

# The Oil Capital Air

Newsletter of the Northeastern Oklahoma Chapter of the  
American Society of Heating, Refrigerating and  
Air-Conditioning Engineers, Inc.

## Special Points of Interest

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Volume XLIX, Issue 5

Tulsa, Oklahoma

January 2007

## January is Student Activities Night

### President's Message By: David Lam



Dave Lam  
Chapter President

I want to take this opportunity to wish everyone a Happy New Year. It is hard to believe that we are already in to 2007, but I guess time flies when you are busy and I think everyone has been just that this past year. I assure you that your committee chairs have been very busy and are continuing to work hard for you.

This year, we have a few new members and many new student members. If you have a membership question, please refrain from asking Chuck at this point in time. Society is having problems with their membership links for Chuck, so he may not be able to answer your questions at this time and it is not his fault. Just trying to help take some unwarranted heat off him!

Our January meeting will be "Pre-packaged Mechanical Room Systems" presented by Chris Huston of Systecon. Chris has spent most of his career in Las Vegas and specializes in central plant systems, so it should be an interesting meeting. It will also be Membership Promotion Night and we are asking for our young engineers out there to please attend. ASHRAE is an engineering based society and our en-

gineer attendance has been lacking, so please come out and show your support of a very important part of what you do.

The ASHRAE AHR Expo is at the end of this month and will take place in Dallas, TX. This is about as close as it will get to us. If you have never been, it is an educational and eye-opening event with all the information and displays related to our field. There are a number of us that have free passes to the Expo. I believe there is a \$20 entry fee with pre-registration and \$25 for registration at the Expo. Feel free to ask one of us for a free pass, whether or not you get a free pass, pre-registration is key as the line at the event can be rather taxing.

We look forward to seeing some new and not so

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## UPCOMING EVENTS

- **January 11, 2007**  
*Chapter Meeting at Renaissance Hotel, 6808 South 107th East Ave.*
- **5:20 - Cocktails**
- **5:45—Tech Session**
- **6:45 - Dinner and Main Program**
- **January 18, 2007**  
*Board of Governors Meeting at ABS*

## JANUARY CHAPTER MEETING

Thursday, January 11, 2007  
Renaissance Hotel

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new faces at the January meeting. ASHRAE gives a lot back to our industry so please take a few hours next Thursday evening to show your support. Let's get the year off to a good start!

Dave Lam can be reached at 918.250.5590 or david.lam@omni-2.com

## Chapter Technology Transfer

By: Brian Hamilton

### January Meeting Preview

This month we welcome Chris Huston, National Sales Manager for Systecon Incorporated. He will be discussing pre-packaged mechanical room systems.

Chris Huston holds a BSIE degree from Purdue University, and has spent his entire career in the HVAC industry. He has experience as a managing representative of several major commercial equipment manufacturers, specializing in central plant systems.

Chris spent the majority of his career in the rapidly growing Las Vegas market, and has been with Systecon for three years. He is an active member of ASHRAE.

Chris resides in West Chester, Ohio with his wife and three children.

Brian Hamilton can be reached at 918.858.0060 or smilinbrian@yahoo.com

### January Technical Session Preview

By: Keith Browne

Our January Technical Session will be presented by Mr. Tom

Hanlon with Trane Arkansas where Tom is Project Manager and Commissioning Agent. Tom has previous temperature control experience with Johnson Controls and has worked in the field of mechanical contracting. Tom is a member of the Arkansas Chapter of ASHRAE and has won the Region VIII outstanding TEGA Chair award two years.

Tom is a member of NEBB and is certified by that agency for Testing, Balancing and Commissioning. He is also a member of the US Green Building Council and is a LEED Accredited Professional and is a member of the Building Commissioning Association.

Tom's topic for the Technical Session will be "Retro-commissioning Buildings for Improved Energy Efficiency". With his background and experience, Tom is well qualified to present vital information on retro-commissioning that will benefit all NEOK chapter members.

Keith Browne, Technical Programs Chair, can be reached at 918.258.7460 or bce@valornet.com.

## December Meeting Review

By: Brian Hamilton

The December meeting was our annual lunch meeting and a great success. A panel consisting of various industry representatives discussed "Construction Scheduling and Sequencing." The topic was both interesting and informative as each representative had a unique perspective. The audience participation was excellent with numerous questions asked and comments made.

Brian Hamilton can be reached at 918.858.0060 or smilinbrian@yahoo.com

## History

By: Bob Allwein

This month's history article is on Keith Browne, a very well



President Dave Lam introducing December meeting panelists.

