

HASSELBLAD AND AVIATRIX

In May 2017, **AeroScientific** and **Hasselblad** jointly launched the newest medium format aerial mapping system in the world. The system features the new 100 megapixel Hasselblad A6D, the award-winning **Aviatrix Flight Management System (FMS)**, the **FlightCube** computer, as well as all the other peripheral devices that you'll need. The Cube has been specially designed to make aerial acquisition much easier and has numerous advantages including a compact design, tightly fitting Lemo connectors for trigger cables and power cables, internal power distribution, removable SSDs for image data and meta data storage, an i7 processor, 8GB of RAM, 256GB SSD and a low power footprint. All in all, this new system is portable, lightweight and convenient whilst also being incredibly technologically advanced, making it the perfect system for all aerial photography needs.

www.hasselblad.com
www.aeroscientific.com



VERDANTIX FORECASTS THE EUROPEAN DRONES MARKET

The market in Europe for drone-related equipment, software and services will grow from €197 million in 2017 to €3.9 billion in 2037. This is according to a new market size and forecast model from independent research firm **Verdantix**. The assessment considers spending on drones across eleven usage scenarios relevant to commercial and industrial firms as well as civil government such as police, fire services and coastguards. The 2017 market

size is based on a detailed analysis of the revenues of drones equipment vendors and solution providers. **Verdantix CEO, David Metcalfe** commented, "Drone providers like Aerialtronics, Aibotix, Airbot, Airware, CyberHawk, Delair-Tech, Drone Volt, Flyability, Microdrones, Parrot, Sky-Futures and Unifly are well-positioned to benefit from anticipated annual growth in demand of 33% over the next five years." www.verdantix.com

BOUNDLESS TO RELEASE NEW GIS SOFTWARE

On Nov. 14, **Boundless**, the leader in open geographic information systems (GIS), announced the launch of **Boundless Server** (a rebrand of its flagship product Boundless Suite), to offer a complete ecosystem of commercially supported, open source GIS solutions for the enterprise. The new Boundless Server represents a significant advancement for organizations using open source software for map creation and geospatial data analysis across web, mobile and desktop applications. Key features include: **Enhanced styling and increased interoperability** with Esri's ArcGIS services and web applications, **Flexible architecture** built upon open source technology and open APIs, enabling organizations to easily manage and publish location data and workflows to web apps, desktop clients and mobile devices, **Pre-packaged support for MBTiles**, new label options, support for publishing content in GeoServices REST format, and upgrades to the image mosaic GeoWebCache REST framework. www.boundlessgeo.com

TRIMBLE EXPANDS CENTERPOINT RTX FAST CORRECTION SERVICE IN NORTH AMERICA AND EUROPE

Trimble announced the expansion of its **CenterPoint® RTX Fast** (RTX Fast) correction service in North America and Europe. RTX Fast reduces the convergence time—the duration needed to reach full precision accuracy—by up to 98 percent faster than other satellite-delivered correction services. The service allows customers to realize horizontal positioning accuracy of better than 4 centimetres (1.5 inches) in as fast as one minute. No other satellite-delivered correction service on the market today can provide this combined level of accuracy and convergence performance. With RTX Fast, farmers, surveyors, GIS professionals and construction contractors can work faster, improve productivity, minimize input costs and reduce worker fatigue. Trimble is expanding its RTX Fast coverage to meet the demand both geographically and for the markets it serves, including new emerging applications in vehicle autonomy and location-based services. www.trimble.com

GLOBAL MAPPER SDK NOW AVAILABLE ON AMAZON WEB SERVICES

Blue Marble Geographics is pleased to announce that the **Global Mapper Software Development Kit (SDK)** has been expanded to provide data processing capabilities in the cloud. Using **Amazon Web Services (AWS)**, developers can utilize Global Mapper's scripting language to provide a range of online data access, creation, editing, conversion, and distribution services for clients and customers by accessing an AWS hosted version of the SDK. The introduction of the cloud-based SDK functionality streamlines workflows by eliminating the need to transfer large volumes of data to and from a local computer - developers can now efficiently access and process data. Making use of AWS, all of the data management and manipulation procedures can now be performed on cloud servers using Global Mapper scripts. Global Mapper is an affordable and easy-to-use GIS application capable of displaying, converting, and analysing virtually any type of geospatial data. www.bluemarblegeo.com



