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Chapter News

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[Bay Area Chapter](#) | [Georgia Chapter](#) | [Sierra High Desert Chapter](#)
[Southern California Chapter](#) | [Tennessee Valley Chapter](#) | [Washington DC Chapter](#)

Bay Area Chapter

One of the objectives of our Society is to improve public understanding of the system safety discipline. The Bay Area Chapter, as part of this outreach, has participated in the Synopsys Silicon Valley Science and Technology Championship annually for more than 20 years. This year's regional science fair was held at the San Jose McEnery Convention Center, in San Jose, California on March 18, 2009.

This event is nothing short of remarkable. It is run by community members, infused with support from foundations and businesses, bolstered by hundreds of volunteer judges from industry and academia and driven by the hard work and dedication of countless students, their teachers and parents. The championship serves as a venue for young scientists of all abilities and interests, and as a springboard to the California State and the Intel International science fairs.

Some projects actually use system safety techniques to improve the design safety of a system, product or service, and some projects just use system safety techniques to at least improve the safety of their experiment.

The Bay Area Chapter gives certificates and cash awards every year to at least the top three entries that best utilize the principles of system safety. Its judges review and critique every science project submitted to determine the degree to which those principles are upheld. This year's judges were Dave Adams (Bay Area Chapter president) and Bill Batand (who has served in the capacity of Principal Judge at this fair many times over the years). This year's award recipients are:

Middle School (Grades 6-8):

Third Place: "No More Pile-Ups: A Study of Electromagnets," Spencer Davis and Joey Robinson.

These two young "transportation engineers" from English Middle School examined the design of future highways to possibly incorporate electromagnets to automatically slow the vehicles behind a detected accident, and to avoid potential pile-ups regardless of road conditions.

High School (Grades 9-12):

Second Place (Tie): "The ASPen: Avalanche Search Probe, Detecting Life After an Avalanche," Josh Taylor.

This potential life-saving "computer science engineer" from Monta Vista High School proposed the use of a quickly deployable fleet of inexpensive robotic search probes to detect, triangulate and report the position of possible survivors after an avalanche.

Second Place (Tie): "Creating a SensorGVS: A Sonar/Accelerometer Guided Vehicle Stabilization System," Malika Kumar and Haley Zarrin.

These two "design engineers" from Saratoga High School developed a vehicle stabilization system that could improve the safety of a family car, or increase the survivability of an autonomous interplanetary rover/explorer traveling over uncharted terrain.

First Place: "Electric-Field Detector," Capella Kerst and Ashleigh Richelle.



President's Message

From the Editor's Desk

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In the Spotlight:

Considering System Risks

Redundancy for Safety

Gains from Losses:

System Safety and Aging Systems

Tech Corner

Chapter News

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These two "system safety engineers" from Santa Teresa High School designed and built a device that can detect an electrostatic field potential within its range and sounds an alarm. It could be used to protect high-value hardware on an Electrostatic Discharge (ESD) Superstation to warn personnel of an approaching ESD potential, or during explosives handling to protect the lives of personnel, high-value hardware, support equipment and facilities.

These System Safety Society awards are given to the next generation of scientists and engineers, not only to recognize good safety practices and engineering principles, but also to reflect upon the equally important principles of the System Safety Society and the successes that they will collectively spawn in the future.

Georgia Chapter

Georgia Chapter officers met with the ITAA EIA G-48 Committee in gatherings hosted by Lockheed Martin Aeronautics Company in Marietta on Jan. 21-22, 2009. This opportunity allowed both organizations to share some SAE aerospace industry best practices and their positive experiences in the use of civil/commercial functional methods in the system safety and airworthiness domains.

The Georgia Chapter has been meeting frequently and is planning activities with the Tennessee Valley Chapter in support of the upcoming International System Safety Conference (ISSC). Barry Hendrix accepted an invitation to be a guest luncheon speaker. His talk and lighthearted videos will emphasize aviation safety and aircraft safety-critical functions.

Chapter officers Odell Ferrell, Terry Gooch, Colleen Sadeski and Don Morgan are planning on several support venues at the Conference, including a civil/commercial aviation roundtable discussion. The Georgia Chapter is ensuring that the discussion will have a diverse panel, representing both military and commercial aviation interests. A broad variety of system safety and airworthiness topics are being proposed and developed, such as aging aircraft wiring, fuel tank system safety, hazard mitigation, and objective safety verification strategies. Terry Gooch has planned a tour of the Life Flight Emergency Medical Maintenance Facilities and Operations in Griffin, Georgia. Other potential opportunities include meetings with system safety engineers at Colonial Pipeline in Alpharetta, Georgia, to discuss oil and gas industry safety standards. The Georgia Chapter is striving to include other Georgia industries outside of Lockheed Martin and the aerospace and defense industries.

