

Tri-County SUPER HEAT ASHRAE

American Society of Heating, Refrigeration, and Air-Conditioning Engineers

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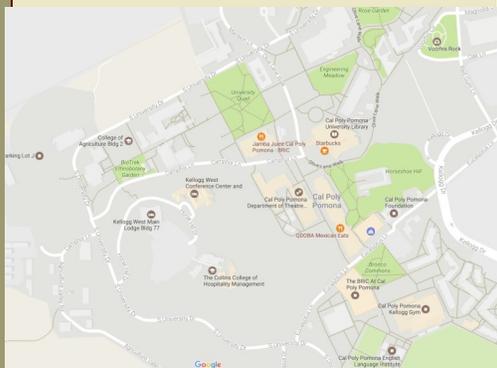


ANSI/ASHRAE Standard 55-2013
(Supersedes ANSI/ASHRAE Standard 55-2010)
Includes ANSI/ASHRAE addenda listed in Appendix M

Thermal Environmental Conditions for Human Occupancy

MEETING INFORMATION

Date: April 18, 2017
Location: Kellogg West Conference Center and Hotel
Address: 3801 W. Temple Ave., Pomona, CA 91768
Social Hour: 6:00-7:00 pm
Dinner/Presentation: 7:00-8:30 pm
Cost: \$45



ASHRAE'S CORE VALUES

As we get set to finish our 2017 Tri-County ASHRAE season, let's take a moment to review ASHRAE's core values...

Excellence

ASHRAE education, technical information and all other activities and products will always reflect the best practices that lead our industry. We strive for continuous improvement and innovation in all our practices and products.

Commitment

ASHRAE and its members are passionate about serving the built environment, creating value, and recognizing the accomplishments of others.

Integrity

ASHRAE is committed to the highest ethical standards. We work transparently, observing essential requirements for due process and peer reviews to assure our members and stakeholders that we do the right things the right way.

Collaboration

ASHRAE seeks and embraces collaborative efforts with organizations, agencies, and individuals sharing our commitment to sustainable built environments.

Volunteerism

Members lead ASHRAE at every level, serving ASHRAE and helping ASHRAE serve society.

NOTE: Statements made in this publication are not the expressions of the Society or of the Tri-County chapter but may not be reproduced without special permission of the Tri-County chapter.

LOCAL BUSINESSES

PLEASE SUPPORT OUR
BUSINESS CARD
ADVERTISERS LOCATED
HERE AND ELSEWHERE IN
THIS PUBLICATION...

**MAKE AN INVESTMENT
IN OUR INDUSTRY'S
FUTURE!**

If you would like to place a
business card ad in Super
Heat for the 2017 Tri-
County ASHRAE season,
please contact

Rich Morrow via e-mail
at...

ashraetricounty@gmail.com

Looking for a unique marketing opportunity?

We've got a deal for you!

**For only \$50 (that's right, only \$50!) you and
many more can see your business card appear on
THIS PAGE of THIS PUBLICATION**

for the 2017 Tri-County ASHRAE season!

**Now that you're interested, send a *.jpg version of
your business card to ashraetricounty@gmail.com
while sending a check for \$50 made out to
Tri-County ASHRAE.**

**We will let you know where to send the check
when you send your business card file to us at the
above e-mail address.**

RICH MORROW
TCSH Editor



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ASHRAE Leaders!

Our Tri-County ASHRAE leaders for the 2017 season are the following:

- Chris Robles** / DMG / President
- Ian Villazana** / ACCO Engineered Systems / President Elect
- Kakeru Fujikawa** / Goss Engineering / Secretary
- Felix Monterroso** / Willdan Energy Solutions / Treasurer
- John Garcia** / RF MacDonald Company / Board Member
- Jaime Lopez** / The Gas Company / Board Member
- Shaw Gentry, PE, CEM** / Goss Engineering / Board Member



NEW MEETING

"High Performance Buildings and Occupant Comfort "

The ASHRAE Tri-County Chapter cordially invites you to attend our next meeting's " High Performance Buildings and Occupant Comfort" hosted at Kellogg West Conference Center and Hotel.

This lecture illustrates that the Predicted Mean Vote/Percentage Persons Dissatisfied (PMV/PPD) can be used to produce optimal designs for several different applications. One application was to evaluate an existing building to provide the owner with information on how to improve occupant comfort and improve building efficiency.

