SAVIAC
Shock and Vibration Information Analysis Center

CURRENT AWARENESS FEBRUARY 2008

QUICK CALENDAR

- Orlando to host 79th Shock and Vibration Symposium (October 2008)
- Free Shock and Vibration Seminar (March 12, 2008, Charleston, SC.)
- Mechanical Shock Test Techniques & Data Analysis (April 7-11, 2008—Phoenix, AZ)
- Practical Shock Analysis & Design Course (March 3-7 2008—Hampton, VA)

INSIDE THIS ISSUE:

US Army Corps of Engineers Engineer Research and Development Center

Introducing a New SAVIAC Shock Course:

Mechanical Shock Test Techniques and Data Analysis

Course Overview

This five-day short course is intended for the novice shock practitioner as well as those who are already operating in the shock arena as designers, test engineers, data analysts or managers of mechanical shock testing facilities. Discussion of mechanical shock testing of items as small as Micro-Electrical-Mechanical Systems (MEMS) to full scale structures or equipment weighing hundreds of pounds will be discussed.

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 narrow velocity change range from about 1 meter per second to 51 meters per second (40 - 2000 inches per second). Conversely acceleration magnitudes range from 1g (or less) in earthquakes to 200,000 g's in differentiated Laser Doppler Vibrometer measured pyroshocks.

This new short course will provide a comprehensive treatment of mechanical shock test techniques and data analysis for shocks from 40 g's to 200,000 g's. Mechanical shock instrumentation from low frequency techniques for underwater explosions 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. Expert 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, integration, and shock spectrum analysis using Matlab programs written for shock data analyses.

Instructors are: Dr. Vesta Bateman, Dr. Howard Gaberson, and Mr. Jeffery Morris. Students will receive a comprehensive set of course notes, a collection of Matlab programs written for shock data analyses, a compilation of papers by Instructors Bateman and Gaberson, a text book entitled *Shock Data Analysis* edited by Rudolph J. Scavuzzo and Henry C. Pusey and a Certificate of completion worth 3 CEUs. Complete details and a Registration Form are on the SAVIAC Web Site, www.saviac.org, or from Course Registrar Sallie C. Pusey (540-678-8678 or saviac@comcast.net).

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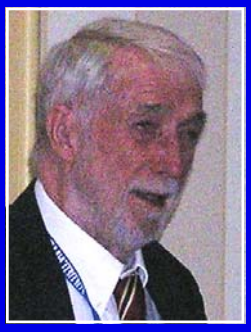
Course Announcement: Page 4 (with Dates and Locations)

Mechanical Shock Test Techniques and Data Analysis (cont.)

Dr. Vesta Bateman



Dr. Howard Gaberson

Mr. Jeff Morris

Instructor Bios

Dr. Vesta I. Bateman

Dr. Bateman is a mechanical shock specialist and retired from Sandia National Laboratories, Albuquerque, New Mexico after twenty-seven years of service. She was the Facility Leader for the Mechanical Shock Laboratory at Sandia National Laboratories where she was responsible for a wide spectrum of mechanical shock testing including drop table, Hopkinson bar, horizontal pneumatic actuator, rocket rail, live pyroshock, and pyroshock simulation shock tests. She has developed a unique shock isolator for a high shock, high frequency accelerometer as well as the test techniques and data analyses required to evaluate accelerometers and isolated accelerometers. These technologies have been transferred to industry through Cooperative Research and Development Agreements (CRADA's). Dr. Bateman also developed high frequency Hopkinson bar testing with bars made of beryllium and a technique for reconstruction of dynamic forces from accelerometer measurements to assess material crush characteristics. A paper by Dr. Bateman and her co-authors won the 1992 Henry Pusey Best Paper Award at the Shock and Vibration Symposium. She was awarded the IEST Edward O. Szymkowiak Award in 2003 for her leadership in Pyroshock Testing. She is the author of two chapters in Harris' Shock and Vibration Handbook, the ISO Secondary Shock Calibration Standard, and the IEST Pyroshock Testing Recommended Practice as well as over 100 journal and conference papers and reports. Dr. Bateman has a PhD from University of Arizona and taught for four years at Virginia Tech at the beginning of her career. She is a member of the Technical Advisory Group for SAVIAC.

