

ASME-HAWAII SECTION 2005 OUTSTANDING PROJECT AWARD

In its tenth year, the Hawaii Section of the American Society of Mechanical Engineers (ASME) 2005 Outstanding Project Award goes to the Kauai Island Utility Cooperative (KIUC) Kapaia Power Station. ASME-HI members visited the plant on September 25, 2004 and will attest that this project deserves recognition for its outstanding mechanical engineering contributions to Hawaii.

The Kapaia Power Station facility is a 27.5 MW Steam-injected Gas Turbine power plant located on the island of Kauai, beneath the majestic slopes of Mt. Waialeale. Its output makes it the largest single generating unit on the island.

The plant produces clean, efficient power for KIUC, and operates 24 hours a day, 7 days a week, with limited shut downs for maintenance. At the heart of the plant is a General Electric LM 2500 STIG Gas Turbine Package burning naphtha fuel. Approximately 70,000 pounds per hour of steam is produced using the hot exhaust gas via a Once-Through Steam Generator (OTSG) manufactured by Innovative Steam Technologies of Canada. The OTSG is a drumless vertical steam generator, which allows for quick start-ups, dry running capability, no circulation pumps, less instrumentation and simpler controls. However, it requires more stringent feedwater quality and the initial purchase price can be higher because of the use of Inconel materials.

The station uses the best available control technology, providing Kauai with the cleanest emissions of any fossil-fueled generating plant on the island.

Low emissions are achieved by a combination of steam injected into the gas turbine fuel nozzles and ammonia injected into the exhaust via a catalyst similar to the one found in today's cars. Higher efficiencies are achieved by injecting the remaining steam into the combustor of the gas turbine, providing a 25% increase in MW output without any additional fuel burned. The combination of these two important features propels Kauai into the 21st century of electrical power generation.

Situated only a mile from residential areas, Kapaia Power Station was designed to have an aesthetically pleasing profile. By minimizing structure heights and using a strict color scheme, the plant attempts to blend into the natural surroundings. In addition, noise reduction technology has been used to minimize impact on neighbors.

On September 25, 2004 Brad W. Rockwell, Kapaia Power Station Manager and ASME member, gave ASME-HI a personalized tour of his impressive plant. That evening ASME-HI

had a general membership meeting with the Kauai members, including Rockwell and Earl Smith.

ASME-HI Section presents this annual award to projects or designs relating to mechanical engineering within the Hawaii Section area. The Hawaii Section covers a large Pacific area, which includes Hawaii, Guam, and American Samoa. A panel of independent judges selects the annual awardees based on which project or design provides the greatest benefits to owner and customer in economics, social, and

environmental aspects and shows outstanding use of mechanical engineering principles.

Deadline for nominations is April 30. The nomination process is made very simple so that the busy engineers and executives are not overburdened with additional tasks in their already overwhelming workloads. Everyone is welcome and is strongly encouraged to submit an entry. You do not have to be a mechanical engineer. The awardee receives an attractive plaque to proudly display on their office wall. Contact Ed Chang at 543-4227 for more information.



In front the unit L-R: Chester Kaitoku, Ed Chang, Ray Liu, Brad Rockwell, and Earl Smith.



The simple Kapaia Power Station Control Room.

Surveying in the Past

By Kazutaka Saiki

When Captain Cook discovered the Hawaiian Islands in 1776, a King governed all of the islands and he was the sole owner of the land. Private land ownership was non-existent. The King assigned to the various Chiefs under his command Ahupuaa or Ili Kuponu for their use with the authority to rule over the native tenants living there. This authorization continued as long as the Chief remained loyal to the King. This Monarchy Government continued into the early 1800's through King Kamehameha 1st and 2nd's tenure.

By the time King Kamehameha III ascended to the throne in 1824, the foreign populace was increasing at a rapid rate exerting pressure on the King and the Kuhina-Nui to recognize private landownership in the Islands. In 1839, the first Bill of Rights was adopted creating a Legislative body and recognizing the right to own land. This legislation and the adoption of the First Constitution the following year created the need for surveying services in Hawaii. This

sudden need for Surveyors rapidly increased upon the enactment of the Bill creating the Board of Commissioners to Quiet Land Titles more commonly known as the Land Commission. Included in the Rules that the Commissioners adopted and later enacted into Law was a requirement that all lands submitted as land claims with the Land Commission must have the lands surveyed and a sketch and description submitted to the Commission before a Land Commission Award would be issued.

A number of the early surveys were prepared by Missionaries who in most cases were college educated and readily learned the art of surveying. All of these early surveys prepared in the 1840's and the 50's utilized the Magnetic Compass to obtain the direction by bearings and measured the distance using the Gunther's Chain. The magnetic compass is a simple instrument you would set on a tripod and level horizontally using the level bubble. Others used less accurate hand-held com-

(continued on page 2)



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Laverne Higa

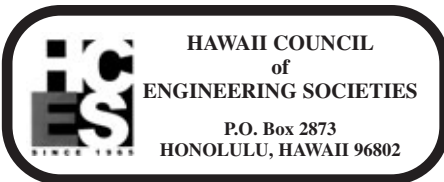
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Surveying, from page 1

passes to obtain the bearings of the survey boundaries.

