

**Final Report for:
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**Submitted to:
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3rd International Planetary Probe Workshop

**June 27th – July 1st 2005
Anavyssos, Attiki, Greece**

Funded Value: \$5,000.00

The 3rd international Planetary Probe Workshop took place on June 27th – July 1st, 2005 in Anavyssos, Attiki, Greece. The purpose of this annual workshop was to bring together the community of planetary scientists, spacecraft engineers, and mission designers and planners whose expertise, experience, and interests are in the area of entry probe trajectory and attitude determination, and the aerodynamics and measurement of aerodynamic and aerothermodynamic properties of planetary entry vehicles.

The 4 day workshop will comprise invited talks of 30 minutes, submitted oral contributed presentations of 15 minutes, posters, and discussions on past, current, and future methods and instrument technologies for entry and descent science including *in situ* measurements of atmospheric properties, and the reconstruction and analysis of probe entry and descent trajectories. Topics to be addressed include instrumentation, methods, and algorithms currently employed, results from previous entry probe missions such as Huygens, Beagle-2, Mars Exploration Rovers, and Genesis, future missions such as Stardust and Phoenix, and new and novel instrumentation and techniques for future missions. The workshop was co-sponsored by the Boeing Company, ESA, NASA, the University of Idaho Department of Electrical and Computer Engineering, and the Institute of Materials Science, NCSR "Demokritos" Greece.

A unique feature of this workshop is an emphasis on U.S. student participation; thereby strengthening the future pool of entry systems engineers and scientists. A grant from the NASA Marshall Space Flight Center in the amount of \$5,000.00 was used to help defray workshop costs for student participants. Although reduced registration and hotel accommodations have been made for student participants, expenses for this year's workshop (which is bi-annually hosted at a U.S. or European site) exceed the funds available to most graduate and undergraduate students. To further mitigate this cost,

the workshop organizing committee established a student scholarship fund to provide support for a number of students from the U.S. to attend the workshop. Numerous students from across the country applied and ultimately 12 U.S. students from 6 different universities were selected by a scholarship committee (composed from a subset of individuals on the workshop organizing committee). Scholarship selection was based on a number of factors, the primary factor being the level of student involvement in the workshop. Scholarships of approximately \$2500 were paid to each student presenting a paper or a poster of direct relevance to the Workshop. Scholarships of approximately \$500 were paid to students performing research or study in the entry systems field, who wanted to participate in the workshop without presenting in a paper or poster session. The funds from this grant were used to defray workshop participation costs of 2 students who presented papers at the workshop. An individual account within the School of Aerospace Engineering at the Georgia Institute of Technology was set up to manage and disburse student scholarships. Georgia Tech did not place any overhead or administrative charges on this account.

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