Previous work by Simmonds have shown that the effects on comfort results when varying clothing levels and metabolic rates of occupants is relatively small compared to changes in the engineered variables such as dry bulb temperatures, humidity, air velocity and mean radiant exchange. This lecture will show the results of the design process for each of the buildings explaining the intricacies of each solution and show that the new ASHRAE standard 55 can be used as an effective design and analysis tool for modern designs.

Peter Simmonds has a Bachelor of Science degree in Mechanical Engineering and another in Research and Development from Reading Technical College and a Master's degree from HTS, Den Bosch, The Netherlands and a Ph.D. from T.U. Delft. He has been a member of ASHRAE since 1989.

Dr. Simmonds is a recognized authority in the field of Radiant heating and cooling systems, as well as Thermal Comfort. Publications of his work led to the development of radiant systems in the USA and are included in the ASHRAE Handbooks. He has been involved in the design and development of Passive and Active Beams since 1983 and has designed many systems worldwide.



NEW MEETING

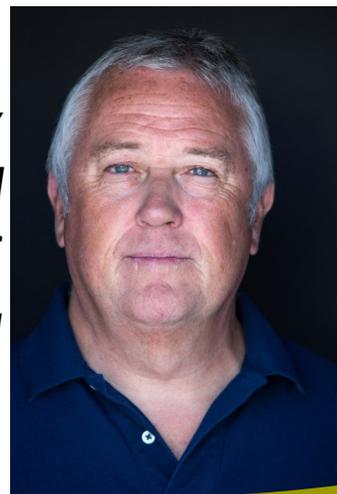
“High Performance Buildings and Occupant Comfort ”

Peter is one of the co-authors of the ASHRAE/REHVA Passive and Active Beam Design Guide. He has been involved in the design and operation of tall, super-tall, and megatall buildings around the world for more than 30 years and has authored the new ASHRAE Design Guide for Tall, Mega Tall and Super Tall Building Systems.

He has received the Carter Bronze Medal from the Chartered Institution of Building Services Engineers in 1993.

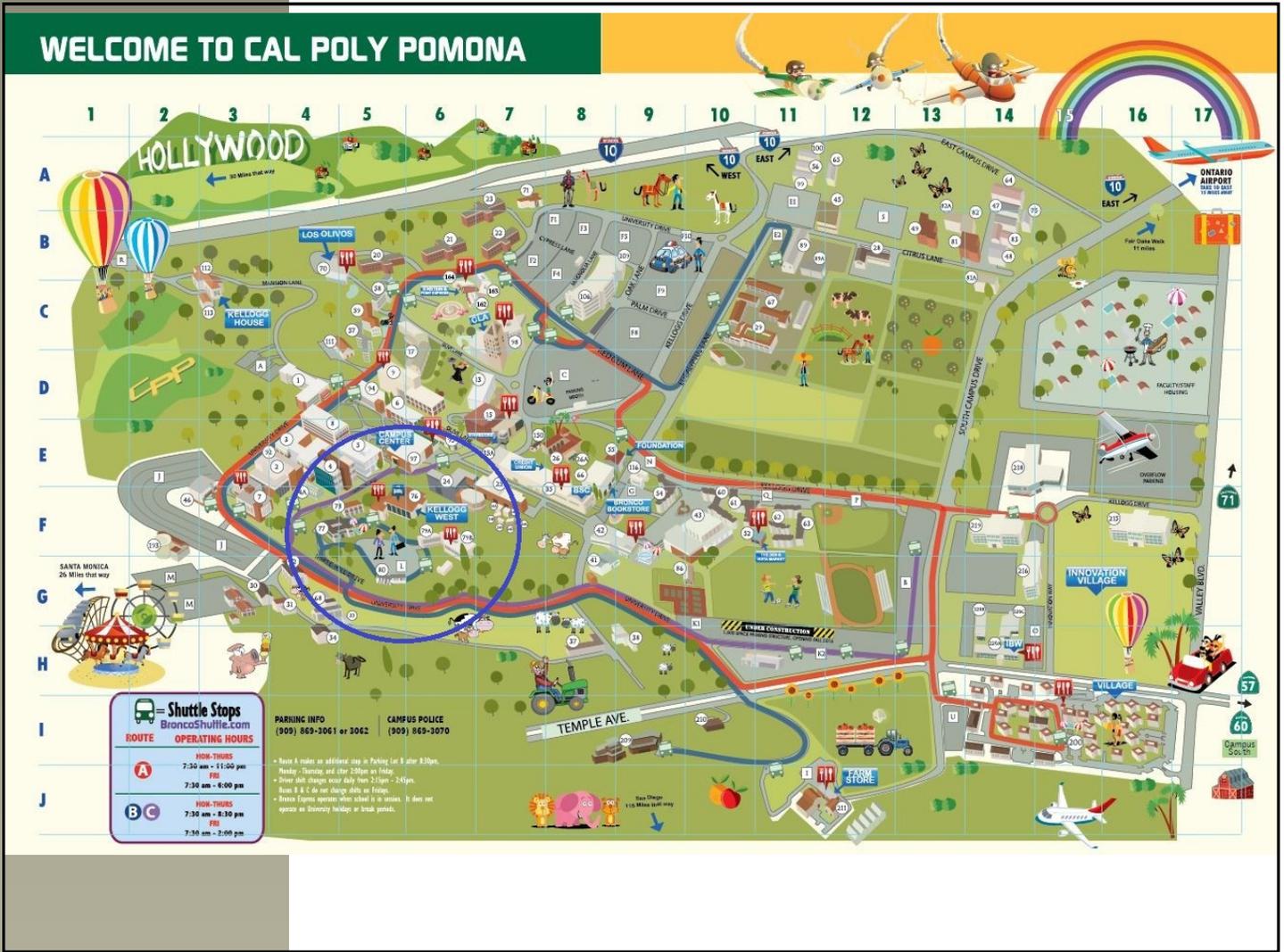
He has authored or co-authored more than 60 technical papers, articles and books He is a member of several ASHRAE Technical Committees and serves on the Standards committee as well as the College of Fellows. Peter teaches Graduate and Post Graduate Architectural students at the University of Southern California and is an ASHRAE Distinguished Lecturer.

