

The ROVER Reporter

A QUARTERLY PUBLICATION OF eGPS SOLUTIONS

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Got Older Equipment? Get eGPS.

At eGPS Solutions, we are focused on selling and supporting our internet based Real Time Network (RTN). That is why we work so hard to help our customers find solutions. Today those solutions include older equipment.

Many older receivers work on our RTN just fine; it has been a widely spread misconception that it won't. In fact, many RTN's are run by manufacturers' whose focus is to sell hardware and software, they don't have the time or expertise to work with older equipment. Their RTN's are built to induce new equipment sales.



Keep in mind that newer receivers have better GPS algorithms for resolving longer baselines.

However the baseline length from base to rover has very little to do with equipment working on a RTN. Many of the newer receivers that are available have other benefits, like Glonass, L2C, and maybe better multipath filtering. *Again, those improvements do not have anything to do with the equipment connecting to the RTN's.* Those improvements relate to the satellite systems the equipment can see or the added benefit of working in areas where there may be multipath.

If you own or purchase an older receiver, eGPS will work with you to configure it to work on our RTN.

eGPS can supply all of the accessories you will need to get your older equipment reconditioned such as adding Airlink modems, RTK bridges, batteries, cables, brackets, range poles, bipods and even custom designed cabling. We have been successful configuring the following older rover receivers; Trimble 4700s, and 5700s and SPS series, Leica 530s, Ashtech Z-extremes, Topcon Hiper-lite plus, Hipers, and Hiper XT's, NavCom, and Magellan Pro Mark III.



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Got Older Equipment...

Handheld Data Collectors are another large variable in enabling older equipment to work on RTN's. We have become experts over the years with many brands and software releases in order to save our clientele's money and time.



If you have equipment and wonder if it will work on a RTN, call us to discuss it. You can also check out our compatibility page on our website at <http://www.egps.net/equipment.php>.



SAMSOG Technical Seminar 2009

eGPS Solutions kicked off the new year by attending the Survey and Mapping Society of Georgia's Technical Seminar at Southern Polytechnic University in Marietta, GA.

We again served Varsity hotdogs and enjoyed seeing everyone. We introduced a new product there; "THE MISSING LINK" the innovative RTK-Bridge to our booth visitors. Although attendance was low due to the economic times, we enjoyed a lot of interest and made several subscription sales in the weeks that followed. The most enjoyable times for us was hearing the positive feedback we received from our existing subscribers.

Our success is dependant on providing exemplary geodetic services and the word-of-mouth buzz that is created among Land Surveyors. From the feedback we received, I think we are on the right track.

WE HAVE RTK BRIDGE.

THE MISSING LINK.

The Missing Link: a network solution for legacy equipment. Now RTN's can be used with equipment such as Leica 300 & 500 systems, Ashtech Z-12 systems, and Trimble 4400, 4700 & 4800 systems. The Missing Link will also fill in areas where there is no or poor cell phone coverage.

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ESRI SERUG (Southeast Users' Group Meeting)

Lonnie and Lance both attended the ESRI Southeast Regional User Group Conference (SERUG for short) at the Jacksonville Hyatt Regency Riverfront Conference Center in Florida. We are continually amazed by the wealth of knowledge conveyed at the ESRI GIS conferences from



both the formal sessions and the interactions with the other vendors & attendees.



We have noticed a steady trend of increased GIS user adoption of higher and higher accuracy location techniques. This was evident at the show as many more GIS professionals inquired about using



eGPS not only for our mapping grade service but also on the RTK grade correctors. Most of the RTK interest was for the purpose of collecting accurate elevation for inventorying and modeling storm and sanitary sewers, a critical component in the government's



attempt to become compliant with the GASB34 accounting standards for capital assets.



New CORS Stations in Brunswick and Tifton, Georgia



Three satellite base stations owned by eGPS Solutions are now accepted into the National Geodetic Survey (NGS) Continuously Operating Reference Stations (CORS) program.

These base stations are part of the eGPS Real Time Global Navigation Satellite System (GNSS) Network. Every CORS-approved base station provides the Global Navigation Satellite System carrier phase and code range measurements in support of 3-dimensional positioning activities throughout the United States and its territories. As part of the National Oceanic and Atmospheric Admin-



istration (NOAA), NGS invites organizations and individuals to share data from their permanent GPS base stations by including these stations in the National CORS network.

Each CORS-approved base station must meet significant criteria including having dual frequency receiver/antenna oriented to true North with approved NGS phase center variability model, tracking at least ten satellites above 0 degrees, with pseudorange precision to better than

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www.eGPS.net is Up & Running

It's been a long time coming, but it's finally here. Check out our new website. We have had a face lift and now offer a whole new sleek design. From our home page, you can see the latest coverage maps, access our users' site and bulletin board, check to see if the equipment you have is compatible, look for used deals or rental rates, request quotes, and get in touch with industry resources. We have also added a news & events page that will show anything going on that our subscribers may be interested in.

