



Borowiec, 09.05.08

CALIBRATION CERTIFICATE 4/2008

Astrogeodynamical Observatory Space Research Centre (SRC) certifies that:

- From April 28th 2008, 8:3 UTC, till May 9th 2008 7:30 UTC the following set of instruments was calibrated at the Time and Frequency Laboratory of the Observatory:
 - TTS-3 receiver, s.n. 037,
 - MarAnt+ antenna, s.n.: MA #4258,
 - Lightning Arrester PoliPhaser DGXZ+06NFNF-A,
 - Antenna cable, 35 m length, (TTS3-37B),
 - Antenna cable, 5 m length, (TTS3-37A).
- The calibration was carried with respect to the main GPS/GLONASS s.n.002 receiver at the Observatory.
- The s.n.002 receiver was several times calibrated against traveling receivers from BIPM Time Section.

The calibration yielded the following results:

Differential delay of the calibrated receiver:

GPS, L1C: -28.1, RMS: 1.1 ns

GLONASS, L1C: -117.8, RMS: 2.0 ns

35 m antenna cable (TTS3-37B) + 5 m antenna cable (TTS3-37A) + Lightning Arrester:
Total: 161.2 ns, RMS 1.3 ns

After the calibration, the obtained results were implemented into the receiver.

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Borowiec, 08.05.08

CERTIFICATE

Astrogeodynamical Observatory ,Space Research Centre (SRC) certifies that:

TTS-3 receiver fully conforms to the CCTF (BIPM) recommendations for multi-channel GNSS time transfer technology.

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