THE SENATE
TWENTY-NINTH LEGISLATURE, 2017
STATE OF HAWAII

S.R. NO. 40 S.D. 1

SENATE RESOLUTION

REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES, IN COLLABORATION WITH THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, TO EXPLORE THE POSSIBILITY OF USING AUTONOMOUS UNMANNED SURFACE VESSEL TECHNOLOGY TO DETECT AND CLEAN UP OCEAN DEBRIS BEFORE IT REACHES HAWAII'S REEFS AND BEACHES.

WHEREAS, Hawaii's beaches are covered with marine debris in the form of pieces of plastic, bottles, nylon nets, and other floating objects of man-made pollution that the Pacific Ocean currents and winds continuously bring to the Hawaiian islands; and

WHEREAS, to protect Hawaii's reefs and aquatic habitats, it is necessary to remove macroplastic and microplastic debris from the oceans; and

WHEREAS, these plastic particles decompose but never biodegrade, breaking down into polymers and then into molecular-sized pieces, which are invisible to the naked eye, and remain suspended in the upper water column; and

WHEREAS, these decomposed plastics release polychlorinated biphenyl (PCB) and other known toxic chemicals which are ingested by Hawaii's birds, Hawaiian monk seals, and fish; and

WHEREAS, fish ingesting toxic PCB are in turn consumed by humans; and

WHEREAS, the floating pollution made up mostly of plastic aggregate accumulates in large gyres in the Central and Western Pacific before finding its way to Hawaii; and

WHEREAS, this plastic debris now threatens the beauty of the Hawaiian islands, its tourism industry, its wildlife, and the health of its people; and

WHEREAS, an inventor from Kailua developed an autonomous unmanned surface vessel (AUSV) system that is capable of cleaning up floating ocean debris; and

WHEREAS, it is estimated that marine debris in the Pacific ocean causes about $1,270,000,000 in damage per year to the fishing, shipping, and marine tourism industries; and

WHEREAS, AUSV technology may have the capability of cleaning ocean trash gyres, such as the great Pacific garbage patch, which is significantly far away from land, in a cost-effective and safe manner; and

WHEREAS, ocean-going AUSVs are managed by satellite and can remove millions of tons of plastic debris from the remote Pacific gyres where the plastic congregates before being carried to Hawaii; and

WHEREAS, satellite control of the AUSV drones and ocean research on drone technology is an economic niche that takes advantage of Hawaii's unique location; and

WHEREAS, the development of AUSV drone technology may help diversify Hawaii's economy and provide future jobs in the high tech industry; and

WHEREAS, in addition to the potential economic benefits of AUSV technology, the use of such technology to help clean Hawaii's beaches of plastic debris will help protect Hawaii's ocean wildlife and keep the beaches clean for all to enjoy; now, therefore,

BE IT RESOLVED by the Senate of the Twenty-ninth Legislature of the State of Hawaii, Regular Session of 2017, that the Department of Land and Natural Resources is requested to, in collaboration with the National Oceanic and Atmospheric Administration, explore the possibility of using autonomous unmanned surface vessel technology to detect and clean up ocean debris before it reaches Hawaii's reefs and beaches; and

BE IT FURTHER RESOLVED that certified copies of this Resolution be transmitted to the Chairperson of the Board of

Land and Natural Resources and National Oceanic and Atmospheric Administration Pacific Islands Regional Office.