
A BILL FOR AN ACT

RELATING TO THE MULTINATIONAL LUNAR ARCHITECTURE ALLIANCE.

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

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

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



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

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

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



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

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

14 The purpose of this Act is to establish a multinational
15 team comprising representatives from government and industrial
16 and research institutions to:

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



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

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

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

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

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

20 (4) Any other national space agencies;

21 (5) The Lunar Exploration and Analysis Group;



- 1 (6) The University Space Research Association, including
2 the Lunar and Planetary Institute;
- 3 (7) Major corporations representing aerospace, information
4 technology, renewable energy, robotics, manufacturing,
5 and other appropriate industrial sectors;
- 6 (8) National space advocacy organizations, including the
7 National Space Society, Lunar Explorers Society, Space
8 Frontiers Foundation, and the American Astronautical
9 Society;
- 10 (9) International space agencies and organizations,
11 including the International Lunar Exploration Working
12 Group, International Space Exploration Coordination
13 Group, and the Committee on Space Research; and
- 14 (10) The United Nations Office for Outer Space Affairs.

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

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



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

10 SECTION 4. This Act shall take effect on July 1, 2017.

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INTRODUCED BY: *[Signature]*
[Signature]
Nicole E. Loren

JAN 23 2017



H.B. NO. 960

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.

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