



The International System Safety Society

*Tennessee Valley Chapter*  
ALABAMA - MISSISSIPPI - TENNESSEE

<http://www.iss-tvc.org/>

## November 2015 Newsletter

### Tennessee Valley Chapter Officers

**President:** Christopher Trumble, 256-847-3247

**Vice President:** Steve Hosner, 256-655-6323

**Treasurer:** Ronnie Sams, 256-842-1005

**Secretary:** Jason Rupert, 256-313-8650

**Immediate Past President:** Ken Rose, 256-645-1621,

**Special Events Coordinator:** Open

**Webmaster:** Don Swallom, 256-842-8641

### President's Corner

October was a busy month for the chapter. On the 19<sup>th</sup> we held the ISSS – TVC Dinner at Grille 29 and were fortunate in having Al Reisz of Reisz Engineering provide a presentation focused on the development of the Saturn V, his involvement with that program and his efforts with the Sky Lab program and current work with NASA preparing for a future Mars mission.



Al Reisz addresses October Dinner Meeting



On the 21<sup>st</sup> we had the privilege of having Barry Hendrix provide a presentation focused on Model Based System Safety Overview. I was happy to see this meeting was attended by approximately 27

people. Barry explained how Model-based System Engineering (MBSE) was promoted by the International Council of System Engineering (INCOSE) well over a decade ago as the desired method to develop modern and more complex systems. He went on to assert that many software-intensive and safety-critical programs in DoD, such as the F-35 Lightning II and major software suppliers, have successfully used MBSE with Unified Modeling Language (UML)



Barry Hendrix at A-P-T Research on Oct. 21st

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and Systems Modeling Language (SysML) using Rhapsody and DOORs and more formal methods, even Goal Structuring Notation (GSN).

November meeting will be held Wednesday 18 November 2015 at University of Alabama Huntsville (UAH). The University of Alabama in Huntsville (UAH) is part of a team selected to conduct research as part of the new FAA Unmanned Aerial System (UAS) Center of Excellence. Mr. Dave Arterburn is the director of UAH's Rotorcraft Systems Engineering and Simulation Center, which will lead the UAH research efforts from the Center of Excellence. He plans on providing us with information regarding this research. All are encouraged to schedule this on your calendar and attend.



Dave Arterburn



10 December 2015 we are planning a Christmas get together at Airport road, Huntsville. Details will be posted to the Chapter website. If you are interested please let Chris Trumble ([Christopher.c.trumble.civ@mail.mil](mailto:Christopher.c.trumble.civ@mail.mil)) know how many will be attending for planning purposes. It is envisioned this event will be a couple of hours, starting around 1800 hours (6:00 pm). It will be informal with finger foods and no charge to attend. You are asked to bring a food item or beverage for people attending to share.

20 January 2016 will see our first meeting of the New Year and it will be hosted at Bastion Technologies 700 Boulevard South, Suite 405 Huntsville, Alabama. Tentatively Randall Stanley from Plus Location Systems Providing a briefing on RF Technology and its many applications related to safety, testing and evaluation.

17 February 2016 Quantitech 7027 Madison Pike, Huntsville, AL 35806 will be hosting the meeting. Tentatively we will have William (Bill) Knuth from KEI. Bill was responsible for directing a program to conduct Loss of Cooling Accident (LOCA) simulations on Liquid Metal Fast Breeder Reactor (LMFBR) fuel bundles. This was accomplished by conducting in-reactor experiments. As a result he was assigned direct responsibility for implementing/maintaining safety required to conduct nuclear reactor operations

March 16, 2016 Dynetics 1002 Explorer Blvd. Huntsville, AL 35806 has agreed to host the meeting. Tentatively we will be having someone from Dynetics provide the presentation.

April 2016 ballots for the Chapter Officers will be sent out. Start thinking now about submitting your name for a Chapter officer position. The Chapter will be needing a President and Vice president for the upcoming year.

The Chapter of the Year award has been residing at AMCOM Safety Office and will now be spending some time in the APT Research facility. APT has many ISSS Members and has been an active supporter of the Chapter. I'm confident the Award will feel at home while it is gracing one of their walls. If your business would like to display the award at

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their facility just email a request and we will be happy to try to coordinate a period of time for you to display it.

While on the topics of awards and exceptional people, I have stated and still believe our chapter has many exceptional individuals who are truly deserving of recognition. Awards are often the only thing our members can receive to help encourage them to continue reaching higher. Our society owes it to our members and their families to recognize their sacrifices that have benefited our way of life in substantive ways. I am still waiting for submissions.....I urge you to identify a deserving member and have them recognized.

The Chapter Vice President, Steve Hosner is working very diligently on many activities to benefit the members. One of his projects is to obtain templates which may be of use to the membership and have them posted on the ISSS TVC website. He can't accomplish this on his own. If you have templates that you feel would be worthwhile posting and/or would be interested in helping Steve with this worthwhile project send him an email at [hosnersr\\_pe@knology.net](mailto:hosnersr_pe@knology.net).

The chapter is still considering starting a mentorship program and want to know if members would be interested in mentoring university students. We all have had people during the early part of our careers made a significant, positive impact on shaping our professional development. If you are interested in being included on a list of potential mentors, please inform Chris Trumble ([Christopher.c.trumble.civ@mail.mil](mailto:Christopher.c.trumble.civ@mail.mil)).

### Special Events

The Chapter is looking for volunteers to assist with the following special events:

The Future Cities competition will be held at the Davidson Center (U.S. Space & Rocket Center), on Saturday January 16th, 2016 9:00 am-12:00 Noon Collaboration at 1:30 pm final awards at 4:30pm

Alabama Science & Engineering Fair April 2 - 4, 2015 The University of Alabama in Huntsville Earth System Science Center, CRH 3078 Huntsville, AL 35899

NASA Rover Challenge April 7-9, 2016 awards presented last day of race at 5:00 pm

If you are interested please inform Chris Trumble ([Christopher.c.trumble.civ@mail.mil](mailto:Christopher.c.trumble.civ@mail.mil)).

I believe it is important to be knowledgeable in a wide variety of topics, especially if you are working in system safety. You know that the Fukushima Daiichi is now the site of one of the worst nuclear power crises the world has ever faced, but how much do you really know about energy generated by fission? Here are some interesting facts:

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- Although the United States has not built a new nuclear power station since the 1979 Three Mile Island accident, its 104 existing plants produce more electricity than all the atomic facilities in the next two nations, France and Japan, combined.
- The first civilian nuclear power plant, known as Atom Mirny (“Peaceful Atom”), opened in the so-called “City of Science,” Obninsk, just 68 miles (110 kilometers) outside of Moscow. It continued operating through 2002, and defueling was not finished until 2008.
- France derives 78 percent of its electricity from nuclear power. By contrast, nuclear power supplies 20 percent of electricity in the United States, and about 30 percent in Japan
- . The electricity produced by one pound of uranium is equivalent to the power generated by roughly 3 million pounds of coal. Uranium’s ability to deliver so much energy is why U.S. Atomic Energy Commission Chair Lewis Strauss predicted in the 1950s that “atomic furnaces” would eventually provide electricity that was “too cheap to meter.”
- To power its dramatic economic growth, China is expected to need up to 1,500 gigawatts of electricity generating capacity by 2015—that’s up 50 percent from 2010. Even with a large number of reactors planned, nuclear energy would make up less than 3 percent of that total—with most expected to come from coal.

***To the chapter’s membership, thanks for all that you do!***