

MILITARY SYSTEMS

E T E C H N O L O G Y

DIGITAL RF

Complete Counter Terrorist and
Surveillance Systems

DRASH / DHS SYSTEMS INTERNATIONAL

Soft Walled Military Shelter Systems

WESCAM

Multi-role Reconnaissance,
Surveillance and Target
Acquisition System

PIVOTAL DEFENCE SOLUTIONS

Defence Procurement Services

PLUS...

BREAKING NEWS FROM...

ARGON

BCB INTERNATIONAL LTD

BRÜEL & KJÆR

PELI HARDIGG CASES

TELEDYNE

PELI PRODUCTS

ULTRA ELECTRONICS

VITAVOX

Image Courtesy of L3 WESCAM



SURPLUS AND SHELF LIFE EXPIRED SMALL ARMS AMMUNITION IN OPERATIONAL THEATRES

In any conflict there is a large amount of Small Arms Ammunition (SAA) issued to the troops on the ground which when unpacked cannot be returned to stock. Other issues such as climate and age render the ammunition unfit for front line use and in some cases unfit for training.

This SAA takes valuable resources and manpower to look after it until it is transported from theatre or destroyed. The TRADS 20, built and supplied by EOD Solutions Ltd and Caldo Engineering, would solve these issues and be a cost-effective way of destroying SAA as it became available.

Container or Trailer-mounted, the TRADS 20, which has been proven in Afghanistan, can destroy up to one and a half tons per day and will need the minimum of resources as it is completely self-contained and meets the EU Waste Incinerator Directive for emissions to atmosphere.

The TRADS 20 requires only diesel to operate. Lime and Urea is supplied with the system and one 20-foot container can hold enough of these materials to work for up to one year. The trailer-mounted version can be pulled to FOB and other outstations and camps so it also reduces the need to transport SAA in theatre. The TRADS 20 is ahead of its rivals as it requires only two personnel to work it with a small number of personnel for unpacking and searching the scrap to ensure all the ammunition is destroyed. The system is currently working in Afghanistan and has proven to have a good reliability and production record. Average cost per day is approximately £200 plus labour. Daily and routine maintenance is elementary and can be undertaken by anyone with a rudimentary knowledge of engineering. Full training and first site commissioning is included in the cost of the system and a company technician will remain for the first two weeks to ensure the personnel who work the system are completely at home with the system.

EOD Solutions Ltd in conjunction with Caldo Engineering Also produce a TRADS 40 system (pictured right) for larger quantities of small arms ammunition destruction. This system will destroy approximately 750 Kgs of ammunition per hour and is a constant feed rotary kiln product. EOD Solutions Ltd is currently using this system in Afghanistan under contract to the UK Ministry of Defence as part of the drawdown from Camp Bastion. Both systems come complete with first installation and training.



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Welcome to this edition of the Military Systems & Technology newsletter.

As an established web portal for the International Defence & Aerospace Industry, we strive to provide a comprehensive and detailed listing of Military Equipment Suppliers, Products and Services. This newsletter is designed to keep you up-to-date with latest news and events within the Defence Industry's Governing Bodies, Organisations and Companies.

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Bibby Scientific

THE BV, STILL PROVIDING HOT WATER TO THE TROOPS AND NOW COOLS AS WELL



The BV (boiler vessel) is well known throughout the British Forces as it has been proving troops in vehicles, of all shapes and sizes, with continuous hot water for brewing up or cooking rash packs. It has been called the morale booster, amongst other things, and its rugged design has meant that it has been accompanying troops in theatres across the

world for many decades in the Challenger, Foxhound, Scorpion, and the Jackal, to name but a few.

It draws its power from the vehicle which means there is no need to stop to take a much needed rehydration break, which could make

vehicles and troops vulnerable to attack and slow the mission. Excellent insulation means that it keeps water hot for hours, the outside is cool to touch and it has a very low thermal image.

The company, Electrothermal, that first designed the BV, in conjunction with the MOD



back in the 1980's, and it is estimated that there are over 20,000 deployed today. Recently this innovative company has taken a step forward and developed the cooled BV! Not only does this device provide the same heated water and rash pack solutions as the original BV, it now also has the capacity to deliver cooled water on

demand! It cools at 1°C per minute to 20°C below the ambient temperature, so can deliver the troops cooled water during those hot drives and deployment . . . and then as the ambient temperature dives, it can simply be switched to heat and it will provide heated water for drinks or for chow.

Electrothermal has been supporting troops on the move for years and is an active supporter of Help the Heroes . . . Let's give our guys the best support we can, cold and hot water is a must on the move!



Digital RF



COMPLETE COUNTER TERRORIST AND SURVEILLANCE SYSTEMS

Digital RF offers complete Counter Terrorism and Surveillance systems, bespoke to a client's needs including the latest technology, training and field support.

Digital RF Designs and Manufactures all its own products in the UK including; Software, Digital FPGA processing, Modulation and Frequency converters, Power Amplifiers, Detectors, Antennas and more. The Company policy of Maintaining full control of design and manufacture enables Digital RF to fully support its customers across the entire product range.

The Company

Digital RF was established in 2003 to design and build Jammers to supply into the Security Market to help combat with the growing use of Remotely Controlled IEDs.

The company has continued to grow, supplying into areas of conflict such as Iraq and Pakistan, as well as many other countries around the globe.

The company's staff comprise of a team of talented RF Design Engineers, Software Engineers, Mechanical Design Engineers, System Engineers, Test, Assembly and Installation Engineers.

