

# The Central New Yorker

## ASHRAE Newsletter

The CNY Chapter of the American Society of  
Heating, Refrigerating and Air Conditioning Engineers

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## The President's Message

Thanks to Jim O'Hara from Clearwater Systems for presenting in our November meeting. Jim provided an excellent overview of chemical-free water treatment that led to an interesting and though provoking discussion with the membership during the Q&A session.

The holiday season is upon us and that means the annual ASHRAE Holiday party. Many of you may have read in previous newsletters we have moved the party to Saratoga Steaks this year. The restaurant is closer to Syracuse, so the drive will be much shorter than years past. Please plan on coming out to enjoy to the party. Don't forget to bring your spouse or significant other. Please be sure to register by Friday December 7 so we can give the restaurant and accurate headcount. Look to Jim Walker's Program section in this newsletter for the details.

I'm excited to have seen so many new faces at meeting this year in addition to the new members that have joined. I encourage all members to welcome the new faces and make

them feel comfortable at meetings. We need these "fresh faces" to sustain our legacy. As the year draws to a close, please think about your involvement in the chapter and how you can contribute.

I'm pleased to announce we will have an ASHRAE Distinguished Lecturer for the January meeting. Mr. Julian deBuliet from McQuay International will talk to us about School HVAC, which is timely given the amount of planned school activity on our community. This is the first Distinguished Lecturer we've had in some time. In fact, our historian, Paul Britton could not recall the last time we've had one and that says something! Mark your calendar's for January 9 and stay tuned for more details.

Enjoy your holiday season and please plan to attend the party at Saratoga Steaks on December 12.

*Happy Holidays,*

Mark Rabbia  
CNY Chapter President.

<http://centralnewyork.ashraechapters.org/>

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## Historically Speaking

I happened to save my November 2004 hardcopy issue of the Ashrae Journal which was a Special ASRE Centennial Edition. In it was an article titled "Psychrometric Chart Celebrates 100th Anniversary" that looks at the state-of-the-art of psychrometrics prior to 1904 when Willis Carrier produced the first chart and traces the developments from 1904 to 2004. This statement in the article caught my attention: "the demise of the printed psychrometric charts will probably be similar to the demise of the slide rule (replaced by the handheld calculator), and the log-log and other special plotting papers (replaced by the plotting capabilities of spreadsheet software)". It got me thinking about the subjects of counting, calculating and computing, and in particular slide rules, and how they evolved, so I Googled these subjects and found much of interest.

Counting by humans evolved slowly. As late as the eleventh century, British law stated in order for a man to be considered a creditable witness in court, he had to be able to count up to nine. Once counting was developed, a system of recording was needed. A typical instance would be the shepherd who puts one pebble in a bag for every sheep he lets out of the pen in the morning and removes one for every sheep herded back at night. If pebbles are left over after all the sheep are back in the pen, he knows that he has to go back and look for strays. Early calculating was accomplished with the abacus, which had its origin in the Middle East some time during the Middle Ages, and by about 1200 had evolved into the oriental wire and bead type abacus. In the 1600's, John Napier, a Scotchman, invented logarithms which became the basis for the slide rule. Refinements were made to the early logarithms and slide rule designs by many, including James Watt in the late 1700's. After he had set up a steam engine business, he discovered he

needed a device to perform quick calculations concerning the volumes and power levels of various engines.

The big breakthrough for the slide rule came in 1850, when a French artillery officer, Amedee Mannheim, designed a very simple slide rule much like that made by Watt, but added the movable double-sided cursor. The Mannheim "slip stick" was adopted by Europeans for quick calculations, and was imported to America in the 1870's by Keufel and Esser, a Hoboken, NJ instruments company. In the 1890's K & E began manufacturing their own slide rules, but they were not totally accepted in North America until the 20th century. A survey in 1901 reported that only one-half of the engineering schools in America gave any attention at all to the use of the slide rule.

The evolution of the slide rule resulted in many different forms. Some were cylindrical, some were circular, and there was even a slide rule built onto the case of a regular sized wrist watch. The slip stick became a symbol that was often used to represent the advancing technology of the 20th century, which could not have been built without the slide rule.

— **Paul Britton, Chapter Historian**

# December's Meeting

*Happy Holidays everyone!*

December's meeting will be the Christmas Party. This year's dinner party will be held at Saratoga Steaks & Seafood on the Green in Dewitt. Dinner prices are \$37.00 per person with a cash bar.

Dinner choices include Top Sirloin, Filet Mignon, Chicken Breast stuffed with Smoked Ham and Monterey Jack Cheese, Cedar Planked Salmon or Shellfish Jambalaya. A soup appetizer and choice of desserts are included as well. Please see attached menu.