ARROW SERIES

High Precision GNSS Receivers
for every mobile device

ARROW GOLD

1 cm RTK with SafeRTK™ & Atlas



ARROW 200
1 cm RTK



ARROW LITE
Submeter GPS



ARROW 100
Submeter & Subfoot GNSS

40-60cm with EGNOS and all SBAS
1cm real-time RTK accuracy
iOS/Android/Windows compatibility
GPS/GLONASS/BeiDou/Galileo/QZSS

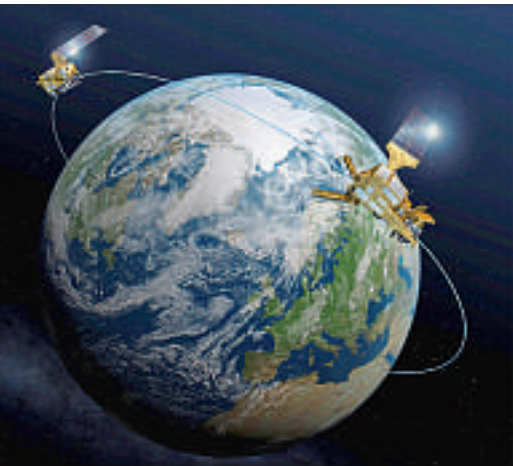
 EOS POSITIONING SYSTEMS
Tel: +1 (450) 824-3325
e-mail: info@eos-gnss.com
Made in Canada

ARROW SERIES™

WWW.EOS-GNSS.COM

AUTODESK AND ESRI PARTNERING TO ADVANCE INFRASTRUCTURE PLANNING AND DESIGN

Autodesk, Inc. and Esri, Inc. announced the start of a new relationship to build a bridge between BIM and GIS mapping technologies. Together Autodesk and Esri plan to enable a broad range of industries to gain better context by visualizing data of the man-made world, the environment, citizens and the networks that weave it all together. For infrastructure owners around the world, both public and private, enabling BIM and GIS mapping software to more seamlessly work together will optimize their ability to plan, design, build and operate infrastructure assets saving precious time and money. Improving the integration of Esri and Autodesk software has the potential to dramatically decrease workflow times. **Jack Dangermond, President, Esri** said. "The benefits of partnering with Autodesk will include securing sustainable resources for the growing population, a responsible human footprint on our natural environment, better use of our planet's resources and more resilient cities." www.autodesk.com www.esri.com



