



The Canaveral Flyer



A Newsletter of the Canaveral Section of ASME International

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

**DID YOU RENEW
YOUR ASME
MEMBERSHIP?**

Message from the Chair...

Canaveral Section continues to raise the Bar!

We leave February and moved into March with another series of success.

First, the annual CCTS E-Week Banquet had an ASME Distinguished Lecturer as the keynote speaker and we gave out our annual J. Tal Webb Award to honor local Industry contributor in space exploration.

Our section was successful in getting out the word to local high schools on what engineering is all about.

We put on another highly successful professional development program that brought in some very good revenue for our section that will help us fund upcoming events and programs.

All in all not a bad way to keep things moving ever forward for our section. What's next you might ask? Well we have our annual joint dinner meeting with Florida Tech student section coming up the first week in April. Our own Jack Wiles is talking to the folks at the Cape Canaveral Air Station trying to set up a tour for the end of May to visit hat facility and their museum. We have our Regional Administrative Conference (RAC) and Regional Student Conference (RSC) coming up the first weekend in April in Mobile, Alabama and have four of our leadership members heading off to represent the Canaveral Section. We have officer elections for next year on the horizon as well.

As always, we try to offer a variety of activities to draw you, our diverse member base out, so we can grow from one another's experience base. Come on out and get involved and take advantage of being a member of one of the strongest sections in ASME in the entire organization!

Dan Johnson

Mark your Calendars - 2003 Canaveral Section Events

Date	Event	Location	RSVP Date	Contact	Contact Info
April 7 2004	Fla Tech/ Canaveral Section Joint Dinner & Senior Design Presentation	Fla Tech Campus	Mach 31	JD	jvangild@harris.com
May 31 2004		Cape Canaveral	TBA	Jack Wiles	

Please see our web page at <http://www.asme.org/sections/canaveral/index.html> for further information of these and other events coming up soon.

E-Week Huge Success!

We celebrated National Engineers Week this past month here in Brevard and Indian River Counties. One way we took advantage of this national event on a local basis was to go out and visit the local schools. **Stephanie Hopper** did an outstanding job at once again organizing the event for us this year. We had 20 volunteers go out and speak to high schools in the area and speak to math and science students to let them know about engineering and where they fit into its future.

I was lucky enough to be able to spend an afternoon at Palm Bay high school and got to talk to three classes or a total of about 60 students. I told them about what I do at Harris, showed a 10 minute video about engineering fields, answered questions, and had time for a "hands on" group activity. The students were genuinely interested, asked good questions, and had fun in the team project I had them do.

Taking time out of you day to go visit a school is a tremendous experience. Not only is it fun to speak to the kids and brag a little bit about your career choice, but you get to possibly make a difference in a young persons life. If you get that young person thinking about becoming an engineer then you not only enhance their life by the potential that choice will make for them personally, but you also enhance and grow our base of engineer problem solvers. It is defiantly a WIN-WIN scenario. If you did not volunteer this year then please give it some thought and get out there and make a difference in a young persons life the next time the opportunity comes around!

Dan Johnson

A17.1 & 17.2 CANAVERAL ELEVATOR COURSES A SUCCESS!

Once again the Canaveral Section attempts what would seem unpractical and succeeds. Elevator courses in Brevard County? Who would enroll? Not me? We had 18 students from as far away as California and New York travel to participate in the elevator maintenance and safety courses including a few from NASA and the Air Force.

The proceeds from these courses:

1. Fund the Jack Wiles Scholarship (\$500 or more)
 2. Fund Section Activities for the Year
 - a. Space Congress
 - b. Engineers Week Activities
 - c. K-12 activities throughout the year
 - d. Newsletter printings and mailings
 - e. Awards banquet every January
 - f. Meal subsidies at dinner meetings
 3. Fund travel for additional personnel to the Regional Administrative Conference (RAC) in Mobile Alabama (April 1-3) and to the August Professional Leadership Seminar (PLS) in Georgia
 4. Fund Travel for Canaveral Officers to the Summer & Winter Meetings, when necessary.
- STEPHANIE HOPPER EARNED A TOP ASME AWARD THIS PAST YEAR!**

As you can understand, all the money we earn is put right back into our Section, our Community, and our Neighborhoods. We invest time & money back into our Officers, Children and Schools. WE ARE THE NUMBER 1 SECTION IN THE SOUTHEAST UNITED STATES 4 CONSECUTIVE YEARS! What is keeping you from being a neighborhood ASME Canaveral volunteer?

