

Industry news and developments | GPS | Galileo | GLONASS

## » LOCATION-BASED SERVICES

# Next-Generation Tracker Debuts

StickNTrack — an award-winning low-power tracker from Sensolus — is now active in eight European countries.

StickNTrack guards and tracks position, journeys, motion and status of any non-powered asset without the hassle of charging batteries, managing SIM cards or an intrusive installation, Sensolus said.

StickNTrack's web-based service platform is tailored for low-power asset tracking communicating over the French-based Sigfox. Because Sigfox is an ultra low-power communication network, it significantly reduces StickNTrack's power needs so that it consumes up to 40 times less power and lowers life-cycle costs by 50 percent compared to existing compact GPRS/GPS products, Sensolus said.

The tracker's power can last up to five years. In the third quarter, an upgraded version will be released with extended battery lifetime up to

nine years, according to Kristoff Van Rattinhe, who developed StickNTrack along with Laurence Claeys, Johan Criel and Koen Van Vlaenderen.

Users can access the StickNTrack web portal with any smartphone running Android OS or iOS. The full feature set can be accessed on a tablet or laptop. Features include interactive timelines, intuitive geofencing, email alerting and optimized energy savings.

The ruggedized, waterproof StickNTrack is 120 x 50 x 25 millimeters and weighs 255 grams. It can track assets on the water, such as yachts or buoys, providing automated logbooks, alerting users when assets enter or exit specific zones (such as harbors), and providing real-time journey information for those at home.

StickNTrack's developers took third place in the 2014 European Satellite Navigation Competition, after taking first in the Flanders regional competition. It also won the European



Space Agency's Innovation Award.

Dubbed a “disruptive innovation” by the European Satellite Navigation Competition (ESNC), StickNTrack “opens up an abundance of new business opportunities in tracking trailers, containers, machinery, tools, bikes and more. Future accuracy and availability improvements based on GNSS will trigger additional advancements, such as by automating supply chains for packages and their delivery. Ultimately, StickNTrack is a next-generation location tracker that significantly lowers the barriers to embedding even more GNSS technology into our daily lives.”

## » DESIGN & TEST

# QinetiQ's New GNSS Receiver Ready for Galileo PRS

QinetiQ has developed a robust navigation receiver that will use the Galileo, Europe's satellite navigation system — in particular, the secured Public Regulated Service (PRS).

QinetiQ's new high-performance, next-generation GNSS receiver is multi-constellation and multi-frequency, and is designed to process encrypted signals from the Galileo PRS service as well as open services such as GPS.

The receiver — now a in prototype form — is a significant step towards developing an end-user product

for navigation, tracking and timing, QinetiQ said. It will offer highly secure, accurate and reliable position, velocity and timing intended for users with a mission-critical need such as governments, the military and emergency services across Europe.

The next step is working to refine the product family and preparing it to be brought to market, Davies said. This includes developing additional features and reducing its size to that of a postage stamp, in a form factor similar to QinetiQ's Q20 receiver.



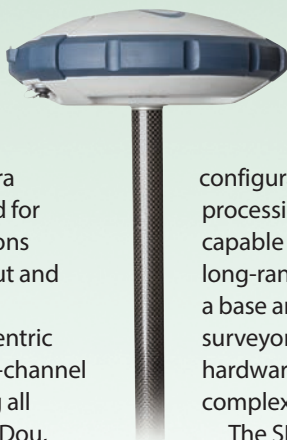
▲ THE PROTOTYPE held by a senior engineer.

## » SURVEY

## Spectra Precision Offers Flexible GNSS Receiver for Surveyors

Spectra Precision has introduced the SP60 GNSS receiver, which it calls a versatile solution combining next-generation Spectra Precision GNSS technology, a high level of configuration flexibility and an innovative design. The SP60 is part of Spectra Precision's portfolio of GNSS receivers designed for mainstream survey and construction applications such as cadastral, topographic, control, stakeout and network RTK.

