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HOUSE CONCURRENT RESOLUTION

RECOGNIZING AEROSPACE AS A STRATEGIC AND TIMELY GROWTH INDUSTRY FOR HAWAII AND REQUESTING THE STATE ADMINISTRATION TO TAKE PROACTIVE, COORDINATED, AND SUSTAINED ACTION TO FULLY REALIZE THE SIGNIFICANT SCIENTIFIC, EDUCATIONAL, AND COMMERCIAL BENEFITS THE AEROSPACE INDUSTRY CAN BRING TO THE STATE.

WHEREAS, over the past half century, aerospace has played a pivotal role in expanding and diversifying our national economy:

(1) Forging new inroads to scientific discovery;

(2) Dramatically advancing national engineering and manufacturing expertise;

- (3) Pioneering innovation in communications technology and computer science;
- (4) Enhancing surveillance of planet Earth; and
- (5) Augmenting the understanding of factors that drive weather systems and climate change; and

WHEREAS, aerospace has spurred spinoffs of commercial products that have significantly enhanced our qualities of life, providing rich educational and training opportunities for K-12 and college students nationwide, and ultimately affording new frontiers for humankind to explore and develop; and

WHEREAS, today, the aerospace industry holds an equal if not greater potential for mobilizing the nation's strategic assets and capabilities to:

- (1) Enable future innovation in science and technology;
- (2) Enhance aviation safety and global security;

- (3) Promote STEM (science, technology, engineering, and mathematics) education to grow a technologically proficient workforce;
- (4) Improve healthcare diagnostics and delivery worldwide;
- (5) Forge sustainable renewable energy systems for planet Earth;
- (6) Advance remote sensing and management of critical global resources; and
- (7) Ultimately pioneer future pathways to space; and

WHEREAS, Hawaii affords strategic assets and capabilities that can be leveraged to help realize humankind's full potential in space, and in so doing engage our State as a major contributor to and beneficiary of the global space enterprise; and

WHEREAS, Hawaii's strategic assets include its unique mid-Pacific location, moon- and Mars-like terrain, resident expertise covering a broad range of aerospace-related technologies, and long-standing ties with space-faring nations throughout the Asia-Pacific region; and

WHEREAS, historically, Hawaii has played a seminal role in developing the nation's space program, beginning with astronaut training for the Apollo lunar missions and the development of world-class observatories on the Big Island, and leading to a variety of nationally-funded programs in planetary geosciences, satellite communications, space-based remote sensing and environmental monitoring, deep-space surveillance, and other aerospace-related activities sponsored by the University of Hawaii, the U.S. military, and numerous companies statewide; and

WHEREAS, today Hawaii continues to support our national space efforts through a wide range of aerospace-related activities on all major islands, including:

(1) The Mauna Kea Science Reserve on Mauna Kea as the world's premier astronomical observing site;

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- (2) The Air Force Maui Optical and Supercomputing
 Observatory supporting our nation's most sophisticated
 deep space surveillance complex;
- (3) The University of Hawaii's Institute for Astronomy and Hawaii Institute for Geophysics and Planetology on Oahu, pioneering both basic and applied research in diverse space-related fields; and
- (4) The Pacific Missile Range Facility on Kauai, providing the world's largest multi-environment test and evaluation range for aerospace technologies; and

WHEREAS, local aerospace companies, founded and grown in Hawaii, are equipped with both the technical talent and state-of-the-art infrastructure to develop next-generation electro-optic technologies, space surveillance and defense systems, command and control networks, and other resources and capabilities that can be adapted for both military and civilian aerospace applications; and

WHEREAS, major national aerospace corporations, already established in Hawaii, are looking to expand their operations in the islands as a bridge to Asia-Pacific markets, especially in the development and delivery of advanced systems for aviation maintenance and training, air traffic control, satellite communications, and deep space tracking, surveillance and reconnaissance; and

WHEREAS, the Federal Aviation Administration (FAA), the National Aeronautics and Space Administration (NASA), and other federal agencies and aerospace corporations nationwide are working to develop next-generation aviation technologies (NextGen) to enhance the safety and efficiency of future air travel; and

WHEREAS, Hawaii's abundant open air space, trans-Pacific and inter-island air routes, and extensive civilian and military aviation infrastructure make it an ideal test site to demonstrate and validate NextGen technologies; and

WHEREAS, Hawaii's unique location, geography, and technological assets are also ideally suited to support the

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launch of next-generation commercial spacecraft, including space planes, to:

(1) Carry small satellites, experimental payloads, and tourists to space;

(2) Monitor and manage man-made and natural disasters Pacific-wide; and

(3) Develop and test space-based power systems to capture sunlight as a renewable energy resource for interplanetary spacecraft and Earth-based applications; and

