

 **ASHRAE** 
Honor Roll

Phoenix Controls
Corporation

Bill Schultz, Western Regional Sales Manager
2000 Powell Street, #1200 Emeryville, CA 94608
Phone: (510) 596-1788 Fax: (510) 596-1789

Represented in Northern California by Norman Wright
Mechanical Equipment Corporation

Providing precision airflow controls for critical room environments, including:

- laboratories
- hospital isolation rooms
- vivariums
- clean rooms
- pharmaceutical process areas

www.phoenixcontrols.com



Golden Gate Chapter
ASHRAE
41 Sutter Street Suite 401
San Francisco CA 94104-4903

FIRST CLASS MAIL

1998
941



RICHARD A CHARLES
C & B CONSULTING ENGINEERS
150 Spear St Ste 500
San Francisco CA 94105-1537

RECEIVED

DEC 28 1998



FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVII - NUMBER 4

JANUARY, 1999

Golden Gate Chapter Program Announcement
Thursday January 7th, 1999

Location: **Gabbiano's Restaurant**, Pier 2 San Francisco (near Embarcadero and Market Streets)
Date: Thursday January 7th, 1999.
Time: 5:30 pm Social Hour
6:30 pm Dinner
8:00 pm Program
9:00 pm Formal Meeting Adjournment

Program Title: **Panel Discussion: Design Build vs Plan and Spec**

Speakers: Glenn Friedman of American Residential Services
Clark Bisel of Flack and Kurtz

Moderator: Carl Jordan, Consulting Mechanical Engineer



Glenn Friedman, is a Vice President Market Development, for American Residential Services (ARS), a design/build contracting business, and a Professional Engineer registered in the State of California. He is a graduate of the University of California, Berkeley, with background experience in both mechanical and chemical engineering. Glenn was a partner and President of Engineered Air Systems, a local commercial-industrial design/build/maintain HVAC contractor, which merged with ARS. Glenn was the 1996 National President of the Air Conditioning Contractors of America (ACCA). He is a member of the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) and the Refrigeration Service Engineers Society (RSES). He is certified by the National Environmental Balancing Bureau (NEBB) as a Testing and Balancing Supervisor and by the Energy Management Institute of California as an Energy Management Contractor.



Clark C. Bisel, P.E., is a principal at Flack + Kurtz Consulting Engineers, LLP. Mr. Bisel spearheads the design of large-scale projects in the San Francisco office by leading the mechanical/electrical design team to ensure that all specific project requirements are met. Mr. Bisel is an industry leader in sustainable design. His projects have been recognized by their uniqueness in approach and energy performance results. He has been published regularly and has been a speaker at many professional forums on the subject. Mr. Bisel's completed design projects exceed 32 million square feet of space for various building types including mixed-use, high-rise commercial developments, data centers, museums and hospitality facilities.

Which is the better process Design/Build or Plan and Spec? Clearly there is no universal answer to this question: within the varied and complex constraints of commercial building procurement there are aspects of the market that favor each path. This program will explore the benefits and pitfalls of each path with our experts from the field. Much like our opening program on the UBC 905 requirements, this program is designed to stimulate and encourage discussion among all of the participants. Come with an open mind and a question or two for Glenn and Clark. The format for the presentation will be as follows:

15 minute prepared opening statement (each speaker) - 20 minute public question and answer period - 5 minutes closing remarks (each speaker)

What are these PAOE Points that get mentioned from time to time? PAOE, the Presidential Award Of Excellence, is an award program set up by ASHRAE – National to provide guidance and incentives to chapters to maintain ASHRAE's growth and stature as a world class technical society.

Points can be awarded in eight categories: Chapter Programs, Historical Activities, Membership Promotion, Refrigeration, Research Promotion, Student Activities, Technical Energy and Government Activities, and Presidential Activities.

Some of the points such as Membership and Research are calculated and automatically credited by National. Most of the other points are awarded to the chapter by the committee chairs reporting them to the regional chairs. These points are the most difficult to get, not because we are not doing the activities, but because we do not always report them.

Last year we made a special effort to report our points by appointing our Past President Dennis Thompson PAOE Czar. We placed third of 14 chapters in our region. This year Dan Reiter will be overseeing the collection of PAOE points with the help of John Small. Our goal is to place first in the region.

You as a member can help in several areas. First, make a research contribution, even if only a small amount. We get points on the number of contributors as well as the total dollars contributed. Second, if you speak to a group regarding technical, or ASHRAE related topics, send a note to Dan, John or myself documenting the date, group, and topic presented.

If you have questions, or believe you have done something that has earned the chapter PAOE points, give me a call or E-mail at efrench@norman-wright.com.

Best Regards
Ernie French
Ernie French
Golden Gate Chapter President

Fog Dispenser Deadlines

The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:

FOG DISPENSER

Debbie Marshall, Editor, PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone 510/639-3200. Ext. 232
Fax 510/639-3337
email dmarshall@flow-products.com

Photojournalism Editor: Mike Scofield

Refer prospective new members to
Membership Chair:

Edgar DeGuzman.....650/594-0182
FAX.....650/594-4915

**For Roster corrections and
address changes contact:
1/800/5ASHRAE**

GGC database is based on the National Database. You need to contact national in order to change local information. This may take a couple of months.

Published monthly, October through June, by the **Golden Gate Chapter Of the American Society of Heating, Refrigerating and Air-Conditioning Engineers**, c/o Duplicating Associates, 41 Sutter St., Ste. 1401., San Francisco, CA 94104-4903

1998-1999 OFFICERS

Ernie French.....President
Mark Hydeman.....President Elect
Ben SunSecretary
Kent Lim.....Treasurer

Board of Governors
Joe Olivier, John Small, Dan Reiter

The Golden Gate Chapter's Code Review Committee has been recently re-established after several years of inactivity. In addition to reviewing UBC 905 Smoke Control Systems, the committee plans on reviewing other codes and sections. The committee encourages chapter members to submit code issues that merit review. Please submit material to the committee chairperson, **Dick Glumac**, at (415) 398-7667 voice or (415) 398-1596 fax.

Email and The Fog Dispenser

The Fog Dispenser is again reachable through email, the new address is: dmarshall@flow-products.com.

I apologize for any inconveniences caused by email being inaccessible for The Fog Dispenser.

You may always submit information via email, fax or mail.

Debbie Marshall
Editor; Fog Dispenser

Greetings From the Redwood Empire



Upcoming Meetings:

March 3rd Low Temperature Supply Air Design
– The Intel Santa Clara Installation
Jonesy's Famous Steak House, Napa



**ASHRAE GOLDEN GATE CHAPTER PROGRAM
SCHEDULE
1998-1999**

This schedule will be repeated in each Fog Dispenser (room permitting). If you have questions, comments or suggestions, please contact **Mark Hydeman @ PGE Energy Center**, 415/972-5498, MMH0@pge.com.

Month	Subject	Speaker	Location
January 7th	Mano to Mano: Design Build or Plan and Specification	Clark Bisel, Flack & Kurtz and Glenn Friedman, American Mechanical Services	Gabbiano's
February 4th	Condenser H ₂ O Optimization: Two Perspectives of Temperature and Flow	Mick Schwedler, Trane Co. and Roy Hubbard, York International	Gabbiano's
March 4th	How Low Will You Go? Case Study of a Low Temperature Distribution System	Dave Knebel, Mammoth Inc, Don Schumacher, Air Research Diffuser Products, Inc., and Jan Black, Peters Eng.	Gabbiano's
April 1st	Product Show Science Fair Travel Grant Recipients	Various	PG&E Pacific Energy Center
May 13th	Field Trip: Family fun at YBG Ice Rink with skating and a tour of ice plant and bowling alley mech. systems.		Meet at Yerba Buena Gardens Ice Rink
June 3rd	Speaking from Experience: "You know you are really married to (living with) an engineer when...."	Spouses, roommates and significant others tell all.	PG&E Pacific Energy Center

ASHRAE GOLDEN GATE CHAPTER 1998-1999 COMMITTEES AND CHAIRPERSONS

Attendance	Dick Charles	Awards	?	Auditing	Thomas Gilbertson
BAEC	Tom Reinarts	Redwood Empire	Phil Russo	CRC Action	Mark Hydeman
Database Manager	Allan Daly	Student Activities	Robin James	Fog Dispenser	Debbie Marshall
Golf	Charlene Sturm	TEGA	Gary Margadant	Historian	Chris Cummings
Honor Roll	Bob Levi	Marble Game	Edgar DeGuzman	Membership/Picnic	Edgar DeGuzman
Product Show	Cory Palmer	PAOE	Dan Reiter	Program	Mark Hydeman
Publicity	Mike Scofield	Reception	Jeàn Choi	Refrigeration	Dave Martin
Research	Bob Levi	Roster	Tim Provo	Website	Robert Marcial
Seminar	?	Tennis	Dan Noone	By-Laws	?

Golden Gate Chapter email address: www.ggashrae.org

ASHRAE GOLDEN GATE CHAPTER DINNER RESERVATION FAX

For THURSDAY, January 7, 1999

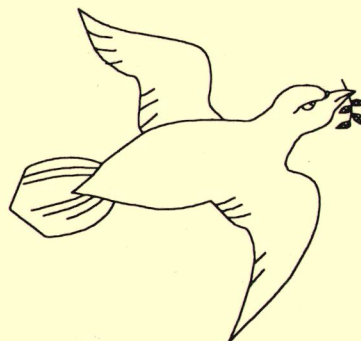
Please send response by noon on Monday, January 4, 1999

FAX TO: Joe Olivier, ESS Engineering
 FAX: (415) 296-9760, ext 205 Please call if you have any last minute changes in plans.
 Phone: (415) 296-9761 Please cancel your reservation if you cannot attend the meeting.
 e-mail: ggashrae@essinc.com Preferred method of communication!

FROM:	DICK CHARLES	
COMPANY:	C&B ENGINEERS	Phone: 415 442 0110
Please make _____ reservation(s) for the following people (fill in names below):		
	DICK CHARLES	TIM CASADOS
	PAUL O'NEILL	
	ADAM BENZULY	

LOCATION: Gabbiano's (upstairs) 1 Ferry Plaza, San Francisco, CA (415) 391-8403

Gabbiano's is located near Pier 2, behind the Ferry Building (Clock Tower), one block from the Embarcadero BART station. Limited parking is available along the Embarcadero. Valet parking is also available.



(Don't destroy our natural resources, use e-mail!)

Don't forget!!!

Use the Golden Gate ASHRAE web!

www.ggashrae.com



Change of Address Form for the Golden Gate Chapter of ASHRAE

Attn: Alan Daly, Database Chair
E-Mail: adaly@ced.berkeley.edu
Fax: (415)896-1290.

First Name: _____	Last Name: _____
Member #: _____	
Preferred Address (Home or Business): _____	
Preferred Phone (Home or Business): _____	
Business Name: _____	
Business Address: _____	
Business City: _____	Business Zip: _____
Business Phone: _____	Business Fax: _____
Home Address: _____	
Home City: _____	Home Zip: _____
Home Phone: _____	
E-Mail Address: _____	
Spouse First Name: _____	Spouse Last Name: _____



AF/C

AIR FILTER / CONTROL

585 CHARCOT AVE., SAN JOSE, CA 95131 PHONE 408-433-0600 FAX 408-433-2200

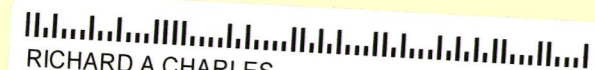
SUPPLIERS OF EQUIPMENT TO THE BAY AREA HVAC INDUSTRY

- | | | |
|------------------|----------------|------------------|
| Matt Goff | Jim Nemechek | Jack Hiatt |
| Steve Montgomery | Michael O'Shea | Michael Donovan |
| Dean Holton | Dolley Newcomb | Tim Casson |
| Kara Heinle | | Brian Quartaroli |



Golden Gate Chapter
ASHRAE
41 Sutter Street Suite 401
San Francisco CA 94104-4903

FIRST CLASS MAIL



RICHARD A CHARLES
C & B CONSULTING ENGINEERS
150 Spear St Ste 500
San Francisco CA 94105-1537

RECEIVED

JAN 27 1999



FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVII - NUMBER 4

FEBRUARY, 1999

Golden Gate Chapter Program Announcement Thursday February 4th, 1999

Location: **Gabbiano's Restaurant**, Pier 2 San Francisco (near Embarcadero and Market Streets)

Date: Thursday February 4th, 1999.

Time: 5:30 pm Social Hour

5:45 - 6:15 pm Pre Meeting Seminar

6:30 pm Dinner

8:00 pm Program

9:00 pm Formal Meeting Adjournment

Program Title: Chilled Water Plant Optimization: What's Right for the Condenser Water Flow and Temperature?

Speakers: Mick Schwedler of Trane Company

Roy Hubbard of York International

Moderator: Mark Hydeman of the Pacific Energy Center

Mick Schwedler has been involved in the development, training and support of systems for the Trane Company since 1982. His primary functions include system optimization (in which he holds a patent), aiding designers in proper system application, writing system application manuals and enhancing the Trane Air Conditioning Economics (TRACE®) program. In addition, he has presented technical seminars throughout the U.S. and Canada, and in the Far East. Prior to his work with Trane, Mick received his MSME from the University of Wisconsin Solar Energy Laboratory and BSME from Northwestern University.

Active in ASHRAE, he is presently chair of TC 1.5 -- Computer Applications, a member of SSPC 90.1 ("Energy Standard for Buildings Except Low-Rise Residential Buildings") and has served on a presidential committee for the "ASHRAE University."

Roy Hubbard has been part of the York Applied Systems business unit for nearly 20 years. He is a noted expert on energy and energy calculations and has authored numerous articles. He is a member of the Round Table Group's ExpertSource Team in the area of water chillers. Roy is an accomplished lecturer and prolific author. He is an active member of ASHRAE, the International District Energy Association (IDEA) and ARI (Air Conditioning & Refrigeration Institute). Annually, he lectures on chiller system energy at the University of Wisconsin.

In his current position, Roy is responsible for bringing the York's entire chiller product offering to the North American market, and for advocating advanced practices in energy-efficient chiller plant design.

Roy is the author of the YorkCalc program and was active in the revisions to ARI's soon to be released combined Standards 550 and 590.

Optimization of chilled water plant performance is one of the most challenging areas of mechanical design. Each design parameter, condenser water flow rate for example, creates tradeoffs in the cost of installing and/or operating plant equipment. Will a plant save money by designing to 2 gpm per nominal ton on the condenser loop? The answer depends on the relative performance of the chiller, condenser pump and tower. A low flow rate will lead to higher energy in the chiller due to operation at a larger effective lift. On the other hand the lower flow rate will reduce energy for pumping and tower fan. A chiller with a small penalty for increased lift will skew the economics towards lower flow rates. Alternately an efficient tower and/or low condenser loop pump head will tilt the equation towards higher flows. Our two experts will present different perspectives from the field representing the unique characteristics of their equipment. They will address optimization approaches for both condenser water flow and temperature set-point control.

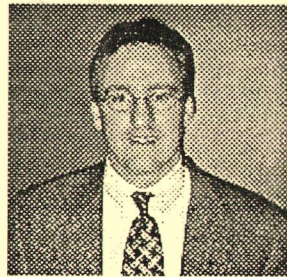
This program will be preceded by a whole-day forum on chilled water plant optimization at the Pacific Energy Center (February 4th 10:00-4:30pm).

For information or to register visit the website <http://www.pge.com/pec/> or call (415 973-7268).

The format for the presentation will be as follows:

25 minute prepared opening statement (each speaker)

10 minute public question and answer period



President's Message

What are these PAOE Points that get mentioned from time to time? PAOE, the Presidential Award Of Excellence, is an award program set up by ASHRAE – National to provide guidance and incentives to chapters to maintain ASHRAE's growth and stature as a world class technical society.

Points can be awarded in eight categories: Chapter Programs, Historical Activities, Membership Promotion, Refrigeration, Research Promotion, Student Activities, Technical Energy and Government Activities, and Presidential Activities.

Some of the points such as Membership and Research are calculated and automatically credited by National. Most of the other points are awarded to the chapter by the committee chairs reporting them to the regional chairs. These points are the most difficult to get, not because we are not doing the activities, but because we do not always report them.

Last year we made a special effort to report our points by appointing our Past President Dennis Thompson PAOE Czar. We placed third of 14 chapters in our region. This year Dan Reiter will be overseeing the collection of PAOE points with the help of John Small. Our goal is to place first in the region.

You as a member can help in several areas. First, make a research contribution, even if only a small amount. We get points on the number of contributors as well as the total dollars contributed. Second, if you speak to a group regarding technical, or ASHRAE related topics, send a note to Dan, John or myself documenting the date, group, and topic presented.

If you have questions, or believe you have done something that has earned the chapter PAOE points, give me a call or E-mail at efrench@norman-wright.com.

Best Regards
Ernie French
Ernie French, President

Fog Dispenser Deadlines

The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:

FOG DISPENSER

Debbie Marshall, Editor, PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone 510/639-3200. Ext. 232
Fax 510/639-3337
email dmarshall@flow-products.com

Photojournalism Editor: Mike Scofield

Refer prospective new members to
Membership Chair:

Edgar DeGuzman.....650/594-0182
FAX.....650/594-4915

For Roster corrections and address changes contact:
1/800/5ASHRAE

GGC database is based on the National Database. You need to contact national in order to change local information. This may take a couple of months.

Published monthly, October through June, by the **Golden Gate Chapter Of the American Society of Heating, Refrigerating and Air-Conditioning Engineers**, c/o Duplicating Associates, 41 Sutter St., Ste. 1401., San Francisco, CA 94104-4903

1998-1999 OFFICERS

Ernie French.....President
Mark Hydeman.....President Elect
Ben SunSecretary
Kent Lim.....Treasurer

Board of Governors

Joe Olivier, John Small, Dan Reiter

ASHRAE GOLDEN GATE CHAPTER 1998-1999 COMMITTEES AND CHAIRPERSONS

Attendance	Dick Charles	Awards	?	Auditing	Thomas Gilbertson
BAEC	Tom Reinarts	Redwood Empire	Phil Russo	CRC Action	Mark Hydeman
Database Manager	Allan Daly	Student Activities	Robin James	Fog Dispenser	Debbie Marshall
Golf	Charlene Sturm	TEGA	Gary Margadant	Historian	Chris Cummings
Honor Roll	Bob Levi	Marble Game	Edgar DeGuzman	Membership/Picnic	Edgar DeGuzman
Product Show	Cory Palmer	PAOE	Dan Reiter	Program	Mark Hydeman
Publicity	Mike Scofield	Reception	Jean Choi	Refrigeration	Dave Martin
Research	Bob Levi	Roster	Tim Provo	Website	Robert Marcial
Seminar	?	Tennis	Dan Noone	By-Laws	?

Golden Gate Chapter email address: www.ggashrae.org

ASHRAE RESEARCH



Thanks to Pacific Gas and Electric, the 1998-99 ASHRAE Research drive is off to a flying start. PG&E has again contributed \$10,000 to ASHRAE Research to become a Golden Circle Investor.

For all of you who have not yet contributed to ASHRAE Research, we still need your investments. We are only halfway to our annual goal, and the year ends in June (ASHRAE's fiscal year). Remember that 100% of your investment goes towards research. Society pays for all administration, literature, and mailing costs. How many other non-profit organizations that you support can say that?

Thank you to the following people for their Individual Honor Roll contributions:

- | | |
|--------------|---------------|
| Leo Copper | Dan Reiter |
| Hank Mouw | Mike Scofield |
| Jim Nemechek | John Small |
| James Quinn | Steve Taylor |

Thanks to the following Corporate Honor Roll participants for their contributions:

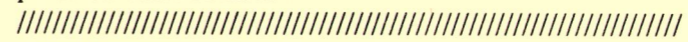
- | | |
|----------------------------|-------------------------|
| ESS Engineering | R. F. MacDonald |
| C & B Consulting Engineers | Pacific Gas & Electric |
| JYA Consulting Engineers | Phoenix Controls |
| MHC Engineers | Phyllis Atterbury Loyko |

You too can be an Honor Roll participant. The minimums are \$100 for an individual contribution and \$150 for a corporate contribution.

Please make your check payable to "ASHRAE Research" and mail to:

Robert Levi
Carrier Corporation
P. O. Box 23130
Oakland, CA 94623
510.563.5713

If you would rather charge your donation to a credit card, please contact Bob Levi.



**"Out With The Old....."
Frames not people!!!!!!!**

Jean Choi, Reception Chairperson, has purchased (2) new Rol-A-Decks to replace the Rube Goldberg nametag frame that Dennis Thompson designed.

1999Region X Chapters Regional Conference (CRC)

The 1999 Region X Chapters Regional Conference (CRC) will be held at the Radisson Hotel in Stockton, CA, Wed. 4/18 thru Sat. 5/1. To register or to obtain meeting details contact Bill Carmody, CRC Chairperson at 916/632-3222 or via email at bcarmody@lhairco.com.

Mark Hydeman and Ben Sun will be the Golden Gate Chapter Delegate and Alternate to this conference. If you have any nominations, awards or motions please contact Mark or Ben. Nominations are the Chapter's opportunity to move Chapter members into positions of influence in the Region or Society. Successful examples include Dick Charles (Society President), Tom Reinarts (Society TEGA Chair) and Dennis Thompson (Regional Vice-Chair for Research). Awards are the Chapter's opportunity to call Society's attention to the outstanding performance of our members. Last year we nominated several of our chapter members for Distinguished Service and for Fellowship.

Motions are the Chapter's opportunity to change the rules of Region or Society. We have made many motions over the years from revisions to Society's gender specific language (go Barb!) to changes in the Commercialism Policy as it applies to electronic media.

In addition to Mark and Ben a number of chapter members will attend. Traditionally the chapter encourages and underwrites the attendance of the Membership, Student Activities, Historian and TEGA Committee Chairs. It's a great opportunity to catch a glimpse of the inner workings of ASHRAE as an organization and to collaborate and visit with members from other chapters in our region. Our December joint meeting with San Jose was hatched over drinks at the last CRC.

Respectfully Submitted,
Mark Hydeman, President-Elect

For further information, contact:
 EMS, Employee Management Services
 PO Box 12830
 Seattle, WA 98111-4830

Greg Toy
 (206) 285-3508
 gregtoy@ibm.net

or

Ellin Spenser
 (206) 842-1272
 espener@worldnet.att.net

.....
HVAC PROGRAM COORDINATOR
PACIFIC ENERGY CENTER

The Pacific Energy Center (PEC) in San Francisco provides innovative design assistance for energy efficiency in commercial buildings. Through educational programs, development of design tools, project consultations and information distribution through the web, the PEC has supported hundreds of design professionals and customers in the reduction of energy usage in their projects. After six successful years of operation, the PEC is expanding: We are looking for a Mechanical Engineer to be responsible for educational seminars and project consultations targeted to the mechanical design community. Ideally this job is a full time position (negotiable). Responsibilities are equally split between the following areas:

- Development, coordination and presentation of nine to twelve educational seminars per year;
- Energy efficiency design assistance consultation on projects with design professionals, energy service companies (ESCOs), owners and facility managers; and,
- Energy efficiency information gathering and distribution including research, design tool development, website content development and participation in market transformation projects.

