



University of Hawai'i at Mānoa
Faculty Senate

September 21, 2011; 3:00-5:00 p.m.; Architecture Auditorium/ Arch 205

AGENDA

*** Green links are to draft documents; blue links are to final documents; red lettering shows action.*

Guests: Anna Koethe, ASUH President (brief introduction)

- I. **Call to Order**
- II. **Chair's Report** ([BOR Bylaw Amendments](#) - Due 9/30; [E1: 202](#) – Due 9/8; [Election Audit Report](#))
- III. **Approval of [May 2011 Minutes](#)**
- IV. **Business**
 - a. **Senate**
 1. Proposed Amendment to MFS Bylaws:
 1. *MAC as Standing Committee: [Word](#) | [Pdf](#)
 1. [Resolution to Approve a Proposal to Establish the Manoa Assessment Committee as a Permanent Committee of the Manoa Faculty Senate](#) (Passed with one vote against on 1/21/09)
 2. [Senate Minutes of 1/21/09](#)
 2. Motion to Accept Joint Report on Assessment of Marine Facilities: [Word](#) | [Pdf](#)
 1. [Senate Minutes of 5/4/11](#)Passed: 34 in favor; 11 against; Approved Motion & supporting documents available at: http://www.hawaii.edu/uhmfs/documents/2011_12/20110921_report_marinefacilities.html
 2. Proposed Amendments to MFS Bylaws:
 1. *Absenteeism: [Word](#) | [Pdf](#)
 1. [Results of CAB's Absence Survey](#)
 2. [Senate Minutes of 5/4/11](#)
 3. [Senate Minutes of 1/19/11](#)Passed: unanimous; Approved Resolution & supporting documents available at: http://www.hawaii.edu/uhmfs/documents/2011_12/20110921_resolution_attendance.html
 2. *CORGE as Standing Committee: [Word](#) | [Pdf](#)
 1. [Senate Minutes of 5/4/11](#)
 2. [Senate Minutes of 4/20/11](#)Passed: 1 against; Approved Resolution & supporting documents available at: http://www.hawaii.edu/uhmfs/documents/2011_12/20110921_resolution_corge.html
 3. *Qualification of SEC Authority: [Word](#) | [Pdf](#)
 1. CAB Request to SEC (May 25, 2011): [Word](#) | [Pdf](#)
 - b. **CAB**
 1. Proposed Amendments to MFS Bylaws:
 1. *Absenteeism: [Word](#) | [Pdf](#)
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 3. *Qualification of SEC Authority: [Word](#) | [Pdf](#)
 1. CAB Request to SEC (May 25, 2011): [Word](#) | [Pdf](#)
- V. **Adjournment**

ATTENDANCE



Absent (10)

Michael Cooney, Robert Cowie, L Neil Frazer, Rosanne Harrigan, Henry Lew, John Madey, Kelly Roberts, Raul Rudoy, Kate Zhou, Pavel Zinin

Excused (14)

Marguerite Butler, James Caron, Williamson Chang, Donna Ching, Linda Cox, Martha Crosby, Guliz Erdem, Chin Lee, Scott Lozanoff, Carol Plummer, Hamid Pourjalali (sabbatical), Scott Rowland, Cynthia Ward, Konstantine Xoinis

Present (63)

Chizuko Allen, Venkataraman Balaraman, Ronald Bontekoe, James Cartwright, John Casken, Richard Chadwick, Beei-Huan Chao, William Chapman, Thomas Conway, Robert Cooney, Shirley Daniel, Sandra Davis, Jayson Dibble, Saori Doi, David Duffy, Ariana Eichelberger, David Ericson, Thomas Ernst, Brian Glazer, Jing Guo, Debora Halbert, Cynthia Hew, Peter Hoffmann, Wei Huang, Joseph Jarrett, Lilikala Kameeleihiwa, Kenneth Kipnis, Anne Leake, David Leake, Spencer Leineweber, Mark Levin, Dongmei Li, Barry Lienert, Ingrid Lin, Bonnyjean Manini, Patricia Masters, Jennifer Matsuda, Dore Minatodani, Luciano Minerbi, Joyce Najita, Richard Nettell, Thanh Truc Nguyen, Torben Nielsen, Lawrence Nitz, Ian Pagano, Raymond Panko, Benito Quintana, Robert Richmond, Stacey Roberts, Todd Sammons, Lilia Santiago, Ekaterina Sherstyuk, Janice Shoultz, Victor Stenger, Carolyn Stephenson, Ashley Stokes, Jane Uyehara-Lock, Douglas Vincent, Pal Wessel, Kelley Withy, Annette Wong, Halina Zaleski, Herbert Ziegler

Guests: (2)

Anna Koethe, ASUH President; Susan Hippensteele (Ex-Officio as former Senate Chair)

