

## NORWEGIAN ENERGY COMPANY LUOSTEJOK KRAFTLAG HAS CHOSEN DIGPRO

Digpro has been chosen to supply their GIS based network management system **dpPower** and **dpCom** to the Norwegian energy company **Luostejok Kraftlag AS**.

Their main purpose is to distribute electrical power to customers in Karasjok and the eastern part of the municipality of Porsanger and Veidnes in Lebesby, Norway. Luostejok Kraftlag chose Digpro to help them manage their electrical distribution network and optical fiber network. Luostejok Kraftlag have struggled for many years with a situation characterized by poor data quality caused partly by the fact that the same data is in multiple systems that do not talk with each other. **Ole G. Thomassen, CEO, Luostejok Kraftlag** said "Now we have a system that gives us support for both our infrastructure areas, as well as all phases of planning, operation, maintenance, as well as a system that is flexible and user-friendly."

[www.digpro.com](http://www.digpro.com)

## NEW STRATEGIC PARTNERSHIP BETWEEN DECARE SYSTEMS AND DRONE SAR

**DeCare Systems Ireland (DSI)**, the developers of the **SafeTrx**, the leading maritime safety app and **Drone SAR**, the developers of the revolutionary **DroneSAR app** have announced a new strategic partnership. The partnership will combine SafeTrx's mobile maritime safety platform with DroneSAR's search and rescue drone platform to deliver a highly integrated Search And Rescue (SAR) solution. Together DSI and DroneSAR are co-innovating in automated incident response and drone dispatch to provide an integrated high quality digital automated interface between distress messages triggered by SafeTrx to DroneSAR's flight planning software. John Murphy, General Manager, DSI commented "Partnering with DroneSAR allows us to explore the potential for autonomous drone dispatch to the location of a SafeTrx distress call. We have some great ideas on how our combined solutions can help our customers around the world". [www.decaresystems.ie](http://www.decaresystems.ie)  
[www.dronesarpilot.com](http://www.dronesarpilot.com)



## WEST YORKSHIRE POLICE EXTENDS CADCORP GIS CONTRACT

**Cadcorp's** contract with **West Yorkshire Police** for provision of an enterprise GIS system has been extended into 2020, and are upgrading to the latest version of Cadcorp software. West Yorkshire Police use Cadcorp software for a variety of different tasks including crime analysis, hotspot mapping and routing analysis; web mapping products are used for the distribution of spatially related data over the intranet while Cadcorp developer components provide a GIS capability for **Steria STORM**, the force

Command and Control system. Crime analysts will benefit from interface and functional developments within Cadcorp's desktop product, **Map Modeller**. Cadcorp's geospatial web services engine - **GeognoSIS®**, will make Ordnance Survey maps available as a Web Mapping Tile Service to a range of other West Yorkshire Police applications. Officers on the beat, will use the Web Map Layers responsive user interface specifically tailored to mobile devices to access mapping data while working remotely. [www.cadcorp.com](http://www.cadcorp.com)

## JOINT COMMUNICATIONS CENTRE SYSTEMS UPGRADE FOR NORTH WALES POLICE

**North Wales Police** have contracted with **Hexagon** to upgrade the existing **Frequentis 3020** Integrated Communication Control System (ICCS) to the **Frequentis 3020 LifeX** software platform and provide associated integration to **Hexagon's Intergraph® Computer-Aided Dispatch (I/CAD)** incident management and dispatch system. The upgrade provides North Wales Police with a single platform for both emergency and non-emergency forms of contact centre and control room communications including radio, telephony, email and web chat. The solution enables configurable skills-based routing of

communications, provides more information on both people and properties at the point of contact through integration with other police systems and delivers automated management information reporting. The integrated solution facilitates infrastructure consolidation through the use of a single workstation per operator position and commercial-off-the-shelf (COTS) hardware and virtualisation in the data centre. The 3020 LifeX software platform will also support future transition to the Emergency Services Network (ESN) [www.hexagonsafetyinfrastructure.com](http://www.hexagonsafetyinfrastructure.com)