Dr. Howard A. Gaberson

Dr. Gaberson is a shock and vibration specialist with 40 years of dynamics experience. He worked for the US Navy Civil Engineering Laboratory and later the Facilities Engineering Service Center from 1968 to 2000, mostly conducting dynamics research. He specializes in shock and vibration signal analysis, and has published over 120 papers and reports. His recent work includes time frequency signal processing of machinery vibrations, and the use of the pseudo velocity shock spectrum for evaluation of explosion induced equipment motion. He is the Chairman of the Diagnostics and Signal Analysis Committee and a Fellow of the MFPT Society. He is a member of the G5 Committee on Aerospace Shock and Vibration. He taught mechanical engineering for eight years and has a Ph.D. from MIT. He is the 2007 recipient of the Lifetime Achievement Award from SAVIAC, and serves on SAVIAC's Technical Advisory Group.

Jeffery A. Morris

Mr. Morris is a Mechanical Engineer and has served HI-Test Laboratories, Inc., as a test engineer for over 15 years. He regularly designs interface test fixtures and auxiliary systems to support lightweight and medium weight shock testing and vibration test operations. He has designed special test platforms and unique auxiliary systems. Mr. Morris leads lightweight, medium weight and vibration testing from designing fixtures to writing the test report. Mr. Morris' excellent organizational skills have afforded him the opportunity to coordinate all planning and scheduling for test projects issued HI-Test. He serves as lead engineer for MIL-STD-167 vibration testing, MIL-STD-740 structural and airborne noise testing, and MIL-S-901D lightweight and medium weight shock testing.

CALL FOR PAPERS

79th Symposium

79th Shock and Vibration Symposium
October 26-30, 2008
Rosen Plaza Hotel - Orlando, FL.

Planning of the 79th Shock and Vibration Symposium is underway, with the selection of the Rosen Plaza Hotel in Orlando, FL.. The featured government agency is the Air Force Research Laboratory (AFRL).

The Shock & Vibration Symposium is the oldest US Government sponsored forum dealing specifically with the shock and vibratory response of air, sea, space, and ground vehicles and structures and blast effects. The Symposium was established as a mechanism for the exchange of information among Government activities, private industry, and academia on current work and new developments. Presentations on work in progress are encouraged. Separate sessions are held for presentation of classified or limited-distribution material.

The following is a list of suggested subject areas (other subject areas are welcome):

901D Case Studies
Active Vibration Control
Ballistic Shock
Biodynamics
Blast Design
Combined Environments
Computational Structural Dynamics
COTS
Crash Dynamics
Damage Identification Damping
Data Analysis
Dynamic Analysis Methods
Dynamic Measurement
Dynamic Scale Modeling
Dynamic Testing
Environmental Databases
Finite Element Analysis
Fluid-Structure Interaction
Ground Shock
Impact/Penetration Mechanics
Instrumentation
Isolation Systems
Large Structures
Live Fire Testing
Machinery Diagnostics
Machinery Vibration
Material Dynamic Properties
Modal Analysis and Testing
Product Announcement/Facility Description
Seismic Shock
Pyrotechnic Shock
Shock Characterization
Shock Hardening
Shock Qualification by Extension
Shock Test/Equipment Failure Modes
Simulation Methods
Specifications and Standards
System Identification
Test Criteria
Test Tailoring
Underwater Shock Testing
Vibroacoustics

If you have a specific group of papers or presentations, consider submitting them together as a dedicated session for the 79th symposium.

Two categories of presentations will be accepted: full papers, suitable for publication in the Symposium Proceedings; and short discussion topics, consisting of viewgraphs with no written paper. Full papers will have a 15 minute technical presentation time plus 5 minutes for questions, while short discussion topics will have a 10 minute presentation time with no question period.

