

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
Land Division
Honolulu, Hawaii 96813

March 11, 2016

Board of Land and Natural Resources
State of Hawaii
Honolulu, Hawaii

PSF No.: 15OD-204

OAHU

Issuance of Right-of-Entry Permit to AUVSI Foundation for Maritime RobotX Challenge Hawaii 2016 from December 4, 2016 to December 18, 2016 at Sand Island, Honolulu, Oahu, Tax Map Key: (1) 1-5-041:portions of 006,334 and seaward

APPLICANT:

AUVSI Foundation, a Washington D.C. non-profit organization, ("AUVSI").

LEGAL REFERENCE:

Sections 171-55, Hawaii Revised Statutes, as amended.

LOCATION/AREA:

Portion of Government lands situated at Sand Island, Honolulu, Oahu, identified by Tax Map Key: (1) 1-5-041:portions of 006, 334 and seaward, as shown on the maps attached as **Exhibits A1 to A5.**

ZONING:

State Land Use District: Urban/Conservation
City and County of Honolulu LUO: P-2

TRUST LAND STATUS:

Section 5(b) lands of the Hawaii Admission Act
DHHL 30% entitlement lands pursuant to the Hawaii State Constitution: No

CURRENT USE STATUS:

Encumbered by Right-of-Entry No. 4207 to the University of Hawaii for education purposes;

Executive Order No. 2704 setting aside to the Division of State Parks for Sand Island State Recreational Area purposes; and

Executive Order No. 4494 setting aside to the Division of Boating and Ocean Recreation for Boat Launching Facility.

CHARACTER OF USE:

Maritime RobotX Challenge Hawaii 2016

TERM:

Between December 4, 2016 to December 18, 2016

RENTAL:

Gratis. See Remarks Section.

COLLATERAL SECURITY DEPOSIT:

None

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

In accordance with Hawaii Administrative Rule Section 11-200-8 and the Exemption List for the Department of Land and Natural Resources approved by the Environmental Council and dated June 5, 2015, the subject request is exempt from the preparation of an environmental assessment pursuant to Exemption Class No. 1, Item 51. See **Exhibit B**.

DCCA VERIFICATION:

Not applicable. There will be no commercial activities during the event.

REMARKS:

AUVSI is a non-profit organization that provides university students with hands-on robotics activities designed to fuel and sustain their interest in science, technology, engineering and math (STEM). Each year the AUVSI offers educational programs as well as robotics competitions that allow students to apply their STEM education outside the classroom. The experience is ideal preparation for entering the workforce, which is why participating students are frequently offered coveted internship and employment opportunities while still in school.

The first Maritime RobotX occurred in October 2014 in Singapore, and participated by 15

teams from United States, Singapore, Japan, South Korea and Australia. With the competition's focus on the wide range of uses for the robotic technology, the students were inspired to gain a great deal of new knowledge. Those students and the universities are now engaged in the continued research of this exciting new area.

AUVSI is organizing similar event in Hawaii in December 2016. The proposed event has two primary objectives. The first objective is to create a pinnacle STEM student outreach event for the final weekend of RobotX Challenge. This could include displays and hands-on activities intended to get younger students interested and involved in STEM programs. The second objective is to promote interest among Pacific national partners in the science and technology of autonomous systems.

Exhibit C is the proposal submitted by AUVSI, which provides more details on the event, layout of the requested site, sponsorship and support from government agencies, education institutes, corporations, and Congressman Mark Takai.

The requested location covers the existing Marine Engineering Training Center (METC) and the future School of Ocean and Earth Science and Technology (SOEST) site, both operated under the University of Hawaii ("UH"). Land Division is working on a direct lease¹ to UH for educational purposes covering the area. In addition, portions of the public boat launching facility and the adjacent Sand Island State Recreational Area will also be utilized by AUVSI during the event. Exhibits A2 to A5 provide a detailed layout over the respective portions of the requested location.

This event will be open to the public. AUVSI will provide the security for the site and structures during the competition.

A meeting held on December 16, 2015 was attended by representatives from AUVSI, U.S. Office of Naval Research, METC, SOEST, State Parks, DOBOR, and Land Division. Concurrence was obtained from the stakeholders regarding the proposed event, subject to further coordination on the logistics, for example, parking or traffic control, outreach to other users of the facilities etc.

AUVSI has not had a lease, permit, easement or other disposition of State lands terminated within the past five years due to non-compliance with such terms and conditions. No comments were solicited from other government agencies, excepted as noted above. There are no pertinent issues or concerns.