Scott Seigel

What's happening at Florida Tech

We are in the midst of planning out annual joint dinner meeting between the Canaveral Section and the Florida Tech Student Section. This year the event will be held on Wednesday, April 7 starting at 6:30. It will be upstairs in the Hartley Room of the Student Union Building. This will give us a chance to visit with the students and see what they have been working on as part of their senior design projects. This year we will have at least three teams again telling us about their projects. Sign up today by **contacting JD Van Gilder** at the contact information below.

To get in contact with the Florida Tech Student Section please do not hesitate to contact Student Section Advisor **JD Van Gilder** at jvangild@harris.com

Brain Teaser

Well this last month I tried to make the brain teaser question a little tougher but still managed to get 5 people who came up with the right answer. Congratulations to **Allan Torsney, Bill Imre, David Wadzinski, JD Van Gilder** and **Jim Elmore** for getting it correct! Here is the solution to last months question if you missed it.

Solution:

It is important to note that $\text{Mass} = \text{Density} \times \text{Volume}$; and $\text{Volume of model} / \text{Volume of miniature} = (H \text{ of model} / H \text{ of miniature})^3$

In the above equation, H is the characteristic dimension (say, height).

If the mass is to be the same, then density is inversely proportional to volume. Also, the volumes are directly proportional to the cubes of the heights for objects that are geometrically similar. Therefore, the heights are seen to be inversely proportional to the cube roots of the densities.

Thus, $\text{Height of model} = \text{Height of miniature} \times (\text{Density of miniature} / \text{Density of model})^{1/3}$ or
 $\text{Height of model} = 4 \times [10^{1/3}] = 8.62 \text{ inches}$.

Take a look at the question below and give it a shot. Submit your answer to Dan Johnson at dan.johnson@harris.com and he will let you know how you did. At the end of the year we give a gift certificate out to the person who has received the most points for correct answers.

The distance between Station Atena and Station Barcena is 84 miles. A train starts from Atena towards Barcena. A bird starts at the same time from Barcena straight towards the moving train. On reaching the train, it instantaneously turns back and returns to Barcena. The bird makes these journeys from Barcena to the train and back to Barcena continuously till the train reaches Barcena. The bird finally returns to Barcena and rests. Calculate the total distance in miles the bird travels in the following two cases:

- (a) the bird flies at 80 miles per hour and the speed of the train is 60 miles per hour
- (b) the bird flies at 60 miles per hour and the speed of the train is 80 miles per hour

Good luck!

Treasure Coast SEA

Treasure Coast Senior Engineering Association will be holding their march meeting this Friday (Sorry for the late notice). The speaker will be Mr. Larry Raisor and his topic will be "The Florida Grid and it's Reliability against a Massive Blackout.

The location for the meeting will be the Council on Aging Conference room at 688 14th Street Vero Beach and will start at 10:00am.

The program is open to the public and this topic should interest anyone who uses electricity in Florida. For further information contact Kelly Mather at 589-6287.

CCTS E-Week Banquet and Distinguished Lecturer Extravaganza

The Annual CCTS E-Week banquet was a success again this year thanks to the **Tal Webb** for stepping up to organize the event!

Well over 100 engineers and their guests attending the dinner held again this year at the Holiday Inn in Cocoa Beach. The guest speaker was an ASME Distinguished lecturer, Dr. Adams, who spoke on the flight dynamics of golf balls. It was a fun and interactive presentation that got a lot of questions and follow up discussion after the meeting. There is a copy of Dr. Adams presentation and spreadsheets available on our web page or by contacting either **Alan Zakaluk** or **Dan Johnson**.

We also gave out our annual J. Tal Webb Award again this year at the meeting. The award was established in 1993 in recognition of diligent service and unselfish devotion in support of the space program. The award is given to senior managers and technical directors with a minimum of ten years contribution to the space program. This year's recipient was Bruce Melnick, Vice President for Boeing Florida Operations, which is part of the Boeing Integrated Defense Systems group and provides a variety of support services to Boeing programs in the state and has approximately 2,400 employees locally.

Prior to joining Boeing (McDonnell Douglas at the time), Melnick was Vice President of Shuttle Engineering at United Space Alliance, formerly Lockheed Martin Space Operations, from 1994 to 1996. From 1992 to 1994, he was Director of Process Improvement Technology at Lockheed Space Operations Company.