METOP-SG NEXT GENERATION OF AIRBUS SATELLITES FOR WEATHER AND CLIMATE

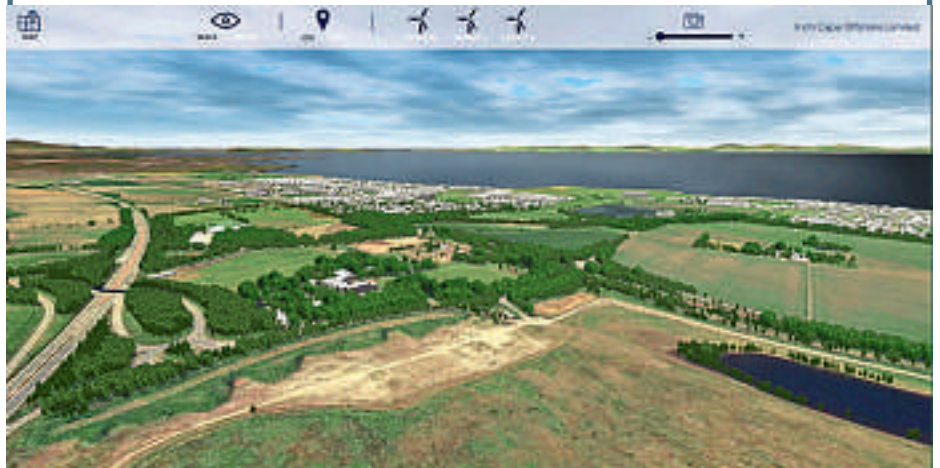
Meteosat satellites monitor the Earth using both visible and infrared imaging. The Europeans now have two **MetOp** series polar-orbiting satellites in space: **MetOp-A** and **MetOp-B**. The third and final first-generation MetOp satellite is expected to be launched in autumn 2018. The MetOp satellites developed and produced by **Airbus** for ESA and the European meteorological organisation EUMETSAT orbit the Earth at an altitude of only 830 kilometers, requiring some 100 minutes to complete one Earth orbit. These satellites orbit our planet 14 times a day in a sun-synchronous orbit and, because their orbits are 42 times closer to Earth than the geostationary satellites, the observation data that MetOp satellites provide is much more detailed and offers access to a wealth of ground, atmosphere and ocean parameters that are recorded by microwave instruments that cannot be applied by satellites located in more distant geostationary orbits. www.airbusdefenceandspace.com

FUJITSU AND HERE TO PARTNER ON ADVANCED MOBILITY SERVICES AND AUTONOMOUS DRIVING

Fujitsu and **HERE Technologies** announced a plan to link their respective technologies into powerful integrated solutions for customers developing advanced mobility services and autonomous cars. The two companies have signed an agreement with a view to commencing a long-term strategic partnership that would benefit both companies' customers. Fujitsu is a leading system integrator with data analytics, AI and high-performance computing technologies, while HERE is a leading provider of accurate and reliable digital mapping and advanced location-based data services and technology. Through their planned partnership, the companies aim to support automakers, mobility providers and cities with integrated, end-to-end technology solutions with an initial focus on Japan-originated companies, while expanding to international markets. The objective: help customers to evolve their mobility-related services. As a key partner to automakers and other industries, Fujitsu has deep experience in services and information systems such as automotive telematics. www.here.com www.fujitsu.com

BLUESKY 3D MODELS USED TO CREATE VR SIMULATION OF OFFSHORE WIND FARM

Highly accurate 3D models from **Bluesky** are being used to communicate plans for a new offshore wind farm in Scotland. The interactive models allow users to 'teleport' around a virtual environment, viewing the proposed turbine development from the coast in the real world context of existing buildings and trees. Created by environmental consultancy company **SLR** from high resolution aerial photography, the data supplied by Bluesky included a detailed and accurate 3D model of existing buildings and structures, together with a database of the exact locations of every tree in the study area. Using the Bluesky data, SLR created a virtual reality model showing the proposed offshore wind farm, which will be home to up to 72 turbines and be sited around 15 kilometres off the Angus coastline. The project represents an important investment in Scotland's energy and could provide power for around half a million households. www.bluesky-world.com



MAPPT ELEMENTS DEBUTS FREE GEOSPATIAL MAPPING APP

Mappt Elements has just released a feature that enables GeoPDFs to be added to a fully interactive map and already comes with a huge range of global datasets. Users can access the entire USGS NationalMaps database with over 330,000 high resolution topographical maps covering the entire United States of America. As part of their initiative to expand into iOS market, the company behind Mappt Elements, Takor Group, believes the intelligent app will

not only give the public access to a huge array of quality mapping data, but also save time and reduce costs for an array of industries. Mappt Elements allows users to access live weather feeds, a wide selection of maps including public transport, geology, vegetation and aerial imagery, of which the data available will continue to increase as users grow. The iPhone app also enables users to load their own data sets. www.mapptelements.com.au

