



# HE EA MAKAMAE

A monthly publication by the American Society of Heating Refrigerating and Air Conditioning Engineers, Inc.

SY 2010-11, Issue #6 HONOLULU, OAHU, HAWAII Jan 2011

## PRESIDENT'S MESSAGE - Michael Chang

Aloha ASHRAE Ohana,

ll the committees are all working hard and achieving setting up great opportunities for our ASHRAE ohana.

Let's do our part to support in promoting and participating the following efforts:



- 1. ASHRAE Hawaii 2011 Technical Seminar and Product Show
  - Dean, Donna, Scotty and Joe have been working hard to coordinate this event that is by far our largest source of revenue and allows us to keep the organization moving forward. Let's all sign up to attend and invite those who can benefit from the subjects and/or participation in the product show.
- 2. Hawaii Science Fair
  - Paul and Alayna are working on support of the science fair with ASHRAE Hawaii offering \$1,000 in cash prizes for HVAC & Energy related projects.
  - We will host the winners at a monthly meeting. We need judges so please contact Alayna.

### 3. ASHRAE Winter Meeting

Again Joseph has recruited a strong student team to attend with our sponsorship and they will report to us what the learn. Several officers are also taking critical time out of their businesses to attend and represent ASHRAE Hawaii.

### 4. Refrigeration Field Trip

Scott LeBeau had another successful refrigeration system tour. Let's all help him with suggestions for the next one as well as interesting refrigeration subjects that we should bring to the ASHRAE Ohana's radar.

### 5. Monthly Meetings

Blake has consistently put together great meeting subjects and Scotty has coordinated great meeting venues (Willows and the Plaza Club) and has transparently handled the challenges that come up each time. We need to support their hard efforts by attending and participating in the meetings. Thanks to WSP Lincolne Scott and Insynergy providing great support ASHRAE Hawaii and their engineers by coming out in force and at the first lunch meeting.

#### 6. Taxes

Last but not least is a big thanks to Paul who has lead the effort to get our taxes work done by Feb 15<sup>th</sup>. Everyone needs to thank him for the often thankless effort.

That's it for now, see you at the next meeting! Mahalo,

Michael

# <u>Chapter Officers – Society Year 2010 to 2011</u>

President: Michael Chang

President-Elect: Paul "Scotty" Scott Vice President: Kevin Saito, P.E. LEED AP

Secretary: Barry Jim On, P.E. Treasurer: Paul Fukunaga, P.E.

### **Chapter Board of Governors**

Blake Araki, P.E.

Albert Hahn, P.E. (Immediate Past

President)
Donna Kishi
Scott La Beau
Bill Lee, P.E.

Dr. Melek Yalcintas, P.E.

#### **Chapter Chairperson**

Attendance and Reception: John Lau Technology Transfer: Paul "Scotty" Scott

Programs: Blake Araki, P.E.

Government Affairs: Barry Jim On, P.E.

Refrigeration: Scott La Beau Technology: Herman Siu Energy Awards: Bill Lee, P.E.

Historian Joseph Ting, P.E.

Memberships Promotions: Roland Suzuki Newsletter Editor: Kevin Saito, P.E. LEED AP Research Promotions: Archibald Makatini

Product Show: Donna Kishi

Technical Seminar: Dr. Melek Yalcintas, P.E.

Student Activities: Alayna Shima

Young Engineers of ASHRAE: Brandon Maeda

Webmaster: Mark Yamamoto, P.E.

| February 2011 |   |     |     |  |     |     |
|---------------|---|-----|-----|--|-----|-----|
| SUN           | MON                                     | TUE | WED | THU  | FRI | SAT |
|               |   | 1   | 2   | 3  | 4   | 5   |
|               |   |     |     |  |     |     |
| 6             | 7                                       | 8   | 9   | 10   | 11  | 12  |
|               |   |     |     | Chapter Meeting<br>Membership<br>Promotion Night |     |     |
| 13            | 14                                      | 15  | 16  | l  | 18  | 19  |
|               | Valentine's Day  Happy Valentine's  Day |     |     | Chapter BOG<br>Meeting                           |     |     |
| 20            | 21                                      | 22  | 23  | 24   | 25  | 26  |
|               |   |     |     |  |     |     |
| 27            | 28                                      |     |     |  |     |     |
|               |   |     |     |  |     |     |

## Announcements:

- ✓ Nominations for Energy Projects are needed (contact Bill Lee)
- ✓ Tech Seminar and Product Show: March 11, 2010 (UH East-West Center)
- ✓ Job Opening at Coffman (see Employment Opportunities tab on Chapter web page.)

