

INFORMAIRE

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AMERICAN SOCIETY OF HEATING REFRIGERATION AND AIR CONDITIONING ENGINEERS

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In this Edition:

Meeting Information	1	Madison Chapter Awards	3	Chapter Contacts	9
President's Message	1	Committee Summaries	4	Advertisers	10
CRC Highlights	2	Meeting Minutes	6		

JUNE MEETING *SOCIAL Golf Outing*

Submitted by Michel Robert

DATE: MONDAY Morning, June 13th, 2005

LOCATION: Stoughton Country Club
3165 Shadyside Dr., Stoughton, WI 53589

TIME: 9:00 – 10:00 Registration
10:30 Shot Gun Tee Time
4:30 19th Hole
6:00 Dinner

Revenue from this golfing event and camaraderie will be donated to the Education/Scholarship and Research Funds. Last year over \$5,000 was donated to the Scholarship Program. We thank you for your donation and your continued support in making this a very successful outing each year. Dinner will be followed with a short dinner meeting and include a raffle with many prizes and general fun socialization.

RESERVATIONS: For Information contact Michel Robert at marobert@trane.com at (608) 838-8200 ext. 205

PRESIDENT'S MESSAGE

Submitted by: Tom James

As we wrap up this ASHRAE year for the Madison Chapter, some of the highlights include:

The Madison Chapter Product and Service Directory was updated and published after a 5 year hiatus. Past President Mark Miller single handedly completed this long and arduous task, for which the Chapter thanks him profusely.

An innovative Contractors Forum with 4 participants representing a General Contractor, a Controls Contractor, and 2 Mechanical Contractors was enthusiastically received at our December meeting! This meeting was recorded, and is to be posted to our website to download for all to benefit from. We hosted 3 highly successful tours during the year, with high interest and attendance.

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The Chapter BOG sponsored a student member, Robin Maly, to the AHR Expo at Orlando in February. This was a first for the Madison Chapter. We have requested that she participate in various activities, primarily with the goal of maximizing the experience for her and future student members.

At Past President's Night, approximately half of the Chapter's 42 Past Presidents attended the dinner and greatly enjoyed their reunion. The "recall session" of the Chapter's early history was recounted by 15 of the first 20 year's Presidents, videotaped, and transcribed for the Chapter archival records and website distribution.

Congratulations to James Elleson for being awarded the Distinguished Service Award by Society for his contributions to ASHRAE!

My thanks also to the 30 or so members of the Madison Chapter who serve ASHRAE at the Society level. While rarely recognized, your time and efforts are essential to ASHRAE's success.

Several of our committee chairs were recognized by Region VI, receiving awards for excellence in leadership of their committees. I thank each and every one of the committee chairs and committee members for an excellent job this year. Even though they might not have received an award, their contributions and efforts are greatly appreciated and essential to the success of our Chapter!

The Region VI CRC meeting resulted in a number of ideas that your BOG thinks may be of value to the Madison Chapter. You will be hearing about some of these as the new ASHRAE year begins.

My congratulations go to the new officers and Board of Governor members for their selection by the Chapter for positions of responsibility. I urge each of you ASHRAE members to contribute your time, suggestions for improvement, and expertise in supporting the efforts of the BOG and the Committee Chairs as they endeavor to make the Madison ASHRAE Chapter more useful to you in the coming year.

Most of all, I would like to thank each of you for the opportunity to serve this Chapter as President. I look forward to serving on the CRC 2007 Committee. May the Madison ASHRAE Chapter continue to provide value to you the members, and to the HVAC industry.

God Bless and Protect the soldiers who protect our freedoms and our great country!
God Bless the United States of America!

