In this SWE Space Coast Newsletter Edition:

- Don’t miss our next Book Club meeting on November 17th!
- See a picture recap of our Last meeting at the shooting range
- Don’t forget to submit your travel photos for our newest feature…Travel Bug.
- Read some impressive achievements from our own members!
- Learn 7 things to tell an interviewer.
- Discover the 5 biggest Investing Errors
- Learn some interesting exercise benefits ‘Health Galore’
- Plus more!!!
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### Space Coast Section 2008-2009 Events Calendar

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<td>November 6-8</td>
<td>SWE National Conference</td>
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<td>December</td>
<td>Book Club/ Christmas Party: “How Mrs. Claus Saved Christmas”</td>
<td>Lori McPherson’s house</td>
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<td>Sat, January 24 or 31</td>
<td>Introducing Girls to Engineering</td>
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Check the website ([http://www.swe-sc.org](http://www.swe-sc.org)) for the latest details and update.
SWE-SC Book Club

Our next Book Club Meeting will be on Sunday, November 17th.

We will be discussing *The Secret Life of Bees* by Sue Monk Kidd. This book is being made into a movie starring Queen Latifah - but we'll sure you'll want to read the complete book first! We'll be meeting at Susan Floyd's home at 5165 S. Tropical Trail, Merritt Island. RSVP to Susan at: susan.l.floyd@boeing.ksc.nasa.gov if you plan to attend. Phone: 453-0327

*This debut features a hive's worth of appealing female characters, an offbeat plot and a lovely style. It's 1964, the year of the Civil Rights Act, in Sylvan, S.C. Fourteen-year-old Lily is on the lam with motherly servant Rosaleen, fleeing both Lily’s abusive father T. Ray and the police who battered Rosaleen for defending her new right to vote. Lily is also fleeing memories, particularly her jumbled recollection of how, as a frightened four-year-old, she accidentally shot and killed her mother during a fight with T. Ray. Among her mother’s possessions, Lily finds a picture of a black Virgin Mary with "Tiburon, S.C." on the back so, blindly, she and Rosaleen head there. It turns out that the town is headquarters of Black Madonna Honey, produced by three middle-aged black sisters, August, June and May Boatwright. The "Calendar sisters" take in the fugitives, putting Lily to work in the honey house, where for the first time in years she's happy. But August, clearly the queen bee of the Boatwrights, keeps asking Lily searching questions. Faced with so ideally maternal a figure as August, most girls would babble uncontrollably. But Lily is a budding writer, desperate to connect yet fiercely protective of her secret interior life. Kidd's success at capturing the moody adolescent girl's voice makes her ambivalence comprehensible and charming. And it's deeply satisfying when August teaches Lily to "find the mother in (herself)" a soothing lesson that should charm female readers of all ages.*
Our December Book Club Meeting will be on Sunday, December 7\textsuperscript{th}.

We will be discussing *How Mrs. Claus saved Christmas* by Jeff Guinn. This is a light Christmas read you can enjoy over the Thanksgiving Holidays. This meeting will be held at the home of Nan Joi Cummings in Viera: 5881 Herons Landing Drive, Viera RSVP to Nan-Joi at kimchee@cfl.rr.com if you plan to attend. Phone: 504-0596

It’s 1620 and Mrs. Claus’s dear husband is off in the New World planting the seeds of what will become a glorious Christmas tradition. Meanwhile, Mrs. Claus has chosen to stay in England, where the first signs of a dangerous threat to Yuletide cheer are in evidence. The Puritans have gained control of Parliament and appear determined to take all the fun out of Christmas. But Mrs. Claus knows that it’s time for serious action when, in 1647, a law is passed by Parliament that actually punishes anyone who celebrates Christmas. Using as its springboard the actual events of a day in 1647 when ten thousand peasants marched through the streets of Canterbury demanding their right to celebrate a beloved holiday, *How Mrs. Claus Saved Christmas* is rich in historical detail, adventure, and plain ol’ Christmas fun.
October Meeting Recap