Staff recommends the Board waive the fee for the proposed event, since it is solely for educational purposes. There are no other pertinent issues or concerns and staff does not have any objection to this request. AUVSI hopes the same event can return in 2018 if the subject event is successful.

¹ Board authorized the issuance of a direct lease. Currently, the request is pending legislative approval under HRS Section 171-53(c).

RECOMMENDATION: That the Board:

1. Declare that, after considering the potential effects of the proposed disposition as provided by Chapter 343, HRS, and Chapter 11-200, HAR, this project will probably have minimal or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment.
2. Authorize the issuance of a right-of-entry permit to AUVSI Foundation for Maritime RobotX Challenge Hawaii 2016 covering the subject area under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:
 - A. The standard terms and conditions of the most current right-of-entry permit form, as may be amended from time to time; and
 - B. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.

Respectfully Submitted,



Barry Cheung
District Land Agent

APPROVED FOR SUBMITTAL:



Suzanne D. Case, Chairperson



TMK (1) 1-5-041:portions of 006 and 334, and seaward

EXHIBIT "A1"

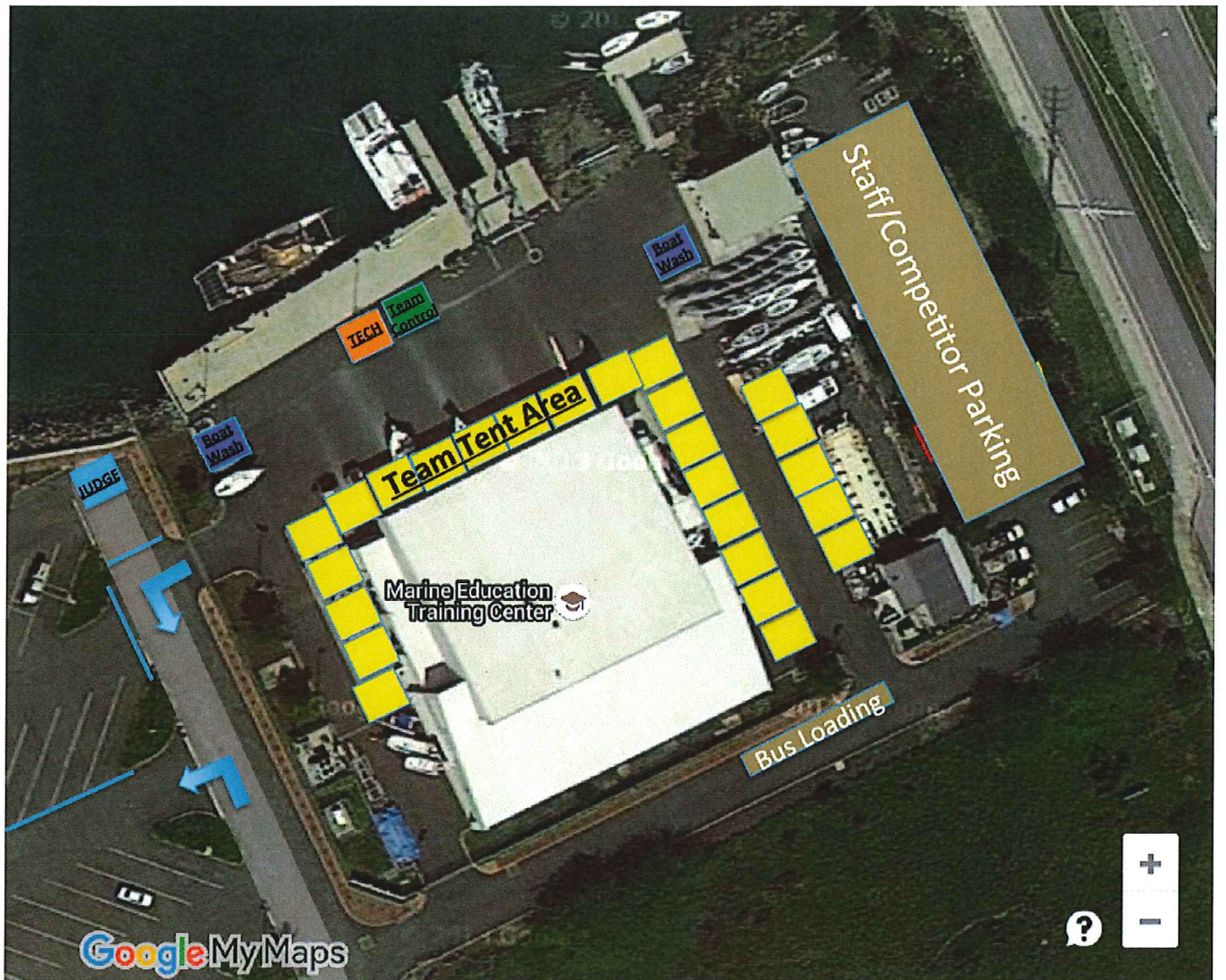


EXHIBIT "A2"



