

IAF SPACE EXPLORATION SYMPOSIUM (A3)  
Moon Exploration – Part 1 (2A)

Author: Dr. Todd Mosher  
United States

Dr. Teasel Muir-Harmony  
United States

MULTIPLE ASPECTS OF PRESERVING LUNAR SPACE HERITAGE

**Abstract**

Since 1959 when Luna 2 scattered symbolic pennants across the lunar surface, over 100 missions to Earth's nearest neighbor have flown. These range from orbital spacecraft to over twenty soft landings. Last year and to start 2024, several lunar missions, including the first landings of Indian and Japanese spacecraft occurred. In the next decade over 100 missions are planned. NASA predicts within the next 10 years human lunar activity will equal or exceed all the lunar missions since space exploration began. However, with this acceleration comes preservation challenges for prior landing sites. All these new missions draw attention to the need for coordination, common principles, and preventing harmful interference between missions.

There is currently no binding international heritage law that applies to historic or future sites on the Moon. Furthermore, numerous questions remain: How do you determine historical significance? Significance for whom? Beyond national representation, who specifically will have a voice in these discussions? What science could be learned by visiting these sites and returning objects to Earth? Is it possible to establish international norms for lunar heritage objects? If so, what is the best approach? What do we owe to future generations?

On June 5, the Smithsonian Air and Space Museum and the American Institute of Aeronautics and Astronautics (AIAA) organized the first Outer Space Heritage Summit to discuss historical, policy, legal, scientific, and engineering aspects of protecting heritage locations off Earth, including the Apollo Moon landing sites. We also had a panel to get the viewpoints of the next generation since they will be most affected by decisions made today. The results of this event will be shared along with paths forward on this topic.