

SB 661

**RELATING TO UNMANNED AERIAL
SYSTEMS TEST SITES**

PSM/HEA, WAM



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

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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
HIGHER EDUCATION AND THE ARTS**

Tuesday, February 17, 2015
1:00 p.m.
State Capitol, Conference Room 229

in consideration of

**SB 661
RELATING TO UNMANNED AERIAL SYSTEMS TEST SITES.**

Chairs Espero and Taniguchi, Vice Chairs Baker and Inouye, and Members of the Committees.

The department strongly supports, with amendments, the intent of this bill to establish the Hawaii unmanned aerial systems test site chief operating officer position to serve on the Pan-Pacific Unmanned Aerial Systems Test Range Complex (PPUTRC) management team, as well as an advisory board to oversee unmanned aerial systems test site operations.

We recommend the following amendments to the current bill draft:

- (1) On page 5, lines 9 and 10, delete "to be appointed by the governor pursuant to section 26-34."
- (2) On line 11, replace "One member representing the department of defense" with "The adjutant general of the department of defense or his/her designee."
- (3) On lines 12-13, replace "One member representing the department of transportation" with "The director of the department of transportation or his/her designee."

- (4) On lines 14-15, replace “One member representing the department of business, economic development, and tourism” with “The director of the department of business, economic development, and tourism or his/her designee.”
- (5) On line 16, replace “One member representing the University of Hawaii” with “The president of the University of Hawaii or his/her designee.”
- (6) On lines 17, replace “One member representing the Hawaii business community” with “One member, appointed by the governor pursuant to section 26-34, representing the Hawaii business community.”
- (7) On lines 19-20, replace “Two members representing the aerospace or aviation industries” with “Two members, appointed by the governor pursuant to section 26-34, representing the aerospace and aviation industries.”
- (8) On page 8, lines 4-6, delete section (10).

In addition, although the current bill draft designates that funding provided through this legislation shall be expended by the University of Hawaii, the Hawaii Aerospace Advisory Committee (which includes three representatives from the University of Hawaii System) recommends that this funding be appropriated to DBEDT (through its Office of Aerospace Development, BED 128), which in turn would work with the Hawaii UAS test range team that OAD currently manages (including representatives from the Department of Transportation, the Department of Defense, the University of Hawaii, the U.S. Pacific Command, and Hawaii’s commercial aerospace sector), as well as the University of Alaska and State of Oregon PPUTRC representatives (with whom OAD is coordinating this tri-state program), to facilitate the hiring of a chief operating officer and formulation of a UAS test range advisory board.

As such, we recommend replacing current bill references to Chapter 304-A, Hawaii Revised Statutes (relating to the University of Hawaii), with references to Chapter 201 (relating to the Office of Aerospace Development).

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

Thank you for the opportunity to testify on this bill.

STATE OF HAWAII
DEPARTMENT OF DEFENSE

TESTIMONY ON SENATE BILL 661
A BILL RELATING TO UNMANNED AERIAL SYSTEMS TEST SITES

PRESENTATION TO
THE SENATE COMMITTEES ON PUBLIC SAFETY, INTERGOVERNMENTAL
AND MILITARY AFFAIRS
and
HIGHER EDUCATION AND THE ARTS

BY
BRIGADIER GENERAL ARTHUR J. LOGAN
ADJUTANT GENERAL
AND DIRECTOR OF THE HAWAII EMERGENCY MANAGEMENT AGENCY
February 17, 2015

Chair Espero, Chair Taniguchi, Vice Chair Baker, Vice Chair Inouye and Members of the Senate Committees on Public Safety, Intergovernmental and Military Affairs, and Higher Education and the Arts:

I am Brigadier General Arthur J. Logan, State Adjutant General and the Director of the Hawaii Emergency Management Agency. I am testifying in **support** of Senate Bill 661.

The Federal Aviation Administration (FAA) selected the Pan Pacific Unmanned Aerial Systems (UAS) Test Range Complex (which involves Alaska, Oregon, and Hawaii) as one of the six national test sites. These six sites will safely integrate UAS into the National Airspace System administered by the FAA. Testing UAS at these sites, in restricted, non-public airspace, will lead to the development of federal regulations that will help ensure safety during UAS operations and provide for public privacy.

UAS technologies already in use include: wildlife counts, fisheries management, disaster management, and cinematography. UAS has great potential in any application where an aerial task needs completing. In these tasks, UAS offers several advantages over manned flight:

- Lower-costs
- Reduced safety risks and increased capability related to manned operations
- Reduced impacts on the environment

There are positive economic impacts to Hawaii as a result of test range users as well as creation of new jobs to support commercial industry testing and services.

The establishment and appropriation of funding for Hawaii's Chief Operating Officer and Advisory Board is critical in both establishing Hawaii's test ranges and tracking both state and national efforts to address UAS safety and privacy concerns, including the development of federal regulations pertaining to such issues.

