

**QUICK
CALENDAR**

- Mechanical Shock Test Techniques and Data Analysis Course (January 12-16, 2009—Monterey, CA)
- Practical Shock Analysis & Design Course (March 2-6, 2009—Hampton, VA)
- Free Shock and Vibration Seminar (March 18, 2009—Virginia Beach, VA)
- Final 79th Papers Due March 31, 2009
- San Diego to host 80th Shock and Vibration Symposium (October 2009)

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NOVEMBER 2008 SYMPOSIUM WRAP-UP ISSUE

79th Shock and Vibration Symposium

By Drew Perkins, Program Manager

SAVIAC's 79th Shock and Vibration Symposium was held October 26 through October 30, 2008 at the Rosen Plaza in Orlando, FL. The symposium saw record setting attendance, with over 600 participants attending sessions throughout the week. The week got off to a great start on Sunday, October 26, with two days of pre-symposium tutorials. These three-hour courses were taught by experts in the fields of shock and vibration, and were extremely well attended. SAVIAC is pleased to announce that there were 23 tutorials for the 79th symposium.

Two evening events were held before the official "opening" of the symposium. On Sunday evening, all SAVIAC guests were invited to the Welcome Reception that was co-sponsored by PCB Piezotronics and HI-Test Laboratories.

The traditional SAVIAC Program Committee reception was held on Monday evening on the Upper Pool Deck in enjoyable Orlando fall weather.

The 79th Shock and Vibration symposium was officially under-way with the Opening Session on Tuesday, October 28. SAVIAC community members listened and watched as VIPs were recognized, awards were presented, and the SAVIAC Director, Dr. Bob Welch, delivered his remarks. The keynote address was given by Dr. Steve Butler (SES), Executive Director—Air Force Materials Command. The community also welcomed Mr. Mark Loizeaux, President—Controlled Demolition, Inc. to deliver the annual Elias Klein lecture.

Following the opening session, attendees were treated to relaxing lunch in the Exhibit Hall and foyer.

Technical sessions began in the afternoon on Tuesday with a full slate of presentations. The following sessions were offered:

- Vibration I (Testing and Numerical Methods)
- Vibration II (Testing Methods)
- Blast Mitigation Concepts
- Blast: Numerical Applications & Test Methods
- CREATE Program
- Professor Walter Pilkey Commemorative Session
- Alternative Underwater Shock Testing Using Airguns
- Full Ship-Shock Trial Alternative Program
- Blast (Fast Running Models I & II)
- Ultra High Performance Concrete
- Training I

A Tuesday evening event was held at BB Kings Blues Club. This event was sponsored by PCB Piezotronics and HI-Test Laboratories and was open to all symposium attendees. Guests were entertained by the bluesy BB Kings All-Stars house band.

(contd on next page)

79th S&V Symposium Final Statistics

The 79th symposium was a success due in large part to our government featured organization. We offer our sincerest thanks to the Air Force Research Laboratory (AFRL). The program featured some new sessions and many new presenters as well. Thank you to everyone who contributed to the symposium content.

Here are the final statistics for the 79th symposium:

Papers/Presentations

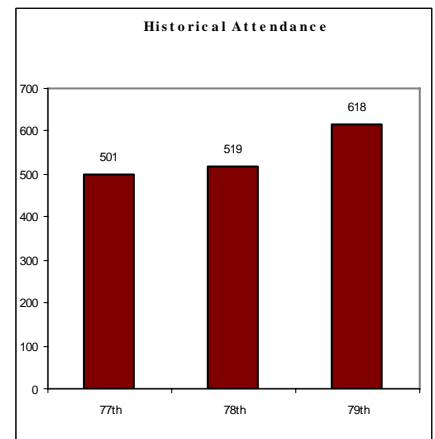
Unlimited Distribution	98
Limited "C" Distribution	126
Classified	38

Attendance

Symposium Attendees	618
Tutorial Attendees	354
Exhibits	48

Program Breakdown

Tutorials	23
Trainings	12
Unlimited Sessions	17
Limited Sessions	29
Classified Sessions	4
Discussion Groups	4
Panels/Fora	2
Meetings	5



A record setting year

79th Symposium Wrap-Up (cont.)



