

JANNAF NDES, RNTS, and S&MBS Convene in San Diego

More than 130 propulsion industry representatives convened for the 15th Nondestructive Evaluation Subcommittee (NDES), 24th Rocket Nozzle Technology Subcommittee (RNTS), and 37th Structures & Mechanical Behavior Subcommittee (S&MBS) joint meeting, which was held at the Hilton San Diego Mission Valley from 31 October to 3 November 2005. Dr. Robert Little of the Aviation & Missile Research, Development and Engineering Center (AMRDEC) at Redstone Arsenal, Alabama, and the incoming S&MBS chairman, served as the joint meeting chairman. Little succeeds Dr. Gregory Ruderman of the Air Force Research Laboratory (AFRL). Mr. Donald R. Wickham of the Ogden Air Logistics Center at Hill AFB, Utah, presided as NDES Chairman, and Mr. Stuart Bridges of AFRL continued as RNTS Chairman.

Over 60 papers were presented in 14 technical sessions. Focus topics for this meeting included Space Shuttle Booster Separation Motor (BSM) graphite nozzle investigations, nozzle ply-lift studies, sensors and health monitoring, and aerospace grade rayon replacement for rocket nozzles. The JANNAF legacy lecture series continued with presentations from three esteemed propulsion technologists. Mr. Thomas Duerr discussed early structural analysis efforts and bondline separation studies on Pershing and other Army motors; Dr. Robert B. Kruse discussed the advances in Army propulsion technologies from Pershing to Patriot; and Dr. William L. Hufferd discussed enabling technologies for solid propellant structural integrity analysis from the 1950s through the 1980s. Hufferd recently retired as CPIAC Director and was honored by S&MBS with the Subcommittee Certificate of Recognition for a lifetime of outstanding contributions towards the advancement of solid rocket propellant propulsion. As Frank Tse stated during presentation of the award, "Dr. Hufferd had a key role in the development of structural analysis methods and characterization of the mechanical behavior of solid propellant throughout his career in the rocket motor industry, academia, and finally as Director of the Chemical Propulsion Information Agency (CPIA)."

In other subcommittee developments, the S&MBS Defect Evaluation Panel formally adopted the Fracture Toughness Standard, and CPIAC announced its plans to convert the JANNAF Solid Propellant Mechanical Behavior Manual, CPIA Publication 21, into electronic form over the next year. NDES continues the development of its own handbook that will be published in electronic form. Chapters describing the process for preparing an NDE master plan and the computed tomography technique as applied to rocket motors have been completed. The subcommittee plans to conduct an NDE tutorial at the next joint meeting. Members of the RNTS Nozzle Control Systems Panel will review and provide additional input to the CPIAC draft technology review on Thrust Magnitude Control in Tactical Solid Rocket Motors. Not all was business, as more than 80 JANNAF participants and their guests enjoyed an optional Wednesday sunset dinner cruise of the picturesque San Diego Bay. The CD-ROM proceedings of the meeting, including the legacy session presentations, will be available in approximately four weeks. For ordering information, please contact CPIAC Customer Service at 410-992-7300, ext. 211 or 202.

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