

United States Senate  
WASHINGTON, DC 20510

February 3, 2021

The President  
The White House

As you consider your budget request for fiscal year (FY) 2022 we write in support of continued funding for NASA's Human Landing System (HLS) program. Developing the next generation crewed lunar lander is an essential step in returning astronauts to the Moon for the first time in half a century, including the historic milestone of landing the first woman on the Moon.

On April 30, 2020, NASA selected three U.S. companies to enter into a 10-month base period to begin work on their distinct human landing system designs under public-private partnerships with NASA. Significant progress has been made since then, with all three teams passing their respective Continuation Review milestones with NASA, constructing full-scale mockups, and conducting tests on real hardware, including engines. Ultimately, NASA plans to select up to two of the providers for development and flight after the conclusion of the base period in February 2021. The decision on which companies will advance to the development phase was originally intended to occur within the next 30 days, and we urge that decision not be delayed.

Major space exploration efforts have faced disruption as administrations have changed and priorities shifted. It is now time for stability if the nation is to make progress on these initiatives. NASA has made significant progress through the Artemis Program and we strongly believe that those efforts should continue in FY 2022. The program has strong, bipartisan Congressional support and has received nearly \$1.5 billion in funding between FY 2020 and FY 2021 in the Commerce, Justice, Science, and Related Agencies Appropriations bills. We recommend robust funding in FY 2022 for continuation of the HLS program and the timely selection of companies to advance to the next stage of development and demonstration contracts. Maintaining competition in this program to the maximum practical extent encourages innovation, controls costs, and ensures the nation has assured access to deep space.

We recognize and embrace the fact that NASA has numerous vital missions, including planetary science, climate change research, and STEM education outreach. We fully support this work. The previous administration sought to cannibalize these efforts for the Artemis Program, an approach with which we vehemently disagree, and which the Congress roundly rejected on a bipartisan basis. We urge you to protect all of NASA's critical work by requesting a topline funding level commensurate with the true need.

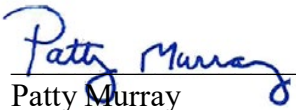
Since its inception, the Artemis Program has captured the excitement and investment of U.S. industry, inspired students, energized STEM programs, and sparked new international partnerships and commitments. Additionally, NASA's SOFIA mission recently discovered even more compelling evidence of water on the Moon, this time in its sunlit regions, affording


exciting new opportunities for lunar science.<sup>1</sup> Artemis and HLS will also undeniably support economic recovery, and will provide significant new and expanded opportunities for our national aerospace industrial base and supply chain. In an economic impact study released by the agency in the September 2020, NASA's Moon to Mars initiative, which includes Artemis, created over 69,000 jobs and more than \$14 billion of economic output in FY 2019 alone.<sup>2</sup> With HLS development beginning in earnest in FY 2021, these figures will undoubtedly rise.

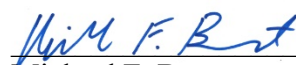
Artemis and HLS also support continued U.S. global space leadership. In 2019, China became the third nation after the U.S. and the Soviet Union to successfully complete a soft landing on the lunar surface and they recently conducted a successful sample return mission. China plans to continue to conduct robotic lunar missions over the next few years and build lunar infrastructure with its International Lunar Research Station, and other countries, including India and Israel, have interest in future missions. This presents opportunities for important international collaboration and healthy competition.


NASA's Artemis Program will return America to deep space, support economic recovery, strengthen national security, promote scientific research, and inspire the next generation. The HLS Program will develop 21st century crewed lunar landers – a critical piece of the Artemis architecture. We urge you to proceed with the planned selection and to include all necessary funding for HLS in your FY 2022 budget request.


Sincerely,

  
Patty Murray  
United States Senator

  
Benjamin L. Cardin  
United States Senator

  
Michael F. Bennet  
United States Senator

  
Richard Blumenthal  
United States Senator

  
Tammy Baldwin  
United States Senator

  
Gary C. Peters  
United States Senator

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<sup>1</sup> C. I. Honniball et al., “Molecular Water Detected on the Sunlit Moon by SOFIA,” *Nature Astronomy*, October 26, 2020, 1–7, <https://doi.org/10.1038/s41550-020-01222-x>.

<sup>2</sup> Yittayih Zelalem, Joshua Drucker, and Zafer Sonmez, “National Aeronautics and Space Administration & Moon to Mars Program Economic Impact Study” (The Nathalie P. Voorhees Center for Neighborhood and Community Improvement, University of Illinois at Chicago, August 2020), [https://www.nasa.gov/sites/default/files/atoms/files/nasa\\_economic\\_impact\\_study.pdf](https://www.nasa.gov/sites/default/files/atoms/files/nasa_economic_impact_study.pdf).

/s/ Tim Kaine  
Tim Kaine  
United States Senator

Chris Van Hollen  
Chris Van Hollen  
United States Senator

Catherine Cortez Masto  
Catherine Cortez Masto  
United States Senator

Jacky Rosen  
Jacky Rosen  
United States Senator

John Hickenlooper  
John Hickenlooper  
United States Senator