Philadelphia Chapter of the American Helicopter Society

DINNER MEETING

Tuesday, February 12th, 2008

Program: “Non-Destructive Techniques in the Aerospace Industry”

Speaker: Dr. Valery Godinez

Sponsor: Olympic Tool

Place: D’Ignazio’s Towne House Restaurant,
117 Veterans Square, Media, PA 19063

Time: Cocktails - 5:30 pm, Dinner - 6:30 pm, Presentation - 7:15 pm

Menu: Prime Rib, Baked Salmon, Pasta Primavera

Registration: Deadline Friday February 8th Please!
AHS Members and Guests* $ 20.00
Non-Members $ 26.00
AHS Student Members $ 10.00
AHS Member Couples $ 35.00
Spouses are encouraged to attend!
* Please fill out the guest voucher on reverse side to receive the guest rate.

Reservations: email: grpphlahs@boeing.com
Phone: 610-591-3230
If you need to cancel your reservation please do so by 10 AM.
Valery Godinez, “Non-Destructive Techniques in the Aerospace Industry”
AHS Dinner Meeting, February 12th, 2008

About our speaker ....

Dr. Valery Godinez holds a B.Sc. in Physics from the National University of Mexico, and M.Sc and Ph.D. in Nondestructive Evaluation (NDE) from The Ohio State University. He was a senior researcher with The Institute for Electrical Research in Mexico, where he developed NDE instruments for application in the power industry. He joined Physical Acoustics Corporation (PAC) in 1999 as part of the Research Contracts & Applications (RC&A) group. Valery has more than 20 years of valuable experience in the areas of Acoustic Emission and Ultrasonics, and his NDE activities include the development of AE solutions for great variety of industries ranging from Pharmaceutical and Food to Aerospace and Civil Infrastructure applications. His expertise include areas such as a digital signal processing and classification of data using pattern recognition techniques. He has been the principal investigator in several SBIR projects both Phase I and II related to the inspection of composite materials used in light-weight armor, NDE of personal armor, development of AE/Vibration fusion techniques, inspection of ballast tanks in nuclear submarines and process monitoring. He is also involved in the development of damage detection systems based on AE for drive coupling systems in aircraft, AE characterization of leather and AE monitoring of composites used in the biomedic field. Dr. Godinez is a member of The American Society for Nondestructive Testing (ASNT) and the Society for Advancement of Material and Processes Engineering (SAMPE). Currently he is the Manager of Research Contracts & Applications for the Mistras Holdings Group.

Abstract: “Non-Destructive Techniques in the Aerospace Industry”

Acoustic Emission (AE) is generally defined as high-frequency stress waves produced by the rapid release of strain energy occurring in a material during crack growth, plastic deformation or phase transformation. The energy released may originate from stored elastic energy as in the case of crack propagation or from chemical-free energy as in the case of phase transformation. Sources of AE in materials or structures include local dynamic movements such as dislocation movement, crack initiation and propagation, twinning, slip, sudden reorientation of grain boundaries, martensitic phase transformation, bubble formation and cavitation during boiling, matrix cracking, delamination formation, and fiber breakage in composites, active corrosion and leaks in storage tanks, etc. Because of its sensitivity to a very large spectrum of phenomena related to structural integrity, AE has become a very important and recognized Non-Destructive Testing (NDT) method. This presentation will address the basic concepts used in AE NDT and will review some of the most popular AE applications in the Aerospace Industry.
About our sponsor ....

Olympic Tool is a modern machine shop involved in the manufacturing of machine parts and critical components for the Aerospace Industry. Olympic is one of the few Boeing subcontractors who meets the requirement of "Boeing Preferred Supplier". Olympic employs 50 people in a 75,000 square foot building located in Aston, PA.

Olympic has been a loyal sponsor of the American Helicopter Society, Philadelphia Chapter.