WHEREAS, there is growing global concurrence that multinational collaboration can help reduce the costs and enhance the benefits of robotic and human missions to space, and that Hawaii, by virtue of its strategic location and assets, is ideally situated to help "lead the charge" as a catalyst for multinational space partnerships; and

WHEREAS, NASA has announced a new vision for space exploration that embraces commercial applications, STEM education, and international partnerships to spur the development of innovative technologies and infrastructure and to reduce the costs and enhance the benefits of future robotic and human missions to the Moon, Mars, and beyond; and

WHEREAS, in order to realize this new vision, considerable resources will need to be devoted to:

(1) The development, testing, and evaluation of new technologies to enable long-term missions to space;

(2) The training of scientists, engineers, and astronauts to help design and implement these missions;

(3) The development of multinational partnerships that can synergize resources and reduce costs for future space missions; and

(4) Educating and engaging the general public in these efforts; and

WHEREAS, Hawaii's unique location, geography, international connectivity, and other strategic assets and capabilities are ideally suited to address all of these challenges; and

WHEREAS, in recognition of Hawaii's aerospace potential, the State of Hawaii is entering into a new Space Act Agreement with NASA to facilitate long-term collaboration in support of the national space agenda that will leverage Hawaii's unique assets and capabilities to help achieve national goals for space exploration while expanding and diversifying research, educational and commercial development programs in Hawaii, such as the Hawaii Space Flight Laboratory (HSFL), the Pacific International Space Center for Exploration Systems (PISCES), and the Pacific International Space Alliance (PISA); and

 WHEREAS, to effectively address Hawaii's current economic malaise, the State's limited funding resources should be invested in strategic growth industries that can attract substantial federal and private sector investments, support high-paying and sustainable employment opportunities for local residents, develop creative opportunities to inspire and train students in STEM-related fields, and expand and diversify research and commercial development programs at universities and businesses statewide; and

WHEREAS, aerospace is demonstrably a dynamic growth industry that has advanced and can continue to support all of these goals in Hawaii; and

 WHEREAS, aerospace thrives in Hawaii because of our unique location and intrinsic resources, and therefore is a growth industry that will not be exported from the State as it matures; and

WHEREAS, Hawaii already has established extensive working relationships throughout the global aerospace community that can be leveraged to grow an aerospace industry statewide; and

 WHEREAS, all of the aforementioned assets, capabilities, and advantages which predispose aerospace as a dynamic growth industry for Hawaii imply that modest upfront investments in this sector will bring substantial and sustainable scientific, educational and commercial returns to the State; now, therefore,

BE IT RESOLVED by the House of Representatives of the Twenty-fifth Legislature of the State of Hawaii, Regular Session of 2010, the Senate concurring, that the Legislature recognizes aerospace as a strategic and timely growth industry for Hawaii; and

BE IT FURTHER RESOLVED that the state administration is requested to take proactive, coordinated, and sustained action to fully realize the significant scientific, educational, and commercial benefits the aerospace industry can bring to the State; and

BE IT FURTHER RESOLVED that the State should make aerospace a high priority for innovation and development in the FY 2012-2013 biennium; and

BE IT FURTHER RESOLVED that the State should work collaboratively and proactively with federal and municipal agencies, as well as local and overseas universities and companies, to explore and promote opportunities to expand and diversify aerospace-related activities in Hawaii; and

BE IT FURTHER RESOLVED that to grow scientific, educational and commercial enterprise statewide, particular emphasis be given to the identification and development of activities and programs that can leverage Hawaii's unique location, geographical assets, resident expertise, and international connectivity, by:

(1) Developing Hawaii as an international center facilitating multinational partnerships that can reduce the costs and enhance the benefits of future space exploration;

(2) Concentrating on K-12 education and university-based STEM education and training that can grow Hawaii's technologically-proficient workforce;

(3) Establishing Hawaii as an Asia-Pacific hub for advanced aviation training and NextGen technology development; and

(4) Realizing Hawaii's full potential as a global leader in commercial space transportation, including the

development of a commercial spaceport that will enable space-based research and space tourism; and

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BE IT FURTHER RESOLVED that the Office of Aerospace Development as established under section 201-72, Hawaii Revised Statutes, within the Department of Business, Economic Development and Tourism, promote and help coordinate these activities and programs on behalf of the State, and that adequate financial and staffing resources be provided to the Office of Aerospace Development to enable it to effectively assume and undertake these duties; and

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BE IT FURTHER RESOLVED that certified copies of this Concurrent Resolution be transmitted to the Governor of Hawaii; Director of Business, Economic Development, and Tourism; Director of the Office of Aerospace Development; President of the University of Hawaii; Superintendent of Education; the Administrator of the National Aeronautics and Space Administration; and the Director of the Federal Aviation Administration.

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