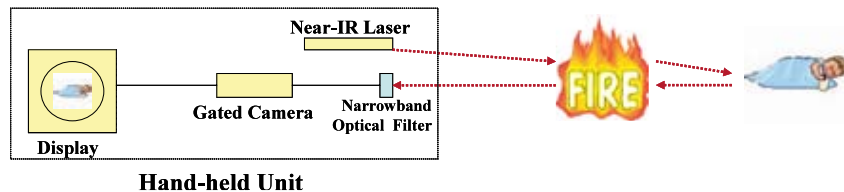




LITO: Laser Imaging Through Obscurants

Eye-safe, SWIR Lidar system for imaging through obscurants



Need: Visualization through common obscurants such as fire, fog, rain, dust and sand represents a difficulty to many branches of the military. As a result, the ability to add or enhance such visualization would have significant applications in: special operations, surveillance, aviation, targeting systems, home-land security, transportation and maritime activities

Technology Description: This Short-wave infrared (SWIR), range-gated, light detection and ranging (Lidar) system enables the characterization, ranging and visualization through many types of obscurants. The system is man-portable, lightweight, and operates at 1.5m, which is covert and safe to the human eye.

Capabilities

Imaging: The system provides high-quality images through fire, smoke, rain, fog, haze. It will provide an image of the target for easier characterization through obscurants.

Ranging: Range information is provided via a high-resolution image, not simply a range point. This is mission critical for systems that require positive identification of the targets.

Potential Applications

- Special Operations
- Targeting systems
- In-port surveillance
- Helicopter landings
- Brownouts/Dust storms
- Firefighting



Real Examples

Visible Camera



LITO System



Visible camera in Rain/Drizzle



LITO system in Rain/Drizzle