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known and respected Tulsa consulting engineer.

Keith was born in Springfield, MO in 1948, but raised in Independence, MO where he attended Truman High School. His father was a Cumberland Presbyterian minister, school teacher, and part-time artist. His mother also worked to help support the family in addition to her household duties. They were from a generation that did not know the meaning of taking time for themselves.

While in high school, Keith launched his first rocket in 1966 at Ft. Sill, OK, which traveled about a half mile high. It was made of 2 inch diameter Schedule 40 carbon steel pipe, and with fuel it weighed about 30 pounds. His interests in rocketry led him to enter engineering college in the aerospace program. But shortly after starting college in the fall of 1966, the aerospace industry started to have major cutbacks, so Keith switched to mechanical engineering.

Keith attended the University of Missouri-Rolla where he received the degrees of BSME in 1970 and MSME in 1971. Running kept him sane in Rolla and paid part of his way through school where he lettered four years in cross-country and track. While at Rolla and during subsequent years he completed five marathons. Although on a much more limited basis, he still occasionally runs for relaxation. To help pay his way through college one of his summer jobs was working the midnight shift loading mail sacks on trains at the Union Station in Kansas City. This convinced Keith that he had made the right decision to pursue an engineering career. It didn't take much to pay one's way through Rolla back then. He shared a room with some rats for \$21 per month. Food at

an eating club was only \$35 per month. He had some great college professors. More than anything, they taught him how to break problems down into their individual components and solve them in a logical manner. He still visits with one of them when he returns to Rolla. The best part of his college experience was that he met his wife Debbie while in graduate school. They were married in 1972.



Keith Browne

They currently have two wonderful daughters and four grandchildren.

After college Keith started his career at Black & Veatch Consulting Engineers in Kansas City in 1971 where he worked for 5-1/2 years. He was a design engineer for coal and nuclear power plants. His first project was to do an evaluation of the effects of Von-Karman vortex shedding on thermowells in high pressure steam systems. Black & Veatch is where he first started engineering work on HVAC systems. He did not take any specific HVAC courses in college, but B&V gave him the opportunity to learn the business.

Keith and Debbie moved to Tulsa in 1977 where he joined a small engineering firm. The following year he was fortunate enough to become a principal in the firm, which became known as Lee & Browne Consulting Engineers. He was principal in charge of mechanical design until January of 2004 when he sold his interests in the business and started a new engineering firm, Browne Consulting Engineers, Inc. Under his new firm he provides strictly mechanical engineering, although he does sub-contract out other engineering services such as electrical and structural. Some of his major clients throughout his career in Tulsa have included ConocoPhillips, St. John Medical Center, Muskogee Regional Medical Center, Saint Francis Hospital, and SBC.

The Northeastern Oklahoma ASHRAE chapter has been a big part of Keith's career in Tulsa. When Keith was President in 1999-2000 the chapter won the Golden Gavel Award. He was also awarded the Chapter Service Award, Chapter Premier Award, Presidential Award of Excellence and Star Award and the Best Newsletter Editor for 1998-1999, Region VIII. As with all large organizations, Keith feels many of the best people are at the local level doing work behind the scenes, and the NEOK chapter has some of the best in ASHRAE. Keith has served in many capacities within the chapter and will always be thankful for the opportunity to serve. Keith believes the members of our ASHRAE chapter are hard working and always strive to make ours the premier chapter in the nation. It is a great place to learn and keep abreast of changes in our industry.

Lessons Keith has learned in life are to organize and prioritize. Priorities in

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his life: God, family and country-in that order. He has found that if one keeps his priorities straight, everything else will fall into its proper place.

Bob Allwein can be reached at 918.770.5380 or ballwein@cox.net

## Editor's Corner

By: Nancy Mack

The ASHRAE Learning Institute will offer an extensive selection of continuing education courses, including several new courses, at the ASHRAE 2007 Winter Meeting and AHR Expo in Dallas, Texas. The courses include four Professional Development Seminars (PDS), including one student PDS, and fifteen Short Courses. Each PDS will be held at the Adam's Mark Hotel and the Short Courses will be held at Dallas Convention Center. All courses carry the appropriate number of continuing education credits, which can be applied toward maintaining P.E. registration. Most ASHRAE Learning Institute Seminars and Short Courses are approved by The Practicing Institute of Engineering, Inc. (P.I.E.) to provide mandatory education requirements for Professional Engineers in New York State.