MINUTES

- I. **Call to Order** - at 3:05 PM by Robert Cooney. ASUH and GSO representatives, the new SEC and committee chair members were introduced and welcomed; and the outgoing SEC members were thanked for their service.
- II. **Chair's Report**
 - A. **BOR Bylaw Amendments** – Questions and recommendations are due 9/30. Items are mostly housekeeping issues.
 - B. **E1: 202** Sent out to committee chairs regarding anti-discrimination, affirmative action, other policies, housekeeping changes. Changes were due 9/8.
 - C. **Election Audit Report** In response to concerns about this years SEC election an ad hoc committee consisting of David Ross, Judith Inazu and Carol Kellett was created to audit the election procedure and balloting. They produced a report in which timing and procedural recommendations were made. The report is on the MFS website.
 - D. **Chancellor Hinshaw stepping down 6/30/2011.** President Greenwood appointing Klaus Kyle, faculty



member, to head the search committee. Robert Cooney will also be on the committee as Senate Chair. Questions about whether we need a chancellor or whether the position should be held by the system president, do exist. Senators are invited, as are all faculty, to express their views either through our committees or as a motion from the floor. Independence, sufficient authority, and loyalty to Manoa should characterize the position. A senator commented that chancellors coming from Manoa have been very helpful. Cooney noted that applications' deadline may be as early as December; and that any recommendation we have might best come to the Senate through its committees. Cooney suggests we could do this at a Congress meeting following the Senate meeting in October. Another view was expressed that the VCAA might stand jointly as Manoa chancellor, as had once been the case in the past. Cooney said he would go back to the SEC Monday to discuss use of the Manoa Congress to carry forward this debate. Another Senator noted that every other campus in the system has a chancellor; and that if we didn't have our own, we might go back to Mortimer's time, who had both positions, which resulted in Manoa being underrepresented. Cooney responded that clearly it would be a good idea to have this discussion at the Congress next month.

III. **Approval of May 2011 Minutes – moved, seconded and passed unanimously.**

IV. **Business**

A. **Resolution to Approve a Proposal to Establish the Manoa Assessment Committee as a Permanent Committee of the Manoa Faculty Senate**

Previously the Senate passed: Resolution to Approve a Proposal to Establish the Manoa Assessment Committee as a Permanent Committee of the Manoa Faculty Senate (The resolution was passed with one vote against on 1/21/09)

Cooney noted that MAC is already a permanent committee as a result of the Senate's previous action. To make it a standing committee requires a motion. He noted that CAB had voted not to send forward such a motion and asked if anyone present wanted to make a motion. In the absence of any motion, consensus he observed seems to be to keep it a Permanent Committee, not a Standing Committee.

Presented to amend of the Mānoa Faculty Senate Bylaws to formally instate the Mānoa Assessment Committee (MAC) as a permanent standing committee of the Mānoa Faculty Senate by reintroducing the item as an information item on September 21, voting on the item at the October 19 Senate, and referring it to Congress, if approved by the Senate, for a vote at the October Congress in order to comport with our By-Laws' required process for Amending the MFS By-Laws. The below Resolution to Approve a Proposal to Establish a Committee on Assessment (MAC) as a Permanent Committee of the Manoa Faculty Senate was passed by the Senate on 1/21/2009 with one vote against approval.

For reference:

SENATE BYLAWS (May 2007): ARTICLE IV. COMMITTEES RESPONSIBLE TO THE FACULTY
SENATE



Section 3. Other Permanent Committees

The Senate may establish other Permanent Committees reporting to the Senate. For each such Committee the Senate will create a document specifying

- (1) the purpose and responsibilities of the committee;
- (2) how the Committee is constituted, organized, and governed;
- (3) that at least one Senator shall be a member;
- (4) how the document can be amended.

The document establishing and governing such a Committee must be read at two meetings of the Senate at least a week apart. It can be voted on and/or amended at the meeting in which the second reading occurs and only then or later.

RESOLUTION TO APPROVE A PROPOSAL TO ESTABLISH A MĀNOA ASSESSMENT COMMITTEE AS A PERMANENT COMMITTEE OF THE MANOA FACULTY SENATE (January 21, 2009)

WHEREAS the purpose of the Mānoa Assessment Committee (MAC) is to lead coordinating and monitoring assessment activities and to develop assessment policy directed at understanding and improving educational effectiveness, and

WHEREAS, the MAC will serve as a repository of assessment activities, provide consultation to the Administration and relevant offices regarding gaps in available assessment information, recommend changes in assessment processes, review the usefulness of assessment strategies, and ensure that Mānoa uses assessment data to inform decision-making and improve student learning, and

WHEREAS, MAC will be staffed by the Assessment Office, and work closely with the Office of Faculty Development and Academic Support, General Education Office and General Education Committee, and the Office of the Vice Chancellor for Academic Affairs and will have the following responsibilities:

- a) Establish academic assessment policies necessary to foster a campus-wide understanding of and commitment to improvement-oriented educational assessment.
- b) Identify the most appropriate practices and uses for assessment of student learning at Mānoa.
- c) Review assessment resource needs and recommend concomitant budgetary allocations by the institution.
- d) Liaise with faculty to promote effective academic assessment practices, especially in support of degree programs.
- e) Consult with subject matter/content area experts as necessary.
- f) Produce an annual report (due at the end of each fiscal year, June 30) to the Faculty Senate on the status of academic assessment at UHM, and

WHEREAS, MAC will consist of 13 members: 9 voting and 4 non-voting members.