The SP60 features exclusive Z-Blade GNSS-centric technology running on a new-generation, 240-channel 6G chipset. The SP60 is capable of fully utilizing all six available GNSS systems (GPS, GLONASS, BeiDou, Galileo, QZSS and SBAS), but can also be configured to use only selected constellations in an RTK solution (GPS-only, GLONASS-only or BeiDou-only). With L-Band capability to enable CenterPoint RTX correction service, the SP60 GNSS receiver can deliver centimeter-level accuracy



without terrestrial/cellular network availability, the company said. The receiver is optimized to provide high accuracy positioning performance worldwide.

The SP60 is scalable and can be used in multiple configurations and operating modes from a simple post-processing solution to a network RTK or CenterPoint RTX-capable rover. The optional transmit radio or embedded long-range Bluetooth enables the receiver to be used as a base and rover system. This extended scalability allows surveyors to begin with a simple solution, and through hardware and firmware upgrades, adapt the SP60 to more complex survey jobs.

The SP60 is rugged and waterproof, yet compact, lightweight and ergonomic. The receiver includes a patented inside-the-rod mounted UHF antenna. When the UHF transmit radio module is used, its UHF antenna remains protected inside the rugged rod, extending the radio range performance.

COMNAV

## K FAMILY IS READY FOR YOU

Choose one for your high precision applications



**K508**  
GPS L1/L2/L5  
GLONASS L1/L2  
BeiDou B1/B2/B3(support)



**K501**  
GPS L1/L2  
BeiDou B1/B2/B3(support)



**K501G**  
GPS L1/L2  
GLONASS L1/L2



**K500**  
GPS L1  
GLONASS L1  
BeiDou B1



ComNav Technology Ltd. | [www.comnavtech.com](http://www.comnavtech.com)



**ION GNSS+ 2015**  
September 14-18, 2015  
Tampa Convention Center, Tampa, Florida  
ComNav Booth Number: 116



**INTERGEO 2015**  
September 15-17, 2015  
Stuttgart, Germany  
ComNav Booth Number: B6.043

# BUSINESS BRIEFS

## Septentrio Launches GIS Software PinPoint-GIS

Septentrio, a designer and manufacturer of GNSS receivers, has launched a new software suite called PinPoint-GIS, which is designed to make GIS data collection and visualization straightforward. Septentrio's PinPoint-GIS provides several methods of data collection, based on a standard web browser hosted on the Altus APS-NR2 and a mobile app integrated with Esri's ArcGIS or other GIS mapping systems.

## TCS Buys Loctronix LBS Tech

TeleCommunication Systems (TCS) has purchased location-based technology and intellectual property from Loctronix. TCS is integrating the newly acquired assets from Loctronix with its location solution portfolio. Combined, the location-based services (LBS) solutions will enable TCS to further develop indoor-location technology applications ranging from advertising and marketing to navigation and public safety, TCS said.

## Canadian Army Tests NovAtel Antenna

Public Works and Government Services Canada has selected NovAtel's GAJT-AE antenna electronics for testing on Canadian Army platforms. The GAJT-AE is a GPS anti-jam solution suitable for small and weight constrained applications.



Field testing is expected to take place in the latter half of 2015 at 4th Canadian Division Support Garrison Petawawa. The testing will analyze the performance of GAJT-AE on Canadian Army

equipment in operational conditions to confirm the suitability and robustness of the NovAtel technology for this role. The process is expected to be completed by the end of March 2016.

## Leica Updates CrossCheck

The latest version of the web-based Leica CrossCheck service for GNSS reference station network integrity and deformation monitoring now comes with enhanced visualization and reporting options. Customizable, automatically generated reports can be distributed to multiple viewers, according to Leica Geosystems. Dashboard and status views allow easy and fast interpretation of complex data of reference network coordinates and area deformation, the company said.