In addition, the HVAC program coordinator will be involved in programs, consultations and pilot projects utilizing our lending library of field measurement devices.

The ideal candidate will have a PE and 3 to 5 years of field experience in the design, construction and/or management of mechanical systems in commercial buildings. The candidate needs a strong interest in teaching and have good communication skills (written and verbal). Experience in measurement tools, simulation tools, computer programming and/or website development are a plus but not required. This job is constantly forging new frontiers, the candidate must be willing to learn on the job. We are looking for a commitment of 2 to 3 years.

This job is a unique opportunity to work in a challenging, collaborative environment while providing an important public service. In addition, the job offers collaboration and contacts with leaders in the design, industry and research communities. The PEC offers a competitive package of salary and benefits.

For information contact Mark Hydeman, Pacific Energy Center, (415)972-5498 or via email at mmh0@pge.com. Information on the Pacific Energy Center can be found on the website, <http://www.pge.com/pec/>.

Inside Sales

Local HVAC/Pblg/WWW/turbine pump manufacturer seeks candidate with hydraulic experience for inside sales position. Must be computer literate, capable of handling heavy phone load. Good salary, excellent benefits, 401k plus bonus plan.

Send resume to PACO/Johnston Pumps

Attn: Branch Administrator

Fax: 510/639-3337

email: dmarshall@flow-products.com

January Meeting Minutes

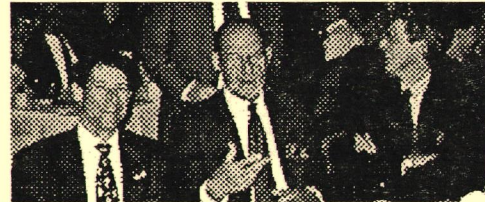
Self introduction started at 19:20 with 94 members and guests in attendance.

Ernie requested a motion to approve the November meeting minutes. Minutes were approved.

Bob Levi mentioned all the new individual Honor Roll donors as well as corporate sponsors. Refer to Bob's note in this issue for the names.

Jean Choi announced that members who need new badges should make corrections and note during the break on the attendance list.

Bob Polizzi of California Hydronics received the highest team score award at last year's golf tournament.



Carl Jordan introduced Clark Bisel and Glenn Friedman as the expert panelists for the Design/Build verses Plan and Spec discussion.

Conclusion: "You could get the job done right, if you have the right engineer and good relationships on the project, regardless of the approach."

Meeting adjourned at 21:00.

*Respectfully submitted,
 Ben Sun, Secretary*

Roster Changes:

The roster will be printed in February. Please send in any database changes to Allan Daly at allan.daly@arup.com or fax him at 415/957-9096.

Effective October 1999, we will meet regularly at the World Trade Club instead of Gabbiano's, with a trial run this June. The World Trade Club is in the Ferry Building on the Embarcadero in San Francisco.



CARRIER CORPORATION

10810 Bigge Street, San Leandro, CA 94577
Phone: (510) 563-5700
Fax: (510) 563-5733
www.carrier-commercial.com

Centrifugal, Rotary Screw, and Absorption Chillers
Custom and Commercial Air Handling Units, Controls
New Equipment Sales, Service, and System Retrofit
San Francisco / East Bay / San Jose / Sacramento / Reno

Local Area Sales Staff

Bob Levi, Jeff Kerl, Ronald Eng, Nike Krasopoulos, Steve Nguyen, John Burdette, Phil Williams,
Tony DeMeo, Phil Bakarich, George Eiler, Bruce August, Mike Volckaert, Chris Countryman



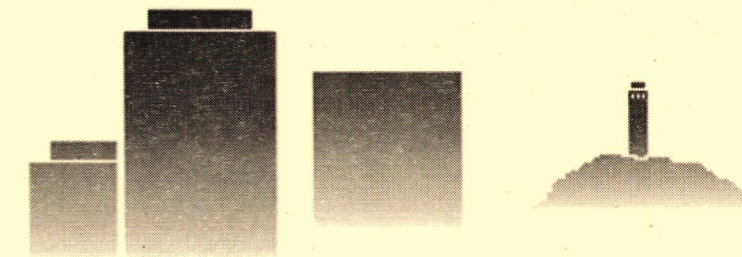
Golden Gate Chapter
ASHRAE
41 Sutter Street Suite 401
San Francisco CA 94104-4903

FIRST CLASS MAIL

FOG DISPENSER

RECEIVED

FEB 24 1999



Golden Gate Chapter



ASHRAE

VOLUME XXXVII - NUMBER 6

MARCH, 1999

Thursday March 4th, 1999

Location: **Gabbiano's Restaurant**
Pier 2 San Francisco (near Embarcadero and Market Streets)
Date: Thursday March 4th, 1999.
Time: 5:30 pm Social Hour
6:30 pm Dinner
8:00 pm Program
9:00 pm Formal Meeting Adjournment

Program Title: How Low Will You Go?: Case Study of a Low Temperature Air Distribution System

Our three panelists will discuss the design of a 45 °F VAV supply air system installed recently at a six-story, 550,000 square foot office building located in the heart of Silicon Valley.

Jan Black, the consultant engineer, will cover low temperature duct design and insulation requirements, duct heat regain, selection of VAV terminal units, selection and placement of induction diffusers for 45 °F air supply, meeting ASHRAE Air Diffuser Performance Index (ADPI) requirements, and compliance with ASHRAE Ventilation Standard 62-89.

Dave Knebel, manufacturer of the rooftop penthouse units, will review selection of the optimal supply air temperature, DX-VAV refrigeration considerations including condenser head pressure controls, TEX valves, refrigerant type, compressor selection, coil condensate carryover, supply fan configuration and thermal insulation requirements for the air handling unit.

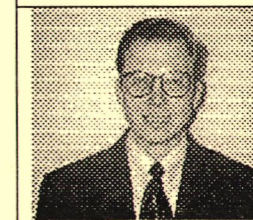
Don Schumacher, manufacturer of the high induction diffusers, will discuss energy savings of pinch down vs. fan powered terminals, fan energy savings of 45 °F vs. 55 °F supply air design, sheet metal and other construction cost savings of low temperature air systems, building height reduction, fan sound level reduction and increased IAQ of 45 °F VAV systems.



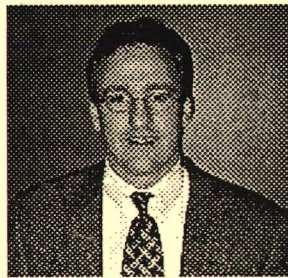
Jan Black is President of Peters Engineering in Sacramento, California. He has over 12 years experience in the design of energy efficient HVAC systems including low temperature supply air, indirect/direct evaporative cooling systems, floor plenum supply air systems and solar water heating systems. He is a past president of the Sacramento ASHRAE Chapter.



Dave Knebel is Vice President of Sales for Mammoth, Inc. He holds a BSME degree from Stevens Institute of Technology and an MSME degree from Oklahoma State University. He has been a lecturer in ASHRAE's Professional Development Seminars in Energy Calculations and has been Chairman of ASHRAE TC 4.7 Energy Calculations, TC 6.9 Thermal Storage and the Research and Technical Committees. He is the author of 29 publications in the area of energy simulation, thermal storage, evaporative condensing and cold air distribution. His most recent article entitled "Why 55 °F?" appears in the January 1999 issue of *Engineered Systems Magazine*.



Don Schumacher is President of Air Research Diffuser Products, Inc. (ADPI) and has over 22 years experience in the HVAC industry. He attended the University of Minnesota and Metropolitan State University in St. Paul, Minnesota and is a member of ASHRAE. He is the patent holder of a direct injection/high induction diffuser that has been used on over 40 projects throughout the United States.



President's Message

March is Research Promotion Month. What is happening with ASHRAE Research and what can you as a member do to help?

We all recognize the value ASHRAE Research leads to our daily lives each time we reach for our ASHRAE Handbook or reference an ASHRAE standard. Last year ASHRAE research funded \$2.36 Million in Research Projects. Your donations can help fund future projects.

Some ASHRAE Research Facts to Keep in mind:

- Golden Gate Chapter has been awarded the Full Circle Award for the last five years in a row. This means that every officer and member of the Board of Governors has donated at least \$100 to ASHRAE Research.
- Golden Gate Chapter is consistently number one in the region for Total Contributions.
- PG&E has once again donated \$10,000 to ASHRAE Research. Thank you PG&E.

Fog Dispenser Deadlines

The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:

FOG DISPENSER

Debbie Marshall, Editor, PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone 510/639-3200. Ext. 232
Fax 510/639-3337
email dmarshall@flow-products.com

Photojournalism Editor: Mike Scofield

Refer prospective new members to
Membership Chair:

Edgar DeGuzman.....650/594-0182
FAX.....650/594-4915

For Roster corrections and address changes contact:
1/800/5ASHRAE

GGC database is based on the National Database. You need to contact national in order to change local information. This may take a couple of months.

Published monthly, October through June, by the **Golden Gate Chapter Of the American Society of Heating, Refrigerating and Air-Conditioning Engineers**, c/o Duplicating Associates, 41 Sutter St., Ste. 1401., San Francisco, CA 94104-4903

1998-1999 OFFICERS

Ernie French.....President
Mark Hydeman.....President Elect
Ben SunSecretary
Kent Lim.....Treasurer

Board of Governors

Joe Olivier, John Small, Dan Reiter

- Therma Corporation, the Santa Clara based Mechanical contractor, donated \$10,000 to ASHRAE Research last year. The San Jose Chapter received the well deserved credit for asking for and receiving this donation.
- Your Research contribution is 100 Percent Tax Deductible.
- The 450 Golden Gate BACNET project was a local ASHRAE Research project which made the cover of the ASHRAE Journal Magazine.

I would like to ask every member of the Golden Gate Chapter to make a contribution (small or large) to ASHRAE Research. While the large contributions will receive the glory, the important thing to keep in mind is that we all need to work together to support this worthy cause.

*Respectfully Submitted,
Ernie French, President*

ASHRAE GOLDEN GATE CHAPTER PROGRAM SCHEDULE 1998-1999

This schedule will be repeated in each Fog Dispenser (room permitting). If you have questions, comments or suggestions, please contact Mark Hydeman @ PGE Energy Center, 415/972-5498, MMH0@pge.com.

Month	Subject	Speaker	Location
March 4th	How Low Will You Go? Case Study of a Low Temperature Distribution System	Dave Knebel, Mammoth Inc, Don Schumacher, Air Research Diffuser Products, Inc., and Jan Black, Peters Eng.	Gabbiano's
April 1st	Product Show Science Fair Travel Grant Recipients	Various	PG&E Pacific Energy Center
May 13th	Field Trip: Family fun at Yerba Buena Gardens Ice Rink with skating and a tour of ice plant and bowling alley mechanical systems.		Meet at Yerba Buena Gardens Ice Rink
June 3rd	Speaking from Experience: "You know you are really married to (living with) an engineer when...."	Spouses, roommates and significant others tell all.	PG&E Pacific Energy Center

ASHRAE RESEARCH

March is Research Promotion month. Think about how today's technology positively impacts our world. Consider that we could not produce microprocessors without clean rooms; we could not preserve crops, store vegetables, or ship produce without refrigeration; we could not produce many of the miracle drugs without the refrigeration separation process; and many surgical procedures would be unthinkable without HVAC&R technology. None of these advances would have been possible without research. Please continue to support ASHRAE Research - remember that it is an investment in your future and the future of our industry.

Please bring your Honor Roll contributions to the March meeting. You will receive special recognition for your investment. Since it often takes a while to have a company check processed, we will accept your pledge of a contribution. Don't be conspicuously absent from the list of donors on the table cards each month. The minimums for the Honor Roll are \$100 for an individual contribution and \$150 for a corporate contribution.

Thank you to the following people for their Individual Honor Roll contributions:

- Dick Charles
- Ronald Eng
- John O'Brien
- Frank Mayhew

Thanks to the following Corporate Honor Roll participant for their contribution:

Carrier Corporation

Please make your check payable to "ASHRAE Research" and mail to:

Robert Levi
c/o Carrier Corporation
P. O. Box 23130
Oakland, CA 94623
510.563.5713

If you would rather charge your donation to a credit card, please contact Bob Levi.

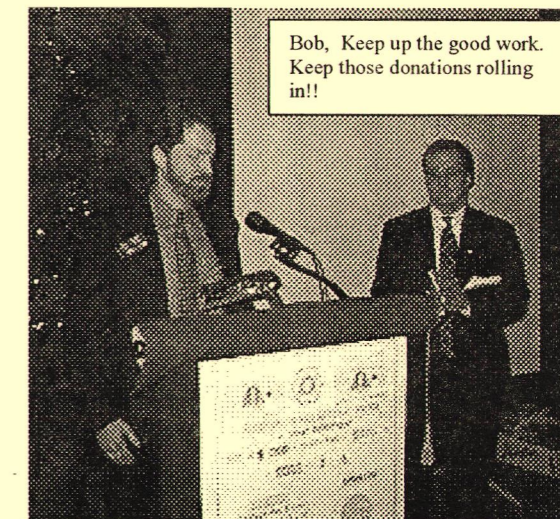
ASHRAE GOLDEN GATE CHAPTER 1998-1999 COMMITTEES AND CHAIRPERSONS

Attendance	Dick Charles	Awards	?	Auditing	Thomas Gilbertson
BAEC	Tom Reinarts	Redwood Empire	Phil Russo	CRC Action	Mark Hydeman
Database Manager	Allan Daly	Student Activities	Robin James	Fog Dispenser	Debbie Marshall
Golf	Charlene Sturm	TEGA	Gary Margadant	Historian	Chris Cummings
Honor Roll	Bob Levi	Marble Game	Edgar DeGuzman	Membership/Picnic	Edgar DeGuzman
Product Show	Cory Palmer	PAOE	Dan Reiter	Program	Mark Hydeman
Publicity	Mike Scofield	Reception	Jean Choi	Refrigeration	Dave Martin
Research	Bob Levi	Roster	Tim Provo	Website	Robert Marcial
Seminar	?	Tennis	Dan Noone	By-Laws	?

Golden Gate Chapter email address: www.ggashrae.org



Admiration of the Raffle Prizes.



Bob, Keep up the good work. Keep those donations rolling in!!

A Time For Reflection

To Friends of Tom and Adele White

"I am Tom White's son, Dick. I gathered all of the Christmas cards and greetings which you sent to the apartment in Mt. View and now wish to bring you up to date on his current status.

Adele passed away on May 7, 1998. Tom was an excellent nurse during her final 23 months. Adele was a terrific companion to Tom for more than 47 years of marriage and together they raised two families in the process. She had a beautiful funeral and is missed by all whose lives she touched.

From then until late October, Tom continued to live independently in the apartment in Mt. View, although still very sad about losing his bride. He seemed to be doing well under the circumstances, although his children never stopped worrying about his living alone.

In October, Tom fell and hurt his back. When the back pain became unbearable after several weeks, he entered the Palo Alto Nursing Center for treatment of his back and pain control. Following an emergency ambulance trip to Stanford hospital on Thanksgiving for a suspected heart attack or stroke, Tom was moved to the Lafayette Convalescent Hospital on December 2, 1998, where he has resided ever since. I have resided but five miles away from the Lafayette Convalescent Hospital for 25 years and my sister Jennifer has resided but two miles away for approximately five years.

Tom, who turned 88 years old in December, continues to receive physical therapy for his back and also to help him regain the ability to walk which he seems to have lost due to his lengthy confinement in bed. It is unclear at this time whether or when he will be able to walk without a walker or whether he will be sufficiently independent to graduate to an assisted living facility. The family certainly hopes for the latter, although prospects are not terribly favorable at the moment.

I have given Dad each and every card which has been sent. I hope you understand why no cards were sent by him. He is often confused - probably from the pain medication - and I am not sure he understood all of the nice Christmas greetings which you sent.

You can send letters or cards to Tom c/o Lafayette Convalescent Hospital, 1010 1st St, Lafayette, CA 94549. The apartment in Mt. View is vacant, so please adjust your address books accordingly.

*Sincerely,
Richard T. White"*

(Tom White was one of the generating forces behind the SF ASHRAE show in 1998.)

The Passing of Don C. Bryant, Sr.

Friends of Don Bryant, I received a call from Katy Richardson, the daughter of Don Bryant yesterday (February 10th, 1999) to relate that Don had finally succumbed to his stroke in 1996. The following message is an obituary for Don to be posted in the San Francisco Chronicle on February 14th, 1999.

For those of you that didn't know Don, I include the following brief biography: Don spent over 30 years devotedly educating and encouraging students and professionals in the HVAC industry. In addition to his work at City College of San Francisco and the University of California, Berkeley, Don has been responsible for the development of an HVAC/R certificate program co-sponsored by the UC Berkeley Extension and the Golden Gate Chapter of ASHRAE. This program, now in operation for over a decade, has been so successful that it has been repeated at other locations including UC Davis Extension with the Sacramento Chapter of ASHRAE and UC Santa Cruz Extension with the San Jose Chapter of ASHRAE.

At Society, Don has distinguished himself with a long history of accomplishments in education. Don chaired the ASHRAE-ETS ADHOC Continuing Education Self Assessment Testing Program Committee and was instrumental in the formation of ASHRAE's Continuing Education Committee on which he served as well. He has chaired the Education Committee, and served as a trustee on the ASHRAE National Scholarship Fund.

In every sense Don has distinguished himself as both an educator and dedicated member of ASHRAE. The Golden Gate Chapter has benefited from our long association with Don and our membership is filled with professionals that received training that he initiated. I myself have been a student of these programs, an instructor for one of the core courses and a founding member of the joint certificate advisory board. Don's legacy is deeply appreciated by all of us who have been involved with these programs at any level.

Remembrances and Donations

Those that would like to pass their condolences or share a remembrance with the family should send them to Don's daughter:

Katy Richardson
5 Tomahawk Rd
Hampton, VA 23669

Those that would like to make a tax-deductible donation in Don's name to a scholarship fund should send a check (payable to ASHRAE) to:

Golden Gate Chapter of ASHRAE
41 Sutter Street, Ste. 1401
San Francisco, CA 94104-4903



Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 401
 San Francisco CA 94104-4903

FIRST CLASS MAIL



RICHARD A CHARLES
 C & B CONSULTING ENGINEERS
 150 SPEAR ST STE 500
 SAN FRANCISCO CA 94105-1537



MAR 25 1999

HVAC	ELECTRICAL
CORRESPONDENCE	CALCULATIONS
SPECIFICATIONS	SUBMITTALS
DESIGN	DRAWINGS



TEMPCO Equipment Company, Inc.
 Providing HVAC Equipment Solutions to the Construction Industry

Air Handling Units; Standard or Customized, Fans; Centrifugal, Propeller, Axial, Roof Exhaust, Rooftop Package Units 2-500 Tons Standard or Custom, Fan Coils, Air Distribution Products: VAV Boxes, Grilles, Registers and Diffusers, Dampers; Fire/Smoke, Control, Backdraft, Humidification and Dehumidification Products, Fume Hood Face Velocity Controls, Noise Control Products, Computer Room Air Conditioning, Make-Up Air Units, Retrofit Equipment.

BRISBANE OFFICE

100 North Hill Drive, # 12, Brisbane, CA 94005-1010
 Phone (415) 467-8680 Fax (415) 468-4159

Sales Staff

Chuck Shane • Doug Herbert • Jay Patel • Willie Gee • Phillip Chardon • David Day
 Gladys Mendoza • Stephanie Sanford • Terri Shelton

SAN JOSE OFFICE

2348-C Walsh Avenue, Santa Clara, CA 95051-1301
 Phone (408) 330-6199 Fax (408) 330-6194

Sales Staff

Eric Tinglof • Andre Shinshiro • Mark Hardin
 Dan Hornak • Leslie Farr

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVII - NUMBER 7

APRIL, 1999

Thursday, April 1, 1999

Product and Service Show Exhibitors

Annual Product and Service Show

Location: PG & E Pacific Energy Center
 851 Howard Street (between 4th & 5th)
 San Francisco
 Phone 415-973-7268

Time:

4:30 p.m.	Exhibitor Setup
4:30-6:30 p.m.	Table Top Displays/Social Hour (bar opens at 5:00 p.m. and your first drink is compliments of the exhibitors)
6:30 p.m.	Dinner
7:30 p.m.	Meeting
11:30 p.m.	Formal Meeting Adjournment (APRIL FOOLS!)
9:00 p.m.	Formal Meeting Adjournment.

Cost: \$30.00 per person

Reservations: E-mail to Joe Olivier @ ggashrae@essinc.com or fax him 415/296-9761

The PG & E Energy Center is located two blocks south of the Powell Street BART station. Public parking is available across the street from the Energy Center and at 5th and Howard.

Exhibitors will each make a 30-second presentation. The topic of each presentation will be: "Five Things You Should Know about this Product, Service, or Company." The presentations will all be informative and humor is encouraged (*remember it's April Fool's!*).

PRODUCT SHOW PRIZES:

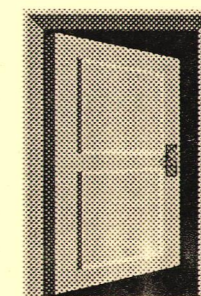
Everyone who pre-registers for dinner is eligible for raffle prizes. Remember to make your reservations as early as possible.

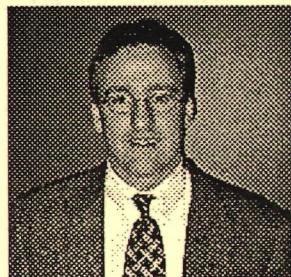
FOR MORE INFORMATION OR TO RESERVE AN EXHIBITOR TABLE:

As of mid-March, more than ten firms have reserved tables as exhibitors. There are still a few spaces available, but space is limited. To reserve a table, contact Cory Palmer (phone: 925-417-7200; e-mail: corydon@gte.net).

EXHIBITOR PRODUCT/SERVICE INFORMATION:

Everyone will receive an information request card at the show. After the meeting, turn in your card and the exhibitors will send you additional information.





APRIL is CRC

Don't forget, April 28th thru May 1st, Region X CRC is being held at the Radisson in Stockton.

The CRC is where the ASHRAE Chapter conducts their Regional and Society business and brings their suggestions on how to improve ASHRAE. It also provides current and future chapter officers and committee chairpersons an opportunity to learn how to perform their duties through workshops and round table discussions.

URGENT!! In preparation for the upcoming CRC, please do the following:

- Do the host chapter a huge favor and register early if you plan to attend.
- Let Mark Hydeman know if you plan to attend.
- Make nominations for Regional and society positions and committees. Send your nominations to Ernie French.
- Make motions for changes in Chapter, Regional and Society operations. Send you motions to Mark Hydeman.

