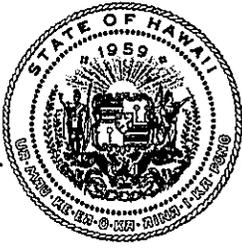


HB 1282 HD1

RELATING TO BROADBAND COMMUNICATIONS

Appropriates moneys for an engineering assessment for establishing a laser optical communications ground station in Hawaii. (HB1282 HD1)

PSM/EDT, WAM



**DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT & TOURISM**

DAVID Y. IGE
GOVERNOR

LUIS P. SALAVERIA
DIRECTOR

MARY ALICE EVANS
DEPUTY DIRECTOR

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Statement of

LUIS P. SALAVERIA
Director

Department of Business, Economic Development & Tourism

before the

**SENATE COMMITTEES ON
PUBLIC SAFETY, INTERGOVERNMENTAL AND MILITARY AFFAIRS
AND
ECONOMIC DEVELOPMENT AND TECHNOLOGY**

Monday, March 23, 2015

3:15 p.m.

State Capitol, Conference Room 016

in consideration of

HB 1282, HD1

RELATING TO BROADBAND COMMUNICATIONS TECHNOLOGY.

Chairs Espero and Wakai, Vice Chairs Baker and Slom, and members of the Committees.

The Department of Business, Economic Development and Tourism supports the intent of this bill to provide matching state funding to support an engineering assessment for a proposal to establish a laser optical communications ground station in Hawaii.

This study will be conducted in partnership with NASA and will include site surveillance and selection; an analysis of power and cooling requirements; environmental assessments and permits; an assessment of structural pads; and an analysis of roadways and clearances for the transportation of communications equipment. Hawaii has been identified by NASA as the best site in the nation to establish this terminal, which will be the first in a global network of interconnected stations to communicate with Earth-orbiting and interplanetary spacecraft.

We support this measure provided that its passage does not replace or adversely impact priorities indicated in our Executive Budget.

Thank you for the opportunity to testify on this bill.



DAVID Y. IGE
GOVERNOR

SHAN S. TSUTSUI
LT. GOVERNOR

STATE OF HAWAII
CABLE TELEVISION DIVISION
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
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CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JI SOOK KIM
CABLE TELEVISION ADMINISTRATOR

TO THE SENATE COMMITTEES ON
PUBLIC SAFETY, INTERGOVERNMENTAL AND MILITARY AFFAIRS
AND
ECONOMIC DEVELOPMENT AND TECHNOLOGY

TWENTY-EIGHTH LEGISLATURE
Regular Session of 2015

Date: Monday, March 23, 2015
Time: 3:15 p.m.

TESTIMONY ON H.B. NO. 1282, H.D. 1 – RELATING TO BROADBAND
COMMUNICATIONS TECHNOLOGY.

TO THE HONORABLE WILL ESPERO AND GLENN WAKAI, CHAIRS, AND
MEMBERS OF THE COMMITTEES:

My name is Ji Sook “Lisa” Kim, and I am the Cable Television Administrator at the Department of Commerce and Consumer Affairs (the “Department”). The Department appreciates the opportunity to express **support for the intent** of H.B. No. 1282, H.D. 1 which appropriates moneys to establish a laser optical communications ground station in the State in partnership with the National Aeronautics and Space Administration (“NASA”) and designates the Department as the administering agency to expend the moneys for this purpose in consultation with the Pacific International Space Center for Exploration Systems (“PISCES”).

The establishment of the NASA ground station can provide a tremendous opportunity to improve and expand broadband and optical fiber infrastructure statewide, which would increase high-speed broadband access for other state, county and private uses and assist in extending broadband service to unserved and underserved rural areas of our State.

The Department recognizes, however, that the PISCES is within the Department of Business, Economic Development, and Tourism pursuant to Sections 201-76 to 201-80, Hawaii Revised Statutes. As such, it is unclear whether the Department has

the necessary capabilities and expertise to administer the engineering assessment and study that this measure proposes. Nor is it clear what impact placing this function within the Department at this time would have on the continuity of PISCES planning and work that has been done to this point.