EXHIBIT "A3"

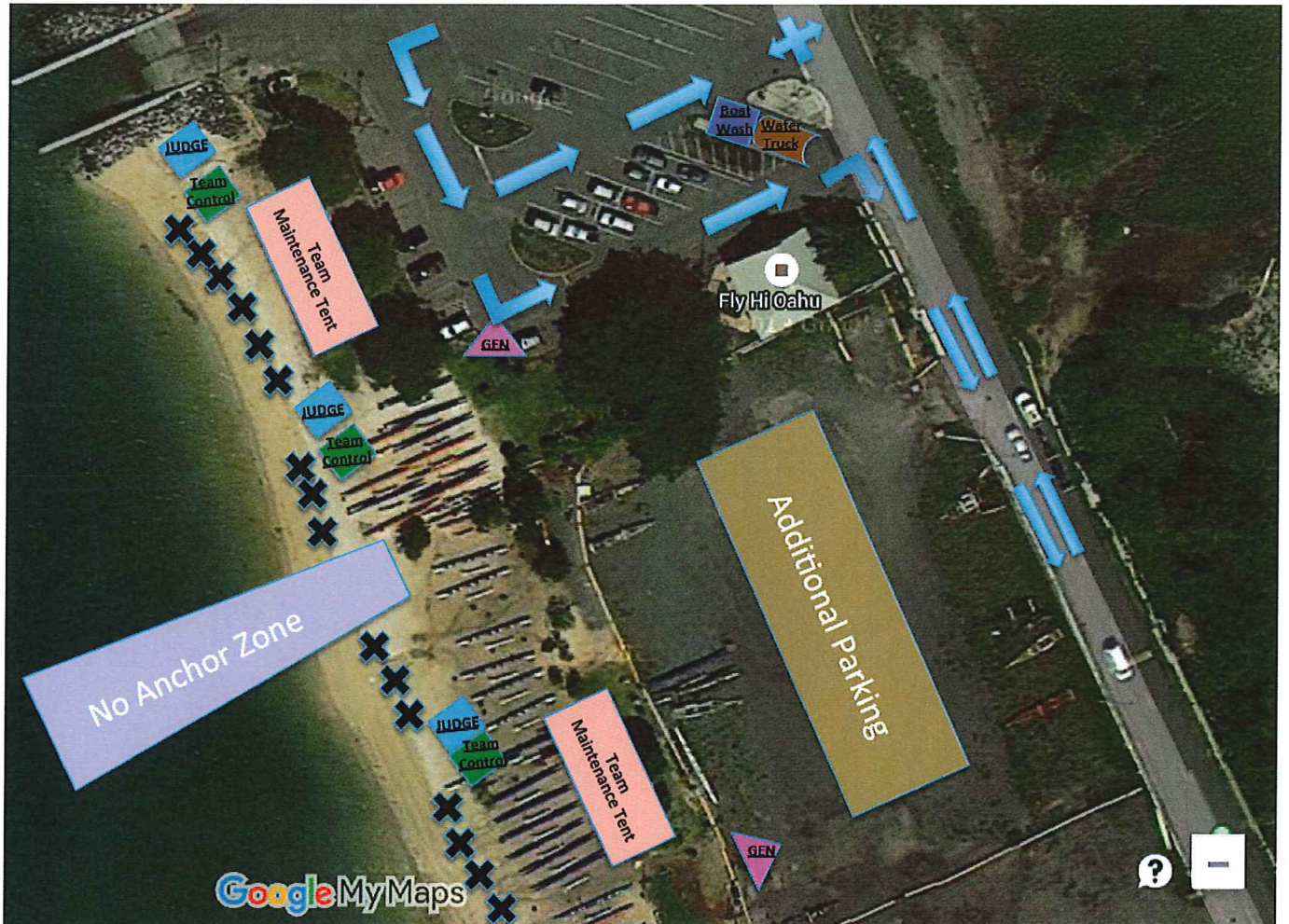


EXHIBIT "A4"