Mr. Henry Pusey accepts his prestigious Lifetime Achievement Award from fellow award winner, Rudy Scavuzzo



Attendees enjoying the Election 2008 social



Dr. Eric Rinehart presents the Mel Baron award during Opening Session of the 79th Symposium

Wednesday's technical sessions began at 8:00am and ran until 5:00pm. Sessions offered were:

- UNDEX I (Test Methods and Applications)
- UNDEX II (Numerical Methods and Applications)
- Structural Response
- Projectile Penetration and Ballistics
- Tunnel Target Defeat ACTD I & II
- Training II & III
- Shock Qualification Methods for COTS Equipment to Obtain Physical Open Architecture I & II
- Blast Effects upon Materiel Targets
- Pyroshock
- Blast Effects on Structures
- Navy Shock Hardening Costs and Potential Cost Savings Recommendations
- Instrumentation
- Mechanical Shock Testing
- Vibration Analysis (incl. Bioengineering & Human Response)
- Ballistics: Numerical Applications
- Ground Shock and Tunnel Damage: New Technologies I & II
- Underwater Implosion
- Rafted Isolation Systems
- Hard Target Defeat I & II
- The Bumpy Road of Ship Survivability

This year's symposium featured an "Ice Cream Social" on Wednesday afternoon. Sponsored by HI-Test Laboratories, symposium attendees were able to visit the exhibit booths to get these delicious refreshments.

A town-hall meeting was held early Wednesday evening. The SAVIAC community offered the SAVIAC staff numerous suggestions and comments which assists in the improvement of the annual symposium and the operation of SAVIAC in general.

With the sounds of Purgatory Creek playing in the background, symposium attendees enjoyed the SAVIAC Election 2008 Social Event on Wednesday evening.

Attendees dined with cuisines from the home regions of both presidential candidates: midwestern and southwestern. As with the exhibitors' luncheon, attendees had the opportunity to tour the exhibit hall during this event.

Thursday's sessions began at 8:00am and ran through 1:20pm concluding with the classified sessions held at Lockheed Martin Missiles and Fire Control. Sessions offered were:

- Shock Isolation & Damping
- Blast & Shock Predictive Methods
- Blast: Numerical & Testing Applications
- Composites
- Vibration: Multi-axis
- Vibration Test Methods
- Structural Acoustics and Vibrations of Strongly Coupled Systems
- Modeling and Simulation of Navy Structures
- UNDEX: Test Applications and Numerical Methods
- Dynamic Response of Hard Target Penetrators
- Explosive and Impact Shock on Earthen and Concrete Structures
- Training IV
- Bow Redesign (Classified)
- Ballistics and Blast (Classified)
- Blast Doors (Classified)
- Shipboard Shock & UNDEX Analysis

SAVIAC offers thanks to all community members and featured organizations who helped make the 79th Shock and Vibration Symposium a success. The symposium is driven by the community and their willingness to teach tutorials or trainings, organize and/or chair sessions, and share technical information.

After reading the evaluation forms received from many attendees, the overall tone of the symposium was optimistic. However, it is our hope

to make each event more successful than the last. As such, here is a brief list of improvements for the 80th symposium:

- Registration located in an accessible and convenient location
- Standard 40 minute break times in the morning and afternoon during Tuesday through Thursday sessions
- All food and beverage will be contained in the Exhibit Hall (SAVIAC Social may or may not be, based on room capacity)
- Offer a lead retrieval system to exhibitors

We look forward to seeing all of you at the 80th Shock and Vibration Symposium, October 25—29, 2009 in San Diego, CA.

**Thank You to Our
79th Symposium
Featured Organization**



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If you are interested in becoming more involved in the symposium, please contact Drew Perkins at (434) 581-3041 or email to: [drew.perkins@saviac.org](mailto:drew.perkins@saviac.org)

## Lifetime Achievement Awards, Mel Baron Award, and Henry Pusey Award Presented During 79th Symposium Opening Session

Numerous awards were presented during the 79th Shock and Vibration Symposium Opening Session including SAVIAC's three most prestigious awards: Lifetime Achievement Award, Mel Baron Medal Award, and Henry Pusey Award. The following offers an overview of each of these awards and the award recipients announced during the opening session of the 79th Shock and Vibration symposium.

