



# HIGICC UAV Workshop

Friday January 23<sup>rd</sup>, 2015

9AM-1PM

McCoy Pavilion, Ala Moana Beach Park

Agenda:

Ted Ralston

Think Tech Hawaii

UAV uses, Hawaii and beyond

Aaron Woods

Pinpoint Mapping

"Photogrammetry in the Year 2015; Better, Faster, & Cheaper than ever before" A review of agricultural applications in Waialua & land management in Kahuku. It will focus on the results from a fixed wing UAV the Sensefly eBee, but also touch on utilizing imagery from multi-rotor copters as well.

Miguel Castrence

Resource mapping

Title: High-quality GIS data from low-cost UAS. Examine the challenges and opportunities in the collection and processing of data from low-cost unmanned aerial systems over complex landscapes. System requirements (sensors, software and hardware), as well as factors that affect data quality (GSD and RMS requirements, site complexity, environmental conditions). Evaluate some sample data from fixed-wing and multi-rotor DIY systems.

Dave Harrington

Terrapacimagery

We have been piloting low cost survey grade 3D mapping for several years using small cameras on light certified aircraft. New technologies are providing wide area coverage at high accuracy comparable to traditional survey techniques at much lower costs. We have derived 3D models from aerial imagery that have been compared against simultaneous data collections with traditional Trimble survey equipment on large landfills in Hawaii. We will present some of the results, examples of data products and assessment of the large area modeling accuracy.

Ryan Perroy

University of Hawaii Hilo, Geography

University of Hawaii-Hilo has been using UAVs to map the active lava flow on the Big Island since October, 2014, in direct support of Hawaii Civil Defense and USGS disaster relief efforts. Repeat high-resolution imagery and derived topographic datasets have proven valuable in numerous ways, including documenting pre- and post-flow ground conditions, measuring flow inflation rates, and predicting future flow paths.

Robert O'Conner

University of Hawaii Manoa. Master's program Geography

UAV for Coral Reef monitoring. *Robert is using a relatively inexpensive and easy to operate UAV coupled with a high resolution camera to accurately map coral reefs in Kaneohe Bay for resource scientists and managers.*

Lunch Noon-1PM