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## News items

### Virtual Reference Station (VRS)<sup>TM</sup> Network in North Carolina.

The map below shows the current status of the VRS network being developed by the State of North Carolina. This system, utilizing Trimble's VRS<sup>TM</sup> system software and hardware is a revolutionary GPS positioning infrastructure that allows a network of fixed base stations to synthesize "virtual" reference stations for every user within the region covered. Thus any user, using only his GPS rover system and the VRS network can attain centimeter accuracy with enhanced performance and reliability. Gary Thompson, Chief of the NC Geodetic Survey advises that there are now 17 base stations active in the system plus 2 other installations in progress. The network is currently being used by several state agencies and it is hoped that it will be available for public use by the end of this year.



### GeoSpatial Innovations Inc. – a Duncan-Parnell and Trimble Navigation business partner.

GeoSpatial Innovations (GSI) with offices in Austin TX and Washington PA, is a software development firm that offers a suite of out-of-the-box, mobile GPS solutions for network design and asset management. GSI's tools utilize Trimble's GeoExplorer CE series GPS technology to quickly collect and manage GIS data in the field. While these tools have been specifically written for the energy distribution and telecommunication industries, they are universal to many GIS applications. GSI's 3 tools are:

- GSI Pocket Designer is a comprehensive and time efficient utility automation system that allows field personnel to create job design alternatives using mobile GPS technologies. After the designs are created, they are automatically loaded into the enterprise GIS, work management or job design system in the office.
- (continued on next page)*



## Training

### Mapping Classes

#### **GPS Mapping for GIS with Asset Surveyor, GeoExplorer 3, or TerraSync.**

Learn how to effectively collect and process GPS/GIS data with the Pathfinder Pro XR/XRS, GeoExplorer 3, TerraSync and Pathfinder Office. Topics include planning a project, creating a data dictionary, hands-on field exercises, processing, and exporting data to GIS or CAD.

*15 PDH Credits*

### Land Surveying Classes

#### **Postprocessing Surveying.**

This two-day course is designed for users of the new Trimble Geomatics Office software suite and those using land surveying grade receivers with or without TSC1 with Survey Controller. Course includes network design, hands on field exercises, baseline processing, and network adjustment. *15 PDH Credits*

#### **Real-Time Surveying.**

This three-day course is designed for GPS Total Station users on the TSC1 with Survey Controller and Trimble Geomatics Office. Includes base station setup and rover initialization, GPS site calibration, feature coding, and stake out. *21 PDH Credits*

**For the latest class schedule or to register for a course, go to [www.duncan-parnell.com](http://www.duncan-parnell.com).**

**On-site training is available.**

**Special pricing for groups of six or more and educators.**

For more information or to register for a class contact Clay Pate, PE at 800-353-7392. Or you can e-mail Clay at: [cptrmbtrnr@aol.com](mailto:cptrmbtrnr@aol.com)

## News items



### **GeoSpatial Innovations Inc. (continued from Page 1).**

- GSI Pocket Collector streamlines the asset inventory and network management processes. Field personnel acquiring inventory data using GPS are able to control the receiver functions, create and maintain network connectivity, define data attributes, validate the data and view work assignments. Pocket collector significantly reduces inventory assessment and inspection time over conventional methods.
- GSI Base File Manager supports GPS post-processing differential correction for the product suite by batch downloading, unzipping and managing GPS correction files from CORS or other FTP sites.

GSI's CE based, central database architecture supports large and small firms alike. The automatic import/export functionality increases efficiency by streamlining the design process. Combining these tools with Trimble's GeoExplorer XT GPS system and post processing differential correction provides true sub-meter accuracy.

For additional information call your Duncan-Parnell contact or visit our website at [www.duncan-parnell.com](http://www.duncan-parnell.com) and look for the GeoSpatial Innovation web link on our Mapping/GIS web tab.

### **News from Duncan-Parnell.**

We have many exciting specials, promotions and product closeouts both ongoing and upcoming. Our Fall Special runs through the end of November and includes mapping and surveying products, training as well as other engineering products. We will also be offering holiday specials as well as product closeouts on our website very soon along with our regular monthly web specials. Our annual free office calendar is ready – please call or e-mail and advise how many you need. Finally, our new complete catalog is also ready and contains many new items as well as the essentials you need daily. All of these items are available from our web-site [www.duncan-parnell.com](http://www.duncan-parnell.com) or call your nearest Duncan-Parnell location.

### **Our Team is Growing Again!**

Duncan-Parnell is pleased to introduce three new employees: Darlene Day – administration Raleigh; Mike Withers – sales western NC and northern SC; Ken Lane – Instrument service and repair, High Point.

