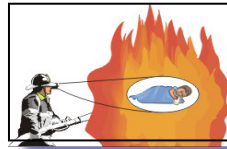
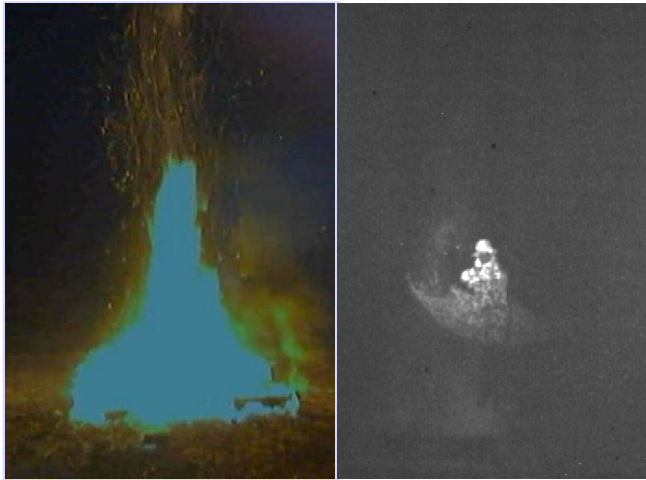




FireLidar: A Nonthermal Means of Imaging Through Fire, Smoke and Fog



Fire Fighting



**Battlefield Targeting/
Night Vision**

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.

Projected Range: 1- 300meters

Capabilities

- Image through fire, smoke, haze, fog, water vapor,
- Not blinded by thermal bloom or reflection off of glass
- Illuminated SWIR imagery - object detail
- Images all objects, not just those with a thermal signal
- Equivalent day or night performance
- Configurable for many platforms (i.e. handheld, helmet mounted, backpack style)

Potential Applications

- Searching for trapped victims in fires
- Searching for hazards (downed wires, holes in floors, missing steps)
- Forest fires
- 1st responders to natural disaster/terrorist attacks
- Camouflage fires
- Enhanced night vision

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