Respectfully Submitted,

Tom James - President, Madison Chapter

CRC HIGHLIGHTS Submitted By: Tom James



Madison Chapter CRC Display

2005 Chapter Regional Conference Corporate Sponsors



MADISON CHAPTER AWARDS



Tom James receiving Presidents Award from **Bruce Kimball**

Jeff Boldt Receiving Region Awards for Most Active Interest, Highest Points Award, & Gold Ribbon (Past President Interview) From **Tom James**



Al Zeller Receiving Full Circle Award for Resource Promotion From **Tom James**



Wayne Prior Receiving Region Award for Highest Level Of Student Activity From **Tom James**

Brian Witerle Receiving 1st Place Project Award for Grand River Center From **Mike Gall**



CRC COMMITTEE REPORT SUMMARIES

CHAPTER TECHNOLOGY TRANSFER COMMITTEE

Brian Witerle (Project Engineer) and Jeff Boldt (Engineer of Record) were awarded 1st Place Project Award for Grand River Center in the Assembly Category.

Local Chapter BOG members and Committee members have spent time meeting with school board officials, local code officials and state code officials on IAQ and ventilation requirements for their buildings.

The chapter hosted the “Mold in Our Building Environment” Satellite Broadcast at two different locations. Engineers, building owners, building maintenance personnel, and state facilities people attended the broadcast between the two locations.

We hosted three very successful tours this year:

- The University of Wisconsin’s Ice Hockey Arena (Kohl Center),
- The large central chiller/Cogeneration plant for the University of Wisconsin / Madison Gas & Electric Company,
- EPIC’s 1,200 ton ground source heat pump project.

Mike Gall

SCHOLARSHIP COMMITTEE

The Scholarship Committee members include Dick Pearson, Harry Sulzer, Tim Shedd and Mitch Hagens, who continues to serve as the Committee Chair. We are presently looking for two new committee members.

Scholarship Fund:

The scholarship fund has grown in value over the past year, from \$39,193.05 on 2/27/04 to \$41,107.73 as of 2/28/05. Funding for the scholarships continues to be provided by proceeds from the annual Golf Outing sponsored by the Madison Chapter.

Scholarship Awards:

During the 2004-2005 school year we awarded \$4,500 in scholarship money. Last spring we received a total of four scholarship applications from UW-Madison and UW-Platteville students. The committee selected 3 scholarship recipients, each of whom received \$1,500. The recipients were:

- John Dyreby, who attends UW-Madison and plans to graduate in May 2005 with a double major in Mechanical Engineering and Philosophy. John is from Rhinelander, Wisconsin and currently has a cumulative GPA of 3.79. He has previously worked for SFC Industries of Rhinelander, a steel fabrication company that also manufactures outdoor “water furnaces.”
- Donald Verdegan, who attends UW-Platteville and plans to graduate in May 2005 with a BSME. Donald is from Glen Flora, Wisconsin, is a member of ASHRAE and currently has a cumulative GPA of 3.78. He has previously worked with his brother who is employed by Flater Plumbing and Heating in Ladysmith, and spent this past summer working for Pearson Engineering in Madison.
- Ryan Ulferts, who attends UW-Madison and plans to graduate in May 2006 with a BSME. Dan is from Brooklyn Park, Minnesota and currently has a cumulative GPA of 3.30. He has previously worked for Pearson Engineering in Madison.

We are again planning to award up to \$5,000 in scholarships during the 2005-2006 school year.

Mitch Hagens

HISTORIAN SUMMARY REPORT 2005-05

The Madison chapter led the region in history PAOE points at CRC with 400 points; but more importantly we accomplished a lot on the way to getting those points. We produced two new histories – Rheem, which Mark Miller contributed – and Capitol Mechanical, for which Al Zeller provided me with a tour and assisted in the writing. We also had a Presidents’ Recall meeting that Tom James organized and produced a DVD of that meeting. In addition we began the process of digitizing our files to eliminate the only bad part about being chapter historian – keeping the boxes of records☺

For next year we are actively seeking company histories, so please contact me at (608) 223-9600 or

boldtjg@kjww.com.

Jeff Boldt

(President’s note: Jeff was awarded Region VI Awards for: **More Active Interest, Highest Points Award Gold Ribbon** (Past President’s Interview)

RESEARCH PROMOTION COMMITTEE REPORT:

We had a Donor recognition night at our Holiday Chapter meeting in December at the Nakoma Country Club. We also qualified for the Full Circle Award, courtesy of the meeting raffles, in December. Bill Dries and Charlie Fafard have joined our committee this year, we appreciate the work that Corey Cook of Angus Young was able to provide in our last campaign.

