GNSS calibration of ICE receivers with respect to ROA G1 (1201-2026)

Summary

In April 2026, Real Instituto y Observatorio de la Armada (ROA) calibrated receiver from Laboratorio Costarricense de Metrologia (LAMETRO-ICE).
The operations and report of measurements are described in the report by ROA.

- **Final results for the calibrated systems**

The INTDLY values of the receivers given in Table 1 have been computed by ROA based on the results of the Group 1 trip 1012-2025 for RO12 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

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

where U_{CAL0} = 4.0 ns is the conventional Direct calibration value, and where ΔU_{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 C1/P1/P2/E1/E5a/B1C/B2a INTDLY values from the 1201-2026 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	INTLDY							REFDLY	CABDLY	Note	ΔU_{CAL}	Impl. date
			C1	P1	P2	E1	E5a	B1C	B2a					
ICE1	ICE1	2026/04/01	29.6	26.8	24.2	29.5	29.5	29.3	28.9	285.2	328.6		0.0	
ICE2	ICE2	2026/04/01	29.5	26.9	24.3	29.5	29.0	29.3	28.4	287.3	329.8		0.0	
ICE3	ICE3	2026/04/01	29.4	26.7	24.0	29.4	29.7	29.2	29.1	287.4	329.4		0.0	

Notes:

Version history
V1.0 2025/05/18: Publication of results from V1.0 of the ROA report.