NEWS & EMERGING TECHNOLOGY

SIMACTIVE SOFTWARE SAVING HOURS FOR DJI DRONE SURVEYS

SimActive Inc. is proud to announce an improved workflow for DJI users. Hours of processing time per project are now saved, with volume measurement, preconstruction planning, land development, and other applications streamlined. **Butler & Associates Inc.**, a professional surveying firm with over 35 years of experience, is one such user. In conjunction with their & Associates. "The same process from acquisition to results can now be fully completed in only 8 hours. The phenomenal technical support and friendly price for such a high-end mapping tool like Correlator3D[™] has delivered incredible value to us and our clients." www.simactive.com

imagery, **Correlator3D™** is significantly reducing the field work and processing time per project for their topographical surveys. "An area of over 20 acres was previously taking us a week to survey using traditional surveying equipment", said **Michael A. Tavener from Butler**

PITNEY BOWES RE-ENGINEERS DESKTOP MAPPING & LOCATION INTELLIGENCE

Pitney Bowes Inc. announced its continued focus on the user experience through the latest version of MapInfo **Pro.** The development of new product features within legacy technology can lead to complexities that deter ease of use and halts productivity. New capabilities across GIS software has fuelled these complexities, making it difficult for users to meet evolving market needs. "We launched MapInfo Pro over 30 years ago. In fact, it was the first Windows GIS product to hit the market. You can imagine just how many features have been added over three decades," says Bob Guidotti, **EVP and President, Pitney Bowes** Software. "We recognised our clients' desire to get back to the basics, so we took proactive steps to evaluate how to deliver an optimal user experience. MapInfo Pro Version 17 is our response, and based on client response during extensive beta testing, we're confident this technology is a game changer for the GIS community at large? www.pitneybowes.com

GEOSPATIAL INSIGHT BUILD VISUAL INTELLIGENCE SOLUTIONS WITH WILLIAMS MARTINI RACING

Geospatial Insight, a leader in visual intelligence derived from geospatial big-data, and **Williams Martini Racing Formula One** team announced a new technology partnership. As part of the agreement, Geospatial Insight will develop innovative visual intelligence capabilities for Williams, using their expertise in geospatial intelligence, big-data analytics and machine learning. Geospatial Insight provides actionable business intelligence derived from the analysis of satellite, aerial and drone

imagery, in conjunction with other datasets. They combine sophisticated data sources and advanced technologies, including machine learning, to produce evidence-based alternative data that enables their clients to make better business decisions for competitive advantage. Through its partnership with Geospatial



Insight, Williams will benefit from proprietary visual intelligence software which provides big-data analytics services, and access to dedicated machine learning resources targeting insight driven performance improvement. www.geospatial-insight.com



GARMIN PILOT IOS INCORPORATES NEW WEATHER FEATURES

Garmin is pleased to announce the addition of new features to the **Garmin Pilot** application for **Apple** mobile devices. Just in time for the Spring flying season, Garmin Pilot 9.3 incorporates several new weather enhancements that aid in identifying storm cell movement and icing levels, as well as airspace alerting. With the latest version for iOS, pilots can also view improvements made to the display of traffic, runway extended centrelines and more. When viewing the flight profile view alongside a flight plan, customers can easily view the probability or severity of icing and overall icing potential. The radar overlay on the moving map has been enhanced to include the projected path of a storm cell. An orange circle paired with a line that extends from the strongest storm cells display the potential path of that storm cell and where it's predicted. Garmin Pilot 9.3 adds airspace alerting to notify pilots prior to entering select airspace segments. **www.garmin.com**



Backside Illuminated Sensor

RSM Lenses New Leaf Shutter Technology



The first medium-format sensor to implement backside-illumination technology.

3.76µm Pixel Size

33mm x 44mm Frame Size

83dB Dynamic Range



The focusing distance can be predefined based on flight planing and by using a wireless remote control.

35mm & 80mm Fixed Focus

80mm & 150mm Motorized Focus

470g to 750g Lens Weight



The lenses' integrated leaf shutter offers a high capture speed for an array of flight conditions.

