

INNOVATIONS IN NEXT GENERATION CB THREAT CHARACTERIZATION AND ASSESSMENT FOR DECISION SUPPORT

The Hyper-cam Nano: The Next-generation Thermal Infrared Hyperspectral Imaging System.

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Telops has a 20-year history in the design, integration, and deployment of thermal infrared hyperspectral imaging systems through the legacy Hyper-Cam line. Advances in critical subsystem technologies has allowed Telops to develop the next-generation of hyperspectral imaging systems with significant reductions in Size, Weight, and Power (SWaP) requirements while maintaining imaging and data quality performance. This reduction in SWaP requirements yields a significant increase in deployment flexibility, allowing for increased capability for collecting actionable hyperspectral data of remote or difficult-to-access targets.

This presentation will serve as an overview of the system architecture and analysis capabilities of the Hyper-Cam Nano, the next-generation thermal infrared hyperspectral imaging system. The Hyper-Cam Nano platform includes a miniaturized (172 x 172 x 181 mm) Fourier Transform Spectrometer (FTS) mounted on a gimbal affixed an octocopter drone. Taking benefit of state-of-the-art electronics and computer systems, the real-time data analysis embedded in the Hyper-Cam Nano enables unprecedented ease of use and conviviality without compromise to performance. This novel instrument will offer new capabilities in gas detection and identification applications for the defense, industrial and environmental sectors.