

Objective: Record GPS data in the field. Remove the PCMCIA card from the receiver. Put card in PCMCIA card reader. Copy GPS data files to hard drive on PC.

Procedure that worked:

Put PCMCIA card in GPS receiver.

Power on the GPS receiver.

Connect PC to GPS receiver using RCS Commander or Evaluate software.

Use INI command to initialize receiver:

```
$PASHS,INI,5,5,5,5,1,0
```

observe ack

Use CLM command to format the PCMCIA card:

```
$PASHS,CLM
```

observe PASSED

Allow GPS receiver approximately 15 minutes to obtain new almanac and begin to collect data.

Power off receiver, remove PCMCIA card, place card in PCMCIA card reader.

Start Ashtech Solutions Download 2.6 program or the Download program in GPSToolkit. GPSToolkit is available in the software folder from the ftp server at

<ftp://ftp.thalesnavigation.com>

Click connect to PC Drive and choose the drive letter for the PCMCIA card reader.

Wait what seems like a very long time for the files to display in the left hand window of the Download program.

Right click on one of the file names.

Click "Copy To" on the pop up menu and copy the file to my PC hard drive.

Remove the card from the PCMCIA card reader. Put it back in the GPS receiver. Use the CLM command to clean it off.

This procedure consistently works for me.

Most of the time I do not want to talk about things that do not work because it tends to focus thoughts on things that should be forgotten but I want you to know that I was able to make it fail to work right by doing things wrong.

Now for some things that consistently failed:

When I used Windows Explorer to format the card the receiver indicated that it was recording data but there was nothing on the card when I tried to download it.

After using Windows Explorer to format the card I tried using \$PASHS,FIL,D,999 to format the card in the receiver. The receiver indicated that it was recording data but there was nothing on the card when I tried to download it.

When I used \$PASHS,CLM to format the card and then tried to use Windows Explorer to read the card the only thing I could see on the card was a file called Micro\_Z.bin

When I used Windows Explorer to format the card or when I used \$PASHS,FIL,D,999 after using Windows Explorer and tried to record data on the card I did not find anything on the card when using Windows Explorer. Not a file to download nor a file called Micro\_Z.bin.

Here are some sections of text copied directly from the Z Family manual that is on the ftp server:

It is good practice to reset your receiver prior to operating it for the first time or when a system malfunction occurs. A reset of the internal memory clears the memory and restores the factory defaults. This reset does not affect data stored on the PCMCIA card. Send the following command to execute the initialization:

\$PASHS,INI,5,5,5,5,1,0

For more information about this command, refer to Chapter 6, Command/Response Formats.

and

All data recording in the receiver (those that have memory capacity) is done on the PCMCIA data card also known as a PC card. The PC card is a compact and convenient way to store a lot of data. The amount of data that can be stored depends upon the size of the card. PC cards, available in sizes ranging from 2 to 85MB, are normally factory formatted, but they must be formatted by the receiver using the \$PASHS,CLM command before using the card. Insert the PC card correctly in the PC card slot in the memory compartment to record data. If the receiver is tracking satellites, and the PC card is correctly inserted, data automatically record on the card.

and

PCMCIA cards are typically factory formatted for PC compatibility. If the PC card is not formatted, format it with the PCMCIA drive in the PC using the DOS format command. Prior to use in the receiver, the PCMCIA card must also be receiver formatted, and should be reformatted on a regular basis. PC cards should be reformatted biweekly for receivers in continual use. Regular reformatting prevents file fragmentation on the card that could cause data problems. The PCMCIA

card can be formatted in one of the following two methods. However, prior to first use, the \$PASHS,CLM method should always be used.

- Issue the serial command \$PASHS,CLM which formats all tracks in the PC card one by one, including the FAT (file allocation table), the directory, and the data area. This process requires approximately 7-8 seconds per MB, including both the reformatting and the file system mounting time. This is the optimum and recommended method.
- Issue the serial command \$PASHS,FIL,D,999 or select the DELETE ALL option in the SESSION menu on the front panel LED display. Both of these techniques format only the FAT and the directory area in the PC card, and does not physically clear the data area. This process takes just a few seconds to complete, regardless of PC card size.

If you want to download manuals, get current firmware, or download software from the ftp server you can do so at

<ftp://ftp.thalesnavigation.com>