Voting members (must include at least two members from Faculty Senate who will be Chair and Vice-Chair of the MAC):

- 4 faculty from the Colleges of Arts and Sciences, chosen to ensure academic diversity
 - 5 faculty from the remaining Mānoa Colleges/Schools or Units, each from a different College/School or Unit
- Non-voting ex-officio members:
- 1 SEC liaison



- 1 Director of the Assessment Office
- 2 students, one graduate and one undergraduate, and

WHEREAS, voting members and the SEC liaison will be appointed by the Mānoa Faculty Senate (MFS), the undergraduate representative will be appointed by the Associated Students of the University of Hawai'i (ASUH) and the graduate representative will be appointed by the Graduate Student Organization (GSO), and

WHEREAS, the chair and vice chair serve two-year terms while all other voting members serve three-year terms (renewable for a maximum of one additional term), such that there is at least 40% overlap in committee composition over consecutive terms, and quorum consists of a majority of the voting membership, and

WHEREAS, MAC reports to the MFS and the Chairperson has the following duties:

- Preside at all meetings and ensure that minutes are taken
- Develop an agenda for each meeting
- Appoint subcommittees as necessary
- Coordinate the writing of MAC reports
- Liaise with the Faculty Senate, administration, and the university community, and

WHEREAS, the Vice-Chair will perform the duties of the chair in the event that s/he is unable to serve, and

WHEREAS, at minimum, this organizing document shall be reviewed, and amended as appropriate, every five years at the end of the fiscal year (starting June 30, 2014) by the Faculty Senate in accordance with Senate Bylaws. Particular responsibility falls upon the MAC to periodically and regularly review this document in terms of its structure, faculty participation on the committee, and the success of its resulting operations, and to report on needed revisions to the MFS, then be it

RESOLVED, The Mānoa Faculty Senate approved the establishment of a Committee of Assessment as a permanent committee of the Mānoa Faculty Senate.

B. Motion to Accept Joint Report on Assessment of Marine Facilities

Motion is before the Senate to accept the Joint Report, not to take action(s) recommended in the report. If accepted the Joint Report will be filed away in the Senate office. It will be there for any future Senator to use it as a starting point for future assessment. Discussion included several concerns, one being whether a budget analysis should be included. CAB has not yet passed on the report. HIMB felt the report didn't adequately reflect what it does. When the charge was initiated, the intent was to provide background knowledge and avoid being caught off guard with requests for faculty votes without enough knowledge. The motion was passed 34 to 11 to accept the report.

Approved Motion & supporting documents available at:

http://www.hawaii.edu/uahmfs/documents/2011_12/20110921_report_marinefacilities.html

*** Photos & diagrams have been omitted



Presented to the Mānoa Faculty Senate for a vote on September 21, 2011. This report was presented to the Mānoa Faculty Senate as an information item at the May 4, 2011 Senate meeting by the Committee on Administration and Budget (CAB).

September 13, 2011

MOTION TO ACCEPT JOINT REPORT ON ASSESSMENT OF MARINE FACILITIES AND PROGRAMS AT UHM

ASSESSMENT OF MARINE FACILITIES AND PROGRAMS AT THE UNIVERSITY OF HAWAII AT MANOA

A Report by the Manoa Faculty Senate Committee on Research and Committee on Administration and Budget

April 2011

The University of Hawaii at Manoa (UHM) is recognized as the flagship research institution of higher education in the Pacific, with defined strengths and responsibilities in the areas of education, research and service. It is a Sea Grant, Land Grant and Space Grant institution, with a defined mission training undergraduate and graduate students, postdoctoral research associates, serving the research needs of state and federal agencies, non-governmental organizations and the broader community of stakeholders in Hawaii and throughout the Pacific Islands.

Hawaii is the ‘Ocean State’ and has a strong economic, cultural and ecological dependence on its surrounding waters and associated resources. The University must therefore take full advantage of opportunities in the marine sciences and be well-positioned and forward-thinking in its strategic planning to be a leader in research and training in this key area of endeavor. This report is a brief overview of existing facilities and programs, with suggestions for future consideration and development that are offered as a stimulus for discussion as the University moves to take advantage of its unique location in the central Pacific Ocean.

The Committee on Research and Committee on Administration and Budget recommend a meeting be organized for faculty involved in marine science to address long-term planning, facility needs and cooperative efforts aimed at integrating the research, teaching and service components of UH endeavors in this field.

Marine science educational and research programs and facilities are distributed among a number of units within the University, including the College of Natural Sciences (Departments of Botany and Zoology), the Pacific Biosciences Research Center (PBRC) and the School of Ocean and Earth Science and Technology (SOEST), as follows.

ACADEMIC PROGRAMS

Botany: Undergraduate (BA, BS) and graduate (MS, PhD) degrees
<http://www.botany.hawaii.edu/>

Ecology, Evolution and Conservation Biology: Graduate specialization (MS, PhD)
<http://www.hawaii.edu/eecb/>



Geology and Geophysics: Undergraduate (BA, BS) and graduate (MS, PhD) degrees

http://www.soest.hawaii.edu/GG/academics/gg_academics.html

Marine and Environmental Geology: Graduate degrees (MS, PhD)

http://www.soest.hawaii.edu/GG/research/gg_meg.html

Marine Biology: Undergraduate (BS) degree

http://www.hawaii.edu/marine_biology/default.htm

Graduate specialization (MS, PhD)

<http://www.hawaii.edu/graduatestudies/fields/html/departments/mno/mb/mb.htm>

Marine Option Program: Interdisciplinary undergraduate certificate program involving all 10 University of Hawaii campuses

<http://www.hawaii.edu/mop/site/>

Molecular Biosciences and Bioengineering: Undergraduate and (BS) and graduate degrees (MS, PhD)

<http://www.ctahr.hawaii.edu/mbbe/>

Natural Resources and Environmental Management: Undergraduate and (BS) and graduate degrees (MS, PhD)

<http://www.ctahr.hawaii.edu/nrem/>

Ocean and Resources Engineering: Graduate degrees (MS, PhD)

