Results of differential calibration of geodetic-type receivers at the TP

Last updated 28 October 2009

1. General description of the calibration
This report concerns the calibration of the hardware delays incurred by time signals for different geodetic-type GPS systems operated at the TP in Praha. The systems (receiver+antenna) are designated by a 4-letter acronym. The link between acronym and actual hardware references may be found here.

The results presented in Section 3 should be used for time transfer with other equipment calibrated using the same procedure. The standard uncertainty on such a link calibration is taken to be 5 ns (1σ).

2. Calibration procedure
The calibration is a differential calibration with respect to a travelling receiver which is either a reference receiver from the BIPM or a receiver calibrated vs. a BIPM reference receiver. The BIPM reference receiver is presently BP0C, an Ashtech Z12-T (see TM116 for the original calibration of the reference receiver).

The calibration operational procedure is available here. Note that different versions of the document were used, depending on the epoch of calibration; see the annex “Revision history” in the most recent version.

3. Calibration results
Results are presented in a computation sheet which is available through the link in the column “Results P1-P2/ns”. Explanatory information on the computation sheet is available here.

<table>
<thead>
<tr>
<th>System</th>
<th>Period</th>
<th>Calib. dates</th>
<th>Reference</th>
<th>Results P1-P2/ns</th>
<th>Operations report</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP04</td>
<td>2009/02</td>
<td>54873-54877</td>
<td>BP0C</td>
<td>15.0 – 14.3³</td>
<td>Report2009_TP.pdf</td>
</tr>
</tbody>
</table>

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³ Values are corrections to the calibrations delays used in the receiver.