



FALL 2011 Defense Show Trends





LTG Susan Lawrence, Chief Information Officer/CIO G-6, recently stated that the US Army of 2020 will be smaller, more capable, better trained and mobile to any environment. It was evident from the technologies shown at the fall series of defense conferences that LTG Lawrence's statement will be accurate for the world's armed forces. The following trends are what PDT's Defense Programs team witnessed at Fall 2011 defense trade shows and believes will drive the future of global defense technology and the future battlefield.

This year's Defence & Security Equipment International (DSEi) exhibition, held in London, England, was the largest yet, with over 1,300 exhibiting companies and almost 30,000 visitors. DSEi is the world's largest display of land, sea and air applications of defense and security products and technologies, providing the PDT Defense Programs team with an in-depth look in the latest products and technologies being used by today's global forces.



DEFENCE & SECURITY EQUIPMENT INT'L DSEi 2011

The AUSA Annual Meeting & Exposition in Washington, D.C. is considered one of the premier professional defense development forums. With over 30,000 attendees and over 500 industry and military exhibits, the AUSA Annual meeting provides the opportunity to see the latest in defense technologies and collaborate with world-wide partners and users. Transforming the soldier to be more mobile, more capable, and networked to its command are driving technologies to be cheaper, lighter and more efficient. The Army is relying on Industry to innovate more than ever before to apply the network's full potential to the battlefield.



2011 AUSA

MODERN DAY MARINE 2011



This year's Modern Day Marine exposition at MCB Quantico was an opportunity for the USMC to throw down the gauntlet and flat out challenge industry. Be prepared to innovate and deliver, or "get out" was the call. In a time where the USMC is tasked with doing more with less as compared to other branches of the service, industry must now step forward with mature, cost effective solutions that exceed requirements with less funding rather than chasing requirements and excessive funding. It is clear that the Marines are committed to leading the initiative to displace sedentary and entrenched suppliers with suppliers that can meet the demanding needs of Marines in theaters like Afghanistan.



TARGET ACQUISITION & SURVEILLANCE



Handheld surveillance & target acquisition system

Larger surveillance systems for unattended operation

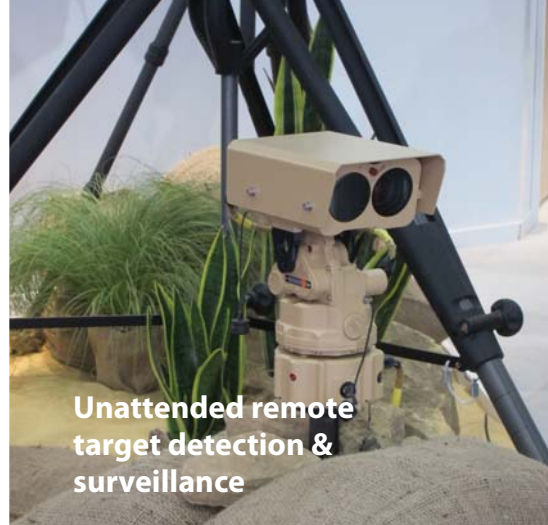
Future integrated soldier technology
FIST surveillance and target acquisition system

- Weapon sights, targets, observation equipment, dismounted close combat
- Improves detection, identification and engagement ranges
- Comprehensive threat



Handheld night vision surveillance

Surveillance of an area has always been an important battlefield tactic. From surveillance, acquisition of targets based on that information gives commanders important information for their battlefield strategies.



Unattended remote target detection & surveillance



Larger systems provide surveillance over long distances



Target acquisition

Exhibitors had a large amount of Target Acquisition & Surveillance equipment on display. From small, soldier worn systems, to larger, fixed surveillance systems, it was apparent this technology is making an impact on today's missions.



Night vision goggles





Use of dogs to provide surveillance



SOLDIER RADIOS



Ease of use

Thales Cougar personal radio for covert operations



Information dominance continues to play a vital role in upcoming military technology trends through the use of getting data down to the last tactical mile, or the soldier on the ground. Soldier radios continue to evolve, adding capabilities through increased wideband networking capabilities. The range of radios serves different purposes, from traditional tactical radios, to more commercial mobility type solutions.

