

Industry news and developments | GPS | Galileo | GLONASS

## » SURVEY/GEOSPATIAL

# JAVAD GNSS Launches Remote Assistance and Monitoring Services

Together with free live technical support provided by practicing professional land surveyors via phone, email, message board and text messaging, JAVAD GNSS has announced the release of RAMS, Remote Assistance and Monitoring Services for J-Field software.

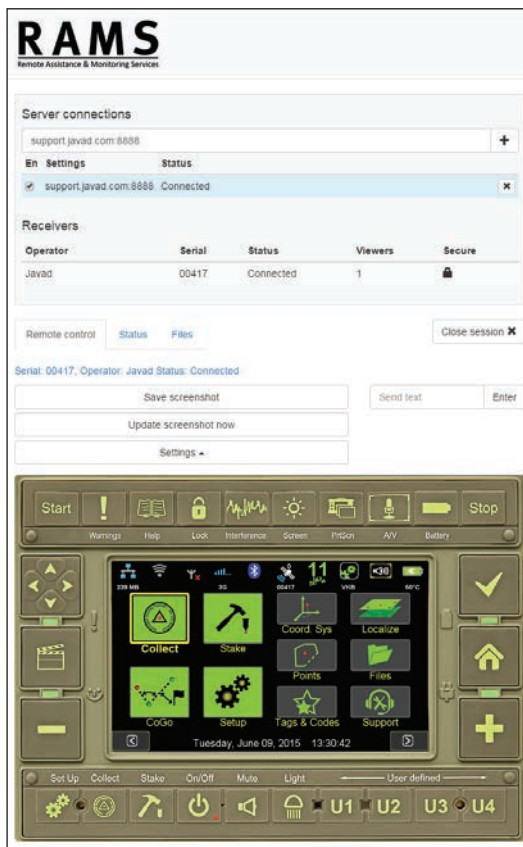
J-Field is the field controller software developed for the TRIUMPH-LS GNSS receiver and the VICTOR-LS field controller. RAMS is available to all users of J-Field, JAVAD's powerhouse software for survey data collection, stakeout and computations.

With the J-Field enabled receiver/controller connected to the Internet (via internal GSM SIM card, Wi-Fi hotspot or Ethernet), users can make their receiver/controller accessible to JAVAD's customer support team from anywhere in the world with three button presses. "It's like having the support person looking over the user's shoulder," said Shawn Billings, a surveyor from Texas.

While the TRIUMPH-LS is connected to RAMS, the user and support person share control of the receiver, giving the support person the ability to make changes to settings on the receiver or train the user remotely.

"It has changed the way support is conducted, making us more efficient at determining issues and more effective in training users," Billings said. The connection is password-protected to ensure that only those intended have remote access to the receiver.

Beyond technical support, RAMS server access is available to the user community as well. This offers



the ability for project managers to remotely supervise crew efforts in the field. Because operational control of the TRIUMPH-LS/VICTOR-LS is shared between the server user and the field user, the server user (project manager) could perform the more complex operations of land surveying, such as COGO calculations and localizations, as necessary, and then allow the field user (crew member) to continue the more routine tasks of data collection.

Should the task be simpler to accomplish with office software, RAMS allows file transfer directly from the LS to the server user's own computer and vice versa, thus enabling the project manager to easily export points,

linework (dwg, dxf, shape), vectors, photos and other project-related data from the LS to his desktop. From there, he can manipulate the data in his desktop application and then copy files, with newly computed coordinates or linework, back to the LS for the crew to work with in the field. In this way, RAMS uniquely supports the obligation surveyors have to exert responsible charge over their field crews.

The full receiver control, the access to receiver files, the robust RTK features of the TRIUMPH-LS and the fully customizable collection settings in J-Field make site monitoring possible as well.

RAMS server can be accessed with almost any device with an Internet browser and Internet access.

"I've used RAMS server to assist customers from my desktop computer, laptop, android tablet and even my cell phone," Billings said. "Using JAVAD's RAMS server requires no installation of software on the remote device, only an Internet connection and web browser."