Last year the Golden Gate Chapter make the following motions:

1. That members be allowed to view their current ASHRAE database information on the Members-Only Section of the Society Website. This motion passed unanimously at the Region's Council last June.
2. That the Society database be changed to expand the Email field to 50 characters from 25. This motion passed unanimously at the Region's Council last June.
3. That the Society database and registration forms be changed to allow members to be assigned to more than one chapter. This motion passed unanimously at the Region's Council last June.
4. That local Chapter Boards be empowered to approve links to non-commercial sites from Chapter websites. This motion passed at the CRC but failed at Region's Council.
5. That the Society review and revise the non-commercialism policy to permit "live" demonstrations of software and websites of interest to membership. This motion passed at the CRC but failed at Region's Council. (Next month we'll hear more from Ernie, he is taking a long deserved vacation.)

*Respectfully Submitted,
Mark Hydeman
President-Elect*

**ASHRAE GOLDEN GATE CHAPTER
DINNER RESERVATION FAX**

Registration is \$30.00

For THURSDAY, April 1, 1999

Please respond by noon on Monday, March 29, 1999

E-MAIL to: Joe Olivier, ESS Engineering

FAX: (415) 296-9761

Phone: (415) 296-9760, ext. 205

Please call if you have any last minute changes in plans.

Please cancel your reservation if you cannot attend the meeting.

e-mail: ggashrae@essinc.com

Preferred method of communication!

FROM: _____

COMPANY: _____ Phone: _____

Please make _____ reservation(s) for the following people (fill in names below):

LOCATION: PG&E Energy Center, 851 Howard Street (between 4th and 5th), San Francisco. Parking is across the street and at 5th and Howard. Powell Street BART Station is two blocks north.

Fog Dispenser Deadlines

The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:

FOG DISPENSER

Debbie Marshall, Editor, PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone 510/639-3200. Ext. 232
Fax 510/639-3337
email dmarshall@flow-products.com

Photojournalism Editor: Mike Scofield

**Refer prospective new members to
Membership Chair:**

Edgar DeGuzman.....650/594-0182
FAX.....650/594-4915

**For Roster corrections and
address changes contact:
1/800/5ASHRAE**

GGC database is based on the National Database. You need to contact national in order to change local information. This may take a couple of months.

Published monthly, October through June, by the Golden Gate Chapter Of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, c/o Duplicating Associates, 41 Sutter St., Ste. 1401., San Francisco, CA 94104-4903

1998-1999 OFFICERS

Ernie French.....President
Mark Hydeman.....President Elect
Ben SunSecretary
Kent Lim.....Treasurer

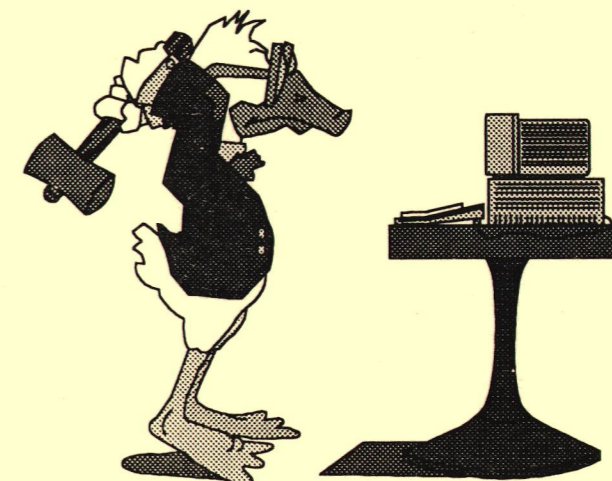
Board of Governors

Joe Olivier, John Small, Dan Reiter

ASHRAE GOLDEN GATE CHAPTER 1998-1999 COMMITTEES AND CHAIRPERSONS

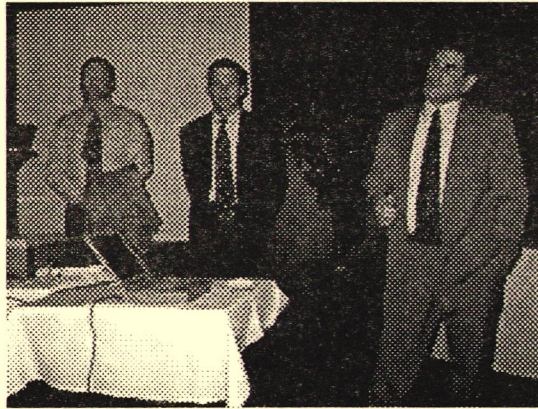
Attendance	Dick Charles	Awards	?	Auditing	Thomas Gilbertson
BAEC	Tom Reinarts	Redwood Empire	Phil Russo	CRC Action	Mark Hydeman
Database Manager	Allan Daly	Student Activities	Robin James	Fog Dispenser	Debbie Marshall
Golf	Charlene Sturm	TEGA	Gary Margadant	Historian	Chris Cummings
Honor Roll	Bob Levi	Marble Game	Edgar DeGuzman	Membership/Picnic	Edgar DeGuzman
Product Show	Cory Palmer	PAOE	Dan Reiter	Program	Mark Hydeman
Publicity	Mike Scofield	Reception	Jean Choi	Refrigeration	Dave Martin
Research	Bob Levi	Roster	Tim Provo	Website	Robert Marcial
Seminar	?	Tennis	Dan Noone	By-Laws	?

Golden Gate Chapter address: www.ggashrae.org



E-mail is the preferred method of communication, but don't let the nuances and intricacies drive you to this!

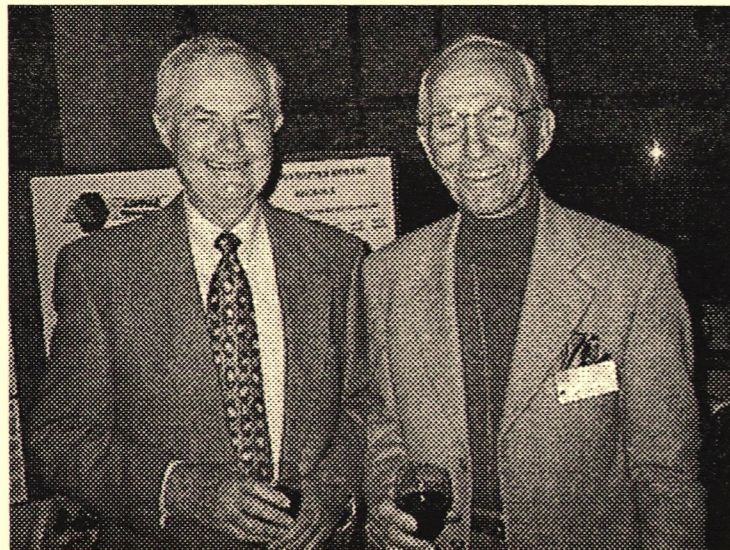
WHAT WE REALLY DO AT THESE MEETINGS!



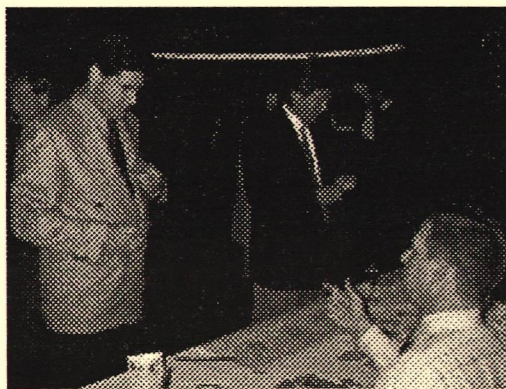
Jan, Don and Dave field questions from the audience. Tonight's topic: Low Temperature Air Distribution Systems



Mark Hydeman welcomes Dean Borges, Region X Chairman and director, to the meeting.



Dick Porter and Jack Kniveton talk about the "good old days"...



Sal Giglio reaches for his wallet as Rich Leao and Joe Olivier watch for the moths to fly.



The "R" in ASHRAE Committee.

March Meeting Minutes:

1. Motion for approval of February Meeting minutes passed.
2. Regional Chair, Dean Borges, visited us and indicated that Golden Gate Chapter had the best view for the monthly meeting and the Society considered GG as a "Flagship" Chapter.
3. The nominating committee put forth Mr. Bob Levi for the Board of GG ASHRAE. The nomination was closed with no additional names from the floor.
4. Ballots will be in the upcoming issue of the Fog Dispenser.
5. Mark Hydeman announced the Golden Gate Chapter ASHRAE scholarship has been renamed to honor Don Bryant with the support of his two daughters. Donations can be sent directly to GG ASHRAE.
6. Self introduction at 7:15.
7. Mark Hydeman introduced the three speakers panel discussion/presentation for Low Temperature Air.
8. Meeting adjourned at 9:10 pm.

%%%%%%%%%

Special Mentions

Dr. Gail Schiller Brager, UC Berkeley, Dept of Architecture and member of GG Chapter, has been awarded the prestigious Crosby Field Award from the Society.

Mr. Yu Joe Huang, Lisa M. Gartland, Ph.D., and Steven J. Konopacki, Lawrence Berkeley Lab, have received the 1998 Symposium paper award and an honorarium for the paper "Measured and Simulated Performance of Reflective Roofing Systems in Residential Buildings". (Side Bar - By the way, the New Title - 24, July 1, 1999, version will give "credit" for using reflective roofing in Residential Construction) and you thought ASHRAE did not have any input into T-24. More on the New Title - 24 coming up from ASHRAE.

ASHRAE RESEARCH

March was Research Promotion month, and it was a huge success. Thanks to all of you who answered our requests for contributions. Over \$10,000 was raised during late February and March.

On March 10th we held a Research Promotion Phonathon at the PG&E Pacific Energy Center. The Phonathon raised over \$2,000 in pledges in just a two hour period. Everyone who made a pledge should have received an envelope in the mail with a receipt/invoice and a reply envelope. Please remember to send in your contributions.

Thank you to Phonathon volunteers Jim Brugger, Ronald Eng, Ernie French, Richard Frenzel, Mark Hydeman, Bob Levi, Kent Lim, Joe Olivier, Wasil Popow, John Small, Themarge Small, Ben "Terminator" Sun, and Dennis Thompson. Thanks to Mark Hydeman and PG&E for the use of the facility and telephones, and for providing dinner.

Thank you to the following people for their new Individual Honor Roll contributions (\$100 minimum):

- *Tom Gilbertson**
- Dick Porter**
- Jack Kniveton**
- Tom Reinarts**

Thanks to the following new Corporate Honor Roll participants for their contributions (\$150 minimum):

- Ajmani & Pamidi**
- *Norman Wright Mech. Equip.**
- American Mechanical Services**
- *Pacific Coast Trane**
- Edward B. Ward & Co.**
- *SMACNA**
- *Flack + Kurtz**
- Tempco Equipment Company**
- Gayner Engineers**
- Yamas Controls**
- Keller & Gannon**
- York International**
- *Kent M. Lim & Co.**

** signifies major contributions of \$1000 or more*

Please make your check payable to "ASHRAE Research" and mail to:

Robert Levi
c/o Carrier Corporation
P. O. Box 23130
Oakland, CA 94623
510.563.5713

This schedule will be repeated in each Fog Dispenser (room permitting). If you have questions, comments or suggestions, please contact Mark Hydeman @ PGE Energy Center, 415/972-5498, MMH0@pge.com.

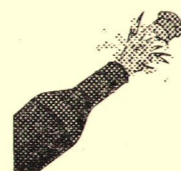
Month	Subject	Speaker	Location
April 1st	Product Show Science Fair Travel Grant Recipients	Various	PG&E Pacific Energy Center
May 13th	Field Trip: Family fun at Yerba Buena Gardens Ice Rink with skating and a tour of ice plant and bowling alley mechanical systems.		Meet at Yerba Buena Gardens Ice Rink
June 3rd	Speaking from Experience: "You know you are really married to (living with) an engineer when..."	Spouses, roommates and significant others tell all.	PG&E Pacific Energy Center

EMPLOYMENT OPPORTUNITIES
ENRON Energy Services: BSME, PE, 15 years experience in high level conceptual design of large commercial central plants (ie. chillers, boilers, cooling towers, HVAC units, etc.). Must be thoroughly familiar with all aspects of central plants, including load calculations, equipment selection, performance specs, plant layout, piping, controls technology, energy efficiency, design, construction and commissioning. Applicant must have a construction or Design/Build background.

April 1999
 Must have the ability to develop projects and have a business background. Project management experience a must. This position is for a very high level central plant specialist, not just with design experience.

Send resume to: 12647 Alcosta Blvd, Suite 500, San Ramon, CA, 94583. Fax: 925/543-3550.
 //

Gap Inc.'s Corporate Architecture and Construction Department is seeking Senior Engineers. Positions are based at our San Bruno, CA headquarters. Responsibilities include: Oversee engineering design; review and assess drawings, troubleshoot; negotiate positions and perform site inspections. Recommend new engineering directives based on economically responsible practices and current technology. Must have a four year college degree and a Professional License in Mechanical Engineering. 5 years of HVAC design/management experience. 3 years in retail environment preferred. Please email your resume to careers@gap.com, attn: OPA-ASHRAEGG or fax it to 888-804-8020, attn: OPA-ASHRAEGG.
 //



(Closest thing I had to a bunch of grapes)

From the Redwood Empire:

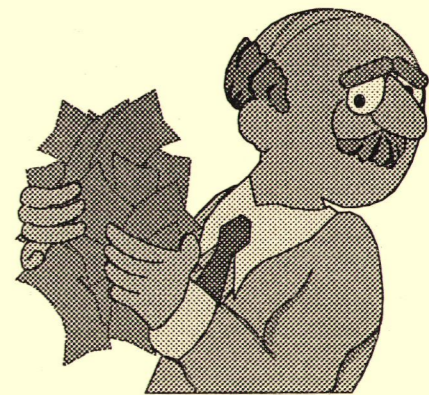
Next Meeting:
 When: June 2, 1999
 Where: Adobe Creek Clubhouse, Petaluma
 Topic: Under-Floor Supply Air System Design
 Social Hour: 5:30 pm
 Dinner: 6:30 pm

//

April 20th you are invited to a free training workshop for CoolTools* simulation software. This free software is part of toolkit to optimize design, operation and purchasing decisions for chilled water plants.

This hands-on workshop presents publicly funded simulation tools for the evaluation of chilled water plant equipment, operation and control. These simulation tools are based on the DOE2 (ver. 2.1e) program. Participants will be given free copies of the simulation software and test data in order to explore the wide variety of CoolToolsTM features. Participants should have a working knowledge of chilled water plant design and the Windows 95 operating system. This class is limited to 40 participants! More information about this project can be found on the project Website: <http://www.hvacexchange.com/cooltools/>.

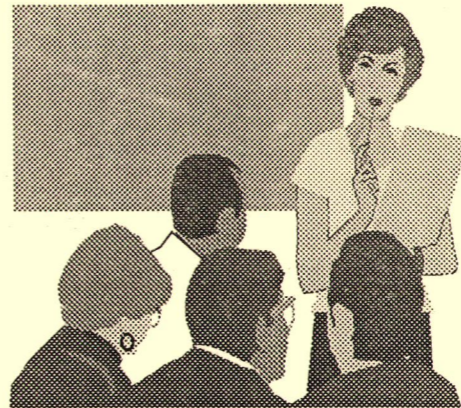
The workshop will be held at the Pacific Energy Center on Tuesday, April 20, 1999 from 10:00 am – 4:30 pm. The Pacific Energy Center is located at 851 Howard St, San Francisco between 4th and 5th streets. Space is limited, you must register to attend. To register or for more information, call Christine Williams at 415/973-7268.

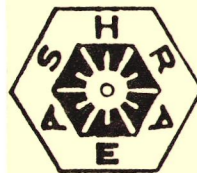


Help Wanted: a Few Good Judges

The Golden Gate Chapter program for June 3rd is an essay contest for the spouses, roommates and significant others of the Golden Gate Chapter membership. A direct mailing will be sent to these individuals with an essay that begins, "You really know that you are living with an engineer when...". I am looking for a group of judges to help select prizes, review essays and make the awards. Interested parties should contact Mark Hydeman at 415/972-5498 or via email at mmh0@pge.com.

May Field Trip: Skating and Plant Tour at Yerba Buena Gardens. Mark you calendar for May 13th from 5 pm to 8:30 pm. Bring the spouse, significant other, friends and the kids. We have the entire Yerba Buena Gardens Ice Rink to ourselves from 5 pm to 7 pm. The project architect and engineer will be on hand to participate in a tour of the Ice Rink and Bowling Alley and to answer questions about the project. Skating and skate rental are included. After the tour we'll have pasta, pizza and wine at the Pacific Energy Center (there will be a video for the kids). The cost will be \$30 for members, \$15 for students and \$50 for an entire family or for a member and their better half.





Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 401
 San Francisco CA 94104-4903

FIRST CLASS MAIL

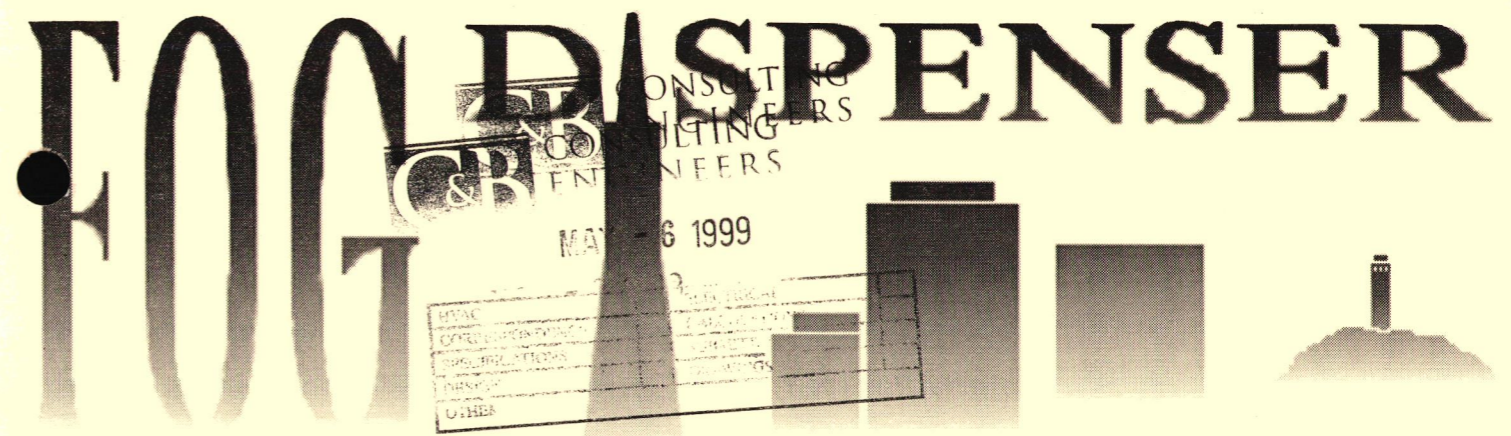


 **Air Treatment Corporation**
 HVAC Manufacturers Representative
 Variable speed drives & motors

Make your reservations now!
ASHRAE GOLF TOURNAMENT
 June 25, 1999
 Call Charlene Sturm at Air Treatment

David Eisenberg Dan Noone Charlene Sturm
 _____ 1865 Pleasant Valley Avenue Oakland, CA 94611
 _____ Phone: 510.655.3990 Fax: 510.655.7966
 _____ Visit our Website: www.airtreatment.com

San Francisco
Sacramento
Los Angeles
San Diego



Golden Gate Chapter  **ASHRAE**

VOLUME XXXVII - NUMBER 9 MAY, 1999

Golden Gate Chapter of ASHRAE Field Trip and Family Fun Night
Yerba Buena Ice Skating & Bowling Center
Thursday May 13th, 1999

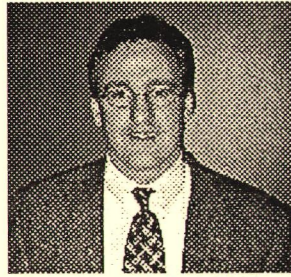
Location: **Yerba Buena Ice Skating & Bowling Center**, 750 Folsom Street, San Francisco (Between 3rd and 4th Streets) - <http://www.sk8usa.com/>

- Date:** Thursday May 13th, 1999.
Time: 5:00 pm to 7:00 pm - Ice-Skating
 5:30 pm - Tour of ice plant and bowling alley mechanical systems
 7:15 pm - Dinner at the PG&E Pacific Energy Center (with a video for the kids)
 9:00 pm - Adjournment
Cost: \$30 Members
 \$50 Family (or member and significant other)
 \$10 Student
 Dinner, tour and skate rental included

Field Trip: Family fun at Yerba Buena Ice Skating Rink with skating and a tour of ice plant and bowling alley mechanical systems



Come join the fun for a night of skating, pizza, pasta and a unique nerd's-eye view of how it all works! The tour of the ice rink and bowling alley will be lead by Tom Lee of LDA Architects, Dennis Smith of Yerba Buena Ice Skating & Bowling Center and a representative from SJ Engineers.



President's Message

A senior member of our chapter recently pointed out the need to update our climatic weather data. The climatic weather data books were developed in the mid '70s to provide more accurate design data for the West Coast's numerous microclimates. The booklets, entitled Climatic Data for Region X, were published jointly by the Golden Gate and Southern California Chapters.

It was pointed out that the climatic data design temperatures presented in the Region X 1992 books which are referenced in our California Codes are supplied for 0.1%, 0.5%, and 2.0% occurrences. The 1997 ASHRAE Fundamentals book published new Summer design conditions based on 0.4%, 1%, and 2% occurrences.

We are looking for members interested in working on a Task Force to update the Region X book. Over twenty years ago Dick Charles, Tom White, Roy Gifford, Jim Taylor, Gus Gendler, Jim Nemechek, and James Holden worked on publishing the Region X Climatic Data and are acknowledged in the book. Every one of these gentlemen either had been or went on to be a President of the Golden Gate Chapter and a respected and successful member of the HVAC industry. Please contact me if you are interested in leading or working on this Task Force.

Respectfully Submitted,

*Ernie French
Golden Gate Chapter President*

Fog Dispenser Deadlines

The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:

FOG DISPENSER

Debbie Marshall, Editor, PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone 510/639-3200. Ext. 232
Fax 510/639-3337
email dmarshall@flow-products.com

Photojournalism Editor: Mike Scofield

Refer prospective new members to Membership Chair:

Jean Choi.....510/786-5730
FAX.....510/785-3170

**For Roster corrections and address changes contact:
1/800/5ASHRAE**

GGC database is based on the National Database. You need to contact national in order to change local information. This may take a couple of months.

Published monthly, October through June, by the **Golden Gate Chapter Of the American Society of Heating, Refrigerating and Air-Conditioning Engineers**, c/o Duplicating Associates, 41 Sutter St., Ste. 1401., San Francisco, CA 94104-4903

1998-1999 OFFICERS

Ernie French.....President
Mark Hydeman.....President Elect
Ben SunSecretary
Kent Lim.....Treasurer

Board of Governors

Joe Olivier, John Small, Dan Reiter

ASHRAE GOLDEN GATE CHAPTER 1998-1999 COMMITTEES AND CHAIRPERSONS

Attendance	Dick Charles	Awards	?	Auditing	Thomas Gilbertson
BAEC	Tom Reinarts	Redwood Empire	Phil Russo	CRC Action	Mark Hydeman
Database Manager	Allan Daly	Student Activities	Robin James	Fog Dispenser	Debbie Marshall
Golf	Charlene Sturm	TEGA	Gary Margadant	Historian	Chris Cummings
Honor Roll	Bob Levi	Marble Game	Edgar DeGuzman	Membership/Picnic	Jean Choi
Product Show	Cory Palmer	PAOE	Dan Reiter	Program	Mark Hydeman
Publicity	Mike Scofield	Reception	Jean Choi	Refrigeration	Dave Martin
Research	Bob Levi	Roster	Tim Provo	Website	Robert Marcial
Seminar	?	Tennis	Dan Noone	By-Laws	?