The ASHRAE Meeting at the AHR Expo in the Dallas Convention Center features 16 seminars addressing current events in the industry. The seminars, sponsored by ASHRAE technical committees, feature more than 40 presentations conducted in a non-commercial format. Eight seminars are presented on Monday, January 29, and eight on Tuesday, January 30. Most seminars are 90 minutes each. Attendees receive PDHs (except in NY State).

For fees, registration, and additional information, visit [www.ashrae.org/](http://www.ashrae.org/) education.

Nancy Mack can be reached at 918.615.1430 or nancy.mack@siemens.com

## Membership Promotion

By: Chuck Mayfield

We are going to start off 2007 with something new. YEA - Young Engineers in ASHRAE. The



National Society of ASHRAE is making a push to get the younger engineers involved. The Northeastern Chapter agrees that the younger engineers need to be more involved.

Please spread the word; January 11<sup>th</sup> meeting will be YEA focused.

You may be asking, "What is YEA?" or "What qualifies a recruit to be in YEA?" or "What are the benefits on YEA to a recruit?" YEA is just a campaign to market to the younger crowd and speak their language. You must be 30 years or younger to fall in

the YEA category. You can join ASHRAE as an Affiliate for \$40 per year, for up to 3 years or until you surpass the age restrictions. The Affiliate grade will still receive the ASHRAE Journal, E-newsletters and website privileges. Go to the ASHRAE website to learn more.

Again, please spread the word to the younger engineers in your office or that you call on to come the January 11<sup>th</sup> meeting to learn more.

Chuck Mayfield can be reached at 918.624.1005 or cmayfield@eei-ok.com

## Student Activities

By: Sam Davis

We have 18 new student member applications from the Student Branch at OSU Okmulgee. Many of the new students have told me that they plan to attend our meetings. We must show interest in these students and make them feel like they belong, keep them from feeling out of place when they come to the meetings. These new faces are the lifeblood of our Chapter.

Sam Davis can be reached at 918.249.1918 or sdavis@federalcorp.com

## Resource Promotion

By: Rob Teis

**2 WORDS! \*AUCTION ITEMS\*** Please contact me with your ideas or donations for the February auction. Some things which have been great ideas in the past are: sporting event tickets, food items, gift certificates, member crafted items, artwork. You get the idea! Please help make this year's auction a great success. You may reach me by phone at 382-6134

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or by e-mail at [robt@aaon.com](mailto:robt@aaon.com).

I have sent off our full circle donation for this year, which is a donation of \$100 or more from each officer & myself by Dec 15<sup>th</sup>. Thank you to our chapter's leadership for personally supporting ASHRAE research, & please remember it takes all of our personal support to promote the goals of unbiased HVAC & R technology & design.

Rob Teis can be reached at  
918.382.6134 or  
[RobT@aaon.com](mailto:RobT@aaon.com)

### **Treasurer** **By: Nancy Mack**

If you are not already aware, the responsibilities of the Treasurer have been shifted to Dan Owens for the remainder of this year. Please direct all future money inquiries to him.

Also, there are still several outstanding booster ticket and meal invoices. Please pay them immediately. This helps the treasurer to keep the books accurate and up-to-date. Thank you for your cooperation.

Nancy Mack can be reached at  
918.615.1430 or  
[nancy.mack@siemens.com](mailto:nancy.mack@siemens.com)

### **Online Directory** **By: Bill Hanlon**

With the start of a new year it is time to update your directory information. You can access the directory from the Chapter website [www.ashrae-neok.org](http://www.ashrae-neok.org) by clicking on "ASHRAE Chapter Directory". The "Member" section requires a password for entry, allowing you to view the listings for all of our Chapter members. Upon finding your listing, editing your information requires that a separate password unique to that

member be entered.

The latest database downloaded from Society shows a great number of discrepancies between their records and ours. In an effort to make the directory as useful as possible, we will be contacting members to verify the accuracy of their listing.

The business sections are a little more involved because there are product listings with descriptions as well as employee listings. This can be a very powerful tool for business development. I was contacted by an out-of-state contractor last week wanting to know who carried a particular brand of equipment. While we were talking, I had him log onto the directory and go to the "Product Cross Reference" section. He found exactly what he was looking for in a matter of seconds. This section of the directory is not password protected, so it is a good contact vehicle for the HVAC industry.

Bill Hanlon can be reached at  
622-1500 or  
[wutzpneu@aol.com](mailto:wutzpneu@aol.com)

### **December BOG Minutes** **By: Dan Owens**

The NEOK Chapter Board of Governors Meeting (BOG) was held on December 21, 2006, at ABS. President Dave Lam called the meeting to order at 4:36 p.m.