***PETER SIMMONDS, Ph.D. ASHRAE Fellow
Managing Director/Principal
Building and Systems Analytics LLC
Marina del Rey, California and Hong Kong***



CAL POLY POMONA CAMPUS MAP

WELCOME TO CAL POLY POMONA



Shuttle Stops	
BroncoShuttle.com	
ROUTE	OPERATING HOURS
A	MON-THURS 7:30 am - 6:00 pm FRI 7:30 am - 6:00 pm
B C	MON-THURS 7:30 am - 8:30 pm FRI 7:30 am - 2:00 pm

PARKING INFO
 (909) 869-3061 or 3062

CAMPUS POLICE
 (909) 869-3070

• Route A makes an additional stop in Parking Lot 8 after 8:30pm.
 • Monday - Thursday and after 2:00pm on Friday.
 • Silver shuttles depart every 15 minutes from 7:30am - 2:00pm.
 • Routes B & C do not depart during school and Friday.
 • Student Express operates when school is in session. It does not operate on University holidays or break periods.

LAST MEETING

"Design—Build and the Standard of Care: Under which Standard? Under whose Care"

As design-build achieves a broader footprint both geographically and by project type, not only are more projects going that way, but there are more ways for that way to go. In this mix is the shifting sands upon which the “custom and practice” of the industry is based – the Standard of Care. The profession, in fact all professions, that operate under a Standard of Care recognize that what was standard at one time can be archaic and outmoded in another. This program looked at one example of a project within the context of a changing standard and some of the issues that can create.

Mitchell Swann, PE, LEED AP has over 30 years of extensive engineering experience on both domestic and international projects in the areas of management consulting and problem solving, engineering design, project and construction management, forensic engineering and construction claims analysis. Mitchell is a licensed Professional Engineer and a US Green Building Council LEED Accredited Professional.

Mitchell’s career includes the analysis, evaluation and design of complex systems across a wide range of industries and buildings types including commercial, institutional and industrial facilities with a special focus on high-tech and critical facilities.



CALL FOR VOLUNTEERS

Call for Volunteers!

