

Upcoming Events

Wednesday, February 8, 2017

- Monthly meeting & Engineering night!

Fishing Tournament

- April 29th at Pinchers!

A message from Mr. Richard Brooks, SWFL ASHRAE President

Greetings SWFL Chapter. HAPPY ASHRAE WINTER CONFERENCE!!!

I hope everyone had wonderful visit to the ASHRAE Winter Conference in Las Vegas. Our chapter was well represented. The ASHRAE meetings were held at Cesear’s Palace, (a huge venue). We had a wonderful Region XII dinner on Sunday night. The AHR Expo was also a huge hit. There were vendors and manufacturers from every imaginable component of the HVAC industry. The AHR Expo was located in the Las Vegas Convention Center. It was almost too much to take in.

The society year is a little more than half over. ☺ Our previous meetings this year were very successful. We have been very fortunate to have several Distinguished ASHRAE lecturers. The February meeting also shows signs of being very worthwhile.

February’s meeting will be on the topic of “Magnetic Bearing Compressors” and “Chiller Optimization”. This technology is fast becoming more prevalent. Our guest speaker will be Brett Monteleone of York/Johnson Controls. Please mark your calendar now and plan to attend this very exciting meeting. Bring a friend or coworker, and please RSVP to Joy Milliman asap, (jmilliman@bandiflorida.com).

This month I would like to highlight some of our members on the local chapter level. The President elect is Mr. Ashley Fernandez. He will be President of our local chapter for the 2017-2018 year. Following Ashely as next year’s president will be Kathleen Simpson. We always need more participation. Please plan to volunteer for one of the chapter’s chair positions so that you too can be in the queue. Both Ashley and Kathleen have worked countless hours over many years for our local chapter. Their work is greatly appreciated.

Our next big Research Promotion Fund raiser will be the Fishing Tournament on April 29th 2017 at Pinchers in Cape Coral FL. Details are on our website. Also, sponsorships of the Fishing Tournament are also available on our website. We have tried to make it easy to pay for the sponsorships, so credit cards are now accepted on our website via PayPal.

We are very excited about some upcoming STEM events. Lee County Schools’ STEMtastic Event is Saturday Feb 11th at the Harborview Event Center in Downtown Fort Myers FL . The event is from 10am to 3pm and volunteers are needed. Please plan to volunteer as your schedule allows. Volunteers are always welcomed. It is also a great way to give a little back to the community. Thank you in advance.

Hot off of the press....next year’s CRC, (Chapters Regional Conference), will be moved from Argentina to Panama. There were some hurdles with the Argentina hotels, so we are taking a different course. Our chapter in Panama has offered to take over this event. Mr. Ross Montgomery is also helping in this gigantic effort. This conference will take place around the first week in August. Stayed tuned for more details.

One last thing – Our Chapter is only as strong as its Members. I would encourage all of our Members to come to at least one meeting and bring someone who is not a Member. If you are not currently a Member, consider joining. For those potential new members under 30 years of age, ASHRAE makes it very easy to get started. Ask one of the officers to tell you about the Quick Start Program. New Affiliate Membership dues are only \$52 for the first year. So we are making it EASY to become a member.

Thank you all for your support! Your volunteering efforts are what make our Chapter strong!!!

SWF ASHRAE Chapter Meeting Announcement

- Date:** Wednesday, February 8, 2017
- Location:** HOLIDAY INN AT GULF COAST TOWN CENTER
- Start Time:** 5:30 – 6:45 NETWORKING
6:45 – 8:00 DINNER MEETING AND MAIN PROGRAM
- Cost:** COST: \$35.00 PER ATTENDEE – RESERVATIONS ARE A MUST NO COST FOR COLLEGE STUDENTS WITH A VALID STUDENT I.D. Pre-Pay on our chapter website www.swflashrae.org
RSVP to Joy Milliman @ JMilliman@bandiflorida.com by 12JAN17

Main Program: Magnetic Bearing Chillers & System Optimization

This presentation will cover advancements in centrifugal chiller technology, specifically focused on the application of lubricant free, magnetic bearings. We will discuss how the technology improves efficiency, expands the operating envelope of the chiller and simplifies operation and maintenance.

The second half of the presentation will cover design considerations for optimizing system efficiency. We will discuss how design decisions impact overall system efficiency with a detailed explanation of centrifugal chiller operation.

