

NEWS & EMERGING TECHNOLOGY

SIAP JOINS REZATEC ON UK SPACE AGENCY COMPASS PROJECT

SIAP, the Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food - part of the Mexican Ministry of Agriculture (SAGARPA) - has signed a declaration of intent with the UK Space Agency to provide historic, statistical and satellite data to support **Rezatec's** development of a crop yield optimisation tool for Mexican farmers and other supply chain stakeholders. The inclusion of SIAP in the project will enable the provision of new and valuable information relating to wheat and sugarcane background studies in

Mexico. The app, developed by Rezatec, will provide decision-support tools to help growers, including smallholders, improve their technical, environmental and financial performance, delivered via a smartphone interface so that it is accessible even in areas with no internet connectivity. The technology developed by the project will use Earth observation satellite data, along with field data captured by farmers, to help identify factors causing the yield gap between crop potential and actual field performance. www.rezatec.com



MAKING HISTORY WITH THE HELP OF TOPCON TECHNOLOGY

The opportunity to build a house in the shape of a Spitfire engine doesn't come around often. So, when this once in a lifetime invitation presented itself, **Shane Jones, owner of Tahi Engineering**, turned to **Topcon Positioning** for technology that would be easy to use and reliable when setting out points for the complex grand design home. Once complete, the private development — designed by award-winning architect, Lap Chan, and built by leading construction company, Agilitee — will see the aptly named 'Griffon House' built with very few straight walls, meaning initial construction processes were far from simple. Here, Shane saw an opportunity to put Topcon technology to the test. "I've been using Topcon for the last twenty years," explains Shane, a freelance land surveyor with over 25 years of experience in the industry. "I've worked on projects in many parts of the world and have found the ease of use and reliability of Topcon second to none." www.topconpositioning.com



ESRI RELAUNCHES ARCGIS FOR DEVELOPERS

Esri announced major changes to ArcGIS for Developers, providing an enhanced mapping experience that is more accessible and affordable. These changes include a new pay-as-you-go plan for all of Esri's location-based services, a decrease in the price of routing transactions, and a new commercial app deployment experience for developers. This new experience brings the power of mapping to all developers and provides greater simplicity and flexibility. The **Builder plan** is now offered at a monthly subscription rate of \$125. Esri has also introduced a 10 percent discount on existing annual Builder plan subscriptions. Customers who currently have an annual Builder plan subscription can continue to pay annually or switch to paying monthly. **David Cardella, Esri product manager for developer technologies** said, "Developers can now access dozens of different maps from our Living Atlas, store their data securely, route, and geocode, as well as create and deploy apps with much greater ease and efficiency." www.esri.com

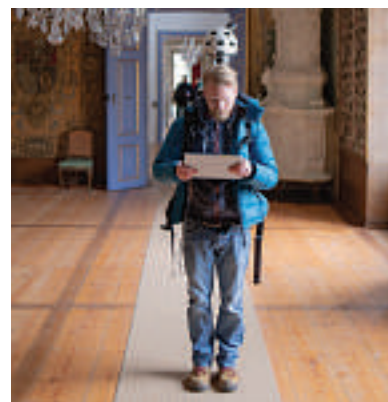
BRIDGESTONE EUROPE TO ACQUIRE TOMTOM TELEMATICS

Bridgestone Europe NV/SA ("Bridgestone") has entered into an agreement with **TomTom** to acquire its telematics business, for a cash consideration of €910 million. The transaction will bring together the world's largest tyre and rubber company with the number one provider of digital fleet solutions in Europe, creating a leading data platform for connected vehicles. TomTom Telematics will accelerate Bridgestone on its journey to becoming a mobility solutions leader in the region, and the combination of both companies' offerings will allow Bridgestone to cross-sell tyres and solutions to a larger customer base. This latest investment builds on previous work at Bridgestone to strengthen its digital capabilities in EMEA. Specifically, the company has built capabilities in data collection from sensors, data platforms and analytics. This has resulted in the launch of a range of digital solutions and applications such as Tirematics, Mobox, FleetPulse and Bridgestone Connect. www.tomtom.com