## GLOBALSTAR TO MONITOR FLEETS AND SAFEGUARD OIL INDUSTRY WORKERS IN TUNISIA

**Globalstar Europe Satellite Services Ltd**, has announced today three contract wins in the North African oil industry. These new customers have chosen to deploy **iVMS (Integrated Vehicle Monitoring System)** from Tunisian Globalstar partner, **Virtual Mobile Data (VMD)**. iVMS switches seamlessly between Globalstar's simplex satellite network and the land-based GSM/GPRS network to ensure the safety of people and equipment even in the most remote areas. VMD worked with local technology partner, **Neuron Technology Systems (NTS)**, to design iVMS, which switches automatically

to simplex satellite communications when the GSM network becomes unreliable or if a GPRS transmission fails for any reason. For all three wins, VMD's Globalstar-based solution was selected after a thorough evaluation of other technologies and was chosen because its reliability, affordability and network coverage. [www.vmdsolutions.net](http://www.vmdsolutions.net)  
[www.globalstar.com](http://www.globalstar.com)





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## VERISK ANALYTICS, INC., ACQUIRES THE GEOINFORMATION GROUP

Verisk Analytics, Inc., a leading data analytics provider, announced the acquisition of **The GeoInformation Group**, a leader in the field of geographic data solutions based in Cambridge, United Kingdom. "This acquisition expands Verisk's footprint in the U.K. as a data and analytics provider across multiple markets, including insurance, energy, and real estate," said **Scott Stephenson, chairman, president, and chief executive officer of Verisk Analytics**. "The GeoInformation Group's resources complement our risk management and predictive analytics capabilities internationally." The GeoInformation Group offers large-scale mapping services and geospatial data and analytic solutions to a wide array of companies and more than 300 public sector organizations. "We're thrilled to be part of Verisk—a business clearly committed to providing innovation and value to customers," said **Dr. Sepp Cassettari, chief executive officer, The GeoInformation Group**. "I'm confident our combined resources, talent, and solutions will enhance our offerings even more." [www.geoinformationgroup.co.uk](http://www.geoinformationgroup.co.uk). [www.verisk.com](http://www.verisk.com)

## THE USDA ACQUIRES THE AEROMAPPER TALON FOR MAPPING AND AGRICULTURE

The **Ungulate Disease and Damage research project** (USDA APHIS division) has selected the **Aeromapper Talon** from **Aeromao Inc.** for their research on surveying and mapping agricultural areas that have been damaged by wildlife. Among the different payloads offered with the Aeromapper Talon they have chosen the standard 24 Mp RGB Sony camera as well as the Micasense Rededge multispectral camera. The cameras are easily swappable on the UAV. They have decided on the Aeromapper Talon because it offers a very unique set of characteristics, like: Interchangeability between the RGB and high end Multispectral cameras, Long range communications link, Mission editing while in-flight, Parachute recovery, Operations in tight areas thanks to its impressive climb rate and easy handlaunch, and Fully autonomous flight. The Aeromapper Talon also offers an optional GNSS PPK upgrade. [www.aeromao.com](http://www.aeromao.com)



## AIRSELFIE LAUNCHES BEST POCKET-SIZED FLYING CAMERA FOR SMARTPHONES

**AirSelfie** has launched the first pocket-sized flying camera. Comprised of four powerful propellers and a 5-megapixel video camera, AirSelfie is smaller than a smartphone and can fly vertically up to 66 feet, allowing users to take aerial selfies of themselves and their friends. The device connects to the most popular smartphones, includes self-generated WiFi and comes equipped with a rechargeable battery through a cell phone case, as well as the option to purchase an external power bank.

