

**U.S. House of Representatives**  
**Committee on Natural Resources Hearing**  
***“The Mineral Supply Chain and the New Space Race”***  
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Mr. Chairman, members of the subcommittee, I want to thank you for having us here to speak today on this issue of critical importance to our nation’s security and standing on the global stage. My name is Eric Sundby, I am Co-Founder & CEO of TerraSpace, a mineral exploration company applying artificial intelligence to the mineral analysis process. I also serve as the Executive Director of the Space Force Association, a non-profit organization dedicated to supporting Space Force guardians and their families, and advocating for strong national and allied spacepower.

Humanity stands on the precipice of a new era, one that will be defined by space development and the utilization of space resources. Space holds an endless amount of opportunity for America, both economic and strategic. Yet, this opportunity is challenged by the Chinese Communist Party, and its allies in Russia and a growing number of states, as China has launched the International Lunar Research Station Organization initiative over the last year. In 2015, the Strategic Support Force was established, providing a more organized structure for the space forces of the People’s Liberation Army. It is through this institution that the China Manned Space Program is housed, which oversees all astronauts, operations, and space infrastructure development. Lastly, in 2019, the Chinese Lunar Exploration Program director equated the Moon

and other celestial bodies in the solar system to a series of island chains currently controlled by the Philippines and Japan, of which has been a point of contention in the CCP's illegal territorial expansion in the South China Sea.

Given actions here on earth, the potential for great power competition in the space domain, particularly over space resources, is not on the horizon, it has already arrived. In 2022, the United States Geological Survey classified 50 mineral commodities that have no viable substitutes and are essential to the economic security of the United States. Many of these natural resources have been discovered on celestial bodies in our solar system including on the Moon and in the asteroid belt. Our ability to access and utilize these critical minerals is threatened, as China currently controls roughly 60% of production and 85% of processing capacity according to analysis by the USGS and Natural Resources Canada. This threat to our mineral supply chain calls for new and innovative ways at looking at resources from a national perspective, with space resources being front and center.

This upcoming month, in January 2024, a company from my home state of Texas, Intuitive Machines, will return America to the lunar surface for the first time since 1972. What is notable about this feat, is that it is done by a commercial company. This commercialization of access to space is what gives our country the strategic advantage. It is private enterprise that will provide new opportunities in the field of mineral discovery, mining, and processing, and will open up access to space resources. I want to urge this Committee to investigate ways in which the government can encourage and lower entry barriers for technologies that can be applied to support the established Earth mining industry, while also enabling the discovery and access to resources off planet. Various government agencies offer commercial companies the opportunity to contribute to research and develop technologies through programs such as Small Business

Innovation Research grants or SBIRs. One area of improvement could be the USGS offering specific grants and support to companies developing technology that enable faster and less environmentally impactful methods of discovery and access of critical minerals, with an emphasis on such dual-use technologies as I mentioned earlier.

The use of space resources in alleviating the mineral supply chain here on Earth will not be an easy or quick task, I want to be clear, this must be a long-term strategic goal of the United States. Nevertheless, the development of technologies capable of operating in the harsh environment of space, will enable further discovery and access to critical minerals here on Earth, such as those on the deep-sea bed, existing mining sites, and in more remote locations on land. Numerous start-ups and commercial companies, including TerraSpace, are leading in this field and are offering services in critical minerals while exemplifying the pioneering spirit of American innovation. It is up to the government to prioritize our nation's mineral supply chain and open the way for such companies to carry this spirit forward into this new era.