An interactive section meeting was held on October 29, 2008 in the Titusville Shooting Range. Here is a photo recap of the event.
Engineering Crossword Puzzle

ACROSS
1. Part of a directive antenna that derives energy from mutual coupling with the driven element, 2 wds., pl.
8. One frequency product of a mixer
9. Logic gates
10. The “A” in ACS, maker of the LINC2 circuit simulator
15. Foot/12
17. High power density battery chemistry, abbr.
19. Denominator component of transfer function, pl.
20. Prefix meaning magnetic
22. Network department, abbr.
23. Common Gateway Interface
24. Chemical symbol for selenium
25. Data conversion device, abbr., pl.
27. Lag in a synchronous motor
30. What epoxy needs to do to harden
31. A receiver specification, abbr.
32. Chemical symbol for chlorine
34. Unit of signal reflection measurement, abbr.
35. Greek symbol
36. Generated an official engineering change document
39. Material used in the center of an inductor coil, pl.
41. Logic family
42. Length times width
43. Solder-type termination for coaxial cable shield, abbr.
44. Push To Talk
46. Voltage-current phase mnemonic
48. Highest frequency at which a vertically incident radio wave will return from the ionosphere, 2 wds.

DOWN
2. Type of flip-flop
3. Relating to sound
4. Surface Mount
5. Chemical symbol for molybdenum
6. The "E" in BER
7. Unit of time, abbr.
10. Advanced Communication Technologies and Services
11. Personal Handy Phone System
12. Along the longest side
13. 30 Hz to 300 Hz
14. Thread cutting tools
16. Noise source and measurement company in Parsippany, NJ
18. Physical quantity defined as force per unit area
19. RF design consultant in Rochester, NY
21. Insulating layer in IC fabrication, pl.
25. Type of current flow
26. Chemical symbol for chromium
28. 30 kHz to 300 kHz
29. Chemical symbol for praseodymium
32. Chemical symbol for chlorine
34. Unit of signal reflection measurement, abbr.
35. Greek symbol
36. Generated an official engineering change document
39. Material used in the center of an inductor coil, pl.
41. Logic family
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Meet & Greet

Name: Amanda C. Muller, Ph.D

Workplace... Northrop Grumman Integrated Systems

Profession... Systems Engineer specializing in Human-Systems Integration (HSI)

Work Description... I am one of two HSI engineers at the Northrop Grumman Melbourne facility. I'm supporting the Enhanced Land/Maritime Mode upgrade to the Joint STARS aircraft. I'm also beginning an internal research and development effort to test and evaluate unique human-centered flight instrumentation. No matter what project I'm working on, my job centers around designing systems that don't just accommodate the human user, but are designed with the human user as an integral system component.

How many years as a SWE member... I joined SWE when I moved to Florida in 2006. I wasn't a member in college or graduate school because I was under the mistaken impression that it was a male-bashing club! I'm grateful for the opportunities that SWE has provided me in the past two and a half years– outreach, networking, volunteering, professional development, and FUN!

Tell us a little about yourself... I was a varsity track and field athlete in college (high jump, 100m hurdles, and the 4x100m relay), and switched to triathlons in graduate school. Since then I've competed in numerous triathlons every year. I prefer the sprint distance, but have competed in longer races as well. I have been married for four years to my wonderful husband, Paul, who is a Captain in the United States Air Force. We have two furry children-- Sadie (dog) and Curie (cat). I also enjoy reading and scrap booking. My biggest vice is reality television--I love *Dancing with the Stars*, *Project Runway*, *Top Chef*, and *American Idol!*

Message to SWE Members...
Take advantage of all the fun activities that SWE has to offer! I especially enjoy the book club--we always have such great discussions.
The SWE-SC Newsletter presents:

New!!!

Travel Bug

Our newest section where your pictures are the stars!

We want to know where our members have been. Where are they going? What fun things are they up to? Send us your pictures along with a caption of picture content and your picture could be featured in a future edition of Travel Bug. To shy to submit a pic of yourself? Show us your family or a scenic shot! So take out those cameras and start snapping away!