**The Lifetime Achievement Award:** The Lifetime Achievement Award is made to a person whose contributions to the field of shock and vibration are of such magnitude that they significantly improved the state of the art or state of practice at the time. Such contributions can be in the form of written publications, oral presentations, inventions, or program funding that directly caused such changes. The Award may also be given in recognition of an individual whose lifetime cumulative effect has been to significantly advance the state of the art or practice in the field. Demonstrated personal leadership in the shock and vibration community is an essential qualification for the Award.

**Dr. Patrick Walter** was presented the Lifetime Achievement Award by Professor Peter Stein (SAVIAC Lifetime Achievement Award—2006) who nominated Dr. Walter for the award. The following is inscribed on the award plaque: *“Dr. Patrick Walter's vast contributions to the field of shock and vibration and dynamic measurements have significantly improved the state of the art and state of the practice in these technical areas. His extensive experience and valuable work products have spanned several decades and continue on today. He has constantly worked to share his developments, as evidenced by the fact that he has been very active in the community for many years, contributing publications, short courses and seminars so that others could benefit from his extraordinary technical expertise. Many have also benefited immeasurably from his friendship and personal mentoring over the years.”*

**Dr. Sammy Kiger** was presented the Lifetime Achievement Award by Dr. James Baylot who nominated Dr. Kiger for the award. The following is inscribed on the award plaque: *“The SAVIAC Lifetime Achievement*

*Award is presented to Dr. Sammy A. Kiger in highest recognition of his accomplishments in the field of dynamic structural response to weapons effects. It fully recognizes his profound contributions toward blast resistant design, soil-structure interaction, in-structure shock, and other topics central to the proper design of protective structures subjected to weapons effects. Even further, it commends his foresight and diligence while teaching these skills to a new generation of engineering talent, providing an unusual element of timelessness to a highly distinguished career.”*

**Mr. Michael Giltrud** was presented the Lifetime Achievement Award by Dr. Gene Sevin (SAVIAC Mel Baron Medal—1998) who nominated Mr. Giltrud for the award. The following is inscribed on the award plaque: *“Mr. Giltrud is recognized for his outstanding leadership in developing knowledge and best practices in the field of protective construction and target lethality. This was accomplished through innovative experimental and analytical program development and execution and the publication of key manuals and planning software. His contributions will continue to benefit the SAVIAC community for many years to come.”*

**Mr. Henry Pusey** was presented the Lifetime Achievement Award by Dr. Rudy Scavuzzo (SAVIAC Lifetime Achievement Award—2005) who nominated Mr. Pusey for the award. The following is inscribed on the award plaque: *“Mr. Pusey is recognized for his contributions and commitment to the Shock and Vibration Symposium for 50 years and for his effort in establishing SAVIAC for the shock and vibration technical community. Henry's past and present service to SAVIAC has helped establish a broad and varied shock and vibration community, and many of the products and services provided by SAVIAC are a result of his tireless efforts for sharing this community's knowledge with others.”*

**Mrs. Sallie Pusey** was recognized immediately following her husband's award acceptance. Mrs. Pusey was honored with the **Appreciation Award in Shock and Vibration** and the plaque inscription reads, *“In recognition of her dedication to the operations of SAVIAC for more than thirty-five years. A fixture at symposia, courses, and seminars since 1973 and continuing today, she has contributed to the success of SAVIAC through her organization of multiple SAVIAC fora, development of and camaraderie with*

*the SAVIAC membership, and general support of her husband, former SAVIAC Director Henry Pusey”.* Mrs. Pusey was presented the award by SAVIAC Program Manager, Mr. Drew Perkins.

**The Mel Baron Medal Award:** This annual award was established by SAVIAC in 1998 to recognize individuals who have made outstanding technical contributions to the field of shock and vibration in computational structural dynamics and related specialties.

This award was established by SAVIAC to honor Dr. Melvin L. Baron for his technical contributions and leadership in computational structural dynamics and related specialties in the field of shock and vibration.