The Gunther's Chain was used extensively for distance measurements. The chain has a total distance of 66 feet with a hundred links equal to 1 chain. So, each link is 0.66 feet or 7.92 inches. In some surveys of the larger parcels of Ahupuaa and Ili, you would come across some error of closures of plus or minus 66 feet indicating that in measuring a long distance with the chain the surveyors miscounted the number of chain lengths that were measured, or because of a kink in the chain that is not detected, a measurement may be in error by .6 of a foot. Also, because of the weight of the Gunther's chain, accurate horizontal measurements were seldom achieved. On surveys of parcels that have level as well as hilly lands, this discrepancy may be a factor in your boundary analysis.

The magnetic compass has no telescope. The image is not magnified. The Surveyor sights through a vertical slit with his naked eye and guides his assistant who is pulling on the Gunther's chain onto the line of sight. Unless you're Superman, your sight will be limited to shorter distances than the compass and will require many more setups on line leading to more accumulated errors in you Bearing readings. The most common and the greatest deficiency of Kuleana description is the lack of reference marks at the initial points of these descriptions, especially those Kuleanas within Ahupuaa both Government and Private. When you have a description reading "Beginning at the South corner and running thus Bearing and distance along Aupuni, —Along Aupuni, — along Aupuni to the point of beginning" this Kuleana could be floating anywhere within the Ahupuaa. Without continuous occupancy or Kamaaina testimony to verify its location and boundaries, these Kuleana became lost or an un-located Kuleana. The early Patent Grants that were issued by the Monarchy Government were also in bearings and chains.

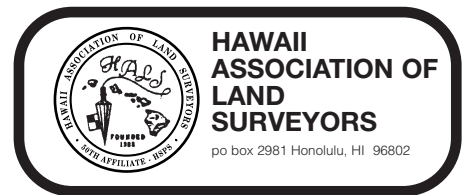
By the late 1860's, it became apparent that some standardized survey system had to be developed to identify and map all of the Government lands and their relationship, location wise, with the private land holdings. Thus, the Office of the Surveyor General was authorized by the Legislature and the first Surveyor General, W.D. Alexander, was appointed in 1871. His first major task was to implement a standardized survey system for all of the Islands. By the fall of 1871, he set up a primary triangulation network for the Islands of Maui and Oahu and initiated the true azimuth system beginning True South as 0 degrees. They continued this task for the other major Islands into the 1880's. His other task was to identify and map all of the Government lands at the same time obtain information from private Surveyors of earlier surveys prepared for private parties. Then put all this information on maps which are located today at the Survey Division, Department of Accounting and General Services. These maps were indexed as Government Survey Registered Maps each numbered and filed in their vault. Today, there are over 4000 Registered Maps on file.

Also, in the early 1870's, the first elevation benchmarks were established on each Island. Thus, from the 1870's most of the surveys were performed with transit and a tape. The early surveys presented to the Boundary Commissioner for confirmation of the Ahupuaa and Ili that were awarded by name only con-

firms this practice. In 1892, the Homestead Act was passed by the Legislature to encourage agricultural pursuits and promote land ownership by subdividing Government lots for sale to the Public. Most of these lands were in very remote areas with no roads or water. These subdivisions consisted of parcels of a few acres to 20 to 50 Acres in size. During this period, they had no bulldozers to clear the path for the surveyors. Not much attention was placed on the accuracy of these surveys.

A review of the field books of these Homestead surveys reveal that there were instructions for Surveyors such as the size and scale of map, the requirements for mapping & referencing of the initial point. However, there was no mention of accuracy standards.

It wasn't until 1933 that the accuracy standards of 1 in 10,000 for City, 1 in 8,000 for residential suburban property and 1 in 5,000 for farm or rural property surveys were adopted. On LD.Ct. Applications that were adjudicated prior to 1933 which includes Land Court Applications on Oahu, it appears that these accuracy standards were not followed. This led to much of the discrepancies surfacing in boundary stakeouts of Land Court parcels. In the United States and Hawaii, the use of the transit and tape for every day surveying continued through the 1940's. As the price of the European-made theodolites became more affordable and available, the conversion to the use of theodolites in the United States increased rapidly.



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Future Workshops and Conferences

Two workshops by Felicia Provencal are being planned for this fall. One will be held on Maui, where Felicia resides, and another to be held on the big Island.