Golden Gate Chapter email address: www.ggashrae.org

**ASHRAE GOLDEN GATE CHAPTER
DINNER RESERVATION FAX**

For THURSDAY, May 13, 1999

Make your reservations by Monday, May 10th, 12 noon.

Email: Joe Olivier, ESS ggashrae@essinc.com *preferred method of communication!!!!*
FAX: (415) 296-9761 Please call if you have any last minute changes in plans.
Phone: (415) 296-9760, 205 Please cancel your reservation if you cannot attend the meeting.

FROM: _____

COMPANY: _____ Phone: _____

Please make _____ reservation(s) for the following people (fill in names below):

**LOCATION: Yerba Buena Ice Skating and Bowling Center
750 Folsom Street (Between 3rd and 4th)
San Francisco**

(Don't destroy our natural resources, use e-mail!)



ASHRAE Golden Gate Chapter Essay Contest

- 1st prize: Hornblower Dinner Cruise for two
- 2nd prize: Dinner for two at Hawthorne Lane Restaurant
- 3rd prize: Dinner for two at Gabbiano's Restaurant

Top five essayists will be invited to the awards dinner courtesy of the Golden Gate Chapter. Awards to be presented on Thursday June 3rd, 1999 at the **World Trade Club**, World Trade Center # 300 (in the Ferry Building), San Francisco.

Contest Rules: Provide the following information by May 21st. Please limit the essay to true stories of 1 to 3 pages.

Return To: Mark Hydeman, Pacific Energy Center, 851 Howard St, San Francisco, CA 94013
Fax: 415/896-1290

Entries Due: *No later than, Friday, May 21st, '99*

Entrant's Name: _____

Address: _____

Phone: _____

EMail: _____

ASHRAE Member's Name: _____

ASHRAE Member's Pet- or Nick-Name: _____

COMPLETE THIS ESSAY: *“You really know that you are married to/living with an engineer when.....”*

April Meeting Minutes

Two of the Bay Area Science Fair Winners were warmly welcomed at the meeting. All the winners have received a US Savings Bond from GGC ASHRAE.

- Gideon Lombard, Berkeley (Present) – Subject: “Effect of Melting Ice on Water and Other Liquids”
- Benson Gilbert, Sebastopol** (A two time award winner, present) – Subject: “Does the Shape of a Wing Fillet...”
- Jacquelyn Kuba, Willowside School, Santa Rosa – Subject: “Not a Snowball’s Chance”
- Michael Louie, San Mateo – Subject: “Potential Pollution Solution-Static Electricity”

The two scholarship winners were also welcomed:

Eric Thor Andressen winners: Curtis Hilger, San Francisco State Univ. (He is also working at ESS Engineering as an intern) and the Golden Gate ASHRAE Scholarship(to be renamed next year as the Donald Bryant Memorial Scholarship): Erik Ring, UC Berkeley. Each received a check for \$1,000.

The Product Show Sponsors were: Pacific Gas & Electric, York International, California Hydronics, SiE (Silicon Energy), Yamas, EB Ward/Carrier, Liebert, Norman Wright Equipment company, Belimo Controls, ESS Engineering Division of comfort Systems USA, Fafco and Air Treatment Corporation.

Dinner meeting and self introduction followed the product show. Attendance: 50 members and guests.

*Respectfully Submitted,
Ben Sun, Secretary*

Congratulations Cory, for your hard work on the April Product Show!!!!



ASHRAE GOLDEN GATE CHAPTER PROGRAM SCHEDULE 1998-1999

This schedule will be repeated in each Fog Dispenser (room permitting). If you have questions, comments or suggestions, please contact Mark Hydeman @ PGE Energy Center, 415/972-5498, MMH0@pge.com.

Month	Subject	Speaker	Location
May 13th	Field Trip: Family fun at Yerba Buena Gardens Ice Rink with skating and a tour of ice plant and bowling alley mechanical systems.		Meet at Yerba Buena Gardens Ice Rink
June 3rd	Speaking from Experience: "You know you are really married to (living with) an engineer when...."	Spouses, roommates and significant others tell all.	PG&E Pacific Energy Center

UP IN SMOKE II

"Design of Engineered Smoke Control Under 1997 Uniform Building Code"

A day long seminar with Mike Dillon!

When: Wednesday, June 23rd, 9:00 – 5:30
Where: Pacific Energy Center, 851 Howard St
Cost: \$250 per person – includes lunch and \$77 worth of publications

Space is limited!!

Reserve your spot today by calling Loek Vaneveld @ 510/749-9135.

ASHRAE RESEARCH

Only two more months until the end of the ASHRAE Research campaign year, and we still are \$4,000 short of our goal. Those of you who made pledges during the March Phonathon, please send in your contributions now.

It is not too late to contribute and still be recognized. Remember every new Honor Roll contributor gets recognized in this article each month. Honor Roll investors are also listed on the Table Cards at each month's meeting, and in the Annual Report in the ASHRAE Journal in October. All contributor's are listed in the Golden Gate Chapter's Research Annual Report published in the October Fog Dispenser.

Thank you to the following people for their new Individual Honor Roll contributions (\$100 minimum):

Barbara Dilts	John Oldham
Todd Elmgren	Jack Palmer
Richard Frenzel	Mike Rubio
Paul Irwin	Albert Scavino
Glen Leggoe	Gerald Yaffe
Charles McLaughlin	

Thanks to the following new Corporate Honor Roll participant for their contribution (\$150 minimum):

Air Filter / Control

Please make your check payable to "ASHRAE Research" and mail to:

Robert Levi
c/o Carrier Corporation
P. O. Box 23130
Oakland, CA 94623
510.563.5713



Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 401
 San Francisco CA 94104-4903

FIRST CLASS MAIL



FOG DISPENSER

Golden Gate Chapter  **ASHRAE**



RICHARD A CHARLES
 C & B CONSULTING ENGINEERS
 150 SPEAR ST STE 500
 SAN FRANCISCO CA 94105-1537

RECEIVED
 JUN - 1 1999


VOLUME XXXVII - NUMBER 6

JUNE, 1999

Golden Gate Chapter of ASHRAE
 Meeting Announcement

ASHRAE RESEARCH

**Our Spouses (and Significant Others) Tell All
 Thursday June 3rd, 1999**

Only one month remains until the end of the ASHRAE Research campaign year. To date our membership has contributed over \$32,000, but we still have to raise another \$4,000 to meet our goal.

*Location: World Trade Club, World Trade Ctr # 300
 (in the Ferry Building), San Francisco (415) 981-1237.
 Valet parking available on the north side of the Ferry Building.*

The Golden Gate chapter has a very large number of assigned members – over 650. Yet we do not get contributions from over 80% of these members. Those 500+ members out there who have not yet contributed, now is the time to invest in the future of your industry.

Date: Thursday June 3rd, 1999.
 Time: 5:30 pm Social Hour
 6:30 pm Dinner
 8:00 pm Program
 9:00 pm Formal Meeting Adjournment

Thank you to the following people for their new Individual Honor Roll contributions (\$100 minimum):

Cost: \$30 Members and Guests

**You really know that you are married
 to/live with an engineer when...**

Gail Brager Wasil Popow
 Mike Kisaday Arthur Zigas

Come join the fun as our spouses, significant others and friends spill the beans: what is life really like with those wacky engineers? The evening's program will celebrate the award winning essays and people that wrote and lived them. Check your egos at the door and prepare to be roasted.
Remember, you only hurt the one you love.

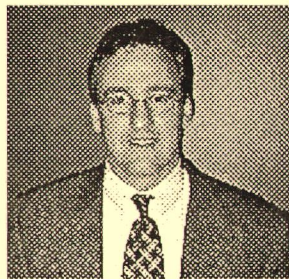
Thanks to the following new Corporate Honor Roll participant for their contribution (\$150 minimum):

Clyde Equipment Company

Please make your check payable to "ASHRAE Research" and mail to:

Robert Levi
 c/o Carrier Corporation
 P. O. Box 23130
 Oakland, CA 94623
 510.563.5713

Notice: This meeting is in our new location!!



The President's Message

A senior member of our chapter recently pointed out the need to update our climatic weather data. The climatic weather data books were developed in the mid '70s to provide more accurate design data for the West Coast's numerous microclimates. The booklets, entitled Climatic Data for Region X, were published jointly by the Golden Gate and Southern California Chapters.

It was pointed out that the climatic data design temperatures presented in the Region X 1992 books which are referenced in our California Codes are supplied for 0.1%, 0.5%, and 2.0% occurrences. The 1997 ASHRAE Fundamentals book published new Summer design conditions based on 0.4%, 1%, and 2% occurrences.

We are looking for members interested in working on a Task Force to update the Region X book. Over twenty years ago Dick Charles, Tom White, Roy Gifford, Jim Taylor, Gus Gendler, Jim Nemechek, and James Holden worked on publishing the Region X Climatic Data and are acknowledged in the book. Every one of these gentlemen either had been or went on to be a President of the Golden Gate Chapter and a respected and successful member of the HVAC industry. Please contact me if you are interested in leading or working on this Task Force.

Respectfully Submitted,

*Ernie French
Golden Gate Chapter President*

Fog Dispenser Deadlines

The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:

FOG DISPENSER

Debbie Marshall, Editor, PACO Pumps
845 92nd Ave, Oakland, CA 94603
Telephone 510/639-3200. Ext. 232
Fax 510/639-3337
email dmarshall@llow-products.com

Photojournalism Editor: Mike Scofield

**Refer prospective new members to
Membership Chair:**

Jean Choi.....510/786-5730
FAX.....510/785-3170

**For Roster corrections and
address changes contact:
1/800/5ASHRAE**

GGC database is based on the National Database. You need to contact national in order to change local information. This may take a couple of months.

Published monthly, October through June, by the **Golden Gate Chapter Of the American Society of Heating, Refrigerating and Air-Conditioning Engineers**, c/o Duplicating Associates, 41 Sutter St., Ste. 1401., San Francisco, CA 94104-4903

1998-1999 OFFICERS

Ernie French.....President
Mark Hydeman.....President Elect
Ben SunSecretary
Kent Lim.....Treasurer

Board of Governors

Joe Olivier, John Small, Dan Reiter

ASHRAE GOLDEN GATE CHAPTER 1998-1999 COMMITTEES AND CHAIRPERSONS

Attendance	Dick Charles	Awards	?	Auditing	Thomas Gilbertson
BAEC	Tom Reinarts	Redwood Empire	Phil Russo	CRC Action	Mark Hydeman
Database Manager	Allan Daly	Student Activities	Robin James	Fog Dispenser	Debbie Marshall
Golf	Charlene Sturm	TEGA	Gary Margadant	Historian	Chris Cummings
Honor Roll	Bob Levi	Marble Game	Edgar DeGuzman	Membership/Picnic	Jean Choi
Product Show	Cory Palmer	PAOE	Dan Reiter	Program	Mark Hydeman
Publicity	Mike Scofield	Reception	Jean Choi	Refrigeration	Dave Martin
Research	Bob Levi	Roster	Tim Provo	Website	Robert Marcial
Seminar	?	Tennis	Dan Noone	By-Laws	?

Golden Gate Chapter email address: www.ggashrae.org

**ASHRAE GOLDEN GATE CHAPTER
DINNER RESERVATION FAX**

For **THURSDAY, June 3, 1999**

Registration is \$30.00

Please send response by noon on **Tuesday, June 1 1999 (by NOON)**

FAX TO: Joe Olivier, ESS Engineering

Phone: (415) 296-9760, ext 205

FAX: (415) 296-9761

e-mail: ggashrae@essinc.com

Please call if you have any last minute changes in plans.

Please cancel your reservation if you cannot attend the meeting.

Preferred method of communication!

FROM: _____

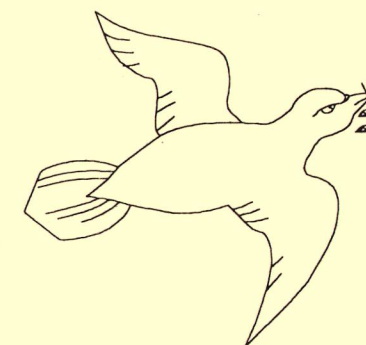
COMPANY: _____

Phone: _____

Please make _____ reservation(s) for the following people (fill in names below):

LOCATION: World Trade Club, World Trade Center #300, (in the Ferry Bldg), San Francisco – 415/981-1237.

World Trade Club located near Pier 2, in the Ferry Building (Clock Tower), one block from the Embarcadero BART station. Limited parking is available along the Embarcadero. Valet parking is also available.



(Don't destroy our natural resources, use e-mail!)

Don't forget!!!

Use the Golden Gate ASHRAE web!

www.ggashrae.com

1999 Region X
Chapter's Regional Conference (CRC)

The 1999 Region X Chapter's Regional Conference in Stockton was both enjoyable and productive. The meeting was attended by two Society Vice Presidents (Lynn Bellinger and Ray Patenoude), Dr. Jim Cox from the ASHRAE Government Affairs office and Kent Peterson, the incoming Director and Regional Chair. Our chapter was well represented by Dick Charles (the Region X Nominating Committee Chair), Tom Reinarts (Society TEGA Chair), Mark Hydeman (Chapter Delegate), Ben Sun (Chapter Alternate), Joe Olivier, Gary Margadant, Jean Choi, Ron Eng and Glenn Friedman. This was the Last CRC meeting that Dean Borges presided over.

Our chapter made three motions at this meeting:

- 1) The formation of a Regional student travel grant funded from an assessment of all Region X chapters. This motion passed and has been referred to Larry Sun, the Regional Vice Chair of Student Activities.
- 2) That the summer Society meeting locations be selected from a pre-screened list during the annual membership ballot. This motion failed after lively discussion over the logistics.
- 3) That Society's commercialism policy be revised to permit "live" website and software demonstrations during chapter, Regional and Society presentations. This motion passed with near unanimity (11 for, 1 against, 2 abstained), however it passed at last year's CRC only to fail at Regions Council. The intent as discussed during the motion debate is to raise it every year until the necessary changes are made.

A number of our chapter members were forwarded for appointments during the closed-door Nominating Committee session. However if I told you any more I'd be swimming with the fishes.

On a different note, the 2001 CRC will be in San Francisco! Mark Hydeman and Pat Baily will be the co-chairs. If you are interested in participating in the planning of this event, contact either of them.

May Board Meeting Minutes

Roster Issues: The task of the roster has been re-assigned to the first year board member to improve the delivery next year. ALL membership information changes must go through National ASHRAE.

Region X CRC 2001 will be held in San Francisco. The CRC will be co-sponsored by the Golden Gate Chapter (Mark Hydeman) and the Redwood Empire Section (Pat Baily). Pat and Mark will be serving our boards as past-presidents during the CRC. Bob Levi has also volunteered. Contact Mark or Ben Sun if you would like to help out.

Committee Chairs needed: Historian, Product Show, Auditing. Dennis Thompson has volunteered to be the Golf Chairman next year.

Motion passed to raise the cost of the dinner due to location change. Cost increased to \$35.00. (Next year's meetings will be held in the World Trade Club).

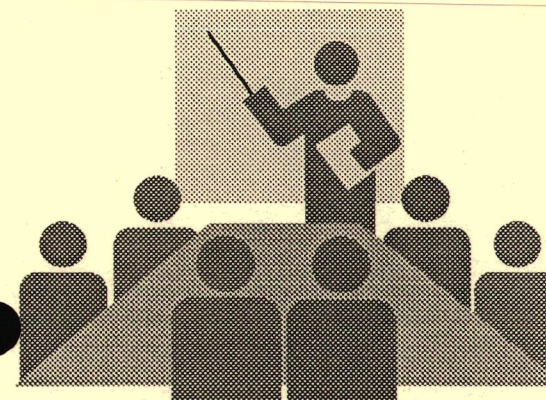
*Respectfully Submitted,
Ben Sun, Secretary*

GRADES CODES USED IN THE GOLDEN GATE
CHAPTER ROSTER 1999

Code	Description
A	MEMBER
B	MEMBER (EXEMPT)
C	LIFE MEMBER
D	ASSOCIATE MEMBER (OVER 30)
E	ASSOCIATE MEMBER (UNDER 30)
F	ASSOCIATE MEMBER (EXEMPT)
G	LIFE ASSOCIATE MEMBER
H	AFFILIATE (OVER 30)
I	AFFILIATE (UNDER 30)
J	AFFILIATE (EXEMPT)
K	LIFE AFFILIATE MEMBER
L	STUDENT
M	STUDENT (EXEMPT)
N	FELLOW
O	FELLOW (EXEMPT)
P	HONORARY MEMBER
Q	PRESIDENTIAL/LIFE MEMBER
R	RETIREE MEMBER
S	RETIREE ASSOCIATE MEMBER
T	RETIREE AFFILIATE MEMBER
U	RETIREE FELLOW
V	FELLOW/LIFE MEMBER
W	PRES/FELLOW/LIFE

GOLDEN GATE CHAPTER FELLOW, LIFE AND
PRESIDENTIAL MEMBERS

Description	Name
PRES/FELLOW/LIFE	RICHARD A CHARLES
FELLOW/LIFE MEMBER	DICK FRIEDMAN
FELLOW/LIFE MEMBER	THOMAS J WHITE
FELLOW/LIFE MEMBER	KARL GUTTMANN
FELLOW/LIFE MEMBER	G ROBERT VOELZ
FELLOW/LIFE MEMBER	THOMAS R SIMONSON
FELLOW/LIFE MEMBER	CARL H JORDAN
FELLOW/LIFE MEMBER	DALE J MISSIMER
FELLOW/LIFE MEMBER	WARREN E BLAZIER
FELLOW/LIFE MEMBER	ROBERT H BRAUN
RETIREE FELLOW	ATMA ADVANI
FELLOW	MAX H SHERMAN
FELLOW	THOMAS A GILBERTSON
LIFE MEMBER	DUANE M HANSON
LIFE MEMBER	BERT A CODDINGTON
LIFE MEMBER	LASZLO Z POKORNY
LIFE MEMBER	ROBERT A WISTORT
LIFE MEMBER	GEORGE N ARONOVSKY
LIFE MEMBER	GEORGE F CLARK
LIFE MEMBER	ISHAN H ALI
LIFE MEMBER	HERB DUNCAN
LIFE MEMBER	DAVID E JACOBS
LIFE MEMBER	ROBERT H JUDD
LIFE MEMBER	KENNETH S TONG
LIFE MEMBER	EUGENE A MCCABE
LIFE MEMBER	FRANK K CROUCH
LIFE MEMBER	DONALD BRADSHAW
LIFE MEMBER	ROBERT A DE CHENE
LIFE MEMBER	LEO E DWYER
LIFE MEMBER	DICK M GLUMAC
LIFE MEMBER	GUSTAV J FEHLHABER
LIFE MEMBER	ELLWOOD C SANFORD
LIFE MEMBER	DICK H FUJIOKA
LIFE MEMBER	WALTER H SCHNEIDER
LIFE MEMBER	ALBERT V SCAVINO
LIFE MEMBER	CAMERON S MALCOLM
LIFE MEMBER	WILLIAM FELZER
LIFE MEMBER	WILLIAM A BARRON
LIFE MEMBER	R DARWIN KNOWLES
LIFE MEMBER	JOHN V RUDY
LIFE MEMBER	MAX SCHEINBERG
LIFE MEMBER	JACK A PALMER
LIFE MEMBER	DAVID A DIXON
LIFE MEMBER	JAMES VAN BUSKIRK
LIFE MEMBER	RICHARD E GEE
LIFE MEMBER	FERNANDO M PALACIOS



GOLDEN GATE CHAPTER FELLOW, LIFE AND PRESIDENTIAL MEMBERS (CONT'D)

Description	Name
LIFE MEMBER	GEORGE P WILSON
LIFE MEMBER	JOHN D KNIVETON
LIFE MEMBER	JAMES L BREESE
LIFE MEMBER	FRANK F GONDEN
LIFE MEMBER	ROBERT D MONTGOMERY
LIFE MEMBER	NORRIS T NELSON
LIFE MEMBER	CHARLES S HARDEMAN
LIFE MEMBER	VERNON J CARNS
LIFE MEMBER	RALPH W SIGMUND
LIFE MEMBER	HENDRIK J MOUW
LIFE MEMBER	PAUL E ROSENTHAL
LIFE MEMBER	JAMES L MYERS
LIFE MEMBER	DAVID N MCMINN
LIFE MEMBER	ROBERT W PHILLIPS
LIFE MEMBER	GERALD YAFFE
LIFE MEMBER	CHARLES E MCLAUGHLIN
LIFE MEMBER	MARCUS P MAGALLANES
LIFE MEMBER	JOHN D O'BRIEN
LIFE MEMBER	THEODORE S GEORGIU
LIFE MEMBER	THOMAS C CAMPBELL
LIFE MEMBER	JOSEPH A MCQUILLAN
LIFE MEMBER	EDWARD E COLLINS
LIFE MEMBER	ARTHUR L ZIGAS
LIFE MEMBER	A R WOLFORD
LIFE MEMBER	HAROLD W EAGLESON
LIFE MEMBER	ROBERT G CAUGHEY
LIFE AFFILIATE MEMBER	AREL W BERRIER
LIFE AFFILIATE MEMBER	WILLIAM R KASTELIC
LIFE AFFILIATE MEMBER	RICHARD A EMERSON
LIFE AFFILIATE MEMBER	JOHN W WARD
LIFE AFFILIATE MEMBER	JOHN G ROTH
LIFE ASSOCIATE MEMBER	HENRY S HUDDLESTON
LIFE ASSOCIATE MEMBER	PER OLOF SONANDER
LIFE ASSOCIATE MEMBER	RODNEY G ROBERTS
LIFE ASSOCIATE MEMBER	CARSON WOO
LIFE ASSOCIATE MEMBER	EARL L BEDARD
LIFE ASSOCIATE MEMBER	RICHARD A FRENZEL
LIFE ASSOCIATE MEMBER	KENNETH M LLOYD
LIFE ASSOCIATE MEMBER	ROBERT J LINCOLN
LIFE ASSOCIATE MEMBER	MARY C WONG
LIFE ASSOCIATE MEMBER	BERNARD D BECKIUS
LIFE ASSOCIATE MEMBER	MON J LUM

June 1999
ASHRAE GOLDEN GATE CHAPTER PROGRAM SCHEDULE 1998-1999

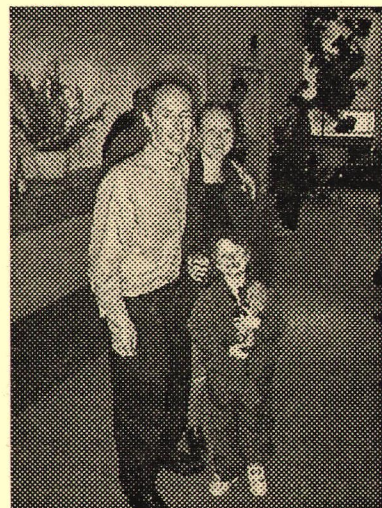
This schedule will be repeated in each Fog Dispenser (room permitting). If you have questions, comments or suggestions, please contact Mark Hydeman @ PGE Energy Center, 415/972-5498, MMH0@pge.com.

