HOUSE OF REPRESENTATIVES
TWENTY-NINTH LEGISLATURE, 2017
STATE OF HAWAII

H.B. NO. 960 H.D. 1

A BILL FOR AN ACT

RELATING TO THE MULTINATIONAL LUNAR ARCHITECTURE ALLIANCE.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that Hawaii's strategic mid-Pacific, near-equatorial location, moon- and Mars-like terrain, resident expertise engaging multiple aerospace related technologies, and long-standing ties with space faring nations, worldwide, clearly afford strategic assets and capabilities that can be leveraged to realize humankind's full potential in space. The State has the opportunity to engage as both a major contributor to, and beneficiary of, the global space enterprise.

The legislature further finds that for the past half century, Hawaii has played a seminal role in developing the national space program, beginning with astronaut training for the Apollo lunar missions and the development of world class observatories on the island of Hawaii. Over the past four decades, the University of Hawaii, the United States military, and numerous companies statewide have pioneered nationally funded programs in planetary geosciences, satellite communications, space-based remote sensing and environmental

monitoring, deep space surveillance, and other areas employing aerospace related technologies. New opportunities that are ideally suited for the State are forthcoming in this industry. The opportunities hold substantial scientific, educational, and commercial promise for residents statewide.

Earth's proximity to the moon provides a logical stepping-stone to the future. The moon, with its abundant resources, can enable interplanetary travel and improve the quality of life on Earth. An expanded and diversified space economy based upon the innovative commercial use of lunar resources, including lunar mining, harvesting of space-based solar power, and the development of cislunar propellant depots, could enrich terrestrial civilizations, help preserve Earth's fragile environment, and ultimately enable sustainable human exploration on Mars and throughout the solar system.

Leveraging lunar resources will be key to expanding the near term frontiers of space. Global technologies and economic capacities have advanced to the point where self-sustaining space economies can be created through international collaboration and public-private partnerships. Rapidly expanding

government and corporate interests in lunar enterprise worldwide will facilitate this advancement.

The legislature further finds that sustainable space settlement will require advances in key technologies beyond rocket propulsion, such as life support systems, telecommunications, power generation, and food production. Terrestrial-based testing and evaluation of these technologies will play an indispensable role in their long-term development and implementation. The island of Hawaii's moon-like terrain affords an ideal environment for multinational teams to develop, test, and validate such technologies and provide multiple opportunities for the State's scientists, engineers, entrepreneurs, and students.

The purpose of this Act is to establish a multinational team composed of representatives from government and industrial and research institutions to:

(1) Provide recommendations and guidance for the development of a prototype lunar architecture on the island of Hawaii; and

(2) Support the organization and execution of an International Lunar Development Summit in Hawaii during the fall of 2017.

SECTION 2. There is established an international team to be known as the multinational lunar architecture alliance to guide the development of a prototype lunar architecture, which shall be composed of representatives from:

(1) Hawaii-based organizations, including the office of aerospace development, Pacific international space center for exploration systems, and the Hawaii space exploration analog and simulation program;

(2) The National Aeronautics and Space Administration, including the Space Portal at Ames Research Center and the Exploration Integration and Science Office at the Johnson Space Center;

(3) Other appropriate federal agencies, including the Federal Aviation Administration, the United States Pacific Command, and the United States Army Pacific Command;

(4) Any other national space agencies;

(5) The Lunar Exploration and Analysis Group;

(6) The University Space Research Association, including the Lunar and Planetary Institute;

(7) Major corporations representing aerospace, information technology, renewable energy, robotics, manufacturing, and other appropriate industrial sectors;

(8) National space advocacy organizations, including the National Space Society, Lunar Explorers Society, Space Frontiers Foundation, and the American Astronautical Society;

(9) International space agencies and organizations, including the International Lunar Exploration Working Group, International Space Exploration Coordination Group, and the Committee on Space Research; and

(10) The United Nations Office for Outer Space Affairs.

The multinational lunar architecture alliance, coordinated through the office of aerospace development of the department of business, economic development, and tourism, shall hold its first organizational teleconference by August 1, 2017.

SECTION 3. The multinational lunar architecture alliance, working in collaboration with the office of aerospace development, shall develop an agenda and invitational list for

staging an International Lunar Development Summit on the island of Hawaii in October 2017. Coordinated through the office of aerospace development, the Summit shall focus on identifying the major goals and challenges associated with the design and validation of a prototype lunar architecture in Hawaii, and develop strategies to enable public-private partnerships to support the organization and implementation of multinational research activities and commercial ventures on the lunar surface and in cislunar space.

SECTION 4. This Act shall take effect on July 1, 2038.

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Report Title:
Multinational Lunar Architecture Alliance; Prototype Lunar Architecture

Description:
Establishes the Multinational Lunar Architecture Alliance to hold an International Lunar Development Summit to, among other things, identify the major goals and challenges associated with prototype lunar architecture. Effective July 1, 2038. (HB960 HD1)

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