The Annual Surveying Conference will be on February 2-3, 2006, at the RADISSON WAIKIKI PRINCE KUHIO (formerly the Outrigger Prince Kuhio Hotel), 2500 Kuhio Avenue, Honolulu, Hawaii, 96815. In conjunction with our Surveying Conference "Vendors Day" will be on February 1, 2006. Information on our Conference and Vendors Day will be constantly updated on our 2006 Surveying Conference Update Page.



www.sfpehawaii.org

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HAWAII SFPE SEMINAR PRESENTATION INTRODUCTION TO STRUCTURAL FIRE PROTECTION

Through a special arrangement with the Society of Fire Protection Engineers the Hawaii Chapter of the Society of Fire Protection Engineers is sponsoring this excellent one day seminar. This is the first time this seminar has been offered in Hawaii.

Sponsored by: Hawaii Chapter, Society of Fire Protection Engineers

Date & Time: Friday August 5, 2005 7 : 3 0 AM - 5:00 PM

Location: Fort Shafter Golf Clubhouse (Hale Ikena)

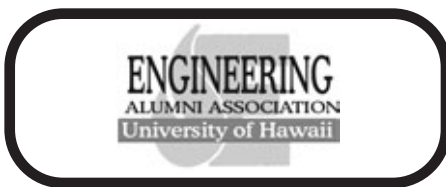
Cost: \$225 (\$150 for SFPE members & Chapter Friends and SEAHO members)

Deadline: The registration deadline is Friday, July 29, 2005

Who should attend: Fire Protection Engineers, Structural Engineers, Architects

For information and Sam Dannaway, Program Chairman to register contact: Hawaii Chapter SFPE Tel (808) 526-9019 / Fax (808) 537-5385

E-mail: seminars@sfpehawaii.org



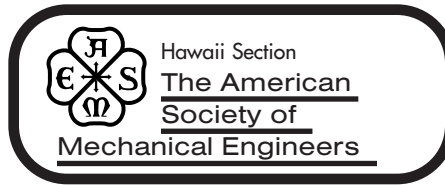
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EAAUH Annual General Meeting: The general meeting was held on June 7 at Vino. Thank you to everyone who attended and a special thank you to Dr. David Rezachek for speaking at the meeting.

2005 EAAUH Golf Tournament: The golf tournament will be held on July 22 at the Pearl Country Club. Hope to see you there!



Website: www.sections.asme.org/hawaii

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Dir 2 yr	Chester Kaitoku	527-6083
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HAWAII SECTION GENERAL MEETING

Date: Tuesday, July 12, 2005

Time: 5:30 p.m. to 6:30 p.m.

Place: Hawaiian Electric Company, Inc. Ward Avenue Cafeteria

Program: Continue planning section activities for the rest of the year. The Officers and Directors of ASME-HI look forward to seeing new and familiar faces. Lots of free pizza and pop are always provided. Please contact Ray Liu or Sam Gillie for directions and for more information.

ASME HAWAII INSTALLATION BANQUET

The installation banquet was held Sunday, May 29, 2005, at Dave & Buster's in the Ward Entertainment Center from 11 am to 3 pm. Sworn in as 2005-2006 officers were Chairman Ray Liu, Vice-Chair Rodney Krienke, Treasurer Derick Kam, Secretary Kevin Dang, and Director (2-yr) James Grogan.

ASME'S CONTINUITY AND CHANGE LAUNCHED

The ASME new organizational design is launched on July 1, 2005 as scheduled. In past Wiliki issues these organizational structure and functional changes have been described. Please keep in mind that sections, student sections, and divisions, or the member-units, will continue to operate in much the same way as they always have. What is changing is the overall support structure. As the Knowledge and Community Sector was developed, focus has been on value to the member and member-units, not on maintenance of the organizational status quo. As such, some programs you may be familiar with might go away, but the desired function achieved in a different, and intentionally, better way. ASME is putting in place the mechanisms to enhance the performance of the member-units and provide a system better designed to build on its core assets.

A better ASME will be created to better meet the needs of the members and customers now and into the future.

ANNUAL PEARL HARBOR BOAT TOUR

ASME-HI Past Chairman Stanford Yuen again this year invites ASME-HI members, their families and friends to the annual Pearl Harbor Boat Tour on Thursday, August 11, 2005, starting at 4:00 p.m. For more information about the boat tour, please visit www.sections.asme.org/hawaii/pearltour05.htm. There is no charge for this hour and a half tour. If you would like to attend, please contact Ed Chang at 543-4227 or email him at edmund.chang@heco.com.


FUTURE TOURS AND EVENTS

P.E. Study Group and P.E. Refresher Course: Chairman Ray Liu is coordinating a review course for the October exam with Dr. Charly Kinoshita and Dr. Stephen Masutani as instructors. Watch for the dates, times and place for the course.

Tour of the Hawaiian Waters Park mechanical facilities being planned by Ray Liu.

Tour and Hawaii Section meeting with Big Island member in Kona for October 2005. Possible sites to visit include cold water bottling plant, HELCO Keahole Power Plant, and the Hamakua Partners Power Plant. Other suggestions will be appreciated.