**Attendees:** Dave Lam, Dan Owens, Nancy Mack, Chuck Mayfield, Keith Browne, Mike Guillen, Sam Davis, Bill Hanlon, Mike Beda, Bob Allwein, Joel Karstetter

**Minutes:** November BOG and December Chapter meeting minutes were distributed prior to the BOG meeting and corrections were collected. A motion was made and sec-

onded to approve minutes as corrected and the motion carried.

**Treasurer:** Nancy Mack presented the Financial Report. The report was filed for audit. Nancy gave a short review of '06 spending verses the budget. A discussion took place on attendance and establishing a calling committee for people who are non-responsive to the e-vites.

**Newsletter:** Newsletter articles should be sent to Nancy Mack by January 3<sup>rd</sup> for the January newsletter.

**Membership Promotion:** Chuck Mayfield reported we have 7 new members and one advancement for the year.

**CTT:** President Lam reported that everything is set up for the January meeting. Mike Guillen reported that we have a Blue Bell refrigeration tour on January 9<sup>th</sup> at noon and that we are looking at having a QT Kitchens tour sometime in March.

**Student Activities:** Sam Davis reported that we have 18 new student members and 2 new advisors. We discussed how to award scholarships to new members. ABS, Omni 2, Process Equipment, Pneutech and McIntosh Services agreed to sponsor all new OSU-Okmulgee members.

**Directory:** Bill Hanlon reported that the new directory development stopped. We need to look for help within the Chapter to move the directory forward. Bill will work on a job description for a new directory / website development position.

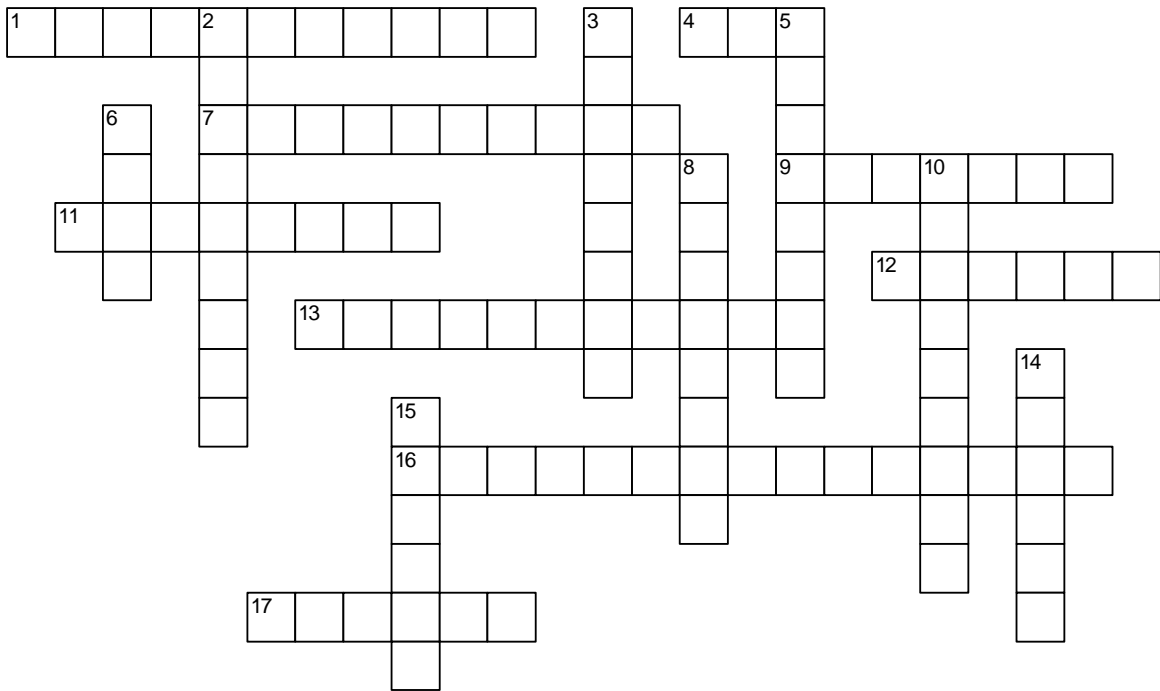
**History:** Bob Allwein reported that a history article for January will be done by January 3<sup>rd</sup>.

