2013 Overview Brief

... meeting the next challenges of the Navy and Department of Defense today

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VADM USN (Ret)
Executive Director
Background

- First established as an organized research unit under the University of Hawaii System and then became a Navy University Affiliated Research Center (UARC) in July 2008 through a sole source, Indefinite Delivery, Indefinite quantity (IDIQ) contract with Naval Sea Systems Command with $44.7M ceiling.

- Serves as a research center of excellence for critical Navy and national defense science, technology and engineering with focus in four naval missions and related areas.

- Original five year contract expired July 2013, but has been extended until 2018.

- Authorized to conduct classified research.

- Hired current Executive Director in September 2012
Locations on Oahu, Hawaii

Source: maps.google.com
Facilities

Manoa Innovation Center – provides research and administrative offices
Facilities

- Hangar 111 – Kalaeloa Airport formerly Barber’s Point Naval Air Station
- ARL at UH occupies half of hangar roughly 45,000 sq. ft.
- Can be reconfigured to support simultaneous research
- Hangar 111 allows large scale testing in a restricted area
Essential core capabilities positioned to respond to current and future Navy/DoD Needs and Challenges

- Ocean Science and Technology
- Advanced Electro-Optics & Remote Sensing
- Engineering Support for Sensors, Communications, and Information Technology
- Astronomy
Ocean Science and Technology

- Physical Oceanography
- Biogeochemical Assessment
- Remote Sensing
- AUVs
- Survey Capabilities
- Numerical Models
Advanced Electro-Optics & Remote Sensing

- Advanced hyperspectral systems
- Instruments and systems for characterizing the marine boundary layer
- Measurement and phenomenology of in water optical properties
- Bathymetric mapping - detection of submerged objects
- Detectors for Naval requirements
- Space sensor
Sensors, Communications, and Information Technology

- Sensors and Electromagnetic Development
- Communication, Networks and Protocols
- Advanced Systems Development
- Information Technology
Astronomy

- Design, development and fabrication of instruments
- Modeling and characterizing the atmosphere
- Soft and hardware support for manipulation and analysis of large data sets
## Task Orders

<table>
<thead>
<tr>
<th>TO</th>
<th>Title</th>
<th>Sponsor</th>
<th>Amount</th>
<th>Status</th>
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<tr>
<td>0001</td>
<td>Update Facilities Plan</td>
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<td>Waianae Ordnance Reef</td>
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<td>0012</td>
<td>Near Real Time Viewing of Refined Images *</td>
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<td><strong>Total</strong></td>
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<td><strong>9,097,407</strong></td>
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Take Aways

- Tremendous potential for additional research. ARL at UH offers unique geopolitical, military, energy and environmental research opportunities that to date have been underutilized by Navy.
- Conducting new assessment to add "Alternative Energy" as a mission area.
- Want to add new core competency in "Material Sciences."
- Upgrading classification level within the next two years to expand research into Sensors, Comms and IT mission area.