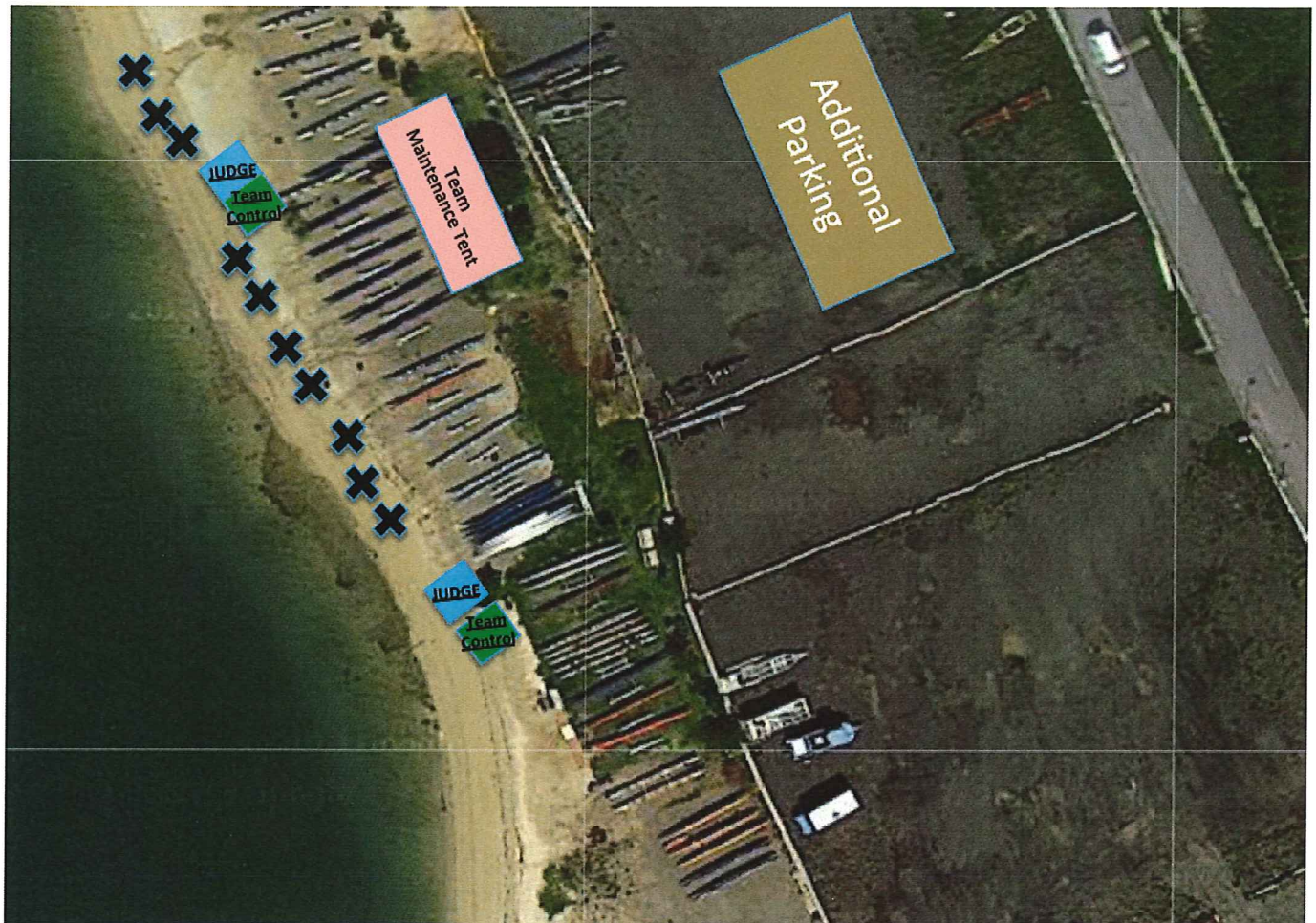


EXHIBIT "A5"

EXEMPTION NOTIFICATION

Regarding the preparation of an environmental assessment pursuant to Chapter 343, HRS and Chapter 11-200, HAR

Project Title: Issuance of right-of-entry for Maritime RobotX Challenge Hawaii 2016 from December 4, 2016 to December 18, 2016

Project / Reference No.: PSF 15OD-204

Project Location: Sand Island, Honolulu, Oahu, Tax Map Key: (1) 1-5-041:006 and seaward

Project Description: Maritime RobotX Challenge Hawaii 2016 from December 4, 2016 to December 18, 2016.

