UNAVCO Equipment Group Field Computer Testing Procedures (historical)

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UNAVCO no longer provides field computers for campaign use; this article is included for historical purposes only

GPS Campaigns - Equipment - Computer Testing Procedures

The Equipment Services Group (ESG) is trying to standardize the download computer pool available to the consortium members. ESG has purchased Toshiba's 405CS laptop computers for this task. There are only a few pieces that accompany these computer systems to make them fully functional for most of the field applications supported by UNAVCO.

Following are the standard testing procedures used for the field download PC's:

1. Charging of the internal battery and testing the standard operation of the PC is performed. ESG uses a basic written test.bat file that reads the autoexec.bat and config.sys of the internal hard drive and writes these files to a floppy in the "A" drive (floppy drive). The test then reads the files on the "A" drive and displays them to the PC's local screen. This process then writes a file back to the "A" drive, with a different name. At this point, the computer includes the time and date that the file was created. From this file, we can then tell at what minute the computer lost power and quit the "test.bat" program. This is used to verify the "working time" of a system's battery.

2. From the previous test, one can assume the computer is functioning properly. Then the operation of the communication port(s) is tested. This is an easily completed task. Use the 4000 program installed on the computer and connect the computer to a Trimble receiver via Trimble's down-load cable and verify that all/any files located on the receiver are accessable.

3. If a TurboRouge receiver is used, there is one more test that needs to be performed. ProComm (a communications program) is loaded on the field computers. Use the ProComm program on the computer and connect the computer to the TurboRogue via a "null-modem" cable to the "B" port on the receiver and verify that all/any files located on the receiver are accessable.

4. The final items to be checked are available hard disk space, and support programs. At this time, remove all residing data files and run "Scandisk" (a DOS utility) to verify and mark "BAD" sectors of a hard drive, if there are any. Then, run the latest "F-Prot" program (avaliable as shareware via the Internet) to look for and remove any viruses.

5. The support programs that UNAVCO supplies on these field download PC's is verified to be resident and operational.

6. The testing of the field download PC's is now complete.

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