



## **OPTRA Inc. Awarded Phase II U.S. Air Force SBIR Contract for LWIR Grating Spectrometer for Threat Warning**

Topsfield, MA (April 1, 2010) - OPTRA Inc. was awarded a \$748,900 SBIR (Small Business Innovative Research) Phase II grant by the Air Force to develop a reliable energetic event sensor. Examples of energetic events range from muzzle flash to high explosive fireballs. The sensor is intended to monitor large areas to detect, locate, and classify such events in real time and to cue other sensors to examine the area surrounding the event. In response to this need, OPTRA is developing a hyperspectral imager based on a grating spectrometer operating in the long-wave infrared region. The grating multiplexes the use of an imaging array to enable rapid and simultaneous collection of both spatial and spectral information about the event. The spatial information is used to ascertain the location of the event, while the spectral information will be used to distinguish between events of interest and false alarms. The proposed technology is compact, contains no moving parts, and provides rapid spatial and constituent information of energetic events, thereby making it an ideal solution for this detection problem. In addition to applications in all branches of the armed forces, the proposed technology could also be used by homeland security and civilian police forces, and other security services. The threat warning sensor could be used to autonomously monitor high value targets, facilities, assets or high crime areas.

OPTRA has a history of winning leading-edge technical development contracts for both commercial and government related research. Furthermore, OPTRA has a track record of transitioning these development contracts into successful commercial products and licensing agreements. Key areas of expertise include metrology, laser detection, laser beam steering and spectrometer systems, all based on state-of-the-art electro-optical technology. In the area of metrology, OPTRA markets the NanoGrid®, NanoScale®, and NanoGage® nanometer resolution grid and linear encoder products to the semiconductor, disk drive, and general research industries. OPTRA's laser detection product is intended to alert users of the presence of potentially hazardous laser radiation and to save a permanent record of the event. In the laser beam steering market, OPTRA's products use Risley prisms to point and scan a laser in rangefinder, designator, optical communications, and laser trepanning and micromachining applications. Finally, OPTRA is the sole supplier of spectrometer modules to the JSLSCAD program, a field rated chemical agent detection system. Utilizing these areas of expertise, OPTRA has full confidence that the threat warning sensor development effort will be successful in meeting the Air Force's needs.

### CONTACT:

Sales Department

OPTRA, Inc.

461 Boston Street

Topsfield, MA 01983-1234

Phone: (978) 887-6600

Fax: (978) 887-0022

Email: [Sales@OPTRA.com](mailto:Sales@OPTRA.com)

Web: [www.OPTRA.com](http://www.OPTRA.com)