We will meet on December 12 at 6:30 p.m. for social hour and dinner will be served at 7:30 p.m.

Please have your reservations in by Friday December 7 for what's sure to be a great evening. Online reservations can be made at <http://centralnewyork.ashraechapters.org/> or you can call Paul Conte at 487-8791 (pconte@proairplus.com).

Saratoga Steaks & Seafood on the Green is located at the Tecumseh Golf Course in Dewitt near Drumlins at 200 Waring Road, Syracuse 13224. See the Mapquest link.

Next month's meeting will be on School HVAC design with our distinguished guest lecturer Julian R. de Bullet from McQuay International.

Hope to see you there!

Jim Walker

## *Menu choices include:*

*Appetizers:* Beef Barley or French Onion Soup

*Entrees:* Saratoga's "House Cut" Top Sirloin, Charbroiled Filet Mignon, BabyBleu (chicken), Cedar Plank Salmon, Shellfish Jambalaya

*Desserts:* Barry's Big Chocolate Cake, Lemon Mascarpone Cake, French Vanilla Ice Cream, Orange Sherbert, Mile High Ice Cream Pie

## Membership Update

**N**ovember was another big month for us here in Central New York! The local CNY ASHRAE chapter would like to recognize seven new members: Matthew Snyder, Peter Korzeniewski, Patrick Hayes, Donald Middleton, Michael Newtown, John Dannenhoffer and Seth Tyndall. Seth joins us as a student at SUNY Canton from Chaumont, NY. Matthew works for Intertek in Cortland, NY. Peter, Donald and Patrick are all located in Syracuse. They are employees of WMS Sales, Bergmann Associates and M/E Engineering respectively, and Michael and John both join us from the academic sector: Michael is at SUNY Canton, and John is at Syracuse University.

When you see any of our new members please join me in extending them a warm ASHRAE welcome. If you or anyone that you know is interested in joining ASHRAE, please have them sign-up at [www.ashrae.org](http://www.ashrae.org). Or, if they would like to sign-up in person, the local chapter website (<http://centralnewyork.ashraechapters.org>) is a great place to find out meeting times and locations.

**John Tacklyn**  
**ASHRAE Membership Chair**



## ASHRAE ASHRAE Government Affairs Update

*ASHRAE Government Affairs Update* The following information was originally printed in the *ASHRAE Government Affairs e-Mail Updates*.

### **ASHRAE Solicits Applicants for Washington Fellowship, Internship**

The ASHRAE Washington Office is pleased to announce two excellent opportunities for ASHRAE members (one for students and one for professional members):

**W**ashington Internship for Students of Engineering (WISE)-- Each year, outstanding engineering students are selected to spend nine weeks in a special summer program in Washington, D.C. to learn how government officials make decisions on complex technological issues and how engineers can contribute to legislative and regulatory public policy decisions. The WISE Program is ranked as one of the best Internship opportunities in the U.S. by the Princeton Review. The students work under the guidance of a prominent engineering professor who serves as Faculty-Member-in-Residence. Students also interact with and are mentored by representatives of their sponsoring societies. A stipend of \$2,100.00 is provided to cover the Intern's living and travel expenses. Lodging is provided; participants are housed in a dormitory on the campus of George Washington University in the heart of Washington, DC. Applications are due by December 31, 2007. More details on the program are available at <http://www.wise-intern.org/> and <http://www.ashrae.org/advocacy/page/1226>.

**ASHRAE Washington Fellowship**--ASHRAE is sponsoring a one year Federal Fellowship Program known as the ASHRAE Washington Fellowship. This program will enable a selected ASHRAE member to devote a year working within the federal government providing engineering and technical advice to policy makers in either Congress, a Federal Agency (e.g., DOE, DHS, GSA), or the White House Office of Science and Technology Policy. This Fellowship is geared to establish and nurture critical links between federal decision-makers and engineering professionals to support public policy that benefits the well-being of the nation and the planet. Federal Government Fellowships provide a valuable public service to the nation while at the same time providing engineers with a unique opportunity to participate directly in the policy making process. This is an exciting, rewarding, and educational period in their professional careers. This enriching experience enables Fellows to bring back to their employers an insider's perspective on government decision making that can contribute significantly to the mission and vision of the organization. Fellowship candidates should possess a PhD or other terminal degree in an engineering or scientific discipline. Fellowships are a one-year opportunity (September to August). An orienta-

tion will be provided through the American Association for the Advancement of Science (AAAS). A stipend of \$45,000 will be provided. Deadline for applications is May 1, 2008. More details on the program are available at <http://www.ashrae.org/advocacy/page/1227>.