Presentations will be accepted on the basis of their abstracts, which must be submitted by June 30, 2008 (extended to August 1, 2008). You are encouraged to submit online at www.saviac.org, click on 79th S&V Symposium Abstract Submittal. The Program Committee will review the abstracts during the July Program Committee meeting and authors will be notified of acceptance by July 14, 2008 (for on-time submittals). The full paper presentations must meet the following standards: They must be previously unpublished, must be appropriate to community interests and must not be overtly commercial, except for papers in the Product/Facility Session. Standards for short discussion topics are similar except that they may include previously presented or published material.

The Proceedings will be published on CD-ROM.
The paper due-date (for the proceedings) is February 28, 2009.
Questions should be directed to Drew Perkins, 434-581-3041, or drew.perkins@saviac.org.

SAVIAC Course

Course Announcement

MECHANICAL SHOCK TEST TECHNIQUES & DATA ANALYSIS

2008 Schedule and Locations

April 7-11, 2008 (Phoenix, AZ)
August 11-15, 2007 (Bohemia, NY—Long Island)

About the Course
(See Page 1 of This Newsletter)

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

Course Topics

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

Sallie Pusey, Course Registrar
1877 Rosser Lane
Winchester, VA 22601

Tel: (540) 678-8677
Fax: (540) 678-8799
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.

78th SYMPOSIUM PROCEEDINGS DEADLINE: March 31, 2008

There were over 200 presentations at this year's symposium in Philadelphia. As such, it is requested of all authors to submit the paper that corresponds to presentations delivered in at the 78th Shock and Vibration Symposium. The greater the number of papers submitted, the greater the benefit of the proceedings to the SAVIAC community.

In 2007 we were able to release the proceedings disks earlier than in previous years. We hope to do the same in 2008, meaning that our deadline of March 31 will be crucial to this goal.

All papers received by the deadline, and those papers that are received while we prepare the proceedings CDs after the deadline, will comprise the 78th Shock and Vibration Symposium Unlimited and Limited proceedings. However, if you are unable to make the March 31 deadline, your paper should still be submitted so it may appear in later symposia proceedings.

If someone in your organization presented a paper at the 78th symposium in Philadelphia, please remind them of the March 31 deadline if they have not yet sent in their paper. Your assistance will help make the 78th proceedings of greater benefit to the SAVIAC community.

Please contact Drew Perkins at (434) 581-3041 or email paper submittals and release forms to drew.perkins@saviac.org.

SAVIAC Course

Course Announcement

PRACTICAL SHOCK ANALYSIS AND DESIGN COURSE

2008 Schedule and Locations

March 3-7, 2008 (Hampton, VA)
May 19 - 23, 2008 (Pascagoula, MS)
September 8 - 12, 2008 (Newport, RI)

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.

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

Endevco, San Juan Capistrano, CA
Market Segment Manager

Key Elements of the Position

Reporting directly to the VP of Sales and Marketing, the Market Segment Manager (MSM), will be responsible for coordinating with Product Managers/Engineering, the global sales force and Marketing Communications (MARCOM) to define marketing, pricing, product development, analysis, processes, goals, etc. The MSM is the focal point for all customer activities within the T&M market, and will have P&L responsibility for that market.

The MSM is responsible for managing all product definition, product road-maps, the "product development stage-gate process", and acts as the focal point between the external sales team and the engineering organization. In addition, the MSM will ensure that the appropriate product strategies for the various market segments are properly implemented and be responsible for forecasting, product line profitability, pricing strategy, product rationalization and overall maintenance, growth and evolution of the product family.

The MSM must understand the market and customers to achieve the Company's current and future strategic and tactical needs. The MSM will collaborate with the various teams in new product development to ensure alignment with Endevco and Meggitt's larger strategy. The MSM will play a key role in the achievement of Endevco's goal of true growth and will be responsible for increasing market share, and growing the business globally through new markets and applications.
The MSM will be responsible for the MARCOM team. There are three highly creative members of the team who have already made a significant impact in advancing the Endevco brand image with a new website and newly targeted and designed collateral marketing materials.