Highly trained experts at Leica Geosystems process monitoring data using the latest geodetic software and algorithms to provide highly accurate assessments of any site movement on various types of infrastructure platforms such as oil platforms, bridges or dams, the company said. Customizable reports can then be distributed via email or downloaded on demand.



## Augmented-Reality Golf Coverage Uses KVH IMU

A new camera and augmented-reality tracking system includes a 1750 IMU from KVH Industries. The RangeFinder system was developed by Sportvision, creators of football's Virtual Yellow 1st and Ten Line, in conjunction with FOX Sports, and it debuted during the U.S. Open broadcast in June.

RangeFinder includes a broadcast-quality camera with a KVH 1750 IMU mounted in a box at the top of the camera; the IMU works in conjunction with a GPS mounted at the base of the camera. By combining data from the IMU and the GPS, the RangeFinder enables measurement of precise location and attitude of the camera, enabling Sportvision technicians to create augmented-reality graphics that indicate how far away a green, sand trap or obstacle is.



## Jedi Soldiers: Army Researching Drone Hoverbike

SURVICE Engineering Co. and Malloy Aeronautics are developing hoverbike technology for the U.S. Department of Defense as part of an ongoing research and development contract with the U.S. Army Research Laboratory. The cross between a motorcycle and a drone is being developed to operate as a new class of Tactical Reconnaissance Vehicle.

Malloy Aeronautics have a vision for the hoverbike beyond defense, saying its low cost and practical size lends itself to search and rescue, precision farming and cattle mustering, first-responder emergency services and cargo insertion of up to 120 kg into confined spaces. Other uses envisioned are ski and mountain rescue, airborne logistics and time-sensitive personnel insertion/extraction during major disasters.

## » EVENTS

For details, see [www.gpsworld.com/events](http://www.gpsworld.com/events).**ENVI Analytics Symposium***Aug. 25–26, Boulder, Colo.; [www.exelisvis.com/eas/](http://www.exelisvis.com/eas/)*

The EAS brings together experts in remote sensing to discuss technology trends and the next generation of solutions for advanced analytics.

**ESA/JRC International Summer School on GNSS***Aug. 31–Sept. 10, Barcelona, Spain; <http://congrexprojects.com>*

The school's objective is to provide the attendees with a comprehensive overview of satellite navigation.

**CTIA Super Mobility 2015***Sept. 9–11, Las Vegas, Nev.; [www.ctiasupermobility2015.com](http://www.ctiasupermobility2015.com)*

This large, influential forum is focused specifically on mobile innovation. Powered by CTIA — the Wireless Association, this springboard event brings together more than 35,000 professionals from all across the new mobile landscape to experience the cutting-edge technology that is driving and enabling the connected life.

**ION GNSS+ 2015** (see preview, page 17)*Sept. 14–18, Tampa, Fla.; <http://ion.org/gnss/index.cfm>*

ION GNSS+ is the world's largest technical meeting and showcase of GNSS technology, products and services.

**INTERGEO 2015** (see preview, page 15)*Sept. 15–17, Stuttgart, Germany; [www.intergeo.de](http://www.intergeo.de)*

INTERGEO is a conference trade fair for geodesy, geoinformation and land management, with more than 16,000 visitors from 92 countries.

**Commercial UAV Expo***Oct. 5–7, Las Vegas; [www.expouav.com](http://www.expouav.com)*

SPAR Point Group is hosting its first Commercial UAV Expo to showcase the latest developments and opportunities for commercial sUAS (small Unmanned Aerial Systems) technology.

The Expo features an exhibit hall of UAV manufacturers, component and sensor manufacturers, software providers and service companies.

**International Symposium on GNSS 2015***Nov. 16–19, Kyoto, Japan; [www.isgnss2015.org](http://www.isgnss2015.org)*

The symposium is designed to bring together experts engaged in PNT and GNSS technologies to disseminate their latest research results and exchange knowledge.

**Our image changed but not our commitment to you:  
accurate and reliable positioning anywhere**