

# GNSS calibration of ONBA receivers with respect to INTI G2 (1101-2025)

## Summary

In August 2025, Instituto Nacional de Tecnología Industrial (INTI) received a receiver from Observatorio Naval (ONBA) and calibrated it at its premise.  
The operations and report of measurements are described in the [report by INTI](#).

- **Final results for the calibrated systems**

The INTDLY values of the receivers given in Table 1 have been computed by INTI based on the results of the Group 1 trip [1014-2021](#) for INTI (GPS) and should not be updated to reflect later changes in the conventional INTDLY values of the reference receiver.

For a P3/E3/B3/PPP UTC link A-B involving any Group 1 and any receiver in this trip, the uncertainty resulting from the calibration,  $U_B(A-B)$ , is computed as

$$U_B(A-B) = (U_{CAL0}^2 + \Delta U_{CAL}(A)^2 + \Delta U_{CAL}(B)^2)^{1/2} \quad (1)$$

where  $U_{CAL0} = 4 \text{ ns}$  is the conventional Direct calibration value, and where  $\Delta U_{CAL}$  (generally zero) is specified for each system.

Changes in the set-up of the receivers after the calibration must be accounted for as described in section A.3.6 of the most recent [BIPM calibration guidelines](#).

Table 1. Final P1/P2/C1 INTDLY values from the 1201-2025 exercise. Values of REFDLY and CABDLY during the calibration are also indicated for reference. All values are in ns date in YYYY/MM/DD format. “Meas. Date” refers to the first day of the differential calibration, to which the calibration results can be applied. “Impl. Date” is the MJD when the results should be implemented in the receiver.

| System | BIPM | Meas. date | INTDLY |      |      | REFDLY | CABDLY | Note | $\Delta U_{CAL}$ | Impl. date |
|--------|------|------------|--------|------|------|--------|--------|------|------------------|------------|
|        |      |            | C1     | P1   | P2   |        |        |      |                  |            |
|        |      |            |        |      |      |        |        |      |                  |            |
| ONBB   | ONBB | 2025/08/30 | 32.8   | 30.9 | 21.7 | 41.1   | 80.6   |      | 1.5              |            |
|        |      |            |        |      |      |        |        |      |                  |            |

Notes:

Version history

V1.0 2025/11/14: Publication of results from V1.0 of the INTI report.