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Edward M. Carapezza
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Introduction

Interest in unmanned and unattended sensors and sensor network technologies and systems has dramatically increased over the past years. Related systems are being developed in support of military, intelligence, law enforcement, commercial industrial, commercial physical security, and environmental monitoring applications around the world. Government agencies are making large investments to develop related military, homeland defense, and homeland security technologies. The task of defending U.S. assets and monitoring our borders with only manned assets is overwhelming. Government and commercial organizations are becoming much more aware of the limitations and costs of using only manned systems. Recent news articles have indicated that the United States may significantly increase the use of unattended ground and ocean sensors for homeland security applications, such as land and coastal border monitoring. The commitment and contributions of presenters and attendees to this conference will help to bring more effective unmanned and unattended systems into more common use over a range of challenging applications.

The conference contained 50 papers organized into sessions covering recent advances in unmanned systems technology, laser and fiber optic sensor systems, sensor networks, sniper and mortar detection technologies, security and perimeter detection systems, unmanned sensor technologies, active and passive image sensing and processing, and advanced free-space optical communication techniques and applications.

Thanks to those who prepared and presented the technical papers, and for their contribution to a very successful meeting. The success of this conference is attributed to the participation of the commercial, university, and government research-and-development community, as well as the organizing efforts of the diverse and talented program committee. Thanks to our presenters and colleagues who traveled great distances to contribute to the success of this conference. Special thanks to Dr. John Dolan, Carnegie Mellon University, and Dr. John Parmentola, Office of U.S. Secretary of Army, for stimulating keynote presentations. Special thanks also to our Conference Program Committee for helping to organize interesting sessions with excellent technical papers. Dr. Bahram Javidi, University of Connecticut, Dr. Grant Gerhart, and Mr. Todd Hintz were particularly helpful in conference planning, organizing, and executing this program. Finally, an extra special thanks to all of the conference attendees for their interest and enthusiasm.

The conference was well attended. We hope the interest in this technology continues to grow, and that this conference will expand with even greater technical content and significance in future years.

Edward M. Carapezza