The Products

Wide-band Jammers:

Blackshadow

Digital RF designs and manufactures its own range of Low and High Power Blackshadow Jammers. Digital RF Blackshadow Jammers are being deployed daily in over 24 countries Worldwide.

These include:

VIP Protection Jammers

The Digital RF VIP Vehicle Jammer can be fitted to most vehicles for on-the-move convoy protection or placed in an area of Threat or in a building to block Radio Frequencies which could be used to remotely detonate an Explosive Device. Each Blackshadow Jamming Module within Digital RF V.I.P Vehicle Jammer radiates

multiple programmable jamming carriers that can instantaneously block selected frequency bands.

Portable Briefcase or Backpack Jammers

These specialist Portable Jammers incorporate the latest jamming technology in a compact integrated system and can be





equipped with a wide range of Blackshadow frequency jamming modules. Each Portable system consists of Jammer Modules, Antennas, Battery, Power Supply and an Optional Remote Control. Both these products are ideally deployed to protect VIP's, Military/Security staff or EOD teams from RCIEDs.

GSM Detect, Block and Surveillance

In today's society having tools to Detect, Jam and Monitor Mobile phone Communications are essential in the prevention of terrorism. Digital RF have developed a range of products to equip Security Personnel with the latest technology in Mobile phone Counter Measures.

Cell-Block

Preventing the use of Mobile phones and other communications devices in Prisons and Secure Facilities is an important part of security and crime prevention. Digital RF can provide, install and maintain "Cell-Block™" a comprehensive communications device monitoring and jamming system.

Cell-Block™ can be easily installed, is tamper proof and can operate over many Frequency bands to block Cell Phones, Satellite Phones and Wi-Fi. When Cell-Block™ is deployed with the DRF Cell-Grabbing Technology a Prison or Building can be jammed, but still allow Authorised Mobile phones to be used.

Cell Monitor

Digital RF's Cell-Monitor provides rapid notification of any rogue Base Telephone Station (BTS) attempting to covertly listen to Mobile Phones. Cell-Monitor is the

essential tool to independently monitor the BTS activity around sensitive buildings / offices. By continuously scanning all available Networks, rogue BTS activity can be seen instantly and the position of the rogue BTS source located on a map.

Cell-Interception

Taking both RF and Digital technology to the next level Digital RF have developed an IMSI / IMEI Grabber to locate and identify target phones and enable access.

Cell-Seeker Network Mapping System

Cell-seeker is the essential tool to independently monitor or map multiple mobile networks. By continuously scanning all available networks and recording the GPS position an RF 'finger print' of the environment is recorded.

Chameleon

Chameleon is a Digital phone system which allows designated users to use their own Mobile phone to call each other and make and receive external calls while preventing all other people in the coverage area of the Jammer.

Hornet – Explosives Trace Detector

The Digital RF Hornet provides the next generation technology for Counter Terrorism. Using established Laser Scanning techniques the Hornet can detect Explosive traces or Drugs at a range of 1-3 metres on vehicles, packages and Suicide Bombers. The Hornet is an essential tool for modern Security operations including: Boarder Control, Check Points and Peace Keeping Forces. The Digital RF Hornet can be provided vehicle mounted or on a portable tripod. The Hornet extends the capability and range of human operation in various challenging security situations.

Other Activities:

Entry I.E.D Detection System

The Digital RF Entry I.E.D Detection System is a unique comprehensive solution for Secure Entry Control. The System



comprises of a number of automatic inspection and detection processes which enables the identification of suspect vehicles which may be equipped with I.E.D's. Upon detection the System jams the frequencies used to remotely detonate RCIED's and prevent entry and alert Security Staff.

Microwave Links

Digital RF is also active in promoting the use of fixed and mobile COFDM digital radio transmission systems for transmission of video from inside to outside a building or from a street threat to a mobile control centre. Digital RF has a very experienced team who can give advice on the best solution for individual requirements.

Quality and Assurance

Digital RF has built up an impressive reputation since its inception for offering complete Counter Terrorism and Surveillance solutions. Digital RF's staff work closely with each individual customer to develop a tailor made system to meet their individual requirements. Digital RF also pride themselves on providing a complete After Sales Service.





DRASH / DHS Systems
International

SOFT WALLED MILITARY SHELTER SYSTEMS

Soft Walled Military Shelter Systems and Technology

DHS Systems International is a subsidiary of DHS Technologies LLC, serving as the global provider of soft walled shelter technology.

For more than 25 years, DHS Technologies and its subsidiaries have been leaders of mobile infrastructure technology – aiding military, medical, government and civilian agencies around the globe. Through continued ingenuity, DHS Systems International commits to developing the best products for its customers.

Among the many products available through DHS is the company's core

product, the Deployable Rapid Assembly Shelter (DRASH). DRASH is a quick set-up/strike soft walled shelter specifically designed for mobility and rapid deployment. DRASH Shelters come in a variety of makes and models, fulfilling the diverse needs of its customers.

DHS also offers Utility Support Trailers (UST), DRASH Accessories and other technology for use in conjunction with the DRASH Shelter Systems.

To learn more about DRASH products, please visit our website at www.drash.com
Featured Products:

J Series Side Mounted Large Screen Display Systems

This quarter's featured product is the J Series Side Mounted Large Screen Display System. It is the newest addition to the DRASH Deployable Command and Control Equipment.

The purpose of the J Series Side Mounted Large Screen Display System is to increase mobility throughout DRASH shelters by eliminating the need to set up DC2E along the shelters' width. Instead, the new Side

Display System posts on the shelters' length. Such a design enables personnel and equipment to move freely throughout the length of a DRASH shelter without restriction. The new design also allows military personnel to connect various shelters as needed to increase the size of the overall system.

