
A BILL FOR AN ACT

RELATING TO THE PACIFIC INTERNATIONAL SPACE CENTER FOR
EXPLORATION SYSTEMS.

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

1 SECTION 1. The legislature finds that for the last fifty
2 years the State of Hawaii has partnered with the National
3 Aeronautics and Space Administration to develop and advance the
4 national space program -- beginning with the astronaut training
5 program for the Apollo lunar missions and including a broad
6 range of discoveries in astronomy and planetary geosciences,
7 satellite communications, space-based environmental monitoring,
8 deep-space surveillance, and other activities that have
9 established the United States as a global leader in space
10 exploration.

11 The legislature finds that the State entered into an
12 agreement with the National Aeronautics and Space Administration
13 to expand the State's role as a contributor to and beneficiary
14 of the national space enterprise. The agreement will enable the
15 State to leverage strategic assets and capabilities for space
16 exploration, including the State's unique geographical features
17 that resemble lunar and Martian terrain, resident expertise in



1 space science and technology, and extensive research
2 partnerships with other space programs throughout the Asia-
3 Pacific region.

4 The legislature finds that the Pacific international space
5 center for exploration systems was formally established by the
6 legislature by Act 169, Session Laws of Hawaii 2012, to provide
7 unique opportunities to expand and diversify technology-based
8 enterprises and education statewide and to advance the national
9 space program by leveraging Hawaii's substantial assets and
10 capabilities in space exploration.

11 One goal for the Pacific international space center for
12 exploration systems is to develop a world-class space center in
13 Hawaii that can facilitate the design, testing, and validation
14 of new technologies that support both robotic and human missions
15 to space. Another goal is to serve as an economic driver for
16 the island of Hawaii that will promote the establishment and
17 growth of new sustainable and green industries along with
18 associated jobs, workforce development, internships, and the
19 science, technology, engineering, and math education program.

20 The legislature finds that the Pacific international space
21 center for exploration systems has a unique opportunity to
22 facilitate and accelerate the development of aerospace surface-



1 system technologies by exploiting Earth-based commercial
2 applications in the State. The preliminary focus for this
3 program should be in research of a sustainable concrete supply,
4 robotic operator training and certification, and attraction of
5 companies to presently unpopulated business sectors in Hawaii.

6 For the study and development of a sustainable concrete
7 supply, the legislature recognizes that current market demands
8 for concrete in Hawaii are primarily met through imported cement
9 and asphalt. Research and development that enable innovative
10 technologies for basalt concrete composition and delivery is an
11 attractive and self-sustaining alternative to continued cement
12 and bitumen imports. Currently, the Pacific international space
13 center for exploration systems is working with the International
14 Space Exploration Research Institute of Hanyang University in
15 South Korea, the National Aeronautics and Space Administration,
16 including the Kennedy Space Center, the Ames Research Center,
17 and the Johnson Space Center, the University of Notre Dame, the
18 University of Hawaii at Manoa, the University of Hawaii at Hilo,
19 the American Society of Civil Engineers, and local industries to
20 identify, verify, and validate sustainable and in-situ concrete
21 binders using the existing basalt resources in the State. This
22 is a critical step toward realizing Hawaii's potential in this



1 industry and provides an investment in the future of Hawaii and
2 its economy by offering a self-sufficient and in-situ source of
3 concrete for local applications.

4 The legislature finds that with increasing technological
5 availability of robotics for emergency response and hazard
6 mitigation, there is an emerging need for robotics training and
7 certification for civil and government robotic operators. The
8 Pacific international space program is working with the Northern
9 Center for Advanced Technology in Canada to develop a robotic
10 operator training and certification program, and will be
11 collaborating with the University of Hawaii community college
12 system on course facilitation and development. Additionally, the
13 pacific international space center for exploration systems is
14 exploring opportunities with the Northern Center for Advanced
15 Technology in underwater robotics.

16 The legislature also finds that the recent emergence of
17 private commercial space access and a resurgence of global space
18 initiatives will involve significant private sector investment
19 in the development, testing, validation, and verification of
20 robotics, broadband, energy production, energy storage,
21 recycling, and renewable and sustainable technologies that can
22 have immediate application to improve the economy and the



1 general well-being of the State. The legislature also
2 recognizes the need to formulate partnerships with private
3 industry to facilitate State-based manufacturing and operations
4 in conjunction with the associated local workforce development.
5 The Pacific international space center for exploration systems
6 is exploring possible partnerships with Planetary Power that
7 produces solar and hybrid energy generation and storage systems,
8 to establish a Pacific base of operations in Hawaii to
9 facilitate the manufacturing of specific components for fixed
10 and mobile solar concentrator units that will offer higher
11 efficiency than photovoltaic systems, as well as hybrid
12 biodiesel systems.