December 2005 Whale Watching Cruise: A second ASME-HI cruise is in the works. Stay tuned for more details.



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- ✦ 2-3 years strong professional/investigative/managerial work experience desired
- ✦ 23-36 years of age
- ✦ Drug policy/drug testing mandatory
- ✦ Entry-level salary (GS-10) is \$46,186 Academy training; \$57,646 - \$62,571 upon graduation, including locality/availability pay



FBI Special Agents

AMERICA'S FINEST





2004-2005 ASCE Hawaii Section Executive Committee

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Past President Westley Chun <i>email: Westley.Chun@ch2m.com</i>	440-0269	945-7269

JULY DINNER MEETING

This program is jointly sponsored by the Structural Engineer's Association of Hawaii (SEAOH).

Program: Jason Ericksen (American Institute of Steel Construction)

Please join our speaker, Jason Ericksen - Director of AISC's Steel Solution Center, who will speak about the following:

Introduction to the new 2005 AISC Unified Specification (1 hour 15 minutes)

Steel volatility in market process (30 minutes).

Date: Thursday, July 21, 2005

Location: Treetops at Paradise Park
Manoa Valley

Time: 5:30 p.m. - Social Time
6:30 p.m. - Dinner
7:30 p.m. - Program
9:00 p.m. - Adjourn

Menu: Multi-entree buffet

Cost: \$22.00 for Hawaii Section members
\$25.00 for non-section members and guests
\$11.00 for University of Hawaii at Manoa Student Chapter members

Please make checks payable to ASCE-Hawaii Section and mail to Ron Iwamoto, ASCE Treasurer, c/o Iwamoto & Associates, LLC, 98-029 Hekaha Street, Suite #37, Aiea, Hawaii 96701, postmarked by Monday, July 18, 2005. Reservations for the dinner meeting to Ron Iwamoto by Monday, July 18, 2005, by phone at 486-5202, fax at 486-5206 or email at ron@iwamotollc.com.

EXECUTIVE COMMITTEE MEETING

July 14, 2005

ASCE HAWAII SECTION STUDENT SCHOLARSHIPS

Please help us increase our scholarship endowment so that we can recognize those deserving students. We continue to accept tax deductible donations with the goal of increasing the annual scholarships. Make your check payable to 'ASCE Hawaii Section' and mail to ASCE Scholarship Committee, P.O. Box 917, Honolulu, HI 96808. If you have any questions, please contact Westley Chun at 440-0269, or Westley.Chun@ch2m.com.

ASCE JOB LISTINGS

The following employers have openings they would like to fill:

- Austin Tsutsumi & Associates, Inc. (Civil

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Next YMF General Meeting

The next two YMF general meetings are scheduled for Tuesday, July 5, 6:00 p.m., at Ryan's Grill in Ward Center, 591-9132; and Tuesday, August 2, 6:00 p.m., at Dixie Grill along Ward Avenue, 596-8359. If you are interested in attending to find out what the YMF is all about and how much fun we have, please call Paulette Chang at 257-6920 ext. 231.

YMF May Social - Barbecue

May was a busy month filled with project deadlines, finals week for students, Mothers' Day dinners, and the start of the graduation season. Even with all these events, on May 7th, 2005, members and friends of the YMF were able to take a break and enjoy a barbecue in Aiea at the Takushi residence. The night gave a chance for the YMF members to meet a few new faces and provided an opportunity for old classmates to catch-up on old times and even old co-workers to finally know one another's names.

The YMF would like to thank everyone who helped organize and setup the barbecue and also those who brought all the delicious food and drinks.

YMF August Golf Outing

The YMF golf committee is planning another golf outing for August 2005, so keep checking the Wiliki and YMF website (www.ascehawaii.org/yymf.html) for the date and sign-up info.

Edmund Friedman Young Engineer Award

The ASCE Hawaii Section YMF would like to congratulate Mr. Jeff Kalani of Yogi Kwong Engineers, who was selected as one of this year's recipients of the Edmund Friedman Young Engineer Award. This national award was established in 1972 to recognize the professional contributions of younger members aged 35 years and younger of the Society. Award recipients are selected based on their professional achievement, their service to advance Civil Engineering, technical competence, character, integrity and public service outside of their professional careers. Mr. Kalani will be presented with his award at the 2005 ASCE National Conference later this year.

Goodbye's

The ASCE Hawaii Section YMF would like to say goodbye to our Treasurer Ms. Laura Smolinski. Ms. Smolinski will be leaving us to attend graduate school at Virginia Tech later this month. We wish Laura well.

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KNOW YOUR ASCE HISTORY

by C.S. Papacostas

PROJECT TUGBOAT

At the May 2005 meeting of the ASCE-Hawaii Section, I enjoyed a very pleasant conversation with Jeff D. Benson of CH2M Hill. Until then, I knew nothing about "Project Tugboat" or its relevance to Hawaii. From Jeff I learned that the Atomic Energy Commission (AEC) had lent a hand in excavating the small boat harbor that sits next to the Kawaihae Deep Draft Harbor on the Big Island. That same evening, he e-mailed me two sources of information related to this intriguing story.