This year we concentrated on adding to the industry organizations that are being contacted, and we also have started to identify organizations that have a significant investment in engineered systems in their facilities. We raised \$12,123 last year, and that is our goal for this year. As of May 31, 2005 we have raised \$6,750. IF you read this, take a moment to verify your company has been contacted. If not, please drop me an e-mail, azeller@capitolmechanical.com or give me a call at 241-9342.

Please remember that District VI receives many more \$ in grants to do the Research than the \$ we contribute. Also ASHRAE currently is able to fund less than 30% of the Research requests that come predominately from the technical and standards committees.

We have a lot of work to do to improve the industry that has provided us all a livelihood.

Al Zeller

FINANCES

The financial status of the Madison Chapter continues to be strong. We continue to have growth in our accounts with Merrill Lynch. Merrill Lynch continues to guide us to adjust our finances to properly invest our Scholarship funds, and to readjust our chapter funds for accessibility and allow reasonable growth.

Balances as of April 27, 2005:	Checking Account Balance:	\$6,439.58
	Madison Chapter Account:	\$22,094.58
	Scholarship Fund:	\$40,669.34

Chad Faber

STUDENT ACTIVITIES

The year began with an introductory meeting allowing students to enjoy pizza and learn about ASHRAE. Chapter President Tom James, Past President Mike Meteyer, Student Activities Chair Wayne Prior, and CTC Chair Mike Gall met with 20 Students. We discussed engineering in the HVAC industry, including consulting engineering, design build, equipment manufacturing and sales, and temperature controls.

Five students found summer employment.

The Board of Governors agreed to donate money for pizza at a student meeting.

Meeting attendance by students reached 7 for the year.

The BOG sponsored a student chapter member's trip to the AHR Expo as a way to encourage participation by a student leader, to provide exposure to the industry, and to motivate additional student participation. In return, we asked that the student attend the student activities, attend a technical seminar and forum, and provide a summary report to the Chapter at a monthly meeting. We also asked that the student present a report of their experience to our 2 student chapters.

Wayne Prior

(President's Note: Wayne received the Region VI award for Highest Level of Student Activities!)

MEMBERSHIP PROMOTION:

The year started with several goals for the membership committee, including reducing member delinquency, improving the accuracy of the member database, and increasing membership. Many of the goals were accomplished this year. The member delinquency at the start of the year was at 55 people. The membership committee reduced the delinquency to 13 people by actively contacting members through emails and phone calls. While contacting members, we found that a lot of data on the monthly database was incorrect. We worked with members to correct and update information. Another goal was to increase membership. The committee became proactive in seeking new members. We encouraged guests at monthly meeting to submit applications for membership by sending them welcome letters indicating the benefits in becoming an ASHRAE member. Our membership did increase slightly. We feel that our goals for the membership committee were met with success. The membership chair and committee looks forward to increasing membership and promoting more involvement.

Matt Heil

(President's Note: Matt was commended by the Regional Membership Chair for excellent work!)

REFRIGERATION COMMITTEE:

The tour of the refrigeration ice making equipment for the U.W. Kohl Center during the March meeting, was both interesting and informative to all that attended. The installation provided unique insight on a very creative industrial refrigeration system.

Also, un-noticed by most in our industry the first reduction in consumption limits for HCFC refrigerants took place in 2004 with a 35% decrease. The industry shift to HFC refrigerants continues to accelerate with R410A & R134A being used in more & more newly designed A/C units and R507A & R404A used in new low temperature units.

