

## SPIE

The annual SPIE Aerosense Conference and Exhibition at the Gaylord Palms Resort & Convention Center in Orlando, Florida will be held during the week of March 28th through April 1st.

SBIR will once again be presenting a myriad of technical papers and displaying our extensive line of standard products and test systems. We will also be demonstrating our industry-leading IR Windows™ Software System that is used for automating tests of IR, visible and laser systems. Additionally, we will be showing the latest developments in our MIRAGE dynamic IR scene projector product line. Two new products—the RAD 9000 Spectral Radiometer and MPETS (Modular Portable EO Test System) will be introduced at the exhibition.

Come by and see us at booth #411 to receive information about all that SBIR has to offer.

### SBIR Technical Papers Include:

- Advanced target projector technologies for characterization of staring-array-based EO sensors (5784-32)
- Advanced man-portable test systems for characterization of UUT's with laser range finder/designator capabilities (5784-33)
- RAD-9000: A high performance spectral radiometer for EO calibration applications (5784-34)
- Advanced test systems for production testing of cameras with day/night and visible/NIR capabilities (5784-35)
- MIRAGE: Developments in IRSP systems, RIIC design, emitter fabrication, and performance (5785-01)

## SBIR's NEWEST PRODUCT: MPETS

### Man-Portable Electro-Optical Test System (MPETS)

MPETS represents the next generation of Electro-Optical (EO) Automatic Test Equipment (ATE) for use in U.S. military test applications. MPETS utilizes an innovative design approach combining modular EO subsystems, novel core technologies, and COTS components—while offering portability, high performance, and operational flexibility. The initial application of MPETS is with the Reconfigurable Transportable Consolidated Automated Support System (RTCASS), in support of existing and emerging government EO sensor platforms.

MPETS hardware and software are currently being developed by Boeing and Santa Barbara Infrared (SBIR), and will support test and evaluation of both existing and emerging visible (VIS), infrared (IR), and laser range finder/designator (LRF/D) systems.

Santa Barbara Infrared, Inc.  
30 S. Calle Cesar Chavez, Suite D  
Santa Barbara, CA 93103

Phone: (805) 965-3669  
Fax: (805) 963-3858  
sales@sbir.com  
www.sbir.com

PRSR1 STD  
US POST PAID  
Santa Barbara, CA  
PERMIT #792

a HEICO company

Santa Barbara Infrared, Inc.  
30 S. Calle Cesar Chavez, Suite D  
Santa Barbara, CA 93103

# SBIR

## SANTA BARBARA INFRARED, INC.

### Improved Customer Service

**SBIR has implemented an expedited service process that has reduced turn around times for calibrations and repairs of standard products by 50%. The process includes the use of a new internal tracking system and new handling procedures that allow an uninterrupted flow through our factory. Additionally, our customers can now schedule periodic calibrations, reducing interruptions to their critical testing.**

**This new process requires the use of an RMA number, so please contact our Sales Department to schedule service prior to sending instrumentation to us.**

### Mirage Update

**A**long with the ongoing development of our MIRAGE II IR Scene Projector, SBIR is working on three other significant IR scene projection programs—the Optimized Array for Space-background Infrared Simulation program (OASIS), the Large Format Resistive Array program (LFRA) and the Wide Format Resistive Array program (WFRA).

The **OASIS program** is a multi-year effort to produce 512 x 512 resistive emitter arrays optimized for low background IR scene projection. In order to achieve a low background scene, the emitter array must operate at cryogenic temperatures. The design of the silicon RIIC—read-in integrated circuit—is complete and the first wafers have been fabricated. OASIS emitter arrays will be fabricated and tested over the next several months and delivered to the U.S. government in the fall of 2005.

Our **LFRA program** will produce a 1024 x 1024 pixel resistive emitter based projector. The million-plus pixel array at the heart of the projector will include features such as: 48 micron pixels, snapshot update mode, >700 K (MWIR) apparent scene temperatures and 10-90% radiance rise time of 5 ms. Ten LFRA systems have already been ordered by the U.S. government and SBIR will deliver the first system in the summer of 2005.

The **WFRA program** will produce HD format, 768 x 1536 pixel, resistive emitter based projector. The emitter array will have performance similar to the LFRA array. Three systems have been ordered by the government, with the first delivery in the summer of 2006.

### IRWorld by Alan IRWin