Rapid Military Deployable Shelter Systems DRASH Deployable Rapid Assembly Shelters are the epitome of quick and efficient soft walled technology. Superior protective elements and reliable features are what make these shelters so functional and unique. All shelters are rapidly deployable and structured with an advanced, highly flexible composite material called Titanite®. The shelter's frame is comprised of pairs of Titanite®





Intelligent Power Technology™ - IPT Interconnectable Trailer-Mounted Generators

Intelligent Power Technology (IPT) is a reflection of DHS's effort toward creating energy efficient products. The DRASH IPT enables users to interconnect various trailer-mounted generators to form a micro grid of networked power.

When activated, each generator responds to real time power demands. The system is self-adjusting but users have the ability to monitor activity from inside the Tactical Operations Center. Because IPT responds to the user's power needs, it eliminates wasted energy expenditure in unoccupied areas of the shelter. Having, IPT reduces unused energy, which ultimately minimizes unnecessary fuel costs.



available for onsite support should one require it.

struts that connect at key points in the framework called hubs. These hubs allow for rapid deployment, as they enable the entire shelter to be pushed up and out swiftly without additional assembly. The shelter comes pre-attached with a double layer of Xytex, a high-tech fabric that provides insulation from hot and cold temperatures. The specially coated fabric is fire retardant, water repellant and resistant to mildew, abrasion and ultraviolet rays.

DRASH Shelters come in a variety of sizes and divide into separate categories according to their width. Beginning with the smallest C Series shelter, at 109 square ft. (2.3 meters) and ending with the largest J Series shelter, at 1,250 square ft. (116 meters), the range in size accommodates a diversity of client needs. In addition, every shelter is easily connectable to any other shelter regardless of the series or model. A key component to the DRASH Shelter System is the Utility Support Trailer (UST). A UST is an integrated support system designed to provide mobility, power and or environmental control for all DRASH shelters. USTs come in various models, tailoring to the energy needs of every mission. Depending on the model, a UST comes equipped with a generator and/or ECU. Models that are equipped with ECUs enable the shelters to function in harsh climates. Some trailers incorporate a new energy efficient Intelligent Power Technology (IPT), while other trailers have traditional analog systems. All trailers are operable in rough terrain, and are easily towable by military vehicles.

Every element within a DRASH Shelter System has undergone rigorous testing to meet all Military Standard Requirements.

Deployable Command and Control Equipment (DC2E)

DRASH Deployable Command and Control Equipment (DC2E) encompasses projector systems, audio visual switching systems and system accessories, all designed to facilitate information management on the battlefield.

DC2E equipment is portable and lightweight so setting up and dismantling requires minimal time and few personnel. Front/Rear Projection Systems are available with Medium, Large, and now Side Mounted Screen Displays. Audio Visual Systems include Mini, Small, Medium and Large variants. An Intelligent Data Distribution System, Microphone System, Clock System, IPT Remote Monitor and Tactical Utility Field Furniture are additional accessories that complete the DC2E line.

Accessories:

DRASH Accessories enhance the client's experience within a DRASH Shelter.

All accessories allow for easy installment so military personnel can perform assembly without outside guidance. However, DRASH field representatives are

DRASH Accessories include the following items:

- D- 1000B Heater
- DrashLite
- DRASH Boot
- Shelter Anchor Bag
- Power Distribution Units (PDU)
- Shelter Electrical Kit
- Trailer Deployment Package
- Shelter Spare Parts Kit
- Connector Sets
- Extreme Weather Kit
- Plenum
- Turf Cart
- Hard Door

Applications:

DHS Systems International provides solutions to address the varying missions and requirements relevant to today's military and first responders.

That is why DHS continues to research and develop new applications for its products. Among the many possible footprints, the applications listed below are the most prevalent:

- Command and Control
- Medical
- Life Support Areas
- Maintenance
- Unmanned Aerial Vehicle Shelter Systems
- Satellite Support Systems
- Homeland Response Force
- Mortuary





MULTI-ROLE RECONNAISSANCE, SURVEILLANCE AND TARGET ACQUISITION SYSTEMS

WESCAM's MX™-Series of multi-sensor and multi-spectral imaging and targeting systems operate with outstanding stabilization and world leading range-performance. The MX-Series provides clear sighting capabilities across the visible and infrared spectrum. WESCAM's imaging and targeting solutions are designed for all operational requirements - ranging in size from 10 to 25 inches in diameter to provide clean, stabilized full-motion Intel in support of:

- Low-altitude tactical surveillance & targeting missions
- Medium-altitude covert intelligence, surveillance, reconnaissance and targeting missions

- High-altitude, ultra long-range persistent surveillance and targeting missions

WESCAM serves all segments of the airborne imaging market with turrets operating from fixed-wing, rotor-wing, UAV and aerostat platforms. WESCAM's MX™-Series incorporates over 40 years of design and stabilization experience into each system. Recent developments and adaptations in WESCAM's technology over the years have enabled exceptional imaging capabilities and operational performance in systems for the ground market.

More than 2500 WESCAM turrets have been fielded since 1997. These units are operational in defense and security forces in over 65 countries, ranging from the MX-10 through to the MX-25.

WESCAM's Imaging Systems

WESCAM's imaging systems have the best stabilization and geo-location performance available in the global market. In particular, WESCAM's airborne turrets have a 4 or 5-axis design which ensures superior stabilization



and performance levels. MX-Series systems can be configured with high magnification optics, high-definition EO & IR cameras and multiple lasers.