### **Fifteen States Require Utility Energy Savings Targets**

States have accelerated their efforts to reduce energy use by setting mandatory energy savings targets for electric and gas utilities, according to a review released recently by the American Council for an Energy-Efficient Economy (ACEEE). The report found 15 states with such policies in place, up from five states two years ago.

These targets, dubbed "Energy Efficiency Resource Standards" (EERS), set long-term targets that ramp up to major savings. Utilities can meet the targets by offering programs to help their customers conserve energy, and some states credit savings from combined heat and power plants, transmission and distribution system upgrades, and other measures toward the targets.

ACEEE analysis estimates that EERS requirements now in place could reduce national electricity demand by more than one percent per year by 2013. This would be a significant impact, says ACEEE, given that the Annual Energy Outlook of the Energy Information Administration forecasts that national electricity consumption growth will average only 1.5 percent per year from now through 2025.

The participating states are: Vermont, New York, Texas, Minnesota, Illinois, North Carolina, New Jersey, Colorado, California, Connecticut, Hawaii, Nevada, Pennsylvania, Virginia and Washington.

A summary of the review is available on ACEEE's Web site (<http://aceee.org/energy/state/utpolicy.htm>).

### **U.S. Lead in Mechanical Engineering Basic Research Challenged**

Although the United States is among the world's leaders in mechanical engineering basic research, international competition is shrinking that lead, says a new report from the National Research Council. A decline in the number of U.S. citizens seeking advanced mechanical engineering degrees, and questions about whether the nation can continue to attract foreign students, also threaten American dominance in this field.

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# ASHRAE ASHRAE Government Affairs Update

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Mechanical engineering is critical to the design, manufacture, and operation of small and large mechanical systems throughout the U.S. economy. It is often called upon to provide scientific and technological solutions for national problems, playing a key role in the transportation, power generation, advanced manufacturing, and aviation industries, to mention a few.

Much like many other science and engineering disciplines, the field of mechanical engineering is facing issues of identity and purpose as it continues to expand beyond its traditional core into biology, materials science, and nanotechnology. Concerns about educating students, future employment opportunities, and the fundamental health of the discipline and industry are regular topics of discussion in the mechanical engineering community. Before addressing questions of how mechanical engineering must shift to meet future needs, it is imperative to understand its current health and international standing.

The National Research Council report Benchmarking the Competitiveness of the United States in Mechanical Engineering Basic Research highlights the main findings of a benchmarking exercise to rate the standing of U.S. mechanical engineering basic research relative to other regions or countries, key factors that influence U.S. performance in mechanical engineering research, and near and longer-term projections of research leadership.

For a copy of the report see:

[http://books.nap.edu/catalog.php?record\\_id=12055](http://books.nap.edu/catalog.php?record_id=12055).

The CNY Chapter is now accepting business card advertising in this monthly newsletter. Send us your business card (or text for a line card) and we'll scan it in and for \$50 your card will run in the newsletter for the year. Send your ad and payment to:

**ASHRAE Newsletter, Advertising**, P.O. Box 2396, Syracuse, NY 13220

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# Announcing: Regions I, III and V Dinner

The combined Region I, III and V DINNER at the New York City Winter Meeting will be at:

## **Bond 45**

154 West 45th Street,  
New York, N.Y. 10036 (A few feet east of Broadway)  
Phone: 212-869-4545

Sunday, January 20, 2008 (Note new night)

Dinner: 7:00 p.m. Cash Bar

Cost (per Person): \$50.00 (with reservation) *Inclusive of 18% Gratuity. Group is tax-exempt.*

This dinner has limited seating and reservations received after January 13 (including meeting sign ups) are subject to space availability.

If *reservations* are received by January 13, 2008 then cost will be \$50.00. Meeting sign ups (cut off Noon January 20) subject to availability \$55.00.

Make out your check to: *ASHARE Region I Fund*

*Send your check to:* Garry Myers, 73 Bonnie Way, Allendale, NJ 07401

## **Family Style Appetizers**

Platters of Assorted Vegetable Antipasto accompanied by bread and extra virgin olive oil

Pizza Margherita

## **Entree Selections**

Tagliolini alla Checca, fresh baby tomatoes, buffalo mozzarella and basil

Salmone Farcito, stuffed with shrimp, scallops & spinach

Costoletta di Pollo Parmigiana, lightly breaded with fresh tomato & buffalo mozzarella

## **Dessert Selections**

NY Style Strawberry Cheesecake or Tiramisu della Nonna, *marscarpone cream, espresso dipped lady fingers*

## **Coffee and Tea Service**