<http://www.ore.hawaii.edu/>

Oceanography: Undergraduate (BS) degree in Global Environmental Science

<http://www.soest.hawaii.edu/oceanography/GES/index.html>

Graduate degrees (MS, PhD) in Oceanography

<http://www.soest.hawaii.edu/oceanography/gradstudies.html>

Zoology: Undergraduate (BA, BS) and graduate degrees (MS, PhD)

<http://www.hawaii.edu/zoology/education.htm>

LAND-BASED MARINE FACILITIES

Marine Laboratories

The State of Hawaii has only two fully equipped marine laboratories that are members of the National Association of Marine Laboratories: the Hawaii Institute of Marine Biology at Coconut Island and the Kewalo Marine Laboratory; both have running seawater systems. Hawaii Pacific University also maintains the Oceanic Institute, which is part of its marine biology program. In comparison, other states with long coastlines have many more facilities: e.g., Florida, with 20, and California, with 12. Closing one of the UH facilities will put Hawaii (750 miles of coastline) below Georgia (100 miles of coastline) and in a tie with Illinois (zero coastline) for numbers of marine laboratories.

The Hawaii Institute of Marine Biology (HIMB)

The Hawaii Institute of Marine Biology (<http://www.hawaii.edu/himb/>) is located at Coconut Island in Kaneohe Bay, where HIMB researchers have year-round access to the Bay and its tropical marine waters. Protected by an extensive barrier reef system, the bay's estuarine and coral reef ecosystems support a rich and diverse biota. Outside the barrier reef, pelagic species and open ocean waters 1000 m deep are within 6 km of Coconut Island. HIMB has an especially strong research focus in ecology and animal behavior, and supports the following facilities and resources:



- Evolutionary Genetics Core Facility
- Strong ecology focus
- Boston Whaler research fleet
- Honu Kai (14 m passenger/cargo vessel)
- Flow-through sea water system pumping water from within Kaneohe Bay
- Flumes simulating coral reef flat environments
- Reef microcosm tanks
- Fish holding facilities
- Six controlled tidal ponds with a total area of 4,829 sq. meters
- Marine Mammal Research Center

HIMB has 21 faculty, several postdoctoral research associates and supports graduate students primarily from the Departments of Oceanography and Zoology. It is an excellent facility adjacent to a marine reserve. Coconut Island is located inside a reef, providing access to samples from a living reef environment. However, it also provides access to the oceanic areas that lie beyond the reef.

A selection of the numerous major research projects ongoing at HIMB, most but not all of which focus on coral reef issues, includes:

- Coral reef assessment and monitoring including assessment of coral disease and bleaching in relation to global climate change
- Coral reef biogeochemistry and remote sensing
- Northwestern Hawaiian Island coral reef research to support ecosystem based management of this unique natural heritage
- Sea turtle and coral reef fish molecular genetics and conservation
- Reef shark behavior utilizing the unique shark-holding pens at Coconut Island
- Installation of GPS devices on Tiger Sharks to monitor their movements
- Diversity, evolutionary history, ecology, and physiology of microorganisms of coral reefs
- Whale and dolphin behavior

Because of its offshore island setting, there are logistical challenges associated with getting to HIMB, which unfortunately affect community access, collaborations and educational opportunities.

Pacific Biosciences Research Center - Kewalo Marine Laboratory (KML)

The Kewalo Marine Laboratory <http://www.kewalo.hawaii.edu/> is administered by the Pacific Biosciences Research Center and has been operating at Point Panic in Kakaako since 1972. It supports 45 faculty, postdoctoral researchers, staff and students (15 doctoral level researchers). It is one of very few 'urban' marine laboratories, and, in downtown Honolulu within a short drive from the Manoa campus, provides easy access to UH students and the broader community of UH stakeholders. It has a superb open seawater access system (contrasting with HIMB's within-reef system), as well as state of the art equipment and facilities. KML is the center for two NSF minority training grants. Key resources available include:



- Flow-through seawater system with ocean intake 300 m offshore
- Quarantine facility for non-native marine species and transplants
- Two confocal microscopes
- Ecotoxicology laboratory with robotic/automated workstation for high throughput enzyme-linked immunosorbent assays
- Fluorescent microscopy facilities with micro-injection equipment
- 17 ft Boston whaler, trailer and vehicle
- Dedicated cold rooms for experimental manipulations and assays
- Flume for biomechanical and larval retention studies
- Genomics facilities
- Marine larval cultivation facilities
- Coral cultivation facilities

KML is a world-class research facility specializing in the study of biodiversity and the effects of human activity on our precious local marine environment. KML has key research foci in the evolution of development, larval biology and ecotoxicology. A selection of the numerous cutting edge research areas addressed at KML includes:

- Settlement and metamorphosis of marine invertebrate larvae
- Control of marine biofouling
- Cellular, molecular, and evolutionary basis of biological pattern formation in marine invertebrates
- Mechanisms facilitating invasion by marine organisms
- Marine conservation and ecotoxicology
- Marine worms as a model system for the study of evolution and development
- Evolutionary origins of complexity in marine brachiopods

KML is close to the Manoa campus and is a central location for meetings with state, federal and local groups and partners, with ample and accessible free parking.

Waikiki Aquarium

The Waikiki Aquarium (<http://www.waiaquarium.org/>) is an award winning educational facility that also supports limited research primarily in the area of marine cultivation. It is located in an urban area, with flowing nearshore seawater and exhibit facilities. However, it provides no dedicated laboratory space for advanced research.

