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**Richard T. Howard
Robert D. Richards**
Editors

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Introduction

This was to be the fourth year of the Spaceborne Sensors conference, and it was the fourth year for that conference and more. The Sensors and Systems for Space Technologies conference included Spaceborne Sensors, Propulsion Sensors, Spacecraft Platforms and Infrastructure, and Modeling, Simulation, and Verification of Space-based Systems. As part of the Space Technologies and Operations Track at the 2007 Defense and Security Symposium, the Sensors and Systems for Space Technologies conference covered important parts of any space operation: How do you model your sensors and systems? How do you verify and test them? How well do they work on orbit? This year's conference answered those questions in a variety of ways.

The keynote speaker this year was Mr. Bob Friend of The Boeing Co. (who just won their 2006 Engineer of the Year award!). He is the Project Manager and Chief Engineer of the Orbital Express project; a project that launched two satellites in orbit in March, 2007 and is scheduled to operate until June, 2007. His talk was entitled "Orbital Express: Mission Status and Goals." The talk was about the Orbital Express mission, which combines experiments testing all of the different capabilities that a satellite servicing system might need: fluid transfer, orbital replacement unit transfer (such as batteries and computers), and sensors for automated rendezvous and docking. These technologies have been in development and testing on the ground for years, but this was the first United States experiment to put them all together on orbit.

Overall, there are 36 papers in these proceedings, covering sensors, systems, methodologies, and technologies ranging from individual components all the way up to full operational sensors and systems as well as laboratory work in sensor analysis and theoretical research.

Many of the theoretical and laboratory technologies presented in previous years were back this year with updates and improvements, and it has been very nice to see the progress of sensors, systems, and technologies over the years this conference has been in place; several items first presented two or three years ago have now been flown in space. Space operations are key to the future of people and countries, both in defense and in expanding the use of space for civil purposes. The Sensors and Systems for Space Technologies conference contributes to the future by getting professionals together to hear one another's approaches to problems and allowing technologists to discuss innovative ideas.

We want to thank all of the authors for their time and energy in getting papers and presentations to the conference, and we want to thank the program committee for their efforts in encouraging authors. Without your hard work, this conference would not have been a success. In addition, we would like to thank

SPIE for supporting the Space Technologies Track and for all their assistance in bringing everything together. Finally, thank you to all of you who attended the sessions, asked interesting questions, and prompted further discussions both during and after the sessions.

Richard T. Howard
Robert D. Richards