- Darlene Day joined our company in May 2003 as the GPS Division's administrative assistant. She has a strong background in all administrative functions including order entry, purchasing and database management. Darlene moved from Wisconsin in 1996 and now lives in Raleigh with her husband, two sons and two daughters. She enjoys crocheting, cross stitching and hiking.
- Mike Withers has over 10 years experience in GPS, robotics and total station sales with McCormack Supply in Charleston West Virginia and with Earl Dudley Associates in Charlotte, NC. Mike enjoys church activities, short-term mission trips, hiking and camping. He and his wife Kim and son Seth reside in Clover, SC.
- Ken Lane comes to us from Southern Photo in Greensboro, NC and has over 22 years experience in instrument and electronic repairs, including 4 years in the US Marine Corps. Ken is based in our High Point location and has just completed Trimble's robotic service school. Ken's interests are in physical fitness and the guitar and he lives in Greensboro with his wife Anastasia and his twin five-year old daughters.

**Visit [www.duncan-parnell.com](http://www.duncan-parnell.com) for the latest Trimble**


**News items**
**Trimble TerraSync 2.40 with RTK.**

Trimble's TerraSync™ new version 2.40 software now provides support for the Trimble 5700 and 5800 GPS Land Survey grade receivers. With these receivers, TerraSync software can now be used to collect RTK GPS positions. TerraSync is a flexible data collection and data maintenance tool designed to integrate with industry standard GIS. The software works with a range of Trimble GPS receivers and runs on a variety of Microsoft® Windows CE® devices or PC field computers. The new release is ideal for those who require highly accurate location data for GIS.

**Cyra Technologies (Leica Geosystems) introduces High-Definition Surveying (HDS).**

HDS is a redefined description of what has formerly been termed 3-D Laser scanning. It is the high density of the data that more accurately describes the technology and what differentiates it from other surveying methods. Cyra Technologies now offers an extended line of HDS products including the new HDS3000.

The HDS3000 features 360 x 270 degree field of view, a bore sighted digital camera for calibrating photo overlays, <6mm positional accuracy at 50 m, tripod mountable for setting on known points and determining HI (height of instrument).

Cyra also introduces the HDS4500, a higher speed, shorter range scanner ideal for projects with very short time windows for field data collection. Rounding out the product line is the HDS2500, which has been available for more than a year and featured in our last Wavelengths issue. The industry standard Cyclone and Cloud-Worx point cloud capture, processing and CAD integrated utilization software, round out the HDS family product line.

**Technical Tip: Battery Maintenance/Charging Tips for Your Trimble GPS Equipment, by Clay Pate PE.**

When your Trimble GPS equipment is not being used, I recommend that you keep all of your batteries on charge. The batteries that come with your equipment will not develop memory. The chargers that came with your equipment are smart chargers meaning that they fully charge the battery and continue to maintain that charge. For example, when you turn off your Trimble GeoExplorer CE or TSCe handheld, it actually goes into "suspend" mode. This is a low-power mode that maintains the main memory content but does not allow operation of any of the functions.

If the Geo CE or the TSCe is not put on charge, the batteries will go completely down, which is not recommended by Trimble. If the equipment is not going to be in use for a period of three months or more, Trimble recommends that you turn the handheld off instead of leaving it in suspend mode. Consult your users manual on exactly how to put your unit into the suspend and off modes. Finally, it is recommended that your chargers are connected to a surge protector to prevent your equipment from being damaged.

Following these suggestions will extend the life of your system's batteries, often well past the warranty period.



**FYI**
**Trimble's Latest Version Numbers.****Survey Software and Firmware**

- 5700: V1.30
- 5800: V1.10
- Survey Controller - TSC1: V7.72
- Survey Controller - TSCe: V10.61
- Trimble Geomatics Office: V1.62
- Trimmark 3: V1.11
- Pac Crest RFM 96: V5.06
- PacCrest PDL: FW V2.32  
Config 2.40

**Mapping Software and Firmware**

- Asset Surveyor - TSC1: V5.27
- GPScorrect for ArcPad: V1.01
- Terrasync™ V2.40
- Pathfinder Office: V3.00
- Beacon-on-Belt: V1.00
- GeoExplorer XM/XT OS: V1.10
- GeoExplorer XM/XT GPS: V1.03
- Pro XR/XRS: V1.70
- TSCe CE.NET: v4.0.9
- TSCe CE V3.0: v2.3.7

**Important FCC Changes!**

If you operate RTK GPS equipment or robotic total stations, there are new, mandatory licensing regulations from the FCC. Call Darlene Day in our office at 800-353-7392, or e-mail [darlene@duncan-parnell.com](mailto:darlene@duncan-parnell.com) and she will provide you with all of the information you need. The new licensing applications must be in by early December 2003 – please contact us now!

**Special savings  
now in effect on GPS,  
GIS and surveying  
equipment, and  
surveying supplies.**

**Call 800-353-7392  
for details!**

# Duncan Parnell

900 S. McDowell St.  
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**All the latest GPS/GIS surveying and mapping news, technical tips and new product announcements.**

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