Additionally, a vibration-absorber system and in-flight stability systems guarantee stable, clear, flowing images. AirSelfie's 5-megapixel video camera and four powerful propellers are enclosed in an Italian-designed, stylish and lightweight aluminum case. To activate AirSelfie, the user simply removes it from its case and turns it on. The device connects automatically to smartphones via WiFi—the flying camera creates the WiFi network itself and it is immediately ready for take-off. [www.airselfiecamera.com](http://www.airselfiecamera.com)

## GARMIN PILOT™ ADDS SUITE OF NEW TOOLS FOR PRE-FLIGHT PLANNING AND IN-FLIGHT OPERATIONS

**Garmin International Inc.** has announced integrated weight and balance calculations, as well as aircraft performance tables and calculations within the **Garmin Pilot** app on **Apple mobile devices**. Also new to Garmin Pilot, Freehand flight planning allows for quick and easy flight plan editing from the moving map page. Pilot-configurable checklists are also integrated within Garmin Pilot, providing pilots the option to create custom checklists that are accessible within the app. These new features and more are available as a free update for existing customers and provide pilots

with even more tools to aid in flight planning and in-flight navigation all within a single mobile application. "We continue to pack more features and incorporate more capabilities into Garmin Pilot to provide our customers with a premier, all-inclusive application," said **Carl Wolf, Garmin vice president of aviation sales and marketing**. [www.garmin.com/aviation](http://www.garmin.com/aviation).



## EAST VIEW LAUNCHES MAPVAULT - ONLINE ACCESS TO AUTHORITATIVE RASTER MAPS

**East View Geospatial (EVG)** has launched **MapVault™**, a web-based subscription service providing access to a global collection of raster mapping. The scope of the collection that EVG offers is a first for the field of mapping. Subscribers to MapVault gain immediate access to hundreds of maps from global scale series, ranging from aeronautical charts produced by the US Government to locally-produced topographic maps covering specific countries around the world. EVG is in a unique position to produce such an offering given its place in the geospatial

field supplying corporations, governments, national libraries and universities with authoritative map products in print format or via FTP delivery for over two decades. An annual subscription delivers raster data that can be entered into GIS platforms such as ArcGIS, QGIS and Global Mapper™ using a WMTS connection, or conveniently viewed with EVG's web interface client. <http://geospatial.com/>



## EUROPEAN SPACE IMAGING COMPLETED REMOTE SENSING PROGRAM WITH 100% SUCCESS, AGAIN

### European Space Imaging (EUSI)

completed the 2015 Controls with Remote Sensing (CwRS) program for the **European Commission** (EC) with 100% success rate. The Munich-based company collected and supplied very high resolution (VHR) satellite imagery over nearly half a million square kilometers and demonstrated again its capacity and reliability as Europe's leading VHR data provider. "With the growing number of areas to be covered and the ever demanding specifications we are extremely proud to continually achieve 100% success in this challenging and important campaign. Through leveraging our global team, between European Space Imaging and DigitalGlobe, our staff worked around the clock to achieve



this goal," says **Adrian Zevenbergen, Managing Director of European Space Imaging**. Since 2003, EUSI has been the major provider of VHR satellite data to the EC's CwRS program to control agricultural subsidies granted under the EC's Common Agricultural Policy. [www.euspaceimaging.com](http://www.euspaceimaging.com)

## CONNEXIENT INDOOR MAPPING + NAVIGATION FOR WESTCHESTER MEDICAL CENTER

**Westchester Medical Center Health Network** (WMCHHealth) has selected and is kicking off network-wide deployment of **Connexient's MediNav™** solution for **Digital Wayfinding and Indoor Navigation**. WMCHHealth is a 1,700-bed healthcare system headquartered in Valhalla, New York, with 10 hospitals on eight campuses spanning 6,200 square miles of the Hudson Valley. The MediNav system will provide rich indoor maps, true turn-by-turn indoor navigation and patient flow analytics to enhance the patient experience, reduce missed or late appointments and improve operational efficiency. Powered by Bluetooth Low Energy (BLE) Beacons and sophisticated handset sensor fusion technology, **MediNav™ Navigator v. 2.0** is

the most advanced indoor navigation solution available for hospitals, with rich features that solve real world problems. **Kara Bennorth, at WMCHHealth** stated: "We see Indoor Navigation and All-screens digital wayfinding with MediNav™ as a solution that will greatly enhance the patient and visitor experience while bringing benefits across our network." [www.connexient.com](http://www.connexient.com)