First 6 Months' Deliverables

Assess the current state of the T&M Marketplace and translate that assessment into actionable and measurable plans:

- Develop an understanding of the T&M market from the Endevco perspective
- Assess the product offerings for the market--match, missing, pricing, etc.
- Support the T&M market--pricing, inventory levels, sales support, benchmark, etc.
- Develop introductory campaigns for existing and upcoming new products
- Guide web site and MARCOM efforts to enhance Endevco's T&M presence
- Participate in the Stage Gate (New product development) process definition

Background Required

- Bachelor's degree required in a technical discipline such as an EE or ME. MBA is strongly preferred.
- Experience is strongly preferred in sensors for shock, vibration, pressure, force, and/or signal conditioning in one or more specifically related products/technologies, including accelerometers, transducers, silicon, strain gage, MEM's, piezoelectric, and/or piezoresistive.
- At least eight years technical sensor experience is preferred.
- Experience in an engineering, application, field support, project management or product management role with a minimum of three years Supervisory/Management experience required.
- Demonstrated experience developing business cases with objective terminology, facts, solid research, voice of customer input, etc.
- Demonstrated experience using a development process in presenting a justified idea or solution that was subsequently approved, with resources assigned, etc.
- Strong interpersonal skills with the ability to communicate and influence at all levels within the organization in both formal and informal situations.
- Experience leading Marketing Communication is preferred.
- Ability to manage, execute and deliver results.
- Strong communication skills including written, oral, presentation and facilitation skills.
- Proficient in the use of Microsoft Word, Excel and PowerPoint applications, and ACT (or other contact management software), etc.
- Ability to travel 30-40% (on a seasonal or as required basis, some of which will be international).

Compensation

Commensurate with the level of responsibilities described above. Endevco offers a highly competitive compensation, commission/bonus, and benefits package.

Contact Information

All interested and qualified candidates should contact Rita Kinney, Recruiting Consultant S. Benjamins & Company, Inc. at 949.388.6933 or by email at Rita@sbcompany.net

This is an edited listing of the job posting. For complete information, please contact Rita Kinney as listed above.

ATK Launch Systems, Salt Lake City, UT
Engineer IV, Loads and Dynamics Analysis

Purpose

The Engineer IV, Loads and Dynamics Analyst will define the structural loads and dynamics design-to environments for aerospace systems.

Duties and Responsibilities

- Define and plan team activities in collaboration with Program Manager/Chief Engineer for development, validation/verification, documentation, and certification of structural loads and dynamics environments.
- Identify potential program risks associated with structural loads and dynamics environments and implement a strategy to mitigate those risks over the program life cycle.
- Develop, maintain and update critical integrated system structural loads and dynamics math models/databases and programs, including benchmark analysis in accordance with internal team processes.
- Establish structural loads and dynamics environments in all flight regimes of integrated aerospace systems
- Apply computational modeling, simulation, flight and ground test correlation, and optimization techniques to define the system design-to certification environments
- Formally document and maintain certification environments and associated verification requirements through approved program Configuration Management (CM) process
- Track system compliance through participation in the System Design/Certification Review process

Qualifications

- A Bachelor of Science degree in Aerospace, Mechanical, or related Engineering Science is required. A Master of Science or PhD is preferred.
- 8+ years aerospace engineering experience in design analysis is required.
- Must be able to qualify for Department of Defense Secret Clearance.
- Technical background and work experience in structural loads and dynamics analysis and environments definition for aerospace systems is required.
- Experience conducting computational intensive structural loads and dynamics analyses for aerospace systems is preferred.
- Experience in planning, integration, and conducting structural loads and dynamics ground/flight tests and correlation of results with analytical data is preferred.
- Experience interfacing with internal and external customers including oral presentations to technical and management forums is required.

To apply, please contact Joelene Whittaker with Silvester & Company at (208) 939-9942 or by email at jw@silvesco.com. For more information, visit www.atk.com.

