



The Canaveral Flyer

A Newsletter of the Canaveral Section of ASME International

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Executive Committee Chair

Dan Johnson

Work: 321-729-3686

Home: 321-733-5707

Executive Committee

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Web Page:

<http://www.asme.org/sections/canaveral/index.html>

**REMEMBER OUR
TROOPS!**

Message from the Chair...

Greetings and I hope all is well with you and yours as this letter finds its way to you.

Once again the Canaveral Section of ASME is racing ahead at breakneck speed through all of the activities we have been involved in and offer to our section members. We have had two professional development courses, supported CCTS Space Congress by manning our booth to promote ASME, had another distinguished lecturer speak to our section, had a joint meeting with IEEE, took part in some rock climbing, and managed to elect officers for next year along the way.

We also had our Officers Board Meeting where future plans were laid out for reorganization efforts for next year. Our next Board meeting will be the second week of June to further solidify plans and we will have full briefing in our next newsletter and our or web site. The new organization will consist of more committee involvement so we can give you opportunities to take part in such as K-12 programs through our Education Group, or help set up an upcoming event by involvement with our Programs. If you would like to be the contact person with your company as a focal point for ASME interaction through our Industry Relations then you would be a great help there. The opportunities are boundless and the payback is extraordinary. You pay to be a member of this organization, come get an even greater return on your investment!

Contact one of your Canaveral Section officers or committee members today to find out how you can get more out of your investment in ASME!

Dan Johnson

Preview of Coming Attractions

- ❖ June 17-20 PD Course: Cryogenics Fundamentals
- ❖ June 20 Tour of Harris Customer Briefing Center
- ❖ June 21 Family Get Together Space Coast Stadium for Manatees Game

Please see our web page for further information of these and other events coming up soon.

Rock Climbing Challenge on April 19

You asked for something different, well you got it! A group of 10 of us went to "On The Edge" in West Melbourne to take part in rock climbing. This is a state of the art facility where you and your family can go to learn the process of rock climbing. The walls are made of a composite lay-up material with threaded inserts that allow the owners to move rocks to various locations to increase or decrease the difficulty of the climb. There are spring loaded ropes suspended from the ceiling to provide the required tension on the belt you have tethered to your waste to keep the entire experience very safe. It was a great physical challenge as well as mental one in trying to plan out your climb from your ground vantage point and then have to adapt as you got into it. All who attended had a great time.

Distinguished Lecturer Dr. Carl Zweban on April 22

On the technical side of things we were blessed once again in our section to take part in another Distinguished Lecturer series when we had Dr. Carl Zweban attend last month. About 30 of us met at the Florida Solar Energy Center in Cocoa for barbecue followed by the presentation on advanced uses of composite materials. Dr. Zweban focused on the variety of new composite material that are being used for heat transfer, structural, and automotive applications. The highlight of the presentation was when he showed a video of the Honda Prelude motor manufacturing plant that creates its motor out of an advanced composite casting process.

Thanks to Alan Zakaluk for taking the time to set this meeting up and coordinate with Dr. Zweban to get him to come to our section. Alan also worked with the Florida and West Coast Sections to coordinate this since the good Doctor spoke to all three of our sections during his whirlwind visit. Dr. Zweban also put on a Lunch Time session at Harris GCSD in Palm Bay the week he was here. We had about 30 attend that meeting as well and we got some contact names for some folks who showed an interest in becoming new members.

Once again, if you were not there then you missed out on a great opportunity to not only learn more about this topic but you could get PDH's required to keep your PE License. The opportunities are there for you, you just have to participate.

Joint Meeting with IEEE on May 15

Eight of us met with about twenty IEEE members this last week at Florida Solar Energy Center to hear a Presentation on the use of 3-D CAD tools combined with Digital photos to create installation drawings of facility upgrades at the Cape. The process involves going out on site to take a photo of where say you want to add some new lighting. The team then goes back and creates a 3-D solid model of the new light fixture and conduit to be installed. The 3-D model is imported into Photo shop and aligned to the digital photo. The result is a photo realistic representation of what the installed light will look like. The process had been very successful with reducing the number of requests for information from contractors on how to do the task and where things go.

At the beginning of the meeting we took a moment to recognize our troops overseas and particularly one of our own, Hugh Bain who is still serving our Country in Jordan.

What's Happening at Florida Tech!

Hello fellow Canaveral section members, my name is J.D. VanGilder and I will act as the liaison between the Canaveral section and the student section of Florida Institute of Technology. Starting this Fall, I have plans for several plant tours in the space coast area. I have a tentative schedule to coordinate tours at Harris Corporation's Customer Briefing Center (Melbourne), Hill's Research (West Melbourne), Hydro Aluminum (Rockledge), Rockwell Collins (Melbourne), and possible tours at KSC and Walt Disney World. I also have plans for several speakers to talk about a variety of different subjects from good interviewing and resume skills to mechanism design and the design process.