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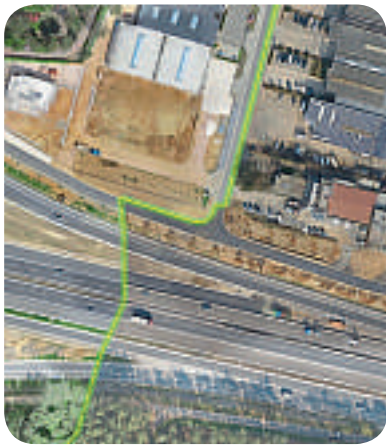
At 172 megapixels per full-spherical image, the UltraCam Panther lets you capture the world in more detail, with superior sharpness and in higher fidelity than ever before.

- Indoor and outdoor mapping even without GPS
- Numerous applications through modular design
- Easy to deploy, operate and maintain



MAINE DOT USES NEW GPR TECHNOLOGY TO IMPROVE ROAD PAVEMENT QUALITY

The **State of Maine Department of Transportation** is at the forefront of research on how to improve road pavement quality and extend service life. One recent addition is the use of **GSSI's PavScan RDM**, which can accurately measure whether there is density uniformity throughout the pavement layer. Studies have found that optimum pavement density is a crucial factor in increasing pavement life. Pilot tests on about a dozen projects show promising results; researchers believe the equipment will be a powerful tool to help contractors make adjustments to ensure pavement quality. **Dale Peabody**, Director of the Transportation Research Division at Maine DOT, explains that there is never enough funding to keep up with all the road pavement work needed. That's why his team is constantly looking for ways to improve both the material mixes used and how they are laid in the field. www.geophysical.com



VIRTUAL SURVEYOR 6.2 NOW PROCESSES LARGER DRONE SURVEY PROJECTS

Virtual Surveyor drone surveying and mapping software has added new functionality that enables users to process larger projects without buying more powerful computers or expensive cloud services. The enhancement is among several included in **Virtual Surveyor 6.2** released in response to requests from an international client base that doubled in 2018. "Our objective with Version 6.2 is to make our users more productive while saving them money by eliminating the need to invest in new hardware or processing services," said **Tom Op 't Eyndt, CEO of Virtual Surveyor NV in Belgium**. "We have addressed the fact that drones are capturing more data at higher resolution, resulting in enormous files sizes." Virtual Surveyor 6.2 solves the problem of large files by offering enhanced Clipping and Mosaicking functionality. Users can now merge multiple smaller processed chunks of orthophotos and digital surface models (DSM) into a single project and create smooth edges between these pieces with the new clipping tool. www.virtual-surveyor.com

HEXAGON'S GEOSPATIAL DIVISION RELEASES LUCIAD V2018.1

Hexagon's Geospatial division announces the V2018.1 release of the **Luciad Portfolio**. V2018.1 focuses on further expanding 3D capabilities and includes additional data formats and standards for users in military and maritime domains. To accommodate organizations' expanding geospatial data, LuciadFusion introduces a RESTful API to automate the entire process of data crawling. Both the server and desktop solution, **LuciadFusion** and **LuciadLightspeed**, have added support for the E57 point cloud format and automate point cloud data optimization through the Tiling Engine API. LuciadLightspeed now includes Inland Electronic Navigational Charts and updated support for military symbology with the US Department of Defense Joint Military Symbology Standard and the NATO Joint Military Symbology Standard APP-6D icons. The Military Symbology component from the browser solution, LuciadRIA, is now fully compatible with 3D WebGL maps. Users of LuciadRIA can put their pencils away, as they can now draw a multitude of complex lines and military tactical graphics in 2D and 3D in the browser. www.hexagon.com