SHIPS, SUBMERSIBLES AND RELATED FACILITIES

UH Marine Center

The UH Marine Center (<http://www.soest.hawaii.edu/UMC/>) provides docking space for the three largest research vessels operated by UH that support both blue water and coastal shipboard research: the R/V Kilo Moana, R/V Ka'imikai-O-Kanaloa and R/V Klaus Wyrski.

Research facilities on board the R/V Kilo Moana



Berths for 17 crew and 31 scientists, 3000 sq. ft. of laboratory space, 20,000 lb. hydraulic U-frame structure for deploying oceanographic equipment, traction and stowage winches, heavy lift and towing cranes, 12 kW of uninterruptible power, ship-wide computer network (SIS). Simrad EM120, EM1002, EA500 echo sounders, Simrad HPR 418 acoustic positioning system, Sontek 125 acoustic doppler current profiler, depth finding system.

UH faculty chief scientists on the R/V Kilo Moana (last 4 years)

Paul Lethaby, Matthew Church, Susan Curless, David Karl, Brian Taylor, Patricia Fryer, Eric Grabowski, Tara Clemente, Michael Ondrusek, Fernando Santiago-Mandujano, , Fernando Martinez, Michael Garcia, Roy Wilkens, Christopher Kelley, Daniel Sadler.

Research facilities on board the R/V Ka'imikai-O-Kanaloa

Laboratories: rock (303 sq. ft.), wet (300 sq. ft.), clean (150 sq. ft.), dry (300 sq.ft.). Conference room (256 sq. ft). Hanger (1,332 sq. ft). Two deep-diving (2000 m) submersibles *Pisces V* and *Pisces IV* and a remotely operated vehicle *RCV-150*. A SeaBeam 210 multibeam sonar bathymetric mapping system, Northern Line coring winch (model 3355-EHAOW), 24.7 mm double armored electro-optical cable (ROV umbilical), Markey DUSH-6 hydrographic winch with capacity of 7,000 m of 0.322 three conductor cable, Stern A-frame, moveable (15 ton capacity). Cranes: Pitman Crane (capacity 10,000 lb), Aurora 45F folding crane, Model 45KTNC 10,000 (capacity 40,000 lb at 15 ft, 16,200 lb at 25 ft, 10,000 lb at 45 ft).

Educational contributions of UH research vessels

Data obtained by UH research vessels have resulted in frequent national exposure on television stations such as PBS, National Geographic and Discovery Channel. Recently, the SOEST Dean, Dr. Brian Taylor, was chief scientist on two student cruises on the Kilo Moana.

Uniqueness of the UH Research Vessel Fleet

In terms of home-port location alone, our research fleet is unique in that it is positioned close to the geographic center of the largest body of water on the planet. Locations in the Western Pacific can be reached in less than half the time it would take from ports on the U.S. West coast.

The HAWAII MR1 sonar mapping instrument deployed on the R/V Kilo Moana is a portable side-scanning seafloor imaging system that was developed by the Hawaii Mapping Research Group in 1991. It simultaneously acquires digital bathymetry with a swath width of 3.4 times the water depth and side-scan sonar imagery with a swath width of 7.5 times water depth. The system's sonar transducers are housed in a 5-metre-long vehicle that is towed beneath the surface mixed layer (60 to 100 m) at ship speeds of 8 to 10 knots. The MR1 tow-fish is extremely stable due to its multi-body towing configuration and large righting moment. As a result, MR1 has successfully operated in rough sea conditions (up to sea state 6) that typically cause performance degradation in hull-mounted systems due to bubble masking and violent ship motion. The Kilo Moana is unique within the US academic research fleet in having a 38-kHz Acoustic Doppler Profiler capable of profiling to 1500 m depth, twice the range of the 75-kHz instruments installed on most other research ships.

The two submersibles on the R/V Ka'imikai-O-Kanaloa makes HURL (described in the next section) the only submersible group in the US capable of putting two submersibles on the bottom together operating simultaneously.



This capability is very useful in making films as well as collecting acoustic data.

Hawaii Underseas Research Laboratory (HURL)

The Hawaii Underseas Research Laboratory (<http://www.soest.hawaii.edu/HURL/>) is administered by SOEST and funded by NOAA. It has a staff of 19 and operates two deep diving submersibles, an ROV and a mothership, the 2,590 ton R/V Ka'imikai-O-Kanaloa (see above). This is a highly unique research operation that supports researchers from UH as well as other universities through a competitive proposal process. The mothership is located at the UH Marine Center, while the submersibles are maintained in Waimanalo at the Makai Pier.

OPPORTUNITIES AND VISION

Because of Hawaii's unique location as the most isolated archipelago in the world, abundant marine resources, high level of marine biodiversity and cultural attributes, coastal and marine research, education and service are areas of focus, with clear strengths, and opportunities for additional growth and expansion. There are opportunities in Hawaii that simply do not exist anywhere else, and it is always wise to deal from strengths in areas that distinguish UH from other universities on the U.S. mainland and internationally. With pressing issues related to fisheries, climate change (sea level rise, mass coral bleaching events, ocean acidification), and coastal marine resource degradation, UH should be investing more resources into marine research, education and facilities. Marine biotechnology is also an area of growth and innovation, and UH facilities including the new CMORE Hale provide additional opportunities for our students and stakeholders.

