

National Aeronautics and Space Administration

Office of the Administrator
Mary W. Jackson NASA Headquarters
Washington, DC 20546-0001



April 11, 2023

General Lester L. Lyles (USAF, Ret.)
Chair, NASA Advisory Council
NASA Headquarters
Washington, DC 20546

Dear General Lyles:

Enclosed is NASA's response to the NASA Advisory Council (NAC) Recommendation 2022-01-04: Management of Translunar/Lunar Environment. This recommendation was publicly deliberated during the NAC virtual meeting held on March 1-2, 2022.

Please do not hesitate to contact me if you or the Council would like additional background on NASA's response.

I look forward to receiving continued advice from the next NAC meeting.

Sincerely,

A handwritten signature in blue ink that reads "Bill Nelson".

Enclosure

NASA Advisory Council Recommendation

Management of Translunar/Lunar Environment 2022-01-04

Name of Committee:	Science Committee
Chair of Committee:	Dr. Meenakshi Wadhwa
Date of Council Public Deliberation:	March 1, 2022
Short Title of Recommendation:	Management of Translunar/Lunar Environment

Recommendation:

In the spirit of the Artemis Accords, the Council recommends that the NASA Science Mission Directorate initiate a dialogue with the NASA Exploration Systems Development Mission Directorate, commercial entities, and other stakeholders to ensure best-practices and protocols are developed to enable beneficial, shared-use of the lunar environment.

Major Reasons for the Recommendation:

Use of the electromagnetic spectrum, access to orbital platforms, and mitigation of debris clutter must be proactively managed (via coordination between NASA, commercial interests, and other stakeholders) to protect and enable full utilization of the lunar environment for science and exploration.

Consequences of No Action on the Recommendation:

Lack of such proactive management could result in significant loss of science opportunities.

NASA Response:

NASA concurs with the recommendation that the Science Mission Directorate (SMD) initiate a dialogue with the NASA Exploration Systems Development Mission Directorate, commercial entities, and other stakeholders, including the international community, to ensure best-practices and protocols are developed to enable beneficial, shared-use of the lunar environment. Currently, SMD participates in multiple cross-directorate groups designed to protect and preserve sensitive areas on the lunar surface for future scientific investigations (e.g., the radio quiet far side of the Moon, permanently shadowed regions), historical sites (e.g., Apollo sites), and sites of current/future domestic and international activities (e.g., Chang'E landing sites and proposed Artemis landing sites). These groups additionally extend outward to orbital debris remediation and have resulted in requirements on the Human Landing System as well as lunar orbiting SmallSats. Discussions have also included commercial entities through the Commercial Lunar Payload Services initiative.

Enclosure