Definitions

XP: From external reference to 1PPS in
XO: From 1PPS in to internal reference (i.e. 20 MHz in inverted, delayed by 15.8 ns (Meas 3.1) or 20 MHz out advanced by 2.4 ns (Meas 3.2), first positive zero crossing)
XC, XD: Cables etc... from antenna to receiver (typically XC is long cable, XD is short cable(s) + splitter if needed)
XR: receiver internal delay; XS antenna delay
BIPC values (TM116: June 2002): XR1=281.1 ns; XR2=295.4 ns; XR1+XS1=305.6 ns; XR2+XS2=321.9 ns)

Set-up at BIPM May-June 2009

	ITRF 2005 (epoch 2008.67) x	y	z	HP5071A to 1PPS in	Meas 3.1 (3.3) / ns	Meas 3.2 / ns	Ant. Cable / ns
BP0C				54.7 ns	20.8	N/A	XC = 234.4 ns; XD = 0
				XP = 54.7 ns	Int ref - 1PPSin (XO) = 36.6 ns (using 3.1)		Short base: XC+XD = 234.4 ns
RJEP (PolaRx2)				XP = 46.7 ns	257.2		Short base: XC+XD = 128.7 ns
					Int ref - 1PPSin (XO) = 265.9 ns		

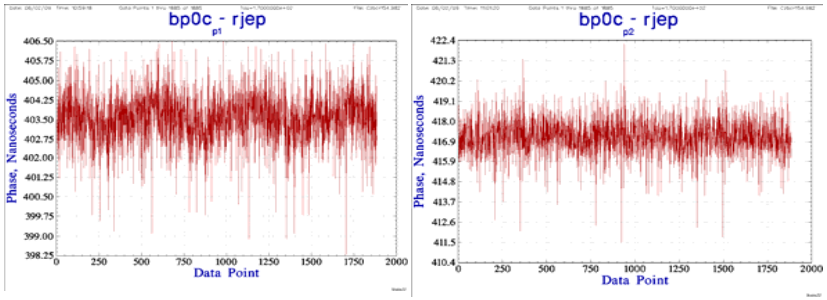
The XO measurement seems to be outside the PolaRx2 specs, but we have verified the correct behavior of XO with respect to the phase of the 10-MHz in.

Observations

Short baseline: doy 149-152 (29 May-2 June 2009, MJD 54980.7-54983.9)
Earlier measurements not considered due to wrong set-up

Measurement results

02/06/2009 (L. Tisserand) via R2CGGTTS



Short baseline: MJD 54980.7-54983.9
Delta (-XP-XO+XR1+XC+XD+XS1) (MBR0 - BP0C) = -403.6 ns
Delta (-XP-XO+XR2+XC+XD+XS2) (MBR0 - BP0C) = -417.2 ns

Calibration results

17/06/2009 (G. Petit)

Short baseline
BP0C: -XP-XO+XR1+XC+XD+XS1 = 448.7 ns
BP0C: -XP-XO+XR2+XC+XD+XS2 = 465.0 ns
MBR0: -XP-XO+XC+XD = -183.9 ns
Therefore
MBR0: XR1+XS1 = 229.0 ns
MBR0: XR2+XS2 = 231.7 ns