The Outer Space Institute
6224 Agricultural Rd
Vancouver, BC V6T 1Z1

www.outerspaceinstitute.ca

Agenda Item 8 – Outer Space Institute Statement on Notices to Lunar Missions (NLMs)

Mr. Chairperson, distinguished delegates,

I thank the Chair for his leadership and the UNOOSA Secretariat for their outstanding work in facilitating discussions at the LSC, which the Outer Space Institute fully supports.

First, I wish to briefly introduce the Outer Space Institute to the LSC. The OSI was founded in 2018 as a global network of space experts united by their commitment to highly innovative, transdisciplinary research that addresses grand challenges facing the continued exploration and use of outer space. The OSI currently has more than 40 Fellows from four continents, including natural scientists, engineers, social scientists, lawyers, industry leaders, and policy makers.

Today, growing numbers of state and non-state actors are demonstrating the intent and capability for prolonged and multifaceted missions on the lunar surface.

Certain areas on the Moon, such as the south polar region, could see actors operating in relatively close proximity. However, even seemingly well-separated operations could interfere with each other through, for example, long-range ballistic transport of dust, lunar space debris, and radiofrequency interference. Certain science experiments could also suffer interference from distant lunar activities.

In 2019, The Hague International Space Resources Governance Working Group introduced the concept of safety zones, by recommending – in The Hague Building Blocks – that states should be allowed "to establish a safety zone, or other area-based safety measure, around an area identified for a space resource activity as necessary to assure safety and to avoid any harmful interference with that space resource activity."

In 2020, the Artemis Accords identified that a safety zone "should be the area in which nominal operations of a relevant activity or an anomalous event could reasonably cause harmful interference." The non-binding document identified that other actors should be promptly notified of a safety zone, that it should be temporary, and that its size and scope should reflect the nature of the operations and change over time.

Safety zones have long been used in the maritime context. The UN Convention on the Law of the Sea allows coastal states to establish "reasonable safety zones" around "artificial islands, installations and structures" within their 200 nautical mile Exclusive Economic Zones. It also specifies that a zone may extend no more than 500 metres, that due notice is required, and that no interference "may be caused to the use of recognized sea lanes essential to international navigation."

In the lunar context, the OSI emphasizes that there is a need for both long and short-term coordination measures. However, a single safety zone model that attempts to address all coordination challenges at once could easily exceed reasonable safety needs and unnecessarily encroach on the freedom of exploration and use of other space actors.

The Outer Space Institute
6224 Agricultural Rd
Vancouver, BC V6T 1Z1

www.outerspaceinstitute.ca

The OSI believes that a more flexible approach would offer greater options and be consistent with the requirements of the Outer Space Treaty, particularly the duty – set out in Article IX – to act with "due regard to the corresponding interests" of other states.

Due regard is a principle of general international law. Decades of practice in the law of the sea show that consideration must be given to the nature and importance of an activity in question, the nature and importance of the rights of other states affected by the activity, the extent of anticipated interference or impairment, and the availability of alternative approaches (*Chagos Marine Protected Area* arbitration, 2015, para. 519).

There are terrestrial examples of time-limited safety measures in areas beyond national jurisdiction that are based on the principle of due regard and that seek to mediate between potentially conflicting exercises of the freedom of the high seas. A key example involves "Notices to Air Missions" (NOTAMs), which are disseminated by air traffic control under the 1944 Chicago Convention on International Civil Aviation. NOTAMs are extremely flexible and can vary considerably in scope and duration. They alert flight crews of potential events or circumstances that could affect aircraft operations, including those that occur over international waters.

Member States may wish to consider whether a similar "Notice to Lunar Missions" (NLMs) system could serve the same safety purpose as most proposed "safety zones" without raising concerns about, among other things, unnecessary exclusion of other space actors. Safety zones could be limited to long-duration facilities and given a narrow geographical scope, while NLMs could be tailored based on the level of interference between lunar operations by different actors. Should Member States decide to pursue this approach, they would likely wish to develop technical criteria for review, input, and support from all relevant stakeholders.

The OSI suggests that the disaggregation of safety zones and the introduction of NLMs would be consistent with The Hague Building Blocks and the Artemis Accords, both of which emphasize flexibility – of size, scope, and timing – with regard to safety zones. Such an approach would draw on lessons from other areas beyond national jurisdiction that have faced similar coordination challenges.

The OSI wishes to affirm its support to the Chair and the work of the Sub-committee. Thank you for your attention.