Sessions Monitors are needed for Annual Conference June 24-28, 2017! *Earn a discounted conference registration for 4 hours of service (\$395 value)*

The Orange Empire and SoCal Chapters are hosting this Society event next summer and we can use your help staffing the technical sessions. This is a great way to contribute and take advantage of the numerous educational and networking opportunities available.

Sessions monitors (approx. 80 - 100 people needed) will usually work in pairs to host specific meeting locations, assist with ushering guests, maintaining the schedule, and collecting the attendee feedback surveys. Here's the schedule of when we need volunteer help:

- Sunday, June 25th – Morning and Afternoon shifts (8:00am-4:45pm)
- Monday, June 26th – Morning shift only (8:00am-12:00pm)
- Tuesday, June 27th – Morning and Afternoon shifts (8:00am-4:45pm)
- Wednesday, June 28th – Morning shift only (8:00am-12:30pm)

If interested please email Rob Fried at rob_fried@emcorgroup.com or Jeff Conrad at jconrad@accoes.com Specific time assignments will be coordinated and confirmed as we get closer to the event. *Also looking for team captains to help recruit volunteers.*

ASHRAE 2017 Annual Conference

June 24-28, 2017
Long Beach, CA



The 2017 Annual Conference will be held in sunny Long Beach, California! Get your board shorts ready and join us for a long weekend in Long Beach, June 24-28, 2017. Registration is open now at www.ashrae.org/longbeach.

The Long Beach Convention and Entertainment Center will be your one-stop shop for Registration, Bookstore, Speakers Lounge, and the Technical Program. Committee meetings will take place at the Hyatt Regency Long Beach, the Renaissance Long Beach, and the Long Beach Convention and Entertainment Center.

Technical Program

"Recently the building industry has seen a push in net zero energy (NZE) and California is on the forefront as Title 24 will require all new residential construction to be NZE by 2020 and all commercial buildings to be NZE by 2030," Ann Peratt, Conference Chair said. The conference includes tracks that demonstrate the benefits of net zero energy and ways to achieve that goal in the design and operation of buildings.

The fifth annual Research Summit brings together distinguished researchers to present the latest research results on building science and renewable energy and its impact as we move towards NZE buildings.

The conference Technical Program features new tracks that focus on resources to design, build, control, commission and operate these high efficiency facilities:

- Building Life Safety Systems **NEW**
- Commissioning: Optimizing New and Existing Buildings and their Operation Controls **NEW**
- Fundamentals and Applications
- HVAC&R Systems and Equipment
- Net Zero Energy Buildings: The International Race to 2030 **NEW**
- Refrigeration
- Residential Buildings: Standards Guidelines and Codes **NEW**

ASHRAE Learning Institute Courses

ASHRAE Learning Institute (ALI) provides high-quality training presented by industry recognized experts. Choose from full-day professional development seminars and half-day short courses to stay current on new HVAC&R technologies. ALI seminars and courses are approved for renewal of professional engineer and professional architect licenses, as well as for industry certification programs.

For more information, visit www.ashrae.org/longbeachcourses.

REGISTRATION

Early Bird fees from March 1 through May 1

- \$530, member/\$740, non-member
- \$505, first-time member attendee/\$715, first time non-member attendee

Advance fees from May 2 through June 12

- \$555, member/\$765, non-member
- \$530, first-time member attendee/\$740, first-time non-member attendee
- \$145, Life Member

Full registration fees from June 13 through June 28

- \$690, member/\$900, non-member
- \$655, first-time member attendee/\$875, first-time non-member attendee
- \$155, Life Member
- \$270 member one-day fee/\$320 non-member one-day fee

Registration fees for speakers, student branch advisors and students

- \$135, speaker
- \$25, student branch advisor
- \$25, student member/\$55, full-time student non-member

www.ashrae.org/LongBeach



Welcome Party, Aquarium of the Pacific

Saturday, June 24th from 7:00 – 9:00 p.m.
Cost: \$55

Enjoy a cocktail and catch up with old friends with a background of colorful, underwater views as the Conference kicks off with the traditional Welcome Party. The event takes place at the Aquarium of the Pacific, a few walkable blocks from the Hyatt Regency and other partner hotels.