Month	Subject	Speaker	Location
June 3rd	Speaking from Experience: "You know you are really married to (living with) an engineer when..."	Spouses, roommates and significant others tell all.	World Trade Club

Moments from May's tour of Yerba Buena's Ice Skating Rink/Bowling Alley tour and dinner at The Energy Center.....

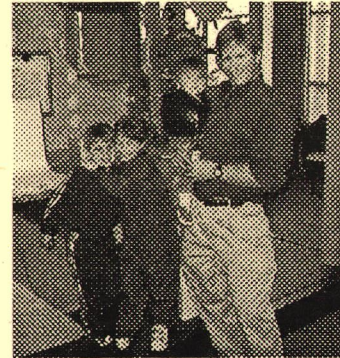


Gail Brager and her brood.

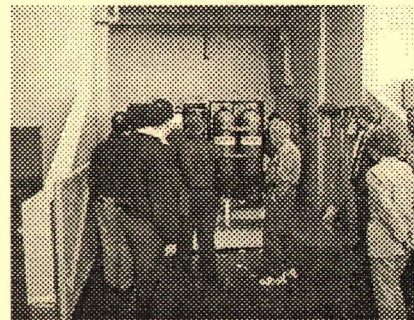


Mark, Patty and Little Spitfire.

More moments from the field trip.



Dan Hoffman and family with future daughter in law.



What every kid on the ice rink wants to drive, the Zamboni. (Maybe some of the big kids, too?!)

Ernie, I understand the camera had some technical difficulties, otherwise we would have had some amusing shots of you and the wall at the rink.



MEMBERS IN THE NEWS:

Carollo Engineers, Walnut Creek office, is pleased to announce that **Gino V. Colacchia, CVS, CPE** has joined the company as its National Director, Construction Services Group. Mr. Colacchia will assist in the expansion of Carollo's construction management capabilities and expertise in its core water/wastewater planning and design services market. Prior to joining Carollo Engineers, Mr. Colacchia worked for one of the largest pure construction management firms as manager of their Technical Services Group. Carollo Engineers is a leading expert in the planning, design and construction management of water and wastewater projects.

EMPLOYMENT OPPORTUNITIES

Quantum Consulting, a leader in the energy industry seeks motivated Engineer for Bay Area location.

Ideal candidate will have strong background in consulting within the energy industry, minimum 2 years experience & degree in engineering or a related field. Must have knowledge of HVAC systems, DOE2 exp. a plus. Excellent written & oral communication & C/S skills required.

If you are motivated to contribute to a team that is committed to excellence, please send your resume to:

Quantum Consulting, Inc.
2030 Addison St., Ste. #410
Berkeley, CA 94704
Attn: HRECH or fax 510/540-7268
Email: HR@qcworld.com EOE

Piping/Plumbing Designer:

5 years experience in HVAC piping, process piping and plumbing systems design and detailing. This position required expertise in use of AutoCAD release 14 and piping design software. Responsibilities include: assisting project engineers with development of design drawings, final construction drawings, detailing and as-built drawings for Design/Build commercial project. Experience with a Design/Build contractor or engineering firm is required.

Please send resume to: Peterson Mechanical, Inc.

PO Box 450
Sonoma, CA 95476
fax: 707/938-1437
email: PMECH@vom.com



Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 401
 San Francisco CA 94104-4903

FIRST CLASS MAIL



RICHARD A CHARLES
 C & B CONSULTING ENGINEERS
 150 Spear St Ste 500
 San Francisco CA 94105-1537

RECEIVED

SEP 29 1999



CLYDE EQUIPMENT COMPANY, Inc.

MANUFACTURERS REPRESENTATIVES

3470 MT. DIABLO BLVD, SUITE A120

LAFAYETTE, CA 94549

(925) 299.9180 / FAX (925) 299.9186

*** AERCO INTERNATIONAL * KEWANEE BOILER * PARKER BOILER***

*** UNIVERSAL BOILERWORKS***

Servicing all your steam, heating hot water and domestic hot water needs . . .

ASHRAE GOLDEN GATE CHAPTER DINNER RESERVATION FAX

For THURSDAY, October 7, 1999

Make your reservations by Monday, October 4.

Email: Edgar DeGuzman edeguzman@accoair.com *preferred method of communication!!!!*
FAX: (650) 594-4915 Please call if you have any last minute changes in plans.
Phone: (650) 631-3900 *Please cancel your reservation if you cannot attend the meeting.*
Cancellations must be received by the Tuesday prior to the meeting.

FROM: DICK CHARLES

COMPANY: C & B ENGINEERS

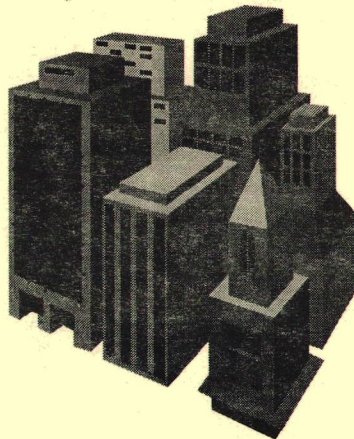
Phone: 442 0110

Please make 1 reservation(s) for the following people (fill in names below):

<u>DICK CHARLES</u>	_____
_____	_____
_____	_____
_____	_____

LOCATION: NEW PLACE, Superior View, and Improved Ambience. World Trade Club,
World Trade Center # 300 (in the Ferry Building Big Clock Tower by the Bay), San Francisco

(Don't destroy our natural resources, use e-mail!)

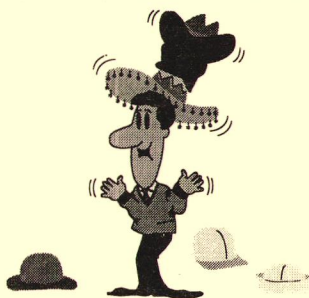


Position	First	Last	Business	Phone	Fax	Email
Product Show Committee Chair	Cory	Palmer	NORMAN WRIGHT EQUIPMENT CORP	415-467-7600	415-467-0900	cpalmer@norman-wright.com
Publicity Committee Chair	Mike	Scofield	CONSERVATION MECHANICAL SYSTEMS	707/829-2080	707/829-3142	cmscofield@aol.com
Reception Committee Chair (Membership Vice Chair)	Ronald	Eng	CARRIER CORP	510-563-5701	510-563-5733	ronald.eng@carrier.utc.com
Redwood Empire Section President	Pat	Bailey	GEOPRAXIS INC	707/996-9408	707-939-8702	pbailey@geopraxis.com
Roster Committee Chair (1st Year Board Member)	Robert	Levi	CARRIER CORPORATION	510/563-5713	510/563-5733	robert.f.levi@carrier.utc.com
Seminar Committee Chair	Luek	Vaneveld	TAYLOR ENGINEERING	510/749-9135	510/749-9136	lvaneveld@taylor_engineer
Weather Data Committee	Nenad	Saric	ATI ENGINEERING SERVICES	925-648-8800	925-648-8818	nsaric@atiengineering.com

June 1999 Meeting Minutes:

Alas, due to the informality and hilarity of the "You Know When You Are Married To/Live With an Engineer When" meeting last June, no minutes were taken. Back to routine next month.

////////////////////////////////////



Don't Forget!!

If you have an employment opportunity the Fog Dispenser will gladly display your ad with a \$50.00 contribution to the Research Fund. Contact Debbie Marshall at 510/39-3200, 272 or dmarshall@flow-products.com for further information.

HAVE YOU MOVED?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

- 1) Click on "Membership Records" under the "Members-Only Section" (note you will need your membership # and pin which are on your membership card).
- 2) Click on "Address Change"
- 3) Enter your Name, Membership#, EMail Address and any changed contact information
- 4) Click on submit

Student Activities Corner

I'm looking forward to another great year of Student Activities. There will be a lot of opportunities throughout the year to introduce students to our organization and the different career paths available within the Heating, Ventilation, Air Conditioning, and Refrigeration Community. I am looking for some volunteers to join the Student Activities Committee. If you are interested please contact me at (707) 747-0835 or rjames@belimo.com <<mailto:rjames@belimo.com>>

To start the year ASHRAE is having a 2000 Student Design Project Competition. The 2000 competition focuses on the design of a two-story building to be constructed on a college campus in Greenville, South Carolina. The original drawings and complete project information can be easily downloaded from the 2000 Student Design Project Competition found under the Student Activities Section of the ASHRAE Home Page at www.ashrae.org <<http://www.ashrae.org>>. A hard copy can be obtained if you don't have access to the Internet. Project judging will begin in May 2000.

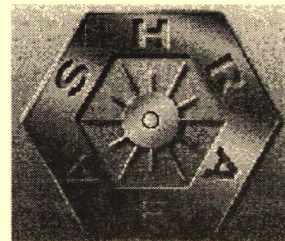
ASHRAE Announces Funding for Undergraduate Senior Projects or Technical School Projects:

The Undergraduate Senior Project Grant Program provides grants to engineering, technical and architectural schools worldwide with the goal of increasing student knowledge, learning and awareness of the HVAC&R industry throughout the design and construction of senior projects. Grants are to be used to fund equipment and supplies for engineering or architectural senior projects and 2-year technical school projects, which could mean up to \$5,000 in aid. Application must be received at ASHRAE by December 1st from a faculty member. For more information please contact Robin James at rjames@belimo.com <<mailto:rjames@belimo.com>> or (707) 747-0835.

1999/2000 COMMITTEE CHAIRS

How do you turn a 20 hour task into a 10 hour task? Simple, you split the load between volunteers. These committees serve you the members, and we need your help to do the work. Contact a committee chair and offer your services or contact a Board member to fill a vacancy.

Position	First	Last	Business	Phone	Fax	Email
Region X DRC	Kent	Peterson	P2S Engineering, Inc.	562-497-2999	562-497-2990	kwp@p2seng.com
President	Mark	Hydeman	Cymetrics, LLC	415/255-1192	415/255-1193	hydeman@buildingscience.org
President-Elect	Benjamin	Sun	FLACK & KURTZ	415/398-3833	415/433-5311	bpsun@sf.fk.com
Treasurer	Joseph	Olivier	ESS ENGINEERING	415/296-9760	415/296-9761	jro@essinc.com
Secretary	Kent	Lim	KENT MAN LIM & COMPANY	415/822-1232	415/822-6437	
Board of Governors: Past-President	Ernie	French	NORMAN WRIGHT EQUIPMENT CORP	415/467-7600	415/467-0900	efrench@norman-wright.com
Board of Governors: 2nd Year Board Member	Edgardo	De Guzman	ACCO INC	650-594-0182	650-594-4915	edeguzman@accoair.com
Board of Governors: 1st Year Board Member	Robert	Levi	CARRIER CORPORATION	510/563-5713	510/563-5733	robert.f.levi@carrier.utc.com
CRC Delegate (President-Elect)	Benjamin	Sun	FLACK & KURTZ	415/398-3833	415/433-5311	bpsun@sf.fk.com
CRC Alternate (Secretary)	Kent	Lim	KENT MAN LIM & COMPANY	415/822-1232	415/822-6437	
Membership Promotion Committee Chair	Ronald	Eng	CARRIER CORP	510-563-5701	510-563-5733	ronald.eng@carrier.utc.com
Student Activities Committee Chair	Robin	James	Belimo Aircontrols	707/745-5998	707/745-5999	rjames@belimo.com
Chapter Program Committee Chair (President Elect)	Benjamin	Sun	FLACK & KURTZ	415/398-3833	415/433-5311	bpsun@sf.fk.com
Historian	Roy	Gifford	PCL CONSTRUCTION SERVICES INC	213-747-0734	213-747-0745	
Refrigeration Committee Chair	Glenn	Friedman	AMERICAN MECHANICAL SVCS	510-772-6011	510-486-8037	gfriedman@ars.com
Research Promotion Committee Chair	Cory	Palmer	NORMAN WRIGHT EQUIPMENT CORP	415-467-7600	415-467-0900	cpalmer@norman-wright.com
Technical, Energy & Government Activities Committee Chair	Gary	Margadant		707/257-3351		gasm@napanet.net
Newsletter Editor	Debbie	Marshall	Paco Pumps	510-639-3200	510-639-3337	dmarshall@flow-products.com
Honors and Awards Chair	Gail	Brager	UNIVERSITY OF CALIFORNIA	510/642-1696	510/643-5571	gbrager@socrates.berkeley.edu
Website Chair	Robert	Marcial	University of California CEDR	510-849-9057		rmarcial@uclink4.berkeley.edu
Database Chair	Allan	Daly	Ove Arup & Partners California	415-957-9445	415-957-9096	allan.daly@arup.com
Codes Committee Chair	Dick	Glumac	GLUMAC & ASSOCIATES	415/421-1164	415/398-0596	
Attendance Committee Chair	Richard	Charles	C & B CONSULTING ENGINEERS	415/442-0110	415/882-7747	rac@cbengineers.com
Auditing Committee Chair	Tbd	Vacant				
Tennis Committee Chair	Tbd	Vacant				
BAEC Committee Chair	Thomas	Reinarts	KELLER & GANNON	415/621-1199	415/864-3681	tom.reinarts@keller-ganno
Golf Committee Chair	Charlene	Sturm	AIR TREATMENT CORP.	510/655-3990	510/655-7966	
Honor Roll Committee Chair (Research Chair)	Cory	Palmer	NORMAN WRIGHT EQUIPMENT CORP	415-467-7600	415-467-0900	cpalmer@norman-wright.com
Marbles Game Committee Chair	Leslie	Hanohano	NORMAN WRIGHT EQUIPMENT CORP	415/467-7600	415/467-0900	lhanohano@norman-wright.com
PAOE Committee Chair (Past-President)	Ernie	French	NORMAN WRIGHT EQUIPMENT CORP	415/467-7600	415/467-0900	efrench@norman-wright.com



Cal Poly ASHRAE®, Chapter

American Society of Heating, Refrigerating and Air Conditioning Engineers

The ice skating rink is back! A few members of the Air Conditioning Club at Cal Poly, SLO have designed a 20' X 30' ice-skating rink for Cal Poly's "OPEN HOUSE". The design calls for a 30-35 ton glycol chiller. Unfortunately we do not have a chiller of this size. We need \$10,000 - \$15,000 to build the ice skating rink and you can help! We are looking for financial and/or equipment contributions to the Air Conditioning Club for this project. In return you will be recognized and advertised at the Cal Poly "Open House".

As you know Cal Poly is one of the great schools for mechanical engineering, and is a forerunner in the HVAC&R field. We want to continue this tradition and create more interest into the field of HVAC&R. This ice skating rink is a great way of getting young students interested plus all contributions that exceed the amount above we will use to educate students on the industry and it's new technologies. If you would like to make any contribution or would like more information on the ice skating rink, contact me or send you contributions to the address below.

Thank you,

Zachary Russi

President, ASHRAE Cal Poly Student Chapter

(650) 326-0750

zrussi@westernallied.com

Make checks payable to **Cal Poly Air Conditioning Club**

ATTN: Zachary Russi
Western Allied Corporation
1180 O'Brien Drive, Menlo Park
CA, 94025

1998-99 ASHRAE RESEARCH ANNUAL REPORT GOLDEN GATE CHAPTER

Congratulations and thank you to each of the Golden Gate Chapter members listed below who contributed to ASHRAE Research in 1998-99. Each of you helped the Chapter exceed our Research goal while giving back to our industry.

INVESTORS OF MORE THAN \$1,000

Flack + Kurtz Consulting Engineers
Golden Gate ASHRAE Chapter
Kent M. Lim & Company, Inc.
SMACNA - Greater Bay Area
Norman Wright Mechanical Equipment
Pacific Gas and Electric Company

INVESTORS OF \$501 to \$1,000

Chevron Corporation
Thomas A. Gilbertson
L. Lane Loyko
Gayner Engineers
Pacific Coast Trane

INVESTORS OF \$251 to \$500

Richard Charles
Mark Hydeman
Frank Mayhew
Dennis Thompson

INVESTORS OF \$151 to \$250

Air Filter / Control Corporation	Clyde Equip. Co.
Air Treatment Corporation	ESS Engineering No. Cal.
Ajmani & Pamidi Incorporated	Glumac International
American Cons. Engineers	R. F. MacDonald Company
American Mechanical Services	Phoenix Controls Corporation
C & B Consulting Engineers	Tempco Equipment Company
Carrier Corporation	Edward B. Ward Company

INVESTORS OF \$101 to \$150

Airco Sys., Inc.	Hendrik Mouw	John Small
Gail Brager	MHC Engineers	Steven Taylor
DMG North Inc.	Inc.	Gerald Yaffe
Inc.	PLA	Yamas Company
JYA Consulting Engineers	Corporation	Inc.
Keller & Gannon	Nenad Saric	York International
Laws & Associates	C. Mike Scofield	
	SJ Engineers	

INVESTORS OF \$100

Robert Caughey	Robert Levi	Daniel B. Reiter
Leo Copper	Kent Man Lim	Dart
Barb. Dilts	Charles McLaughlin	Rinefort
Todd Elmgren	Dale Missimer	Shlomo
Ronald Eng	James Nemechek	Rosenfeld
Gustav Fehllhaber	John O'Brien	Mike Rubio
Ernie French	John Oldham	Albert Scavino
Richard Frenzel	Joseph Olivier	Max Sherman
Karl Guttman	Jack Palmer	Benjamin Sun
Paul Irwin	Paragon Controls Inc.	Ted Jacobs
Carl Jordan	Richard Porter	Engineering Group
Miklos Kisaday	James Quinn	Robert Voelz
John Kniveton	Wasil Popow	John Ward
Glen Leggoe	Thomas Reinarts	Osamu Yamauchi

INVESTORS OF \$50 to \$99

Edward Arens	Robert Davis	Robert Linford
Fred Bauman	Robert DeChene	David Lintott
Arnold Bletnitsky	Edgardo	Eugene McCabe
Elizabeth	DeGuzman	John Pataye
Brimberry	Kevin	Peterson Mechanical Inc.
Brooks	Dowling	Steven Rottmayer
Enterprises	David Jump	Ronald Yaffe
The Brose Company	John Karmiris	Richard Yates
James Brugger	John Kellebrew	
Emanuel D'Albora	Sonny Kwok	
James Davis		

INVESTORS OF \$10 to \$49

Jorge Del Mayo	Shin-Hwa-Ho Henry	David Penney
Herbert	Huddlestone	Alex Ramos
Diffenbaugh	Gordon Kaung	Sherrill Engineering
Ronald	Thomas Main	Joy Shonfeld
Gregory	Fernando	Stephen Sprague
Peter	Palacios	
Hartdegen	Cory Palmer	
Heat Transfer Equipment		
Jose Herrera		

In my first year as Research Promotion Chairman for our Chapter, I have an aggressive target to reach, thanks to Bob Levi's success with Research in recent years. Checks payable to ASHRAE Research can be sent to:

Cory Palmer
c/o Norman Wright Mechanical Equipment Corp.
99A South Hill Drive
Brisbane, CA 94005
phone: 415.467.7600 ext. 110
e-mail: cpalmer@norman-wright.com

Items from the Redwood Empire Grapevine

Dinner Meeting – September 15, 1999

Commissioning – Stories from the Field

Speakers will be Don Felts, an independent consultant and Leo Copper, a Redwood Empire Section of ASHRAE who makes sure HVAC systems work right. Don works with corporate and public clients on the design of energy efficient buildings and systems. He is highly involved in the development of software tools that can be used to diagnose problems relating to the performance of energy using systems in commercial buildings. He has worked as a mechanical engineer, a lighting designer, an architect and as an adjunct professor of architecture at the University of New Mexico. Leo will offer suggestions on how to make several standard HVAC systems work better, using case studies from buildings he has commissioned.

Topics will include insight into testing and balancing, and how to properly set up a PI (proportional-integral) loop.

Next Meeting in the Redwood Empire

Dec. 1 “We’ll Never Do That Again!”
 Adobe Creek Clubhouse, Petaluma
 Social Hour 5:30pm;
 Dinner 6:30 pm.

@@@@@@@@@@@@@@@@@@@@
SAVE YOUR \$\$\$

By buying the 1999-2000 GGASHRAE voucher for \$270. The voucher is good for **all-9 meetings and will also save you the hassle of monthly expense filing and record keeping.**

The Golden Gate ASHRAE board heard you! We know the \$35 for an ASHRAE dinner is high and that is why we are offering you an all-9 meeting dinner voucher. The voucher will cost you \$270 for 9 meals. (Drinks not included). The vouchers are transferable to other people.

So, Who will buy voucher Numero Uno? Call to reserve your lucky voucher number. We may even have a year-end raffle for all the voucher users? Did you forget Mr. Sun was the one who raffled-off a 7day trip for two to Hawaii when he was Research Chair a few years ago. By the way, who recalls the winner of that trip? Top prize for the 1999-2000 voucher users: TBD by Mr. “Hey, what is in for me?” Sun. Call him to reserve your voucher number. His direct telephone line is 415-402-2234.

Mark your Calendars for these upcoming programs:

Month	Program
October 7, 1999	Future of Actuators
November 4, 1999	New Technology- Fuel Cell or Or Web Based O & Manuals
December 2, 1999	Joint meeting with San Jose Chapter in San Mateo Marriot. Fundamental perspective on Chilled Water system
January 6, 2000	Thermal Engineering and the Human Body
February 3, 2000	Green Building Research at the NIST Or Web Based O & Manuals
March 2, 2000	Whining in the office?
April 6, 2000	Product Show
May, 2000	Field Trip Monterey
June 1, 2000	VAV System Design: Problems and Opportunities

Some programs may change due to the availability of speakers.

~~~~~  
**Looking For All Good Candidates**

Although it pains me to do this, I must resign my position as Editor of the Fog Dispenser after this year. I’ve enjoyed this experience greatly, meeting some of you, nagging some of you to get your material in to me by the deadlines, etc. We are looking for someone to take over the reins. If you, or someone you know, is interested in this position please contact Kent Lim @ 415/822-1232 or Debbie Marshall @ 510/639-3200, 232, [dmarshall@flow-products.com](mailto:dmarshall@flow-products.com).

What a great way to get started with the Golden Gate Chapter if you haven’t already. It’s a tremendous experience and can be a lot of fun!

~~~~~

New Staff at Guttman & Blaevoet

Rick Schwab, senior engineer and Nav Patel, senior engineer.

Tom White, Former President of the Golden Gate Chapter, passed away in June of this year. Mike Scofield was asked to deliver a eulogy at his memorial service on June 16th in Mountain View.

Tom White Eulogy

For those of us who knew Tom professionally, I would like to outline a few of his contributions to our HVAC Industry.

