

## 2006 SPIE Defense & Security Symposium

**S**PIE is returning to the Gaylord Palms Resort & Convention Center in Orlando, Florida from April 17th – 21st.

SBIR will be presenting a number of technical papers during the symposium and displaying our extensive line of EO test instrumentation in Booth 411 of the exhibition hall. We will be demonstrating our new RAD9000 Spectral Radiometer and showing imagery from our latest MIRAGE Dynamic IR Scene Projector—the MIRAGE XL, our 1024 x 1024 pixel projector. We will also be introducing the new Onyx Series of Blackbodies and demonstrating automated IR camera testing using our industry leading IRWindows™ software system.

Come by and see us at booth #411. We are located right at the front of the exhibition hall.

## New High Performance Blackbody Systems

### SBIR Introduces the New Onyx Series

**S**BIR will be introducing the new Onyx Series of high performance blackbody systems at the SPIE Exhibition this year. Specifically designed to support today's high resolution FPAs and camera systems, these new blackbodies feature an enhanced emissivity (0.997), uniformity of >99.5%, increased stability, thermometric and radiometric operational modes, FLASH Probe™ temperature sensor technology for instantaneous in-situ calibration, NIST traceable radiometric calibration and a dynamic touch screen user interface.

### SBIR Technical Papers Include:

- Radiometric Calibration and Operation of IR Target Projectors.
- LFRA: Developments in Large-Format Resistive Arrays & Advanced IRSP System Technologies
- OASIS: Cryogenically-Optimized Resistive Arrays & IRSP Subsystems for Space-Background IR Simulation
- Bolometers Running Backward: The Synergy Between Uncooled IR Sensors and Dynamic IR Scene Projectors



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

## SBIR Celebrates Its 20th Anniversary

2006 marks SBIR's 20th anniversary. We began in 1986 as a small company, designing and manufacturing EO test components including blackbodies, collimators, targets and target wheels. Over the years we have grown significantly, becoming the industry leader supporting all levels of the EO test community. We have expanded our product line to include visible and laser test systems and are involved in many of the major US and International EO programs, both military and commercial. It has been an exciting and fun twenty years. Thanks to all who have been with us over the years.

## IRWorld by Alan IRWin

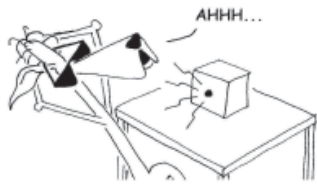
IT'S TIME FOR ANOTHER EPISODE OF ...

### IR TERMS ILLUSTRATED

#### THERMOMETRY



#### RADIOMETRY



#### MARKETING-OMETRY

MARKETING WEASEL DEN



## Ongoing Activities at SBIR

### Scene Projection

SBIR has integrated the first emitter arrays into our "MIRAGE XL™" product. MIRAGE XL™ is a large format state-of-the-art infrared scene projector that emits accurate, dynamic, and realistic IR video imagery. The first three systems will be delivered to the US Army at the Redstone Technical Test Center, the US Navy at Pax River and the US Air Force.

SBIR has also completed design and development of the high performance cryogenic emitter arrays and a custom cryogenic vacuum packaging approach for the OASIS—Optimized Arrays for Space-background Infrared Simulation—program. The OASIS emitter is a 512 x 512 pixel array that facilitates the projection of targets within a very-low background temperature scene (50 to 700K) to simulate space-like environments.

### MPETS Update

The Man Portable Electro-optical Test System (MPETS) is being developed by SBIR with Boeing to support the U.S. Navy's next generation of EO Automatic Test Equipment. The Performance Verification Testing CDR was just completed. The Engineering Development Model delivery is expected in late 2006.

### RAD9000 Update

SBIR has successfully delivered three RAD9000 radiometers to the US Navy. The RAD9000 is a high performance MWIR and LWIR spectral radiometer that has demonstrated nearly 10 times improved sensitivity compared to other similar instruments. SBIR is under contract to deliver a number of Radiometric Reference Modules that could be used on any radiometer, providing the radiometer with radiometric accuracies better than 1%.

### SBIR Awarded VIPER/T Contract

The U.S. Marines recently awarded SBIR a follow-on contract in conjunction with DME Corporation to redesign the E-O portion of the former Third Echelon Test Systems—now known as Virtual Instrument Portable Electronic Repair/Test (VIPER/T). The USMC requested a lighter, smaller and more portable unit and the VIPER/T achieves this by reducing the footprint by over 60% and the weight by nearly 50%.