

## Topcon (GB) GPS+ e-Newsletter

November 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.

### Three More Glonass-M satellites scheduled for 25th December 2005 - 5 More Glonass-M & K types due for 2006

On 25th December 3 more modernised Glonass-M type satellites will be deployed, increasing the constellation to 17

<http://www.space-launcher.com/Log.html>

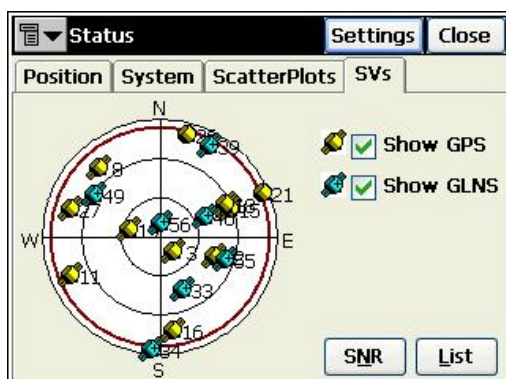
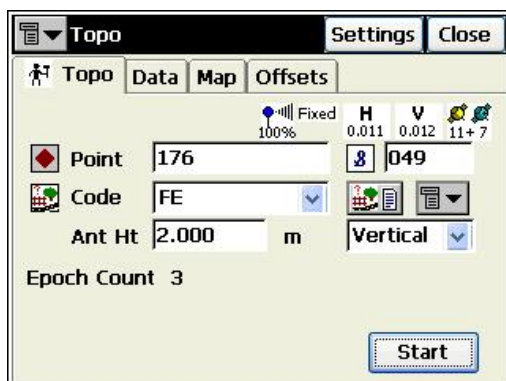
The new Glonass-M type satellites will have an increased life span of 7 years. Plans are also in place to launch a further 3 more Glonass-M types in 2006

[http://www.skyrocket.de/space/index\\_frame.htm?http://www.skyrocket.de/space/doc\\_sdat/uragan-m.htm](http://www.skyrocket.de/space/index_frame.htm?http://www.skyrocket.de/space/doc_sdat/uragan-m.htm)

On top of the schedule next year for Glonass-M are the next further generation of Glonass-K satellites. Glonass-K will transmit the L2C equivalent civil signal following successful tests and will also transmit a third carrier signal, also designed for civil purposes. Two Glonass-K satellites are also scheduled for 2006

[http://www.skyrocket.de/space/index\\_frame.htm?http://www.skyrocket.de/space/doc\\_sdat/uragan-m.htm](http://www.skyrocket.de/space/index_frame.htm?http://www.skyrocket.de/space/doc_sdat/uragan-m.htm)

In a world of high performance and the ever increasing chip processing power, many electronic products can be outdated almost the day that you purchase them, but by investing in Glonass today with GPS technology, customers can be assured that their receivers will actually get better in performance, as they will simply be able to track more and more satellites



Status		Settings	Close
Position	System	ScatterPlots	SVs
Position Type	Fixed		
Common Sats	18		
Initialized Sats	18		
Radio Link	100%		
Rtk-Age(sec)	1		
Receiver Memory(KB)	129912.1		
Receiver Power(%)	86%		
Controller Memory(KB)	57870.0		
Controller Power(%)	78		

Above are screen shots from Toposurv GPS+ on 17/11/2005 showing the number of satellites that can be viewed with GPS+GLONASS receivers today.

### Galileo to Launch first satellite on 26th December 2005

Galileo GSTB-V2/A produced by Surrey Space Technology is due for launch on 26th December on board a Russian Soyuz rocket. The satellite will fly the first ever European navigation satellite that will begin the V2 test bed phase for the Galileo system, due to be fully operational between 2010-2012. The satellite will also be the first time ever that a new generation of Hydrogen-Maser atomic clocks are flown in space. This new type of atomic clock is the heart of Galileo satellite and will give a significant increase in performance accuracy.

<http://www.space-launcher.com/Log.html>

### New NET-G3 Triple Constellation Reference Receiver

The new Topcon G3 chip will be the basis for a new generation of Topcon GPS+ products which will first appear in the new NET-G3 reference receiver, due out in early 2006. The NET-G3 provides network hardware, ready to support all satellite signals from GPS, Glonass and Galileo for the highest possible service to all networks users into the future.

The Topcon engineered Paradigm-G3™ chip 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 and future proofs any Reference Network, today

### GPS+ NTRIP Support

Networked Transport of RTCM via Internet Protocol (NTRIP) is a standard of obtaining differential corrections via the internet. Topcon has released this method within the latest Toposurv version to support NTRIP corrections. These corrections can be obtained via wireless internet access such as GPRS, GSM, 3G etc. which may also be offered to deliver the Ordnance Survey Network RTK (OSnet) corrections via their commercial licensee's

The Topcon FC-100 or FC-2000 controllers can be configured via Bluetooth to use an external GPRS, GSM or 3G modem to connect to the internet and obtain the corrections via an IP address. Alternatively Ntrip will be available to use via an internal GPRS/GSM modem on the Hiper series GPS+

### EGNOS Update

The European Geostationary Overlay Service, EGNOS should be declared as an open service in the first quarter of 2006, excluding safety of-life applications

Current EGNOS users should be aware that until EGNOS becomes operational under the open service, the ETSB AOR-E (PRN 120) signal will be the most reliable as this also includes the SBAS message type 0/2, which are required by some SBAS receivers.

The best EGNOS signal is available on ARTEMIS (PRN124), but there may still be outages and this signal does not currently contain the SBAS message type 0/2.

The EGNOS signal on IOR-W (PRN 126) is used for technical testing, so it will not be as reliable

For further details and a new EGNOS performance web site please visit:

[www.esa.int/navigation/egnos-perfo](http://www.esa.int/navigation/egnos-perfo)

### **Enhanced UK Customer Support**

In order to fully satisfy our customer support requirements, Topcon GB has enhanced its after sales support by introducing new help desk systems, web and FTP support, on-line training and maintenance support contracts. Customers who would like to find out more about our support network can contact the following:

Technical support Office	- 01352 706910 or email <a href="mailto:support@topcon.co.uk">support@topcon.co.uk</a>
GPS+ Service	- 0208 668 2233 or email <a href="mailto:gps-service@topcon.co.uk">gps-service@topcon.co.uk</a>
Robotic Total Stations Service	- 01530 518800 or email <a href="mailto:robotic-service@topcon.co.uk">robotic-service@topcon.co.uk</a>
Machine Control Service & Support	- 01530 518800 or email <a href="mailto:mc-service@topcon.co.uk">mc-service@topcon.co.uk</a>

or via our website at [www.topconsurvey.co.uk](http://www.topconsurvey.co.uk)

### **Next Exhibition 22-24th November - Civils 2005**

Topcon will be exhibiting at the Civils 2005 exhibition, Olympia, London, between 22-24 November. We will be exhibiting the full range of construction products from levels and laser to 3D Machine control, and GPS+. Please come and visit us on stand no. E7 and view the website at [www.civils.com](http://www.civils.com)

Regards

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