Tom joined ASHRAE in 1938. He served as President of our Golden Gate Chapter in 1952-53 and sponsored the formation of the Sacramento ASHRAE Chapter during his term in office. As Director and Regional chairman for Region X, Tom guided the Steering Committee which founded the San Jose ASHRAE chapter in 1965. His Society Honors and Awards are too numerous to list, but a few highlights are:

- Distinguished Service Award 1969
- Regional Award of Merit 1978
- Fellow 1981
- Gold Ribbon History Award 1985
- 50 Year Distinguished Member Award 1988
- Andy Boggs Service Award 1994

And, next week in Seattle, Tom was to have received the ASHRAE Exceptional Service Award.

I first met Tom in 1960 when I was fresh out of college. He was my first boss at American Blower Company. I feel blessed to have learned proper business morals and ethics from such an outstanding mentor. Tom had a very simple business philosophy, which I have never forgotten, “It’s easier to do business with friends than enemies.”

We’ll all miss our old friend, Tom White.

Fog Dispenser Deadlines
 The ninth of the month preceding the meeting. All the news that fits gets printed.

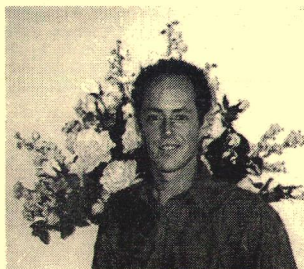
 Mail, fax, phone or email News by the 9th of the month preceding the meeting to:
FOG DISPENSER
 Debbie Marshall, Editor, PACO Pumps
 845 92nd Ave, Oakland, CA 94603
 Telephone 510/639-3200. Ext. 232
 Fax 510/639-3337
 email dmarshall@flow-products.com
 Photojournalism Editor: Mike Scofield

Refer prospective new members to
Membership Chair:
 Ronald Eng.....925/694-5209
 FAX..... 925/691-2642
For Roster corrections and address changes contact:
1/800/5ASHRAE
 GGC database is based on the National Database. You need to contact national in order to change local information. This may take a couple of months.

Published monthly, October through June, by the **Golden Gate Chapter Of the American Society of Heating, Refrigerating and Air-Conditioning Engineers**, c/o Duplicating Associates, 41 Sutter St., Ste. 1401., San Francisco, CA 94104-4903

1999-2000 OFFICERS
 Mark Hydeman.....President
 Ben Sun.....President Elect
 Kent Lim.....Secretary
 Joe Olivier.....Treasurer
Board of Governors
 Ernie French, Edgar DeGuzman, Robert Levi

PRESIDENT'S MESSAGE



What Can I Do To Help? It is with great pleasure and gratitude that I write to you from my cushy new office as Chapter President. You have bestowed both an honor and an obligation on me and I will do my best to live up to your expectations. I have the privilege to serve in the capacity as head of one of the largest and most active chapters in our society, and in turn, I have the obligation to make this chapter work as smoothly as possible. Along that line I encourage you to contact your Board if you have thoughts about how we can better serve you. Don't be shy, please bring your ideas forward, we serve at your pleasure and in your interest.

This, fellow member, is your privilege. Your obligation is to help us get the job done.

In contrast to my efforts over the past four years to modernize the chapter operations using electronic media and the web, I plan to ring in the new millenium with an old-fashioned theme, Volunteerism. I received the gavel with many of our critical chapter committees empty or in disarray. I am concerned not for how it reflects on me, but rather how it hampers our ability to serve you. The competency and dedication of my colleagues on this Board is simply not enough, we cannot run this chapter without your help. With the gavel, I inherited the obligation to make tangible to you the mutual benefits of volunteerism. Each month, my column will feature one of the many great volunteers that have made this chapter what it is.

Perhaps an example would help: Imagine us all in a big Galley being chased by a horde of hungry sea dragons. You hired me to beat the drum but only the Board members on the left side are rowing...you get the picture.

The Big Perspective.

Last Spring, I attended the funeral of one of our members, Ron Kammerud. Like many in our chapter, Ron's contributions were largely at the Society level and we rarely saw him at the chapter meetings. But at the Society level, I can attest that he labored tirelessly and produced great works, volunteering many hours of his time, and covering his expenses from his own pocket.

I had known Ron only in the context of our work, but over the years I developed a great respect for him, he was one of the most competent and dedicated people that I have ever met. I mourned for the work that he had left undone, but the greater tragedy was the loss of Ron, his humor, his quirks and his friendship. His funeral was attended by friends and colleagues from across the country, and one by one they repeated the same story, awe for his work, respect for his person. What a tragedy that he died so young, what a gift that he lived at all... It is hard to put your arms around why anyone chooses to volunteer, but I got a glimpse at Ron's funeral. Working together we can produce great works, but more importantly the process of working together produces great people and friendships.

Our first Fog Dispenser is dedicated to Ron Kammerud and Don Bryant. Like Ron, Don Bryant was a great volunteer who produced a lasting effect both in product and in process. Among his many accomplishments, Don founded our HVAC/R co-sponsored certificate program with the University of California Berkeley Extension. Don built this program through vision, leadership, hard work and his dedication to our chapter. Don did not benefit financially from the program, but he did benefit from knowing that he had touched so many lives. Hundreds of professionals in our chapter have attended these classes and dozens of chapter members have taken on the challenge and experienced the joy of teaching. Don's legacy continues to serve this chapter and has spawned similar programs in Sacramento (with UC Davis) and San Jose (with UC Santa Cruz). In his memory and with respect to all the volunteers living and dead that make this Society work for us, I propose that we adopt the motto, **What Can I Do To Help?**

A Final Shot

A delivery man was taking a load of penguins to the zoo when his truck broke down. Realizing he was in a pickle, he flagged down a passerby and asked if he could help. "Friend," he asked, "could you please take my penguins to the zoo?" The passerby, being the sort that volunteers, agreed and off he went followed by the penguins. Some time passes and the delivery man gets the truck started. As he heads to the zoo he sights the passerby with penguins in tow headed in exactly the opposite direction. "What's this," he asked, "I thought you were going to take my penguins to the Zoo?" "Good sir," replied the passerby, "we have been to the Zoo now we are going to a movie."

*Respectfully submitted,
Mark Hydeman, Chapter President*

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVIII - NUMBER 1

OCTOBER, 1999

1st Meeting of the new Fiscal Year!!

The Future of Actuation

**Werner Buck, President – Belimo Air Controls,
USA and Canada**

Location: World Trade Club
World Trade Center, #300
(in the Ferry Building)
San Francisco

Date: Thursday, October 7th, 1999

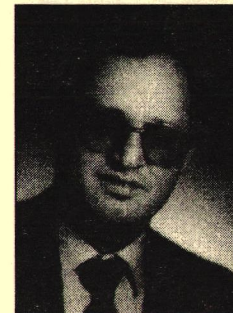
Time: 5:30pm Social Hour(No host)
6:30pm Dinner
8:00pm Program
9:00pm Formal Meeting Adjournment

Cost: \$35.00 Members and Guests

All reservations must be received by Edgar De Guzman at edeguzman@accoair.com or fax to 650/594-4915, by Monday, October 4th.

If you need to cancel, please do so by Tuesday, October 5th.

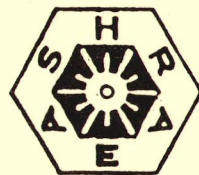
Valet parking is available on the north side of the Ferry Building.



ACTUATOR OF THE FUTURE

Mr. Werner Buck, President of Belimo Air Control USA, will present the Actuator of the Future. Mr. Buck recently presented a technical seminar in the Winter ASHRAE meeting in Seattle. He will tell us about which direction the leading edge of actuator is heading and what is coming and what is available today.

Werner can also tell you about how Belimo integrated three different BAS control systems. He did it at the Belimo Headquarter in Danbury by using the ASHRAE BACnet standard. Werner can tell you how it was accomplished without the marketing hype and the various issues of Interoperability BAS based on real operating buildings. By the way, the Belimo HQ has more BAS vendors than the 450 Golden Gateway project here in the "Baghdad by the Bay". How many vendors ? You asked... Well, come to the meeting and find out.



Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 1401
 San Francisco CA 94104-4903

FIRST CLASS MAIL



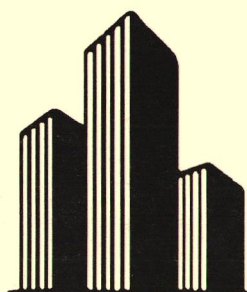
RICHARD A CHARLES
 C & B CONSULTING ENGINEERS
 150 Spear St Ste 500
 San Francisco CA 94105-1537



OCT 29 1999

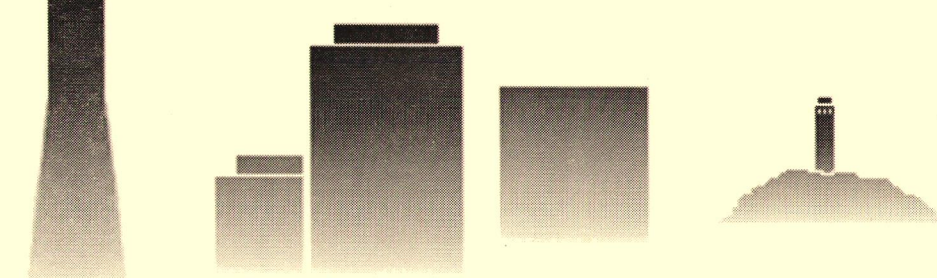
HVAC	ELECTRICAL	
CORRESPONDENCE	CALCULATIONS	
SPECIFICATIONS	SUBMITTALS	
DESIGN	DRAWINGS	
OTHER		

 **ASHRAE** 
 Honor Roll



• **NORMAN WRIGHT MECHANICAL EQUIPMENT CORPORATION**
 san francisco ♦ santa clara ♦ santa rosa

FOG DISPENSER



Golden Gate Chapter



ASHRAE

VOLUME XXXVIII - NUMBER 2

NOVEMBER, 1999

Mr. Mark Modera from the Lawrence Berkeley National Lab/Aeroseal, Inc

Seal HVAC Duct Leaks from the INSIDE!!

DATE: November 4, 1999 meeting

Mark will be speaking to us about a new patented and revolutionary technology that will seal air leaks in duct systems from the inside of the duct.

TIME: SOCIAL HOUR: 17:30
 DINNER: 18:30
 PROGRAM: 20:00
 ADJOURNMENT: 21:00

According to Mark's research: Each year, U.S. residential and commercial duct leakage costs consumers some \$5 billion - a loss equal to the annual energy consumption of 13 million cars. A typical house with ducts located in the attic or crawl space wastes about 20% of heating and cooling energy through duct leaks and draws approximately 0.5 kW more electricity during peak cooling periods. Studies indicate that sealing leaks could save close to one quadrillion Btu per year.

PLACE: Pacific Energy Center
 851 Howard Street

Cost: \$35.00 Members and Guests

All reservations must be received by Edgar De Guzman at edeguzman@accoair.com or fax to 650/594-4915, by Monday, November 1st.

A Chance to Win!!!

If you need to cancel, please do so by Tuesday, November 2nd.

PLEASE NOTE: The parking lot directly across the street from the Energy Center is now closed. Parking is still available at the 5th and Mission Garage. Entrance on Mission and Minna Street.

For those of you who purchased the meal voucher for the 1999-2000 meetings, I have very good news for you! Your name has been entered into the Meal Voucher Sweepstakes. The top prize is a 3 day trip for two to Las Vegas NV. The prize has been generously donated by Norman Wright Equipment Company who wants to encourage your participation in ASHRAE. People who purchase the Meal Voucher before the November 4 meeting will also be entered into the Sweepstake. Right now, you have a better than 1 in 10 chance of winning the trip. So, WHO is NEXT?



So What Does it Take to Run a Chapter?

Who would have thought that a person could spend an hour discussing the nuances of the actuator and keep a room full of engineers engaged? It sounds like a bad joke, but seriously our October 7th presentation by Werner Buck of Belimo Air Control USA was a surprisingly good evening. Ben Sun has hit the ground running as this year's Program Chair and President-Elect. From past Society President Jim Hill in January to future-Society President Bill Coad in February Ben's programs promise to be informative, interesting and well worth attending. He's even squeaked in a joint meeting with the San Jose Chapter in December, our first ever lunch meeting in January and a tour of the Monterey Bay Aquarium in May.

So what does it take to run the Golden Gate Chapter? It takes careful planning and coordination to put together a slate of 9 chapter programs for the year: you have to book the speakers, reserve the room, coordinate the announcements for the Fog Dispenser, coordinate reservations for the meetings, provide registration and other on-site logistics at the meeting, you have to take care of the speaker and their audio-visual equipment needs, sometimes you need to negotiate and deliver an honorarium, and always you need to write a letter of thanks.

To advertise the meeting you need a volunteer to coordinate communications with our 750 odd members — 15% of whom change their contact information in a given year. To keep the membership vibrant and growing you need student activities at local schools and universities to keep interest and lines of communication open with young people who have an interest in our industry. To communicate with these members we have a newsletter produced each month and a website that is updated every week.

To keep the Society active and relevant we need grassroots committees like Codes, Technical Energy and Government Affairs (TEGA) and Refrigeration

to act as facilitators and liaisons between chapter members, industry and code authorities. These committees keep a bi-directional flow of experience and information that provides a service extending well beyond our Society's boundaries.

And finally to advance our industry we need research dollars that are solicited on an individual basis and through fundraisers like the annual chapter golf and tennis tournaments.

So what does it take to run a chapter? It takes a lot of dedicated people working for the betterment of their community. Last month I gave special thanks to Robert Marcial our chapter Webmaster, Debbie Marshall our newsletter editor and Charlene Sturm our golf committee chair. My few minutes at the podium is insufficient for the time I need to thank all of those dedicated volunteers who make our chapter work. The chapter truly appreciates you one and all.

This month's Fog Dispenser is dedicated to the memory of Tom White, chapter mentor and historian past, present and future. I recall Tom as the sharp-witted curmudgeon that stood up at each meeting to deliver lectures on our chapter's history. He was so squarely in his shoes that he could correct Carl Jordan without losing a beat. It is said that those who forget their history are doomed to repeat it. Without Tom's sagacity I fear our Chapter's doomed to a fate like Bill Murray's in the movie Ground Hog's Day.

It will come as no surprise to most of you that Tom authored our chapter's history, nor that he was integral in the development of our bylaws and selection of San Francisco as the 1998 Winter Meeting site. Tom passed away one month before he was to receive his Excellent Service Award from Society. This was an award that he well deserved: Tom spent a good part of his professional life and most of his retirement dedicated to making our Society and Chapter work for all of us. Take this opportunity to make Tom proud and volunteer a few hours to help keep his Golden Gate Chapter running. Your board is as close as a phone call away.

*Respectfully Submitted,
Mark Hydeman,
President Golden Gate Chapter of ASHRAE*

ASHRAE GOLDEN GATE CHAPTER DINNER RESERVATION FAX

Registration is \$35.00

For THURSDAY, November 4, 1999

Please respond by noon on Monday, November 1, 1999

E-MAIL to: Edgar De Guzman

FAX: (650) 594-4915

Phone: (650) 631-3900

Please call if you have any last minute changes in plans.

Please cancel your reservation if you cannot attend the meeting.

e-mail: edeguzman@accoair.com

Preferred method of communication!

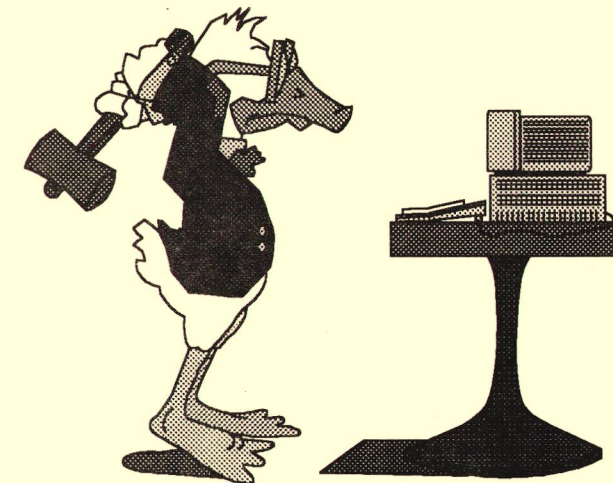
FROM: _____

COMPANY: _____

Phone: _____

Please make _____ reservation(s) for the following people (fill in names below):

LOCATION: PG&E Energy Center, 851 Howard Street (between 4th and 5th), San Francisco. Powell Street BART Station is two blocks north. Parking lot directly across the street is closed. Parking is still available at the 5th and Mission Garage. Entrance on Mission and Minna st.



E-mail is the preferred method of communication, but don't let the nuances and intricacies drive you to this!

**Meeting Minutes: October 7, 1999
ASHRAE, Golden Gate Chapter**

Place: World Trade Center/SF

Attendees: 68 Members, 7 Cal-Poly Students, 2 Cal-Poly Faculty Members, 1 UC Berkeley Staff, 2 from Carrier Corporate Office, Cindy Calloway from Regional Refrigeration Chair, Werner Buck, Guest Speaker

Announcements:

1. Dinner Voucher – Ben Sun explained how it works: the cost is \$270 for nine meetings, including field trips and it is transferrable.
2. Program – Ben Sun went over the upcoming programs in the Fog Dispenser. The topic for November's program will be on "Sealing Ductwork from the Inside" by Lawrence Livermore Lab. December's program will be a joint meeting with the San Jose Chapter at The Marriott/San Mateo. January's program will be by Jim Hill on "Green Building".
3. Two-income families is the main reason for lack of participation in our Chapter.
4. Research Fund – Bob Levi thanked everybody in the Chapter for their support. The Chapter received a full circle patch from National and it will be put on the Chapter banner.
5. Roster – We need volunteers!! (To improve time, everyone make sure the information is updated on the data base.)
6. Student Activities – Robin James thanked all the students and faculty from Cal-Poly. She also mentioned the ASHRAE 2000 Student Design Competition and Undergrad Senior Grant for those who are interested.
7. Weather Data Committee is Nenad Saric.
8. Website Chair – Robert Marcial encouraged everybody to use the Internet for information.
9. Fog Dispenser – Debbie Marshall needs help to work with her this year and take over next year.
10. Golf Committee – Charlene Sturm needs someone to replace her next year. Looks like Bob Polizi will be taking over.

Edgar DeGuzman thanked Carl Jordon, Robin James, Debbie Marshall, Karl Guttman, Ben Sun, Dart Reinfort and Syserco for sponsoring students.

Raffle: Ben Sun won the marble draw in the amount of \$600 and will donate \$300 to Research. Thank you, Ben!!

October 13, 1999 Board Meeting

Mark Hydeman recommended that we donate the surplus funds and it was approved as follows:

\$1,500 to Don Bryant Scholarship Fund
\$1,500 to ETAMS
\$2,000 to Research

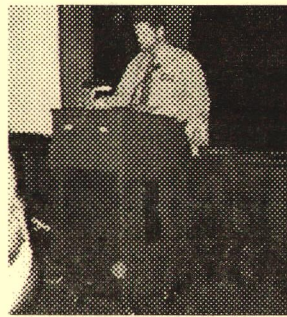
*Respectfully Submitted,
Kent M. Lim
Secretary*

**A Synopsis of Actuation
GGC Chapter Meeting, October 7, 1999**

Werner Buck, President of Belimo Aircontrols (USA), Inc. was the guest speaker for the October Ashrae Meeting. Werner discussed the "Future of Actuation" for damper and valve actuators. In the future the main advances that will come will be with the electronics and functionality of the actuator. Werner showed the different motors that have been used in the past then discussed the advantages of the brushless DC motor when controlled by a microprocessor and ASIC. With the new brushless DC motor technology you can create a multi-functional actuator which can be programmed by a hand held tool or your laptop. This new actuator will provide more flexibility and functionality for the customer in the future.

Werner also discussed the ball and globe valves of the past and where we are going in the future. He demonstrated that by using a characterized disc you could improve the controllability of a ball valve and get Equal Percentage Control. This Characterized Ball Valve will be the valve of the future and replace many of the current Globe Valve applications. He also showed the future of valve retrofits by demonstrating how a self-stroking valve would work to reduce costs when retrofitting existing valves.

Interoperability was discussed on how different DDC Systems could communicate. In the near future the actuator will not be a LON or BACnet device but will be able to communicate with those devices. As the industry changes this may also change.



ROSTER

Your Board of Directors is determined to improve the quality of the 1999-2000 Roster. Therefore we are starting early to work on it.

You will be offered the opportunity to include your company "non-advertisement" for a donation. The prime locations (back cover, inside back cover, inside back page) will be available to the highest bidders. Watch this column for details.

Do your part right now by making sure your database information is correct. If your listing in last year's Roster was incorrect or incomplete you must update the information with Society. Please contact them by phone (1-800-5ASHRAE) or through the Members-Only section of the website (<http://www.ashrae.org>). Society's database information will be used for the Roster, so it's up to you to be sure that it is correct.

We welcome your ideas and comments for the Roster. Please contact Bob Levi at 510.563.5713 or via e-mail: robert.f.levi@carrier.utc.com.

RESEARCH PROMOTION – NOVEMBER 1999

Last year, our Chapter enjoyed huge success in our Research Promotion campaign. Bob Levi deserves a thank-you from each Chapter member for his time and hard work. Now it's time to focus on our Research goal for 1999-2000.

This year's goal for our Chapter is over \$36,000.00! We're off to a great start. Thanks to the support of the Chapter Board, we will receive the "Full Circle" award (when every member of the Board contributes at least \$100 to ASHRAE Research).

Honor Roll for Research begins at \$100 for personal contributions and \$150 for corporate contributions. As of 10/15/99, we have received the following Personal Honor Roll contributors:

- | | |
|----------------|--------------|
| Herb Duncan | Ben Sun |
| Mark Hydeman | Ernie French |
| Bob Levi | Joe Olivier |
| Cory Palmer | Kent Lim |
| Edgar DeGuzman | |

I realize the importance of personal contributions in this year's Research campaign, and would appreciate the Chapter's support as we seek increased corporate contributions. As a reminder, investing in ASHRAE Research is an investment in our industry and 100% tax deductible.

ASHRAE Research contributions can be made by check or credit card. See me at any Chapter meeting and ask for a credit card payment envelope. Checks should be payable to "ASHRAE Research" and mailed or given to:

Cory Palmer
 Norman Wright Mechanical Equipment Corp.
 99A South Hill Drive
 Brisbane, CA 94005
 415.467.7600 phone

1 PAOE Self Reporting Form

Please complete this form and fax back to Ernie French, (415)467-0900

Every year your board and committee chairs make a mad dash to report on member activities that result in Presidential Award of Excellence (PAOE) points. In general these are educational programs, presentations to professional groups and schools, and educational activities to encourage careers in engineering. These points, a relative of the fabled Brownie points, serve an important purpose: they force the Board of Governors to keep track of the ASHRAE related activities undertaken by our members. In turn they provide an oversight function for Society and Region of the Chapters and their operations. Please take a few minutes to fill out the attached form and return it to Ernie French. Each year we will post versions of this form on the chapter website and Fog Dispenser and have it returned to the Past-President who serves as the Chapter's PAOE Chair.