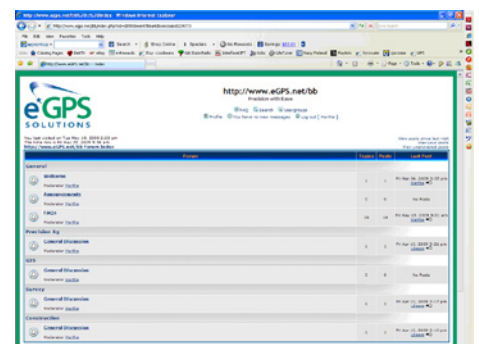
The screenshot shows the eGPS Solutions website homepage. At the top, the logo reads "eGPS SOLUTIONS Precision with Ease". A banner below the logo states "The simple, effective way to produce high-quality GPS work" and "Improve the efficiency of your surveys by over 50% with real-time, Internet-based GPS data!". A "Network Status Updated daily!" badge is in the top right. The navigation menu includes: Home, Services, Compatible Equipment, Marketplace, Coverage Maps, Subscriptions, News, Resources, About, Contact, Subscribers' Tools, and Support. The main content area features a "Fast. Efficient. Powerful." headline and a map titled "eGPS Real Time Network Coverage" showing green circles representing stations in Georgia and Florida. A sidebar on the left has sections for "Jump To: Subscribe", "Rentals/Sales", "About eGPS", "Contact Us", "For Sale" (listing a Trimble 4800 Base and Rover System), and "Other Used Equipment".

Answers: eGPS Bulletin Board

Have you just upgraded equipment and need to set it up to use your eGPS? Did you miss-key something and need to reset your data collector? No Base Data, what does that mean? These are questions we routinely answer and almost every user has experienced at one time or another. That's why we created the Bulletin Board. Get the benefit of our troubleshooting 24/7 and share your experiences. Ask our users questions and get real time answers.

The eGPS Bulletin Board is easy to access and you don't have to sign up, just use your User Name and Password that you use for your subscription and go to our website (<http://www.egps.net/bb/>) and you are good to go.

Once you're here, check out discussion forums where you can chat with all of our subscribers. Post announcements you may have. We want to use the bulletin board to allow the Real Time GNSS Network User Community to stay informed.



New CORS Stations

0.5 meter RMS, and many additional measurements and rules. Surveyors, engineers, scientists, and others can use data provided by CORS to position points at which GNSS data have been collected. This system enables accuracies in positioning of a few centimeters, both horizontally and vertically, relative to the National Spatial Reference System.

In developing its Real Time Network, eGPS Solutions has designed and built all of its base stations to the CORS specification and is diligently working toward having all stations included in the CORS program. The newly added stations are Brunswick, GA (gabk), Tifton, GA (gatf), and Blakely, GA (gaby). The addition of these CORS stations will further add to the accuracy of OPUS solutions within the boundaries of Georgia as well as the post processed static and mapping grade measurements. The firm is proud to be serving as the backbone of geodetic control throughout Georgia.



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President's Corner

The state of the economy today has cemented change as a staple in many industries. We are all collectively looking at diversification: *how can we get into related market segments to get more work?* We are expanding our product and service offerings into areas only a year ago we were too busy to think about. At eGPS, we have seen an increase in users logged onto the network over the last few months which shows signs of an eminent turn in the economy. It is with this excitement that I feel I must point out that our industry has quietly been up to some pretty exciting stuff.

First, equipment prices are falling aggressively. The new Topcon GRS-1 rover is getting a lot of attention. It is the least expensive GNSS rover on the market, and it has a Verizon modem built in. The Topcon GR-3 with internal Verizon Modem, Altus APS-3 receiver with Carlson Surveyor+, Magellan Pro-Mark 500, Trimble R-6, and the Leica 1230 smart rovers have all been selling way below MSRP in the last few months. All of the choices out there right now are really quite affordable.

Second, there are more satellites and signals in the sky today than just 3 months ago. NGS estimates close to 126 navigation satellites transmitting 3 frequencies each will be overhead within the next 3 years. The satellite constellations will be as follows: USA-NavStar, Russia-Glonass, China-Compass, ECU-Galileo. Many of the GPS systems available today will receive any or all of these signals. The 64 thousand dollar question is – *Which ones will benefit your business, and when?*

Third, geospatial science is changing. Standards of practice for accuracy and precision are under review at federal, state, and local levels. GIS and Surveying are being considered as the same industry by many. This is the time to jump onboard the GIS train if you plan to stay in the geospatial business of Land Surveying.

Fourth, Machine Control is a Tsunami headed directly at surveyors. The warning sirens have already sounded; the shore-line has retreated and the giant wall of water is spotted. Many Surveying and Engineering companies have already begun by offering DTM creation, Site localizations, and real time services to contractors. Construction staking done by Surveyors may soon be a thing of the past.



Lonnie Sears, RLS
President, eGPS Solutions

Have you checked your network status today? Go to www.egps.net