## SIMACTIVE ENABLES PROCESSING IN THE CLOUD

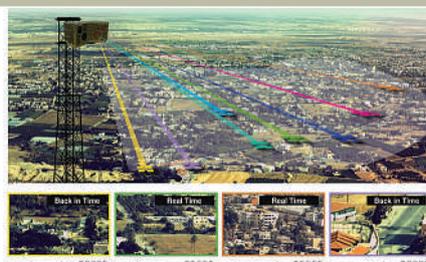
**SimActive Inc.**, a world-leading developer of photogrammetry software, is pleased to announce that processing in the cloud is now officially supported by **Correlator3D™**. Users can subscribe to an online computing service, such as **Amazon EC2**, and run Correlator3D™ on a virtual machine. The main advantage is the capability to use multiple licenses as required. It permits an on-demand deployment of the software on several processing machines, without any computer hardware. "The new option allows our customers to continuously adjust their processing power", said **Louis Simard, CTO of SimActive**. "Combined with our monthly subscription plan, clients have the cloud's flexibility, while maintaining full control of their production workflow." To download a free trial visit [www.simactive.com](http://www.simactive.com)

## GLOBAL MAPPER SDK AND LIDAR MODULE SDK V18 RELEASED

**Blue Marble Geographics** is pleased to announce the immediate availability of version 18 of the **Global Mapper Software Development Kit (SDK)** along with the **Global Mapper LiDAR Module SDK**. The latest upgrade to this powerful developer's toolkit incorporates many of the functional enhancements and performance improvements that were introduced with the recent release of the desktop version of Global Mapper. In tandem with the desktop version, the SDK reflects the rapidly increasing importance of 3D data among GIS professionals with major improvements in LiDAR and terrain data rendering. The version 18 release of the SDK provides new LiDAR access methods for efficiently reading and writing large point cloud layers. A new query function allows points matching specified criteria to be quickly selected and edited. Further upgrades have been made to speed up the display and export of most raster/terrain formats, especially with large amounts of data loaded. [www.bluemarblegeo.com](http://www.bluemarblegeo.com)

## ELBIT PRESENTS GROUNDEYE™- ADVANCED EO GROUND SURVEILLANCE SYSTEMS

**Elbit Systems** presented **GroundEye**, an innovative line of systems for ground-based wide-area, focused and persistent surveillance at the Israel HLS & Cyber Conference. The GroundEye line comprises advanced systems and capabilities in the field of imagery intelligence gathering, which together provide a complete picture and large Field of View (FOV), to a large number of users, in both real time and back-in-time, for forensic debriefing and in high-resolution. GroundEye was developed specifically to address requirements raised by security and law enforcement agencies to improve operational responses against terrorism and homeland security threats such as border protection, facility security-related events, sporting events



and mass public shootings. GroundEye line of systems can be operated as a standalone system or integrated into a Command & Control (C&C) network, and operated within all existing surface observation platforms and components, thereby contributing to create a unified picture of the area. [www.elbitsystems.com](http://www.elbitsystems.com)

## INTRODUCING THEMATIC MAPPER FOR EASY IN-MAP ANALYTICS

The **Thematic Mapper** application just released by **MapDeck** unlocks in-map analytic capabilities for organisations of any size or budget. Traditionally, access to spatial information, and the tools required for analysing and visualising that information, was restricted to only companies with substantial budgets. The arrival of cloud-based online mapping tools is changing all that, democratising access to vital information for everybody, even the smallest companies, as well as individuals. With the release of the **Thematic Mapper** application, **MapDeck** is taking the concept of in-map DIY spatial analytics to a whole new level. **Thematic Mapper** is an example of online mapping tools which allow full personalisation of information content on maps. Unlike traditional online maps, **Thematic Mapper** gives each user full control over the entire map creation and map publishing/sharing process. It is a whole new approach to creating online maps and interacting with spatial data in real time. [www.MapDeck.com](http://www.MapDeck.com)