During 1987-1992, he served in NASA's astronaut corps and flew as a mission specialist on the Shuttle Discovery STS-41 in 1990 when the Ulysses spacecraft was deployed. He served as a flight engineer on STS-49 in 1992, which was the first flight of the Shuttle Endeavour. During that mission, astronauts retrieved and reboosted the Intelsat VI satellite into its originally intended orbit. He has logged more than 300 hours in space.

During his 20-year career with the U.S. Coast Guard, Melnick's assignments included serving as operations officer and chief test pilot at the Coast Guard Aircraft Program Office in Grand Prairie, Texas. In that capacity, he conducted most of the developmental and all of the acceptance test flights for the HH-65 helicopter, including sea trials, and wrote the HH-65 flight manual. During his Coast Guard service, Melnick received numerous awards, including two Department of Defense Distinguished Service Medals, two Distinguished Flying Crosses and the Secretary of Transportation Heroism Award. In 1992, he received the U.S. Coast Guard Academy Distinguished Alumni Award, and in August 2000 was inducted into the United Coast Guard Aviation Hall of Fame.

Melnick received a master's degree in aeronautical systems from the University of West Florida and a bachelor's degree in engineering with honors from the U.S. Coast Guard Academy.

Bruce was unable to attend the Banquet so Roy Tharpe of Boeing was there to accept the award in his place. Congratulations to Bruce Melnick on his receipt of this award!

Dan Johnson

Thumbnail Bio

This month's thumbnail biography is about Marvin Yarosh, a long-time Fellow Member of the Canaveral Section. Marv just passed away after a very long and painful illness on March 6th of this year.

Marv's pre-retirement career began in Education teaching ME courses for four years. He then moved to the newly emerging nuclear field where he started as a design engineer. He advanced quickly to positions of increasing responsibility and national leadership before moving into the field of solar and alternative energy conversion and conservation.

His career in nuclear energy included 19 years as a member of the Senior Staff of Oak Ridge National Laboratory that included a variety of high-level interactions with the AEC and its Australian counterpart, as well as the President's Office of Science and Technology and the Ford Foundation. In 1973, at the request of Governor Askew's office, he took what he thought would be a two-year leave of absence to help Florida develop a long-term energy policy. In his new position Marv moved quickly to lay the groundwork for the establishment of the Florida Solar Energy Center, and then became one of Center's original staff members. During his 13 years as second-in-command, the Center became widely recognized as one of the world's leading research, testing and training centers in its field.

Marv got his BS from the University of Minnesota and MS ME from the University of Pennsylvania. One of his closest friends for much of his life was Dr. Goldstein, a past National President of ASME. Dr. Goldstein wrote a beautiful letter which was read at Marv's service. I believe all who attended would agree it was truly outstanding. If any of you would like to read it, I think Mrs. Yarosh would let me make a copy for you. Just let me know.

Jack Wiles

The ASME Email Alias – Now With Virus Scanning!

Were you bombarded with unusual emails last month? MyDoomA, also known as Novarg or Shimgapi, emerged last month in the form of a spam e-mail message that contained a well-disguised virus attachment. MyDoomA has been described as the most damaging attack since last summer's twin Blaster and SoBig outbreaks.

ASME has upgraded its anti-spam service to include virus scanning. All mail sent to your @asme.org email alias will first be scanned for viruses using McAfee, a leading provider of anti-virus software. Suspected virus-infected and spam emails are quarantined in Postini's inbox, where you can view, delete, or forward these messages to your inbox.

ASME has contracted these services from Postini, a leading provider of email security services, in response to the growing problem of unsolicited and virus-infected messages. Such services can cost as much as \$30 per year, but are available to ASME members for free!

Only addresses with the @asme.org domain can be registered for this service. If you are currently using the alias system, then you have already been activated. To create your ASME email alias, visit the "Members Only" site at www.asme.org. Shortly after your alias has been established, you will receive your Postini account information and temporary password.

To learn more about ASME's virus-scanning and spam-filtering services, visit <http://www.asme.org/email/>.

Manage Transition with Ease: E-mentoring

Access a network of practicing engineers right from your computer!

Ask career questions, get a real-world perspective on day-to-day issues in the workplace and learn more about other career alternatives. A mentor can help you get the right training, find the right niche in mechanical engineering, and help you transition more easily into the working world.

There are over 300 Mentors from various backgrounds: Aerospace, Biomechanics, Design Engineering, Petroleum, Power, Pressure Vessels & Piping, Nuclear Engineering, Process Industries, Engineering Sales & Marketing and more.