At the Aquarium of the Pacific take a journey of discovery through the world's largest ocean. Meet more than 11,000 animals in over 50 exhibits as you explore the frigid waters of the Northern Pacific and the colorful reefs of the Tropical Pacific. Guests will be greeted by a tropical friend. See and learn more about the energetic and curious sea otters in the Northern Pacific Gallery on the second floor with two, short shows!

President's Luncheon, Hyatt Regency

Monday, June 26 from 12p.m. – 2 p.m.
Cost: \$45

2017-18 ASHRAE President Bjarne W. Olesen, Ph.D., Fellow ASHRAE, Life Member, presents his presidential theme, "Extend", which is based upon the Society goal to "Extend Our Community" found in our Strategic Plan. Together, we can extend our global community, our technological horizons, and our value to Members. Certificates of appreciation to retiring Board members are presented, and the 2017-18 officers and Board of Directors installed.

Life Members Luncheon

Tuesday, June 27 at 12:00 – 1:30 p.m.
Cost: \$35

Enjoy lunch, share ideas about the future of technology and swap memories of the Society while dining with Life Members. This member grade is for members who have completed 30 years of continuous membership and are at least 65 years of age.

Tours

The Long Beach Host Committee has planned some incredible technical and general tours for the Conference. More information is available on the Conference webpage at www.ashrae.org/LongBeach.

ASHRAE Certification

Tuesday, June 27 at 2 p.m.

Already recognized by over 30 national, state and local government bodies – and with over 2,500 certifications earned – ASHRAE certifications increasingly have become the must-have credential for built-environment professionals. Elevate your reputation among peers, in the workplace and among clients with an ASHRAE certification.

To sit for one of these six ASHRAE certification exams on Tuesday, June 27 at 2:00 p.m., apply by June 6 at www.ashrae.org/longbeachexams.

- Building Commissioning Professional (BCxP)
- Building Energy Assessment Professional (BEAP)
- Building Energy Modeling Professional (BEMP)
- High-Performance Building Design Professional (HBDP)
- Healthcare Facility Design Professional (HFDP)
- Operations & Performance Management Professional (OPMP)

Register Now and Learn More at www.ashrae.org/LongBeach.



KEYNOTE SPEAKER:

Derreck Kayongo, CEO of the National Center for Civil and Human Rights, Founder of the Global Soap Project

Derreck Kayongo brings audiences to their feet with his compelling and courageous story of survival, discovery and humanitarianism. From a young Ugandan refugee to a successful entrepreneur, human rights activist, and renowned global health expert, Kayongo galvanizes audiences to seize the power of observation to identify issues, and effectively solve any challenge. With undeniable charm, palpable passion, and endearing wit, Kayongo brings his story and guiding principles to life in emotionally packed presentations that stay with you long after his closing remarks.

Kayongo is the founder of the Global Soap Project, which recycles partially used and discarded bars of soap from thousands of hotels and redistributes it to disadvantaged populations around the world. Since its founding in 2009, the Project has distributed soap to more than 90 countries where close to 2 million lives are claimed each year due to lack of proper hygiene.

Kayongo's experience as a human rights activist, combined with his lifelong commitment to his work and notable rhetorical skills earned him his current role as the CEO at the National Center for Civil and Human Rights. Called a "living embodiment of the Center's mission," Kayongo is elevating the visibility of the Center and expanding its vision beyond its geography.

Recognized with a range of honors and awards for his activism, including as one of CNN's Top 10 Heroes award in 2011, most recently Kayongo was selected by President Jimmy Carter to interview him as part of the National Archives' Amending America Initiative.





Willdan Energy Solutions (WES) is a national leader in energy efficiency. WES's expertise covers building system retrofits, commissioning and retro-commissioning, demonstrations of new technologies, energy efficiency education/outreach, sustainability strategy and local government partnerships.

WES's business is growing and we currently have an opening for a senior level energy efficiency Project Development Engineer in our Anaheim, CA office. The candidate must be able to work in a collaborative environment with our engineering staff, program managers and sales team to develop energy savings solutions and implement efficiency projects for our customers. The candidate must be able to identify efficiency and operational solutions for customers, develop proposals, sell projects, and oversee design and construction. This is a technical leadership role that involves directing entry level engineers, with oversight by senior level engineers.