Thank you for allowing me to testify in **support** of Senate Bill 661.

DAVID Y. IGE
GOVERNOR



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STATE OF HAWAII
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IN REPLY REFER TO:

February 17, 2015
1:00 PM
State Capitol, Room 229

S.B.661
RELATING TO UNMANNED AERIAL SYSTEMS TEST SITES

Senate Committee(s) on Public Safety, Intergovernmental & Military Affairs
and Higher Education & the Arts

The Department of Transportation **supports** this bill, which creates a Chief Operating Officer (COO) and staff for the Hawaii segment of the Pan Pacific Unmanned Aerial Systems Test Range Complex (PPUTRC), as well as a Board of Advisors.

Hawaii has partnered with Alaska and Oregon and received one of the six national FAA-test range designations that will develop the procedures and equipment needed to integrate Unmanned Aerial Systems into the national airspace system. Hawaii's unique location and geographical attributes are key to the partnership, and the positions are critical for Hawaii to meet its obligations as a fully functioning member of the PPUTRC.

Thank you for the opportunity to submit this testimony.



UNIVERSITY OF HAWAII SYSTEM

Legislative Testimony

Testimony Presented Before the
Senate Committee on Public Safety, Intergovernmental and Military Affairs
And
Senate Committee on Higher Education and the Arts
Tuesday, February 17, 2015 at 1:00 pm
by
Vassilis L. Syrmos
Vice President for Research and Innovation, University of Hawai'i

SB 661 – RELATING TO UNMANNED AERIAL SYSTEMS TEST SITES

Chairs Espero and Taniguchi, Vice Chairs Baker and Inouye, and members of the committees:

The University of Hawai'i supports SB661 relating to unmanned aerial systems (UAS) test sites -- which proposes to establish the chief operating officer position, establish an advisory board to oversee and manage the test site operations, and appropriates the funds to staff and operate Hawai'i's unmanned aerial systems test site activities.

As a research institution that specializes in technologies and activities related to UAS, the University of Hawai'i supports this bill and perceives it as an opportunity for advancements in innovation, commercialization, and economic development. Hawai'i offers unique qualities to support the operations of a UAS such as its location within the Pacific and its proximity to the U.S. Pacific Command and other military test sites; and is considered to be an attractive location to the UAS industry for real development.

With the current organization and implementation of the Hawai'i/Alaska/Oregon Pan-Pacific Unmanned Aerial Systems Test Range Complex, it is essential that the UAS in Hawai'i be provided the resources to remain an active participant. The University of Hawai'i sees great value and potential in assisting with the establishment of UAS test sites due to its positive impacts for our state which range from emergency search and rescue operations, fisheries management, agricultural monitoring, reef health surveys, lava flow monitoring, disaster management and damage assessment, land use surveys, watershed management, mapping of coastal topography, and many other applications.

The University of Hawai'i appreciates this opportunity to submit testimony and urges the committee to pass this measure.

From: nishihara1 - Amanda
Sent: Tuesday, February 17, 2015 9:28 AM
To: PSMTestimony
Subject: FW: Submitted testimony for SB661 on Feb 17, 2015 13:00PM

From: mailinglist@capitol.hawaii.gov [mailto:mailinglist@capitol.hawaii.gov]
Sent: Monday, February 16, 2015 2:21 PM
To: TRA Testimony
Cc: mark@systemoperations.com
Subject: Submitted testimony for SB661 on Feb 17, 2015 13:00PM

SB661

Submitted on: 2/16/2015

Testimony for TRA/PSM/HEA on Feb 17, 2015 13:00PM in Conference Room 229

Submitted By	Organization	Testifier Position	Present at Hearing
Mark D Spence	Hawaii Aerospace Advisory Commission	Support	No

Comments:

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

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sb661testimony....

webmaster@capitol.hawaii.gov

TO: THE SENATE STATE OF HAWAII TWENTY-EIGHTH LEGISLATURE, 2015

Subject: SB 661 RELATING TO UNMANNED AERIAL SYSTEMS TEST SITES.

The State of Hawaii solicited and was selected to be a national test range site by the Federal Aviation Administration (FAA) for Unmanned Aerial System testing. As part of a team which includes Alaska and Oregon, Hawaii will play a vital role in protecting the safety of the flying public at home and in the National Airspace. (NAS). Hawaii's selection however also brings with it certain responsibilities and financial commitments that we as a State must step up to if we are to contribute effectively to this critical public safety agenda.

This UAS subject is not a new one, it has been around for many years. Rapid UAS advancement as you probably have seen in the recent press, is forcing state and federal policy makers into discussions on how to deal with the disruptive technology. The benefits of UAS may seem pretty obvious but there are many issues such as safety and privacy that will need to be solved.