Chap. 343 Trigger(s): Use of State Land

Exemption Class No.: In accordance with Hawaii Administrative Rule Section 11-200-8 and the Exemption List for the Department of Land and Natural Resources approved by the Environmental Council and dated June 5, 2015, the subject request is exempt from the preparation of an environmental assessment pursuant to Exemption Class No. 1, Item 51.

In the past, permits were periodically issued for beach activities events, which have resulted in no known significant impacts to the natural and environmental resources in the area. As such staff believes that the proposed event would involve negligible or no expansion or change in use of the subject area beyond that previously existing.

Consulted Parties: Agencies as noted in the submittal.

Recommendation: It is recommended that the Board find that this project will probably have minimal or no significant effect on the environment and is presumed to be exempt from the preparation of an environmental assessment.

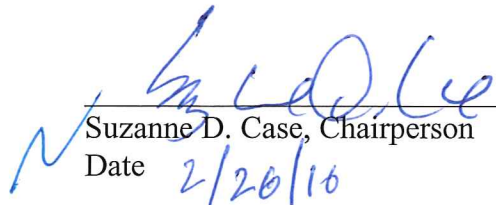

Suzanne D. Case, Chairperson
Date 2/20/16

EXHIBIT " B "



Information for Hawaii Department of Land and Natural Resources

December 1, 2015

EXHIBIT "C"

Desired Dates:

Setup – December 4-11, 2016

Setup will consist of on-land and in-water setup. Tents, bleachers, generators, and all other supporting equipment will be delivered and installed during this period. In-water setup will consist of the deployment of all water-related elements and the necessary mooring mechanisms. Testing of the in-water elements will occur during this period as well.

RobotX Event – December 11-18, 2016

The week of the event will consist of students being onsite at Sand Island for most of the day during RobotX. The teams will be participating in indoor presentations at METC at some point during the week but the majority of their time will be spent in their tents (which act as “workspace”) or deploying the boats in the water during practice runs or competition runs.

Location: Sand Island and Marine Education Training Center (METC)

Expected Participation:

- 20-25 teams of approximately 15 students from universities around the world
- Approx. 100 Staff, Judges and Volunteers

Tents/Structures

- 30'x30' tent per team for work space
- Use of METC buildings, grounds and pier
- Operations Tent (approx.. 100'x50')
- Additional Competition Support Tents

STEM Event

We intend to work with local education and STEM organizations to create a public-oriented STEM outreach event for the final weekend of RobotX. This could include displays and hands-on activities intended to get younger students interested and involved in STEM programs.

Public Access – This event will be open to the public

Parking/Transportation – Use of the neighboring parking area will be necessary for participants and spectators

Security – We typically provide security for the site and structures during the competition

RobotX 2014

The first RobotX occurred in October 2014 in Singapore. 15 teams from the U.S., Singapore, Japan, S. Korea and Australia competed in the event. Most of the universities involved had not done much in the way of “Unmanned Surface Vehicles” (robotic boats) and the applications for which they are well suited. With the Competition’s focus on this emerging technology area and the wide range of uses for

these robotic systems, the students were inspired to gain a great deal of new knowledge. Those students, and the universities, are now engaged in the continued research of this exciting new area. For more results on RobotX 2014, go to www.robotx.org. A total of \$100,000 was awarded to RobotX2014 teams.

Sponsors

Given the significant scale of this event and the logistics necessary to make it happen, corporate underwriting is essential. The organizations that are expected to support RobotX 2016 are organizations that mainly have an interest in participating in the educational development of the student participants. Typical AUVSI Foundation sponsors include:

- Northrop Grumman
- SolidWorks
- Insitu
- MathWorks
- NAVATEK
- Intel
- SpaceX
- We expect to attract local Hawaiian organizations as well

Public Beach Impact

We acknowledge that the RobotX event will have an impact on beach and boat launch access on Sand Island. It is our intention to work with the affected groups to gain their support and attempt to create solutions that minimize any negative impact. The timing of the event, in mid-December 2016, gives us time to work with the local groups. We also understand that this time of year is a relatively lighter time in terms of beach and water usage. Please refer to the attached diagrams for a better understanding of our expected impact on the beach and waterways.