For those wanting to operate RAMS on their own server, the RAMS Server application is available from JAVAD GNSS. An Android version of RAMS Server is also available, allowing users to connect an Android device directly to the TRIUMPH-LS without the need for an Internet connection. RAMS for Android creates a local network between the Android device and the LS and allows a field user to see and manipulate J-Field with the Android device should it be necessary to work with the LS beyond the reach or view of the user.

## » SURVEY/MACHINE CONTROL

# Hemisphere GNSS Debuts Atlas GNSS Correction Service

Hemisphere has released Atlas, its new entrant into the GNSS global correction services market. Atlas is delivered via L-Band or the Internet at accuracy levels ranging from meter level to sub-decimeter level. Atlas support is being introduced across a wide range of hardware, including Hemisphere's new AtlasLink smart antenna, also launched.

"Atlas comes out of a change of culture and focus," Hemisphere CEO Chuck Joseph told *GPS World* in an extensive interview. (Read the full interview at [gpsworld.com](http://gpsworld.com)).

Atlas is available for subscription at the dedicated Atlas web portal across a range of Hemisphere's multi-frequency, RTK-capable products, such as AtlasLink, R330u, V320 and VS330u.

"Since joining Hemisphere I have heard from customers large and small that they need a different option when it comes to high-accuracy corrections, one they can buy from their provider of choice and with little to no impact on their operating budgets," Joseph said. "We listened hard to what they told us and built Atlas to answer their needs — a totally new service that delivers freedom of choice to our customers along with industry-leading corrections at dramatically reduced prices."

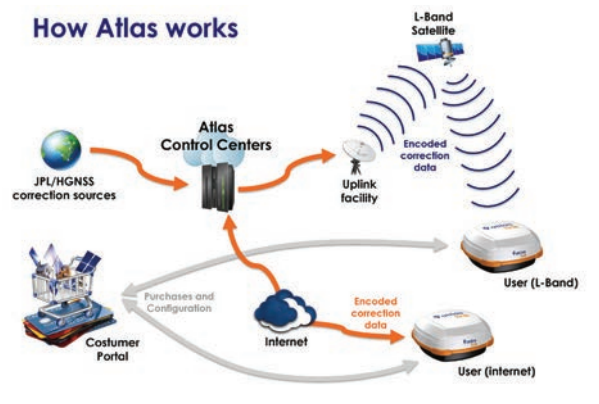
"We formed a team of our most experienced GNSS professionals with the task of developing a roadmap for the future of correction services business and technology in the world — assessing current needs, and also what users across the globe will be looking for over the next decade or two," said Rodrigo Leandro, Hemisphere director of engineering. "Atlas not only introduces Hemisphere as a business and technology leader in the correction services industry today, it provides an essential platform for delivering multiple levels of correction services to a very wide range of users spanning commercial business and consumer application use."

Joseph explained the development process. "On my first day on the job, we divided the staff into five working groups and told them: you are now startup companies, entrepreneurs, with six people each team. Go away and come back with big ideas. Go build a business plan. Out of that we got Athena, released last month, Atlas, AtlasLink, and a couple more new products coming out in the months to come."

Systems supporting Atlas use the newly released Athena GNSS engine. To be able to utilize Atlas corrections, users of supported systems need to update to Athena firmware and purchase a subscription through the Atlas portal.

For Tony Murfin's Professional OEM column on Hemisphere see, [www.gpsworld.com/opinions](http://www.gpsworld.com/opinions).

► **PASS-TO-PASS RESULTS** The relative accuracy of Atlas between two tracks of a tractor can get down to 2.5 centimeters, useful for agricultural applications.



## Features of Atlas

**Positioning accuracy:** Competitive positioning accuracies down to 2 cm RMS in certain applications.

**Positioning sustainability:** Position quality maintenance in the absence of correction signals, using Hemisphere's Tracer technology.

