



Defense & Security Symposium 2005

Symposium Showcases Tomorrow's Military Today

By Winn Hardin

Integrated communications and improved computer networks have driven global business markets to unheard of levels of productivity, and the world's militaries have been watching and learning.

Today's military threats are different than those of yesteryear. These "asymmetric" conflicts require agile forces with total battlefield awareness to protect against friendly fire incidents and guard against civilian casualties. The keys to achieving this vision are improved communications and network systems.

At this year's Defense & Security Symposium (DSS), running from 29 March–1 April in Orlando, FL, attendees

Pellegrino explains. "Networking and the use of innovative technologies that can transition quickly to the war fighter have greatly enhanced operations and will continue to make dramatic changes to the way we protect our troops by giving them more flexibility and options."

Smart, autonomous systems are expected to be the next great revolution within the military. To that end, sensors, remote detection, robotics, and visualization technologies will be at the forefront of DSS 2005. Special events like the Automatic Target Recognition technical group meeting on Tuesday evening, the Collaborative Autonomous Systems and SATCOM panel discussions on Wednesday afternoon, and the Unattended Ground Sensor panel discussion on Friday, address the military voice, video, and data networks and how these networks interact with military platforms.

Several of this year's new conferences also relate to the information chain, including Biomonitoring for Physiological and Cognitive Performance During Military Operations, Future Display Technologies, and Space Communications Technologies.

Because business opportunities in the established defense and security markets are of keen interest, *oemagazine* and Axsys Technologies will sponsor the third annual Photonics Market Opportunities Forum, Defense and Security 2005 on Wednesday afternoon. (For more information, go to oemagazine.com/forum/dss.) This year's all-new lineup will let you hear from defense and commercial insiders from around the world on how to best fund, develop, and market your defense and security technologies to groups worldwide.

DSS 2005 is expected to attract more than 350 exhibitors and 5200 engineers, military personnel, technical managers, and scientists interested in the latest advances in military technologies and systems. This symposium helps to reduce the barriers between nations and spread the critical scientific knowledge necessary to keep personnel safe and secure in the most hazardous of wartime environments.

Find out more about this year's symposium online at spie.org/events/dss. **oe**



can expect to see the latest technological developments and systems that will enable a highly informed and flexible military, says John Pellegrino, DSS chair and director of the sensors and electronic devices directorate at the U.S. Army Research Lab (Adelphi, MD).

"There's a greater emphasis on joint operations today,"

DSS 2005 Product Preview

The largest unclassified international symposium related to sensors and sensor networks in North America, SPIE's Defense & Security Symposium 2005 (DSS) attracts more than 350 exhibitors and 5200 attendees from around the world. Be sure to visit the symposium's exhibit hall to learn about the latest trends and commercial developments in detectors, sensors, cameras, imaging equipment, and more.

For a complete list of DSS exhibitors, an exhibition hall map, and product releases, visit spie.org/exhibitions/dss.

Optical Parametric Oscillator Laser

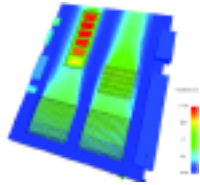
The DS Series Nd:YLF-based optical parametric oscillator is an eye-safe wavelength laser that operates at 10 kHz in Q-switched mode. It produces 3 mJ per pulse at 1 kHz and more than 3 W at 2.5 kHz. It is a high-efficiency, high-pulse-rate laser source at the eye-safe wavelength of 1.516 μm .

Photonics Industries International, Inc., 390 Central Ave, Bohemia, NY 11716-3147. Phone: 631-218-2240; fax: 631-218-2275; info@photonix.co.

Board-Level Thermal Simulation

The FLO/PCB board-level simulation tool exposes downstream thermal implications of component placement and identifies heat-dissipating components that can preheat air passing over downstream components, causing otherwise nonexistent thermal problems. Using this simulation tool in the early stages of printed circuit-board design allows the designer to explore less-costly design options in minutes.

Flomerics Inc., 4 Mount Royal Ave., Suite 450, Marlborough, MA 01752. Phone: 508-357-2012; fax: 508-357-2013; info@flomerics.com.



Network Cameras

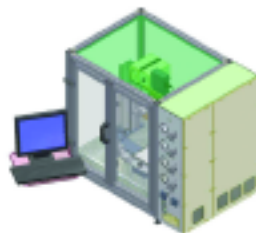
With resolution four to eight times greater than typical closed-circuit television, the Lumenera Le 175 series of network megapixel cameras produces superior image detail for demanding surveillance applications. Lumenera provides custom design services and licensing options to original equipment manufacturers.

Lumenera Corp., 2470 Don Reid Rd., Ottawa, ON K1H1 1E1, Canada. Phone: 613-736-4077; fax: 613-736-4071; securitysales@lumenera.com.

Ink Jet Printing

The Jetlab-II, a precision ink jet printing platform, is designed for printing biological and chemical sensors. It is capable of micro-depositing a wide range of materials with high precision and throughput.

Microfab Technologies, Inc., 1104 Summit Ave., Ste 110, Plano, TX 75074. Phone: 972-578-8076; fax: 972-423-2438; vshah@microfab.com.



Question of the Month

Should NASA continue to fund the shuttle, or shift funds to a renewed focus on manned spaceflight to the Moon and Mars?

Sooner or later, mankind will need another home, so we might as well start solving the challenges of long, manned spaceflights now.

39.5%

NASA should focus on remote sensing rather than manned probes.

25.6%

Manned spaceflight is foolish, let robots do the long trips and keep the shuttle afloat.

20.9%

The X-prize shows that private companies can do it better for less, so let's privatize NASA.

14.0%

Questions are posed to readers through the *oemagazine* monthly newsletter. For sponsorship opportunities, contact Sue Nawoichik at suen@oemagazine.com.

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