Guest Speaker: Brett Monteleone

Brett Monteleone is the Regional Sales Manager covering the entire chiller line of business for the Southern United States. In his 13 years with York and JCI, he has held different local and regional positions in Orlando, Jacksonville and now works directly for JCI’s corporate headquarters in Milwaukee, WI. In his current role, he is responsible for the promotion and application of JCI’s entire portfolio of chillers and heat pumps. His career has been specifically focused on overall system optimization and design. He has supported the application of JCI’s chiller offering on projects throughout the USA and abroad in South America, North Africa, the Middle East and the Caribbean. Seawater cooled titanium centrifugal, radiator cooled centrifugal and waterside cascade are just a few of the unique project applications Brett has lead in his career. Brett holds a BSIE from the University of Florida and is a LEED Accredited Professional.

SWF ASHRAE Chapter 2016 to 2017			
President:	Richard Brooks	Newsletter:	Heather Hsi
President Elect:	Ashley Fernandez	Webmaster:	James Martin/Matt Sutkowski
Vice President:	Kathleen Simpson	Sustainability:	Joy Milliman
Secretary:	Joy Milliman	Golf Chair:	Isaac Lima
Treasurer:	Woody Wilson	Fishing Chair:	Shane Vaughn
Research Promotion:	Isaac Lima	Reception:	Sean McGinn/Ryan Olinger
Historian:	James Martin	BOG 1:	Bill Malphus
Membership:	Ashley Fernandez	BOG 2:	John Pennington
CTTC:	Kathleen Simpson	BOG 3:	Jason Hardman
YEA:	Shane Vaughn	BOG 4:	Pat Graef
Student Activities:	Newton Freire		
Programs:	Kathleen Simpson		
Refrigeration:	Kevin Galbraith		
Honors and Awards:	Jason Hardman		
GGAC Chair:	Heather Hsi		

For Chair and Officer contact information, please visit www.SWFLASHRAE.org

CTTC – Article 1 – Kathleen Simpson

Watsco Increases Stake in Carrier Enterprise Joint Venture

The distributor of air conditioning, heating and refrigeration equipment, **Watsco, Inc.** WSO has raised its stake by 10% in Carrier Enterprise Northeast LLC, a joint venture (JV) with Carrier Corporation for about \$43 million. The company now has 70% ownership in Carrier, a leader in high technology heating, air-conditioning and refrigeration solutions. Watsco's shares have gained 4% since the announcement.

Carrier is part of UTC Climate, Controls & Security, a unit of United Technologies Corp. UTX, a leading global provider to aerospace and building systems industries.

The JV has sales of approximately \$500 million in two countries, which includes 43 locations in the northeastern United States and 12 locations in Mexico. It offers a variety of products manufactured by Carrier along with approximately 25,000 other stock keeping units.

The Watsco-Carrier alliance dates back to 2009, when the former entered into a 60:40 JV with Carrier Corporation. The JV was known as Carrier Enterprise I. Carrier contributed 95 of its company-owned locations in 13 Sun Belt states and Puerto Rico, and its export division in Miami and Florida, while Watsco contributed 15 locations that distributed Carrier products. In Jul 2012, Watsco exercised its option to acquire an additional 10%. Further, hiked its interest by 10% in Carrier Enterprise I in Jul 2014. The company's current stake in Carrier Enterprise I is at 80%. Neither Watsco nor Carrier have any option to further increase ownership stake in Carrier Enterprise I.

In 2012, Watsco had formed a third JV (Carrier Enterprise III) with UTC Canada Corporation, an affiliate of Carrier. Carrier contributed 35 of its company-owned locations in Canada to Carrier Enterprise III. The company has 60% controlling interest in Carrier Enterprise III, while UTC Canada has a 40% non-controlling interest.

These JVs not only added new products to Watsco's portfolio, but also marked the company's entry into the international markets with the addition of Latin American and Caribbean sales operations.

Credit: article by eindustry@ashrae.org The HVAC&R Industry, Weekly News – December 29, 2016 Vol. 15 No. 52

ASHRAE Announces Delhi, India as Site for 2017 Developing Economies Conference

ATLANTA – ASHRAE has announced that its second Developing Economies Conference will take place Nov. 10 and 11, 2017, in Delhi, India.

The conference addresses the challenges developing countries face in infrastructure and urbanization as well as air pollution, refrigerant phasedown and lack of trained manpower. “Developing economy countries are in many ways leapfrogging technologies while simultaneously handicapped due to inadequate education and regulations,” Ashish Rakheja, conference chair, said. “At the same time, there is increasingly more new construction and demand on energy sources and a corresponding demand for excellent technical information to cope with these demands.” The conference theme is titled “Trends, Opportunities and Challenges for the Built Environment in Developing Economies.” The presentations and sessions cover aspects of energy efficiency, comfort, indoor air quality, wellness and environmental impact of buildings in developing economy countries as affected by the air-conditioning, heating and ventilating systems for the buildings. Abstracts (400 or less words in length) are due July 7, 2017. For more information or to submit a presentation proposal, visit www.ashrae.org/Developing2017.

