

75th Shock & Vibration Symposium

Highlights

The 75th Shock & Vibration Symposium was held at the Cavalier Hotel in Virginia Beach, VA from October 17-22. The government featured agency this year was the Naval Surface Warfare Center, Dahlgren Division, represented by Mr. James Howell III. PCB Piezotronics, represented by Dr. Patrick Walter and Mr. Jim Sullivan, and Northrop Grumman Newport News, represented by Mr. Travis Kerr, were this year's two commercial featured agencies. With attendance exceeding 530, remarkable speakers, and excellent programming which included 25 tutorials, this year's symposium was an outstanding success that provided more opportunities for learning than any of the previous years.

The 75th spanned 6 days again this year for the second time in its history, proving that there is more of a demand than ever to learn more in the shock & vibration arena. This year's was the 3rd most attended meeting, drawing 536 attendees from 16 countries. Participants hailed from Belgium, Canada, Finland, France, Germany, Israel, Japan, Korea, New Zealand, Nova Scotia, People's Republic of China, Republic Of Singapore, The Republic of Korea, Sweden, The Netherlands, United Kingdom as well as the United States. A full attendance list can be viewed at www.saviac.org.

SAVIAC provided a record-breaking 25 tutorials this year, spanning 2 days with 399 attendees. Classes were provided on DDAM, Shock & Vibration Testing, Underwater Shock, Building Protection from Blast Loading, Wavelets, Damping, Shock Response Spectrum, and Data Acquisition and Analysis. Maintenance and operation of Lightweight and Mediumweight Shock Machines was held again this year, this time right in the hotel. NSW-CCD Philadelphia's tutorial "The Navy Shock Qualification Process" returned again this year, along with 3 extensions offered by the group, "MIL-S-

901D Shock Qualification Testing, MIL-S-901 Shock Qualification Extensions" and "Navy Shock Database User Certification." SAVIAC would like to extend a thank you to all tutorial instructors involved in this year's symposium. As always, we plan to expand our tutorial offerings even more for future symposia. If you are interested in conducting a tutorial at next year's Symposium, please contact SAVIAC for more information.

The opening session was brought to order Tuesday morning by Joel Leifer, the SAVIAC Program Manager. The attendees were welcomed by CDR James F. Barnes, Executive Officer, Naval Surface Warfare Center, Dahlgren Division, Mr. Irwin F. Edenzon, Vice President, Technology Development & Fleet Support, Northrop Grumman Newport News, and Mr. Jim Lally, CEO of PCB Piezotronics.

Mrs. Mary Lacey, Program Executive Officer of the National Security Personnel System, delivered the keynote address. She started her career with the Department of the Navy in 1973 as a Federal Junior Fellow working with the Naval Ordnance Laboratory and rose to be Technical Director of the Naval Surface Warfare Center prior to assuming her present position. Her career path provided the attendees a unique opportunity to hear from someone who understood the challenges we face and yet could provide insights into how senior management views our contributions. Mrs. Lacey connected with the audience by relating her experiences as an engineer faced with complex shock issues and needing the support of management



Mrs. Mary Lacey delivered the keynote address to the attendees of the symposium.

in order to resolve them. Her support of our new mentoring program and initiative to encourage the publication of presented work will ensure a knowledgeable workforce for many years to come. Mrs. Lacey also chaired a classified session on Thermobaric Loading and encouraged SAVIAC to explore updating SVM-2 the Theory and Practice of Cushion Design monograph.

The Program Committee Co-Chairs presented the Henry Pusey Award for best paper presented at the 74th Shock & Vibration Symposium to Mr. Kjell Ahlin of the Blekinge Institute of Technology for his paper "On the Use of Digital Filters for Mechanical System Simulation." During the presentation a



Program Committee Co-Chairs Mr. Jim Sullivan, Mr. Travis Kerr, and Mr. James E. Howell III presented the 2004 Henry Pusey Award to Mr. Kjell Ahlin of Blekinge Institute of Technology, for his paper "On the use of digital filters for mechanical system simulation."

PowerPoint slide of past awardees was displayed. Unfortunately, the recipients for the 71st Symposium, Erik Rasmussen (NSWCCD), Paul Lemmen & Gert-Jan Meijer (TNO Center for Mechanical Engineering) were omitted. SAVIAC apologizes for the omission. Dr. Raymond Daddazio of Weidlinger Associates and Dr. Thomas Paez of Sandia National Laboratories presented the Mel Baron Award to Mr. David Smallwood, formerly of Sandia National Laboratories, in recognition of a lifetime of outstanding leadership in shock and vibration, sustained technical excellence, and major contributions to the advancement of understanding structural response to shock and vibration. Mr. Henry Pusey of MFPT and Dr. Jack Henderson of Universal Technology Corp presented Dr. Eric Ungar a Lifetime Achievement Award for his singular and distinctive contributions to the discipline of Shock and Vibration. Mr. Michael Riley of NAVSEA 05P presented Mr. Jerry Sullivan a Lifetime Achievement Award for his contributions to the development of the Navy shock program. After the conclusion of the Opening Session, a lunch was held in the rooftop restaurant of the hotel to honor the two recipients.