Send your pictures to Ivette @ ivette.rivera-1@nasa.gov
Travel Bug

What did you do this summer? Send us your pictures!

Carol Bacque & her mom went to Italy to celebrate finishing her Masters Degree in Science and snapped this picture in Positano, Italy.
SWE-SC Member Achievements

On October 5th, Elizabeth Maas & Amanda Muller participated in a triathlon & both won first place in the Athena division. Elizabeth won the Olympic distance race & Amanda the Sprint distance race.

Congratulations to Amanda & Elizabeth for a job well done!

Amanda:  
400-meter swim: 9:35  
Transition 1: 2:15  
15.9-mile bike: 54:41  
Transition 2: 1:05  
3.1-mile run: 31:13  
Total: 1:38:46

Elizabeth:  
1500-meter swim: 26:19  
Transition 1: 4:30  
24.8-mile bike: 1:28:22  
Transition 2: 3:00  
6.2-mile run: 58:06  
Total: 3:00:16

Here in the SWE Space Coast Section, we take pride in celebrating our member’s achievements. Let us know your accomplishments and they could get posted in a future edition of the SWE-SC Newsletter! Send to Ivette @ ivette.rivera-1@nasa.gov.
November 1972

Pong, the first video game for the home market was introduced by Atari Inc. 36 years ago this month. Pong was based on ping pong. While Pong is often regarded as the world’s first video arcade game, Computer Space was developed by Nutting Associates a year earlier in 1971. The complicated Computer Space didn’t catch on, but Pong was widely adopted both in arcades and by home users. Pong was the game that launched the initial boom in the video game industry. Three months after its debut, Atari had sold 8,000 to 10,000 units to arcades. The first home consoles were released during Christmas of 1975 for $100. By the late 1970s, Pong’s popularity was eclipsed by more the sophisticated games, Pac-Man and Space Invaders.
Engineering Marvels

● The Eiffel Tower

It has been called a technological masterpiece in building-construction history. The Eiffel Tower is one of the world's premier tourist attractions. Nothing remotely like it has ever been constructed. The tower is located on the Left Bank of the Seine River, at the northwestern extreme of the Parc du Champ de Mars. The tower was built for the Paris World's Fair in 1889 by Alexandre Gustave-Eiffel, a French civil engineer who specialized in metal construction.

This tower's dimensions are remarkable. The current height of the tower is 1069 feet, which is about the equivalent of a 105-story building. It is still the tallest structure in Paris by a very wide margin. Its size is very deceiving since there are no other structures close to it. The levels accessible to the public are at heights of 189 feet, or 19 stories; 380 feet, or 38 stories; and 896 feet, or 89 stories. At 300 metres (320.75m including antenna), and 7000 tons, it was the world's tallest building until 1930. It was almost torn down in 1909, but was saved because of its antenna - used for telegraphy at that time.

Fast Facts:
• The tower moves. Winds in summit can reach 100 mph; magnitude of worst-case sway is about 6 inches.
• The tower is built of puddled iron and weighs 7,300 metric tons... that's less than the air around it!
• The 4 pillars supporting the tower are aligned to the points of the compass. You can use the tower as a reference to find your way in Paris.
• It took 2.5 million rivets, 300 steel workers, 2 years (1887-1889), 15,000 iron pieces (excluding rivets), 40 tons of paint, and 1,652 steps to the top to construct it.
Top 10 U.S. Engineering Schools

1. Massachusetts Institute of Technology
2. Stanford University
3. University of California - Berkley
4. Georgia Institute of Technology
5. University of Illinois – Urbana - Champaign
6. Carnegie Mellon University
7. California Institute of Technology
8. University of Southern California (Viterbi)
9. University of Michigan – Ann Arbor
10. Cornell University
Push a pin through a drinking straw and into a vertical slab of wood - a cork notice board is ideal. The straw should pivot very easily on the pin.

