

A BILL FOR AN ACT

RELATING TO THE INTERNATIONAL MOON BASE ALLIANCE.

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 make the State a 3 potential giant in the space industry. Hawaii has a strategic location near the equator in the middle of the Pacific Ocean, 4 5 resident expertise in aerospace technology, terrain that is like 6 the Moon and Mars, and long-standing ties with space-faring 7 nations worldwide. These features, among others, enable Hawaii 8 to join a global space enterprise that is expected to grow from 9 \$350 billion today to more than \$1.1 trillion by 2040. 10 Establishing Hawaii as a major player in the space industry now 11 means that its people will benefit from scientific, educational, 12 and commercial potential for generations to come. 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

observatories on the Big Island. Moreover, the University of

Hawaii, the U.S. military, and Hawaii-based companies have

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- 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 future space exploration,
- 7 since it is nearby and contains abundant resources that can both
- 8 enable interplanetary travel and improve the quality of life on
- 9 Earth. New economic activity such as asteroid mining, space-
- 10 based solar power generation and the use of lunar resources
- 11 could enrich terrestrial civilization, help preserve the Earth's
- 12 fragile environment and ultimately enable sustainable human
- 13 exploration to Mars and beyond. A moon base that allows humans
- 14 to live on the surface of the moon to conduct research and
- 15 commercial operations, also known as an evolvable lunar
- 16 architecture, will enable humankind to develop lunar resources,
- 17 make new discoveries, and expand the near-term frontiers of
- 18 space exploration.
- 19 Sustainable space settlement will require advances in key
- 20 technologies beyond rocket propulsion, like life support
- 21 systems, telecommunications, power generation, and food

- 1 production. Testing these technologies on Earth will play an
- 2 indispensable role in their development and implementation. The
- 3 island of Hawaii's Moon-like terrain provides an ideal
- 4 environment for multinational teams to develop, test, and
- 5 validate technologies. Promoting Hawaii as a venue for this
- 6 research will create invaluable opportunities for local
- 7 scientists, engineers, entrepreneurs, and students.
- 8 The purpose of this Act is to create a committee called the
- 9 "International Moon Base Alliance" within the department of
- 10 business, economic development, and tourism's office of
- 11 aerospace development. This committee will be comprised of
- 12 representatives from governmental, industrial, and research
- 13 institutions. Its purpose will be to provide recommendations
- 14 and guidance for the development of a prototype moon base on the
- 15 island of Hawaii, promote and facilitate multinational research
- 16 and commercial activity, and to organize an international lunar
- 17 development summit in Hawaii during the fall of 2019.
- 18 SECTION 2. Chapter 201, Hawaii Revised Statutes, is
- 19 amended by adding a new section to be appropriately designated
- 20 and to read as follows:

1	" <u>§</u> 20	1- International moon base alliance. (a) There is
2	establish	ed the international moon base alliance within the
3	office of	aerospace development of the department of business,
4	economic	development, and tourism. The purpose of the
5	internati	onal moon base alliance shall be to provide
6	recommend	ations and guidance for the development of an evolvable
7	lunar arc	hitecture on the island of Hawaii.
8	(b)	The office of aerospace development, in conjunction
9	with the	aerospace advisory committee, shall coordinate the
10	internati	onal moon base alliance. The office of aerospace
11	developme	nt shall extend invitations to join the international
12	moon base	alliance to representatives of relevant government,
13	industry,	and university organizations, including but not
14	limited t	<u>o:</u>
15	(1)	Hawaii-based organizations, including but not limited
16		to the office of aerospace development, the Pacific
17		International Space Center for Exploration Systems
18		(PISCES), and the Hawaii Space Exploration Analog and
19		Simulation program;
20	(2)	The National Aeronautics and Space Administration
21		(NASA), including but not limited to the Space Portal

1		at NASA Ames Research Center and the Exploration
2		Integration and Science Office at the Johnson Space
3		<pre>Center;</pre>
4	(3)	Other appropriate federal agencies, including but not
5		limited to the Federal Aviation Administration, the
6		U.S. Pacific Command, and the U.S. Army Pacific
7		Command;
8	(4)	Other national space agencies;
9	<u>(5)</u>	The Lunar Exploration and Analysis Group (LEAG);
10	<u>(6)</u>	The University Space Research Association (USRA),
11		including the Lunar and Planetary Institute;
12	(7)	Major corporations representing aerospace, information
13		technology, renewable energy, robotics, manufacturing,
14		and other appropriate industrial sectors;
15	(8)	National space advocacy organizations, including but
16		not limited to the National Space Society, the Lunar
17		Explorers Society, the Space Frontiers Foundation, and
18		the American Astronautical Society;
19	(9)	International space agencies and organizations,
20		including but not limited to the International Lunar
21		Exploration Working Group, the International Space

1	Exploration Coordination Group, and the Committee on		
2	Space Research; and		
3	(10) The United Nations Office for Outer Space Affairs.		
4	Members of the international moon base alliance shall serve		
5	without compensation. The international moon base alliance		
6	shall hold its first organizational teleconference by August 1,		
7	2018.		
8	(c) The international moon base alliance shall, in		
9	collaboration with the office of aerospace development, plan,		
10	organize, and host an international lunar development summit, as		
11	well as create an agenda and an invitational list for such		
12	event. The first summit shall be planned to take place in		
13	October 2019 or as soon thereafter as possible.		
14	The international lunar development summit shall focus on		
15	identifying the major goals and challenges associated with the		
16	design and validation of an evolvable lunar architecture on the		
17	island of Hawaii, and forming strategies for enabling public-		
18	private partnerships to support activities and commercial		
19	ventures on both the lunar surface and in space."		
20	SECTION 3. New statutory material is underscored.		
21	SECTION 4. This Act shall take effect on July 1, 2018.		

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Report Title:

Space Industry; Evolvable Lunar Architecture; Office of Aerospace Development

Description:

Promotes the space industry in Hawaii by creating an international moon base 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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