Conferences/Courses

Random Vibration and Shock Test Training

- May 13-15, 2008, 8am to 4pm.
- DfR Laboratories, College Park, Maryland

The severe vibrations aboard rockets, spacecraft and satellites en route to orbit and the less severe but sometimes troublesome vibrations of military and commercial aircraft (especially helicopters), military and naval land and sea vehicles and automobiles are among the vibration subjects that Wayne Tustin will discuss at the "Fundamentals of Random Vibration and Shock Testing, HALT, ESS, HASS (...)" course. Numerous testing laboratories, including DfR, utilize vibrating laboratory platforms (called shakers) to simulate those vibrations, proving that products will survive in-service vibrations. Further information on the event is available at http://www.equipment-reliability.com/course3.htm.

The May course will deal with accelerometers, used in measuring vibrations over the road, over the waves, in flight and during rocket launch and powered flight. Accelerometer signals are usually telemetered to recording stations. One use of the resulting data: generating programs to control shakers. These are used to test parts of future vehicles.

For more information,, please contact Wayne Tustin of the Equipment Reliability Institute at (805) 564-1260 or by email at tustin@equipment-reliability.com.

Random Vibration and Shock Test Training

- June 3-5, 2008, 8am to 4pm
- Celestica Inc., Toronto (Ontario), Canada,

Earthquakes are only one of the vibration subjects that Steve Brenner will discuss at the "Fundamentals of Random Vibration and Shock Testing, HALT, ESS, HASS (...)" course, meeting. He will also discuss the severe vibrations aboard helicopters and other aircraft, aboard rockets, spacecraft and satellites en route to orbit and the less severe but sometimes troublesome vibrations of automobiles and other land vehicles. Numerous testing laboratories, including one at Celestica, utilize shakers to simulate those vibrations, proving that products will survive in-service vibrations. Further information on the event is available at http://www.equipment-reliability.com/course1.htm.

The June course will deal with accelerometers, used in measuring vibrations over the road, over the waves, in flight and during rocket launch and powered flight. Accelerometer signals are usually telemetered to recording stations. One use of the resulting data is the generating of programs to control vibrating laboratory platforms called shakers. These are used to test parts of future vehicles.

For more information,, please contact Wayne Tustin of the Equipment Reliability Institute at (805) 564-1260 or by email at tustin@equipment-reliability.com.

PCB Piezotronics Announces 2008 Dates for Annual Corporate Seminar, "Successful Measurement of Dynamic Force, Pressure and Acceleration"

PCB Piezotronics (PCB®), a global leader in the design and manufacture of piezoelectric, piezoresistive, dynamic, capacitive and strain gage sensors for aerospace & defense, automotive, industrial, R&D, and test & measurement, has officially announced 2008 dates for its annual three-day seminar, "Successful Measurement of Dynamic Force, Pressure and Acceleration", facilitated by Dr. Pat Walter. The event will be held May 20-22 2008, near PCB® corporate headquarters in Buffalo, New York.

At this seminar, participants will learn to:

- Understand physics and operating characteristics of dynamic force, pressure, and acceleration transducers and constraints associated with their use;
- Interface transducers effectively within intended test environments;
- Condition transducer signals to maintain fidelity through selection of appropriate cabling, amplifiers, analog filters, sampling rates, DAQs, etc.;
- Document extraneous measurands (strain, temperature, ionization products of a detonation, magnetic fields, etc.) that superpose as noise on the desired transducer response;
- Apply corrective action for elimination of these noise levels;
- Validate that final, recorded signals contain only desired (force, pressure, or acceleration) data;
- Perform "back of the envelope" checks to ensure bandwidth of the recording system did not impose constraints on recorded data; and perform sensor and system calibration, data analysis, and data utilization.

The seminar will include in-house demonstrations by PCB® staff of sensor component manufacturing, as well as assembly, testing, and calibration. This three-day program is geared toward senior technicians, test engineers, engineering analysts, and test facility managers whose work depends on acquiring valid data. The seminar will begin Tuesday, May 19th at 8:00 a.m., and will conclude Thursday, May 22nd at 5:00 p.m. The cost is $595.00 USD per person, payable via MasterCard, Visa, company purchase order, or personal check, and includes seminar materials, meals and entertainment. Class size is limited to the first 40 paid registrants. To reserve your space, contact PCB® via email at mktg@pcb.com. For additional information, please visit www.pcb.com/events.

