



Figure 2

5 Equipment

The physical configuration of all the equipment involved in the remote stations part of the GPS TDAF is summarized in Figure 3.

The remote stations are continuously tracking the GPS satellites. The antenna is connected to the receiver normally with a standard 300 ft RG-214 coaxial cable. Only Villafranca has a cable 450 ft long, as remarked in the last section.

The timing system of the stations are used as 5 MHz reference frequency. They are cesiums manufactures by OSCILLOQUARTZ with long term drift controlled by timing GPS system.

All ESA stations are equipped with TurboRogues. In 1997 the last MiniRogues in Kourou and Malindi have been upgraded to TurboRogues.

One of the serial ports of the receivers is connected to a device that provides for communications and optionally for data storage. This device is a PC that runs a script of a communications package. Shortly after 00:00 UTC the PC downloads the data from the receiver with the XMODEM protocol, waits the remainder of the day for the call from the control centre ESOC and allows the remote control of the computer.