SSTL AND ASTROSCALE TEAM UP FOR ORBITAL DEBRIS REMOVAL MISSIONS

ASTROSCALE PTE. LTD. and **Surrey Satellite Technology Ltd** (SSTL) have signed a Memorandum of Understanding to pursue joint opportunities in areas of innovative on-orbit technologies and missions designed to safeguard the orbital environment for future generations. They have agreed to long-term strategic cooperation that further positions the companies to compete globally in the growing small satellite and orbital debris removal markets. As a first step, ASTROSCALE has contracted SSTL to supply a "Target" satellite and avionics for its inaugural End-of-Life Service by ASTROSCALE-demonstration mission, which will simulate capture of orbital debris and is designed to validate key technologies for end-of-life spacecraft retrieval and disposal services. ASTROSCALE hopes to establish a long-term presence in the UK, starting with the establishment earlier this year of an office and mission control centre in Harwell. This cooperation will lead to further investment in the UK, including potential establishment of a supply chain. www.sstl.co.uk

GEODVR FOR SAR - NORTH SHORE RESCUE & TALON HELICOPTERS

Remote GeoSystems, North Shore Rescue and **Talon Helicopters** are pleased to announce the successful deployment of a **geoDVR™ Gen2** with a FLIR daylight EO/IR gyro-stabilized video camera on an Airbus TwinStar (AS355) for Search and Rescue (SAR) missions. The geoDVR Gen2 is an advanced mil-spec DVR for recording multiple channels of HD & Standard-Definition geospatial full motion video in airborne and rugged vehicle environments. The geoDVR's ability to reliably record HD colour and IR, along with continuous GPS data and Live Moving Maps, make it ideally suited for professional airborne search & rescue, law enforcement and infrastructure inspection applications that utilize multi-sensor gimbal video cameras. North Shore Rescue and Talon Helicopters will use the geoDVR with a FLIR generously donated by Port of Vancouver to perform helicopter-based SAR operations with colour and infrared. www.remotegeo.com



PLANETOBSERVER PRESENTS NEW PLANETSAT UPDATES

PlanetObserver has finalized the new **PlanetSAT Updates** imagery basemap of the United States and Mexico. Processed with fresh and cloudless Landsat 8 source data, this new basemap covers more than 10 million square kilometers at 15-meter resolution. With an advanced natural color imagery processing, this high quality mapping product provides up-to-date and detailed geographic information, perfect for 1:50,000 scale mapping. Key user benefits of the new PlanetSAT Updates basemap are: Up-to-date and reliable geographic information data, Plug-and-play product,

ready-to-use in all professional applications, Flexible licensing and pricing models. PlanetSAT Updates basemap is a unique backdrop solution that brings strong added value to many commercial and military applications, ranging from flight simulation, geo-intelligence and mission preparation solutions, geographic information systems, to mapping applications such as web-based mapping solutions. The production of PlanetSAT Updates basemap of the United States and Mexico is part of a comprehensive annual maintenance program set up by PlanetObserver in 2016. www.planetobserver.com

GARMIN® CELEBRATES A MILESTONE IN AVIATION, DELIVERS ONE-MILLIONTH CERTIFIED PRODUCT



Garmin International, Inc. recently celebrated the delivery of the one-millionth certified avionics product from its manufacturing facility in Olathe, Kansas. The milestone product was a GTX™ 3000 DO-260B compliant Mode S Extended Squitter (ES) transponder, which enables ADS-B Out transmissions and features TCAS II/ACAS II compatibility for a wide range of business and transport category aircraft. "Since our inception over 28 years ago, Garmin has been committed to providing superior products that are known for their innovation, reliability and intuitive design," said **Phil Straub, Garmin executive vice president, managing director of aviation.** "This milestone is a testament to our long-established commitment to making significant investments in research and development, as well as the hard work and dedication of thousands of passionate Garmin team members that I have the pleasure of working with every day." www.garmin.com