# Next Board of Governors Meeting:

Date: 17 Feb 2011 (Thurs)

Time: 11:30 am

Location: 1132 Bishop Street, Suite 1800 (Hawaii Energy Offices)

### Treasure Hunt!!!

The Chapter is looking for the oldest:

- Consulting engineering firm.
- Installed controls system
- Installed AC system
- Longest ASHRAE membership in Society/Chapter

### **NEXT CHAPTER MEETING**

Date: 10 February 2011 (Thursday)

Where: The Willows Restaurant (901 Hausten Street, Phone (808)952-9200)

Registration: Starts at 5:30pm. (Contact John Lau jl-msn@hawaii.rr.com to

RSVP)

Do's and Don'ts: Starts at 6:00 pm Mr. Jim Aswegan ("Selecting Air

Distribution Devices for Office Spaces")

Dinner: Starts at 7:00 pm (buffet)

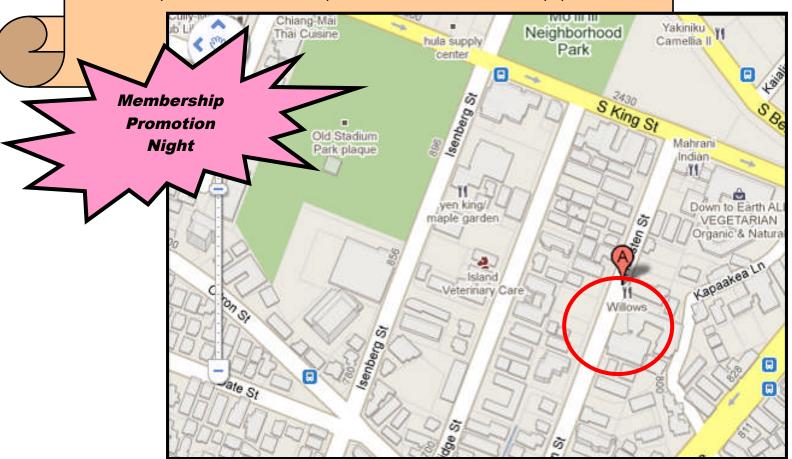
Main Program: Starts at 7:30 pm "How to Efficienty Design/Cool

Computer/Server Room"

Main Speakers: Mr. Jeff Trower (General Sales Manager, Data Aire Inc.)

Adjournment: 9:00 pm

Cost: \$45 per ASHRAE member; \$50 per guest; \$55 at the door registration. (Use the PayPal button on our Chapter web site for convenient payment.)



### <u> ASHRAE Hawaii Chapter – February 2011 Program</u>

# Main Topic: "How to Efficiently Design/Cool Computer/Server Room"

Approximately 12 years ago the major computer and telecom hardware manufacturers got together and created a consortium to address increasing heat densities resulting from technological improvements in their equipment. As this group evolved it came to include professionals from the mechanical design community, the mechanical contracting community, and manufacturers of cooling equipment.

Over some time, the major focus of this group was to develop guidelines and standards for the industry. This focus became a natural link with ASHRAE, and the Technical Committee TC 9.9, Mission Critical Facilities Technology Spaces and Electronic Equipment, was formed.

Since then, TC 9.9 has published eight (8) books including Thermal Guidelines for Data Processing Environments, has responsibility for updating Chapter 17 of the ASHRAE Handbook and is either refining or developing other guidelines and specifications.

Jeff Trower will present an overview of the industry challenges related to increasing heat loads and will draw upon the TC's ongoing work. Particular focus of the presentation will be on best practices, trends and innovations.

Jeff is General Sales Manager for Data Aire Inc. He has been in the air conditioning industry since 1982, starting out with a background in Metallurgy specializing in nondestructive eddy current testing of shell and tube heat exchangers. He has subsequently worked for Mitsubishi in the ductless mini-split division and joined Data Aire in 1997. He is an ASHRAE member and a founding member of TC9.9. Find out more at <a href="https://www.tc99.ashraetcs.org">www.tc99.ashraetcs.org</a>.