ASHRAE Las Vegas 2017 Winter Conference Update - Kevin Galbraith

10 Minute Opportunities for Industrial Refrigeration Efficiency Improvement

On Sunday morning there was a forum for 10 minute ideas for Industrial Refrigeration Efficiency improvement. Tom Wolgamut of DC Engineering spoke of importance in commissioning and the benefit of having the commissioning firms involved in earlier stages. Tom elaborated on various projects. Next John Gallaher of Hill Phoenix spoke about CO2 Trans-critical Refrigeration and how it has been adopted widely in Europe and is beginning to gain traction domestically. Challenges with Trans-Critical systems are efficiency at high temperatures. David Smith of IAR spoke about Ammonia systems. David's message was that Ammonia is the most efficient refrigerant available and is the most known industrial refrigeration system. Andy Pearson of Star Refrigeration spoke about how system operations have changed from having a full-time staff to maintain a plant and the information used versus today's systems being more automated with only personal for emergencies and planned maintenance. Andy spoke of the overwhelming amount of data and the difficulty in managing.

Seminar 64: Research Update on Activities Toward the Safe Use of Low GWP Flammable Refrigerants.

Dr. Xudong Wang of AHRTI spoke of the efforts of various organizations in research of low GWP refrigerants, but did go in depth of the research of AHRTI. AHRTI's research objective is to benchmark risk using by real life leaks and ignitions testing. Current testing is with A2L, A3 refrigerants with projects due for completion in March 2017.

Dr. Kenneth Schultz of Ingersoll Rand discussed Research Project 1806 flammable refrigerant post ignition simulations and risk assessment as well as Research Project 1807 – Guide for handling of flammable refrigeration. The lack of a guide for handling flammable refrigerants has been identified as a need in the industry.

Last Dr. Linteris of National Institute of Standards and Technology (NIST) spoke about specifics of test procedures for calculating flame propagation and burn velocities for flammable refrigerants.

Conference Paper Session 2 - Refrigeration Systems and Low GWP Refrigerants

Dr. Kenneth Schultz of Ingersoll Rand spoke about the properties of R-514A and its use as a replacement for R123 in centrifugal chillers. R-514A is a Binary Azeotropic which means the blend has a single boiling point and no glide. The properties of R-514A are closer to R123 than R123 was to R11 but there is a slight reduction in capacity and COP. R-514A is a Blend of R-1336mzz(Z) and R-1130 which is similar to R123. R-514A is a B1 refrigerant – toxic, R123 is also a B1. The GWP less than 2. Dr. Schultz also mentioned R-1233zd, which requires ASME pressure vessel application due to high pressures.

Next Julie Majurin of Ingersoll Rand presented research on the chemical stability of R-514A and R-1233rd(E). The refrigerants were evaluated for chemical compatibility and stability with exposure to metals (Copper, Aluminum, Steel, and Iron) as well as commonly used oils. The research found better stability with R-514a and R-1233zd compared to R-123.



CTTC – Article 2 Kathleen Simpson

“NASA, NOAA Data Show 2016 Warmest Year on Record Globally”

Earth's 2016 surface temperatures were the warmest since modern recordkeeping began in 1880, according to independent analyses by NASA and the National Oceanic and Atmospheric Administration (NOAA).

Globally-averaged temperatures in 2016 were 1.78 degrees Fahrenheit (0.99 degrees Celsius) warmer than the mid-20th century mean. This makes 2016 the third year in a row to set a new record for global average surface temperatures.

The 2016 temperatures continue a long-term warming trend, according to analyses by scientists at NASA's Goddard Institute for Space Studies (GISS) in New York. NOAA scientists concur with the finding that 2016 was the warmest year on record based on separate, independent analyses of the data.

Because weather station locations and measurement practices change over time, there are uncertainties in the interpretation of specific year-to-year global mean temperature differences. However, even taking this into account, NASA estimates 2016 was the warmest year with greater than 95 percent certainty.

“2016 is remarkably the third record year in a row in this series,” said GISS Director Gavin Schmidt. “We don't expect record years every year, but the ongoing long-term warming trend is clear.”

The planet's average surface temperature has risen about 2.0 degrees Fahrenheit (1.1 degrees Celsius) since the late 19th century, a change driven largely by increased carbon dioxide and other human-made emissions into the atmosphere.