E-mentoring is available to all ASME members with five years or less work experience in the engineering field. So sign-up for a Mentor today! <https://secure.asme.org/signin/ementoring.cfm>

Contribute to METoday

Share your work/life experiences, expertise and/or lessons learned through the process of building your career. We are looking for non-technical career focused articles and/or ideas geared towards Early Career professionals.

Submit proposals to youngengineers@asme.org or mail/fax to: ASME, Attn: Cheryl Hasan, Three Park Avenue, New York, NY 10016 or (212) 591-8239, (212) 591-7437.

South Carolina and Pressure Vessel Law

Did you know that South Carolina is the only jurisdiction in North America without a Boiler and Pressure Vessel Law. Here is a new web site: <http://sc4safety.org/> . ASME and the National Board worked on it.

ASME is still making a difference today by staying active in one of the things that got us our start way back in 1880! Thanks to **Bob Bosnak** for submitting this information!

Links to Useful Websites

Southern Field Office

<http://www.asme.org/regions/sro/>

Region XI Home Page

<http://www.asme-xi.org/>

ASME International Home Page

<http://www.asme.org/>

Canaveral Council of Technical Societies (CCTS)

<http://www.canaveraacts.org/>

More 2003 Mechanical Engineering Income Data

Participants in the 2003 survey of income in mechanical engineering, sponsored by the American Society of Mechanical Engineers, earned most in the Pacific States (a median total cash compensation of \$88,000) and least in the North Central States (\$76,000). Falling between these two regions were:

- Southwestern States ... \$87,000
- Mountain States ... \$83,558
- Northeastern States ... \$83,000
- Southern States ... \$81,500
- Midwestern States ... \$79,000

By metropolitan area, income was highest in the following five metropolitan areas:

- San Jose, CA ... \$105,400
- San Gabriel Valley (Pasadena, CA area) ... \$102,000
- San Francisco, CA ... \$100,500
- Orange County (Anaheim/Irvine, CA area) ... \$100,000
- Albuquerque, NM ... \$98,850

The complete report provides pay data by state and for an additional 160+ metropolitan areas. By industry, income was highest in the following five milieu:

- Financial organizations ... \$103,000
- Independent consultancies ... \$97,235
- Cosmetics/toiletries manufacturers ... \$96,400
- Petroleum/coal/natural gas extraction & refining ... \$96,000
- Pipeline utilities ... \$93,760

The complete report covers an additional 50+ industries. By primary job function, the highest incomes went to mechanical engineers working in:

- General or corporate management ... \$116,000
- Consulting ... \$91,095
- Basic research & development ... \$88,000
- Education ... \$85,000
- Systems Design ... \$84,000
- Operations and/or maintenance ... \$82,314
- Equipment design (for in-plant use) ... \$78,095
- Testing/reliability assurance/quality control/standards ... \$76,025
- Product design ... \$75,000
- Production engineering/processing/manufacturing ... \$74,000

As might be expected, mechanical engineering income was strongly correlated with level of education. In only one case did the rank of level of education fail to match the rank of income.

- Doctoral degree ... \$95,824
- Masters degree ... \$90,000
- College attendance (no degree) ... \$80,000
- Dual Bachelor degrees ... \$79,431
- Bachelor degree ... \$74,500
- Associate degree ... \$74,300
- Trade/technical school diploma - \$73,250

High school diploma - \$70,850

"Compensation in Mechanical Engineering - 2003", which has just been published, reports the base salaries, other cash compensation, and total cash compensation of 8,812 members of ASME. Additional information from this unique publication will appear in brief articles in ASME periodicals. In addition, income data based on experience, principal engineering specialty, supervisory responsibility, and registration status will be provided in another e-mail early next year.

Obviously, the contents of a tightly-packed, 579-page report cannot easily be 'squeezed' into a few e-mails or magazine articles. For salary administration purposes, the entire report is necessary, especially the cross-tabs of pay data by job title vs. each demographic variable.

Additional information about the survey report is available starting at the following link:

<http://www.abbott-langer.com/asmesumm.html?pn02>

You or your employer can obtain this new report for the standard price of \$395.00. It is an invaluable tool for determining the right pay for 40 well-defined benchmark jobs - ranging from President and University Department Head to Junior Engineers, Junior Researchers, and College Instructors (9-10 month appointment).



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