Terry Riker

MEETING MINUTES

Submitted by: Gene Nelson

Chapter Meeting:

ASHRAE Meeting May 9, 2005

1. Presiding Officer: Tom James, President
2. CALL TO ORDER (Time and Place) May 9, 2005 at 6:00
 Babe's American Bar
 5614 Schroeder Road
 Madison, WI
3. BUSINESS MEETING/COMMITTEE REPORTS
 - a. Tom James reviewed the board of governors nominees:
 - i. Bruce Kimball – President
 - ii. Chad Faber President Elect
 - iii. Gene Nelson Treasurer
 - iv. Robert Stone Secretary
 - v. Tim Meeker Member at Large
 - vi. Matt Heil Member at Large
 - b. Call for additional nominees – none suggested.
 - c. Motion to approve nominees – all approved.
 - d. Promotion committee held their monthly drawing raffle for a stay at the Concourse Hotel. Winner – Jim Kraus (State of Wisconsin).
 - e. Awards Presentation
 - i. Jeff Boldt (KJWW) – 2 Awards
 1. More Active Interest
 2. Highest Points Award
 - ii. Al Zeller (Capital Mechanical)
 1. Full Circle Award
 - iii. Wayne Prior (Prior Engineering)
 1. Highest Level of Student Activities
 - iv. Mike Gall (CTTG Chair) presented 1st place project award for Grand River Center (Assembly Category). KJWW (firm), Brian Witerle (Project Engineer), Jeff Boldt (Engineer of Record).
 - v. Bruce Kimball presented the presidents award to Tom James.
 - f. Tom James discussed CRC 2007
 - i. Looking for a DJ
4. PRESENTATIONS/PROGRAM

Topic: Preventing Acoustical Problems
 Presenter: James Yerges

 1. Noise control has not changed much over the years. The same problems seem to come up over and over.
 2. First recommendation to prevent noise control – Prepare a complete design addressing the following 6 issues related to noise:
 - Airborn Equipment Noise
 - Vibration
 - Ductborn Noise
 - Breakout Noise
 - Blow Noise
 - CrossTalk
 3. Design Considerations:
 - a. Location of Equipment Rooms
 - i. Place on grade, basement, or subbasement
 - ii. Utilize non-critical spaces for buffering
 - iii. Equipment room walls must be adequate for purpose.
 1. Standard Construction is not enough for noise barrier
 2. Provide input to architects for construction requirements
 - iv. Demand adequate floor space for equipment installation (i.e. walls, ceiling height, etc).
 - v. Concrete is cheap. Provide 4" housekeeping pad under all equipment
 - b. Equipment on Grade

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- i. Spring isolators, inertia bases for isolation
 - ii. Springs should be soft with respect to the supporting structure. Rule of thumb is 10x softer.
 - iii. Must specify springs for equal static deflection at all mounting locations. Potentially need 4 different springs based on weight distribution.
 - c. Piping connections to equipment shall be made with flexible connectors.
 - d. Use housed isolators on cooling towers, rooftop units, etc requiring stability due to wind loads (RTU) or large weight fluctuations (CT). Most equipment does not require housed springs and will perform better with unhoused isolators.
 - e. Power transformers – mount on concrete equipment pads not directly on floor.
 - f. Elevators – consider location due to noisy, pulsating vibration.
4. Ductborn Fan Noise
 - a. Select quiet fans from the start.
 - b. Turn the air in the direction of fan rotation.
 - c. Avoid using inlet guide vanes. Vanes are noisy due to their function.
 - d. Use efficient duct fittings in duct design.
5. Breakout Noise
 - a. More common today because of thinner sheetmetal requirements (per SMACNA).
 - b. Provide a buffer zone to allow breakout.
 - c. Prevent breakout with double-wall ductwork with two solid walls.
6. Fan Noise – Airflow Noise
 - a. Low-pressure, low-velocity duct design will provide best results
 - i. 1000 FPM – Low velocity
 - ii. 2000 FPM – Medium velocity
 - iii. 3000 FPM – High velocity
 - b. Proper fittings and duct geometry.
 - c. Balancing is very important.
 - d. Do not use opposed blade dampers on the face of grilles. Locate dampers in branch ductwork.
 - e. Static pressure drop causes noise.
7. Cross-Connection
 - a. Noise will pass between rooms.
 - b. Recommend detailing penetrations through sound sensitive walls.
 - c. Noise can break into ductwork. Prevent by installing double wall duct or separate duct runs from air-handling equipment to each zone.
8. Rooftop Unit Considerations
 - a. Locate units with caution above non-sensitive areas, near columns, load bearing walls, etc. Extend columns through roof and construct independent structure for unit support.
 - b. OEM isolators are generally not enough to adequately suppress vibration. Provide external vibration isolators such as housed spring isolators or isolation curbs. Consider leaving packing materials in place to disable OEM isolators to avoid problems between multiple isolators.
 - c. Do not open up the entire roof within the curb.
 - d. Do not discharge down into a bullhead tee (vertically). Better to discharge horizontally or into a discharge plenum.
 - e. Consider environmental noise pollution when locating units. Must consider neighboring establishments.
9. Small Fan Considerations
 - a. Examples of small fans: FPVAV Boxes, Unit Ventilators, Propeller type unit heaters.
 - b. Locate FPVAV boxes above corridor.
 - c. Avoid using unit ventilators in courtrooms, classrooms, and churches whenever possible.
10. Other Considerations
 - a. Provisions should be made to attenuate steam pressure reducing valves.
 - b. Consider location of emergency generators and their associated intakes and exhausts.
 - c. Low-frequency attenuation is best done with mass.
 - d. High-frequency attenuation can be addressed with fiberglass insulation.
5. ADJOURNMENT
 - a. 8:00 P.M.