Most of the warming occurred in the past 35 years, with 16 of the 17 warmest years on record occurring since 2001. Not only was 2016 the warmest year on record, but eight of the 12 months that make up the year – from January through September, with the exception of June – were the warmest on record for those respective months. October, November, and December of 2016 were the second warmest of those months on record – in all three cases, behind records set in 2015.

Phenomena such as El Niño or La Niña, which warm or cool the upper tropical Pacific Ocean and cause corresponding variations in global wind and weather patterns, contribute to short-term variations in global average temperature. A warming El Niño event was in effect for most of 2015 and the first third of 2016. Researchers estimate the direct impact of the natural El Niño warming in the tropical Pacific increased the annual global temperature anomaly for 2016 by 0.2 degrees Fahrenheit (0.12 degrees Celsius).

Weather dynamics often affect regional temperatures, so not every region on Earth experienced record average temperatures last year. For example, both NASA and NOAA found the 2016 annual mean temperature for the contiguous 48 United States was the second warmest on record. In contrast, the Arctic experienced its warmest year ever, consistent with record low sea ice found in that region for most of the year.

NASA's analyses incorporate surface temperature measurements from 6,300 weather stations, ship- and buoy-based observations of sea surface temperatures, and temperature measurements from Antarctic research stations. These raw measurements are analyzed using an algorithm that considers the varied spacing of temperature stations around the globe and urban heating effects that could skew the conclusions. The result of these calculations is an estimate of the global average temperature difference from a baseline period of 1951 to 1980.

Credit: article by eindustry@ashrae.org The HVAC&R Industry, Weekly News – January 19, 2017: Vol.16 No.3



PRODUCT SESSION

PRICE CRITICAL CONTROLS

DATE: FEBRUARY 8, 2017, 5:30 PM - 6:45 PM

LOCATION: HOLIDAY INN FORT MYERS AIRPORT AT TOWN CENTER - 9931 INTERSTATE COMMERCE DR.

We would like to invite you to attend a Price Critical Controls Product Session on Wednesday, February 8th from 5:30 pm – 6:45 pm. This session will include a demonstration of our latest room pressure monitors and airflow control devices. The host for this session is Justin Johnson, Sales Manager for Price Critical Controls. Justin has 10 years of experience in the industry and specializes in laboratory and healthcare airflow control devices and systems.

PRICE | **CRITICAL
CONTROLS**



Proudly Invites You To Join Us For Our:

2017

**ANNUAL BACKWATER FISHING
TOURNAMENT**

Saturday April 29th, 2017

\$1,500.00 will be awarded for:

- **Best Team Catch (SNOOK, REDFISH & TROUT) total combined length**

NON-CASH PRIZES will be award for:

- ***SECOND/THIRD place teams (total combined length SNOOK, REDFISH & TROUT)**
- * **LONGEST Tournament fish by LADY ANGLER**
- * **LONGEST Tournament fish by JUNIOR ANLGER**

Entry Fee is \$100.00 per person

Paid entry includes:

Tournament Entry, Tournament T-shirt, Tickets for Drawings, and Awards Dinner

Dinner tickets can be purchased separately for \$25.00 each. Children under 12 years of age are \$10.00 each. Awards dinner will be held at Pinchers at 5:00 PM (located at 5991 Silver King Boulevard, Cape Coral, Florida 33914).

A Mandatory Captain's Meeting will be held Friday April 28th, 2017 @ 6:00 PM at the Islamorada Fish Company Seafood Restaurant in the Bass Pro Shops Fort Myers (located in the Gulf Coast Town Center). **One representative from each Team is required to attend to pick up Rules, Tournament T-shirts and register your vessel!**

***Please direct all questions to: Shane Vaughan via phone at (239) 340-0260,
or e-mail at svaughan@bandiflorida.com***

ASHRAE (American Society of Heating, Refrigerating, and Air-conditioning Engineers), founded in 1894, is an international not-for-profit organization of 53,000 persons. ASHRAE's mission is advancing the art and science of heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education. A portion of Tournament proceeds are donated to ASHRAE research on behalf of the Southwest Florida Chapter.



2017 ANNUAL BACKWATER FISHING TOURNAMENT

Thank you for entering the Annual Southwest Florida Backwater Fishing Tournament hosted by the Southwest Florida Chapter of ASHRAE. The festivities this year will begin on Friday evening April 28th at the Islamorada Fish Company Seafood Restaurant at Bass Pro Shops Fort Myers (located in the Gulf Coast Town Center). The Captains meeting will begin at 6:00 PM, which will be a cash bar social. One member from each fishing team is required to attend to register their boat and to pick up the tournament T-shirts and other information.