CARLSON PRECISION 3D TOPO 2018 IS HERE

Carlson Software's Precision 3D Topo 2018 featuring enhanced visual photographic background, point cloud loading and editing, polyline best fit alignment, and much more has just been released. New 2018 features include enhanced visual Google Maps photographic background, automated Google surface creation, 3D Model editing, polyline editing tools, additional snap modes, and improved DXF import/export for surfaces, polylines and points. **P3D Topo** software enables real-time surface editing with dynamic contours, faces, and slope arrows with an easy-to-execute drag-and-drop design. Users are able to import survey data, points, polylines, surfaces, point clouds, both traditional LIDAR and aerial drone survey data, and more from a wide variety of programs and entities to create useable 3D surfaces. Unlimited undo and redo then allows for review of all changes and user-controlled textures help or to quickly spot errors in the DTM and make any needed corrections. www.carlsonsw.com



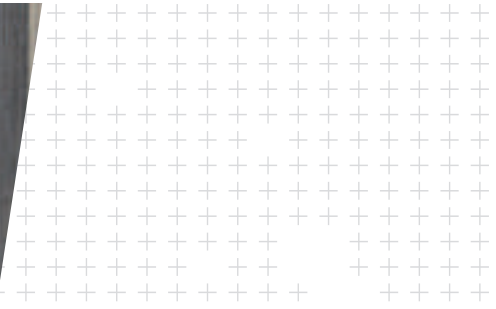
MAXOPTRA AND TOMTOM HELP ARTHUR DAVID FOOD GO THE EXTRA MILE

Food service specialist **Arthur David** has turned around its customer service following the implementation of **Maxoptra** route planning and scheduling software. Since implementing the **TomTom** telematics integrated software, the distributor of fresh foods has introduced a 'one-call' customer care policy. Giving frontline staff direct access to real time delivery information, accessed in the cloud, they can advise and inform customers at first contact. The advanced route planning solution also supports the company's 'leave it with us' motto, helping to resolve delivery issues on the same day. "We always go the extra mile to achieve and exceed customer expectations," commented **Jon Evans, Managing Director of Arthur David.** Since implementing Maxoptra, integrated with in-cab telematics from TomTom, Arthur David has seen a dramatic reduction in the time and resources taken to deal with customer queries. www.maxoptra.com



ORBIT GT RELEASES 3D MAPPING PUBLISHER V18

Orbit GT launches the next generation Mobile Mapping Publisher: **3D Mapping Publisher v18.** "This release is a milestone in the Publisher's long history," says **Peter Bonne, CEO of Orbit GT.** "As version 18 bundles all the expertise and technology to support the various types of 3D mapping techniques, the 3D Mapping Publisher moves beyond Mobile Mapping. But more important, it now supports a publication both in Flash as in HTML5 which for sure will satisfy many users, both the innovators as those in need of backwards compatibility." 3D Mapping Publisher is intended for use On Premises whereas 3D Mapping Cloud is Orbit GT's flexible SaaS-based alternative to share data beyond your organisation. Both products are now using the same HTML5 based viewer, which is a major innovation for the On Premises 3D Mapping Publisher. www.orbitgt.com



Go Ahead,
Make Your Mark.

From field to finish, Trimble Geospatial is pioneering the most progressive tools in precision technology. With confidence in your pocket, and workflows that deliver, you have the power to forge ahead and establish your act of permanence.

geospatial.trimble.com



OCEANS OVERLOOKED AS SOURCE OF SOLUTIONS TO CLIMATE CHANGE

Solar power and energy storage innovations are advancing steadily and will be an important part of our tool kit. However, far too little attention has been paid in the climate change debate to what is happening in our seas and the technology that is being employed there.