### **Old Business:**

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OIL CAPITAL AIR PUZZLE



www.CrosswordWeaver.com

Across

- 1 TERM FOR HUMIDITY SENSORS USED TO MEASURE RELATIVE HUMIDITY OR DEWPOINT OF AMBIENT OR MOVING AIR
- 4 THIS TYPE OF CONTROL ADDS A DERIVATIVE TERM TO THE PROPORTIONAL AND INTEGRAL TERMS IN THE CONTROL EQUATION.
- 7 THIS COMPONENT OF A CONTROL SYSTEM COMPARES THE VALUE OF THE CONTROLLED VARIABLE WITH THE SETPOINT AND GENERATES A SIGNAL TO THE CONTROLLED DEVICE FOR CORRECTIVE ACTION.
- 9 DEVICES THAT REGULATE THE FLOW OF AIR.
- 11 THIS IS THE DESIRED VALUE OF THE CONTROLLED VARIABLE.
- 12 THIS COMPONENT IN A CONTROL SYSTEM MEASURES THE CONTROLLED VARIABLE AND TRANSMITS VALUES TO THE CONTROLLER.
- 13 THIS TERM IS USED FOR A CONTROL DEVICE THAT CAN ONLY BE POSITIONED IN A MAX/MIN OR ON/OFF STATE. (TWO WORDS)
- 16 NEW TECHNOLOGY THAT ELIMINATES CONSTANT LOOP TUNING BY INTUITIVELY IMPROVING THE PERFORMANCE OF CONTROL LOOPS. (TWO WORDS)
- 17 OPENING AND FLOW ARE RELATED IN DIRECT PROPORTION WITH THIS TYPE OF CONTROL VALVE CHARACTERISTIC.

Down

- 2 THIS TYPE OF SENSOR AUTOMATICALLY ADJUSTS CONTROLLED VARIABLES BASED ON WHETHER THERE IS SOMEONE IN THE SPACE.
- 3 THESE TYPE OF CONTROL COMPONENTS USE ELECTRICAL ENERGY AS THE ENERGY SOURCE.
- 5 THIS IS THE TIME BETWEEN A CHANGE IN THE PROCESS INPUT AND WHEN THE CHANGE AFFECTS THE OUTPUT OF THE PROCESS.
- 6 THIS TYPE OF CONTROL LOOP DOESN'T HAVE A DIRECT LINK BETWEEN THE VALUE OF THE CONTROLLED VARIABLE AND THE CONTROLLER.
- 8 THIS TYPE OF POSITIONER PROVIDES UP TO FULL MAIN CONTROL AIR PRESSURE TO ACTUATOR FOR ANY CHANGE IN POSITION REQUIRED BY THE CONTROLLER.
- 10 THESE TYPE OF CONTROL COMPONENTS USE COMPRESSED AIR AS AN ENERGY SOURCE.
- 14 TYPE OF CONTROL LOOP IS ALSO CALLED "FEEDBACK CONTROL" AND MEASURES ACTUAL CHANGES IN THE CONTROLLED VARIABLE AND ACTUATES THE CONTROL DEVICE TO BRING ABOUT A CHANGE.
- 15 DEVICES THAT REGULATE THE FLOW OF WATER AND STEAM.

DECEMBER MEETING GALLERY



Jim Waldrop, Scott Pollard, and Dan Irick share a laugh at dinner.



Danny Hancock and Chuck Mayfield listen to the discussion intently.



Consulting engineer, Gayle Gwinup, discusses project sequencing.



Brian Hamilton (left) serves as panel facilitator, while Steve Johnson answers a question from an audience member.

# 2006/2007 Programs

Date	Technical Session	Speaker	Main Program	Speaker	Theme and Special Guests
14-Sept-06	Golf Tournament at Clary Fields Golf Course				
12-Oct-06	Cooling Tower Design & relationship to ASHRAE 90.1	Dick LeClaire; Marley	Radiant Heating Systems	Keith Whitworth; Watts	Membership Night; Refrigeration Night
9-Nov-06	Boiler System Design	Dave Farthing; Federal Corporation	Dearator & Boiler System Design	Dave Farthing; Federal Corporation	Research and Consulting Engineers Night; Art Geisler, Region VIII DRC
14-Dec-06	<b>NONE - Lunch Meeting</b>		<b>Construction Scheduling and Sequencing</b>	<b>Panel of Industry Representatives</b>	<b>Joint meeting with AIA, MCA, ABC</b>
11-Jan-07	Retro-commissioning Buildings for Improved Energy Efficiency"	Tom Hanlon	Pre-packaged Mechanical Room Systems	Chris Huston; Systecon	Membership Promotion Night
9-Feb-07	NONE		Tulsa's Oil History	Helmerich & Payne representative	Research Auction; Spouses Night
8-Mar-07	Water treatment Issues for Cooling Towers	Mike Gulizio; Certified Labs	Airflow and AHU Design	Jeff Forman; Temtrol	Student Activities, Past Presidents, & Golden Circle Night
5-April-07	NONE		Plant Tour Electronic Data Systems Cherokee Center		Plant Tour
18-April-07	NONE		ASHRAE Satellite Broadcast - IAQ	ASHRAE Panel	Satellite Broadcast @ OSU-Tulsa
11-May-06	Proper Application of Valves	Mark Caeser; Crane	Green Design and Sustainability- Indefinable Success in a Defined World	Mitchell Swan, PE	Awards Night; Installation of Officers