WESCAM continues to provide the highest value to their customers by incorporating technologies that are easy-to-use and improve sensor operator effectiveness. Recent feature enhancements include:

- Color low-light, wide-angle zoom EO imager – Complementing the system's existing dual-channel spotter, this technology enhances its imaging capability



under a wide range of illumination conditions, including dusk and poor weather conditions. (MX-15)

- Zoom spotter – Zoom optics allow the operator to achieve the desired balance of magnification and field of view between moderately wide and ultra-narrow. (MX-15)

- Short wave IR (SWIR) imager – Useful for day and night imaging missions, the high resolution SWIR imager offers outstanding range performance at the limits of atmospheric visibility. In addition, it offers improved imaging performance under suboptimal atmospheric conditions, such as atmospheric haze and fog. (MX-15)

- Laser Spot Tracker (LST) – Compatible with standard U.S. and NATO designator codes, the LST automatically detects a designator spot of a given code in its field of view and automatically slews the system's line of sight to the laser energy. (MX-20D & MX-25D)

- Dual-channel daylight and low-light EO wide-angle zoom – EMCCD low-light imaging capability is added to the wide-angle zoom sensor. This enhances situational awareness under a wide range of illumination conditions. (MX-25 & MX-25D)

WESCAM's ground system, the MX™-RSTA, has been designed with the same principles as their airborne family. High stabilization levels enable long-range covert missions while stationary or on-the-move, while



simultaneously providing wide field-of-view situation awareness to combat urban and asymmetric threats. Solutions operate flawlessly in extreme temperatures, at high speed and varying altitudes, and within the harshest environments, including those with intensive dirt, dust and smoke.

WESCAM's MX-RSTA is a multi-role Reconnaissance, Surveillance and Target Acquisition system for use by land and naval surface warfighters. MX-RSTA addresses the current and future needs of land forces with a focus on affordability and sustainability in

the field, providing end-users with new CONOPS and other capabilities. Specifically designed with critical ruggedized and modular features, the MX-RSTA can fulfill various roles and applications, differentiated by the selection of tailored high definition payloads and subsystems. These unique attributes provide tactical advantages to vehicle and gun turret Original Equipment Manufacturers (OEMs) in an increasingly commoditized market.

Reliable Worldwide Support

WESCAM continues to invest heavily not only in product development, but also in customer care. The following support infrastructure is in place to support WESCAM's customers.

WESCAM Authorized Service Centers (WASCs)

WESCAM has partnered with leading service providers around the world to create strategically located service centers around the world. WASC's provide support solutions to ensure operational availability remains high.

Field Service Representatives (FSRs)

WESCAM FSRs are factory-trained technicians, experienced in performing diagnostics and repairs anywhere in the world. Available for dispatch within 24 hours from the closest WASC location, FSRs respond rapidly to customer calls for onsite repairs.

MX-RAid

Through either a satellite or internet connection, any MX-System can interface with MX-RAid, a leading diagnostic tool that performs checks, calibrations, firmware updates and logs errors from the field. This service reduces delays in determining and repairing system faults, eliminates no-fault-found return, significantly reduces response times and reduces downtime for the end user.

Training Products and Courses

WESCAM offers fully-integrated training programs and interactive simulation



products to ensure customers are fully optimizing their MX-Series system.

MX-Sim

Empowering users with the knowledge and confidence needed to operate their MX system to its full potential, the MX-Sim simulates the complete operations of an MX-Series imaging and targeting system. Designed to match a customer's exact configuration, the MX-Sim reduces the expensive flying time required to train personnel.

MX-Emulator

Used during the system-integration phase of a program, the MX-Emulator emulates the complete operations of any MX imaging and targeting system. It enables system integrators and OEMs to dramatically reduce System Integration Lab (SIL) development costs, while freeing systems and aircraft from SIL testing.

Training

WESCAM's comprehensive training solution has been designed to expand the customers overall operational and maintenance knowledge. Training offerings range from in-class instructor-led courses to in-flight and in-vehicle training, and eLearning product training courses. Classes are offered at WESCAM's state-of-the-art training center, the customer's location and any WESCAM Authorized Service Center.



DEFENCE PROCUREMENT SERVICES

Pivotal Defence Solutions specialise in procurement contracts for government, military and security organisations. We endeavour to cater for all your requirements and offer a large product range that covers everything from Ceremonial Uniform to Weapon Optics. Pivotal Defence Solutions have a team of consultants who procure based on our clients' requirements. This ensures you will have access to the very best equipment available at the time of your project, rather

than procuring from a fixed catalogue of items. Pivotal Defence Solutions covers this comprehensively from brands of high repute, as well as from our own manufacturing base in the UK. Pivotal Defence Solutions manufacture tactical load bearing systems and clothing equipment solutions using our specialist factories, which enables us to tailor all equipment to your requirements. We are the only firm who builds equipment around you.

We procure items such as footwear, personal hygiene products, survival products and weapon accessories.

Soldier Systems

Our professional team source items of the highest quality and work to provide solutions, not just products. Our consultants will design solutions for your unique requirements using their expertise in a variety of different fields from military and security backgrounds. We build upon trust and develop strong relationships with our clients. Our wealth of knowledge allows us to understand every detail of your needs to provide you with efficient solutions for modern conflict and security situations. Pivotal Defence Solutions also

offer our own high quality brands that are all manufactured in-house. Designed and manufactured in the UK, we pride ourselves on bringing our own, unrivalled soldier systems to the market.

