JAVAD NEWS

Javad is now FGCS tested...

We completed the FGCS test for surveying receivers on December 17, 1999. The test was supervised by the IWG (Instrument Work Group) of the FGCS (Federal Geodetic Control Subcommittee) which facilitates tests of survey systems.

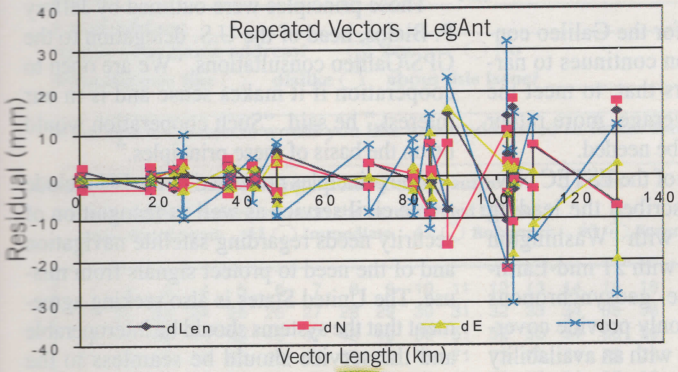
Special thanks to: Roy Anderson of NGS (National Geodetic Survey) who coordinated the evaluation superbly. Joe Evjen of NGS provided technical oversight and facilitated the presentation of results.

Preliminary results are excellent. The following table lists some results. Notice the centimeter level results even though the distance from ASTW to GORF is over 100 kilometers.

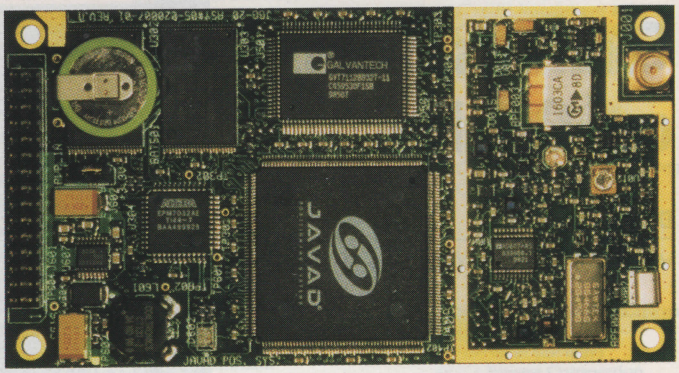
	North (m)	East (m)	Height (m)	dN (m)	dE (m)	dU (m)
ASTW	4230896.619	292177.811	35.6721	0.017	-0.001	-0.019
GORF	4320689.776	341795.804	20.2150	0.000	0.000	0.000
WPT5	4249601.744	305065.052	-24.8473	0.016	0.003	-0.017
WBS5	4333550.577	308538.422	105.6017	0.001	0.012	0.019
OPTK	4318864.347	299713.119	80.4912	0.001	0.011	0.014

The following plot of repeated vectors illustrates the precision obtained between sessions. Notice that the residuals are less than +/- 10 millimeters out to about an 80 kilometer vector length.

All of the data and results are available on the FGCS website at http://www.ngs.noaa.gov/FGCS/instruments/ or on the JPS website at www.javad.com. We encourage you to download the data and see how precise surveying with JPS can be.



JGG20 in Full Production



This small 10.8 x 5.7 x 1.5 cm board is designed for precision applications. It has decimeter code phase precision and sub-millimeter carrier precision. It has 20 universal channels that each can track GPS, INMARSAT, WAAS, and GLONASS. It tracks signals down to 15 db*Hz, and sustains dynamics of up to 40 g's. Other features include 20 Hz raw and processed data with all standard RTCM messages. The board also includes power supply that accepts 4 to 14 volts with reverse polarity protection, battery for memory back up, and four serial ports. See www.javad.com for details.

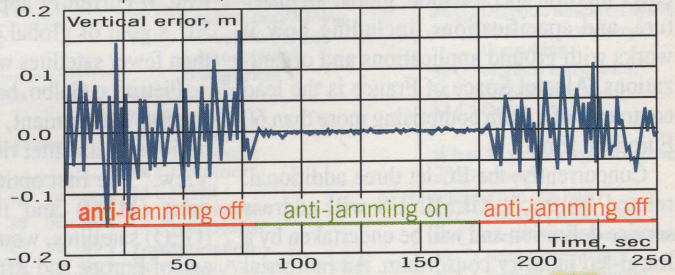
Multi-Base RTCM

We now offer multi-base RTCM option for DGPS. This option allows a rover to receive differential corrections from up to 5 base stations and use them in the following modes: 1) selecting the nearest base, 2) selecting the base that yields solution with the lowest RMS, and 3) combining information from all base stations in a weighted algorithm.

All of our products, including the new JGG20, can include this option.

In-band Interference Rejection (IBIR)

If a jamming signal that falls within the GPS band is strong enough it can prevent tracking of satellites. IBIR rejects the jammer. If the jammer is weak, it increases the noise, which degrades accuracy. IBIR also defends against such noise that can be up to several centimeters and reduces it down to 1 mm. Javad is the only company that has this patent-pending technique. All other receivers offer only out-of-band protection, which is standard in any wireless device.



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