Do's and Don'ts Topic: Selecting Air Distribution Devices for

Office Spaces

Do's and Don'ts

Speaker: **Jim Aswegan**Chief Engineer
TITUS
Richardson, Texas

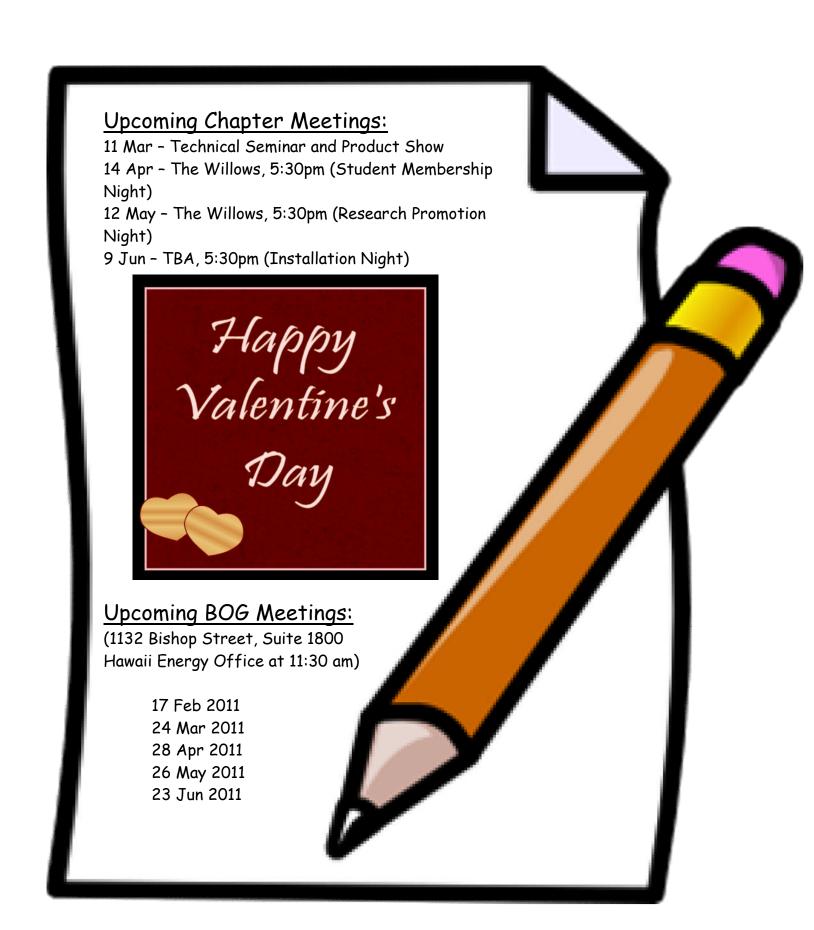
Jim has completed more than forty-five years of service at Titus. After more than 15 years of service in the Research and Development department, he has been in the Sales & Marketing group since 1983.

Jim earned his Bachelor of Science degree from the University of Texas at Dallas.

Jim is a member of ASHRAE and the local Dallas chapter of ASHRAE. For ASHRAE, he is currently serving as Liaison for the 2013 Fundamentals Handbook.

Previous ASHRAE service includes, Chairman of TC-5.3 on Room Air Distribution, Chairman of SPC-70-2006 review committee for method of test for air inlets and air outlets, and member of SPC-130 review committee for method of test of Air Terminal Units.

Jim is a member of USGBC.





# Technical Seminar and Product Show

When: March 11, 2011 (Friday)

Where: East West Center

Hawaii Imin International

University of Hawaii, Manoa Campus

Address: 1777 East West Road

Honolulu, HI 96848

www.eastwestcenter.org

Technical Seminar: \$125/member, \$150/guest, \$175 at the door

Product Show: Free Admission

Product Show Booth: \$600/booth, \$1100/two booths, \$1400/three

booths

Contact: Donna Kishi (armi@hawaii.rr.com phone:676-3700 for

Product Show)

Dr. Melek Yalcintas, P.E. (melek@ameltech.com phone:

for Technical Seminar)



# Chapter Technology Transfer

Please feel free to contact me <a href="mailto:ESIKAILUA@aol.com">ESIKAILUA@aol.com</a> if you have any issues pertaining to chapter programs, technology, energy, refrigeration and governmental affairs that need my attention immediately. **Otherwise**,



contact the following chairperson for the various sub-committees:

- 1. Chapter Programs Chair Blake Araki -blakea@hawaii.edu
- 2. Technology Chair Herman Siu hsiu@trane.com
- 3. Energy Awards Chair William Lee leeb@coffman.com
- 4. Refrigeration Chair Scott LaBeau scott.labeau@dmghvac.com
- 5. Governmental Affairs Chair Barry Jim On bjimon@insynergyeng.com

Let us know if you have any technical subjects that we should consider for our monthly meetings.

Mahalo. *Scotty*.

# <u>ASHRAE 2011 REFRIGERATION TOUR at MID-PAC</u> <u>INSTITUTE</u>

The annual refrigeration tour took place on Thursday the 20<sup>th</sup> of January at the Mid-Pac Institute in Manoa Valley. 12 individuals from ASHRAE, UH Manoa and Honolulu Community College were in attendance. RJ Ritter Contracting Solutions Manager of Trane's Honolulu

Office started the tour with an explanation of a generic Ice Storage system and the Institute's decision to utilize Ice Storage for their chilled water applications. RJ informed us that Mid-Pac Institute had a smaller Ice Storage Plant on the mauka side of the plant that required additional capacity for campus growth. Mid Pac





installed two new Trane
Screw Chillers and a number
of Calmac Ice Tanks to meet
the new load and provide
the necessary assurance to
provide sufficient cooling
with the ICE only mode to
prevent the chillers from
running during the daytime
hours when the time of day
KW rate is more expensive.
RJ and Pam Roth Trane

Account Manager for Mid-Pacific then took everyone for the tour of the ICE Banks, cooling towers, and the chiller plant which included the glycol heat exchangers. The glycol heat exchangers transfer cooling from the glycol Ice Tanks to the chilled water system requirements for the daytime campus air conditioning loads.

