Current and Planned TW Calibration Excercises

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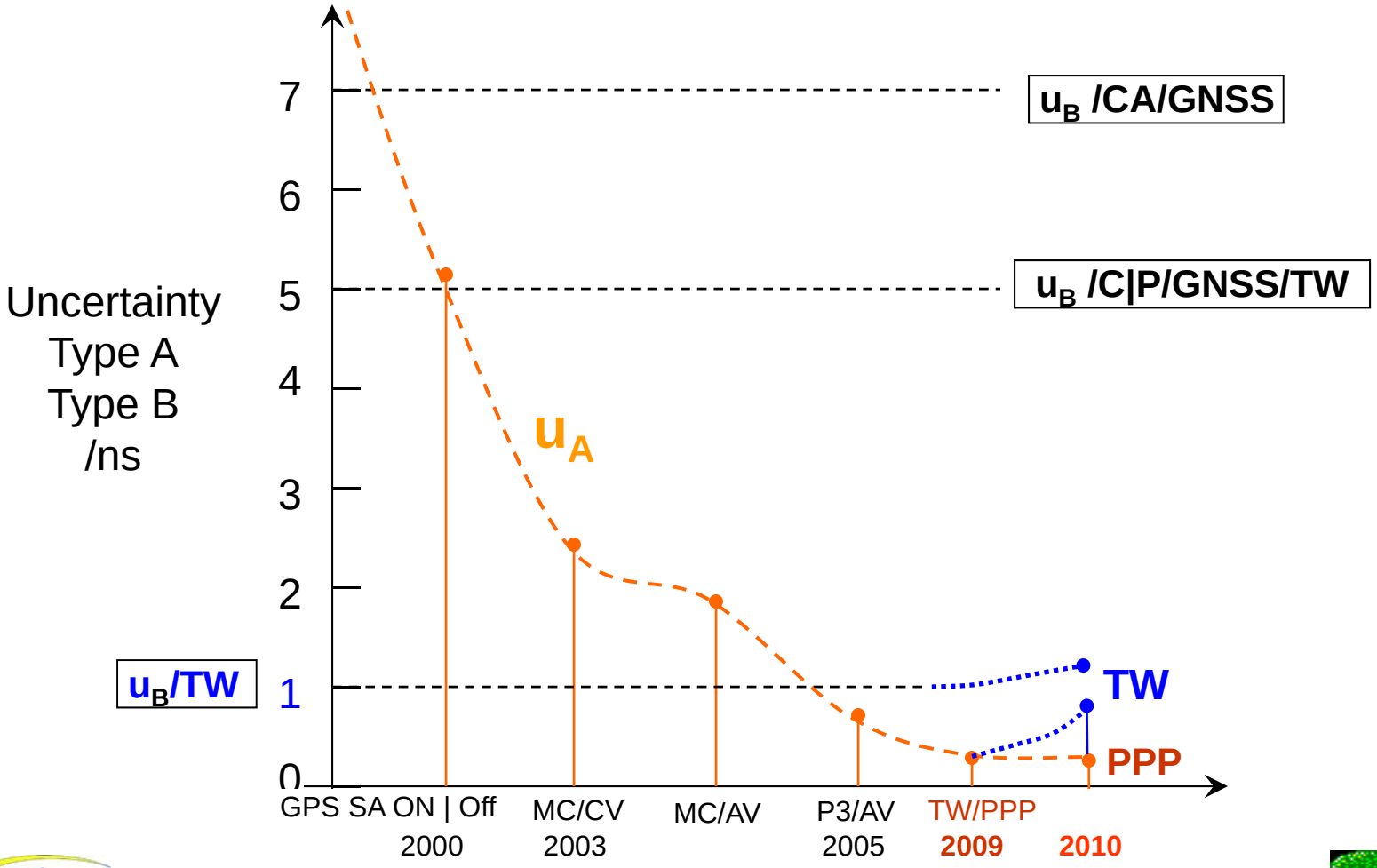
Evolution of TW in UTC : 10 year tendency



Advantages of TW

- **Low uA comparable to PPP**
- **More stable links than GNSS**
- **uB = 1 ns**

Status of TW calibration

- **13 TW links in UTC**
- **5 in Europe have been calibrated by TW => uB = 1 ns**
- **8 TW links are not calibrated by TW => uB = 5 ns**
- **AOS, NPL and ROA not yet calibrated by TW**
- **Asian links not calibrated by TW**

BIPM

Tsoft

What's new in the 2011/2012 UTC time links

- Combination TW+GPSPPP ←TW+CP
- Combination GPS+GLN
- Pilot Studies to Strengthen the Asia-Europe links
  - Announced June 2011: PTB, OP, NICT, TL, BIPM
  - Combination TW+GPSPPP
  - Calibration (Asia-Asia-PTB), 2 steps:
    1. Compute CALR of TW with GPS then TCC uB=5ns
    2. Bipm calibration station ➔ uB=2 ns