- Pilgrim for all ground based personal operative Load Bearing and Clothing systems
- Poseidon for all maritime and marine personal operative Load Bearing and Clothing systems

The advanced loadbearing systems we deliver to today's modern conflicts are designed to allow the operator to carry heavy loads more comfortably, effectively and efficiently than any other supplier. Our expertise in modularity, scalability and ergonomics are key to our success in this area.

Accept no Imitations

Please note, we manufacture equipment to the highest specifications, there are many companies who imitate our equipment but can never reach our standards, which is why we are the only manufacturer to provide a lifetime warranty*. (*Subject to Terms and Conditions, available on request)



Load Bearing Equipment

Pivotal Defence Solutions have built strong and successful roots in the retail industry, which enables us to stay one step ahead of our competition. We collect feedback directly from the front line of current conflicts from around the world, allowing us to continually improve our product lines. Our background and close relationship with those on the ground allow Pivotal Defence Solutions to develop products for an ever-evolving battlefield. Pivotal Defence Solutions design and develop solutions to ensure that they never become a burden to their user. The operator is totally focused on their mission and not distracted by uncomfortable, ineffective equipment. The quality of our products inspires trust and provides a tactical advantage on the battlefield. Leading the way with our own manufacturing, we compliment our product portfolio by offering leading, high quality brands that make Pivotal Defence Solutions the primary consultants, contractors and distributors for all procurement requirements.

As well as offering our bespoke R&D services we also provide a wide range of products from stock, allowing us to fulfill customer requirements faster. Our popular range of Pilgrim and Poseidon products are kept in stock so that they can be supplied at short notice around the world.

Military Load Bearing Equipment

From our team of experts we have a blend of ex-military personnel who have significant experience in using, procuring and evaluating field kit. We are able to cater for every requirement as our kit is designed & configured to specification.

Such products include the following:

- Chest Rigs
- Belt Order
- Back Packs/Bergens
- PPE

Maritime Load Bearing and Specialist Equipment

Pivotal Defence Solutions provides maritime security companies with the



latest developments in load bearing and specialist equipment. Designed for all areas of maritime security, defence and protection, our range is second to none. We manufacture our equipment under the Poseidon brand for all our Maritime products.

Such products include the following:

- Ballistic buoyancy aids and protective equipment
- Modular, scalable and ergonomic load bearing equipment
- Weapon systems
- Optical systems
- Communication Systems
- Branded Uniform
- Inflatable Craft, RIBS and Remote Rapid Deployment Craft
- Modular Harbour Systems
- Survival Systems for Sea

Police

We design and supply equipment to civilian officers as well as tactical firearms units. We primarily offer bespoke services to police forces. Pivotal Defence Solutions can design and prototype any solution for any specialist operational requirement.

Products include:

- Body Armour
- Loadbearing Equipment
- RIOT and PPE Equipment

Close Protection / PSD

Designing cutting edge load bearing products for Military use has been Pivotal Defence Solutions core focus for many years. The transition to the Close Protection and PSD market is an obvious collaboration, therefore we can offer our innovation for global security services

including:

- Uniforms
- Body Armour
- Footwear
- Load Bearing Equipment
- Covert equipment and systems

Research & Development

Pivotal Defence Solutions can offer services in R&D with load bearing and uniform requirements. Specialising in a quick turnaround for all projects, Pivotal Defence Solutions can rapidly meet specialist requirements and offer large scale manufacturing once a prototype has been approved. Our dedicated team enjoy getting closely involved with the end user and employ a hands on approach to development. This aids final design and rapidly reduces the development phase. We are more than happy to get out on the ground with the end users and see issues first hand arising from the current equipment. Pivotal Defence Solutions prides itself on ensuring we are able to create the ultimate solution. As well as offering our R&D services we also provide a wide range of products from stock. Pilgrim and Poseidon products are kept in stock so that they can be supplied at short notice anywhere in the world. We work on a strictly confidential basis with all of our clients, leaving you safe in the knowledge that your project is only discussed with those who need to know. Non-Disclosure Agreements are a standard part of our service and are available on request. We can also brand the equipment for individual companies ensuring maximum professionalism to the end user.



ARGON™

World leaders in CBRN/
HazMat training systems

New Argon White Paper Shows Way To Better CBRN Training

Argon, the global leader in CBRN and Hazmat training systems, has released another free white paper, this time offering tips for emergency services and first responders on how to provide

the best possible CBRN response training. The paper will prove to be a valuable tool for any organisation wishing to maximise the realism of training without posing a danger to personnel.

How To Enhance CBRN Training

The new Argon paper highlights best practice in CBRN training by looking at some of the highly challenging simulation exercises that have recently taken place in the UK using state-of-the-art simulation equipment. In these exercises, instructors can safely simulate the release of chemical and radiological hazards, while trainees carry out their roles equipped with simulators in place of the real detectors. The detector simulators respond to electronic simulation sources that represent chemical vapours, toxic industrial substances or false positives, enabling trainers to run realistic exercises without risk of harm or damage to personnel, their equipment, or the environment. Exercises discussed in the white paper include a simulated terrorist attack during a half marathon charity event in support of military charities in which realism was introduced at every opportunity to ensure that every trainee reacted as if it was a real life emergency. The paper also offers five key tips that organisations should follow to get the best out of any training exercise.

To download the free Argon white paper, entitled How to Enhance Training for CBRN Response, visit <http://www.argonelectronics.com/enhance-training-cbrn-response>



NCT

Upcoming Events

The Non-Conventional Threat (NCT) series of events are IB Consultancy's flagship events, covering the non-conventional threat and supporting Homeland Security professionals and military in their fight against terrorism. The upcoming NCT events will join a series of NCT events that have been held in The Hague, Bangkok, Mumbai, Tel Aviv, Brussels, Siem Reap, Leipzig and Kuala Lumpur.