Code	Description
X1	Continuing education course (EX UC Berkeley HVAC/R Course) – not refrigeration related
X2	Continuing education course (EX UC Berkeley HVAC/R Course) – refrigeration related
X3	Technical program or paper to and outside organization or group – not refrigeration related
X4	Technical program or paper to and outside organization or group – refrigeration related
X5	Presentation on HVAC/R Technology to professional or business group
X6	Presentation to school about engineering and related technologies – K-12
X7	Presentation to school about engineering and related technologies – post high-school (e.g. college or trade school)

Name		Member #:		
Code	Date	Length	Approximate Attendance	Description

Fog Dispenser Deadlines
 The ninth of the month preceding the meeting. All the news that fits gets printed.

Mail, fax, phone or email News by the 9th of the month preceding the meeting to:
FOG DISPENSER
 Debbie Marshall, Editor, PACO Pumps
 845 92nd Ave, Oakland, CA 94603
 Telephone 510/639-3200. Ext. 232
 Fax 510/639-3337
 email dmarshall@flow-products.com

Photojournalism Editor: Mike Scofield

Refer prospective new members to Membership Chair:

Ronald Eng.....510/563-5713
 FAX.....510/563-5733

For Roster corrections and address changes contact:
1/800/5ASHRAE

GGC database is based on the National Database. You need to contact national in order to change local information. This may take a couple of months.

Published monthly, October through June, by the **Golden Gate Chapter Of the American Society of Heating, Refrigerating and Air-Conditioning Engineers**, c/o Duplicating Associates, 41 Sutter St., Ste. 1401., San Francisco, CA 94104-4903

1999-2000 OFFICERS
 Mark Hydeman.....President
 Ben Sun.....President Elect
 Kent Lim.....Secretary
 Joe Olivier.....Treasurer

Board of Governors
 Ernie French, Edgar DeGuzman, Robert Levi

Student Activities Corner

I'm looking forward to another great year of Student Activities. There will be a lot of opportunities throughout the year to introduce students to our organization and the different career paths available within the Heating, Ventilation, Air Conditioning, and Refrigeration Community. I am looking for some volunteers to join the Student Activities Committee. If you are interested please contact me at (707) 747-0835 or rjames@belimo.com <<mailto:rjames@belimo.com>>

To start the year ASHRAE is having a 2000 Student Design Project Competition. The 2000 competition focuses on the design of a two-story building to be constructed on a college campus in Greenville, South Carolina. The original drawings and complete project information can be easily downloaded from the 2000 Student Design Project Competition found under the Student Activities Section of the ASHRAE Home Page at www.ashrae.org <<http://www.ashrae.org>>. A hard copy can be obtained if you don't have access to the Internet. Project judging will begin in May 2000.

ASHRAE Announces Funding for Undergraduate Senior Projects or Technical School Projects:

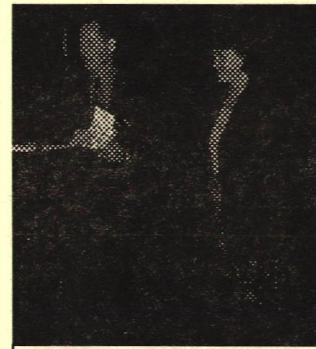
Mark your Calendars for these upcoming programs:

Month	Program
November 4, 1999	Seal HVAC Duct Leaks from the Inside
December 2, 1999	Joint meeting with San Jose Chapter in San Mateo Marriot. Fundamental perspective on Chilled Water system
January 6, 2000	Thermal Engineering and the Human Body
February 3, 2000	Green Building Research at the NIST Or Web Based O & Manuals
March 2, 2000	Whining in the office?
April 6, 2000	Product Show
May, 2000	Field Trip Monterey
June 1, 2000	VAV System Design: Problems and Opportunities

Some programs may change due to the availability of speakers.

The Undergraduate Senior Project Grant Program provides grants to engineering, technical and architectural schools worldwide with the goal of increasing student knowledge, learning and awareness of the HVAC&R industry throughout the design and construction of senior projects. Grants are to be used to fund equipment and supplies for engineering or architectural senior projects and 2-year technical school projects, which could mean up to \$5,000 in aid. Application must be received at ASHRAE by December 1st from a faculty member. For more information please contact Robin James at rjames@belimo.com <<mailto:rjames@belimo.com>> or (707) 747-0835.

"Hall of Fame, Entrants"



Charlene Sturm



Debbie Marshall



Robert Marcial

Employment Opportunities

OUR SUCCESS IS BUILT ON YOUR TALENT.....Guttman & Blaevoet is a well established SF consulting engineer firm serving premier architects & building owners. We are seeking an articulate graduate mechanical engineer, preferably with several years of HVAC consulting experience. Successful candidates will have a strong academic background, be progressing toward a PE license, AUTOCAD proficient, and be highly motivated. Fax your resume to: 415-512-8784 or email to g&b@gb-eng.com.

AUTOCAD DRAFTER/DESIGNER

Stable, professional, Napa Valley engineering firm seeks competent teamplayer to draft/design w/engineers. Highly skilled in AutoCad 14.0, Windows NT, Word & Excel. HVAC & plumbing design experience a plus. Superb interpersonal skills are necessary to succeed in this respectful, friendly work environment and to interact with clients. Continuing education is encouraged. Excellent benefits. Resumes: The Personnel Perspective, 575 W. College, Santa Rosa, CA 95401. FAX: 707-576-8190. Email: tpp@sonic.net.

SENIOR MECHANICAL ENGINEER

Enjoy a terrific opportunity while working in the beautiful Napa Valley! A well established, professional engineering firm seeks a high level professional to lead their staff. This licensed Professional Engineer will have major design responsibilities as well as overall supervision for a staff of 6 - 8 engineers and designers. Superb interpersonal skills are necessary to interact with clients and contractors in the field. 5+ years of experience in the design of HVAC and plumbing for schools, hospitals and large commercial buildings is desired. Generous benefits and a friendly, respectful work environment provided. Resumes: The Personnel Perspective, 575 W. College, Santa Rosa, CA. 95401. FAX: 707-576-8190. Email: tpp@sonic.net.

HVAC Designer for Moraga Consulting Firm. Must know AutoCad. Minimum 5 years experience. Possible part time. (925) 631-0290.

Senior Mechanical Engineers, Designers, and CADD Operators

ATI Architects and Engineers, one of the Bay Area's fastest growing companies, is looking for talented and qualified candidates for Senior Mechanical Engineers, Designers, and CADD Operators. Qualifications for the engineer include a minimum of 5 years experience in design, P.E. and AutoCAD 14 proficiency are highly desirable. Designers and CADD Operators must be AutoCAD 14 proficient. ATI offers an excellent working environment, long term stability, unlimited career growth and an excellent compensation package. Please fax to 925-648-8811 or email to gkam@ataie.com or send to ATI, 3860 Blackhawk Road, Danville, CA 94506.

Mechanical Designers and Engineers

Knight Advanced Technology, a national practice of architects, engineers and planners, has immediate openings for both Senior Mechanical Engineers and Mechanical Engineer/Designers. Knight provides state of the art engineering/architecture services to the High Tech, Science and Research communities and is seeking highly motivated, driven individuals who aspire to the highest engineering standards. The Senior Engineers are required to be registered and have at least 10 years experience. The Engineers/Designers should have 3 to 8 years of experience AutoCAD knowledge and experience is desirable. Please send resume to Mike Hammarstedt, Knight Advance Technology, PO Box 422430, San Francisco, CA 94142 or mike.hammarstedt@knightat.com.



1999/2000 Committee Chairs

How do you turn a 20 hour task into a 10 hour task? Simple, you split the load between volunteers. These committees serve you the members, and we need your help to do the work. Contact a committee chair and offer your services or contact a Board member to fill a vacancy.

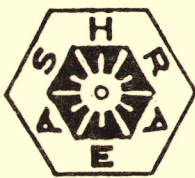
Title	Name	Company	Address	City, State & Zip	Phone	Fax	Email	Liaison	Role
Region X DRC	Kent Peterson	P2S Engineering, Inc.	5000 East Spring Street, 8th Floor	Long Beach CA 90815-1275	562-497-2999	562-497-2990	kwp@p2seng.com	Mark Hydeman	1
President	Mark Hydeman	Taylor Engineering	1305 Marina Village Parkway	Alameda CA 94501-1028	510-749-9135	510-749-9136	mhydeman@taylor-engineering.com	Mark Hydeman	2
President-Elect/CRC Delegate/Chapter Programs	Benjamin Sun	Flack & Kurtz	343 Sansome St., #450	San Francisco CA 94104-1309	415-398-3833	415-433-5311	bpsun@sf.fk.com	Benjamin Sun	3
Treasurer	Joseph Olivier	ESS Engineering	114 Sansome St #1201	San Francisco CA 94104	415-296-9760	415-296-9761	jro@essinc.com	Joseph Olivier	4
Secretary/CRC Alternate	Kent Lim	Kent Man Lim & Company	1260 Egbert Ave	San Francisco CA 94124-3637	415-822-1232	415-822-6437		Kent Lim	5
Board of Governors/PA OE Chair	Ernie French	Norman Wright Equipment Corp	99a South Hill Drive	Brisbane CA 94005	415-467-7600	415-467-0900	efrench@norman-wright.com	Ernie French	6
Board of Governors	Edgardo De Guzman	Acco Inc	1700 Industrial Rd	San Carlos CA 94070	650-594-0182	650-594-4915	edeguzman@accoair.com	Edgardo De Guzman	7
Board of Governors/Roster Committee Chair	Robert Levi	Carrier Corporation	10810 Bigge St	San Leandro CA 94577	510-563-5713	510-563-5733	robert.f.levi@carrier.utc.com	Robert Levi	8
Membership Promotion Committee Chair	Ronald Eng	Carrier Corp	10810 Bigge Street	San Leandro CA 94577	510-563-5701	510-563-5733	ronald.eng@carrier.utc.com	Edgardo De Guzman	11
Student Activities Committee Chair	Robin James	Belimo Aircontrols	422 W. Seaview Dr.	Benicia CA 94510	707-745-5998	707-745-5999	rjames@belimo.com	Robert Levi	12
Historian	L L Gifford	PCL Construction Services Inc	1533 Pine St	San Francisco CA 94109	213-747-0734	213-747-0745		Ernie French	14
Refrigeration Committee Chair	Glenn Friedman	Taylor Engineering	1305 Marina Village Parkway	Alameda CA 94501-1028	510-749-9135	510-749-9136	gfriedman@taylor-engineering.com	Robert Levi	15
Research Promotion/Honor Roll/Product Show	Cory Palmer	Norman Wright Equipment Corp	99a South Hill Drive	Brisbane CA 94005	415-467-7600	415-467-0900	cpalmer@norman-wright.com	Ernie French	16
Technical, Energy & Government Activities Committee Chair	Gary Margadant		4042 Mt Veeder Road	Napa CA 94558	707-257-3351		gasm@napanet.net	Edgardo De Guzman	17
Newsletter Editor	Debra Marshall	Paco Pumps	845 92nd Ave	Oakland CA 94603-1215	510-639-3200	510-639-3337	dmarshall@flow-products.com	Kent Lim	18
Honors and Awards Chair	Gail Brager	University of California	232 Wurster Hall #1800	Berkeley CA 94720-1800	510-842-1696	510-643-5571	gbrager@socrates.berkeley.edu	Mark Hydeman	19

Website Chair	Robert Marcial	University of California CEDR	390 Wurster Hall	Berkeley CA 94720	510-849-9057		rmarcial@uclink4.berkeley.edu	Kent Lim	20
Database Chair	Allan Daly	Ove Arup & Partners California	901 Market St, Ste. 260	San Francisco CA 94103	415-957-9445	415-957-9096	allan.daly@arup.com	Kent Lim	21
Codes Committee Chair	Dick Glumac	Glumac & Associates	275 Battery St Ste 220	San Francisco CA 94111-3330	415-421-1164	415-398-0596		Robert Levi	22
Attendance Committee Chair	Richard Charles	C & B Consulting Engineers	150 Spear St Ste 500	San Francisco CA 94105-1537	415-442-0110	415-882-7747	rac@cbengineers.com	Edgardo De Guzman	23
Auditing Committee Chair	TBD Vacant							Joseph Olivier	24
Tennis Committee Chair	TBD Vacant							Joseph Olivier	25
BAEC Committee Chair	Thomas Reinarts	Keller & Gannon	PO Box 422430	San Francisco CA 94142-2430	415-621-1199	415-864-3681	tom.reinarts@keller-gannon.com	Mark Hydeman	26
Golf Committee Chair	Charlene Sturm	Air Treatment Corp.	1865 Pleasant Valley Ave	Oakland CA 94611-4210	510-655-3990	510-655-7966		Joseph Olivier	27
Marbles Game Committee Chair	Leslie Hanohano	Norman Wright Equipment Corp	99a South Hill Drive	Brisbane CA 94005	415-467-7600	415-467-0900	lhanohano@norman-wright.com	Edgardo De Guzman	29
Publicity Committee Chair	Mike Scofield	Conservation Mechanical Systems	10943 Cherry Ridge Rd	Sebastopol CA 95472-9645	707-829-2080	707-829-3142	cmscofield@aol.com	Mark Hydeman	32
Reception Committee Chair (Membership Vice Chair)	Jeff Dittman	Glumac International	275 Battery, Suite 220	San Francisco CA 94111-3330	415-398-7667	415-398-0596	j.dittman@glumac-sf.com	Robert Levi	33
Redwood Empire Section President	Patrick Bailey	Geopraxis Inc	461 Seventh St Ste 1	Sonoma CA 95476-5976	707-996-9408	707-939-8702	pbailey@geopraxis.com	Mark Hydeman	34
Seminar Committee Chair	Luek Vaneveld	Taylor Engineering	1305 Marina Village Parkway	Alameda CA 94501	510-749-9135	510-749-9136	lvaneveld@taylor-engineering.com	Edgardo De Guzman	36
Weather Data Committee	Nenad Saric	ATI Engineering Services	3860 Blackhawk Rd Ste 160	Danville CA 94506	925-648-8800	925-648-8818	nsaric@atiengineering.com	Kent Lim	37
Golf Co-Chair (next year's chair)	Robert Polizzi	California Hydraulics Corp	2293 Tripaldi Way	Hayward CA 94540	510-293-1993	510-293-3080	bpolizzi@calhydr.com	Joseph Olivier	38

Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

- 1) Click on "Membership Records" under the "Members-Only Section" (note you will need your membership # and pin which are on your membership card).
- 2) Click on "Address Change"
- 3) Enter your Name, Membership#, EMail Address and any changed contact information
- 4) Click on submit



Golden Gate Chapter
ASHRAE
 41 Sutter Street Suite 1401
 San Francisco CA 94104-4903

FIRST CLASS MAIL



CARSON WOO
 CHARLES & BRAUN
 150 Spear St Ste 500
 San Francisco CA 94105-1537



CARRIER CORPORATION

10810 Bigge Street, San Leandro, CA 94577
 Phone: (510) 563-5700
 Fax: (510) 563-5733
 www.carrier-commercial.com

Centrifugal, Rotary Screw, and Absorption Chillers
 Custom and Commercial Air Handling Units, Controls
 New Equipment Sales, Service, and System Retrofit
 San Francisco / East Bay / San Jose / Sacramento / Reno

Local Area Sales Staff

Bob Levi, Ronald Eng, Steve Nguyen, John Burdette, Zach Blake
 George Eiler, Bruce August, Mike Volckaert, Chris Countryman

FOG DISPENSER

Golden Gate Chapter



ASHRAE

VOLUME XXXVIII - NUMBER 3

DECEMBER 1999

Joint Meeting With The San Jose Chapter

Mr. Ken Sinclair
AutomatedBuildings.com

DATE: December 2, 1999
TIME: SOCIAL HOUR: 17:30
 DINNER: 18:30
 PROGRAM: 20:00
 ADJOURNMENT: 21:00

PLACE: **San Mateo Marriott**
 1770 S. Amphlett Blvd
 San Mateo
 650/653-6000

Take Delaware off of 92, go north to
 Concar Dr. go east to Amphlett (old Dunfey Hotel)

Cost: \$35.00 Members and Guests

All reservations must be received by Edgar De
 Guzman at edeguzman@accoair.com or fax to
 650/594-4915, by Monday, November 29th

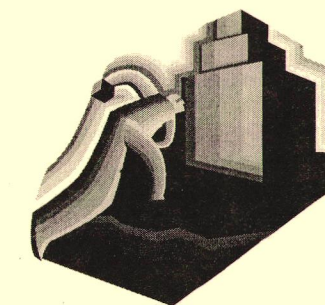
If you need to cancel, please do so by Tuesday,
 November 30th.

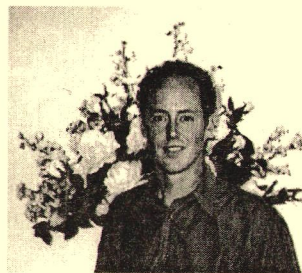
Are Automated Buildings converging or colliding
 with the Internet?

The Internet is to the 21st century what steam was to
 the 20th century. As steam led the way into the
 industrial revolution the Internet will lead the way
 into the information revolution. As the industrial
 revolution changed forever the way we work the
 information revolution will change forever the way
 we think.

Is our industry listening to the wake up calls of the
 information revolution?

Come to our joint meeting with the San Jose
 Chapter and see what the future may hold!!!!





“The purpose of life is to lead a life of purpose.: - Robert Byrne

Ponape Island, Federated States of Micronesia, 1984: A drunken enraged student ½ again as tall as me smashes a beer bottle on a post mere inches from my head. Glaring down at me he demands to know why I embarrassed him: I had assigned a math homework that was too hard for him to complete. In a culture where attacks by machete, rock and stick are common and are generally excused when the assailant is drunk I took Tony’s query quite seriously. While pondering my fate, my mind drifted, how did a smart Jewish kid like myself end up working for the Jesuits so far away from home? The answer to my question was more elusive than my answer to Tony.

I had volunteered to teach at the Ponape Agriculture and Trade School for two reasons: To satisfy my need for adventure and as part of my search to find my role in this world. As illustrated with my encounter with Tony, adventure was easy to find. However, I preferred the adventures of our two to three day fishing sojourns armed only with snorkel gear, a sling style spear, a flashlight, a hand held jig line, hot sauce, matches, machete and a crate of beer. Adventure was abundant, personal fulfillment by contrast developed slowly and often through conflict. For fulfillment, I had to bridge the gaps of culture, language and religion. The key I learned was to articulate a course of mutual interest and benefit. To satisfy Tony’s needs, I had to articulate my own needs and work to integrate our goals.

In the end, Tony and I parted friends. This took many beers, hours of tutoring, hours of fishing, storytelling and an unfortunate feast featuring Tony’s dog, Dehwi. Tony needed to understand my respect of him and his culture, understand the relevance of math in his life and in turn play a role in mentoring me. Our sense of community was built in many small steps most of them taken side by side in achieving mutual goals. For Tony and my other students I taught and tutored them in math, construction, computer and radio electronics, they in turn were my teachers of Micronesian culture, navigation, fishing, agriculture (I grew yams and sakau) and folklore. The exchange of roles, the interdependence of a small (but diverse) community on a small island, the time working side by side were all the glue that made our community and in the end achieved my sense of personal fulfillment. This is not to belittle the joys of spar fishing at night in shark ridden waters.

I am inspired by people who live lives larger than their own. In our own community of the Golden Gate Chapter there are many, but there are few as inspiration as Dick Charles. I know nothing of Dick’s private life, but his decades of volunteerism with ASHRAE speak volumes about his character. In his characteristically modest fashion, Dick’s stock answer is that he volunteers because “he always gets back much more than he ever gives”. I have seldom been to an ASHRAE event, local regional or national where I didn’t see Dick. The amazing thing is that he is seldom a passive participant but is most often involved facilitating, presenting or mentoring. In his spare time Dick speaks at Chapters across the country (and around the world!), until recently served on the committee that plans the Winter and Annual Meetings, serves on the Honors and Awards committee, serves as our Regional Delegate to the Nominating Committee (which nominates society Officers and Committee Chairs), has a handful of ad-hoc assignments and continues to attend virtually every chapter meeting. It was my honor to nominate Dick for the ASHRAE Exceptional Service Award this past year and in testament of Dick’s popularity and recognition the nomination was co-signed by every delegate at our Chapters Regional Conference.

My Micronesian students taught me that navigation relies on directional goals (the stars), local signs (the winds and currents) and carefully planned way stations (islands). Though we paddle towards a star, it serves to guide our journey and in itself is usually not a destination (the exception of course being Dick Charles, Neil Armstrong and a few others). I am happy to dwell amongst the islands and have no plans to visit the stars. I measure the success of my journey by the joy of its passage and the company that I have along the way. Kahlangen Kuperohmwi to my board and those that keep this chapter in motion. The next coconut is on me.

Respectfully Submitted,
Mark Hydeman
 President Golden Gate Chapter of ASHRAE

CRAIG	WRAY
MICHAEL	WRIGHT
ERIC	WRITER
KIN	WU

MARY	WYAND
GAY	YAMAGIWA
VENESE	YAU
BRADLEY	YEE

GREGORY	YIM
---------	-----

Employment Opportunities

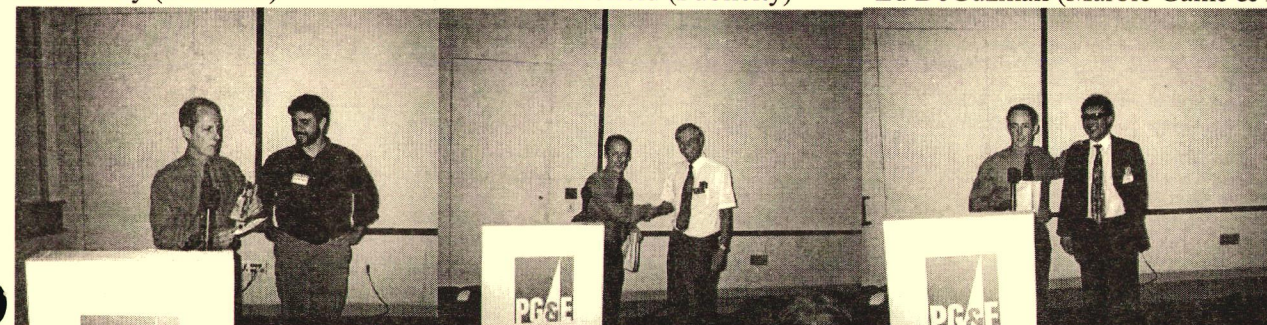
Mechanical Design Studio Inc is pleased to announce the relocation of our San Francisco office and the opening of our new branch office in Concord as of December 6, 1999. Our San Francisco office will be at 250 Sutter St., Ste 600, San Francisco, CA 94108-4466. Our Concord office will be at 3330 Clayton Rd, Ste B, Concord, CA 94519-2838. We are looking for talented mechanical engineers to join our team at both locations. Please fax your resume to (415) 284-0118.

Hall of Famers:

Allan Daly (Database)

Mike Scofield (Publicity)

Ed DeGuzman (Marble Game & Membership)



The list now includes:

Charlene Sturm
 Debbie Marshall
 Robert Marcial
 Allan Daly
 Mike Scofield
 Ed DeGuzman

Who’ll be next?