For the past two years Dan Johnson has done an excellent job coordinating tours, speakers, and events for the student section at FIT. Working with Dr. Laroche and using Dan's contacts and leadership base as a springboard, I hope to serve as a strong link between the two sections.

Professional Development

We have completed two of the three Professional Development Courses we had slated for this year. For the Process Piping Course we had 4 students and held the course at the Hilton in Cocoa Beach. The Bolted Flange class had a total of eight attendees and was held at Hill's Incorporated in West Melbourne. The Next class offered in June will be Cryogenics. See the flyer in this newsletter for more information. Don't miss out on this chance to learn more about this interesting topic, Sign up today!

Space Congress

CCTS sponsored the 40th Annual Space Congress this year and it was held at the Raddison in Cape Canaveral. Our section sponsored a booth in the main exhibit hall where we could promote our society and introduce people to engineering. The event was April 28 – May 2 and consisted of several technical lectures, meet and greet with astronauts and dignitaries, and see what companies are working on up at the Cape. For more information please visit the Space Congress Web site at <http://spacecongress.org/2003>.

Tal Webb, Jack Wiles, and Jim Philips were just some of the volunteers who helped man our booth at this event. Thanks to all who helped out!



Officer Elections

Well the campaigning is over, the debates were challenging, and the process has been completed for this years round of officer elections for your Canaveral Section of ASME. The ballots have been counted and the slate of officers as presented was voted in. And the winners are...

<u>Office</u>	<u>Nominee</u>
Chair	Dan Johnson
Vice Chair	Faye Tomimbang
Treasurer	Ken Cook
Secretary	Will Judd

Since the election there has been a slight change. Faye Tomimbang, who has done a great job as our Treasurer this year, has decided not to take the Vice Chair Role at this time but will continue to be very active in the new organization of our section in leading and supporting Programs. Stephanie Hopper has volunteered and been appointed to take the Vice Chair Role for this upcoming year. In that role she will provide back up support to Dan Johnson in his role as Chair by helping to support programs and make sure we have a successful year.

Thanks in advance for your participation in our organization to make it successful! Contact any of you ASME Canaveral Section officers to find out how you can get more involved.

Treasure Coast S.E.A.

The Treasure coast Seniors Engineering Association held our April meeting at the Council on Aging Conference room in Vero Beach. Our speaker was Dr. John Hagewood from Hill Inc.of Melbourne. Hill designs and manufacturers machines that produce ultra-fine fibers that are used by various manufacturers. These fibers, less than 1 micron in diameter, are used for making textiles, filters, moisture absorbers, insulating material, non-woven fabrics and many other unusual uses. Dr. Hagewood explained how the machines operate and displayed various samples of the fibers and end products.

This meeting was our last one of the season. We have had seven meetings this past season and, judging from the interest of attendees, we feel that we were successful (with help from the Canaveral Section) in bringing something unusual to the community and especially to our senior engineers. See you next Fall.

For further information contact Chair Ed Holden 772-567-6027 (edwholden@aol.com), Frank Iaccarino 772-569-7030, or Maurice Hoyt at hoytmo@aol.com.

Link to Codes and Standards Newsletter

Bob Bosnak submitted a copy of the Codes and Standards Newsletter for us to pass on to our members this month. The text is too voluminous to fit into our publication so we are going to copy it to our web site. Please go to <http://asme.org/sections/canaveral/index.html> to get more information on what is new in Codes and Standards.

CRYOGENICS FUNDAMENTALS

June 17-20, 2003

ASME Canaveral Section Professional Development Course

This course reviews the development of the field of cryogenics along with a presentation of some of the present day low temperature applications. It will familiarize you with the behavior of common engineering materials as well as the behavior of commonly used cryogenic fluids. Illustrations of cryogenic liquefaction systems are featured as are, systems for the production of liquid hydrogen and liquid oxygen. This course will show how the components of air (and in particular, oxygen) may be separated to produce the almost pure liquids. In addition, some techniques which may be used to purify gases are presented.

Learn how to use ASME Code design methods for cryogenic fluid storage vessels (dewars) and piping systems. Review the development of cryogenics, this course gives you in-depth coverage of cryogenics using real world applications.

SPECIAL FEATURE

You will receive a copy of the textbook *Cryogenic Systems*, 2nd Ed., by Randall F. Barron. and comprehensive notes based on course content.

WHO SHOULD ATTEND

Mechanical and Chemical Engineers, who wish to receive an up-to-date overview of the various areas in cryogenic engineering.

