
A BILL FOR AN ACT

RELATING TO THE SPACE INDUSTRY.

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

1 SECTION 1. The legislature finds that Hawaii possesses
2 strategic assets and capabilities that can be leveraged to
3 position the State as a major global contributor to the space
4 industry. Hawaii has a strategic location, near the equator in
5 the middle of the Pacific Ocean; Hawaii has resident expertise
6 in aerospace-related technologies; Hawaii has terrain that is
7 similar to the Moon and Mars; and Hawaii has long-standing ties
8 with space-faring nations worldwide. These features, among
9 others, position Hawaii as ideally suited to benefit from new
10 opportunities in the space industry that hold substantial
11 scientific, educational, and commercial promise for the people
12 of Hawaii.

13 For the past half-century, Hawaii has played a seminal role
14 in our national space program. Hawaii has provided astronaut
15 training for the Apollo lunar missions and world-class
16 observatories on the Big Island. More recently, the University
17 of Hawaii, the U.S. military, and Hawaii-based companies have



1 pioneered nationally-funded programs in planetary geosciences,
2 satellite communications, space-based remote sensing and
3 environmental monitoring, deep-space surveillance, and other
4 cutting-edge applications of aerospace-related technologies.

5 Recent research commissioned by NASA shows that the Moon
6 provides a logical steppingstone to the future, since it is
7 nearby and contains abundant resources that can both enable
8 interplanetary travel and improve the quality of life on Earth.
9 The innovative utilization of lunar resources could enrich
10 terrestrial civilization, help preserve the Earth's fragile
11 environment, and ultimately enable sustainable human exploration
12 on Mars and throughout the solar system. By leveraging the
13 development of lunar resources through the development of an
14 evolvable lunar architecture, humankind can expand the near-term
15 frontiers of space exploration.

16 Sustainable space settlement will require advances in
17 key technologies beyond rocket propulsion – like life support
18 systems, telecommunications, power generation, and food
19 production. Terrestrial-based testing and evaluation of these
20 technologies will play an indispensable role in their
21 development and implementation. The island of Hawaii's Moon-



1 like terrain provides an ideal environment for multinational
2 teams to develop, test, and validate technologies. Promoting
3 Hawaii as a venue for this research will create valuable
4 opportunities for local scientists, engineers, entrepreneurs,
5 and students.

6 The purpose of this Act is to create a committee called the
7 multinational lunar architecture alliance within the department
8 of business, economic development, and tourism's office of
9 aerospace development. This committee will be comprised of
10 representatives from governmental, industrial, and research
11 institutions, and its purpose will be to provide recommendations
12 and guidance for the development of an evolvable lunar
13 architecture on the island of Hawaii, as well as to organize an
14 international Lunar Development Summit in Hawaii during the fall
15 of 2017.

16 SECTION 2. There is established a committee entitled the
17 "multinational lunar architecture alliance" within the
18 department of business, economic development, and tourism's
19 office of aerospace development. The office of aerospace
20 development shall extend invitations to join the multinational
21 lunar architecture alliance to representatives of relevant



1 government, industry, and university organizations, including
2 but not limited to:

3 (1) Hawaii-based organizations, including but not limited
4 to the office of aerospace development, the Pacific
5 International Space Center for Exploration Systems
6 (PISCES), and the Hawaii Space Exploration Analog and
7 Simulation program;

8 (2) The National Aeronautics and Space Administration
9 (NASA), including but not limited to the Space Portal
10 at NASA Ames Research Center and the Exploration
11 Integration and Science Office at the Johnson Space
12 Center;

13 (3) Other appropriate federal agencies, including but not
14 limited to the Federal Aviation Administration, the
15 U.S. Pacific Command, and the U.S. Army Pacific
16 Command;

17 (4) Other national space agencies;

18 (5) The Lunar Exploration and Analysis Group (LEAG);

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



- 1 (7) Major corporations representing aerospace, information
2 technology, renewable energy, robotics, manufacturing,
3 and other appropriate industrial sectors;
- 4 (8) National space advocacy organizations, including but
5 not limited to the National Space Society, the Lunar
6 Explorers Society, the Space Frontiers Foundation, and
7 the American Astronautical Society;
- 8 (9) International space agencies and organizations,
9 including but not limited to the International Lunar
10 Exploration Working Group, the International Space
11 Exploration Coordination Group, and the Committee on
12 Space Research; and
- 13 (10) The United Nations Office for Outer Space Affairs.

14 The office of aerospace development shall coordinate the
15 multinational lunar architecture alliance. The multinational
16 lunar architecture alliance shall hold its first organizational
17 teleconference by August 1, 2017. Members of the multinational
18 lunar architecture alliance shall serve without compensation.

19 The purpose of the multinational lunar architecture
20 alliance shall be to provide recommendations and guidance for



1 the development of an evolvable lunar architecture on the island
2 of Hawaii.

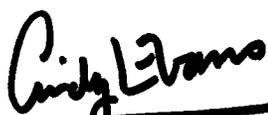
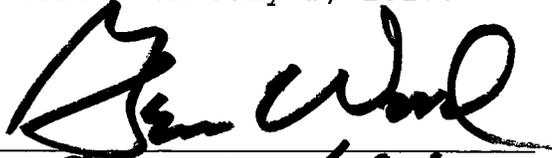
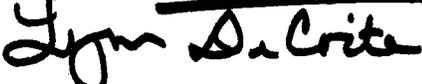
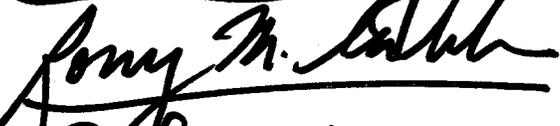
3 SECTION 3. The multinational lunar architecture alliance
4 shall, in collaboration with the office of aerospace
5 development, develop an agenda and invitational list for staging
6 an international Lunar Development Summit on the Big Island of
7 Hawaii in October 2017 or as soon thereafter as possible.

8 The Lunar Development Summit shall focus on identifying the
9 major goals and challenges associated with the design and
10 validation of an evolvable lunar architecture on the island of
11 Hawaii, as well as the formation of strategies for enabling
12 public-private partnerships to support the organization and
13 implementation of multinational research activities and
14 commercial ventures on both the lunar surface and in space.

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

16

INTRODUCED BY:



H.B. NO. 1598

Report Title:

Space Industry; Evolvable Lunar Architecture; Office of
Aerospace Development

Description:

Promotes the space industry in Hawaii by creating a
Multinational Lunar Architecture Alliance to provide
recommendations and guidance for the establishment of an
evolvable lunar architecture on the Big Island of Hawaii and to
plan a development summit.

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