## TELOGIS AND JOHN DEERE TO DELIVER BUILT-IN CONNECTED EQUIPMENT TECHNOLOGIE

At its annual business conference, **Telogis** announced that it is partnering with **John Deere** to enable construction companies to derive key data and insights from their connected John Deere equipment to help drive cost savings, efficiency and productivity. Through this alliance, **Telogis** and **John Deere** will enable existing and future mutual customers to leverage John Deere construction equipment's built-in connectivity. Customers will benefit from access to a richer data set that will help to eliminate manual data entry and generate deeper insights into customers' operations. "By working in tandem with **Telogis**, we're giving businesses the ability to run their entire mobile equipment business on one comprehensive software platform with one login for all their vehicles and equipment – whether it's John Deere or a mixed fleet," said **Jena Holtberg-Benge, Director Worksight Solutions at John Deere**. [www.JohnDeere.com](http://www.JohnDeere.com) [www.telogis.com](http://www.telogis.com)



## RTM GUIDES ETSIC TOWARDS THE BENTLEY ACADEMIC PROGRAM

Through **Recursos Técnicos Madrid, S.L. (RTM)**, **Escuela Técnica Superior de Ingeniería Civil (ETSIC)** (Higher Technical School of Civil Engineering) has signed the new "**Programa Académico de Bentley Institute**" (Bentley Institute Academic Programme). This program includes "**STUDENTserver**" in order to provide professors and pupils with more than 60 most recent Bentley software applications. **RTM-Bentley** supplies as many access codes needed to provide the start up

of any of the Bentley products downloaded and installed. Likewise either professors or pupils are provided with the direct Access to on line courses "On-Demand" and "Live" under "Elearning" via "**Bentley LEARNserver**" through which they will learn to manage the products that are more interesting for them. Every logged student will be able to access the information about on line courses "On-Demand" and "Live", from which, once they are completed, he/she will be able to download Bentley certificates. [www.rtm.es](http://www.rtm.es)

## ESRI EXTENDS CONNECTED SUPPORT FOR THREE MORE YEARS

**Esri** has announced that it has extended its support of ex-**President Obama's ConnectED** initiative through 2019. **Esri** will continue to expand its wide range of curricula that integrates map-based concepts into primary and secondary school learning. President Obama established the **ConnectED** initiative in 2013 to promote donated technology contributions that can equip U.S. schoolchildren with the tools they need to succeed in the digital future. During a visit to the White House in 2014, **Esri president Jack Dangermond** offered **Esri's** award-winning cloud-based solution, **ArcGIS Online**, to every public, private, and home school in the United States. Since that time, **Esri** has donated more



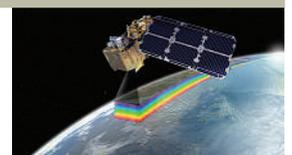
than \$40 million in software, curriculum solutions, training, and support for K-12 institutions.

"**Esri's** contribution to **ConnectED** has succeeded because it's complemented by human investment," said **Dangermond**. "We are pleased to increase that momentum with a new round of investments." [www.esri.com](http://www.esri.com)

## COPERNICUS' SECOND EYE IS READY TO MEET ITS LAUNCHER

**Sentinel-2B**, Europe's next Copernicus satellite in Space, has successfully finished its test programme at **ESA's** technology Centre ESTEC in Noordwijk, The Netherlands. The second **Sentinel-2 Airbus** is scheduled for an early March 2017 lift-off on **Vega**. **Copernicus**, Europe's environmental monitoring program, is led by the European Commission (EC) in partnership with the **European Space Agency (ESA)**. The Copernicus Sentinels supply remote sensing data of the Earth, delivering key operational services related to environment and security. The **Sentinel-2** mission has been made possible thanks

to the close collaboration between **ESA**, the European Commission, industry, service providers and data users. Its development has involved around 60 companies, led by **Airbus Defence and Space** in Germany for the satellites and **Airbus Defence and Space** in France for the multispectral instruments, while **Airbus Defence and Space** in Spain is responsible for the mechanical satellite structure. [www.airbusdefenceandspace.com](http://www.airbusdefenceandspace.com)



