



Tennessee Valley Chapter Executive Officers

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Webmaster, Don Swallow has populated the new website and it is up and running.

APT Research designed the site. It looks very professional and we have a little space to add some pictures.

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

Archive sets are now available. Set includes conference papers from 1973 to 2009. The cost is \$59.95 for members and \$79.95 for non-members.

President's Corner

Feel free to invite guests to our meetings. We need to let the secretary know if we are having guests to make sure we have the sufficient refreshments.

Members should consider writing articles for the System Safety Society Journal. Clif Erikson did an informative paper on how to prepare an article for the journal. It is available upon request.

Secretary's Meeting Minutes

16 December 2009 TVC SSS Meeting
Mr. John Rankin presented a historical/hysterical presentation entitled "Safety is a Social Disease" to 15 members and 3 guests. SAIC provided the facility, sandwiches, pasta and drinks for the meeting. TVC president noted that the next Newsletter should be out within a week and archive ISSC Conference Proceedings (from 1973-2009) and Hazard Prevention/Journal of System Safety Society DVDs (from 1963-2009) are now available for purchase. Jim Blanteno mentioned that the Alabama Regional Future City Competition is January 16, 2010 at the campus of the University of Alabama and the 17th annual Great Moonbuggy Race will be held April 9-10, 2010 at the Space and Rocket Center. Mike Pessoney noted that the January 2010 meeting will be a presentation by Dave Sickmeier on Operation of UAS in the National Airspace. John Rankin's presentation was originally delivered in Monterrey, California in the early 1980s to several hundred NASA project/program managers attending a course. John's presentation explained why a definite and recognizable safety program is required on each project and to familiarize the project managers with rudimentary elements of an "acceptable" safety program. John linked how the project managers need to see how the safety program will reduce their risk and the realize the need to budget for safety engineering before accidents occur. John provided a variety of examples and several methods during his presentation. Of key interest in John's presentation were his references to accumulated lessons learned files from contractors that are hardcopy files seldom used and preserved only by himself. Two members requested additional information that was provided by email after the meeting.



20 January 2010 TVC SSS Meeting

Mr. Dave Sickmeier presented a brief on the interaction of Unmanned Aircraft Systems (UAS) in civil airspace to 24 members and 13 guests. APT provided the facility, pizza and drinks. The TVC SSS Special Events Coordinator presented a SSS Award at the Future City Competition to Hampton Cove School for their Safety Analysis and Planning efforts during construction of their city. Dave's presentation included efforts over the past five years for gaining access to the National Airspace and the current efforts to enhance the system for safety and reliability. Unmanned Aircraft Systems (UAS) has worked with FAA since 2005 supporting the Joint Integrated Product Team for Airspace Integration. UAS identified early on that an Operational Safety Assessment needed to be done. There is a history of safety case development for UAS to meet the "see and avoid" requirement, which is a big and complex requirement. It is incumbent upon DoD to make the safety case to the FAA. The DoD Software Safety Standards are used in the project. Unmanned Aircraft Systems is the future of aviation.

Vice President's Corner

Anyone desiring to present at a monthly meeting can contact Mike Pessoney to get on the schedule.

Special Projects Chairs Corner

The 17th Annual Great Moonbuggy Race will be held April 9-10, 2010 in Huntsville, Alabama, at the U.S. Space and Rocket Center. More information will be provided later.



As the New Year is well underway and February is upon us, two members of the Tennessee Valley Chapter of the System Safety Society (TVCSSS) were out serving the community. The first item on our agenda was the Alabama Regional Future City Competition. This competition consists of middle school students in the seventh and eighth grade competing for an opportunity to go to Washington DC to compete nationally. Using specific evaluation criteria that are based on engineering design principles, students develop an understanding of the hard work and dedication that is required to build and operate their future cities. The students are tasked to construct a city of the future using SimCity software. Each year the teams are tasked to build their cities based on a specific theme. This year's theme was "Providing an Affordable Living Space for People Who Have Lost Their Home Due to a Disaster or Financial Emergency." Future City is the nation's largest engineering education program and among the most popular.



Tennessee Valley Chapter

Feb
2010

A few years back, the TVCSSS became a sponsor in the Special Awards category and have continued supporting this important and rewarding event. The TVC SSS Special Award category is for the best overall consideration for System Safety principles during the development and operation of their future city.

The event was held on Saturday, January 16th 2010 at the University of Alabama in Huntsville (UAH) Shelby Science Center. Approximately 17 teams began arriving and registering for the event, which began promptly at 7:30am. Initial judging began at 8:30am after a warm welcome from Dr. Vistasp Karbhari, UAH Provost. After initial judging and lunch, the top six teams were announced. At this point each of the top six teams provided their final round presentations. The presentations were judged, scored and a final determination of the top three teams was identified. The top team receives funds for the team to travel and represent the Alabama Region during the national competition, held in Washington DC.