Both HIMB and the KML are at capacity and in need of additional space. Yet the Vice Chancellor for Research and Graduate Education has proposed closing KML. Given the opportunities outlined above, however, there is no defensible reason to consider closing either of these two marine laboratories, which have different foci, strengths and facilities that serve the UH mission of research, education and service, and support complementary and collaborative efforts. Numerous opportunities exist to secure additional funds, and to develop additional strategic partnerships with state and federal agencies, mainland universities, educational institutions and the private sector. The marine sciences is clearly an area of strength and strategic growth of great importance to the state, nation and international community where UH can expand its leadership, and further investment in supporting facilities, faculty and staff is warranted.

In the light of these needs and the potential for UH to advance as a world class institution in diverse fields within marine science, the following courses, programs and centers are at various stages of development. However, in order to fulfill the potential these initiatives offer, the various UH marine facilities need to be maintained and expanded.

Professional degree in Marine Resource Management and Conservation

Job growth and opportunities in marine resource management and conservation are increasing, but with few programs designed to provide appropriate training and develop curricula. Federal and state regulatory agencies and non-governmental organizations require skills that cannot be found in present programs. Ideal employees would have a broader perspective that integrated science, management, policy, economics and communications. Very few programs combine the biophysical/natural sciences with the social sciences, yet this is particularly important in Hawaii, the Pacific Islands and the Pacific Rim, where marine resource issues are of great economic, cultural and ecological value. Documented decreases in marine resource quality and quantity mandate effective



actions be taken to reverse this trend for the benefit of present and future generations. Managers and policy makers require data in a different format and with a different degree of statistical certainty than is typical within the biophysical sciences, and natural scientists often neglect to translate their findings into critically needed policy development and implementation strategies. Agencies are often forced to fill positions either with scientists who understand the biology of organisms but have absolutely no familiarity with regulatory and policy issues, or with individuals with legal and social science backgrounds but who lack the scientific training necessary to understand the organisms, ecosystem functions and stressors with which they are charged to deal.

The proposed professional graduate degree program, which is currently at the 'authorization to plan' stage, will be an interdepartmental/interdisciplinary effort targeted at individuals wishing to pursue careers in marine resource management and conservation. A similar degree program at the Scripps Institution of Oceanography of the University of California at San Diego has been financially viable and successful. This 2 year UH MS/MA program would also allow undergraduates to enroll in their Junior year and obtain a Masters degree within 5 years.

K-12 Programs

The U.S. is falling behind in the STEM disciplines in comparison to other Asian and European countries, and Hawaii in particular is among the states with the lowest student achievement in STEM. The marine environment is a natural tool for engaging students in an enjoyable and relevant manner to expand their knowledge and skills, and train a cohort of local students to enter appropriate fields. UH has several programs that address this need (notably the recent NSF K-12 program run by PBRC through the Ecology, Evolution and Conservation Biology graduate specialization program). Accessible marine research facilities with running seawater can be of great value to such programs that target both Hawaii DOE and private schools.

Pacific Institute for Marine Research, Education, Management and Conservation

Mission: To integrate and bridge cutting edge research to management, conservation and sustainable economic development, and provide transdisciplinary, experiential educational opportunities for students (K-12, undergraduate and graduate), policy makers and the broader community to address pressing needs in global environmental stewardship, workforce preparation, scientifically-based policy development and policy implementation.

Problems that need to be addressed include:

- There is a lack of local workforce preparation in the STEM disciplines, including the expanding field of biology and biotechnology; 92% of the approximately 3,000 biology and related STEM positions in the state are filled by mainlanders and other non-locals/non-Native Hawaiians.
- The U.S. Flag and Freely Associated Pacific Islands, to which Hawaii serves as a gateway and partner, possess some of the world's most diverse and intact coral reefs, fisheries resources and effective management systems based on traditional knowledge, but there needs to be better indigenous human resource capacity developed to bridge modern science with traditional practices. This is critical to the future of these islands as well as U.S. interests in the region.
- There are no hands-on programs for marine resource management; Hawaii is an ocean state and UH is the 'flagship' institution of higher education in the Pacific islands, yet students must go elsewhere (University of the South Pacific, James Cook University, University of Queensland, University of Rhode Island, Duke University) to get marine management and conservation training.
- Hawaii is surrounded by an incredible natural laboratory that is virtually untapped in terms of engaging, inspiring



and educating our future generations of researchers, teachers, leaders and business entrepreneurs. There is no access for Hawaii's K-12 students and very limited access for UH undergraduate and graduate students to seawater tables and wet labs to gain hands-on experience in their courses and to open their eyes to the magnificence of Hawaii's marine resources.

- There are no modern research facilities that bring together scientists, managers, policy-makers, educators and community members to address the pressing needs in marine resources sustainability, yet the future of ocean resources depends on integrating expertise across and among disciplines including biology, oceanography, policy, law, education, economics and public health.

The proposed integrated center would not only service the needs of Hawaii, but serve as a gathering place for Pacific Island and Pacific Rim researchers, leaders, students, managers, educators and policy makers to share knowledge and experience and tackle problems of common concern. The facility would also serve as a gateway for individuals to access the Pacific Islands for global climate change research, policy development, education and service to the region.