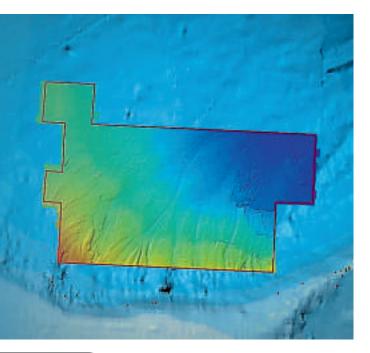
3 fps Capture Rate

1/2500 sec. Exposure Time

500K Actuations

FUGRO REPORTS SUCCESSFUL LICENSING OF SEEP AND GEOCHEMICAL DATA

Fugro and partner, **Amplified Geochemical Imaging** (AGI), have reported recent success selling licences for data from a frontier region offshore Canada. The data were acquired during a hydrocarbon seep survey, heat flow and geochemical coring campaign in the large Orphan Basin, situated on the continental margin of Newfoundland. The comprehensive data package includes multibeam echo sounder data, sub-bottom profiler data, heat flow measurements and shipboard geochemical screening analyses; shore-based screening and advanced geochemical analyses are also included. Covering an area of 11,070 square kilometres, Fugro's sea-based workscope in this frontier region included the acquisition of 99 cores for geochemical sampling and investigation, and shipboard analysis of approximately 550 samples for hydrocarbon geochemistry. Heat flow measurements taken per location; these data are a significant improvement on the three pre-existing heat flow measurements along the periphery of the Orphan Basin and will vastly improve the robustness of basin models. www.fugro.com





UNIFLY SUPPORTS UNICEF'S HUMANITARIAN DRONE CORRIDOR Marc Coen, CCO of Unifly, presents Unifly's work in UNICEF's humanitarian drone corridor in Malawi. Drones are a hot topic and their applications are seemingly endless. Especially in harsh environments, drones can be a lifesaving tool. Drones can help save lives, not only during a sudden disaster, but for daily humanitarian purposes and medical supply chains. With drones, even the remotest regions can receive lifesaving materials in a matter of minutes or hours. Unicef's Humanitarian Drone Testing Corridor is specifically dedicated to the humanitarian and development uses for drones. The first of its kind in Africa, the corridor serves as a dedicated unmanned flight testing space and allows for Beyond Visual Line of Sight (BVLOS). The corridor is centered on Kasungu Aerodrome in central Malawi, close to the capital city of Lilongwe. Kasungu is home to a district hospital and a variety of rural health clinics in remote areas. www.unifly.aero

OGC ANNOUNCED AS OFFICIAL PARTNER OF EARTH CHALLENGE 2020 The Open Geospatial Consortium

(OGC) is proud to announce that is an official partner of Earth Challenge 2020, a citizen science initiative that will mark the 50th anniversary of Earth Day in 2020. Earth Challenge 2020 is organized by Earth Day Network, the Woodrow Wilson International Centre for Scholars, and the U.S. Department of State through the Eco-Capitals Forum. Earth Challenge 2020 aims to engage millions of global citizens in collecting one billion data points across areas such as air and water quality, pollution, and human health. OGC will support this initiative through identifying requirements and mechanisms for standardizing the collection and exchange of data by these volunteers. Earth Challenge 2020 will result in a platform of open source data that will live, grow and connect with other global efforts, including those of governments, multilateral, and scientific institutions and non-governmental organizations. www.opengeospatial.org

USERS CAN NOW ACCESS ARCGIS DATA IN MICROSOFT POWER BI

Esri has announced ArcGIS Online users can work on their own private content directly within Microsoft Power BI using the built-in visualization software ArcGIS Maps for Power BI. "We're excited to offer ArcGIS Online users the ability to work on their own private basemaps and reference layers inside Microsoft Power BI," said Scott Ball, Esri product manager for ArcGIS Maps for Power BI. "Now ArcGIS users can extend the reach of their authoritative location data from ArcGIS to their Power BI reports and dashboards." Users can map data from any location value—an address, city, state, ZIP code, place-name, boundary, or latitude and longitude—with a simple drag-and-drop operation. They can then use smart map defaults that guide them to the right style and display for their data. This frees them up to focus on the end result—quickly exposing relationships and patterns that impact decision-making. www.esri.com

GPI GEOSPATIAL PURCHASES RIEGL VQ-15601 AIRBORNE LIDAR SYSTEM!