Take a long human hair, the longer the better, (I designed this in the late '60s when we all had long hair) and tie it to a drinking straw as shown. The pivot should have been placed so that the hair is kept under slight tension.

Tie the other end of the hair to another pin stuck into the notice board.

Place the contraption in your kitchen. The hair will lengthen and the straw "indicator" will move when you boil a kettle and the humidity rises.
7 Things to Tell An Interviewer
by Joe Turner

If you read other books on job interviews, you'll notice they feed you lists of interview questions and answers to memorize. An interview is not an interrogation, however it's a conversation. To make it that way you need to come armed with a multitude of small stories about both your business and personal lives.

When you go into an interview, you need to leave your nerves at the door. The best way to prepare is to be yourself. The best way to be yourself is to tell your own story (or stories).

This is especially great for the competency-based interview being used more today. In a traditional interview, the interviewer will ask you questions focused on whether you have the skills and knowledge needed to do the job. A competency-based interview goes further by asking you additional questions about your character and personal attributes that can better determine whether you fit their corporate culture. These are called "behavioral competencies."
A competency-based interviewer will spend about half the interview on your job skills, and about half on your behavioral competencies. He or she will be looking for evidence of how you have acted in real situations in the past.

An employer wants to find out:

• Are you an asset or liability? In other words, will you make money or save money for the company?
• Are you a team player? Will you fit into the corporate hierarchy or be like sand in the gears? Can you take and give (if appropriate) orders?
• Will you fit into the company culture? They don't want prima donnas.

The best way to show these traits is to take the initiative and have several personal stories that you can tell, taking maybe 30 to 90 seconds each.

I want to emphasize that an interview should not be an interrogation. It should be a conversation between two equals. When you accomplish this you come away a step closer to your goal of landing the job you really want, because...
7 Things to Tell An Interviewer (cont.)

You may want to start by developing your stories around these seven areas:

1. Times where you either made money or saved money for your current or previous company.

2. A crisis in your life or job and how you responded or recovered from it.

3. A time where you functioned as part of a team and what your contribution was.

4. A time in your career or job where you had to overcome stress.

5. A time in your job where you provided successful leadership or a sense of direction.

6. A failure that occurred in your job and how you overcame it.

7. Any seminal events that happened during your career to cause you to change direction and how that worked out for you.

It's the conversation that wins an interview, and it's the conversation that wins the job.

To have a conversation, have your stories ready.

As a recruiter, Joe Turner has spent the past 15 years finding and placing top candidates in some of the best jobs of their career. You can discover more insider job search secrets by visiting http://www.jobchangesecrets.com.
5 Biggest Investing Errors
by Elizabeth Daza

The market starts tanking, so you panic and want to get out. You've added to your 401(k) for a few years and think it's enough. What other stupid ideas are on your mind?

1. **Panicking and selling**

   Leave now, lose now.

   Abruptly dumping equities for cash is the biggest mistake individual investors make, advisers say. Why? Because fear often drives such decisions. The mistake is when people use their emotions as a driver of investment strategy. As a short-term fix for a short-term problem, a fast exit ignores the markets' propensity for long-term growth. Instead of preserving their money, investors who sell out in bear markets tend to make their losses permanent.

   Hanging on may seem counterintuitive when herds of investors are packing up, but history is on the side of the bullish. Markets took two years to recover from the meltdown of 1987. Investors who resisted the urge to sell in 1987 suffered, but their portfolios eventually bounced back. People don't like waiting two years, but when you cash out, you never recover.

   [Continued on next slide](http://articles.moneycentral.msn.com/)
5 Biggest Investing Errors (cont.)

2. Tuning in too much

Financial advisers say their clients are consuming an unhealthful amount of news. The media are crucial to the economy, experts say, but the media tend to exaggerate negatives and devote less attention to underlying positives, giving viewers a skewed take on reality.

Talk about information overload. In this crisis, the incessant yammering of analysts on 24-hour cable stations has been augmented by an avalanche of information from blogs and other online sources. The trick is not to become too wrapped up in the hype.

