 <sup>4</sup> See more of Open Lunar's work on our <u>website</u>, follow us on <u>Twitter</u>, <u>LinkedIn</u>, or get in touch

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