Reported By: Robb Stone

Board of Governors Meeting:

1. **PRESIDING OFFICER:** Tom James, President
2. **CALL TO ORDER (Time & Place)** May 18, 2005 4:05 p.m.
Babes Grill & Bar
5414 Schroeder Road
Madison, Wisconsin
- ROLL CALL** Tom James, Bruce Kimball, Chad Faber, Gene Nelson, Rob Stone, Matt Heil, Al Zeller, Wayne Prior
3. **APPROVAL OF MINUTES**
Motion Chad Faber motioned to accept the April 2005 BOG and Chapter meeting minutes.
Second Bruce Kimball
Vote Unanimous
4. **REPORTS**

Treasurer's Report

Chad Faber did not have the treasurer's report ready. He said he would e-mail his report.

5. OLD BUSINESS

CRC 2005 Report

Tom, Bruce, Chad, and Gene attended this year's CRC in Moline. Tom reviewed the highlights. "Resource Promotion" changed their name back to "Research Promotion". Jeff Boldt received a Gold Ribbon, Wayne Prior was recognized for Student Activities and Matt Heil was recognized for reducing number of delinquent members. Some chapters have hired outside CPAs to assist with audits and tax filing. ASHRAE is planning a treasurer's training program. They suggest that treasurers serve 3 years to avoid losing the training required. ASHRAE is attempting to get all chapters to follow the same approach to chapter finances. Illinois chapter increased its annual dues to \$65 and does not collect for monthly meetings. Monthly meeting costs are included in the annual dues. CRC recommends having a Spouses/Date Night at CRC. Chapters are encouraged to have their website moved to the regional website. John Day replaces Jim Vallort as assistant regional vice chair.

Gene went the CTTC workshop and has many handouts to give Mike Gall. Gene had pictures of this year's CRC. Tom asked Gene to e-mail them to Mark Miller and Jeff Bolt. Next year's CRC is at St. Louis, April 27-29. Gene said that program committees should have at least four members. Gene suggested that the Vice President and BOG members need to monitor committee meeting more often.

Tom suggested that we have committees report at meeting and at least submit reports for the monthly newsletter. Tom suggested that we should get more of the UW researchers who have ASHRAE grants to speak at our meetings. Al said that he would send Chad a list of research grant recipients. Tom mentioned that Robin will give her talk from this spring's meeting Orlando at the student night next fall. Wayne suggested that Student night should be October instead of September.

Bruce mentioned that he has not purchased the speaker gifts. The BOG re-affirmed to proceed as previously agreed. Names and DATES can be left off so that the plaques can be used in any year.