This year, those who gave of their time, effort, and talents throughout the year were recognized by SAVIAC with the Director's Award by Dr. Charles Robert Welch, SAVIAC Director, and Mr. Joel Leifer, SAVIAC Program Manager. Dr. Andrew Littlefield of US Army Benét Laboratory, Mr. James Howell III and Mr. Dave Houchins of NSWC Dahlgren, Dr. Al Ohrt of Eglin Air Force Base, Dr. Tom Paez of Sandia National Laboratories, Dr. Pat Walter of PCB Piezotronics/TCU, Dr. Jeff Cipolla of ABAQUS Inc., Mr. Ronald Peterson of NSWC Panama City, and Ms. Amy Herrmann-Spears of AFRL volunteered to be instructors at the Winter Shock & Vibration Seminar held in Panama City, FL on February of 2004. Mr. Dan Worth of NASA/Goddard Space Flight Center, Mr. Kurt Hartsough of NSWC CD Philadelphia Code 623, Mr. James Howell III and Mr. Dave Houchins of NSWC Dahlgren, Mr. Tim Edwards, Mr. Tony Abbey of Noran Engineering, Dr. Pat Walter of PCB Piezotronics/TCU, Dr. Howard Gaberson, Dr. Tim Coats of NSWC Carderock, Mr. Skip Connan and Mr. George White of US Army Aberdeen Proving Ground, and Dr. Rudy Scavuzzo, Professor Emeritus of University of Akron volunteered to be instructors at the Summer Shock & Vibration Seminar, held in Virginia Beach, VA in June of 2004. Mr. Strether Smith of DSPCon, Mr. Dan Worth of NASA/Goddard Space Flight Center, and Mr. Richard Cellary of Naval PHST Center volunteered to lead our discussion groups at the Symposium this year. Dr. Paul Mlakar of US Army Engineer Research & Development Center, Mr. Robert Heyburn of NSWC Carderock Code 6202, Mr. Kurt Hartsough of NSWC CD Philadelphia Code 623, and Mr. James Howell III of NSWC Dahlgren volunteered to set up the panel sessions. Dr. Tim Hassleman of ACTA Inc., Prof. Patrick Walter of PCB Piezotronics, Dr. Ronald Peterson of NSWC DD Panama City, Mr. Thomas Walther of Electric Boat Corporation, Dr. John Henderson of AFRL, Dr. Robert Smilowitz of Weidlinger Associates, Inc., Prof. Ted Krauthammer of Penn State University, Mr. Gregory Harris of NSWC Indian Head, and Mr. Joseph Venne of NSWC Carderock volunteered to develop special sessions. Dr. Rudy Scavuzzo, Professor Emeritus of the University of Akron, Mr. Rick Lally of Oceana Sensors, Mr. Robert Sill of PCB Piezotronics, Dr. Howard Gaberson, Mr. Dan Worth of NASA/Goddard Space Flight Center, Dr. Josh Gordis of the Naval Post Graduate School, Mr. Gregory Harris of NSWC Indian Head, Dr. Tom Paez, Mr. Angel Urbina, and Mr. Todd Simmermacher of Sandia National Laboratories, Mr. Dave Houchins of NSWC Dahlgren, Mr. Jeff Weisbeck of Enidine, Inc., Mr. Ronald Peterson and Mr. Eric Pierce of NSWC DD Panama City, Mr. Scott Walton of US Army Aberdeen Test Center, Dr. Robert Woods of Battelle, and Prof. Cameron "Dale" Bass of the University of Virginia volunteered to be instructors for this year's Training Session Track.

General Dynamics Electric Boat Corporation, HI-TEST Laboratories, and NAVSEA 05P3 were recognized for their Gold-Level Support for 2004. NSWC Dahlgren was recognized for its Silver Level Support for the year. BAE Systems, General Dynamics Corporation, Weidlinger Associates, Inc., NAVSEA Philadelphia, and Qinetiq were all Bronze Supporters for 2004. ABAQUS, Inc. and National Technical Systems were also recognized for their contribution to the Winter and Summer Shock & Vibration Seminars for 2004. Thanks to the generous support of these organizations, SAVIAC can continue to provide educational opportunities and respond to requests for assistance from the community.