FUGRO TO DEPLOY UNIQUE RILA TECHNOLOGY IN NETWORK RAIL CONTRACT WIN

Fugro has been awarded a five-year framework agreement by **Network Rail** to carry out survey data acquisition and analysis for all High Output track renewal sites across Britain. The contract is a long-term partnership between Network Rail and Fugro that sees Fugro's train-mounted **RILA™** solution removing many hours of on-site activities to deliver highly accurate rail infrastructure information; additional survey services will be provided by UK-based Severn Partnership. The unique technology was first introduced to the High Output function in 2015. RILA provides rapid, route-wide acquisition of data together with value-added imagery and video as a desktop tool. It is now acknowledged as proven technology, certified by Network Rail to Survey Accuracy Band 1A, and was successfully used to deliver data covering over 650,000 yards of renewals sites for workbanks in England, Scotland and Wales. The result was fewer 'boots on ballast' and accelerated project delivery times. www.fugro.com

DELAIR OPENS FIRST CUSTOMER SERVICE CENTRES IN THE US

Delair announced the expansion of its customer service operations with the qualification and opening of its first two repair and maintenance centres in the US. Delair has partnered with **Frontier Precision** and **Seiler Instrument**, both experienced drone resellers and service providers, to provide comprehensive customer support for its Delair UX11 advanced mapping and surveying drone. Delair worked with technicians from both firms to certify them on the latest maintenance and repair processes, required to optimize the operations of its UX11 drone. Seiler's training took place at Delair's main manufacturing facility and company headquarters in Toulouse, France. Delair also worked with the service providers to ensure each has a sufficient inventory of parts and spares, as well as the required tooling to perform repair and maintenance on the specific Delair UAV models. "It's important that our customers in the US have access to experts service and support," said **Michael O'Sullivan, Channel Sales Manager North America** at Delair. www.delair.aero



GARMIN® ANNOUNCES ENHANCEMENTS WITHIN FLTLOGIC SCHEDULING PROGRAM

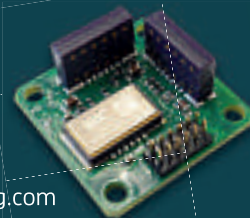
Garmin International announced new enhancements and features within FltLogic, a comprehensive scheduling program that integrates with **FltPlan.com**. New to **FltLogic**, an enhanced reporting tool allows customers to apply filters and develop reports that can be sorted by date, aircraft, passenger and more. Also new for FuelerLinx subscribers, FltLogic can now help pilots identify the best FBO for fuel at the departure and destination airports with the display of contract fuel pricing. Additionally, company logos can also be uploaded and displayed on all emailed itineraries. These features are available immediately within the web-based FltLogic scheduling program. The initial phase of the new contract fuel pricing feature within FltLogic helps customers more easily identify the best fuel prices at the departure and destination airports. FltLogic then displays the FBO with the best fuel price based on the departure and destination airports specified, offering additional cost savings. www.garmin.com



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HORIZON, THE NEW HIGH PERFORMANCE IMU TO COMPLETE THE NAVSIGHT LAND/AIR SOLUTION

SBG Systems releases a FOG-based high performance inertial measurement unit (IMU) designed to high demanding surveying applications such as high altitude data collection, or mobile mapping in very dense areas such as urban canyons. **Navsight Land/Air Solution** consists in a powerful and ready-to-use inertial navigation solution dedicated to surveyors for mobile data collection. It is available at different levels of accuracy to meet the various application requirements and can be connected to various external equipment such as odometer, LiDAR, etc. The new **Horizon IMU** allows our customer to bring the Navsight technology to the most demanding environment such as high altitude surveying and highly dense areas as well as application where only a single antenna can be used. Horizon IMU is based on a closed-loop FOG technology that enables ultra-low bias and noise levels. This technology allows robust and consistent performance even in low dynamics survey. www.sbg-systems.com