The first was a paper by Susan C. Edwards and Colleen M. Beck of the Desert Research Institute in Nevada that was presented at the second annual Hawaii International Conference on the Social Sciences, sponsored by the University of Hawaii's West Oahu College in 2003. Its title was "Project Tugboat: Hawaii's Contribution to the Plowshare Program." The second item was a U.S. Army Corps of Engineers information sheet dated 15 March 2004.

From these and other sources, I put together the following picture:

In his memorable "Atoms for Peace" address given to the United Nations on December 8, 1953, U.S. President Dwight D. Eisenhower proposed peaceful uses of atomic energy and he encouraged a "world-wide investigation into the most effective peace time uses of fissionable material."

In the same spirit, according to Edwards and Beck, scientists met at the Lawrence Radiation Laboratory in 1956 to discuss the feasibility of using nuclear power to construct an alternate facility to the Suez Canal. At that time, the canal had been nationalized and placed under blockade by Egypt's President Gamal Abdel Nasser. An ambitious "Plowshare Program" (named after the Hebrew or Old Testament passages about beating swords into plowshares) was announced by the AEC (now the Department of Energy) on June 6, 1958. Among its eventual supporters was Edward "Father of H-Bomb" Teller who in 1968 co-authored a book entitled "The Constructive Uses of Nuclear Explosives."

The Plowshare Program was delayed by an international ban on nuclear testing that lasted until September 1, 1961. On December 10 of that year, to meet several peaceful objectives, "Project Gnome" detonated a nuclear device in salt deposits at a depth of 1,184 feet near Carlsbad, New Mexico. This was followed by other projects concentrating in Nevada and nearby states. At about the same time, the U.S. Corps of Engineers established its Nuclear Cratering Group (NCG) to undertake joint research with the AEC under the Plowshare umbrella.

In remote Hawaii, by 1962 the Corps had completed construction of the Kawaihae deep-draft harbor on the northwest coast of the Big Island pursuant to the national Rivers and Harbors Act. In 1969 "Project Tugboat" was planned to create a light-draft boat harbor that, according to Edwards and Beck, "would test the applicability of high explosive cratering methods for harbor construction and provide technical data useful for the design of future nuclear harbor excavation experiments."

A variety of pre- and post-shot geophysical, hydrographic, topographic, meteorological, structural, seismic, biological and cultural

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2004

Concrete Achievement Awards

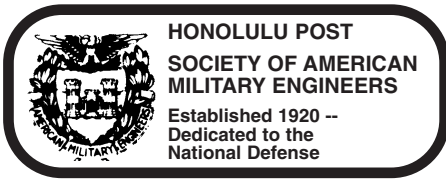


REMODELED/ ADDITION BUILDING AWARD

UNIVERSITY OF HAWAII AT MANOA HAWAII HALL RENOVATION

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Built in 1912, Hawaii Hall was the University's first permanent and significant building. It originally was called the "Main Building" and renamed Hawaii Hall in 1922. The project was an adaptive reuse renovation of an existing building. During its lifetime, Hawaii Hall has served the academic needs of the University without a major renovation. One major phase of the project involved forming the suspended cast-in-place deck using prefabricated panels that could be dropped onto the supporting shoring frames with a crane in lieu of building the deck falsework in place. This method proved to be quicker than forming the deck conventionally.



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**July SAME Meeting –
 Common Sense Approach
 to Water Safety**

Ronald A. Torgerson, of Versar, Inc., will present at the July SAME meeting. He serves as Versar's National Director of Antiterrorism/Force Protection (AT/FP) & Security Assurance. He has responsibility for AT/FP and security assurance in the federal and commercial sectors, business development in the federal sector, and administration of current federal contracts, acquisition of new federal contracts, training, and program management.

Mr. Torgerson's presentation will focus on Water System Safety. Most US water and wastewater treatment plants as well as their associated distribution systems are inherently vulnerable to a terrorist attack. Even in President Bush's recent State of the Union address, water treatment plants were singled out as on target lists found in the caves and bunkers of Afghanistan. It is very easy to penetrate a water or wastewater treatment plant as evidenced by recent needs assessment performed at a major city in the southeastern US and full vulnerability assessments done at other cities throughout the US. This presentation will explain some of those vulnerabilities and what system owners might do to deter potential aggressors.

The meeting will be held 1130 – 1330, 12 July 2005 at the Hale Ikena on Ft. Shafter. Please e-mail Matthew.Jefson@hickam.af.mil to reserve a seat.

**Honolulu Engineers
 Recognize More Than a
 Century of Support**

The Honolulu Post of the Society of American Military Engineers recognized sustaining member firms who have individually provided more than ten years of sustaining membership to the Society. Support ranged from 10 to more than 30 years of membership and is the foundation for many of the Society's outreach and scholarship programs.