3. Halting retirement contributions

Don’t stop giving to the future. Unless the government boosts Social Security, provides free health care and eliminates utility bills, property taxes and other overhead costs, investors will find that 401(k)s, individual retirement accounts and other vehicles tilted toward mutual funds are still the best way to prepare for retirement, advisers say.

Investors need to stay steady and remember the goals they had in mind when they opened their retirement accounts years ago. The whole point of owning an IRA is to contribute slowly but surely over time, with a good manager shepherding today’s payments into the dreams of the future. Good managers buy during downturns, wait for values to increase, then sell when the time is right.
4. Veering from your plan

Too many investors throw well-laid plans aside during downturns, advisers say. Sometimes they abandon their plans in favor of timing the market, trying to take advantage of volatility by selling high and buying low. That strategy almost always loses to steadier approaches. Seek a professional or seek out the many online tools available today to help guide you to an allocation strategy.

Unfortunately, more-emotional investors tend to lose confidence in the prudent strategies they established for themselves before crisis struck. It’s OK to question your portfolio, but advisers warn against doing surgery in times of stress. At anxious times, stay focused on the long term. If you see a problem within the context of a long-range focus, then consider making changes. Investments can lose value and still achieve their goals.

5. Holding one basket on the upswing

Today it's fear. Tomorrow it's greed. Most likely the financial markets will begin to recover, and as they do, investors eager to participate will gravitate toward a new group of hot stocks. It might be biotech, or it might be oil companies.

We need to remember not to get over-enthused, the experts tell us. They say the best way to profit from investments in stocks is to diversify holdings and avoid overexposure to any one sector. Investors would do well to remember that lesson when the market improves. Remember that the herd mentality is as dangerous on the upswing as on the downswing.
Go Green

Why Recycle?

We know recycling is beneficial, but here are some facts (some may be startling) that may make you think seriously about the importance of recycling.

1. About 40% of the waste in the U.S. is paper, but nationwide we only recycle about 25-30% of our paper waste.
2. Americans throw away close to the equivalent of 30 million trees a year, just from newsprint alone.
3. In America we discard enough motor oil per year to fill 120 supertankers.
4. In the United States right now, landfills are filling up and closing at the rate of approximately 2 a day.
5. By recycling an aluminum can per day we can save enough energy to operate a television set for 3 hours.
6. A glass bottle thrown away today will still be there in the year 3000.
7. In the United States, one in every six trucks in a garbage truck.
8. You would be able to circle the earth 436 times per year with the Styrofoam cups that are used in the United States.
Researchers have found that those who exercise have younger DNA by up to 9 years which is an incredible benefit. So exercising may do more than just help prevent illness--it may actually make you younger. Working up a sweat seems to be important.

People who exercised vigorously at least 3 hours each week had longer telomeres (the protective ends of the chromosomes that shorten as you age) and were 9 years younger than couch potatoes who did not exercise. This holds true after removing other factors like smoking, age, weight and activity level at work.

Researchers believe that shortened telomeres can increase the risk of age-related diseases like high blood pressure, mental difficulties, cancer and more. This is because as telomeres shorten, there is more stress on your body's tissues to function correctly. Researchers believe that exercise helps reduce damage by free radicals, allowing your body to spend its efforts in maintaining health instead of repairing damage.
Food for Thought

“Lemon Rosemary Marinated Goat Cheese”

- 5 lemons, zested
- 3 tablespoons freshly chopped rosemary leaves
- 1/2 cup extra-virgin olive oil
- 8 (2-ounce) rounds goat cheese
- Gray salt and freshly ground black pepper

Combine lemon zest, rosemary, and olive oil.

Place goat cheese in a baking dish or on a large plate and spoon marinade over the top. Season with gray salt and pepper. Refrigerate and let marinate.

Makes a great dish for easy entertaining during the holidays!
SPACE COAST SECTION SWE MISSION

Our mission is to inform the community of opportunities open to women in engineering and to encourage women to enter and grow in engineering and the sciences.

Society of Women Engineers
Space Coast Section
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