NCT CBRNe Asia

14 -16 October 2014

www.cbrneasia.com

- The 3rd edition of Asia's #1 CBRNe event
- Live demonstration of Cambodian and Vietnamese CBRN capabilities
- Announcement of the NCT CBRNe Awards 2014 Winners during the Gala dinner
- 2-day conference with high-level speakers, stream sessions and interactive workshops
- No other CBRNe event welcomes more Ministers, Generals and other VIPs
- Vibrant exhibition showcasing state-of-the-art technology and equipment
- Networking Cocktail Receptions and Gala Dinner
- Taking place at the Koh Pich City Hall in Phnom Penh

NCT CBRNe Middle East

9 -11 December 2014

www.cbrnemiddleeast.com

**Exhibition
Sold Out**

- Two days of conference with high-level speakers from the Middle East, Central Asia, Europe and the USA
- Focused exhibition of CBRNe equipment
- Live demonstration of state-of-the-art CBRN equipment by the UAE Armed Forces
- Taking place at the 5 star Le Royal Meridien Abu Dhabi

NCT CBRNe Europe

12 -13 February 2015

www.cbrneurope.com

- The world's leading CBRNe event with previous editions in The Hague, Tel Aviv, and Leipzig
- Two days of conference with high-level speakers from across Europe
- Attendees, delegations and speakers from over 30 countries including Germany, Poland, Ukraine, Estonia, Hungary, Croatia, and many more
- NCT events are the undisputedly best fora for high quality networking, meeting the people who matter
- Taking place in the heart of Europe's capital Brussels

Sponsors & Exhibitors



ib threat



Contact us:
+31 71 744 0174
eventsteam@ib-consultancy.com
www.ib-consultancy.com

Event Partner

Main Sponsor



Production of Military Rations Biofuel Sparks Interest

The production of an all-weather solid flammable biofuel for military rations cookers, which can double as a waterless hand sanitiser has been launched by the UK military company, BCB International Ltd.

‘FireDragon’ All-weather Solid Flammable Biofuel for Military Ration Cookers

Many NATO forces currently issue hexamine fuel to their troops for cooking in the field and are looking to move to a replacement fuel due to the dangers that hexamine presents to the health of soldiers. Hexamine is a potentially dangerous and outdated substance; burning it gives off cyanide. Headquartered in Cardiff, BCB International Ltd, believe that their alcohol-based alternative fuel, ‘FireDragon’, will prove popular with soldiers on patrol who need to

heat up their rations quickly without producing and inhaling toxic fumes.

Announcing the start of production, BCB’s Managing Director, Andrew Howell said: “Over the last five years, we have been developing a green and clean solid biofuel made from ethanol called ‘FireDragon’. I am happy to announce that after extensive research and pre-production trials, the eagerly awaited fuel is now in production.

“The launch of the fuel is good news for our troops. It will enable soldiers to cook their meals and make their brews with a safer and cleaner fuel than traditional military rations fuel blocks like hexamine. Our fuel is non-toxic, non-drip and made from 100% natural ingredients, including ethanol sourced from UK grown grain stocks. The FireDragon fuel can be packed with rations and doubles as a waterless hand sanitiser



which will help Militaries reduce their logistics and medical costs.”

Mr. Howell went on to explain how the fuel is more than a match for similar alternative fuels: “One tablet of FireDragon fuel (27 grams) can boil 500 ml of water in 5-6 minutes; that’s at least two minutes faster than competitors’ products. It can even be ignited whilst wet, something unique to FireDragon.

“Wherever they operate, whether in driving rain, the freezing arctic or searing heat, the fuel will enable soldiers to heat their rations right where they need them.”



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ABOVE & BEYOND



Discovery Sentinel is the most capable of all the vehicles in the Land Rover Armoured range. It offers an outstanding breadth of off-road capability while providing B6 ballistic capability, which is defined in accordance with European Standard EN1063 BR6 (glazing) and EN1522 and is certified by QiniteQ®.

Almost indistinguishable from the non-armoured Discovery, it is ideal for both VIP protection, support and escort roles, the Discovery Sentinel is an ideal platform for both police and security organisations.

Brüel & Kjær Impedance Meter System for Aircraft Testing

To help engineers meet increasingly strict aerospace environmental noise regulations, Brüel & Kjær created a lightweight, robust Portable Impedance Meter System - Type 9737.

Robust Portable Impedance Meter System - Type 9737

Regulations put pressure on aerospace engineers to improve liner attenuation - and this drives the need for improved acoustic impedances in jet aircraft acoustic liners. Acoustic Liners are vital to ensure aircraft are quiet and must satisfy many other requirements too, such as withstanding extreme weather and fitting restricted spaces.

Fully bonded panels within aircraft must be assessed for their true, effective acoustic behaviour in their final condition. Brüel & Kjær's Impedance Meter System provides aerospace engineers with a user-friendly system, suitable for carrying out research and production quality control impedance measurements, up to 150 dB SPL on engine nacelle liners.

The system allows key acoustic parameters, such as impedance spectra vs. OASPL and



acoustic resistance versus acoustic velocity, to be extracted in-situ. An automated pass/fail routine allows non-acoustic specialists to quickly carry out production quality control measurements.

The system is based on the two-microphone, transfer function test method, which means measurements take only a fraction of the time

required by traditional, standing-wave ratio systems.

