

INTEGRATED BUILDING INTERIOR SURVEILLANCE SYSTEM (IBISS)



The Leidos IBISS addresses an urgent need for advanced situational awareness.

The IBISS uses stand-off through-wall radar sensors to provide warfighters with a 3-D building interior floorplan, including the locations and movements of occupants, integrated into an intuitive interactive display. This removes the enemy's advantage of concealment and surprise.

STANDOFF BUILDING INTERIOR SITUATIONAL AWARENESS

CONVERT THIS



RED: Has the Advantage of Concealment and Surprise

INTEGRATED BUILDING INTERIOR SURVEILLANCE SYSTEM (IBISS)

- ▶ Stand-off Through-Wall Radar
- ▶ 3-D Floorplan Extraction
- ▶ Occupant Detection and Tracking
- ▶ Occupant Discrimination
- ▶ Wall Material Property Estimation

TO THIS



BLUE: Full Building Interior Situational Awareness Before the Mission

PROVEN PERFORMANCE

The IBISS has been rigorously evaluated throughout its development to ensure its ability to reconstruct building interior floorplans and track dismounts through multiple exterior-grade walls. The system's success was demonstrated during early development in several independent government blind test evaluations. Under subsequent funding, Leidos has further refined the program using multiple diverse data sets and collection conditions.

The system has been extensively tested during thirteen separate field data collections. Current processing throughput, with minimal parallelization in standard multi-core servers, supports interior reconstruction within thirty minutes after data collection and provides a real-time display of track updates for building occupants.

The system has been field tested to ensure it can be used with wireless/satellite communications to fuse results across multiple platforms and transmit them to remote sites for building monitoring miles away from target mission areas.

ABOUT LEIDOS

Leidos is a Fortune 500® information technology, engineering, and science solutions and services leader working to solve the world's toughest challenges in the defense, intelligence, homeland security, civil, and health markets. The company's 32,000 employees support vital missions for government and commercial customers. Headquartered in Reston, Virginia, Leidos reported annual revenues of approximately \$10.19 billion for the fiscal year ended December 28, 2018.

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