GPI Geospatial, Inc. (GPI), an established user of RIEGL airborne, mobile, and terrestrial sensors and systems, has chosen to add the **VQ-1560i** to their toolbox of advanced digital sensors to further expand their capabilities. As a highly progressive company that uses proven technologies to satisfy their client's needs, this cutting edge RIEGL airborne sensor will further allow GPI to provide advanced mapping solutions to meet and exceed their client's expectations. The RIEGL VQ-1560i is an ultra high performance, dual channel waveform processing airborne LiDAR mapping system that is well prepared to fulfil the challenging demands of complex airborne mapping missions. The fully integrated and calibrated system is equipped with a seamlessly integrated high performance GNSS/ IMU system and a primary Phase One 100-megapixel RGB camera. Based on RIEGL's sophisticated Waveform-LIDAR technology, the system is capable of online waveform processing, as well as full and smart waveform recording, thus delivering highly information rich scan data for post processing.

www.riegl.com



ISPS CODE FAILS TO CONTEMPLATE AERIAL THREATS FROM DRONES

Commercial shipping is waking up to the growing threat that drones pose to the safety & security of vessels. Terrorist use of drones deploying explosives is already well documented and the potential for a drone to deliver an explosive charge through the deck of an oil/gas tanker with potentially catastrophic results is a stark reality. To combat this emerging threat **Martek Marine** have developed the **D-FENCETM** maritime drone detection & defeat system. D-FENCETM detects and identifies commercial drones within a 20+km range providing GPS positioning of both drone & pilot together with the drone's speed & heading. Once a real drone threat has been established, the system enables a 500m+ electronic 'exclusion zone' to be created around the vessel. Should the drone approach this exclusion zone, its control/video signal will be interrupted, initiating its fail-safe mode forcing it to land or return to its operator. **www.martek-marine.com**



<complex-block>

SPEED UP YOUR MOBILE MAPPING!

NEW 🥼

High Speed, High Performance Dual Scanner Mobile Mapping System

We provide you with the technology and tools to provide your customers with high quality deliverables!

- » Two RIEGL VUX-1HA LiDAR sensors provide up to a 2 MHz measurement rate and 500 scan lines per second Benefit from highly accurate scan data, an extremely dense point cloud, and full data coverage!
- » Fully integrated high performance IMU/GNSS system Get precisely geo-referenced scan and image data for processing!
- » Camera interface for up to 9 optional cameras Choose the camera configuration that best suits your needs!
- » 10 Years of High Quality VMX System Design Be prepared for large projects with an effective acquisition and processing workflow!



RIEGL LMS GmbH, Austria | RIEGL USA Inc. | RIEGL Japan Ltd. | RIEGL China Ltd.

SEPTENTRIO SUPPLIES ASTERX-M2 FOR DELAIR UX11 LARGE-AREA MAPPING UAV

GNSS receiver manufacturer **Septentrio** has been selected to supply its high-precision AsteRx-m2 GNSS OEM receiver module and PPK (Post-Processed-Kinematic) library for use with Delair's UX11- a lightweight, BVLOS-ready fixed-wing mapping drone. The combination of on-board processing capabilities, real-time control, and centimetre-level precision make it the most cost-effective solution for large area surveying and mapping. The AsteRx-m2 is the best fit for the UX11. It delivers high-precision multi-frequency guad-constellation GNSS measurements for PPK for only 28g and the lowest power consumption of any comparable device on the market. The combination of high-quality camera images and GNSS measurements from the AsteRx-m2 allows Delair to offer its users PPK survey-grade ground precision down to 1 cm. With Delair's PPK software, powered by Septentrio's GeoTagZ PPK library, users only pay for the precision they need and on a flexible pay-as-you-go basis. www.septentrio.com



RIMS TEAMS UP WITH DUTCH DRONE COMPANY

RIMS have joined forces with Dutch Drone Company (DDC) to create a new partnership which will allow RIMS to offer the market an enhanced package of drone services for both indoor and outdoor drone flights in the Netherlands. The use of drones for inspections enables remote live onscreen object inspection, which can result in the elimination of the use of costly and risky access equipment such as scaffolding and cherry pickers, and in the instance of external inspections resource intensive rope access teams. This technology used in this way in turn then offers additional substantial benefits to shipowners and managers such as; reduction in the time to carry out a survey, minimising of risk, as well as cost savings. The

time to carry out a surve collaboration extends the services of RIMS to allow for inspections across the marine and offshore industry as they are now able to service inspections for assets including ship hulls, mobile offshore structures and cranes. www.rims-bv.com