The TVCSSS selected Hampton Cove Middle School, Huntsville -“Taaza Pur” for the “Best Use of Symbiotic/System Safety”
The TVC SSS judges were Jim Blanteno and Philip Eder.



Phil Eder Evaluates Endeavor Middle School's Entry

The overall top three winners, based upon their software model abstract, essay, model, and formal presentation were:

2nd Runner-Up: Episcopal Day School, Gadsden
“New Eden”



James Blanteno Awards the TVC SSS Award to Hampton Cove Middle School



**1st Runner-Up: Academy for Science & Foreign
Language (ASFL), Huntsville**

“Solaris”



**2010 Alabama Regional Winner: Whitesburg
Middle School, Huntsville**

“Kota Pohon”



2010 International System Safety Society Conference

The 28th International System Safety ISSC) Conference will bring practitioners and foremost thought-leaders of the system safety discipline together for an exchange of ideas, knowledge and experiences in Minneapolis, Minnesota. The conference will be held in the beautiful Hyatt Regency Hotel in downtown Minneapolis. The conference theme, **“Building Bridges to a Safer Future,”** emphasizes that when system safety processes and procedures are implemented throughout the system life cycle; costs are minimized while risk of personnel injury or system loss/damage is reduced or eliminated.

Training/Tutorials: Hazard Classification AMCOM; Software Safety Process; WISE (WSESRB Interactive Safety Environment); FESWG Guidelines (PLDs and Fuze); SD Qualification); GEIA Standard 0010; MDA Materiel Release Process.

Roundtables/Discussions: Joint Software Safety Reviews; UMS Weapons Integration; Directed Energy.

Sessions: Hazard Classification; Explosive Safety; Lessons Learned; Joint Programs/Joint Review Process; Insensitive Munitions; Unmanned Systems; Software; MIL-STD-882D Rev 1/Risk Matrices.

<http://issc2010.com>

**Deadline for early bird discount is 15 May
2010**



“ASK AN EXPERT”

One of our members suggested that we have a section for members to ask questions:

If you have a question about system safety practices, requirements, technical references or other system safety topics. The questions will be posted in the newsletter, responses would be sent to the requester (or to a Facilitator) and a summary provided in the next issue.

Sample question:

NASA is looking at composite/bonded aerospace structures to reduce weight. Potential issues include the identification of potential failure modes of those structural elements (for example micro-cracking and de-bonding) and the development of NDE techniques that can detect sub-surface flaws (process problems and/or handling damage). Does anyone in the chapter have any hazard analyses and/or verification (NDE) information that can be shared?

If you are interested in this, please let either the president or vice president know. If there is no interest, it won't be in the next newsletter. There was also a suggestion to host it on the new web site.

Forum/Training Corner

NASA/Army Systems and Software Engineering Forum will be held May 11-12 2010 in Huntsville, AL. The sessions are free to all. Software Engineering, Engineering Management, Systems Modeling and Simulation, Systems Engineering Methods, Processes and Tools, Six Sigma and Complex Electronics are just some of the topics that will be briefed. Question and answer panels are also being scheduled. More info will be provided in the next Newsletter.

Fourth IAASS Conference 19-21 May 2010, Huntsville AL. The 4th IAASS Conference “Making Safety Matter” is sponsored by NASA, ESA and JAXA. Main topics of the conference include:

- Designing safety into space vehicles
- Safety on long duration manned missions
- Safety of extravehicular activities
- Launch range safety (current and future)
- Spacecraft re-entry safety
- Payload safety
- Nuclear safety for space systems
- Human factors and performance for Safety
- Safety critical software design and IVV
- Safety risk management
- Probabilistic risk assessment
- Organizational culture and safety
- Regulations and standards for safety
- Space-based safety critical systems
- Space traffic management
- Space materials safety
- Safety & Rescue
- Private spaceflight safety

Conference website <http://www.congrex.nl/10a06>

APT is offering Training Courses – all classes will be at APT Research, Huntsville AL.

Upcoming courses include: System Safety Engineering Course - March 8th to 12th; Safety Assessment for Explosives Risk (SAFER) - March 16th to 17th; Institutes of Makers of Explosives Safety Analysis for Risk (IME SAFR) - April 27th to 29th; Explosives Safety Course - May 10th to 13th; System Safety Engineering Course - June 7th to 11th; and Safety Assessment for Explosives Risk (SAFER) - June 15th to 16th.

Course descriptions can be obtained at APT's web site - www.apr-research.com
Registration Info 256-327-3396