Sierra High Desert Chapter

The Sierra High Desert Chapter held a luncheon meeting at Miso Sushi in Ridgecrest, California on Feb. 18. Past System Safety Society President Paige Ripani was our distinguished guest, and we also welcomed Bill Hammer, who is a Washington DC Chapter member. Two potential Chapter members also attended the meeting. The Chapter welcomed back Steve Bussell, past Chapter president and Dave Mesa, Chapter treasurer, on their return from active duty deployment to Iraq as Naval Reserve Officers. Other topics included the awards program and ISSC 27. The Chapter held a virtual meeting on March 18 joined by the Washington DC Chapter. Dr. Janet Gill and Jim Zidzik were the speakers, and the Chapter thanks the Washington DC Chapter for allowing it to participate in a joint meeting with them.

Southern California Chapter

The Southern California Chapter held a luncheon meeting, followed by a special event, on Feb. 23, 2009, at the Jet Propulsion Laboratory (JPL) in La Canada, California. A great turnout of 29 attendees included Miguel Trujillo, Central California Chapter president. Members were encouraged to invite co-workers and anyone else that may be interested in joining the Society.

Ron Welch, Chapter president, provided a presentation on the Mars Science Laboratory (MSL), the biggest in-house project that JPL is responsible for at this time. MSL is a rover that will assess whether Mars ever was, or is still today, an environment able to support microbial life.

A guest speaker from JPL, Fengchun Liu, presented a synopsis of the Widefield Infrared Survey Explorer (WISE) Project, which is scheduled for a Nov. 2009 launch. A project with an emphasis on safety, WISE is an unmanned satellite carrying an infrared-sensitive telescope that will image the entire sky. Since objects around room temperature emit infrared radiation, the WISE telescope and detectors are kept very cold (below -430° F /15° Kelvin, which is only 15° Celsius above absolute zero) by a cryostat [like an ice chest but filled with solid hydrogen instead of ice]. Feng is the deputy project manager for the project.

Chapter members visited the JPL Von Karman auditorium and museum, where a wealth of past

and ongoing spacecraft models are displayed, and the viewing area of the High Bay, where they could see the MSL flight hardware and view videos.

Tennessee Valley Chapter

The Chapter's February meeting was held Feb. 18, when 34 TVC members and guests met at APT Research in Huntsville, Alabama. The Chapter was pleased to host Mark Kowaleski, team lead for NASA's SMA Technical Excellence Program. This program is housed within the NASA Safety Center in Cleveland, Ohio. Mark presented an in-depth look at the development and implementation of the NASA System Safety Career Development program, which is an interdisciplinary program designed to provide enrichment, career electives and continuing education to NASA's system safety professionals.

The Chapter's March meeting was held March 11, when seven TVC members and guests met for lunch and a tour at the National Oceanic and Atmospheric Administration's (NOAA) Huntsville office of the National Weather Service (NWS).

The annual June dinner meeting will be held on June 16. Watch for more information regarding other meetings that may be called to support ISSC 2009, which will be hosted by the TVC in Huntsville. Visit the TVC Chapter at <http://www.system-safety.org/~issc2009/>.

Washington DC Chapter

The WDC has now pledged its first two college scholarships. Each scholarship will be for \$2,500 at the College of Southern Maryland, an affiliate College of the University of Maryland.

In February, the WDC visited the Historic Northrop Grumman Electronics Museum, where the Chapter heard from Dave Berwald, Ph.D. Berwald has more than 35 years of extensive systems engineering experience in both the aerospace and nuclear industries, and is currently director of the systems engineering directorate within Northrop Grumman Electronic Systems in Baltimore. Berwald discussed emerging issues, concerns and advancements within systems engineering to include system safety. In March, 2009, the Chapter held its meeting in Lexington Park, Maryland, home of the Navy's Naval Air Systems Command, and heard from Dr. Janet Gill with an update on its WDC scholarships, and from Jim Zidzik, NAVAIR System Safety Division head, with a synopsis of his last brief on NAVAIR Standard Work Package (SWP) and the latest in NAVAIR system safety initiatives.
