

## Results of differential calibration of geodetic-type receivers at the METAS

Last updated 31 January 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 METAS in Bern.

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 (1  $\sigma$ ).

### 2. Calibration procedure

The calibration is a differential calibration with respect to a travelling receiver provided by the BIPM. The travelling receiver is referenced to the BIPM reference receiver, 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

System	Period	Calib. dates	Travel	Results P1-P2/ns	Operations report
WAB1	2001/02	51943-51959	BP0C	<a href="#">307.1 – 322.2</a>	<a href="#">Report2001_METAS.pdf</a>
WAB1	2004/11	53325-53329	BP0C	<a href="#">313.2 – 327.7</a>	<a href="#">Report2004_METAS.pdf</a>
WAB2	2004/12	53349-53352	BP0C	<a href="#">297.4 – 315.2</a>	<a href="#">Report2004_METAS.pdf</a>
WAB4	2008/08	54293-54295	BP0U	<a href="#">226.2 – 224.1</a>	<a href="#">Report2008_METAS.pdf</a>