Requirements:

- Knowledge of mechanical equipment such as motors, pumps, and variable speed drives
- Knowledge of HVAC equipment and systems, such as chillers, cooling towers, air handlers, chilled and hot water loops, and boilers
- Knowledge of energy efficient lighting technology and lighting controls, such as LED, occupancy sensors, day-lighting, etc.
- BS in Mechanical Engineering or related field
- Professional Engineer's license preferred
- Min of 10 years' experience in energy efficiency, facility design/build, HVAC controls and/or performance contracting industry
- Computer proficiency, experience with Windows-based office applications required. Some travel required

If you are interested forward your resume to samoni@willdan.com Attention: Shafi Amoni. Willdan Energy Solutions, 2401 E Katella Ave #300, Anaheim, CA 92806



TTG Engineers is looking for a full-time energetic, organized, and driven Mechanical Engineer in Ontario, California .

TTG Engineers is a leading full-service design engineering firm offering exceptional Structural, Mechanical, Electrical, Plumbing, Fire Protection and Civil design engineering services.

Responsibilities include:

- Analysis, design skills, presenting technical information, equipment, quality and focus.
- Proficient in latest Energy Pro software and other HVAC system calculation software.
- Proficient in Auto CAD & REVIT 2012.
- Prepare Plan Check/OSHPD related documentation.
- Experience with Client Communication required.
- Generate project specific spec's & details
- Ability to work with minimal supervision
- Ability to take lead in multi-discipline coordination.
- Candidate will have excellent oral and written communication skills.
- Site Investigation and Inspection experience preferred.

Requirements

- 10+ years experience in HVAC systems design with institutional, commercial, educational, and healthcare projects.
- Bachelor's Degree in Mechanical Engineering
- California P.E. Professional Registration required
- Knowledge of LEED documentation

If you are interested forward your resume to tkuehl@ttgcorp.com, Attention: Tricia Kuehl. TTG Engineers, 901 Via Piemonte, Suite 400, Ontario, CA 91764

2017 PARTIAL ROSTER

Officers

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Jaime Lopez Southern California Gas — 951-533-1121
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Student Activities	Jim Toda Custom Cooling Company — 909.599.9222
Research Promotion	Joe Sanders Dynamic Engineered Systems, Inc — 951-278-0282
Membership Promotion Co-Chair	Erick Delgado Air Conditioning Specialties Co. — 626.840.9001
Newsletter Editor	Rich Morrow Goss Engineering Inc. — 909.725.2737
Home Page Webmaster / Technology Transfer	Rich Morrow Goss Engineering Inc. — 909.725.2737

Tri-County

SUPER HEAT

CELEBRATING

PLUS

28 YEARS

1989-2017

TRI-COUNTY ASHRAE!

P A S T P R E S I D E N T S

1988-1989	SUKHDEV MATHAUDHU	2015-2016	SHAW GENTRY
1989-1990	SUKHDEV MATHAUDHU		
1990-1991	JEFF LEONARD		
1991-1992	DEL THOMAS		
1992-1993	TONY PIERCE		
1993-1994	GREG MORIN		
1994-1995	TONY HENKEL		
1995-1996	JOHN HAVILAND		
1996-1997	JOEL CARTER		
1997-1998	CHANDRA CHINDE		
1998-1999	JIM TODA		
1999-2000	RICHARD MCLEOD		
2000-2001	KERRY PARKER		
2001-2002	DEBRA CHAVIRA-SMITH		
2002-2003	LUCASHYMAN		
2003-2004	JOE SANDERS		
2004-2005	BOB GASTEL		
2005-2006	ART ANDRES		
2006-2007	JIM PARKER		
2007-2008	KYLE LANDIS		
2008-2009	RICK CREED		
2009-2010	ROBERT MORSE		
2010-2011	TIM HALD		
2011-2012	JAIME LOPEZ		
2012-2013	ERICK DELGADO		
2013-2014	NICOLAS ROSNER		
2014-2015	RYAN RODRIGUEZ		

— journal of the tri-county chapter of the —

American Society of Heating, Refrigerating, and Air Conditioning Engineers

ASHRAE, founded in 1894, is an international organization of 55,000 persons. Its sole objective is to advance through research, standards writing, publishing and continuing education the arts and sciences of heating, ventilation, air conditioning and refrigeration to serve the evolving needs of the public.