The ocean, which covers 71 per cent of the planet, is a global, interconnected ecosystem that is closely intertwined with our planet's climate system. For example, ocean phytoplankton produce more than 50 per cent of our oxygen, and the ocean absorbs more than 25 per cent of the anthropogenic CO₂, and 90 per cent of the excess heat emitted annually into the atmosphere. We can and must look beyond our current horizon to see the ocean as a source of solutions to the climate change challenges facing our planet. In particular, the ocean has enormous potential to help by producing low-carbon energy and by sequestering atmospheric carbon.

www.oceancouncil.org



DEKRA OPENS CONNECTED CAR TEST AREA

In November, international expert organization **DEKRA** officially opened its connected car test area in Malaga, Spain, as part of its international network for connected, automated, and electric driving. At the opening, DEKRA's experts organized two live connected car demos that showed test scenarios designed for specific V2X technologies. Important connected car functionalities revolve around V2X (or vehicle-to-everything) technologies (e.g. cars, infrastructure, pedestrians). These technologies allow vehicles and other road users to receive the position and movement data of all the other road users and infrastructure in their vicinity. Other technologies that DEKRA will test include left turn assist, blind spot warning, forward collision warning, green light optimal speed advisory, red light violation warning, and control loss warning. All of the test scenarios are already available for customers. DEKRA's connected car test area will become a key component of its international testing network for connected, automated, and electric driving. www.dekra.com



VIAEUROPA CLOUD SOLO SERVICE ADDED TO G-CLOUD 9

Europa Technologies is pleased to announce multiple enhancements to its popular **viaEuropa Cloud services**. The enhancements, including viaEuropa Cloud Solo – a new subscription tier for individual users – and enhanced support, are now available to UK public sector organisations through G-Cloud 9. viaEuropa Cloud services allow public sector organisations to quickly and easily consume definitive Ordnance Survey digital map content as a service, without incurring traditional data management overheads. The award-winning services have been available on the framework since G-Cloud 3 and have proved popular amongst government departments, local authorities and emergency services alike. Utilising data made available through the Public Sector Mapping Agreement (PSMA), One Scotland Mapping Agreement (OSMA) or the Northern Ireland Mapping Agreement (NIMA), the services feature high quality cartography and enable simple integration of the most detailed mapping available for the United Kingdom into desktop, web and mobile mapping applications. www.europa.uk.com

FREQUENTIS UNIFIED TETRA GATEWAY ENABLES INTEGRATION OF VARIOUS CONTROL CENTRES

The state-wide emergency services digital radio now connects 17 control centres of the fire brigade and emergency medical services of **North Rhine-Westphalia**, via the **NRW concentrator** developed by **Frequentis**. The remaining 43 non-police emergency control centres are planned to be connected during the course of the expansion project over the coming years, better equipping the region for all emergency service incidents. North Rhine-Westphalia is the most populous federal state in Germany; 60 control centres of the fire brigade and emergency medical services serve 18 million inhabitants. 17 of the 60 control centres are currently connected to the emergency services digital radio via the NRW concentrator. Frequentis was first commissioned to connect the 60 non-police emergency control centres to the state-wide emergency services digital radio in 2013 and developed a solution based on the Frequentis Unified TETRA Gateway. www.frequentis.com

ABB SELECTS DIGPRO'S DPPOWER FOR A LARGE SCADA ADMS PROJECT IN TURKEY

Digpro has been chosen by **ABB** to supply their GIS based network management system **dpPower** for a large **SCADA ADMS** project in Turkey. ABB selects the Digpro solution to support the migration of network data, and to support the process and work flow for Network Planning and Design of the electrical network including geo-spatial visualization of all network assets in scope, and to feed the ADMS calculation engines with accurate network data. The customer operates a large electrical distribution network in Turkey, and provides services to more than 1.7 Million customers. The dpPower GIS solution streamlines and reduces costs associated with the design, storage and maintenance of geospatial network asset data. This information is readily available for the ABB Network Manager ADMS system, the Maximo EAM system from IBM, and for the CIS from Alternatif, and many more systems, which will be integrated in to dpPower. www.digpro.se