13 The Pacific international space center for exploration
14 systems is also working to establish a memorandum of
15 understanding with Hawaii Techworks and the east Hawaii
16 community development corporation to ensure that there is a
17 skilled local workforce in place to support these manufacturing
18 operations.

19 The legislature finds that all of these initiatives align
20 with current demands in the State, as well as President Obama's
21 Advanced Manufacturing Initiative, and represent critical
22 components for a stronger economy in the State.



1 The purpose of this Act is to appropriate funds to provide
2 funding for the Pacific international space center for
3 exploration systems to manage and facilitate its work in
4 bringing aerospace technology and corporations to Hawaii, to
5 expand and diversify Hawaii-based industry, and to provide the
6 training relevant to prepare Hawaii's workforce for employment
7 in technology-related fields.

8 Funding appropriated through this Act will be used to
9 fund:

- 10 (1) Existing employee salaries and create new positions to
11 include a marketing officer, a project integration
12 manager, an information-technology field technician,
13 and two student internship positions;
- 14 (2) Operational expenses, including rental of staff
15 offices and warehouse space for the Pacific
16 international space center for exploration systems
17 hardware and equipment; utilities; intrastate and
18 interstate travel to meetings and conferences;
19 marketing costs associated with website creation,
20 graphic design, and the development of brochures and
21 trade advertising; travel and lodging expenses for the
22 Pacific international space center for exploration



1 systems board of directors; and the Pacific
2 international space center for exploration systems
3 conferencing contracts; and
4 (3) The purchase of essential equipment, materials, and
5 services, including electronic test and design
6 equipment in support of robotics training and
7 education; mechanical equipment in support of robotics
8 training, the sustainable concrete project, advanced
9 manufacturing skills training, and ongoing testing of
10 robotic surface systems by the Pacific international
11 space center for exploration systems; command and
12 control equipment for new and existing robotic
13 hardware; situational awareness monitoring for robotic
14 operations training; software licensing; and a data
15 server for archiving project results, product designs,
16 and online training materials for a robotic operator
17 training course.

18 SECTION 2. There is appropriated out of the general
19 revenues of the State of Hawaii the sum of \$1,163,000 or so much
20 thereof as may be necessary for fiscal year 2013-2014 to
21 effectuate the purposes of this Act.



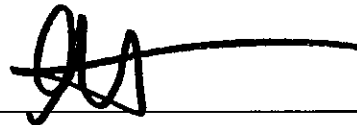
1 The sum appropriated shall be expended by the department of
2 business, economic development, and tourism for the purposes of
3 this Act.

4 SECTION 3. The Pacific international space center for
5 exploration systems shall submit a report that includes an
6 updated business plan regarding the aerospace technology
7 research and development park project to the legislature no
8 later than twenty days prior to the convening of the regular
9 session of 2014.

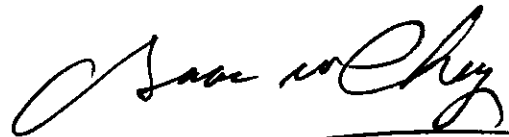
10 SECTION 4. This Act shall take effect on July 1, 2013.

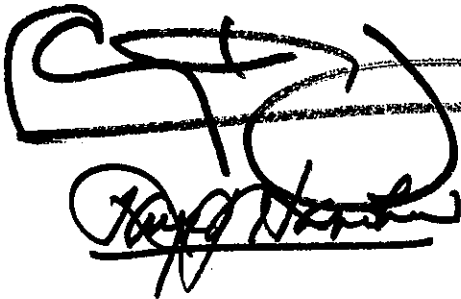
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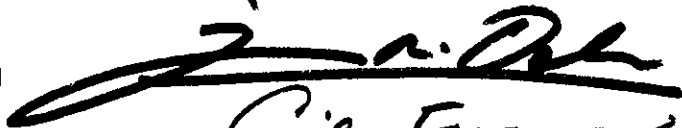


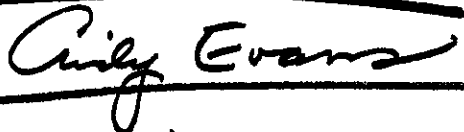


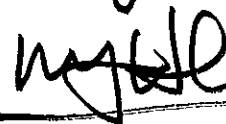


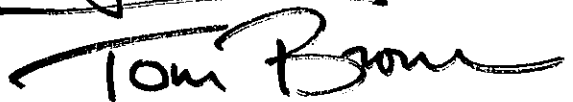
















H.B. NO. 1419

Report Title:

Pacific International Space Center for Exploration Systems;
Appropriation

Description:

Appropriates funds to PISCES.

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