# The Oil Capital Air

Northeastern Oklahoma Chapter  
 American Society of Heating Refrigerating and Air-  
 Conditioning Engineers, Inc.  
 P.O. Box 54069  
 Tulsa, OK 74155-0069

Visit our website at  
[www.ashrae-neok.org](http://www.ashrae-neok.org)

## Chapter Volunteers

### Officers:

		Voice	Fax
President	Dave Lam	250-5590	459-0997
President-Elect	Nancy Mack	615-1430	615-1435
Secretary	Dan Owens	250-1414	254-1444
Treasurer	Dan Owens	250-1414	254-1444

### Board of Governors

Robert Allwein		770-5380	
Bill Hanlon		622-1500	835-9992
Mike Beda		664-0312	665-3351
Mike Gulizio		455-1712	451-1596
Steve Uerling		836-0271	836-0275

### Committee Chairs

CRC Delegate	Steve Johnson	270-1414	270-1444
CRC Alternate	Joel Karstetter	665-3974	666-4219

### Committee Chairs (cont.)

Attendance	Scott Pollard	250-5590	459-0997
Directory	Bill Hanlon	622-1500	627-7004
Historian	Bob Allwein	770-5380	
Honors & Awards	Gene L. Redford	834-7000	
Invocations	Paul Roberts	665-6600	627-7004
Membership	Chuck Mayfield	624-1005	624-1006
Newsletter	Nancy Mack	615-1430	615-1435
Technology Transfer	Brian Hamilton	858-0060	858-0061
Programs (Main)	Brian Hamilton	858-0060	858-0061
Programs (Tech)	Keith Browne	258-7460	258-7460
Publicity	Chad Marazas	250-5522	250-5419
Reception	Scott Tucker	258-4059	459-0997
Refrigeration	Mike Guillen	664-0312	665-3351
Resource Promotion	Rob Teis	382-6134	382-6295
Special Events	Jerry Beardslee	587-4747	587-8008
Student Activities	Sam Davis	249-1918	249-9014
TEGA	Jeff Ferguson	877-6000	877-4000
Webmaster	Paul Mannas	664-0312	665-3351

## Calendar of Events

### Important Dates

August 17, 2006 .....	Board of Governors
September 14, 2006 .....	Chapter Golf Tourney
September 21, 2006 .....	Board of Governors
October 12, 2006 .....	Chapter
October 19, 2006 .....	Board of Governors
November 9, 2006 .....	Chapter
November 28, 2006 .....	Board of Governors
December 14, 2006 .....	Chapter
December 21, 2006 .....	Board of Governors
January 11, 2007 .....	Chapter
January 18, 2007 .....	Board of Governors
January 27-31, 2006 .....	ASHRAE Winter Meeting
February 8, 2007 .....	Chapter
February 15, 2007 .....	Board of Governors
March 8, 2007 .....	Chapter
March 15, 2007 .....	Board of Governors
April 5, 2007 .....	Chapter
April 13-15, 2007 .....	CRC
April 19, 2007 .....	Board of Governors
May 10, 2007 .....	Chapter
May 17, 2007 .....	Board of Governors
June 23-27, 2005 .....	Annual Meeting

### Meeting

### Location

Siemens
Clary Fields Golf Club
ABS
Renaissance Hotel
ABS
Renaissance Hotel
ABS
Renaissance Hotel
ABS
Renaissance Hotel
ABS
Dallas, TX
Renaissance Hotel
ABS
Renaissance Hotel
ABS
Plant Tour
Oklahoma City, OK
ABS
Renaissance Hotel
ABS
Long Beach, CA