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## ASTERI NAVIGATION LAUNCHES X-SERIES OF WEARABLE GNSS RECEIVERS

**Asteri Navigation** has introduced a new line of rugged, compact and fully integrated GNSS receivers. Designed for geospatial field data collection and inspection applications that require high accuracy positioning, the **Asteri X-Series** receivers are light enough to be mounted to external sensors or worn on the body or arm. The compact Asteri receivers were designed with safety and ease of use in mind. Each device weighs just 11.3 ounces with the 12-hour lithium battery. And their 2.8-inch by 5.4-inch size allows them to fit safely in shoulder or arm pouches. The internal single-frequency antenna enables users to capture accuracies of well under 10 cm with RTK/VRS corrections. This integrated design allows users to work in difficult terrain without worrying about equipment and antennas getting snagged or broken. For users needing higher accuracy, an external multi-frequency antenna can be added to the provided port on the receiver. [www.AsteriNav.com](http://www.AsteriNav.com)



## IMPACT OF GREEN INFRASTRUCTURE ON CITY CENTRE TRAFFIC POLLUTION

Scientists from **EarthSense Systems** and the **University of Leicester** have published the results of a study into the effect of urban trees on air pollution. The results show a direct link between air pollution and green infrastructure, with trees and grass cover contributing to a reduction in concentrations of fine particulate matter (PM<sub>2.5</sub>). Conducted on a larger scale than previous studies, the project utilised the latest geographic data from aerial mapping company **Bluesky**, including aerial

photography, laser mapped LiDAR and the unique National Tree Map. The University of Leicester led study also used accepted modelling techniques, such as Computational Fluid Dynamics (CFD), already validated for wind flow and particle dispersion modelling. EarthSense is a new joint venture between Bluesky and the University of Leicester, established to provide commercial access to a range of leading air quality technologies and research. [www.earthsense.co.uk](http://www.earthsense.co.uk)

## 1-FLEET ALLIANCE MAP OUT CLOSER PAN-EUROPEAN UNION

Vehicle tracking entrepreneurs from across Europe met at London's Savoy Hotel to strengthen business collaboration. The 17 members of **1-Fleet Alliance** – a group of telematics companies that together track more than 500,000 vehicles throughout Europe – agreed to forge closer ties. Following previous meetings, the group agreed to form **1-Fleet Corporation**, a commercial entity to represent the interests of the majority of the members. The group's objectives include collaboration and networking, promoting innovation and telematics industry standardisation, as well as joint marketing and commercial agreements. "This was a landmark meeting for 1-Fleet Alliance, taking our collaborative activities to a new level," said



**Joe Fenech Conti, CEO of Loqus, Martin Port, Managing Director of 1-Fleet Alliance member BigChange.** "Despite all the talk of Brexit, there was an overwhelming consensus that closer cooperation is the way forward and that 1-Fleet Alliance should take a lead in the fast growing telematics market." [www.1-fleet.com](http://www.1-fleet.com)

## QATAR RAIL APPLIES MAPTEK EUREKA SOFTWARE TO GEOLOGICAL INVESTIGATIONS

**Eureka modelling software** from **Maptek** is being applied to the construction of a multi-billion transport infrastructure project in Qatar. The infrastructure project, managed by **Qatar Rail**, will create a rapid transit network consisting of light rail, the metro system and high speed trains between Qatar and Saudi Arabia. Qatar Rail uses Eureka to view, analyse and model regional geological and GIS data. Within Eureka, data is amassed into a single, spatially coordinated database for creating detailed 3D geological and geotechnical

structures – key for the planning of viable construction routes. "Eureka modelling and analysis tools allow us to investigate critical aspects in relation to the conditions underground and structures to be erected," said **Marin Griguta, Director Civil Works, QIRP Department at Qatar Rail.** "We bring in CAD data, GIS (.shp) files, referenced and unreferenced images, borehole logs, downhole geophysics and recent seismic data to model within Eureka," added Griguta. [www.maptek.com](http://www.maptek.com)

## DIGITALGLOBE RELEASES FIRST IMAGE FROM WORLDVIEW-4 SATELLITE

DigitalGlobe has released the first image from its recently launched **WorldView-4** satellite. The first image, captured on November 26, shows the **Yoyogi National Gymnasium** in Shibuya, Tokyo. The successful launch marked the culmination of months of planning, including unforeseen delays caused by the nearby Canyon Fire that impacted Vandenberg Air Force Base in California. WorldView-4 is the fifth and most advanced satellite in DigitalGlobe's active, industry-leading constellation, and will more than double the company's capacity to collect the world's highest resolution commercial satellite images for its customers. The SpaceView 110TM camera aboard WorldView-4, and the satellite's primary payload, was developed by



