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Ground/Air Multisensor Interoperability, Integration, and Networking for Persistent ISR IX

Michael A. Kolodny
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Editors

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Introduction

This was the ninth (and final) year that the conference on Ground/Air Multisensor Interoperability, Integration, and Networking for Persistent ISR will be part of the SPIE Defense + Commercial Sensing. Held 16–18 April 2018 in Orlando, Florida, the goal of this conference was to bring together the technical, operational (users), and policy community and provide a forum for discussion of problems, issues, and technology involving interoperability for persistent ISR. The conference was about promoting and advancing technology and interoperability for persistent ISR resulting in enhanced situational understanding for the coalition of warfighter decision makers.

The Ground/Air Multisensor Interoperability, Integration, and Networking for Persistent ISR conference was first organized nine years ago due to a confluence of events:

- Reductions in DoD budgets resulting in increased importance on coalition operations
- Lessons learned from current operations
- Increasing requirements and thrusts for standardization and common interfaces
- Recent growth and importance of ISR assets and applications for situational understanding.

Although the above considerations are still relevant, we found the focus of our conference gradually shifting over the years with an increasing emphasis on artificial intelligence, machine learning, man/machine collaboration, and automated tools for aiding the analysts and decision makers in obtaining the most relevant information available for the mission at hand. As such, we decided to combine forces with the Next Generation Analyst conference and have petitioned SPIE Defense +Commercial Sensing to organize a new conference beginning in 2019: "Artificial Intelligence and Machine Learning (AI/ML) for Military Applications," with a focus as follows:

- Learning in complex environment
- Resource-constrained AI processing at the point-of-need
- Generalizable and predictable AI
- Human-agent teaming
- Distributed analytics for situational understanding
- Internet of Things (IoT) for battlefield applications.

This year's conference had 45 technical papers with oral presentations spread over 12 sessions. We hope you find these proceedings both provocative and informative. We are anticipating an even more exciting new conference at SPIE Defense + Commercial Sensing in 2019, which will be 14–18 April in Baltimore. We hope that everyone will join us then when we kick off our new conference.

It has been my pleasure to serve as chair and co-chair of the Ground/Air Multisensor Interoperability, Integration, and Networking for Persistent ISR conference for the last nine years, but I will be retiring from the SPIE chair role and will be letting the younger folks take over. I thank everyone for the support over the years.

Michael A. Kolodny