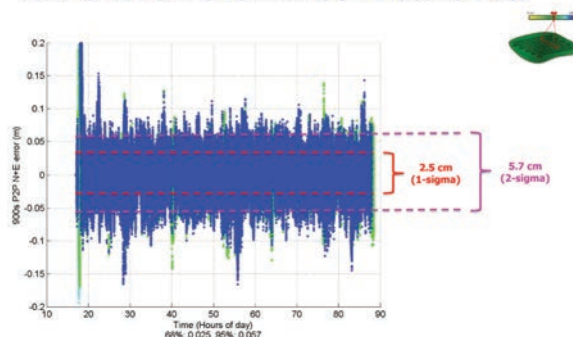
**Scalable service levels:** Atlas is designed to serve all. It is capable of providing virtually any accuracy, precision and repeatability level in the 5 to 100 cm range.

**Convergence time:** Convergence times of 10–40 minutes.

**Agnostic capability:** Atlas is an agnostic positioning system. SmartLink technology allows an AtlasLink antenna to be used as an Atlas signal extension for any GNSS system compliant with open communication standards.

**Network RTK augmentation:** BaseLink technology allows Atlas-capable receivers to self-calibrate, self-survey, and automatically manage the transmission of RTK correction data to augment or extend established or new GNSS reference networks in areas of poor Internet connectivity.

## ATLAS Rover Performance – Pass to Pass



## » WEARABLES

## OriginGPS Unveils Multi-GNSS Module with Antenna

OriginGPS has launched the Multi Micro Hornet, a tiny fully integrated multiple constellation antenna module, designed to improve wearables' fashion and function, the company said.

"A recent study by the European Global Navigation Satellite Systems Agency (GSA) showed that multi-constellation is becoming a standard feature in today's user equipment," said Gal Jacobi, CEO of OriginGPS. "Developers of wearables need modules with these features in the smallest size possible to be competitive in a market the GSA predicts will reach 14 million by 2023." (See the April issue.)

The Multi Micro Hornet is designed for devices that require a small form factor, low power consumption, and high sensitivity. OriginGPS has reduced the total volume by more than 68 percent without sacrificing performance, the company claimed.

Despite its miniature outline of 10 x 10 mm and height of 5.9 mm, the Multi Micro Hornet module offers



superior sensitivity and outstanding performance, achieving rapid Time To First Fix (TTFF) of less than one second, accuracy within as little as one meter, and sensitivity at -165 dBm by tracking both GPS and GLONASS constellations simultaneously. It also offers high sensitivity, noise immunity and reduced power consumption without compromising connectivity.

The module combines OriginGPS' low-profile GPS+GLONASS antenna with a dual-stage LNA, RF LDO, SAW filter, TCXO, RTC crystal and RF shield with SiRFstarV GNSS system on chip.

## » GNSS

## NovAtel G-III Reference Receiver Technology Chosen for QZSS

NovAtel Inc. has entered an agreement with NEC Corporation to supply reference receiver products for use in the Quasi-Zenith Satellite System (QZSS). QZSS is Japan's regional satellite-based augmentation system.

The NovAtel receivers to be used by QZSS are based on the company's third-generation (G-III) family of reference receivers. Designed for integrity monitoring and reference measurement applications, the receivers track signals independently to provide precise code- and carrier-phase reference measurements as well as signal quality measurements and other integrity monitoring metrics. Housed in a 19-inch rack-mount enclosure with AC power supply and integral cooling fans, the G-III reference receivers provide continuous, reliable operation in a reference station environment, NovAtel said.

NovAtel also supplies reference receivers for the FAA's WAAS and IRNSS.

## » EVENTS

For detail, see [www.gpsworld.com/events](http://www.gpsworld.com/events).

## 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.

## ION GNSS+ 2015

Sept. 14–18, Tampa, Florida; <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

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.

## 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.

## ION Co-Locates 2016 ITM, PTTI Conferences

Two of the Institute of Navigation's (ION's) conferences — the International Technical Meeting (ITM) and the Precise Time and Time Interval (PTTI) Meeting — will be co-located for 2016. One registration fee gives attendees access to both technical events and a commercial exhibit.

The co-located conferences will take place Jan. 25–28, 2016, at the Hyatt Regency Monterey in Monterey, Calif.

