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Recent Developments in Space Law with Particular Focus on Space Debris Remediation (7)

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SPACE DEBRIS REMEDIATION ON THE SURFACE OF MOON AND ITS ORBITS

Abstract

In the XXI century, numerous States announced their plans to participate in the lunar race. The USA adopted the Artemis Program, China made public its Chinese Lunar Exploration Program with the participation of Russia and building together the International Lunar Research Station. All these programs are expected to include not only exploration purposes but active use and utilization of the Moon and its orbits.

However, the increase in lunar activities, as well as any activities, are suggested the creation of different physical debris (e.g., building materials, machinery, vehicles, general rubbish) plus chemical contaminants. Today problems with debris on the surface of the Earth and with space debris in the near-space have already been challenges for the whole of humanity. Under the UN Space Object Register, 52 space objects have been on Moon since 1959.

Vigorous lunar activity puts in perspective the issues of space debris remediation. In that regard, 2020 Artemis Accords has already had the current section 12 dedicated to orbital debris, 2022 Recommended Framework and Key Elements for Peaceful and Sustainable Lunar Activities drafted by the GEGSLA (MVA) also contains Chapter 6 on "Safe Operations and Lunar Environmental Protection". At the same time, there is no universal international treaty imputing the responsibility for the remediation of space debris, and 2007 Space Debris Mitigation Guidelines or 2019 Long-term Sustainability Guidelines are non-legally binding documents and can be realized only at the national level through implementation.

In the process of economic lunar activity, garbage will be formed. Moreover, it should be noted that there are different types of waste. When designing lunar projects, it is important to take this into account and plan activities under the principle of environmental impact assessment (EIA). To do it is necessary to develop universal Guidelines under the COPUOS's umbrella and discussion with the following bodies that have experience in the regulation of international territories: UNEP, Committee for Environmental Protection of the Antarctic Treaty System (2016 Revised Guidelines for Environmental Impact Assessment in Antarctica, 2019 Revised Clean-up Manual), International Seabed Authority (Recommendations for the guidance of contractors for the assessment of the possible environmental impacts arising from exploration for marine minerals in the Area, Draft regulations on exploitation of mineral resources in the Area). Therefore, the purpose of this paper will be to analyze different legal acts and mechanisms which can be used for the remediation of space debris on and around the Moon.