

0855 **Paper 9:** **A Comparison of Methods for Measurement of Pressure in Hydraulic Lines**
Susan Sprague, Andrew Chorney
Naval Air Warfare Center Aircraft
Division

0930 **Paper 10:** **Data Insurance How to Design a Measurement System And Test Procedure to Assure Valid Data**
Peter Stein
Stein Engineering Services, Inc

1005 Break

1040 **Tutorial:** **Dynamic Pressure Measurement**
Jim Lally
PCB Piezotronics, Inc.

1300 Lunch

1400 **Tour:** Munson Test Track, Aberdeen Proving
Ground

General Information

The Nineteenth Transducer workshop will be held June 20-21, 2000, at the Holiday Inn, Aberdeen MD.

Registration

The registration consists of a completed registration form and a fee of \$50.00 (payable to:

Ray Faulstich, Treasurer
Transducer Workshop
P.O. Box 954
Patuxent River, MD 20670

Advance registration is desirable. If possible please use registration form, include a check or money order for \$50.00 and mail to the Workshop Treasure, **Purchase orders and Credit Cards are not acceptable.** Late registration will be provided at the workshop registration desk in the hotel.

Hotel Accommodations

Holiday Inn
1007 Beards Hill Rd
Aberdeen, MD
(410) 272-8100

Early hotel reservations are strongly encouraged since a fixed block of rooms has been reserved for the Transducer Workshop.

Guests

No formal program will be planned for spouses or guests.

Tour – Wednesday Afternoon

A tour of the Munson Test Track at Aberdeen Proving Ground is planned for Wednesday, June 21, 2000. Please indicate when making your registration if you plan to attend this tour and if guests will accompany you.

Format and Background

Workshops are just what the name implies: everyone should come prepared to contribute something from their knowledge and experience. In a workshop, the attendees become the program in the sense that the extent and enthusiasm of their participation determine the success of the workshop. Participants will have the opportunity to hear what their colleagues have been doing and how it went; to explore areas of common interest and common problems, and to offer ideas and suggestions about what's needed in transducers, techniques, and applications.

General Chairman

Ray Faulstich
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NINETEENTH TRANSDUCER WORKSHOP

ABERDEEN, MARYLAND

JUNE 20-21, 2000

Sponsored by
**Vehicular Instrumentation/
Transducer Committee of the
Range Commanders Council
Telemetry Group**



Definition of The Transducer Workshop

History

The Workshop is sponsored by the Vehicular Instrumentation/Transducer Committee, Telemetry Group, of the Range Commanders Council. This committee develops and implements standards and procedures for instrumentation applications. The previous workshops, beginning in 1960, were held at two-year intervals at or near various U.S. Government installations around the country.

Attendees

Attendees are working-level people who must solve real-life hardware problems and are strongly oriented to the practical approach. Their field is making measurements of physical parameters using transducers. Test and project people who attend will benefit from exposure to the true complexity of transducer evaluation, selection, and application.

Subjects

Practical problems involving transducers, signal conditioners, and read-out devices will be considered as separate components and in systems. Engineering tests, laboratory calibrations, transducer developments, and evaluations represent potential applications of the ideas presented. Measurands include force, pressure, flow, acceleration, velocity, displacement, temperature, and many others.

Emphasis

The Workshop

1. Is a practical approach to the solution of measurement problems.
2. Strongly focuses on transducers and related instrumentation used in measurements engineering.
3. Has a high ratio of discussion to presentation of papers, and
4. Allows attendees to share knowledge and experience through open discussion and problem solving

Goals

The workshop brings together those individuals who use transducers to identify problems and to suggest solutions,

identifies areas of common interest, and provides a communication channel within the community of transducer users. The primary goals are to:

1. Improve the coordination of information regarding transducer standards, test techniques, evaluations, and application practices among the national test ranges, range users, range contractors, other transducers users, and transducer manufacturers;
2. Encourage the establishment of special sessions so that attendees with measurement problems in specific areas can form subgroups and remain to discuss these problems after the workshop concludes; and
3. Solicit suggestions and comments on past, present, and future Vehicular Instrumentation/Transducer Committee efforts.

General Chairman

Ray Faulstich
Naval Air Warfare Center Aircraft Division
Patuxent River, MD 20670
(301) 342-1553

Program

Monday, June 19, 2000

2000 Social Hour, courtesy of the Vehicular Instrumentation/Transducer Committee. All attendees welcome!

Tuesday, June 20, 2000

0730 REGISTRATION

0800 **Ray Faulstich**, General Chairman
Nineteenth Transducer Workshop

Session Chairman: Dick Krizan
45th Space Wing

0815 **Paper 1: Defining Parameters for Ballistic High Pressure Sensors**
Walter Meier, Robert Metz
Kistler Instrument AG Winterthur

0850 **Paper 2: The Future of Vibration Sensors**
Ron Denton
Wilcoxon Research, Inc

0925 **Paper 3: Discussion of Accelerometer Calibration Methods**
Herbert H. Schueneman
Westpak, Inc

1000 Break

1030 **Paper 4: A Diagnostic Fuse Containing G-Hardened Optical Alignment Sensors**
David J. Hepner
U.S. Army Research Laboratory

1105 **Paper 5: Shear Mode Quartz Shock Sensor**
Vito Cristiano
Kistler Instrument Corporation

1140 **Paper 6: The Art of Fabricating a Rotational Accelerometer**
Mike Insalaco
Kistler Instrument Corporation
Amherst, NY

1215 Lunch

1330 **Tutorial: The measurement of Meaningful Shock and Vibration Data**
Dr. Patrick Walter
Endevco Corporation
Texas Christian University

Wednesday, June 21, 2000

0730 Convene

Session Chairman: Jim Barnes
Dugway Proving Ground

0745 **Paper 7: High Temperature Sensors in Jet Turbine Engines**
Joe Whittington
Vibra-Metrics

0820 **Paper 8: In-Bore through In-Flight Acceleration Measurements on High-g Munitions**
Bradford S. Davis, David J. Hepner, Peter C. Muller, Thomas E. Harkins
U.S. Army Research Laboratory