Melbourne, Florida-based Harris Corporation. From an altitude of 617 kilometers, SpaceView is capable of collecting imagery with a panchromatic resolution of 31 centimeters and 1.24 meter multispectral resolution, meaning it will be able to distinguish data points just a foot apart. [www.digitalglobe.com](http://www.digitalglobe.com)

## FUGRO COMPLETES GEOTECHNICAL INVESTIGATION FOR SIGNATURE TOWER IN DUBAI



Fugro has conducted an extensive geotechnical investigation campaign for the iconic new addition to Dubai's skyline, **The Tower at Dubai Creek Harbour**. Fugro was contracted by Emaar Properties for the geotechnical investigation. Because of the height and design of the structure, ground engineering is critical in the programme schedule and foundation design. "We deployed resources and expertise to meet a demanding design programme and to

ensure the results of the site investigation were of the highest quality," explained **Peter Brooke, Fugro's Business Delivery Manager**. A full range of standard and specialist geotechnical laboratory testing was undertaken on the recovered core. This programme represents one of the most comprehensive geotechnical investigations undertaken in the region and the acquired information will be the base for the foundation and piling designs. [www.fugro.com](http://www.fugro.com)

## INTELLIGENT VISION TECHNOLOGIES FOR AVIATION SAFETY & SECURITY

**AIT Austrian Institute of Technology** and **Diamond Aircraft Industries GmbH** have developed an intelligent sensor system enabling aircraft to detect and avoid potential obstacles both in the air and on the ground. Collision avoidance systems are a key technology for future unmanned aerial systems and advanced air traffic services. The objective is to increase the safety of manned and future unmanned aviation by detecting possible collisions with both cooperative and non-cooperative obstacles, and performing avoidance maneuvers as a last resort to avoid collisions. Obstacle avoidance is the key technology in missions involving the highest possible degree of



autonomy, e.g. for generating situation maps for crisis and disaster management. Diamond Aircraft has used the test results to assess potential applications for this technology as an innovative and effective safety-improving feature both for unmanned flying objects and manned aviation. [www.ait.ac.at](http://www.ait.ac.at)  
[www.diamond-air.at](http://www.diamond-air.at)

## PUTTING AN END TO LASER ATTACKS ON PLANES

Since 2009 over 10,000 aircraft in the UK alone have been targeted by hand held lasers. The reckless targeting of aircraft poses a significant and growing threat to aviation safety. However it is often difficult to obtain evidence to secure a conviction and existing laser detection equipment is very expensive. Scientists at the **Defence Science and Technology Laboratory (Dstl)** have developed an innovative app that analyses laser dazzle events, making it quicker and easier for the police to arrest and prosecute offenders, deter the targeting of aircraft and allow pilots to take steps to prevent themselves from being dazzled. **The Laser Event Recorder app (LERapp)** has been developed using an iPhone. It utilises the inbuilt camera, GPS and connectivity to record, analyse and communicate details of the incident. LERapp could also be used for non-aviation users including car drivers and police officers. [www.dstl.gov.uk](http://www.dstl.gov.uk)

## RAZOR SECURE CEO WARNS TRANSPORT COMPANIES OF MORE CYBER THREATS

Following the recent 'cyber-jacking' of the **San Francisco Municipal Transportation Agency (Muni)**, **Alex Cowan, the CEO** of transport cyber defence experts **Razor Secure**, has warned rail, aviation and car manufacturers and operators that many more attacks on their distributed IT assets and networks will happen in the coming new year. The **Muni** hackers were able to use crypto-locker software to disable parts of their infrastructure, leaving the company unable to charge passengers for their journeys. But the financial costs may not stop there as the hackers also demanded a ransom to release the systems back to the company. It's unclear how the hackers accessed the **Muni** network but the unlikely access points will become more relevant as more devices become connected and the Internet of Things expands. The proliferation of access points to ever bigger networks presents a huge challenge for those tasked with protecting our transport grids. [www.razorsecure.com](http://www.razorsecure.com)