CGG LAUNCHES NEW MOTIONMAP UK NATIONAL GROUND STABILITY DATABASE



CGG's NPA Satellite Mapping group has unveiled its new **MotionMap UK** product for companies involved in asset management, large engineering projects, property conveyancing, insurance disputes and risk management. The UK's geological setting, mining legacy and engineering heritage has led to substantial changes above and below ground. From subsidence and heave across coal fields in the Midlands, to tunnelling-related ground settlement in London, the impact on the landscape is extensive yet relatively unknown and extremely challenging to map. MotionMap UK is a national database of high-precision ground stability measurements that reveals millimeter-scale changes in ground and building heights. Generated using state-of-the-art satellite InSAR data processing. MotionMap UK gives geologists, engineers and surveyors unique insight into the location, extent and evolution of ground stability hazards. MotionMap UK represents a step-change compared to previously available data, drawing on vast amounts of imagery collected by the latest satellites. www.cgg.com

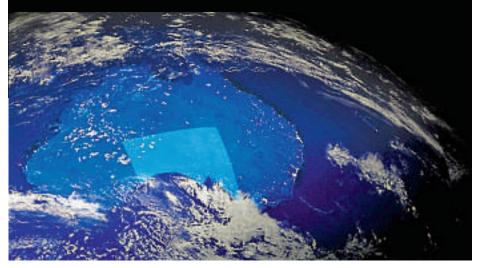
QUESTUAV CLOSES DEAL TO MAP WORLD'S LARGEST CONSTRUCTION PROJECT

QuestUAV welcomed Paul Reynolds of **Aardvark LLP** to their head office to hand pick his new drone fleet. QuestUAV and Aardvark are about to embark on mapping the world's largest construction site in Kazakhstan. QuestUAV already have a good connection with Kazakhstan after many years supplying drones and having a hands-on approach there in 2016 raising safety and efficiency for a copper mine working with Kazminerals. Initially approaching QuestUAV for a UAV (Unmanned Aerial Vehicle) to withstand extreme weather and handle temperatures below -24 degrees; a good relationship was already moulded with Aardvark LLP. Once finding out more about their project QuestUAV were more than happy to supply Aardvark with the most efficient fleet. Aardvark recently completed their extensive manufacturers and UK CCA PfCO training at QuestUAV Flight School and are ready to start operating using their new drones in Kazakhstan. **www.questuav.com**

NEWS & EMERGING TECHNOLOGY

AUSTRALIAN STATES LINE UP FOR SLICE OF NATIONAL SPACE AGENCY

An Australian state with a rich space history is staking its claim to be home to Australia's space agency. Media reports announced that A\$50 million in seed funding had been included in the 2018/19 Australian Federal Budget to set up a dedicated **Australian space agency**. University of South Australia Dean of Industry & Enterprise Professor Andy Koronios said there was a compelling case for the Space Agency to be based in South Australia. "South Australia has a vibrant space industry ecosystem with more than 60 SA-based organisations involved in commercial space activity," he said. The global space industry's focus was on the South Australian capital Adelaide last September when it hosted the International Astronautical Congress – last year's biggest space meeting. It was at the congress that the Australian Federal Government announced it would conduct a review into what a national space agency might look like. **www.space.gov.au**





APTIV LAUNCHES FLEET OF AUTONOMOUS VEHICLES ON THE LYFT NETWORK

Aptiv PLC announced the launch of a fleet of 30 autonomous vehicles in Las Vegas on the Lyft network. A product of Aptiv's Mobility and Services group, these vehicles will operate on Aptiv's fully-integrated autonomous driving platform and be made available to the public in partnership with Lyft. On an opt-in basis, passengers will have the ability to hail a self-driving vehicle equipped with Aptiv technology to and from high-demand locations. This partnership is a multiyear agreement between the two companies and a clear step toward generating revenue for Aptiv's autonomous driving business. Both companies will leverage Aptiv's connected services capabilities and Lyft's ride-hailing experience to provide valuable insights on self-driving fleet operations and management. The combination of Aptiv's autonomous driving app is the expansion of a successful partnership that launched in Las Vegas during CES 2018. www.aptiv.com



Motion Evolution

Surveying your world accurately brings great advantages. We're constantly developing new inertial sensing technology, enabling cost-effective real-world solutions.