**Mr. Charles Needham** was presented the Mel Baron Award by Dr. Eric Rinehart. Dr. Rinehart nominated Mr. Needham for the award. The following is inscribed on the award plaque: *“The pioneering work of Mr. Charles E. Needham is recognized due to his innovations in modeling strong shock airblast and interactions with structures in addition to his development of the state-of-the-art SHAMRC CFD code”*

**The Henry Pusey Award:** The award is presented for the outstanding paper in the field of shock and vibration presented during the last calendar year. The award is presented at the annual Shock and Vibration Symposium. The paper is selected from the papers presented at the preceding Shock and Vibration Symposium and published in the Shock and Vibration Symposium Proceedings. Only published papers are considered. In some cases a paper may be chosen from the preceding year of Shock and Vibration Journal without an oral presentation at the Symposium. If a paper has been published in the Journal and has also been presented at the Symposium, it should be considered in the year the presentation occurred.

**Dr. Tom Moyer** was presented the Henry Pusey Award by Mr. Fred Costanzo. Dr. Moyer's paper and presentation titled “Hysteretic Damping For Direct Transient Analysis” was chosen by the Award committee among all nominated papers.

# Puseys Offer Thanks to SAVIAC Community



Mr. Henry Pusey, former SAVIAC Director and current Lead Technical Director for SAVIAC, and Mrs. Sallie Pusey, former SAVIAC Event Manager and current SAVIAC Course Registrar, were both honored during the opening session of the 79th Shock and Vibration Symposium with awards (see page 3 for details). They would like to thank the community with the following:

*"At the 79th Shock and Vibration Symposium we were both honored by special awards. We are deeply moved that our humble efforts on behalf of SAVIAC have been recognized. However, it is clear that our work could not have been successful without the hard work of the many engineers and scientists who have contributed to this exceptional series of symposia over the years. Furthermore, let us not forget the non-technical administrative people whose hard work has resulted in well organized conferences. Our thanks to them and to all our friends in this very special community that has made SAVIAC a success by sharing their ideas and information on new developments in this important technology. Special thanks to Dr. Bob Welch, Drew Perkins and the members of the Technical Advisory Group for their decision to present these awards. We plan to continue to work on behalf of SAVIAC as long as we are physically and mentally capable of doing so. Sallie still has not recovered from the shock!"*

- Henry and Sallie Pusey (November 12, 2008)

## 79th Symposium Exhibitors

The 79th Shock and Vibration Symposium was another record setting year for exhibitors, with the final total at 48. Beginning on Tuesday, October 28, attendees were able to tour the exhibit hall during the "Exhibitors' Luncheon". The exhibit hall continued to be frequented with the "Ice Cream Social" and the "SAVIAC Election 2008 Social" on Wednesday.

The following is the list of all companies and organizations that participated as exhibitors for the 79th Shock and Vibration symposium:

Aberdeen Test Center  
Advanced Antivibration Components  
AGM Container Controls  
Air Force Research Laboratory  
Alion Science and Technology  
Boeing Little Mountain Test Facility  
Brüel & Kjaer  
Caparo Dynamics  
Data Physics Corporation  
Dayton T. Brown  
D'TRA

Dytran Instruments, Inc.  
Endevco  
Enidine Incorporated  
GE Fanuc  
General Dynamics Electric Boat  
HI-TEST Laboratories, Inc.  
IDC  
IOTech  
Kistler Instrument Corporation  
Lansmont Corporation  
LMS North America  
M + P International Inc.  
National Technical Systems  
NAVSEA Warfare Centers  
NEi Software Engineering  
Newport News Industrial Corporation  
Northrop Grumman Shipbuilding  
Pacific Instruments, Inc.  
PCB Aerospace  
Precision Filters  
Qinetiq  
SEM/IMAC  
Shore Western Manufacturing  
SIMULIA  
Sound and Vibration  
Spectral Dynamics  
SPEKTRA  
Taylor Devices  
TEAM Corporation  
The VMC Group

TYZ  
Vibration Institute  
Vibration Research Corp.  
Weidlinger Associates

SAVIAC expresses thanks to all exhibiting participants.



