



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

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NGA develops, tests 3D modeling technology for Army

SPRINGFIELD, Virginia. – Members of the National Geospatial-Intelligence Agency recently demonstrated the tactical and strategic effectiveness of lidar data near Fort Leonard Wood, Missouri, creating 3D geospatial information products in an austere connectivity environment and delivered them to the U.S. Army within two hours.

The demonstration, part of an Army study supported by the Army's Training and Doctrine Command Proponent Office-Geospatial from Fort Leonard Wood, overlaid 3D maps on several types of highly accurate geospatial data to create the 3D models.

The team used a lidar scanner mounted on a small unmanned aerial system, or sUAS, and a truck-based platform to collect data about a railroad bridge near the fort and fused the data to create a comprehensive 3D picture of the bridge structure.

NGA research scientists also flew a sUAS over the bridge to collect electro-optical imagery for colorizing the lidar data and producing an orthophoto — a computer-generated image that eliminates distortions caused by terrain and camera tilt.

3D modeling allows analysts to determine more exact measurements of structures and conduct safety assessments. The measurements and assessments also allow military leaders to make better informed tactical and strategic decisions regarding troop movement, logistics and demolition requirements.

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About NGA

NGA delivers world-class geospatial intelligence that provides a decisive advantage to policymakers, warfighters, intelligence professionals and first responders.

NGA is a unique combination of intelligence agency and combat support agency. It is the world leader in timely, relevant, accurate and actionable geospatial intelligence. NGA enables the U.S. intelligence community and the Department of Defense to fulfill the president's national security priorities to protect the nation.

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