Member firms recognized included Washington Group, International; URS Corporation; SSFM International; Wilson Okamoto & Associates; Hawthorne Pacific Corporation; Architects Hawaii, Ltd.; MACTEC Engineering & Consulting; M&E Pacific, Inc.; and R.M. Towill, Corporation. These companies provided more than 134 years of collective support to the Society.

**Honolulu Post, Members
 Receive National
 Recognition**

The Honolulu Post of the Society of American Military Engineers (SAME) and two individual members were recognized for contributions to the Society and military engineering during the May 2005 SAME Joint Engineer Education and Training Conference and Expo in Louisville, Kentucky.

Colonel Timothy Byers was recognized with the Society's Newman Medal. Named in honor of U.S. Air Force Maj. Gen. James B. Newman, the medal is presented for outstanding contributions to military engineering through achievement in design, construction, administration, research, or development by a civilian or military member of the U.S. Air Force and was first awarded in 1955.

Master Sergeant Tod Vanscoy was recognized as runner-up for the Goddard medal. Named in honor of U.S. Air Force Maj. Gen. Guy H. Goddard, the medal is presented for outstanding contributions to military engineering, including military troop construction, base maintenance, and contingency engineering and was first awarded in 1973.

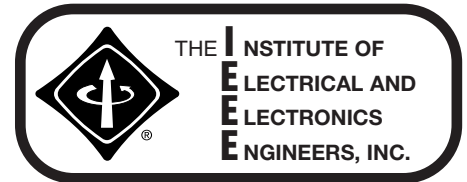
The Honolulu Post was recognized as one of only eleven Distinguished Posts worldwide. It was also awarded recognition streamers for Membership, Relationships and Recognition, National Security Programs, Outreach and Communications, and Education and Training.



The USAF Civil Engineer, Maj Gen L. Dean Fox, presents the SAME Newman Medal to Col Timothy Byers.

The latter three banners were awarded with distinction.

Honolulu Post Sustaining Member Firm, EA Engineering, Science, and Technology, Inc., was awarded the Robert B. Flowers Small Business Sustaining Member Award in recognition of its support for the society throughout the past year.



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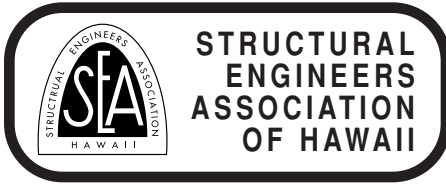
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Sustaining member firms were recognized at the June 2005 SAME meeting for their long-time support.



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HIGHLIGHTS OF BOD MEETING June 13, 2005

Committee Reports:

Membership Committee: The Board voted to accept Yen Wen Fang, Engineering Partners, Inc., and Donn T. Kakuda, Libbey Heywood,



HAWAII CHAPTER

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General Membership Update

The LGSEA membership has voted 75% in favor of adopting the proposal by Steel Framing Alliance to become a technical council of the SFA. The boards of SFA and LGSEA are working to create a seamless transition in the quickest way possible. The Hawaii Chapter Board of Directors is meeting to provide additional information to the membership as soon as possible.

Inc., as a Member and Allied Member, respectively.

2005 SEAHOH Convention Committee: Planning for the upcoming convention is ongoing and registration information will be distributed in early July.

Program Committee: A Masonry Construction Practices Forum – an open-panel forum to discuss such issues as locating conduits or piping in structural concrete masonry unit (CMU) walls, placement of conduits in concrete slabs, fire-rated assemblies, and other masonry and concrete construction practices issues – will be convened by the Masonry Institute of Hawaii (MIH). Tentative date for the Forum is Saturday, 01 October 2005.

Hawaii Council of Engineering Societies (HCES): It was reported that HCES has discussed (1) a pending proposal to standardize the appearance of the Hawaii Professional Licensing Certificate for all Engineers and Architects; and, (2) the merits and feasibility of implementing a uniform Continuing Education Unit program for all engineering disciplines in the State, similar to that adopted by the American Institute of Architects. Discussion of the two issues by the Board was tabled.

Legislative Committee: SEAHOH has been asked to provide a letter endorsing Senate Bill (SB) 960 (appropriates funds for tsunami and hurricane preparedness efforts) that has been approved by the State House and Senate and is pending a decision by the Office of the Governor.

New Business:

Proposed Amendments to the City & County of Honolulu Building Code and 2003 International Building Code (IBC) Adoption – Wind and Seismic Provisions: Mr. Gary Chock, Building Codes Committee Chairperson, presented a summary list and discussion matrix of proposed City and County of Honolulu Building Code Structural amendments to the 2003 IBC. Mr. Chock also presented the results of a wind study he has completed for the City and County of Honolulu that would enable the calculation of wind velocity pressures for the design of buildings and structures through the use of effective wind velocity maps that include topographic and directionality effects for the Island of Oahu.

