



ABSTRACT SUBMISSION

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"TAKING UAS TO THE NEXT LEVEL"

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ABSTRACT:

Following a long history of success in providing our clients with engineering-grade aerial mapping products using manned aircraft and the state of the art mapping sensor technology, Woolpert is investing in unmanned aerial systems (UAS) to complement the manned aircraft operations. In order to provide our clients with the expected high quality products, Woolpert developed a metric acquisition system using a fine quality metric digital camera, dual frequency GPS, Inertial Measurement Unit (IMU), and a stable unmanned aircraft platform. The presentation will provide insights into the overall workflow for producing engineering grade ortho-rectified imagery and digital elevation models using our metric UAS system. The presentation will also discuss the spatial accuracies for the generated products and evaluate it according to the map accuracy standard for large scales maps developed by the American Society of Photogrammetry and Remote Sensing (ASPRS). Requirements necessary to differentiate the metric acquisition system from other options currently used for small, non-metric UAS-based imagery collection solutions will be discussed in the presentation.

BIOGRAPHY: Jeff Lovin

Jeff Lovin is Senior Vice President and Managing Principal of the Geospatial Division of Woolpert, a national geospatial, design, and engineering firm headquartered in Dayton, Ohio. Mr. Lovin has spent his entire 28-year career in the geospatial profession at Woolpert, where he has developed a diverse technical background as well as project management skills, senior leadership expertise and advocacy experience. Mr. Lovin has been integral to Woolpert's integration of leading-edge technology while also playing a critical role in the development of proprietary software and technology that also positions the firm as a leader in photogrammetry and remote sensing.

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