CGG CONTINUES TO EXPAND ANADARKO BASIN LIBRARY WITH NEW SCOOP/STACK SURVEY

CGG has commenced acquisition of a new high-density 3D survey in the Anadarko Basin. With the tightest acquisition parameters of any survey in CGG's Oklahoma data library, the 306-square-mile Chickasha Extension builds on and enhances CGG's extensive existing coverage totaling more than 1,200 square miles over the **SCOOP/STACK** play. High-end imaging will provide a better understanding of the complex geology in this area, including enhanced definition of the Meramec, Osage, and Woodford plays. The Chickasha Extension is located in Canadian, Grady, and Caddo counties, Oklahoma and will bridge the gap between CGG's Yukon, Chickasha Merge and Watonga Merge 3D surveys with high-quality broadband data. In areas where there is an overlap with existing surveys, its higher trace density and fold coverage will deliver a superior product over previously acquired data. A fast-track PostSTM data set will be available in May 2019. Final deliverables will include an orthorhombic offset vector tile (OVT) PreSTM in July 2019. www.cgg.com

COMPASSDRONE, NEWEST DIVISION OF COMPASSDATA, INTEGRATES UAV LIDAR SOLUTIONS

CompassDrone announced they have acquired the Riegl MiniVux as the best hardware system to provide reliable, consistent data for our customer's solutions. **CompassData**, a leading provider of accurate geospatial data, has expanded survey capabilities with the addition of the Riegl MiniVUX-1UAV mounted on a DJI M600 Pro Platform. The **RIEGL miniVUX-1UAV** makes use of RIEGL's unique Waveform-LiDAR technology, allowing echo digitization and online waveform processing. Multi-target resolution is the basis for penetrating even dense foliage. The **DJI M600 Pro** with A3 Flight Controller has triple modular redundancy and diagnostic algorithms that compare sensor data from three GNSS antennas. Compatibility with D-RTK GNSS prevents magnetic interference while providing centimeter-level accuracy. "After thorough investigation of the UAV – LiDAR market CompassData has established the Riegl MiniVux as the best hardware system to provide reliable, consistent data for our customers."- **Hayden Howard, Vice President** CompassData/CompassDrone www.compassdrone.com

NEW BATHYMETRIC CAPABILITIES WITH CARIS SOFTWARE



The **Nigerian Navy Hydrographic Office (NNHO)** has selected **Teledyne CARIS™** to provide solutions for both current and future national and international charting requirements. Equipped with CARIS™ Ping-to-Chart™ technology, the NNHO is establishing new capabilities for bathymetric analysis, and completion of hydrographic and other geospatial data. These tools will ensure an efficient workflow for the production of electronic charts and paper charts according to both the International Hydrographic Organization (IHO) and NNHO standards. The first part of the project was completed in late 2018, with delivery of software and training at the NNHO office in Lagos. It will continue into 2019 with professional services from Teledyne CARIS to help ensure a successful launch of their new software infrastructure. With the establishment of CARIS software solutions for survey processing, data analysis and chart production, the NNHO will be well positioned to address the critical importance of safe and efficient navigation. www.teledynecaris.com

RESEARCH PROJECT TO OFFER NEURAL NETWORKS TRAINING ON DEMAND FOR IMAGE AND TEXT ANALYTICS.

CASPAR 02, a **EUROSTARS** co-funded research initiative implemented by the Bulgarian company **A Data Pro** and **Geomaging Ltd** from Cyprus attempts to create an Artificial Neural Networks-powered (ANN) platform, to provide text and image analytics. In its final state, CASPAR will give access to manually-trained ANNs, which can process content in multiple domains, and are easily accessible by non-tech users without the need for structured data or ontologies. Each pre-trained domain-specific network will form a "digital brain", which, when combined, will form ANNITA (ANN for Image and Text Analytics) the platform's core technology. ANNITA's is also reinforced by search-string and ontology-based methodologies delivering the CASPAR platform. This common framework utilizes an API to receive image or text content sourced from an unstructured client data universe and then processes it. The CASPAR solution will enable European SMEs to index and analyze their data sets in competitive prices. www.e-caspar.com