Dr. Charles Robert Welch, USAERDC & SAVIAC Director, recognized this year's block funding agencies: Air Force Research Laboratory Munitions Directorate, Army Redstone Technical Test Center, Defense Threat Reduction Agency Headquarters, Defense Threat Reduction Agency Kirtland, Eglin Air Force Base, Engineer Research & Development Center - GSL, Engineer Research & Development Center - ITL, Engineer Research & Development Center - MSRC, Naval Undersea Warfare Center Keyport, Naval Surface Warfare Center Carderock, Naval Surface Warfare Center Crane, Naval Surface Warfare Center Dahlgren, Naval Surface Warfare Center Panama City, NAVSEA 05P, Space and Naval Warfare System Center & HQ, Sandia National Laboratories, and US Army Research Laboratory.

The opening session concluded with the Elias Klein Memorial Lecture, given by Dr. Al Wicks of Virginia Tech, who spoke on "If Newton Had A Laptop," a modern day look at how the engineering curriculum has been affected by the introduction of the computer and numerical methods.

35 exhibitors participated this year, providing the attendees the opportunity to learn about new products in the field and to have their questions answered. A list of exhibitors can be found on www.saviac.org.

211 papers were presented in 33 unclassified and 12 classified sessions, including 4 training session, as well as 5 panels,



Mr. Henry Pusey & Dr. Jack Henderson presented Dr. Eric Ungar the 2004 Lifetime Achievement award (left picture). Mr. Michael Riley presented Mr. Jerry Sullivan the 2004 Lifetime Achievement award (right picture). After the Opening Session, a luncheon was held in their honor.

7 working and discussion groups, 2 ASCE meetings, and 2 SAVIAC committee meetings. There was also an open community TAG meeting held just before the Wednesday Night Networking Event to gather ideas for the 76th Shock & Vibration Symposium and to hear the attendees' thoughts on the 75th Symposium. The classified sessions were held at facilities provided by NSWC Dahlgren at Dam Neck. SAVIAC would like to thank Dr. Dale Bloodgood Jr. of NSWC Dam Neck, and Ms. Linda McGowan and Ms. Mary Hallberg of the US Army Engineer Research & Development Center for their excellent work in providing security for the classified sessions.

PCB Piezotronics and HI-TEST Laboratories hosted a Luau-style Pig Roast Tuesday night for all attendees of the conference. On the outdoor deck of the historic Beach Cub, attendees enjoyed partaking in some of the

famous Anchor buffalo wings that PCB had flown down from New York, as well as a roasted pig and other fine foods. Inclement weather brought the party indoors, where attendees danced the night away to the sounds of Liquid Pleasure. It was a great night for everyone!

This year's Guest Program was again a huge success, and incorporated 3 days of activities, raising the program to new heights. Mrs. Boo Perkins coordinated the program this year, and a generous donation from Electric Boat and PCB Piezotronics helped to defray the cost for the participants. On Tuesday afternoon, guests spent their day touring and shopping in historic Colonial Williamsburg. Wednesday, the group toured the Hampton Roads area. And on Thursday, the group was able to get into the kitchen at the Cavalier to enjoy a seafood preparation class with the decorated Chef Robert of the Cavalier, who kept everyone in attendance well fed all week.

Wednesday night's social event also was a spirited success, adding an uplifting and patriotic beat on the next to the last day of the symposium, about 2 weeks before the 2004 Presidential Election. On the left side of the room, attendees could enjoy a "Kerry Buffet" full of New England-style seafood and crab cakes. On the right side of the room, Bush fans



The 2005 Mel Baron Award was presented to Mr. David Smallwood by Dr. Tom Paez of Sandia National Laboratories, and Dr. Raymond Daddazio of Weidlinger Associates, Inc.

were treated to a Tex-Mex barbeque. Both candidates were in attendance to help with the serving. By the end of the night, it looked as if Kerry was winning on the entrees, Bush was dominating the desserts, and the bar was running dead even. The attendees' stomachs had spoken - no matter who was running, they were truly fans of the food. Once again the infamous SAVIAC piñatas were available for frayed nerves - attendees could release some election-aggression onto either a republican "elephant" or a democratic "donkey."

Attendees were invited to take a tour on Friday of Dam Neck's facility in Virginia Beach.

Please don't forget to look for the proceedings of the 75th Symposium, published on CD-ROM and available through SAVIAC in 2005. Each attendee will automatically receive a copy of the proceedings.

SAVIAC would like to take the opportunity to thank everyone who helped make the 75th Shock & Vibration Symposium such a success. We look forward to seeing you at next year's symposium on October 30-November 4, 2005 at the Royal Sonesta, nestled in the heart of the French Quarter in New Orleans, LA.