



AIAA

American Institute of Aeronautics and Astronautics

Hampton Roads Section



Aviation's Outstanding
Very Large Section

ANNUAL AXEL T. MATTSON LECTURE

Presenting HRS Engineer of the Year

Dick DeLoach

Senior Research Scientist
NASA Langley Research Center

Getting Ten Pounds in a Five Pound Sack and Other Magic Tricks with the Modern Design of Experiments

Dick DeLoach is a senior research scientist in the Aerodynamics, Aerothermodynamics, and Acoustics Competency at NASA Langley Research Center and a long-time AIAA member. He has been engaged in the development of NASA testing technology for over 30 years. In 1997, he introduced to the Langley wind tunnel community an alternative research procedure known as the Modern Design of Experiments (MDOE). Conventional aerospace research is dominated by methods known as One Factor at a Time (OFAT) testing. High data volume is important in OFAT testing, and high data acquisition rates are regarded as a key OFAT productivity metric. By contrast, productivity is achieved through MDOE by recognizing that there is an upper limit on the volume of cost-effective data that can be acquired in a research project. This limit tends to be smaller than the volume of data acquired in a typical OFAT test by a factor of 2 to 5, permitting substantial productivity gains to be achieved. This talk will draw on practical experience gained in the application of MDOE methods to over 40 major wind tunnel and lab facility tests and will discuss overcoming the cultural inertia that tends to impede non-evolutionary technology such as MDOE.

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DATE, TIME & PLACE

Wednesday, April 30, 2003

Point Plaza Hotel (formerly Ramada Inn)
950 J. Clyde Morris Blvd. (599-4460)

6:00 PM Social (Cash bar)

6:30 PM Dinner

7:30 PM Program

MENU

Entree Choices:

Garlic Chicken Breast

Sliced London Broil

Vegetarian Plate

Includes:

Vegetables, Potatoes, Garden

Salad, Hot Rolls and Butter

Dessert, Coffee/Tea/Decaf

Cost: \$10.00 for Members/Guests, \$12.00 for Non-members, \$8.00 for Student Members. Non-members joining AIAA at this event will receive a complementary dinner. Please pay at the door. Checks should be made out to AIAA.

Reservations are requested by Friday, April 25, 2003, please indicate choice of Entrée.

Contact: Rob Kudlinski (757) 864-6716 r.a.kudlinski@larc.nasa.gov

Alternate: John Lin (757) 864-5556 j.c.lin@larc.nasa.gov