Again, the Department does support the intent of this project and would appreciate the opportunity to offer advisory assistance on communications infrastructure-related PISCES matters going forward.

Thank you for the opportunity to provide support for this measure.



Pacific International
Space Center for
Exploration Systems

February 4, 2015

To whom it may concern.

Subject: Testimony for HB1282 / LaserComm Ground Station Bill

It is with pleasure that PISCES provides supportive testimony in regard to HB1282 / LaserComm Ground Station Bill.

Laser optical communication is a new state-of-the-art technology for broadband communications with the direct support from the White House/OSTP (Office of Science and Technology Policy). Given limitations in the number of available frequency band allocations for spacecraft-to-earth communications, the U.S., Europe and Japan are actively developing space-based technologies for laser optical communications that will soon replace RF (radio frequency) used in today's wireless RF communications for cell phones, and associated communication technologies. Data rates for laser communications are many times higher than RF communications...with data speed of 3 gigabits per second.

In 2014, NASA expressed specific interest in establishing the first long-term U.S. laser optical communications ground station in the State of Hawaii; given the cloud-free environment on top some of its volcanic peaks and its mid-Pacific location. This station is planned to become operational in the 2020 timeframe.

PISCES finds that this bill aligns well with the State of Hawaii's interest in broadband communications technologies, and 21st century skills and jobs for workforce development in lasers, adaptive optics, and communications.

Further, such laser communication technologies fit well within PISCES technology roadmap of high-speed tele-robotics....using laser-based communications for command/control of robotic systems in Hawaii and on planetary surfaces like the Moon and Mars.

Thus, PISCES strongly endorses HB1282 for the LaserComm Ground Station.

With much mahalo,

Robert M. Kelso
Executive Director, PISCES

HENK B. ROGERS

55 Merchant Street
Honolulu, HI, 96813

TESTIMONY IN SUPPORT OF:

HB1282 – RELATING TO BROADBAND COMMUNICATION TECHNOLOGY.

Dear Members of the 28th Hawaii State Legislature,

I am writing in support of the passage of HB1282.

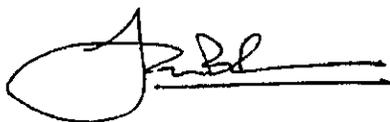
Laser optical communication is a new, state-of-the-art technology for broadband communications. It has direct support from the White House Office of Science and Technology Policy. Given limitations in the number of available frequency band allocations for spacecraft-to-earth communications, the United States, Europe and Japan are actively developing space-based technologies for laser optical communications that will soon replace radio frequency (RF) used in today's wireless RF communications for cell phones and associated communications technologies. Data rates for laser communications are many times higher than RF communication, with data speed of three (3) gigabits per second.

The National Aeronautics and Space Administration (NASA) plans to establish a global network of laser communication ground systems. In 2014, NASA expressed specific interest in establishing its first long-term United States laser optical communications ground station in the State of Hawaii because it offers the best cloud-free, high elevation environment in the United States and is situated in the mid-Pacific. This station is planned to become operational in the 2020 time frame.

The funds provided in this bill will support an engineering assessment and study, the costs of which will be shared with NASA. The assessment will be conducted jointly between NASA and the Pacific International Space Center for Exploration Systems (PISCES), and supported by the University of Hawaii. The ultimate establishment of the laser communication ground station in Hawaii will benefit the State a great deal by providing high-technology jobs in the state and redundancy of communications networks between Hawaii and the rest of the world.

Your affirmative consideration of this bill will be deeply appreciated.

Mahalo,

A handwritten signature in black ink, appearing to read 'Henk B. Rogers', with a horizontal line underneath.

Henk B. Rogers
Entrepreneur

Chairman, Blue Planet Software
Managing Director, The Tetris Company
Chairman, Blue Planet Foundation
Founder, Blue Startups
Chairman, PISCES
Director, East West Center Foundation
Honorary Consul to Hawaii, the Kingdom of the Netherlands
Member, Broadband Task Force