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AIR SCIENCES TESTS AEROMAPPER TALON FOR HIGH RESOLUTION TERRAIN MAPPING IN CALIFORNIA DESERT

Air Sciences Inc. hired **GeosUAS Inc.** and **Aeromao Inc.** to demonstrate the Aeromapper Talon's capabilities for use in high resolution terrain mapping of a windy, dry lake bed in Southern California. Air Sciences is considering the Aeromapper Talon to acquire 3 cm resolution DEMs and orthophotos for around 8 km² to be acquired on regular intervals. During the tests, the Talon flew several successful flights of up to 1.5 hrs. The plane flew and landed successfully when ground level winds were about 15 mph and gusting to 20 mph. Once the images were processed with Pix4D Mapper, the resultant terrain and orthophotos were of high quality, equivalent to data obtained from an industry-grade quadcopter. The Aeromapper Talon is a turnkey sUAS manufactured by Canadian company Aeromao Inc. and designed for tasks such as mapping, surveying, precision agriculture, monitoring and surveillance. www.aeromao.com



NEW RIEGL OFFICE IN AUSTRALIA OPENED!

RIEGL announces expansion of their global presence in Australia and Oceania. The new office will provide direct RIEGL representation throughout Australia and New Zealand, offering full support to its existing RIEGL distributors in Australia C.R. Kennedy, and in New Zealand, Geospace. RIEGL Australia will have a primary focus on the airborne/UAV sectors, whilst partners will continue to drive terrestrial and mobile products into various industries in the market. Working together, RIEGL Australia will ensure all customers, at all times, have the level of support to match the quality of technology that RIEGL offers. The main RIEGL Australia office is helmed by Glenne Blyth, who serves as the managing director of the operation on the Gold Coast, Queensland, alongside with Bernhard Kurzbauer, Commercial Director. Mr. Blyth (BComm, BSurv) is industry known and well recognized and experienced in the field of laser scanning who had been with C.R. Kennedy as a national laser scanning consultant. www.riegl.com



EARTH-I UPDATES SATELLITE MAP OF QUEENSLAND, AUSTRALIA

New Space pioneer **Earth-i** announced that it has completed the third annual update of the satellite map of the state of **Queensland**. The map covers the whole of Queensland's 1.9 million km² and was created by Earth-i for the Department of Natural Resources, Mines and Energy (DNRME). The first map was produced in 2016 with Earth-i reapportioned for updates in both 2017 and 2018. Around 6,000 very high-resolution images from the DMC3 Constellation were used for the 2018 update of the map with multiple re-visits to tropical areas with heavy cloud cover. These images are used by a variety of Government departments, local agencies and natural resource management groups to manage and monitor Queensland's resources and improve policy development, investment and planning decisions. The map also helps to monitor environmental changes, and helps with the planning of long-term land development strategies. www.earthi.space



HANDHELD LAUNCHES A NEW ULTRA-RUGGED ANDROID PHABLET, THE NAUTIZ X6

Handheld Group announced the new **NAUTIZ X6** – an ultra-rugged phablet— phone plus tablet— that combines the big-screen functionality of a tablet with the go-anywhere performance of a rugged phone. The new Nautiz X6 Android phablet is ideal for industrial and field applications, with the reliability to perform in challenging conditions, and specialized accessories professional users require. With the MaxGo Android software suite, an IP67 rating and a lightweight, ultra-mobile design, the Nautiz X6 delivers a trailblazing combination of practicality and productivity. The new Nautiz X6 offers: An 8-core processor and Android 8.0 (Oreo) operating system. Google GMS for Play Store and Google Maps app access. 4G/LTE Android phone functionality. Superior u-blox NEO-M8N receiver for precise navigation using GPS, GLONASS, Galileo or BeiDou. Dual cameras, including 13-megapixel rear-facing, and 5-megapixel front-facing. The Nautiz X6 comes with Handheld's proprietary MaxGo software suite for Android and meets the needs of businesses with teams of workers in the field. www.handheldgroup.com



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