Additional Information

The RobotX website, www.robotx.org, has a wealth of information, including videos about the event and the 2014 Challenge, detailed information about the boat that the teams will use, a list of the participants and much more.

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SUBCOMMITTEES:
CONTRACTING AND THE WORKFORCE, RANKING MEMBER
AGRICULTURE, ENERGY, AND TRADE

Congress of the United States
House of Representatives
Washington, DC 20515-1101

November 3, 2015

Mr. Barry Cheung
Oahu District Land Agent
Department of Land and Natural Resources
Kalanimoku Building
1151 Punchbowl Street, Room 220
P.O. Box 621
Honolulu, Hawaii 96809-0621

Re: Letter of Support for the Maritime RobotX Challenge

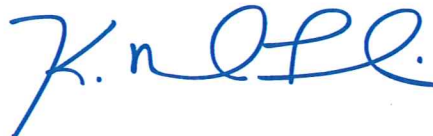
Dear Mr. Cheung,

I would like to express our support for the Maritime RobotX Challenge, which is being planned for December 2016 on Oahu, Hawaii. I am confident that this event planned by the U.S. Office of Naval Research (ONR) and the Association for Unmanned Vehicle Systems International (AUVSI) will be positive for not only the U.S. and international students participating, but Hawaii students of all ages as well.

This event will bring valuable exposure to the developing science of robotics, STEM education, and the use of beneficial technology in the vast maritime environment. It is exciting to see this clean, electric powered, advanced technology providing opportunities for the students of our great state. The development of autonomous vehicles and the capabilities that they bring for extending research, environmental monitoring, mapping and surveying are of great importance to Hawaii's interests and connections to the marine ecosystem.







The careful and sensitive advanced planning for this event is to be commended. I look forward to the successful 2016 Maritime RobotX Challenge competition in Hawaii.

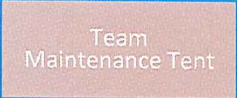
Mahalo,




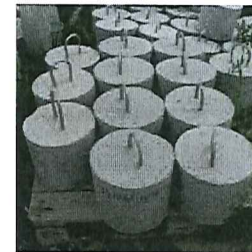
Mark Takai
Member of Congress

RobotX Legend

-  **Technical Tents** (20' x 20') – Center of operations for the technical course directors
-  **Team Tents** (20' x 20') – Team working tents for WAM-V storage, equipment repair / maintenance
-  **Judge's Tents** (15' x 15) – Judging station/viewing area for course judging
-  **Team Control Tent** (15' x 15) – Tent for each task area / competition course where teams will observe their WAM-V's while the boats are operating in a task area or competition course.
-  **Boat Wash Down Station** (20' x 20' area) – Boat wash down area with water supply for boat rinsing
-  **STEM Exhibit Tents** (10' x 10') – Tents available for STEM exhibits

 **Team Maintenance Tent** (20' x 40') – Large tent where each team has a table. Teams will do minor computer adjustments while WAM-V's are temporarily anchored.

 **Temporary Boat Anchor Points** - Concrete anchor points for WAM-V's to anchor during competition day



 **Spectator Viewing Area** (10' x 40')

 **Generator**  **Water Truck**  **Food Truck**  **Barricade**



Overview:

RobotX has two primary objectives: To create a pinnacle STEM student outreach event, and promotion of interest among Pacific national partners in the science and technology of autonomous systems.

Key Organizations

U.S. Office of Naval Research – The Department of the Navy (DoN) recognizes that a healthy science, technology, engineering and mathematics (STEM) workforce is critical to meeting the Navy and Marine Corps’ greatest challenges. As such, the DoN is actively engaging in efforts to improve STEM education in the United States over the next decade. The Naval STEM Coordination Office, located at the Office of Naval Research, under the leadership of the Chief of Naval Research as the Naval STEM Executive, serves as the central coordination and information resource for Naval STEM efforts.

AUVSI Foundation -- The AUVSI Foundation is a non-profit organization that provides students with hands-on robotics activities designed to fuel and sustain their interest in science, technology, engineering and math (STEM). Each year the AUVSI Foundation offers educational programs as well as robotics competitions that allow students to apply their STEM education outside the classroom. The experience is ideal preparation for entering the workforce, which is why participating students are frequently offered coveted internship and employment opportunities while still in school. Since the competitions began in 1991, more than \$1.4 million has been awarded in prize money.

Local Organizational Support

- University of Hawaii – School of Engineering
- NAVATEK
- Other Local Organizations