

9:00 am Acoustic-emission Inspection of Components of the MX Missile
D. Gardner, Hercules, Inc

9:30 am Prerequisites to the Development of Viable NDE Technology for Composite Materials
H. Chaskelis, Naval Research Laboratory

A pragmatic approach to provide the necessary information and tools required to develop meaningful NDE technology is being implemented at the Naval Research Laboratory. This report describes the unique instrumentation which has been developed to measure the structural response of composite materials under complex loads, as well as the rationale which led to this pragmatic approach. Preliminary results are discussed.

10:00 am Coffee Break

10:30 am Automated Ultrasonic Inspection of Materials and Structures
B. Djordjevic, Martin-Marietta

11:00 am Ultrasonic Reflection and Back-scattering Technique to Evaluate Impact Damage and Porosity in Composites
D.K. Lemon, Battelle Pacific Northwest Laboratories

This paper describes the application of two techniques to impact-damaged areas in aramid fiber-epoxy composites: a frequency-dependent ultrasonic back-scattering measurement in which a broadband ultrasonic pulse is transmitted into the specimen, and a frequency-domain technique based on the measurement of the frequency-dependent reflection coefficient of the structure. Two-dimensional, gray scale images of damaged areas are shown.

Wednesday Afternoon, November 9

10. HERCULES, INC. Rm: HOTEL LOBBY

1:30 pm Tour of Hercules, Inc.'s Filament Winding Fabrication Facility in Clearfield, UT. Hercules policy requires verified U.S. citizenship of all tour participants.

Program for 1983 Fall Joint WRSGC/ TCSG Meeting

Hotel Utah, Salt Lake City

Thursday Morning, November 10

Rm: BONNEVILLE 1

8:00 am WRSGC/TCSG Delegate Check-in

8:30 am WRSGC/TCSG Chairmen's Welcome

8:45 am WRSGC Sponsor Presentations

9:30 am Successful Strain-gage Experience with New and Unique Materials
L.C. Shull, Naval Weapons Center

10:15 am Coffee Break

10:45 am Large Graphite/Epoxy Composite Tubes as Moment and Torque Transducers
C.P. Wright, TRW Space and Technology Group

11:30 am Workshop

12:15 pm WRSGC Business Meeting

12:45 pm Luncheon

Thursday Afternoon, November 10

Rm: BONNEVILLE 1

2:00 pm TCSG Business Meeting

2:15 pm Panel Discussion of TCSG Strain-gage Monograph

3:30 pm Coffee Break

4:00 pm Panel Discussion of TCSG Strain-gage Monograph, continued.



The famous Mormon Tabernacle Choir performing in Salt Lake City, site of the 1983 SESA Fall Meeting