PRECISION MEMS ENABLING NORTH FINDING

FOG-GRADE PERFORMANCE

COST-EFFECTIVE NAVIGATION CORE

QUALITY TECHNICAL SUPPORT DURING INTEGRATION

IDEAL WHERE SPACE IS AT A PREMIUM



www.siliconsensing.com #motionevolution

SILICON

ERIOR SENSOR

AIRBUS CYBERSECURITY BRINGS EXPERTISE TO EU FUNDED BRAIN-IOT PROJECT

A European consortium of twelve industry and academy partners from France, Germany, Italy, Spain and the UK, including **Airbus CyberSecurity**, has won the approval of the EU Framework Programme for Research and Innovation Horizon 2020 to begin working on Brain-IoT. The focus will be on interoperability and cybersecurity in the context of the Internet of Things (IoT). As IoT products and services are being deployed more regularly in real life scenarios, concerns have risen in terms of dependability, security, privacy and safety. The Brain-IoT project, funded by the EU with a budget of \in 5 million, aims to establish a framework and methodology that supports users of IoT platforms, offering model-based tools that will aid the development of innovative, tightly integrated solutions for interoperability and cybersecurity. As a security work package leader, Airbus CyberSecurity will provide its expertise and latest technologies to the Brain-IoT framework. **www.airbusdefenceandspace.com**

SWIFT NAVIGATION ANNOUNCES SBAS SUPPORT FOR PIKSI MULTI

Swift Navigation, a San Francisco-based tech firm that is building centimeter-accurate GPS technology to power a world of autonomous vehicles, announced the latest firmware upgrade to its flagship product Piksi[®] Multi GNSS Module. This marks the fifth major point release to Piksi Multi and is available free of charge to Swift customers. The firmware release also enhances Duro®, the ruggedized version of the Piksi Multi receiver housed in a militarygrade, weatherproof enclosure designed specifically for long-term outdoor deployments. Firmware Release 1.5 for Piksi Multi and Duro supports four regional Satellite Based Augmentation Systems (SBAS). These four regional satellite systems are used to improve the overall performance of global navigation satellite systems (GNSS) such as GPS and GLONASS, both of which are supported by Swift's receivers. SBAS support is particularly relevant for Swift customers located in places where cell phone coverage is sparse or is not available. www.swiftnav.com

ORBIT GT 18.1.2 UPGRADE 3D MAPPING FEATURE EXTRACTION PORTFOLIO

Orbit GT releases 3D Mapping Feature Extraction portfolio version 18.1.2. Peter Bonne, CEO of Orbit GT says "Our customers can now immediately take advantage of new features and updates. This release includes all Feature Extraction products and offer new and improved functionalities." 3DM Feature Extraction portfolio contains a Basic, Standard and Pro version, each offering new features and enhancements to existing tools. Together with this portfolio, also the 3DM Content Manager and both 3DM Blurring products are updated. As we experience many of Orbit GT customers are using several techniques of reality capture, such as Mobile Mapping, UAS Mapping, Oblique Aerial, Indoor and Terrestrial scanning, we worked hard towards an integration of our portfolio to offer a single product line covering the needs for each of these domains. This native integration is a sure win for every customer and user. **www.orbigt.com**



NOKIA ENABLES BETTER DECISION-MAKING BY EMERGENCY SERVICES

Nokia is extending its command and control room portfolio for public safety agencies with the launch of the Advanced Command Centre. The solution accelerates the move towards next-generation 911 and 112 services by utilizing rich media call taking, 360-degree situational awareness through video and IoT, and enhanced multi-agency cooperation through virtual emergency response centres. The Advanced Command Centre is designed to meet the needs of public safety agencies faced with growing responsibilities and a transition from voice-based to broadband data-centric emergency response. Rich media emergency call-taking uses video capabilities to help public safety agencies gain a visual understanding of critical situations when an emergency 911/112 call is received. As part of Nokia's ViTrust portfolio, the Advanced Command Centre combines next-generation emergency services (NEXES), advanced rich media emergency call-taking and dispatch capabilities with Nokia's Integrated Operations Centre for smart and safe city management. www.nokia.com