Ku-band SOTM system



SATCOM ON THE MOVE

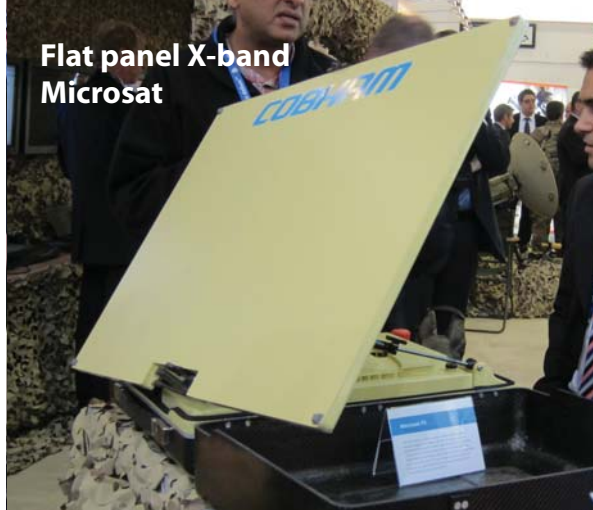
Broadband service for maritime



The battlefield is often in remote, unconnected areas. In isolated areas, reliable broadband on-the-move keeps warfighters connected to the voice and data they require to achieve mission success. Satellite Communications (SATCOM) provide access to critical data, and on the move systems are becoming a more viable solution. With higher data rates than ever before, SOTM keeps soldiers connected.



X-band μ sat



Flat panel X-band
Microsat



L3 Panther Flat
Panel MicroSat



SATCOM TO THE FOXHOLE

Satellite Communications (SATCOM) has continued to evolve, to include SATCOM systems small enough that they are soldier portable. These small systems provide reach-back capabilities in communication disadvantaged areas.

Tampa Microwave
X-band MicroSat



UNMANNED GROUND VEHICLES (UGV)



As war zones are becoming increasingly dangerous through threats such as IEDs, the demand for unmanned vehicles has increased. The missions of these unmanned ground vehicles ranges from communications, logistics support, reconnaissance and surveillance to Explosive Ordnance Disposal (EOD).





FULL MOTION VIDEO

Information across the echelons has evolved, and full motion video is the new voice. Information dominance continues through the use of full motion video, giving today's warfighters the clearest picture yet of their battlefield.

Display data and video on radio modules



Send video & pictures across the network



PDA devices can be used to display video at lower echelons





Soldiers on the ground can use small PCs and eye monacles to see video, while the same video can be seen thousands of miles away through wideband networking at a command post or operations center.



ENCRYPTED SMART PHONES

Keeping important data locked down on a smartphone is crucial and security implementation is growing at a rapid pace. From software that can be added to existing customer owned smartphones, to new smartphone products that contain an embedded crypto module, the defense industry is clearly making headway on the use of smartphones in order to connect its soldiers to their networks.



**Secure IP Mobile Phone with
Voice & SMS Encryption**



ITT's new GhostRider



GD Sectera

SW Encryption for your existing smartphone





SIMULATED TRAINING



A better trained warfighter is trained with the equipment they'll have on the ground and in the same environment. Soldiers train as they fight and will fight as they've been trained. Virtual training in numerous disciplines was showcased. Simulated training displayed included flight training, mission training and technology training.



Jim Curtin,
Director, Defense Programs

"With the stage being set for a decade of budgetary challenges within the DOD community, the challenge will fall to organizations in industry to develop solutions beyond the current CONOP requirements. Aside from being a technical challenge to industry, the next decade, with its lean budgets, will become a cultural staging ground for the future of military product development."

Jaime Rubscha,
Principal Strategic Advisor,
Defense Programs

"Defense organizations around the world are asking Industry to step up and innovate, to bring new technologies to the battlefield. Now it's time to ask Industry to go further, leapfrogging commercial technologies."

CONTRIBUTORS





PDT Headquarters:

One Corporate Dr
Suite 110
Lake Zurich, IL 60047

847 821 3000 p

847 821 3020 f

Global. Local.

Chicago, Illinois
Plymouth, Minnesota
Los Angeles, California
Austin, Texas
Coconut Creek, Florida
Oxford, United Kingdom
Lviv, Ukraine
Shenzhen, China

pdt.com

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