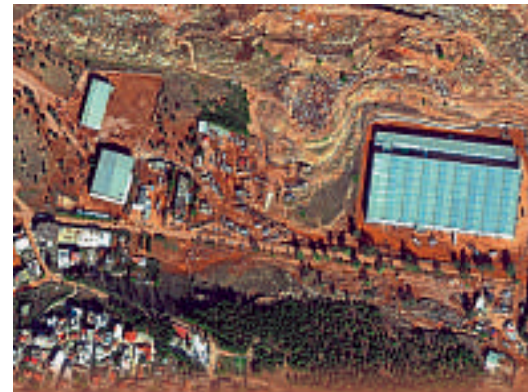
PIX4D PARTNERS WITH KOKUSAI KOGYO IN JAPAN

Pix4D is partnering with **Kokusai Kogyo Corporation (KKC)**—the leading geospatial consulting company in Japan—to deliver an i-Construction-compliant drone mapping and photogrammetry solution for the Japanese market. i-Construction is a set of government-defined regulations to govern the collection and processing of drone data. In August 2016, KKC released a 3D geospatial analysis cloud service (KKC-3D). The partnership will jointly develop that service and new features to meet the requirements for public surveying and i-Construction standards. Japanese customers will only have to upload acquired images as well as the location information of the ground control points, in order to download the 3D terrain model and the quality control reports that meet the requirements of public surveying and i-Construction. Pix4D is excited to be part of the i-Construction initiative in Japan—interpreting data collected by drones and other devices and automating complex workflows. www.Pix4D.com



ELBIT SYSTEMS' AWARD OF ADDITIONAL BMS FOR THE ADF

Elbit Systems of Australia Pty Ltd (ELSA) hosted the **Australian Minister for Defence Industry**, at its facility in Canberra, marking the award of Tranche 2 of the Australian Army's Land 75/125 program. The program is the extension and enhancement of the Australian Army's Battle Management System (BMS) originally procured under the Land 75/125 Program. Elbit Systems is the prime contractor of the Australian Army's BMS and it supplies, integrates, installs and supports the Battle Group and Below Command, Control and Communications (BGC3) system for the Australian Army's Land 75/125 program. The BGC3 is comprised of a BMS for soldiers, Vehicle Mounted Commanders and Headquarters/Command Post Staff. **Bezhael (Butzi) Machlis, President and CEO of Elbit Systems**, commented: "Australia is an important market for Elbit Systems and we are proud to have been selected by the Department of Defence for the next phase of this major program." www.elbitsystems.com



SATELLITE IMAGES OF WEST ATTICA FLOOD HELP GOVERNMENT RESPONSE

Heavy rain on November 15-16 caused a flood west of Athens, Greece. The cities of Mandra, Elefsina, and Nea Peramos were most affected with 1,184 buildings suffering damage requiring significant government compensation. **European Space Imaging** captured 30 cm resolution images of the area using the **WorldView-4** satellite on November 21. The images clearly show the damage wrought by the torrents of water and mud, and the path the water took as it flowed down the sides of the mountains and into gullies. It has been reported that inappropriate urban development may have been a major contributing factor to the event's severity, as natural floodways have been blocked by unlicensed construction. Adrian Zevenbergen, Managing Director of European Space Imaging said, "The very high resolution satellite imagery will be an invaluable tool for the Greek government to detect the presence of illegal buildings, and to plan future flood-prevention infrastructure." www.euspaceimaging.com



FUGRO TO BRING SURVEY EXPERTISE TO THE SEARCH FOR LOST WW1 SUBMARINE

Fugro is to join a campaign to find the First World War Australian submarine, **HMAS AE1**. From its advanced survey vessel, the Fugro Equator, skilled survey personnel from Fugro will use a state-of-the-art multibeam echosounder to conduct a bathymetric survey and a sophisticated autonomous underwater vehicle for close examination of the search area. The Silentworld Foundation, a not-for-profit organisation with a focus on Australasian maritime archaeology, and the Royal Australian Navy are the major sponsors funding the search that aims to locate this significant part of Australia's history and enable proper commemoration. The submarine was lost without a trace on 14th September 1914 while patrolling waters off then German New Guinea. The fate of the vessel and the men on board, comprising Australian, New Zealand and British subjects, is still unknown. www.fugro.com