An Ad-Hoc Committee will be established to review the proposed amendments. The proposed amendments and the background and results of the wind study will be presented for discussion by Mr. Chock at the next SEAHOH General Membership Meeting on July 14, 2005.

The following will be posted on the SEAHOH website (www.seaoh.org): (1) Draft copy of the entire City and County of Honolulu Building Code proposed amendments to the 2003

IBC; (2) summary matrix of the Structural-related revisions to the 2003 IBC; and, (3) a copy of Mr. Chock's study.

Hawaii State Hurricane Advisory Committee (HSHAC): The HSHAC will be sponsoring four booths at the Building Industry Association of Hawaii's (BIA-Hawaii) Remodel It Right Expo on July 8-10, 2005. As the booths will be promoting hurricane preparedness, HSHAC has asked SEAHOH to provide volunteers to field questions related to continuous load paths and retrofitting of homes. Volunteers interested in manning the booths may find more information on the SEAHOH website or may contact the Board to volunteer.

2005 Calendar of Events:

July 8-10, 2005 Expo: BIA-Hawaii presents "Remodel It Right"

July 14, 2005 Qrtly Meeting: "Proposed Honolulu Building Code Amendments to the International Building Code and International Residential Code, including Oahu Wind Provisions Incorporating Topographic Effects"

July 21, 2005 Seminar Meeting: ASCE/SEAHOH Joint Meeting – "2005 AISI Unified Specifications Manual and Steel Market Price Volatility" (Speaker: Mr. Jason Erickson, Director, AISI Steel Solutions Center)

August 05, 2005 Seminar: "Introduction to Structural Fire Protection"

August 05, 2005 Golf: SEAHOH Golf Tournament, Waikole Golf Club

August 18, 2005 Golf: Annual Steve Fong Golf Tournament (Pearl Country Club)

October 20-22, 2005 Convention: CCPI / SEAHOH Convention

October 27-29, 2005 Convention:

(continued on page 8)

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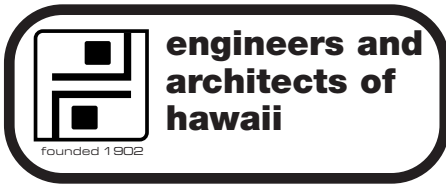
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EAH July Program

July Program Chair: Bob Morrissey

July 1st, No Meeting July 4th Holiday

July 8th, TBA See EAH WEB page

July 15th, TBA See EAH WEB page

July 22nd, TBA See EAH WEB page

July 28th, Speaker: Art Seki, Director of Technology, Hawaiian Electric Company, Inc.
Topic: Kahe Wind Farm Update.

Meetings held every Friday at YWCA room 205 on Richards Street downtown. Parking at Alii Place off Alakea Street for \$1.00 per hour. Meetings start at NOON and end promptly at 1:00 pm.

Members-\$7.50 Guests-\$8.50

Program schedule may be adjusted. Call Secretary to confirm speaker. Anyone wanting a weekly email meeting notice please send your email address to Sam Gillie at sgillie@hei.com.

New Officers:

President: Gary Yamamoto, Civil Engineer at Earth Tech

1st VP: TBA Next Month

2nd VP: Travis Hylton

Treasurer: Ralph Dobson, Retired Hawaiian Electric engineer

Secretary: Sam Gillie, Mechanical Engineer at Hawaiian Electric

Meeting Notes for May 6th, 2005

Speaker: Bev Harbin, President and CEO of the Employers' Chamber of Commerce.

Subject: "Hawaii Small Business Issues."

Beverly Harbin, small-business advocate, has been chair of the Kakaako Improvement Association, president of the Hawaii Automotive Repair Association, and Small Business Advocate at the Chamber of Commerce of Hawaii. Ms. Harbin talked about how in 2004 she founded the Employers' Chamber of Commerce (ECC) to address small-business issues such as health care reform, workers' comp reform, tort reform, GET de-pyramiding, and the Hawaii State Regulatory Flexibility Act of 1998.

Meeting Notes for May 13th, 2005

Speaker: Wayne Kawano, President, Cement and Concrete Products Industry of Hawaii.

Subject: "What's New In Concrete?"

Wayne gave us a good briefing on the latest

in Concrete products in Hawaii. All cement is now imported to Hawaii. Cement production in Hawaii stopped 4 or 5 years ago. Wayne also explained the half dozen or more different additives that are added to concrete to improve or change the concrete properties. Since adding excess water to concrete can significantly reduce concrete strength, one of the important additives is the moisture additive, which works to absorb excess water. Contractors are restricted to adding no more than 2 gallons of additional water to a concrete truck's load in order to maintain the concrete mix properties.

Meeting Notes for May 20th, 2005

Speaker: Gordon Lum, Executive Director of the Oahu Metropolitan Planning Organization.