EAST VIEW GEOSPATIAL EXPANDS GEODATA OFFERINGS OVER AFRICA

East View Geospatial (EVG) is pleased to announce that it has expanded its geodata offerings over Africa via a distribution agreement with the Malawi National Spatial Data Centre, Surveys Department. This agreement makes EVG an official distributor of Malawi nationallyproduced data, including topographic map series, city maps, nautical charts and aerial imagery. EVG now offers complete topographic coverage of Malawi at 1:50,000 and 1:250,000 scales, as well as large-scale city street guides and topographic maps of select cities, including Lilongwe and Blantyre. Also available is a series of nautical charts covering Lake Malawi. Maps and charts are available as print-on-demand paper maps or as digital rasters, ensuring quick delivery of data to customers. EVG is also pleased to offer aerial imagery and other orthoimagery products from the Malawi Surveys Department. With this latest partnership, East View Geospatial continues its mission to provide customers with the most authoritative and up-to-date geospatial data from across the globe. www.eastview.com



FOCUS 35 TOTAL STATION WITH AUTO SCAN HELPING BUILD CHINA'S EXPRESSWAY

Spectra Precision FOCUS 35 robotic total stations are hard at work helping build the world's largest expressway network. In one notable example, the FOCUS 35, with its time-saving automatic scan template, is checking



the cross-section quality of the twin Nan Kunshan tunnels for the new six-lane Shazhan S14 regional highway. The FOCUS 35 was selected for the scanning work because it offers a particularly streamlined and efficient workflow that yields significant timesavings. The FOCUS 35, with its **Trimble Access Tunnel software**, saves significant time because it automatically scans and directly generates DXF reports for submission to the contractor to check over-break and under-break values. When completed, the new six-lane, 800 km Shazhan highway will connect Shantou and Zhanjiang, two important coastal cities in southern Guangdong province. The contractor for the Nan Kunshan tunnels is ChangDa Highway Engineering Co. Ltd. **www.spectraprecision.com**



EARSC AND EUROCHILE JOIN FORCES TO PROMOTE EARTH OBSERVATION

The European Association of Remote Sensing Companies (EARSC) and the Eurochile Business Foundation, signed a Memorandum of Understanding (MoU), establishing a formal cooperation initiative between EARSC, responsible for promoting the use of Earth Observation (EO) technology and supporting companies in Europe which offer EO-related products and services, and Eurochile, responsible for promoting economic, trade, and technological cooperation between the private sector and institutions in Chile and the European Union, through business promotion, and the transfer of technology and know-how. Mr. Geoff Sawyer, Secretary General of EARSC indicated that "we are delighted to sign this agreement with Eurochile following the Copernicus agreement signed between the European Commission and Chile. We consider that this opens excellent opportunities for European companies and those from Chile to work closely together". www.earsc.org

Bing maps

Location intelligence

Transform your business data into dynamic intelligent maps with rich, accurate imagery for routing, geocoding, mapping, spatial analysis, geovisualisation and more.

Grey Matter is the authorised Microsoft Bing Maps distributor. Call our mapping specialists today: +44 (0)1364 655133 or email: mapping@greymatter.com

greymatter.



FREQUENTIS' VOICE COMMUNICATION SOLUTION AT AIRPORT CONTROL CENTRE Flughaft Nürnberg GmbH has selected Frequentis' ASGARD

to modernise the control centre of the airports fire department and the control and communication management system, as well as the installation of media technology. This installation will mark the first time ASGARD will be used in an international airport. The system design offers the highest reliability and availability and allows for seamless integration into existing but also future infrastructures. "The fully redundant and VoIP-based voice communication system ASGARD provides professional communication management for safety-critical control centres thanks to its high-level of flexibility, reliability, and numerous possibilities for infrastructure integration. We are extremely proud that industries with safety critical tasks rely on ASGARD for emergency call management," says Reinhard Grimm, Managing Director Frequentis Germany. ASGARD is already part of more than 30 control centres across Germany, supporting emergency service control centres with emergency call handling and emergency vehicle coordination. www.frequentis.com