## 79th S&V Symposium Guest Program

SPONSORED BY: **GENERAL DYNAMICS**  
Electric Boat

Each year SAVIAC plans three days of tours and events in conjunction with the annual symposium that are specifically designed to entertain guests of symposium attendees. These tours focus on the culture of the region in which the symposium is being held. SAVIAC thanks General Dynamics Electric Boat, especially Mr. Austin Alvarez, for the continued sponsorship of this program.

For the most recent symposium guest program in Orlando, symposium guests enjoyed the following three days:

Tuesday, October 28, 2008 - Kennedy Space Center  
Wednesday, October 29, 2008 - Wonders of Winter Park  
Thursday, October 30, 2008 - Art Among Southern Gardens



*Symposium "Guest Program" Attendees During Tour of Kennedy Space Center*

## 80th Shock and Vibration Symposium



San Diego ● October 25-30, 2009

Planning of the 80th Shock and Vibration Symposium is underway with the selection of **Paradise Point Resort and Spa\*** as the host hotel and conference center.

*(courtesy of [www.paradisepoint.com](http://www.paradisepoint.com))*

*Paradise Point Resort & Spa is a private 44-acre island tucked away on gentle Mission Bay, minutes from the heart of downtown San Diego and adjacent to the famous SeaWorld Adventure Park. This San Diego luxury resort features comfortable, California beach bungalow-style guest rooms amidst lush, tropical gardens and meandering lagoons. Perfect for families, weddings, groups and conferences, the resort features over 460 guestrooms, including everything from luxury suites, lanai patio room types, lanai garden rooms, and lanai bayside guestrooms, as well as studio garden suites. You are sure to relax comfortably in our tranquil guest bungalows, featuring breezy patios with striking views.*

The December issue of *Current Awareness* will feature more information on the 80th Shock and Vibration Symposium including call for papers, abstract submittal instructions, and more detailed hotel information.

\*Due to increased attendance, SAVIAC changed hotels for the 80th symposium from the San Diego Hilton Resort and Spa to Paradise Point Resort and Spa

**SAVIAC  
Course**

### Shock & Vibration Winter Seminar

**Course  
Announcement**

SAVIAC invites you to attend a FREE seminar on Shock & Vibration. The course will be held on March 18, 2009\* in Virginia Beach, VA in conjunction with the SAVIAC Winter Technical Advisory Group (TAG) Meeting. SAVIAC and the featured experts in their disciplines have organized this seminar to introduce you to the SAVIAC community, while providing a valuable educational experience.

The seminar is free, but you must register to attend. Please RSVP to Ashley Shumaker, (434) 581-3041 or [ashley.shumaker@saviac.org](mailto:ashley.shumaker@saviac.org) to assure your space and note packet. The agenda will be available in December '08/January '09 and may be subject to change.

For the Winter Seminar registration form and additional information about SAVIAC, please visit our website at [www.saviac.org](http://www.saviac.org) and use the link for the Winter Seminar and TAG Meeting.

The venue hosting this event is the Cavalier Hotel. Information regarding room block reservations will be made available on-line in coming weeks.

**\* The 2009 SAVIAC Calendar (issued to symposium attendees) lists the seminar and TAG meeting in the previous week. The correct dates are March 18 for the seminar and March 19 for the TAG meeting.**

## PRACTICAL SHOCK ANALYSIS AND DESIGN COURSE

### 2009 Schedule and Locations

|              |                  |
|--------------|------------------|
| March 2-6    | (Hampton, VA)    |
| May 18-22    | (Charleston, SC) |
| August 17-21 | (San Diego, CA)  |
| October 5-9  | (Princeton, NJ)  |

#### ***About the Course***

At the first Shock and Vibration Symposium in 1947, mechanical shock was defined as "a sudden and violent change in the state of motion of the component parts or particles of a body or medium resulting from the sudden application of a relatively large external force, such as a blow or impact." Since then the specific words used have changed somewhat but the meaning remains the same. Most analysts treat shock as a transient vibration. No matter how it is described or what source produced it, the effects of mechanical shock on structures and equipment create major design problems for a wide variety of systems.