Elements of the proposed center include:

- Kewalo Marine Laboratory, a dedicated research facility with a flowing seawater system, state-of-the-art equipment and world-class faculty.
- Educational wing with wet labs, microscopy and lecture facilities, including dedicated space for UH undergraduates (Marine Biology, Environmental Sciences, Zoology and Oceanography), Graduate students, K-12 students (e.g. Kamehameha Schools, DOE) and community outreach.
- Management/policy/conservation wing, with participants including NOAA/NMFS, Hawaii State DAR, USFWS, UH faculty in law and policy, and local, regional, national and international NGOs and Foundations (e.g. The Nature Conservancy, Conservation International, Marine Conservation Biology Institute and Pew Environmental Group), with chain-of-custody facilities for supporting local litigation and enforcement actions.
- Community/visitor wing, exhibits, sales, coffee shop, brown-bag seminars (possibly in collaboration with Bishop Museum, Waikiki Aquarium), highlighting Hawaiian and Pacific cultural practices.

The center's thematic areas of research would focus on the following:

- Biodiversity - from ecosystems to molecules.
- Land-sea connections (Ahupua'a approaches to integrated watershed management; especially relevant to Hawaii and the Pacific Islands).
- Biotic responses (human and environmental/ecosystem health) to the synergistic effects of human induced impacts over natural cycles of disturbance, including global climate change, ocean acidification, sea level rise, fisheries exploitation and pollution.
- The development of tools in genomics and proteomics for advancing basic knowledge and for management applications.
- Integration of traditional conservation and management practices with modern "western" science.
- Biotechnology.

Users and potential partners include:

- Researchers, postdocs, visiting scientists, graduate students, 'scholars-in-residence' program (including policy makers, social scientists and traditional practitioners)
- JABSOM and the Hawaii Center for Cancer Research (natural products chemistry, environmental health-human health linkages)
- UH undergraduate students from the Marine Biology, Zoology, Oceanography, Environmental Studies,



Environmental Law, Hawaiian Studies, Marine Policy and Pacific Islands Studies programs

- Possible site for proposed professional degree in Marine Resource Management and Conservation (see above)
- Kamehameha Schools
- Department of Education – ‘science center’
- Community meetings, lectures
- Tourists
- Mainland/international colleges and universities
- NGOs (e.g. The Nature Conservancy, Conservation International, Sierra Club, KAHEA, Malama Hawaii, Malama Maunaloa)
- Hawaii Government (Division of Aquatic Resources, Dept. of Health, Attorney General for technical support on ocean/coastal litigation and management)
- Federal Agencies (NOAA, EPA, US Fish and Wildlife). Note: this would complement the planned Ford Island NOAA facility, as a satellite with representative offices (e.g. Pacific Islands Regional Office, Pacific Islands Fisheries Science Center), highly accessible to the public, students, policy-makers and collaborators.
- The private sector through entrepreneurial partnerships with UH faculty.

A schematic of the proposed center is provided on the following page.

CONCLUSION

UHM, the only doctoral level research university in the University of Hawaii System, has a diversity of marine facilities, both land based institutes, laboratories and so on, as well as a number of ships that provide key opportunities for off-shore research. Nonetheless, given that Hawaii is the ‘Ocean State’, the overall extent and number of facilities, and therefore the opportunities for research and training they provide, is limited compared to other, albeit larger, states.

In the previous few pages this report has outlined the strengths (and in some cases weaknesses) of these facilities, and identified a number of examples of possible future initiatives to take advantage of all that Hawaii’s location in the central Pacific has to offer to marine science.

There is a clear need to bring the marine sciences faculty and administration together to chart a future course that builds on the clear strengths in research and opportunities identified in this brief review of marine facilities and activities currently ongoing at UHM. During the fact-finding undertaken to generate this report, it became clear that considerable cutting edge research is being undertaken in marine sciences at UHM but that it is dispersed across departments, colleges and schools, with little coordination or even knowledge among participants of what is going on across campus in other units and other disciplines.

As stated briefly at the outset of this report, the Committee on Research and Committee on Administration and Budget recommend a meeting (or series of meetings) be organized for faculty and administration involved in marine science to address long-term planning, facility needs and cooperative efforts aimed at integrating the research, teaching and service components of UH endeavors in this field. UHM stands at a crossroads at which it can either maintain the status quo or even reduce the availability of facilities to undertake marine science, or grasp the opportunity to expand and become a true world leader in this increasingly important (with global climate change) area of research, training and service to our diverse local, national and international communities.



C. Proposed Amendment to MFS Bylaws – Absenteeism

Cooney introduced Doug Vincent to present CAB's recommendation and proceeded to address an issue raised, namely what criteria previously existed? Answer: there were no previous criteria. Change to “and/or” is considered a friendly amendment. Moved to approve the Absenteeism amendment, seconded; passed unanimously.

Approved Resolution & supporting documents available at:

http://www.hawaii.edu/uahmfs/documents/2011_12/20110921_resolution_attendance.html

Presented to the Manoa Faculty Senate by the Committee on Administration and Budget (CAB) as an information item for a first reading on September 21, 2011. The Senate will vote on this item at the October Senate meeting. Congress will vote on this item at the October Congress meeting.

September 1, 2011

Proposed Amendment to the Bylaws of the Congress and Senate

ARTICLE II.

ORGANIZATION OF THE FACULTY SENATE

Section 3. Duties of Senators

[Following the first paragraph referring to the expectation that Senators will attend all Senate meetings and serve on a Senate Standing Committee, add the new paragraph:]

“Three unexcused absences from a meeting of the full Senate and/or of a Senate Standing Committee in a semester will constitute a voluntary resignation from the assigned Committee and the Senate. The Senate will inform the member’s Department Chair of the resignation. An unexcused absence is when the member does not inform the chair of the Committee or the Senate of a reason for the absence.”