The Portable Impedance Meter system lends itself well to the measurement of acoustic properties of aircraft interiors and trim materials. More information about Impedance Meter System - Type 9737 is available on Brüel & Kjær's website: www.bksv.com

Brüel & Kjær



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EXPANDING YOUR CAPABILITIES.**



Scott Safety are world leaders in the design and development of Respiratory Protection Equipment (RPE). We have a detailed understanding of the physiological and psychological burden RPE can place on users. That is why we test in the field. We apply what we learn there – as well as emerging research and technologies to every design to ensure superior capability, functionality and comfort. Irrespective of whether your requirement is for CBRN protection, Breathing Apparatus for EOD, USAR, Damage Control, Law Enforcement, Fire Fighting or for specialist applications Scott can meet your requirements- Comfortably



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It's a Light, It's a Case - New Peli ProGear™ 9000 Light - Case

Peli Products introduces the Peli ProGear™ 9000 Light-Case, a new concept of portable lighting system and high-impact protective case all together. It offers a host of travel-friendly features that include:

- **Dual-LEDs built in to offer a variety of light modes -high mode (200 lumens) / medium (100 lumens) / low (20 lumens)**
- **Shines for up to 2 hours in high mode**
- **A triple-level flashing mode that can be used for signalling or other needs**
- **A built-in attachment hook and high-strength aluminium carabiner for hanging the light wherever it's needed**
- **A high impact polymer construction**
- **Rated IPX64 watertight and it floats offering protection from accidental water encounters**
- **Available in Black and Yellow**



The Peli ProGear™ 9000 Light - Case

Already a world-renowned brand for the fire and rescue teams, the Peli range is comprised of a wide range of case and lighting products built especially for the digital protection and extreme performance needs of adventurous people. This new product is the perfect companion for going camping, canoeing, or to the beach and, in general, for outdoor activities.

The Peli ProGear™ 9000 Light-Case is backed by Peli Products' Legendary Guarantee of Excellence.

For more information on this model and on the full ProGear line, please visit:-



www.PeliProGear.com





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Teledyne Coax Switches Announces New Latching Multi-Throw CCS-19 Coax Switch

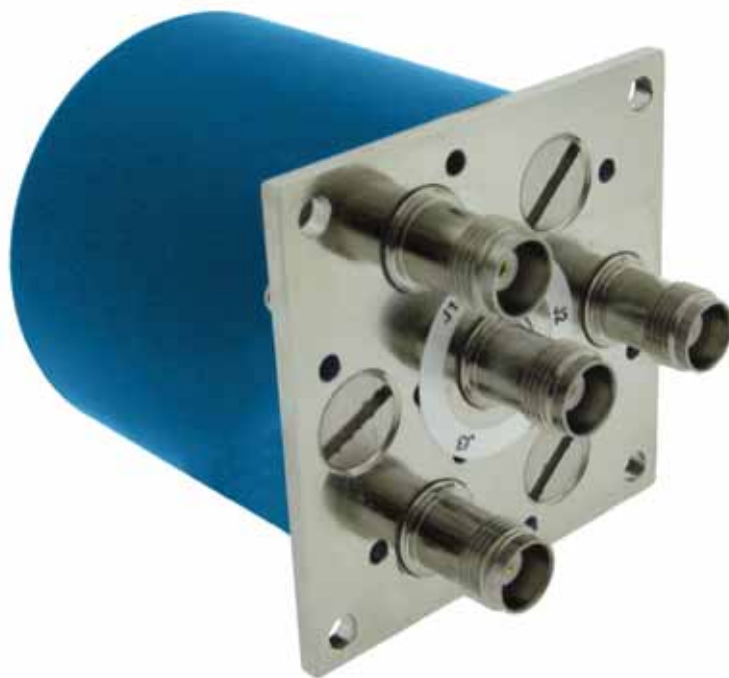
Cumbernauld, UK, September 2014: Teledyne Coax Switches introduces its new Series CCS-19 Coaxial Switch. The CCS-19 is a broadband multi-throw, electromechanical coaxial switch designed to switch a microwave signal from a common input to any 3, 4, 5, or 6 outputs. The CCS-19 is available in Commercial and Elite models which have temperature ranges of -40° to +65°C and -55°C to +85°C respectively. The expansion of the coaxial switch product line also helps improve Teledyne's switch matrix system product line. The CCS-19 series will help reduce switch count for customers who are interested in latching multi-port systems, thus being able to offer smaller, price competitive switching solutions.

The CCS-19 measures 2.50 (63.5) x 2.50 (63.5) x 3.48 (88.4) inches (mm).

Customers may download the datasheet at <http://www.teledynecoax.com/pdf/coaxialswitches/CCS-19%20LATCHING.pdf>

For more information, visit <http://www.teledyne-europe.com> or send e-mail to sales.europe@teledyne.com.

Teledyne Relays, has been the world's innovative leader in manufacturing ultraminiature, hermetically sealed, electromechanical and solid-state switching products for more than 50 years. The company's comprehensive product line meets a wide range of requirements for Commercial, RF & Microwave, Communications, Test & Measurement, Industrial, Medical, Aerospace and Military applications. In addition to Teledyne Relays, Teledyne Coax Switches offer a complete line of Coaxial Switches and Switch Matrices capable of low insertion loss, high repeatability, low intermodulation, 5 million cycle life and high power switching. Teledyne is highly vertically integrated, which reduces development time, qualification time, cost and lead time, while ensuring high quality and cost-effective production.



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STEVE BAKER
EXCALIBUR SYSTEMS



“Westwire have provided excellent support to Remotec UK during the design, development and production of the Wheelbarrow Mk9 EOD system, turning around urgent requests very quickly including invaluable out of hours support at weekends.”