Subject: "Regional Transportation Plans for the Island of Oahu"

Gordon gave EAH an update on the planning process for Oahu. He explained that unless projects are included within the Regional Transportation Plans for Oahu, they can not receive Federal Funding. He also explained that because the City has failed to provide funding for mass transit projects in the past, it is now necessary for the City and State to provide firm commitments of funding for any mass transit project, if Oahu wants to receive any Federal funding.

Meeting Notes for June 3rd, 2005

Speaker: Jeff Kuhn, University of Hawaii Astronomy Dept.

Subject: "Sun Spots Cycles and Climate Change"

Prof. Kuhn presented a dramatic video of the creation of a sun spot and a sun spot explosion, which hurtled matter into space which destroyed a Japanese satellite, was the cause for one power plant shut down in Sweden and caused other communication loss around the world. He went on to show how there appears to be a historical correlation between sun spot activity and climate change on earth reaching back millions of years.

Sound Recordings of these meeting are posted to the EAH WEB Site.

ASCE YMF, from page 4

PE Refresher Course

We are currently accepting applications for the PE Refresher course to be held from August 13-October 15, 2005. For more information, please visit our website at <http://www.asce-hawaii.org/yymf/PErefresher.html> or contact Ms. Lorna Heller at 748-5944.

Announcements

The ASCE Hawaii Section YMF is looking for chairpersons for next year. If you are interested in leading up fun social activities, outreach programs, community service, awards or any of the other activities the YMF plans, please contact Ms. Paulette Ujimori at 257-6920 ext. 231.

ASCE Job Classified

Looking for work? Visit the ASCE's job listing page at <http://www.ascehawaii.org/jobs/jobsinfo.html>.

ASCE History, from page 4

resource studies were part of the overall project. Fifteen sampling holes were first drilled in the summer of 1969 to investigate the coral sub-surface formation. This was followed by five test shots using conventional high explosive charges ranging from one to 10 tons. Based on knowledge derived from these tests and from Plowshare "Project Pre-Gondola" carried out in Fork Peck, Montana, eight larger charges were used to create an 850-foot-long, 12-foot deep entrance channel ranging in width from 150 to 260 feet. Four additional charges were needed for the harbor's berthing basin. Incomplete detonation of two charges in the entrance channel necessitated a series of 16 remedial small detonations in December 1970. All of the charges used in the project were conventional, that is, chemical explosives. Mile High Drilling, a contractor from Boulder, Colorado, then added an 850-foot breakwater to protect the harbor.

Interestingly, as recently as 2001, a report on Naval Mine Warfare published by the Engineering and Physical Sciences Division of the National Academies of Science cites the findings of Project Tugboat as part of its technical data.

Do you know of a civil engineering accomplishment or event that your fellow ASCE members might find interesting? Please send a brief description to C.S. Papacostas (fax 956-5014, email csp@wiliki.eng.hawaii.edu). Previous articles in the series may be found at the Section's web site. Just point your browser to <http://www.ascehawaii.org>.

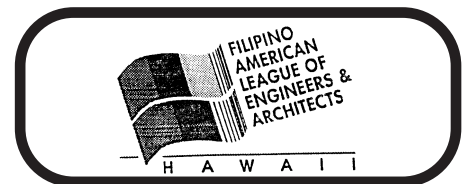
SEAOH, from page 7

NCSEA Annual Convention, Kansas City, MO
November 22, 2005 Seminar:

"Seismic Design of Concrete Structures"
(Speaker: Mr. S. K. Ghosh)

November 25, 2005 Golf: SEAOH
Golf Tournament

January 10, 2006 Seminar: AISC "Steel
Design After College"



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ASCE, from page 4

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- Warren S. Unemori Engineering (Project Engineer and Civil Engineer - Wailuku)

For more information on these job listings, please visit the ASCE Hawaii Section website at <http://www.ascehawaii.org/jobs/jobs.html>.

MEMBERSHIP DRIVE

ASCE counts on our members to help us grow every year by actively participating in the Member-Get-A-Member Drive. The drive is now year-round and offers great new prizes, such as cash rewards, gift certificates, digital cameras, personal digital assistants, LCD TVs and more. For most prizes, all you have to do to be eligible to win is refer a colleague. This is a great time to help out your colleagues while also helping ASCE find new members. Take a minute to think about the people in your professional life who could benefit from membership. Visit www.ASCEDrive.org to refer them and you could be a winner in the next drawing! Please contact our membership chair, Lori Nishida, at 533-3646 or lnishida@atahawaii.com for further information.

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If you would like to receive e-mail notices of upcoming meetings or activities please sign-up for the ASCE Hawaii Section's webmail list at <http://www.ascehawaii.org/emailform.html>. You may also help the ASCE Hawaii Section reduce operating costs by receiving your monthly issue of the Wiliki via e-mail, please contact Joanna Seto at 586-4329 or jseto@ascehawaii.org.



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