Got News or Conference Announcements?

Please submit your information to
ashley.shumaker@saviac.org
with a subject heading of
"Current Awareness News"

Endevco announces 2008 technical training seminars available at customer sites and at Endevco headquarters

These offerings include four-hour seminars on location at customer sites scheduled at their request as well as a series of multi-day courses at Endevco headquarters.

The on-site Endevco Vibration and Shock Training seminar is free of charge and designed as a value-added service for test engineers and test technicians at Endevco customers, with groups of 10 or more attendees. Suggested attendees are instrumentation technicians, test engineers, design engineers, data quality engineers, test and measurement laboratory personnel, and front-line managers in the testing community.

The seminar is technology, product design and application specific with a focus on end users of accelerometers, dynamic pressure transducers and electronics signal conditioners. It includes a comprehensive training manual for each attendee containing 23 sections of technology, application and reference information. Endevco has preselected four sections of the manual for the standard, four-hour seminar covering Accelerometer ABCs, Vibration and Shock Basics, Applications & Selection, and Best Practices. The seminar can also be customized to address specific needs.

In addition to the on-site seminars, a series of multi-day, tuition-based courses at Endevco headquarters in San Juan Capistrano, CA, will address the following topics:

Accelerometer Calibration Workshop
April 15-17, 2008
- Vibration, Shock Motion and the Physics of Shock, How Shock and Vibration Are Measured, Shock Calibration, Electrodynamic Shakers and Controls, Accelerometer Performance Characteristics and Error Sources, Reference Accelerometer Characteristics, Signal Conditioning, Do's and Don't's of Calibration, Statistics, Error Analysis, Accuracy and Uncertainty, Calibration Standards and Specifications, Hands-on Calibration System Demonstrations

Shock & Vibration Measurement
July 15-17, 2008
- Introduction to Vibration, Shock Motion, How Shock and Vibration Are Measured, Accelerometer Performance Characteristics and Error Sources, Accelerometer Designs and Performance, Signal Conditioning, Systems and Readouts, Accelerometer Calibration, Applications Considerations, Special Cases

Dynamic Pressure Measurement
Oct 14-15, 2008
- Introduction to Dynamic Pressure Measurement, Pressure Measurement Instruments, Performance Characteristics, Environmental Limits, Application Information, Electronics , Measurement of Transient Pressure Pulses, Calibration, Selection and Application, Maintenance and Recalibration

To register for these information packed courses, visit http://endevco.com/news/Events.aspx or contact Yeni Hoo at yeni.hoo@meggitt.com or 949-493-8181.

SAVIAC
Shock and Vibration Information Analysis Center

SAVIAC / HI-TEST Laboratories, Inc.
PO Box 165
1104 Arvon Road
Arvonia, VA 23004

A LOOK INSIDE THE FEBRUARY 2008 *CURRENT AWARENESS*

- Introduction to "***Mechanical Shock Test Techniques and Data Analysis***" 5-Day Course
- 79th Shock and Vibration Symposium "Call for Papers"
- 78th S&V Symposium Paper Deadline
- Course Announcements
  - *-Practical Shock Analysis and Design Course*
  - *-Mechanical Shock Test Techniques & Data Analysis*
- Other Conference/Course Announcements & Job Postings

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.

SAVIAC Main Office
1104 Arvon Road
Arvonia, VA 23004
(434) 581-3041-Ph (434) 581-3037-Fx

Program Manager
Drew Perkins
drew.perkins@saviac.org

Program & Event Coordinator
Ashley Shumaker
ashley.shumaker@saviac.org

Manager of Technical Services
Henry Pusey
(540) 678-8678
saviac@comcast.net

SAVIAC Director
Dr. Charles Robert Welch
U.S. Army Engineer Research & Development Center
Vicksburg, MS 39180
charles.r.welch@erdc.usace.army.mil