

## **Topcon (GB) GPS+ e-Newsletter**

### **September 2005**

Welcome to the Topcon GPS+ e-Newsletter. This e-Newsletter is designed to bring you the latest information about Topcon GPS+ and GPS+ activities. If you do not wish to continue to receive this GPS+ e-newsletter, please reply with "No GPS+ e-news" in the subject heading only. Or if you wish to sign someone else onto the newsletter please forward and ask them to reply to [GPSnewsletter@topcon.co.uk](mailto:GPSnewsletter@topcon.co.uk) with "Yes GPS+ e-news" in the subject field.

Also attached is a PDF copy of this newsletter in case you are unable to view this HTML version. You can also view this and previous GPS+ e-newsletters at [www.topconsurvey.co.uk/gps/index.htm](http://www.topconsurvey.co.uk/gps/index.htm)

We would welcome any comments to improve this service.

### **Topcon Announces G3 Technology**

LIVERMORE, United States of America – Topcon proudly announces G3 - a groundbreaking new technology for satellite positioning systems. This pioneer development is the first satellite receiver technology with Universal Signal Tracking, a system capable of tracking all signals from all three satellite positioning systems: GPS, GLONASS, and Galileo. Topcon's G3 technology continues our tradition of being the only precision GPS supplier to provide its users with all available signals today, and now extends that commitment to include all signals into the foreseeable future.

Topcon developed G3 to provide access to 30 Galileo satellites planned for launch by the European Space Agency, and new signals that will result from the modernization of the GPS constellation. Topcon products currently offer GPS+ technology, enabling access to both U.S. GPS and Russian GLONASS satellite systems. When these three satellite systems are fully operational, users of G3 products will have access to over 80 positioning satellites. Access to this wide range of satellites will make expanded applications, unprecedented performance, and unparalleled precision possible.

To process multiple signals from multiple satellite systems, Topcon engineered the new Paradigm-G3™ chip. It is capable of receiving GPS L1, L2 and L5 carrier frequencies; C/A and L2C civilian codes; and P-code on both L1 and L2 frequencies. It also receives GLONASS signals including L1 and L2 carrier frequencies and L1 / L2 C/A and P-codes. The entire Galileo signal structure is supported, including L1, E1, E2, E5, and E6 signals. The advanced design features 72 tracking channels and operates with minimal power consumption.

The new chip will be the basis for a new generation of Topcon GPS+ products and will first appear in the new NET-G3 reference receiver, providing network hardware ready to support all satellite signals for the highest possible service to all networks users into the future. Topcon will also offer this leading-edge technology to an extensive list of OEM partners, including Sauer-Danfoss and Komatsu. Additionally, Javad Navigation Systems has a license to Topcon's technology that is limited to use in commercial markets outside of the precision markets serviced by Topcon. A complete description of Topcon's precision markets can be found at [www.topcongps.com](http://www.topcongps.com).

Although it will be several years before all of these satellite signals will be available to offer any advantage to end users, the next generation of Topcon receivers is already being designed around our new G3 tracking technology. Your customers looking to purchase new systems today can be assured that all current Topcon GPS+ receivers will have an upgrade path to G3 technology. Unlike our competitor who charges a current premium for their receivers that are capable of L2C tracking before the signal is even available, Topcon customers will not have to pay for our universal signal tracking features until they become available to use.

With the introduction of G3, Topcon continues to take worldwide leadership in developing technologies and products based on satellite positioning.

### **Topcon Wins Bin to supply UNAVCO**

UNAVCO is a non-profit organization that supports and promotes Earth science by advancing high-precision techniques, such as GPS, for the measurement of crustal deformation. UNAVCO is funded by the National Science Foundation (NSF) and NASA. Topcon's GB-1000 receivers will function as Campaign Receivers on and in support of NSF's EarthScope Plate Boundary Observatory (PBO) network. They will be used in combination with strainmeters and satellite radar imagery to measure and map geologic movements across faults, magma movement inside active volcanoes and wide areas of deformation associated with plate tectonic motion. Five Topcon GB-1000's were used to study the recent volcanic activity of Mt. St. Helens in 2004. More information about UNAVCO and the organization's activities can be found at the website: [www.unavco.org](http://www.unavco.org).



### **Able UK place major UK 3D GPS+ machine control order**

Able UK have recently placed an order with Topcon to supply a range of automated 3D GPS+ machine control systems, these include the unique mmGPS+ system for a Grader, 2 x 3DMC GPS+ Dozer systems, a 3D GPS Excavator and full GPS survey kit with mmGPS+ options.

Following proposals and presentations to supply the equipment from Topcon, Trimble and Leica, Able decided to place the order with Topcon. This was largely due to the overwhelming advantages of the Topcon automated systems and software, utilising the only all in view GPS+Glonass receivers. This combined with the laserZone mmGPS+ technology for mm accuracy and the latest 3D GPS excavator system, convinced Able that Topcon were the leaders

Topcon mobilised a team of installation engineers and support staff and within 2 weeks the site was fully operational with all the systems and software.



### **New GMS-2 GIS receiver with digital imaging.**

The new GMS-2 worlds first all-in-one GIS+, digital imaging & graphical controller detailshave been released. This controller combine s dual-constellation satellite performance with

digital imaging and is much more than just a hand held GPS receiver. Powered by TPSCORE GPS+ technology, the new GMS-2 delivers unmatched performance as a stand-alone, single-frequency survey system that is versatile enough to work with total stations and RTK GPS. Fully compatible with popular GIS office software.

- Dual-constellation tracking GPS+GLONASS
- 50-channel TPSCORE chip technology
- Integrated digital camera
- Integrated electronic compass
- DGPS or Static mode



### **Topcon, the Capital City of Intergeo 2005**

Düsseldorf, Germany 4th October - 6th October INTERGEO is where the world gathers to experience the latest developments in geospatial technology. This year that world has a new capital—Topcon City! Take a walk to Hall 4 and you're there, a city to stroll and a place to feel the heartbeat of INTERGEO. Topcon City speaks all major languages and breaths many cultures; making a visit from abroad worth it!

Your visit keeps you up to date in the latest technology and will give you insight in what will be written in tomorrow's newspaper! It is the place for the very latest technology including: GPS+ and millimeter GPS; all types of totalstations including the world's first imaging total station; TopSURV field computer software; Topcon office software; TopNET Network hardware and software and much more! Topcon's wide product line-up gives solutions for every positioning problem, crossover between Total Stations and GPS+

We hope that we will be able to see you there.

<http://www.intergeo.de/englisch/page/main/index.php>

### **TopSURV & Topcon Tools 5.04 Released**

New 5.04 versions of TopSURV and Topcon Tools are now available. Updates to software are Free of Charge and can be downloaded from [www.topcongps.com](http://www.topcongps.com)

For 5.04 release notes see <http://www.topcongps.com/software/updates.html>

Please contact the technical support office on 01352 706910 or email [support@topcon.co.uk](mailto:support@topcon.co.uk) for install instruction.

### **GPS+ Firmware 2.5p1**

New 2.5p1 Firmware is available. Updates to software are Free of Charge and can be downloaded from [www.topcongps.com](http://www.topcongps.com)

For 5.04 release notes see [http://www.topcongps.com/software/firmware/2\\_5p1/NEWS\\_2\\_5p1.txt](http://www.topcongps.com/software/firmware/2_5p1/NEWS_2_5p1.txt)

Please contact the technical support office on 01352 706910 or email [support@topcon.co.uk](mailto:support@topcon.co.uk) for install instruction.

Regards

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