This course will provide a comprehensive treatment of practical shock design and analysis with special emphasis on applications related to the design of ship structures and equipment for shock loads produced by underwater explosions.

Participants in this course will have an opportunity to increase their knowledge and understanding of the analytical and experimental tools that are available for shock design and qualification particularly with respect to requirements that are imposed for shipboard equipment. The lectures will provide a basic review of vibration and shock theory and will present the analytical and experimental methodology in the context of particular design applications. Analytical lectures will emphasize the physical significance of the results. Examples and case histories will be used as illustrations of design approaches; workshop problems that involve class participation will be used to advantage throughout the course. Class members will be encouraged to propose real design problems. The instructors will provide guidance for solutions or the problems may be used as class exercises.

Although this course is aimed primarily at shock design applications on ships, the analysis and design techniques presented are equally applicable to problems related to design for seismic loads or blast induced ground shock. Thus, engineers in these related areas may find the course to be useful. For all who participate, the course will provide a comprehensive coverage of shock design practice and a solid basis for further exploration of shock technology.

#### ***Instructors***

Dr. Rudolph J. Scavuzzo, Mr. Henry Pusey, Mr. G. D.Hill, Mr. Jeffery Morris

#### ***Course Topics***

|                                  |                                  |                                     |
|----------------------------------|----------------------------------|-------------------------------------|
| Review of Basic Vibration Theory | Introduction to Mechanical Shock | Shock Measurement                   |
| Underwater Shock Phenomena       | Multi-Degree-of-Freedom Systems  | Navy Shock Qualification Process    |
| Shock Qualifications by Test     | Shock Qualification by DDAM      | Shock Qualification by Extension    |
| 2-Dimensional Normal Mode Theory | Practical Design Considerations  | Special Design and Analysis Tools   |
| 3-Dimensional Normal Mode Theory | Optimum Foundation Design        | Use of Finite Element Analysis-DDAM |
| General Problem Solving Workshop |                                  | Review and Wrap-up Sessions         |

#### ***Course Registration***

The Registration Fee is \$1500 per student. The registration is transferable to any person in the same organization. The fee includes a comprehensive set of course notes, a text book entitled Naval Shock Analysis and Design by Rudolph J. Scavuzzo and Henry C. Pusey, a Certificate of completion worth 3 CEUs, as well as a Continental Breakfast, Lunch and coffee breaks daily. A Registration Form may be printed out from the SAVIAC Web Site or may be requested from Sallie or Henry Pusey. As SAVIAC Technical Services Manager, Henry Pusey will arrange for the scheduling, management and presentation of all courses. All completed registration forms should be faxed or mailed to Sallie Pusey at the address given below.

#### ***For registration information contact:***

|                                |                           |
|--------------------------------|---------------------------|
| Sallie Pusey, Course Registrar | Tel: (540) 678-8677       |
| 1877 Rosser Lane               | Fax: (540) 678-8799       |
| Winchester, VA 22601           | email: saviac@comcast.net |

**NOTE: Registrants will be provided details about the course location and hotel(s) as soon as the course is firmly scheduled.**

**MECHANICAL SHOCK TEST TECHNIQUES & DATA ANALYSIS**2009 Schedule and Locations

|                  |                   |
|------------------|-------------------|
| January 12-16    | (Monterey, CA)    |
| March 30-April 3 | (Hampton, VA)     |
| July 13-17       | (Minneapolis, MN) |
| September 21-25  | (Huntsville, AL)  |

**About the Course**

Mechanical Shock may be defined as a sudden change in velocity and is a major design consideration for a wide variety of systems and their components. The structural response to mechanical shock must be measured and characterized during the engineering development of these systems so that they will survive all environments during their service lifetime. These environments may include (but are not limited to): handling and transportation shocks, shocks during system delivery to a target, use impact shocks and shock originating from an explosive or pyrotechnic event. These different shock environments have quite a velocity change range from about 1 meter per second to 51 meters per second (40 - 2000 ips). Conversely acceleration magnitudes range from 4 g's in earthquakes to 200,000 g's in differentiated LDV measured pyroshocks.