COURSE HIGHLIGHTS

- **MATERIAL PROPERTIES AT CRYOGENIC TEMPERATURES**
The behavior of common engineering materials at low temperatures. Selection of proper material for various cryogenic uses Fluid Properties and Behavior of commonly-used cryogenic fluids.
- **GAS LIQUEFACTION SYSTEMS**
Cryogenic liquids production characteristics of various liquefaction systems including systems for the production of liquid hydrogen and liquid oxygen.
- **SEPARATION AND PURIFICATION SYSTEMS**
An examination of how the components of air (and in particular, oxygen) may be separated to produce the almost pure liquids. In addition, techniques used to purify gases are presented. Techniques for the separation of hydrogen are discussed.
- **CRYOGENIC REFRIGERATION SYSTEMS**
A review of the various refrigerators used to maintain low temperatures. some refrigerators used in very low temperature applications, such as cooling in particle accelerators, etc. are also presented.
- **MEASUREMENT SYSTEMS FOR LOW TEMPERATURES**
Techniques used to make measurements at low temperatures, including the measurement of temperature, mass flow rate, and liquid level in containers.
- **CRYOGENIC FLUID STORAGE AND TRANSPORT SYSTEMS**
Design methods used in ASME Code design of cryogenic fluid storage vessels (dewars) and cryogenic piping systems. Special problems, such as two-phase flow and transfer line cool down will be examined.
- **VACUUM TECHNOLOGY**
Examination of the systems used to produce the vacuums used in cryogenic systems. The design techniques for vacuum systems will be illustrated.

ABOUT THE INSTRUCTOR

Randall F. Barron is Professor Emeritus, Mechanical Engineering at Louisiana Tech University. Dr. Barron teaches at the undergraduate and graduate levels in the areas of Thermodynamics, Heat Transfer, Cryogenics, Solar Energy, Acoustics and Heat Exchanger Design. He has also conducted research in the areas of Cryogenics, Heat Transfer and Materials.

4 days/2.8 CEUs/28 PDHs

\$1175 ASME Member/\$1275 Non-Member

Contact Scott Seigel @407-736-7839 or call 1-800-843-2763 to Register.

Class Location: Cocoa Beach Hilton



ASME Canaveral Section

What:

Year End Family Get Together Brevard Manatees vs. Ft. Myers Miracle Fireworks after the Game

(Sponsored by Space Coast Early Intervention Center)

When:

Saturday, June 21 at 7:00 PM

Where :

Space Coast Stadium

Cost:

\$6.00 per person gets you in the gate

Directions to the Stadium:

From the North:

Take I-95 to Exit 195 (Fiske Boulevard), take a left on Fiske Boulevard and follow it around to Space Coast Stadium.

From the South:

Take I-95 to Exit 191 (Wickham Road), take a left on Wickham Road and follow it until Lake Andrew Drive. Take a right on Lake Andrew Drive and follow it to Stadium Parkway. Take a right on Stadium Parkway. Space Coast Stadium will be on your left.

Contact Info and RSVP:

Dan Johnson at 729-3686 or djohns08@harris.com to let us know if you will be there

**American Society of Mechanical Engineers
Canaveral Section
June Industry Tour Event
Harris Corporation
Customer Briefing Center**

What:

- Tour of the Customer Briefing Center
- Facility devoted to show the various products that harris and its divisions offer
- Products range from communications equipment, broadcast equipment used to deliver high definition television signal, fingerprint technology used by law enforcement, and 3-D mapping software just to name a few

When:

Friday, June 20, 2003 from 4:00 to 5:00 PM

Where:

**Harris Corporation
Corporate Headquarters
1600 NASA Boulevard
Melbourne, Florida**

What It Is & Why You Should Come:

- Learn more about a Major Local Company
- Networking opportunity

Contact Information & RSVP:

Dan Johnson (djohns08@harris.com) Phone: 321-729-3686

Directions:

1: Start out going North on I-95 N. 2.62 miles **2:** Take the SR-518/EAU GALLIE BLVD. exit- exit number 183- toward MELBOURNE/INDIAN HARBOUR BCH.. 0.25 miles **3:** Take the ramp toward MELBOURNE/AIRPORT. 0.05 miles **4:** Merge onto FL-518 E/EAU GALLIE BLVD W. 0.67 miles **5:** Turn RIGHT onto SARNO RD. 1.37 miles **6:** Turn RIGHT onto WICKHAM RD N/CR-509. 1.66 miles **7:** Turn LEFT onto NASA BLVD W. 1.39 miles **8:** Turn LEFT onto NASA BLVD W. 1.06 miles **9:** Turn Right onto Harris **10:** Turn Right into first Parking area and go straight. Customer Briefing Center will be straight ahead.

***ASME** is a worldwide engineering society focused on technical, educational and research issues, with 120,000 members including 20,000 students. It conducts one of the world's largest technical publishing operations, holds more than 30 technical conferences each year, and sets many industrial and manufacturing standards.*



**AMERICAN SOCIETY
OF MECHANICAL
ENGINEERS**

CCTS
P.O. Box 245
Cape Canaveral, FL 32920