KENT	KAWAKAMI
MARK	KEHOE
JIM	KELSEY
ALI	KHOSTOVAN
MICHAEL	KHOURY
JOO	KIM
KRISTOPHER	KINNEY
LEONARD	KLEIN
JOSEPH	KLEMS
HARROLD	KNOWLES
ERIC	KNOX
PETER	KOGAN
MARK	KRAUSS
GLORIA	KREIN
JOHN	KROMER
THOMAS	LEE
MICHAEL	LEFLER
GLEN	LEGGOE
A	LEVINE
STEVEN	LEWIS
LES	LIN
GARY	LINDEMAN
TOM	LIPIEC
GANG	LIU
TONY	LORETELLI
MARTIN	LUK
PETER	LYONS
DEVADUTTA	MAITI
PATRICK	MALLILLIN
THOMAS	MASIEWICZ
BOB	MATTSSON
FRANCES	MCCORMICK
PAUL	MCDONALD
JOHN	MCDONALD
J	MCGRAW
ALISDAIR	MCGREGOR
LORI	MCGUIRE
BOB	MCKEY
LISA	MCLAUGHLIN
MATTHEW	MCMAHON
KENT	MINH
MARK	MODERA
JACK	MONTANARO
DAVID	MOORE
WILLIAM	MOORE
EDMOND	MOORE
DAN	MORI
ROBERT	MOWRIS
MICHAEL	MUMFORD
MARIC	MUNN
JAMES	MURRAY
ALI	NADERI

DOUGLAS	NAKANO
THANKAPPAN	NARAYANAN
STEPHEN	NEAL
JAMES	NEMECHEK
PAUL	NEWCOMB
ALEX	NGO
PETER	NGUYEN
TETSUJI	NOGI
DAN	NOONE
DONALD	NURISSO
DAVID	OLKOWSKI
SVEN	OLUND
GUIL	ORIHUELA
REYNALDO	ORTEGA
ALBERT	OSTROY
MELODY	PAGEE
CHRIS	PAPADIMOS
JAY	PATEL
ANDREW	PATTERSON
JIM	PAYNE
PAOLO	PECORA
JUSTIN	PETERSON
WENDY	PHELPS
MICHAEL	PIERSON
LOUIS	PIETRELLI
MARY	PIETTE
JOSEPH	PIPITONE
GREGORY	POWELL
THOMAS	PRICE
HENRY	REIS
ROBERT	REUTER
JERRY	RHOADES
JAMES	RICHLEY
MARK	RIEHMAN
W	RINEFORT
RICHARD	RODKIN
RICHARD	RONNOW
ROBERT	ROOS
LEONARD	ROSE
GREGORY	ROSENQUIST
KEITH	ROTHENBER
STEVEN	ROTTMAYER
SANAT	ROY
PHILIP	RUSSO
EZATOLLAH	SAIIDNIA
NAPOLEON	SALAZAR
TIMOTHY	SALSBURY
CHET	SANDBERG
CHRIS	SAUNDERS
PHILIP	SCHAEFER
BRIAN	SCHROEDER
PETER	SCHWARTZ

JULIE	SEELLEN
REINHARD	SEIDL
JAMES	SHARPE
JOY	SHONFELD
ALEXANDER	SHTROMBER
MICHAEL	SIMPSON
DEV	SINGH
VIJAY	SINGH
TOMMY	SIU
PETR	SKALA
RICHARD	SKOLNICK
ERIC	SLAASTED
JOHN	SMALL
NEIL	SMITH
STEVEN	SMITH
CHRISTOFER	SOMMER
LIZA	SORIN
MICHAEL	SOUTHWORT
GEORGE	SPEIGHTS
GLENN	SPOERL
STEPHEN	SPRAGUE
SCOTT	STRAWBRIDG
MARY	SUTTER
TIM	TARAZI
JAMES	TAYLOR
BENJAMIN	THIO
CHARLES	TILFORD
NOLER	TISON
BRIAN	TODD
PETER	TURNBULL
BRIAN	TURNER
GLENN	UMONT
PAUL	VAFABEE
MASOUD	VAFABEI
MARIO	VALLEJO
NEAL	VAN FOSSAN
LAURENS	VANEVELD
MIKHAIL	VAYNBERG
MARIO	VELASCO
JESS	VILLAR
AMIT	WADHWA
J	WADMAN
MATTHEW	WANG
DOUG	WATERS
THOMAS	WATSON
SCOTT	WAYLAND
BRUCE	WEIR
BRUCE	WILCOX
FREDERICK	WINKELMANN
BRAD	WOLF
BARRY	WONG
JOHNNY	WONG

Mark you Calendars for these upcoming programs:

Month	Program
December 2, 1999 San Mateo Marriott	Joint meeting with San Jose Chapter AutomatedBuilding.com – Ken Sinclair
January 6, 2000 NOON Meeting World Trade Club	Green Building Research – NIST – Dr. James Hill
February 3, 2000	To Be Determined
March 2, 2000 World Trade Club	VAV Systems for Improved Comfort and Air Quality
April 6, 2000 PG&E Energy Center	Product Show
May, 2000	Field Trip Monterey Bay Aquarium
June 1, 2000	To Be Determined

Some programs may change due to the availability of speakers.

11/7/99 Meeting Minutes, Golden Gate Chapter of ASHRAE

Held At: PG&E Energy Center/SF

Attendees: (46) Members, (4) Guests with Mark Modera as Guest Speaker

Announcements:

- Roster – Bob Levi wanted everyone to verify the information in the data base and make corrections as required.
- President Mark Hydeman asked for people to volunteer to fill the following Vice-Chair positions this year: Fog Dispenser Editor, Seminar, Tennis and Auditing. Please Volunteer!!!!
- M/S/C to approve the minutes of the Oct. 7th & 13th meetings.
- President Mark Hydeman acknowledged the following people for their work:
Allan Daly – Data Base
Ed DeGuzman – Marble Game & Membership
Mike Scofield – Publicity (Great Photographer)
- Program – Ben Sun informed the membership about the upcoming program, the joint membership meeting in December with the San Jose Chapter. It will be held at the Marriott in San Mateo. A luncheon with Jim Hill from Society occurs in January.
- Meal Vouchers – Ben Sun said that so far (19) tickets have been sold and there will be a sweepstakes. The top prize is a trip for two to Las Vegas.
- Research Fund – Cory Palmer thanked those who have donated and encouraged all members to donate more toward this cause.
- Reception/Badges – Jeff Ditman mentioned that any Chapter members still needing badges should simply let him know.
- Marble Game – No winners this month per Leslie Hanohano.

Synopsis of the November Meeting:

Ben Sun introduced November's guest speaker, Mark Modera, of Lawrence Berkeley National Lab, who spoke on the topic of residential and commercial duct sealing. Residential ducts, if laid end to end, would go around the earth twenty times. Duct efficiency is worse at design conditions.

The average residential duct leakage is 17%, while the average leakage in commercial work is 26%. Fifty percent of the time this ductwork is in unconditioned spaces.

The bottom line is that ducts leak, especially of concern is residences. Aroseal has a good residential program, but commercial applications don't really work.

BACnet Announcement:

Just a "heads up" to let you know that NIST Information Report 6392 entitled "GSA Guide to Specifying Interoperable Building Automation and Control Systems Using ANSI/ASHRAE Standard 135-1995, BACnet" is now available for download (in PDF format) from the BACnet Website, www.bacnet.org.

RESEARCH PROMOTION – DECEMBER 1999

It is truly not a cliché that “you get back more than you give” when you contribute to ASHRAE Research. The other day as I opened a cold beer I thought to myself how proud I am to be part of our industry, for we are developing the technology that made this possible. I then proceeded to remove my TV dinner from the freezer, and as I sat down to enjoy this fine meal, it occurred to me that without the HVAC/R industry, I would have to cook fresh food for myself and drink warm beer.

Seriously, every time you use an ASHRAE Handbook or pocket guide, you are benefiting from the investments we are making in our industry through ASHRAE Research. In addition to these individual, professional benefits, it is amazing to think how much Research benefits society through cleaner indoor air, human comfort, and improvements in the natural environment.

The minimum investment level for personal Research Honor Roll is \$100 and \$150 for a corporate contribution. Thank you to our Chapter’s new Honor Roll contributors:

INDIVIDUAL:

- | | |
|-----------------|-----------------|
| Robert De Chene | Joe Critchfield |
| Carl Jordan | Kyle Blocker |
| Nenad Saric | Dennis Thompson |
| Lane Loyko | Robert Voelz |
| Arthur Zigas | Dick Friedman |
| Tom Finsayson | Ronald Eng |
| Herb Duncan | |

CORPORATE:

Taylor Engineering

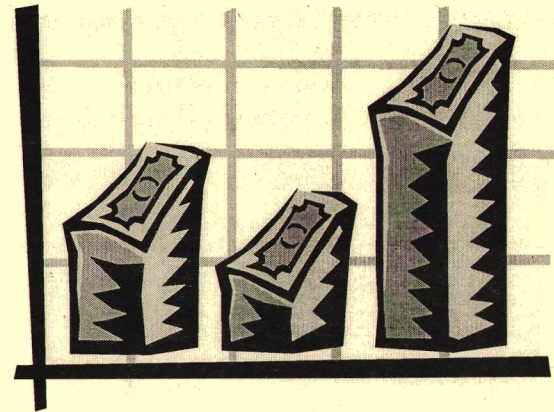
Carrier Corporation

- York International Corporation
- Norman Wright Mechanical Equipment Corp.
- RF MacDonald Company
- Laws & Associates
- Golden Gate Chapter of ASHRAE
- The Brose Company
- Life Members Club – ASHRAE

Checks to ASHRAE Research should be mailed to:

Cory Palmer
 c/o Norman Wright Mechanical Equipment Company
 99A South Hill Drive
 Brisbane, CA 94005
 415.467.7600 phone / 415.467.0900 fax

If you would prefer to charge your donation to a credit card, see Cory Palmer at the next meeting.



UNPAID CHAPTER DUES

Dues must be paid no later than December 15th to be included in the Roster to be published in January, and to continue to receive the Fog Dispenser.

The following individuals have not paid their Golden Gate Chapter dues as of the end of October.

VINCENT	AIELLO
HASHEM	AKBARI
JULIE	AMCOTTS
IAIN	ANDERSON
BEN	APOLINARIO
TAMIRISA	APPARAO
FRANKLIN	AQUINO
DARIUSH	ARASTEH
MERVIN	ASH
JAMES	AUGUSTYN
DONALD	AUMANN
KARL	AVEARD
JOHN	AVINA
ZABIHULLAH	BAGHERI
PATRICK	BAILEY
DAN	BARRANGO
CULLEN	BASH
WILLIAM	BELDING
RICARDO	BERNABE
RAY	BERNARD
ASHOK	BHATIA
LEWIS	BIELANOWSKI
PETER	BIERMAYER
ARNOLD	BLETNITSKY
RICHARD	BLICKENSDE
JOHN	BONESO
TOM	BOOCK
SURINDER	BRAR
ARTHUR	BREE
DAVID	BROOM
LEON	BROWN
GREGG	BROWN
KARL	BROWN
JAMES	BRUGGER
JOHN	BURGESS
KATHLEEN	CAMP
DONALD	CAMPBELL
VAN	CAREY
CENON	CAROLINO
JOS	CARROLL
BIANCA	CELESTIN
KIN	CHAN
STEVEN	CHAN
MIN	CHANG
MAURICE	CHEE
YEOW	CHIA
JOHN	CHINN
ROBERT	CHO

NG	CHO-FAN
BRIAN	CHUCK
ALAN	CLARY
WILLIAM	CLINTON
RICHARD	COAKLEY
MARK	COLLINS
JOHN	COLOMBO
JOSEPH	CONDON
GALE	CORSON
MICHAEL	COSTELLO
FIONA	COUSINS
PATRICK	COYLE
STEPHAN	CULBERTSON
JOVILO	CUSTODIO
DAVID	DACUS
JOHN	DALEY
GARY	DANCIGER
NICHOLAS	DANN
MIKE	DAVIDSON
ROBERT	DAVIS
TOMMY	DAWSON
WILHELM	DEMEL
JOSEPH	DERINGER
MARTYN	DODD
PETER	DODGSON
RUSSELL	DONNICI
GEOFFREY	DUBOIS
THOMAS	DUSZA
RICHARD	ECKMAN
JEFFREY	ELMENDORF
MARTIN	ENCINGER
FOO	ENG
JOHN	ESPINOSA
ONOFRE	FAVIS
JOHN	FERLIN
RENEE	FERNANDEZ
DONALD	FISHER
KEVIN	FLYNN
ROBERT	FLYNN
DONALD	FORD
CHARLES	FORSGARD
NEIL	FOSBER
CAROL	FRANK
BRYAN	FREW
JERRY	FRIAS
ECKEHARD	FUHRMANN
MICHAEL	GABEL
IANKO	GABROYSKY

GREGORY	GERSHKOVIC
L L	GIFFORD
KURT	GOKBUDAK
MARY	GORMAN
ALI	GOSHAYESHI
BRYAN	GRAHAM
JOHN	GRANT
EDWARD	GRANT
LARRY	GRAVES
PETER	GRAY
SUSAN	GUSTOFSON
MICHAEL	HAGGARD
GENE	HALL
GARY	HARGRAVE
PHILLIP	HASLEY
JAMES	HAUG
DUANE	HEBER
WILLIAM	HEITZMAN
GARY	HENNINGS
GILBERT	HENSLEY
CARL	HILLER
STEPHEN	HIPP
SHIN-HWA	HO
DAVID	HOFER
ROBERT	HOGUE
MICHAEL	HOLMES
CHI-MING	HSIUNG
CUONG	HUA
TONY	HUERTA
WAYNE	HUIE
MIKE	HURLEY
WON	HWANG
EMMANUEL	ILARINA
PAUL	IRWIN
LLOYD	IVERSEN
RAJINDER	JANDU
RONALD	JANG
GEORGE	JANOUR
BRIAN	JERICH
WAYNE	JIN
ROY	JOHANNESSEN
ARTHUR	JOHNSON
PETER	JOHNSON
BRUCE	JOHNSON
GARR	JONES
DAVID	JUMP
MARYAM	KACYRA
KENNETH	KAHRS

ROSTER

The Golden Gate Chapter's Roster is scheduled for publication at the end of January. You may include your company "non-advertisement" for the following charges.

Full-Page	\$150
Half-Page	\$100
Business Card (3 per page)	\$ 75

The prime locations for your full-page ad will be auctioned. The following locations will go to the corresponding bidder:

Back Cover	Highest Bidder
Inside Back Cover	Second Highest Bidder
Inside Back Page	Third Highest Bidder

The way that the auction will work is that the bids must be submitted in writing (fax or e-mail) to Bob Levi no later than the January meeting (January 6th). Upon winning the prime locations, the bidders will write two checks, one for \$150 for the full-page ad charge, and the other for the remainder of their bid to ASHRAE Research. This way the contributing company will receive the recognition for their additional Research contribution.

As always, the artwork must be camera ready or in an electronic format.

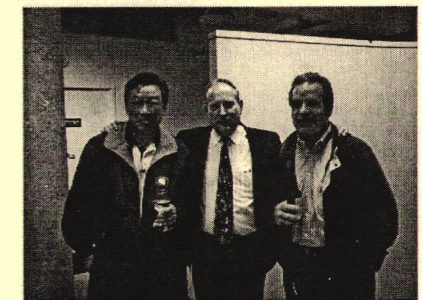
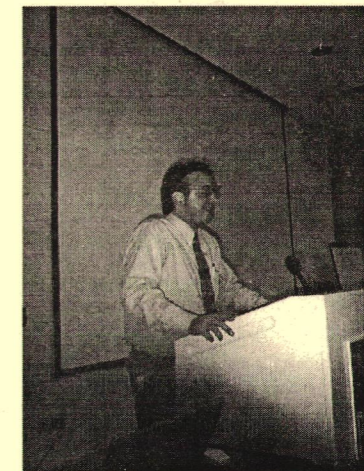
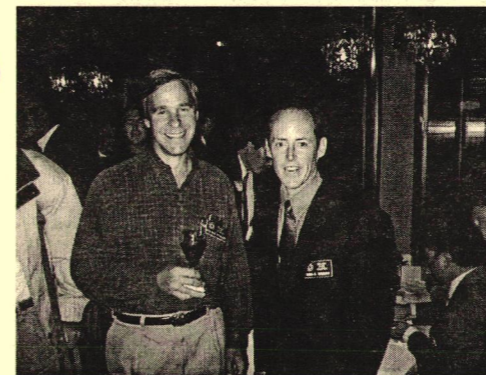
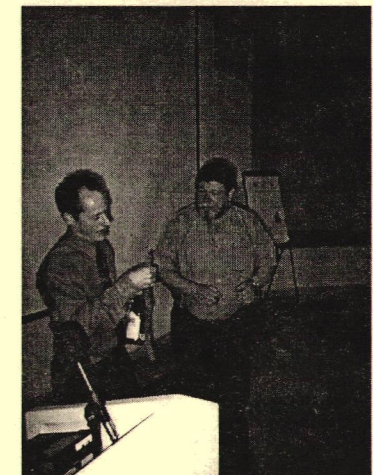
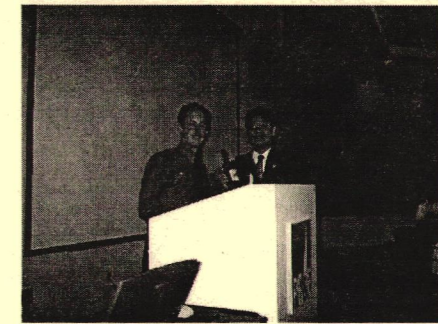
Artwork must be received no later than Friday, January 7th.

At the same time as you place an ad in the Roster, why not consider placing the same ad and a listing on the Golden Gate Chapter web site? For all advertisers in the Roster, there is only a \$30 charge to provide your ad and listing on our web site, as long as the artwork is in electronic format. Future changes to the website ad or listing will be available at any time for only a \$10 charge with your new electronic file.

Do not forget to make sure that your database information is correct. If your listing in last year's Roster was incorrect or incomplete you must update the information with Society. Please contact them by phone (1-800-5ASHRAE) or through the Members-Only section of the website (www.ashrae.org). Society's database information will be used for the Roster, so it's up to you to be sure that it is correct.

If you are just updating your information now, it is possible that Society may not get it updated in the database in time for the Roster publication. So you are welcome to also send the new data (in writing, via fax or e-mail) to Bob Levi. The Roster and Database Committees will make an attempt to manually correct the data – no guarantees!

Please send your bids, artwork and updates to:
 Bob Levi c/o Carrier Corporation
 10810 Bigge Street
 San Leandro, CA 94577-1100
 phone: 510.563.5713
 fax: 510.563.5733
 e-mail: robert.f.levi@carrier.utc.com

A Look From the Cubicle

1999/2000 Committee Chairs

How do you turn a 20 hour task into a 10 hour task? Simple, you split the load between volunteers. These committees serve you the members, and we need your help to do the work. Contact a committee chair and offer your services or contact a Board member to fill a vacancy.

Title	Name	Company	Phone	Email
Region X DRC	Kent Peterson	P2S Engineering, Inc.	562-497-2999	kwp@p2seng.com
President	Mark Hydeman	Taylor Engineering	510-749-9135	mhydeman@taylor-engineering.com
President-Elect/CRC Delegate/Chapter Programs	Benjamin Sun	Flack & Kurtz	415-398-3833	bpsun@sf.fk.com
Treasurer	Joseph Olivier	ESS Engineering	415-296-9760	jro@essinc.com
Secretary/CRC Alternate	Kent Lim	Kent Man Lim & Company	415-822-1232	
Board of Governors/PAOE Chair	Ernie French	Norman Wright Equipment Corp	415-467-7600	efrench@norman-wright.com
Board of Governors	Edgardo De Guzman	Acco Inc	650-594-0182	edeguzman@accoair.com
Board of Governors/Roster Committee Chair	Robert Levi	Carrier Corporation	510-563-5713	robert.f.levi@carrier.utc.com
Membership Promotion Committee Chair	Ronald Eng	Carrier Corp	510-563-5701	ronald.eng@carrier.utc.com
Student Activities Committee Chair	Robin James	Belimo Aircontrols	707-745-5998	rjames@belimo.com
Historian	L L Gifford	PCL Construction Services Inc	213-747-0734	
Refrigeration Committee Chair	Glenn Friedman	Taylor Engineering	510-749-9135	gfriedman@taylor-engineering.com
Research Promotion/ Honor Roll/ Product Show	Cory Palmer	Norman Wright Equipment Corp	415-467-7600	cpalmer@norman-wright.com
Technical, Energy & Government Activities Committee Chair	Gary Margadant		707-257-3351	gasm@napanet.net
Newsletter Editor	Debra Marshall	Paco Pumps	510-639-3200	dmarshall@flow-products.com
Honors and Awards Chair	Gail Brager	University of California	510-642-1696	gbrager@socrates.berkeley.edu
Website Chair	Robert Marcial	University of California CEDR	510-849-9057	rmarcial@uclink4.berkeley.edu
Database Chair	Allan Daly	Ove Arup & Partners California	415-957-9445	allan.daly@arup.com

Codes Committee Chair	Dick Glumac	Glumac & Associates	415-421-1164	
Attendance Committee Chair	Richard Charles	C & B Consulting Engineers	415-442-0110	rac@cbengineers.com
Auditing Committee Chair	TBD Vacant			
Tennis Committee Chair	TBD Vacant			
BAEC Committee Chair	Thomas Reinarts	Keller & Gannon	415-621-1199	tom.reinarts@keller-gannon.com
Golf Committee Chair	Charlene Sturm	Air Treatment Corp.	510-655-3990	
Marbles Game Committee Chair	Leslie Hanohano	Norman Wright Equipment Corp	415-467-7600	lhanohano@norman-wright.com
Publicity Committee Chair	Mike Scofield	Conservation Mechanical Systems	707-829-2080	cmscofield@aol.com
Reception Committee Chair (Membership Vice Chair)	Jeff Dittman	Glumac International	415-398-7667	j.dittman@glumac-sf.com
Redwood Empire Section President	Patrick Bailey	Geopraxis Inc	707-996-9408	pbailey@geopraxis.com
Seminar Committee Chair	Luek Vaneveld	Taylor Engineering	510-749-9135	lvaneveld@taylor_engineering.com
Weather Data Committee	Nenad Saric	ATI Engineering Services	925-648-8800	nsaric@atiengineering.com
Golf Co-Chair (next year's chair)	Robert Polizzi	California Hydronics Corp	510-293-1993	bpolizzi@calhydro.com

Have you moved?

Members, please help us keep track of you. If you have recently changed your address, phone, fax or email, please make sure that Society's database is up to date. Call 1-800-5-ASHRAE or change information on Society's website at <http://www.ashrae.org/>. If you want to make changes on-line follow these steps:

- 1) Click on "Membership Records" under the "Members-Only Section" (note you will need your membership # and pin which are on your membership card).
- 2) Click on "Address Change"
- 3) Enter your Name, Membership#, EMail Address and any changed contact information
- 4) Click on submit