Even though the task of regulating safety falls to the FAA, many stakeholders will need to be involved in the discussion. DOD, ATC, TSA, US Customs, Coast Guard, State Ports, General/Commercial Aviation Police and Academia will all need to play a role. Hawaii is fairly unique in the fact that all of the stakeholders are represented here and are close in proximity to one another. We also are unique in the fact that most of the testing can be done in oceanic areas and away from population centers.

SB 661 sets out the roles, responsibilities and financial requirements for setting up an infrastructure to accomplish the task of creating a test range. The FAA awarded the UAS test range to the State so therefore it must be handled by the state. My only suggestion to any modification of the bill is the following:

A state agency such as DOT or DBEDT can perform the management of the site internally or it can be contracted out commercially if state regulation allows. The operation of the site itself will be the sole responsibility of the COO who then reports to whatever entity is chosen for oversight including the HAAC if necessary.

As a citizen of Hawaii and Vice Chair of the Hawaii Aerospace Advisory Committee (HAAC) I wholeheartedly support this upcoming opportunity for our state and humbly request your support in the furtherance of both SB661 and SB579.

Respectfully submitted,

Mark Spence
425 South Street #3904
Honolulu, HI 96813

Lawrence E. Osborn
7868 Makaaola Place
Honolulu, Hawaii 95825

February 18, 2015

TESTIMONY OPPOSING SENATE BILL 661 - RELATING TO
UNMANNED AERIAL SYSTEMS TEST SITES

Dear Members of the 28th Hawaii State Legislature,

I am writing in support of this bill, the purpose of which is to "...establish a Hawaii unmanned aerial systems test site chief operating officer position to serve on the Pan-Pacific Unmanned Aerial Systems Test Range Complex management team, establish a Hawaii unmanned aerial systems test site advisory board that will formulate an implementation plan and oversee test site development in the State, and appropriate funds for personnel and procurement costs associated with establishing the Hawaii unmanned aerial systems test site."

More than a year ago the Federal Aviation Agency (FAA) announced the selection of six sites from among more than two dozen applicants to serve as test ranges to "allow the agency to develop research findings and operational experiences to help ensure the safe integration of UAS (unmanned aircraft systems) into the nation's airspace..."

Today UAS cannot routinely fly in the U. S. national airspace (NAS) and their use by our government agencies is severely limited because of this. Although new rules for the operation of UAS have been proposed by the FAA, and some exceptions made, the commercial use of UAS in the U.S. is severely restricted. The Association for Unmanned Vehicle Systems International (AUVSI) has estimated that it costs the American economy \$27M a day for every day that UAS are not integrated into the NAS. Moreover, the same study predicts that integration of UAS into the NAS will create more than 34,000 manufacturing jobs and more than 70,000 new jobs in the first three years. The economic benefit to Hawaii alone is projected to be \$194M in the next ten years.

Alaska leads the nation in the use of UAS. They are used to count wildlife, study fisheries, inspect pipelines, and monitor the environment. In Hawaii similar opportunities exist. In addition to those mentioned above, UAS applications in the future in Hawaii will likely include precision agriculture, identification and eradication of invasive species, cinematography, search and rescue, law enforcement, harbor security, and disaster response. The list will grow as they can be safely operated in our airspace. Every dollar allocated by our legislature in support of the FAA test site effort has the potential to multiply, bringing jobs and economic benefit directly to the people of Hawaii. Our local schools that deliver STEM education programs to our children are preparing the workforce now.

Hawaii is teamed with Alaska and Oregon as part of what has been named the Pan-Pacific UAS Test Range Complex, one of the six officially designated FAA Test Sites. Very soon UAS (in addition to those already being operated locally by the military, the film industry, academic institutions, and local hobbyists) may begin operating in Hawaii skies in support of the FAA's airspace integration effort. It is only natural that questions need to be answered about noise, safety, and personal privacy as we prepare to host this activity in our state.

The unmanned aircraft supporting airspace integration will operate initially in restricted airspace over sparsely populated areas, or over the open ocean. As confidence is gained in the reliability of the

vehicles, their control systems, and the procedures developed to ensure safe operations in controlled airspace, they may be seen along defined airways or approach corridors to our airports, where you now see manned military, commercial and private aircraft. UAS will not be flying in our residential neighborhoods. Thus it is extremely unlikely that the testing contemplated by the FAA and commercial interests in Hawaiian airspace will even be discernible to the public.

With the proliferation of UAS technology and the ease with which it can be employed, comes the possibility of misuse. Because of this our state legislature is contemplating legislation such as SB579 to protect the privacy of individuals.

UAS integration into the NAS will usher in an exciting future featuring new products, services, jobs, and economic growth. Most importantly, Hawaii has an opportunity to lead.

I unreservedly advocate support of SB661 without which the State of Hawaii cannot effectively function as an FAA Test Site.

Please do not hesitate to contact me directly if you have further questions about my testimony. I can be reached via email at losborn@dreamhammer.com or by phone at (808) 554-4684.