

## **PTB Report on the status of TWSTFT**

1. In 2000 PTB's Ku-band station has been operating without major failures except on three hot days in June and July during the transatlantic sessions when the down converter lost lock and showed synthesizer alarm due to high temperatures in the outdoor unit. In July and August the data UTC(PTB) - UTC(VSL) have gaps because the VSL signal often was too low for the modem to go into lock.
2. In May 2000 USNO carried out a calibration of the PTB-USNO link with a portable X-band station. On two days simultaneous X- and Ku- band sessions have been successfully accomplished. The final evaluation of the data of this calibration trip has been done by the USNO.
3. The USNO has offered to the PTB to create a permanent 2-way link via a U.S. military X-band satellite between USNO and PTB. The PTB is very interested to establish such link. Antenna and other equipment still has to be ordered. It is the aim to set a X-band station running in 2001.
4. Three geodetic receivers operated at the PTB allow to compare the results of the TWSTFT with those obtained by the GPS- CP method:
  - a) TurboRogue SNR 12 RM (on loan from NIST to study the link NIST - PTB using the GPS-CP method.
  - b) GeTT station of the EAM using Ashtech-Z12 to study the link USNO - PTB
  - c) In April 2000 the Federal Agency for Cartography and Geodesy in Wettzell has created a permanent EUREF station (in the network of geodetic reference stations) at the PTB using at present a TurboRogue SNR-8000 receiver. In addition to the geodetic CP- data once per day the hourly timing data UTC(PTB) - 1PPS/OUT are also sent to Wettzell and from there forwarded to the AIUB. The receiver data are available under:  
<ftp://ftp.IGS.ifag.de/EUREF/obs/2000/doy> (day of the year).