Tournament Rules

This is a catch and release tournament

- *1st-3rd Place will be determined by the total combined length of 1 Snook, 1 Redfish & 1 Trout.
1. For scoring, anglers will be required to take a picture of their catch on a tournament provided ruler. Fish must be measured with the tail starting at the zero mark of the ruler.
 2. No fishing before 7:00 AM. Teams may be on the water and catch bait or navigate to fishing holes prior to official 7:00 AM start.
 3. This is an open bait tournament (live or artificial baits may be used).
 4. Anglers are allowed to fish from any location desired.
 5. All boats must stay 50 feet away from other vessels, with the exception of pass fishing, a breakdown or an emergency.
 6. Kayak and canoe teams must stay together and fish from the same locations.
 7. The holding of fishing holes or chumming of holes by another boat is not allowed.
 8. All anglers are required to be at Pinchers no later than **4:00 PM** to produce photographs of fish.
 9. The ASHRAE tournament directors will resolve any disputes or interpretations of the fishing rules during review of fish photographs.
 10. All anglers must be present for any door prizes or awards.
 - 11. All anglers must abide by State and Federal fishing regulations.**
 - 12. All appropriate fishing licenses and/or stamps are the responsibility of each angler.**
 13. All fish must be released alive to constitute a catch.
 14. Have fun and be safe!

Saturday morning April 29th, 2017 is an Honor Start at 7:00AM from anywhere you would like. No lines in the water until 7:00 AM! There is no formal check-in.

The awards dinner will be held at Pinchers (located at 5991 Silver King Boulevard, Cape Coral, Florida 33914) starting at 5:00 PM. The awards, trophies, prize drawings, and raffle will be held during dinner. All Anglers must be present to win!



Southwest Florida Chapter

2017 ANNUAL BACKWATER FISHING TOURNAMENT

Saturday April 29th, 2017

This is your opportunity to participate in sponsoring the states only ASHRAE Backwater Fishing Tournament! All prior backwater fishing events were a huge success. This year we anticipate an even bigger turnout. Please be the first to join our team by sponsoring this event.

A Portion of the Proceeds will be contributed to ASHRAE Research

Medallion sponsorship is as follows:

- Bronze Medallion \$200.00*** *Company logo will be printed on T-shirt*
Silver Medallion \$300.00 *Two paid entry fees, Company logo on T-shirt*
Gold Medallion \$500.00 *Four paid entry fees (transferable to anyone you wish)*
Company Logo on T-shirt and special recognition
~~***Platinum Medallion \$1,000.00*** *Six paid entry fees (transferable to anyone you wish)*~~
~~***Large Company Logo on T-shirt Sleeve, plus special recognition*** **SOLD**~~

Sponsorship Data

Company Name: _____
Address: _____
City/State/Zip: _____
Telephone/Fax: _____
E-mail: _____

Sponsor Level: (Please Circle One)

Bronze (\$200)

Silver (\$300)

Gold (\$500)

Platinum (\$1,000)

Please make checks payable to: Southwest Florida ASHRAE
2701 Prince Street
Fort Myers, FL 33916
Attn: Shane Vaughan

Or you can pay on-line with a credit card @ www.swflashrae.org

ASHRAE is a non-profit organization with Group Tax Exempt Status

All Sponsorship forms and company logos must be sent in no later than March 31, 2017 in order to get the logos on to the shirts!



Southwest Florida Chapter

2017 ANNUAL BACKWATER FISHING TOURNAMENT

Saturday April 29th, 2017

Official Entry Form

Captain Name _____ Shirt Size _____

Team Name _____

Vessel Make _____

Vessel Length _____

Vessel Color _____

ADDITIONAL TEAM MEMBERS

1. _____ Shirt Size _____

2. _____ Shirt Size _____

3. _____ Shirt Size _____

I represent by my signature below that my crew and I will comply with the rules of the Annual Backwater Tournament. We will comply with the guidelines established by the State of Florida pertaining to lengths and limits of fish. I understand that I am responsible for my boat and crew at all times and that my vessel meets the minimum safety requirements set by the State of Florida. I hereby release the Southwest Florida Chapter of ASHRAE, its principals and affiliates from all liability.

CAPTAIN SIGNATURE

DATE

Please return this completed form NO LATER THAN 04/14/2017 to:

Southwest Florida ASHRAE
2701 Prince Street
Fort Myers, FL 33916
Attn: Shane Vaughan

Phone: (239) 340-0260, Fax: (239) 332-5928, or e-mail: svaughan@bandiflorida.com

Please make checks payable to Southwest Florida ASHRAE
Or you can pay on-line with a credit card @ www.swflashrae.org