D. Proposed Amendment to MFS Bylaws - Resolution to Instate CORGE as Standing Committee

Discussion: amending committee structure doesn't make much sense, since duties were not changed; why? Assumed that previous duties still apply, and new duties are still in flux, an interim stage. MSP with 1 opposition. SEC will assure consistency. MSP 1 opposed.

Approved Resolution & supporting documents available at:

http://www.hawaii.edu/uahmfs/documents/2011_12/20110921_resolution_corge.html

RESOLUTION ON THE FORMATION OF THE COMMITTEE ON RESEARCH AND GRADUATE EDUCATION (CORGE)

Whereas, the Working Group on Graduate Education, in cooperation with the Senate Executive Committee,



negotiated an agreement with Graduate Division regarding the oversight of new graduate education programs and policies, and that task will necessarily fall to a Manoa Faculty Senate standing committee; and

Whereas, the Vice Chancellor for Academic Affairs works with the Committee on Academic Policy and Planning (CAPP) and the Vice Chancellor for Research and Graduate Education works with the Committee on Research, which would, moreover, seem better able than CAPP to accommodate an expanded charge; and

Whereas, effective review of newly proposed graduate education programs and policies requires a senate committee that contains people collectively familiar with the full range of graduate programs and the potential impact of new policies on those programs; and

Whereas, current and past graduate chairs are most likely to have the relevant experience; and

Whereas, current and past graduate chairs will be able to represent most accurately the interests of the programs they represent if their constituencies are organized, as far as possible, to respect the natural affinities existing between the graduate programs offered by different departments; and

Whereas, graduate students have a legitimate interest in being represented on any committee charged with the oversight of changes to graduate education policy;

Therefore, be it resolved that, effective August 2011, the Manoa Faculty Senate's Committee on Research will be reconfigured as the Committee on Research and Graduate Education, containing no fewer than twelve members--at least nine of whom will be Senators, one will be a GSO-appointed graduate student representative, and the remainder of whom will be non-Senators who serve, or have served, as graduate chairs within their departments.

Be it also resolved that Senator and non-Senator membership shall inclusively represent eight graduate education constituencies, and that it will be part of each representative's responsibility to consider not only the program needs of their own departments, but also those of other departments within their constituencies.

Appendix: The eight graduate education constituencies to be represented on CoRGE

- 1) College of Arts and Humanities, School of Hawaiian Knowledge, School of Pacific & Asian Studies
- 2) College of Languages, Linguistics and Literatures
- 3) College of Social Sciences, Social Work
- 4) College of Natural Sciences, SOEST
- 5) CTAHR, Education
- 6) Medicine, Nursing & Dental
- 7) Business, TIMS, Law
- 8) Engineering, Architecture

E. Qualification of SEC Authority

First reading of Article III as is and proposed changes. No vote at this time; vote will be at next meeting. Question about significance: it was noted that changes do not conflict with Roberts Rules of Order. The justification for the proposed changes is articulated in CAB's document. The question was raised, since the Charter applies to all committees all the time, why do we need the proposed changes? A senator



replied that the concern is that the SEC would otherwise possibly make rules that deliberately compromised bylaws. The Senate's Parliamentarian notes that there is a process for making changes, so we wouldn't want any procedure adopted that would prevent that.

Presented to the Mānoa Faculty Senate by the Committee on Administration and Budget (CAB) on May 25, 2011 for a first reading at the September 21, 2011 Senate meeting.

Proposed Amendment to the MFS Bylaws

Proposed Change to Article III: Organization of the Executive Committee

Section 8. Rules and Regulations

Current language: The Executive Committee may adopt rules and regulations for itself and for the Standing Committees, consistent with University and Regents' policy, as it deems necessary.

Proposed language: The Executive Committee may adopt rules and regulations for itself and for the Standing Committees, consistent with the MFS Charter, the MFS Bylaws, the MFS Rules of Order, the University and Regents' Policy, as it deems necessary.

Justification

It forecloses the SEC from adopting a misguided and unfortunate interpretation that the current language authorizes the SEC to do anything it wants, that it is "Above the Law" of the Congress and Senate, even if what it wants to do is inconsistent with or violates the governing documents of the Congress and Senate.

Proposed Change to Article IV.
Committees Responsible to the Faculty Senate

Section 1. Standing Committees

f. Rules and Regulations

Current language: In addition to those rules and regulations adopted for them by the Executive Committee, each Standing Committee and subcommittee may adopt rules and Regulations, consistent with University and Regent [sic] policy, as it deems necessary.

Proposed language: In addition to those rules and regulations adopted for them by the Executive Committee, each Standing Committee and subcommittee may adopt rules and regulations, consistent with the MFS Charter, the MFS Bylaws, the MFS Rules of Order, University and Regents' policy, as it deems necessary.

Justification



This will foreclose the misguided and unfortunate possibility of interpreting the current language as permitting Standing Committees to act in a manner inconsistent with or in violation of these governing Congress and Senate documents.

F. Motion to hold Congress Meeting in October

The SEC brings the following motion to the floor, to have a Congress meeting at 4 p.m., following the Senate meeting October 19th. The motion passed unanimously.

V. Adjournment – at 5 p.m.

Respectfully submitted,
Richard W. Chadwick, Secretary