ANTHONY COOPER BENG (HONS)
PROGRAMME MANAGER
NORTHROP GRUMMAN REMOTEC UK LTD



“Westwire have always performed exceptionally well in both Quality and Delivery performance, remaining a key supplier to NP Aerospace. In support of NP Aerospace projects, Westwire are very pro-active in anticipating and resolving potential supply issues resulting in a highly rated overall service.”

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ULIS presents new thermal image sensors for faster target detection in military applications



Pico1024E GenII gives military equipment extra performance to detect threats, while maintaining all-important low-level power consumption standards

ULIS Megapixel Pico1024E GenII

ULIS, a leading manufacturer of thermal image sensors for commercial and military applications, today announces the availability of Pico1024E GenII, a high-precision energy-efficient megapixel thermal image sensor. Pico1024E GenII is a next-generation device in the ULIS PICO E product family for military applications. It brings important new advantages to military equipment needing extended infrared detection range, fast target detection and tracking, while keeping power consumption low.

ULIS' PICO E products are already deployed in European and North American airborne local situation awareness and land vehicle driver vision enhancement applications. In recent events, PICO E products have also been selected for two European anti-surface missile programs.

These developments lead ULIS to have high expectations that Pico1024E GenII, by offering extra performance in wide field of view and faster target detection, will gain

entry into other military applications.

"ULIS' megapixel Pico1024E GenII meets the challenges in thermal image sensors for military applications that need to offer new capabilities and perform at very high standards, while operating with minimum energy," said Jean-Francois Delepau, managing director of ULIS. "Pico1024E GenII has already stimulated interest from defense equipment customers. Its performance pushes the standards in image crispness, frame rate frequency and low power consumption to the highest levels. We expect Pico1024E GenII to open up new possibilities in the future development of thermal imaging systems." Pico1024E GenII, a 1024 x 768 17-micron pixel pitch thermal image sensor, has succeeded in maintaining power consumption at the lowest levels (200mW), while offering new performance attributes in higher thermal sensitivity and faster frame rate frequency. These enhancements have increased Pico1024E GenII's overall attractiveness to a wider range of military applications demanding a larger panoramic field of view or extended detection range (3km - 5km).

Helicopter pilots and drivers of land vehicles can benefit from the real time thermal imaging capabilities that Pico1024E GenII enhances for night vision or for local situation awareness in all-weather conditions as well as smoke. Pico1024E Gen II can also provide airborne or ground-

based troops with extra capability enhancements in operations, such as 'man in the loop' for anti-surface missiles.

Major upgrades to Pico1024E GenII consist of higher thermal sensitivity of lower than 50mK, offering 15 per cent additional thermal sensitivity over the previous generation.

Thermal sensitivity is a key parameter for indicating the image accuracy and visible details provided over a measurable distance, in this case up to 5km to detect a tank.

Other upgrades include a frame rate frequency of more than 100Hz for fast target tracking. This is close to double the frame rate frequency for this category of megapixel thermal image sensor. Significant progress has been made on lowering the power consumption of ULIS' devices, down to 200mW, whereas competing products require two to three times more electrical power.





ANV S2 Radiation Monitoring System

Tracked and wheeled vehicles

Features

- Extended measurement range
- Up to three detectors per system
- Rapid response
- Variable alarm threshold
- Rugged, low cost design
- Excellent reliability
- Military vehicle specifications

The ANV S2 radiation monitoring system has been developed by Ultra Electronics to provide a robust and affordable solution for vehicle borne applications. The system continuously monitors the radiological environment both within the vehicle and external to the platform.

The design has been proven in a comprehensive range of environmental and other tests against UK MOD Defence Standards. The Type Testing programme included the demanding mechanical specifications for shock and vibration for systems on tracked and wheeled military vehicles.

The system's modules are designed to perform continuously with minimum maintenance and have excellent reliability.

The detectors are suitable for external mounting on amphibious vehicles.

The ANV S2 system can incorporate up to three wide range detectors capable of measuring from natural background levels to full threat levels which may be experienced post nuclear weapon detonation.

A single detector can be sited internally to monitor the exposure of the crew whilst two external detectors will give a directional capability which can be exploited to locate the source of a radiological threat.

The ANV S2 fighting vehicle system has a rapid response to changes of radiation dose rate. This enhanced response is required to detect radioactive point sources whilst the vehicle is on patrol, conducting surveys or actively deployed.

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The Newly Developed Vitavic 300 Radio Monitor

Tactical communications specialists, Vitavox, introduce a standalone tactical vehicle radio monitor and broadcaster – the Vitavic 300.

Standalone Tactical Vehicle Radio Monitor and Broadcaster Vitavic 300

A rugged tactical interface for the connectivity of up to any 3 combat net radios, the Vitavic 300 is a cheaper solution for radio monitoring and broadcasting due to its capabilities without the need of a vehicle intercom system. Comprising of a Radio Monitor control unit with a built-in speaker, and a microphone, the vehicle commander or any other trainer personnel can communicate to one of the selected radios. The built-in speaker eliminates the need for a headset but the capability is still there if we required.

With visual indication of radio connection, the Vitavic 300 makes for minimal training and easy operation and installation on to any tactical vehicle. Meeting the specifications of Mil-Std810F and Mil-Std461E, the kit is compatible with any in-service combat net radio (CNR) or headset.

To find out more please visit:
<http://www.vitavox-sound.com/4/products/intercom-systems/vitavic-300-radio-monitor>



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