RJ then demonstrated the Trane Summit Building Automation System's graphical display which illustrated the ICE capacity available, chiller operation, pumping system, alarms and trend logs for the owner-operator's daily use and maintenance reports. RJ and Pam said the key to a successful Ice Plant System is sufficient Ice and chiller capacity in addition to a DDC control system to monitor, control and provide feedback through alarms and alerts to insure proper cooling with Ice Storage. Ice Storage systems can save operating cost by utilizing lower KW utility charges and save energy by operating during lower nighttime ambient conditions.

Mahalo

Scott LaBeau ASHRAE Refrigeration Chair



### **HISTORICAL COMMITTEE (SY 2010-11)**

Chaired by Joseph K. Ting, P.E., P.Eng., CxA

From the time I first encountered Robert at the Hawaii Baptist Academy Middle School project in 2004, he has always struck me as a humble person. That being said, we are presenting to you the humble beginning of our 24th Chapter President from the day he was laid off as an account clerk to his current position as Carrier Hawaii's Vice President & Controls Engineering Manager. Like his partner, John Arizumi, his influence in our HVAC&R community has continued to form and shape this industry in the State of Hawaii.



### Robert L. Pascua – 24th President of Hawaii Chapter (SY 1992-93)

My career in HVAC&R was 50% passion and 50% luck. I was fortunate to have found a very rewarding career in this industry. I have



been with Carrier working at American Equipment and then Carrier Hawaii for 29 years.

Back in 1981, I had been laid off from my job as an account clerk at Schuman Carriage, the old Cadillac/Buick dealership because of cutbacks. Through a friend who was working in the parts department at American Equipment, I got a job interview with John Arizumi. They had to find a replacement for Curtis Kenmotsu, their former estimator, who was leaving to work for Norman S.

Wright.

With an accounting degree, I had no background in air conditioning, except for the Carrier service training manual my friend gave me to read the night before. I just needed a job. When John asked me what my career goals were, I must have looked like "a deer in the headlights". When he asked me what I know about Carrier, I said, "A big name in air conditioning." Then he asked me what I knew about air conditioning. I replied, "I know where the compressor is in a car." He started to chuckle & I thought he was going to show me the door. I pleaded him, "I will learn &

work hard. Just teach me." He laid out his expectations & I agreed. That was the start of my HVAC&R career since October 1981.

To get up to speed, I'd come to work early and he would spend a half-hour giving mini-techs on various subjects pertaining to the job. I'd work all day, take home work I didn't finish, and made sure I read over the material we covered. Fortunately, his way of teaching made it interesting and easy to grasp. After three months, I got bored just doing air devices and fans, and asked him to do air conditioning selections. An engineer's engineer, John started with the basic fundamentals: air cycle, air distribution systems, psychrometrics, load calculations, refrigeration cycle and pressure enthalpy diagrams, chilled and condenser water cycles. We didn't even sell pumps, yet I learned how to design closed and open hydronic systems and calculate NPSH. We even had few classes on acoustics/vibration, corrosion and solving two-dimensional moment diagrams for spring selections. For me, this was fascinating stuffs. When we finished VAV, I got the big picture.

At that point in time, Dick Dearing (Continental Mechanical) had called us to do a design-build VAV system. I jumped at the opportunity and John entrusted me to do the job. Soon I was working directly with Dick and landed my first VAV job: static regain duct design, controls, and all associated details.

In our office, the sales engineer is the point man from start to finish. From working with consulting engineers, bidding, selling, job supervision, trouble-shooting, and final acceptance of the project. This is different from most sales offices, but the experience is far more gratifying.

I joined ASHRAE in 1982. I shadowed John in his Hawaii Chapter involvement and assisted him in several events and seminars. I served as the Hawaii Chapter president in 1992-93 succeeding the late Lester Nakata.

In 1986, Carrier offered us the chance to purchase Carrier Hawaii. After a long struggle getting financing, we finally pulled it off in September 1990. We never looked back, the freedom to run our own company, our way.

My role now is Controls Engineering manager at Carrier Hawaii, even though I am its vice-president. This is the most interesting and dynamic part of HVAC. A controls engineer is like the conductor of a symphony: The best design with the best equipment cannot perform at their best without good operating controls, just as great musicians cannot make great music without a great conductor. Our strong understanding of equipment and systems differentiates our company.

When asked when I wanted to take over the company, I told John I will not run it. When he retires, I retire. We jokingly tell people we plan to "die in our boots", like Fred Kohloss.