

27th IAA SYMPOSIUM ON HUMAN EXPLORATION OF THE SOLAR SYSTEM (A5)
Human Exploration of the Moon and Cislunar Space (1)

Author: Prof. Melissa de Zwart
University of Adelaide, Australia

ARE 'SAFETY ZONES' THE ANSWER? AN EXAMINATION OF THE OPERATION AND LEGAL
STATUS OF SAFETY ZONES FOR MOON ACTIVITIES.

Abstract

Several international consortia are planning permanent human habitation on the Moon by the end of this decade. Those missions are directed towards the same location, being the Lunar South Pole, offering potential access to sunlight, water and other resources. Many scientific and engineering problems need to be addressed prior to the success of those missions, but just as importantly, legal and ethical problems also need urgent clarification. For example, how are the activities of co-located habitations going to manage overlapping and competing claims for the limited desirable locations and access to in-situ resources. At the same time, Low Earth Orbit is becoming increasingly congested, with satellites encountering extensive conjunction warnings on a daily basis. Many policy makers suggest the same answer to all of these problems: the creation and recognition of safety zones. Is the recognition of a safety zone legal within international space law in any space context, ranging from orbit to surface? If so, what is the basis for the recognition and potential enforcement of safety or keep out zones? What are their common attributes and characteristics and how are these justified under the UN Space Law Treaties and international law. If safety zones are not permissible under current international space law, should steps be taken at an international level to recognise and permit the operation of such zones or are they more likely to generate conflict? This paper will examine the relevant justifications for safety zones, interrogate their origin and advocated purpose and suggest that the recognition of safety zones in different areas of space invokes very different considerations. It will address various analogies which have been offered to support the creation of safety zones, such as maritime law, and examine their usefulness and limitations in the context of the Moon. It will examine the likely legal and contractual rules guiding operation of the Artemis and International Lunar Research Station projects and examine the legal restrictions which may operate on state participants in their application of principles such as a safety or keep out zone with respect to habitation or in-situ resource utilisation activities on the Moon.