Abstracts are due Oct. 2, 2015. Submission requirements have changed, and depend on the session the abstract is submitted for. Review the call for abstracts at [www.ion.org](http://www.ion.org) for more information.

This year's joint ITM/PTTI Plenary Session is "Autonomous Vehicles – Beyond the Navigation Technology." The session will address issues outside of navigation technology, including legal issues, regulatory challenges, transitional periods, markets enabled by autonomous operation and similar topics beyond the core navigation technology.

For more information, visit [www.ion.org](http://www.ion.org).



# BUSINESS BRIEFS



## CHC Offers UAV Ground Control

CHC Navigation's UAV Ground Control (UAV GC) and post-processing kit is designed to bring centimeter-level control to projects for high-precision UAV systems.

The standard kit includes five GNSS receivers with expansion of additional receivers in pairs. The core of the system is the X900+OPUS, a dual-frequency triple-constellation receiver capable of cm positioning of the project at 200 km in absolute geodetic space. The secondary X20+ receivers serve as ground-control points for orthorectification, project verification, and other high-accuracy positional tasks.

## Topcon Acquires NORAC

Topcon Positioning Group has acquired NORAC Systems International, a developer of ultrasonic sensing and boom control technology for agricultural equipment, in a private transaction.

## Harris, exactEarth Form Alliance

exactEarth Ltd. and Harris Corporation have formed an alliance to provide a new level of Satellite Automatic Identification System (AIS) data service that will deliver real-time global coverage for maritime vessel tracking. The new service will leverage

the persistent global coverage and real-time connectivity of the Iridium NEXT constellation through the implementation of 58 hosted payloads covering the Maritime VHF frequency band.

## TomTom Offers Auto Driving Maps

TomTom is making available Highly Automated Driving (HAD) map content in the metro Detroit area, where U.S. automakers are headquartered. Car makers and HAD-related companies can use TomTom's high-definition maps for precise vehicle positioning, enabling future self-driving cars to see beyond their sensors.

The HAD map covers the road network between Farmington Hills and Ann Arbor, including I-696, 96, and 275, US-23 and M-14.



## Google Car Drives a Million Miles

Google's self-driving car has driven itself one million miles. Google announced the milestone June 4 on Google Plus. "Our software has now self-driven the equivalent of 75 years of typical U.S. adult driving! Along the way, we've navigated more than 200,000 stop signs, 600,000 traffic lights, and seen 180 million vehicles — with several thousand traffic cones, some fluttering plastic shopping bags, and a rogue duck thrown in for good measure."

## Septentrio Joins with Forsberg

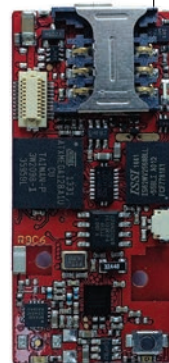
Forsberg Germany has begun a strategic partnership with Septentrio Satellite Navigation. Forsberg Germany is an OEM component supplier and

system integrator, and Septentrio is a designer and manufacturer of GPS/GNSS receivers. Forsberg will sell and support Septentrio OEM receivers in Germany, Austria and Switzerland.

## KCS TraceME Integrates LoRa

KCS BV has extended its TraceME product line with an intelligent location-based positioning solution (LBS) for indoor and outdoor anti-theft applications. The TM-202/R9C6 module is a high-range variant of the TraceME GPS/GPRS, targeted for tracking and tracing a variety of objects, including livestock.

The full-version module is equipped with various technologies (GPS/GLONASS, GPRS/SMS, LoRa, Bluetooth LE, ANT/ANT+ and proprietary RF), which can be combined dependent of the application and local mobile network coverage. The low-budget version, without GPS or GPRS, offers the highly intelligent traceability functionality.



## INRIX Offers Parking Service

INRIX is launching a new service aimed at addressing this problem by helping drivers quickly find on-street parking. BMW will be the first automaker to include the service for its cars, in its ConnectedDrive autos.

INRIX On-Street Parking updates hourly, identifying streets with the best chances of finding a parking spot. It includes pricing, parking/permit restrictions and policy rules (free vs. paid times/days). The service compares locations by distance and price.

