## A BILL FOR AN ACT

RELATING TO THE SPACE INDUSTRY.

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

1 The legislature finds that Hawaii possesses SECTION 1. 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 island of Hawaii. More recently, the University of Hawaii, the United States military, and Hawaii-17

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- 1 based companies have pioneered nationally-funded programs in
- 2 planetary geosciences, satellite communications, space-based
- 3 remote sensing and environmental monitoring, deep-space
- 4 surveillance, and other cutting-edge applications of aerospace-
- 5 related technologies.
- 6 Recent research commissioned by NASA shows that the Moon
- 7 provides a logical stepping-stone to the future, since it is
- 8 nearby and contains abundant resources that can both enable
- 9 interplanetary travel and improve the quality of life on Earth.
- 10 The innovative utilization of lunar resources could enrich
- 11 terrestrial civilization, help preserve the Earth's fragile
- 12 environment, and ultimately enable sustainable human exploration
- 13 on Mars and throughout the solar system. By leveraging the
- 14 development of lunar resources through the development of an
- 15 evolvable lunar architecture, humankind can expand the near-term
- 16 frontiers of space exploration.
- 17 Sustainable space settlement will require advances in key
- 18 technologies beyond rocket propulsion like life support
- 19 systems, telecommunications, power generation, and food
- 20 production. Terrestrial-based testing and evaluation of these
- 21 technologies will play an indispensable role in their

- 1 development and implementation. The island of Hawaii's Moon-
- 2 like terrain provides an ideal environment for multinational
- 3 teams to develop, test, and validate technologies. Promoting
- 4 Hawaii as a venue for this research will create valuable
- 5 opportunities for local scientists, engineers, entrepreneurs,
- 6 and students.
- 7 The purpose of this Act is to create a committee called the
- 8 international moon base alliance within the department of
- 9 business, economic development, and tourism's office of
- 10 aerospace development. This committee will be comprised of
- 11 representatives from governmental, industrial, and research
- 12 institutions, and its purpose will be to provide recommendations
- 13 and guidance for the development of an evolvable lunar
- 14 architecture on the island of Hawaii.
- 15 SECTION 2. (a) There is established a committee to be
- 16 known as the international moon base alliance within the
- 17 department of business, economic development, and tourism's
- 18 office of aerospace development to provide recommendations and
- 19 guidance for the development of an evolvable lunar architecture
- 20 on the island of Hawaii.

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1	(b)	The office of aerospace development shall coordinate
2	the inter	national moon base alliance and extend invitations to
3	join the	international moon base alliance to representatives of
4	relevant	government, industry, and university organizations,
5	including	but not limited to:
6	(1)	Hawaii-based organizations, including but not limited
7		to the office of aerospace development, the Pacific
8		International Space Center for Exploration Systems
9		(PISCES), and the Hawaii Space Exploration Analog and
10		Simulation program;
11	(2)	The National Aeronautics and Space Administration
12		(NASA), including but not limited to the Space Portal
13		at NASA Ames Research Center and the Exploration
14		Integration and Science Office at the Johnson Space
15		Center;
16	(3)	Other appropriate federal agencies, including but not
17		limited to the Federal Aviation Administration, the
18		United States Pacific Command, and the United States
19		Army Pacific Command;
20	(4)	Other national space agencies;
21	(5)	The Lunar Exploration and Analysis Group;

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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 but
7		not limited to the National Space Society, the Lunar
8		Explorers Society, the Space Frontiers Foundation, and
9		the American Astronautical Society;
10	(9)	International space agencies and organizations,
11		including but not limited to the International Lunar
12		Exploration Working Group, the International Space
13		Exploration Coordination Group, and the Committee on
14		Space Research; and
15	(10)	The United Nations Office for Outer Space Affairs.
16	Members o	f the international moon base alliance shall serve
17	without compensation.	
18	(c)	The international moon base alliance shall hold its
19	first org	anizational teleconference by August 1, 2018.
20	SECT	ION 3. The department of business, economic
21	developme	nt and tourism shall submit an interim report on the

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- 1 progress of the development of an evolvable lunar architecture
- 2 on the island of Hawaii to the legislature, including any
- 3 findings, recommendations, and necessary proposed legislation no
- 4 later than twenty days prior to the convening of the regular
- 5 session of 2019 and a final report to the legislature no later
- ${f 6}$  than twenty days prior to the convening of the regular session
- 7 of 2020.
- 8 SECTION 4. This Act shall take effect on July 1, 2112.

### Report Title:

Space Industry; Evolvable Lunar Architecture; Office of Aerospace Development; International Moon Base Alliance

#### Description:

Creates an International Moon Base Alliance Committee in the Office of Aerospace Development to provide recommendations and guidance for the establishment of an evolvable lunar architecture on the Island of Hawaii. Requires the Department of Business, Economic Development and Tourism to submit a report. (HB1598 HD1)

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