TECH NOTES

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January 7, 2010

WELCOME TO TECH NOTES - FRONTIER PRECISION'S MONTHLY E-NEWSLETTER!!! TECH NOTES IS DESIGNED TO KEEP YOU UP TO DATE WITH TIPS AND INFORMATION ON THE LATEST TECHNOLOGY IN SURVEYING, CONSTRUCTION, AND GIS. OUR COMPANY GOAL IS TO HELP YOU BE MORE EFFICIENT AND MORE PROFITABLE BY UTILIZING TODAY'S TECHNOLOGY.

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TECH SUPPORT HOTLINE 888.797.4774

Colder Temperatures and Total Station Instruments

With colder temperatures here there are some things to consider if you intend to work with your total station out in these frigid temperatures.

First, when bringing an instrument out of a warm truck or office into this cold air temperature, it takes the instrument some time to adjust to the cold. For precise measurements, it is recommended to let the instrument adjust to the drop in temperature. One rule of thumb is **for every 1.5 degrees of air temperature difference (between office/truck and field) let your instrument acclimate for 1 minute of time** (for instance, if the temperature difference is 50 degrees, you would need to let your instrument acclimate for approximately 33 minutes).

For those of you using Robotic Total Stations, it is recommended to perform a Tracker Collimation with the instrument acclimated for these colder air temperatures. We recommend performing this adjustment at least one time each season change and winter is probably one of the most important times to make this adjustment. If you are using the Trimble Survey Controller program, you can perform this adjustment under the Instrument/Adjust/Tracker Collimation menu. You want to set your prism (that you use the instrument with) out at a distance of about 350 feet (100 meters) from the gun on relatively flat ground with no line of sight interference. The process is automated once you start it and only takes about a minute to complete. Once done, you will see more reliable results because the instrument is now collimated to the climate it will be working in most.

Now is also a great time to consider a full collimation and adjustment on your instrument so it is ready for full field work once spring starts. Our service shops start getting busy during this time of year, so it is encouraged that you try and call ahead to schedule this yearly maintenance at your nearest Frontier Precision Service Center.

Also, don't forget about the new Frontier Precision Routine Annual Maintenance (RAM) service now being performed on field controllers, GPS Receivers, and Handheld GPS Receivers. Call your nearest Frontier Precision service center for more details and try to stay warm this winter.

Upcoming Events (click on event title for more details)

Jan 13	Trimble Users Forum - Chamberlain, SD
Jan 14-16	SD Land Surveyors Conference - Chamberlain, SD
Jan 27-29	MSPS Annual Meeting - St Cloud, MN
Feb 1	Intro to Trimble Business Center online training class
Feb 2	Trimble Users Forum - Fargo, ND
Feb 3-5	ND Land Surveyors Conference - Fargo, ND
Feb 8-10	SPAR 2010 - Woodlands, TX
Feb 24-26	Montana Land Surveyors Conference - Helena, MT

Current FW / SW Versions

Trimble TSC2/ TCU Survey Controller	**12.45**
Trimble ACU/TSCe Survey Controller	**11.40**
Trimble TSCe Survey Pro w/ TSX	**4.6.0**
Trimble Business Center	**2.20**
Trimble NetR5	**3.60**
RealWorks	**6.3.1**
Trimble GeoMatics Office	**1.63**
Trimble S6	**R11.0.76**
Trimble R7 GNSS / R6	**4.01**
Trimble HPB450 / PDL450	**2.42**
Trimble VX Spatial Station	**R11.0.76**
Trimble GX 3D Scanner	**4.0.5**
Trimble 5700/5800	**2.32**
Trimble R8 GNSS	**4.11**

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