Tom said there was a motion at the CRC to increase the number of workshops. Tom was nominated to the committee to review workshop structure. Options include eliminating or dividing up technical sessions. Chad thought it was a bad idea to eliminate technical sessions. It is an excellent opportunity for local members to attend technical sessions with nationally known speakers.

The chapter will cover the expenses not paid for by Society for the two delegates, Tom and Bruce. Bruce motioned that Chad and Gene should split the remaining budgeted amount (\$800+ \$400 donation from Strang – expenses)

**Second
Vote**

Gene Nelson
Unanimous

PAOE Points Review Tom said that committee chairs must have their PAOE points entered by June 30th.

Audit Committee Status Bruce Kimball made a motion to hire an outside CPA who specializes in non-profit organizations to audit this year's books and to assist with IRS requirements.

**Second
Vote**

Chad Faber
Unanimous

Chad agreed to bring a list of potential CPA's to the next BOG.

6. NEW BUSINESS

Research & Promotion

Donation Request

Al Zeller mentioned that our goal for this years Research Promotion campaign is to match last year's amount (\$12,123). Al asked to confirm the \$1,000 budgeted plus the remainder of the balance from the Golf Outing minus the scholarships. Al mentioned that all R-P contributions need to be in by June 30th. We agreed we would work with Michel to determine the amount of profit before June 30th and have the Chapter write the check to cover the costs until the Golf Outing profits are deposited. Wording for the Golf Outing should be "Scholarships are 100% funded by the Golf Outing." The current Scholarship account will be left untouched and will be allowed to grow until it is self

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**Second
Vote**

sustaining. Gene motioned to donate the budgeted \$1,000 plus the surplus from the Golf Outing after scholarships are subtracted.

Chad Faber
Unanimous

Annual Chapter Dues Increase

Bruce motioned to increase annual chapter dues to cover the meeting costs and not to charge for monthly meetings. The amount the increase will be about \$50 increase over and above the current \$30 or about \$80 total. This is based on last year's average meeting cost of about \$1300 x 9 meetings divided by 240 members. The final amount to be determined by Chad and Gene before the June meeting.

**Second
Vote**

Chad Faber
Unanimous

**Next BOG Meeting
E-mail Motions**

To be determined.

1) The BOG unanimously approves the motion to provide reimbursement of expenses (estimated at \$700) for Jeff Boldt to attend the Standard 90.1 training session in Denver.

2) The BOG rejects the motion to accept paid job advertising in the INFORMAIRE. 4 no, 2 yes, 1 abstention.

**7. ADJOURNMENT
Reported By:**

5:20 pm
Gene Nelson.

CHAPTER CONTACTS

OFFICERS:

		<u>Phone</u>	<u>Fax</u>	
PRESIDENT:	Tom James	608/845-6411	608/845-6470	TJames1229@aol.com
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TREASURER:	Chad Faber	608/836-8055	608/836-5818	cfaber@planningdesignbuild.com
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PAST PRESIDENT:	Mark Miller	608/835-1944	866/422-2290	mark.miller@mail.ashrae.org
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	Tim Meeker	608/821-8500	608/821-8501	tmeeker@arnoldandosh Sheridan.com

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MEMBERSHIP:	Matt Heil	608/833-7000	608/833-6996	mheil@henneman.com
NEWSLETTER:	Mark Miller	608/835-1944	866/422-2290	mark.miller@mail.ashrae.org
PROGRAM:	Bruce Kimball	608/276-9200	608/276-9204	kimball@strang-inc.com
REFRIGERATION:	Terry Riker	608/271-7500	608/327-2363	triker@tsihvac.com
RESOURCE PROMOTION:	Al Zeller	608/241-9342	608/837-0278	azeller@capitolmechanical.com
SCHOLARSHIP:	Mitch Hagens	608/241-4328	608/241-2710	mhagens@naminc.com
STUDENT ACTIVITIES:	Wayne Prior	608/288-8338	608/288-8388	prioreng@mcleodusa.net

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mark.miller@mail.ashrae.org

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