This course will provide a comprehensive treatment of mechanical shock test techniques and data analysis for shocks from 100 g's to 200,000 g's. Mechanical shock instrumentation from low frequency techniques for underwater explosions (digitally filtered at 250 Hz as required by the US Navy) to high frequency techniques for ballistic shock will be reviewed in detail along with the techniques and data analyses to evaluate the instrumentation measuring these shocks.

Mechanical shock test techniques from package testing to conventional mechanical shock machines to pyroshock simulations and Hopkinson bar techniques will be presented. Design procedures for mechanical shock equipment will be discussed in detail. Where possible, theoretical bases for mechanical shock test techniques are provided. Mechanical shock data analysis and interpretation will be a major focus of all presentations and discussions and will include shock data examination and editing as well as interpolation, trend removal, and integration with Matlab.

**Instructors**

Dr. Vesta Bateman, Dr. Howard Gaberson, Mr. Jeffery Morris

**Course Topics**

|                                                                              |                                                                           |                                                           |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------|
| Introduction to Mechanical Shock                                             | Data Acquisition System Calibration/Use                                   | Accelerometer, MEMS, and Materials Evaluations            |
| Mechanical Shock Measurement                                                 | Matlab Data Analysis                                                      |                                                           |
| Mechanical Shock Instrumentation                                             | Conventional Shock Testing Machines for Components and Full Scale Systems | Hopkinson Bar Theory                                      |
| Certification of Shock Instrumentation/Measurement Devices                   | Underwater Explosion Testing                                              | Hopkinson Bar Certifications                              |
| Time Domain Shock Specifications                                             | Navy Mechanical Shock Machines                                            | Hopkinson Bar Materials and Configurations                |
| Frequency Domain Shock Specifications                                        | Pyroshock Testing and Simulation                                          | Commercial Laser Doppler Vibrometer use and Certification |
| Shock Analysis using the Acceleration Shock Response Spectrum                | Full-Scale Pyroshock Tests and Simulations                                | Uncertainty Analysis                                      |
| Revolutionary Treatment of Pyroshock with the Pseudo Velocity Shock Spectrum | Component Pyroshock Simulations Including Apparatus and Fixture Design    | Review and Wrap-up Sessions                               |

**Course Registration**

The Registration Fee is \$1500 per student. The registration is transferable to any person in the same organization. The fee includes a comprehensive set of course notes, a compilation of papers by Instructors Bateman and Gaberson, a text book entitled *Shock Data Analysis* by Rudolph J. Scavuzzo and Henry C. Pusey, a Certificate of completion worth 3 CEUs, as well as a Continental Breakfast, Lunch and coffee breaks daily. A Registration Form may be printed out from the SAVIAC Web Site or may be requested from Sallie Pusey, SAVIAC Course Registrar (Contact Information below). A Registration Form (available mid-Dec '07) may be printed out from the SAVIAC Web Site or may be requested from Sallie or Henry Pusey. As SAVIAC Technical Services Manager, Henry Pusey will arrange for the scheduling, management, and presentation of all courses. All completed registration forms should be faxed or mailed to Sallie Pusey at the address given below.

**For registration information contact:**

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Fax: (540) 678-8799  
email: [saviac@comcast.net](mailto:saviac@comcast.net)

**NOTE: Registrants will be provided details about the course location and hotel(s) as soon as the course is firmly scheduled.**

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## A LOOK INSIDE THE NOVEMBER 2008 *CURRENT AWARENESS*



### 79th Shock and Vibration Symposium

- Wrap-Up
- Statistics
- Awards
- Guest Program
- Exhibitors
- Puseys “Thank You”

### Course Announcements

- SAVIAC’s Shock and Vibration Winter Seminar
- SAVIAC’s Practical Shock Analysis & Design
- SAVIAC’s Mechanical Shock Test Techniques & Data Analysis
- 80th Shock and Vibration Symposium

The Current Awareness newsletter is published by the Shock and Vibration Information Analysis Center, which is operated by HI-Test Laboratories, Inc., under contract to the U.S. Army Engineer Research and Development Center.

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