

# **TWSTFT DATA PROCESSING AT THE BIPM**

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**8<sup>th</sup> Meeting of the CCTF WG on TWSTFT (BIPM- Oct. 2000)**

TWSTFT data collection

BI PM TWSTFT Monthly Reports

Some chosen links: NPL/NI ST, PTB/NI ST, USNO/PTB,  
and NPL/PTB

Organization of the International time links

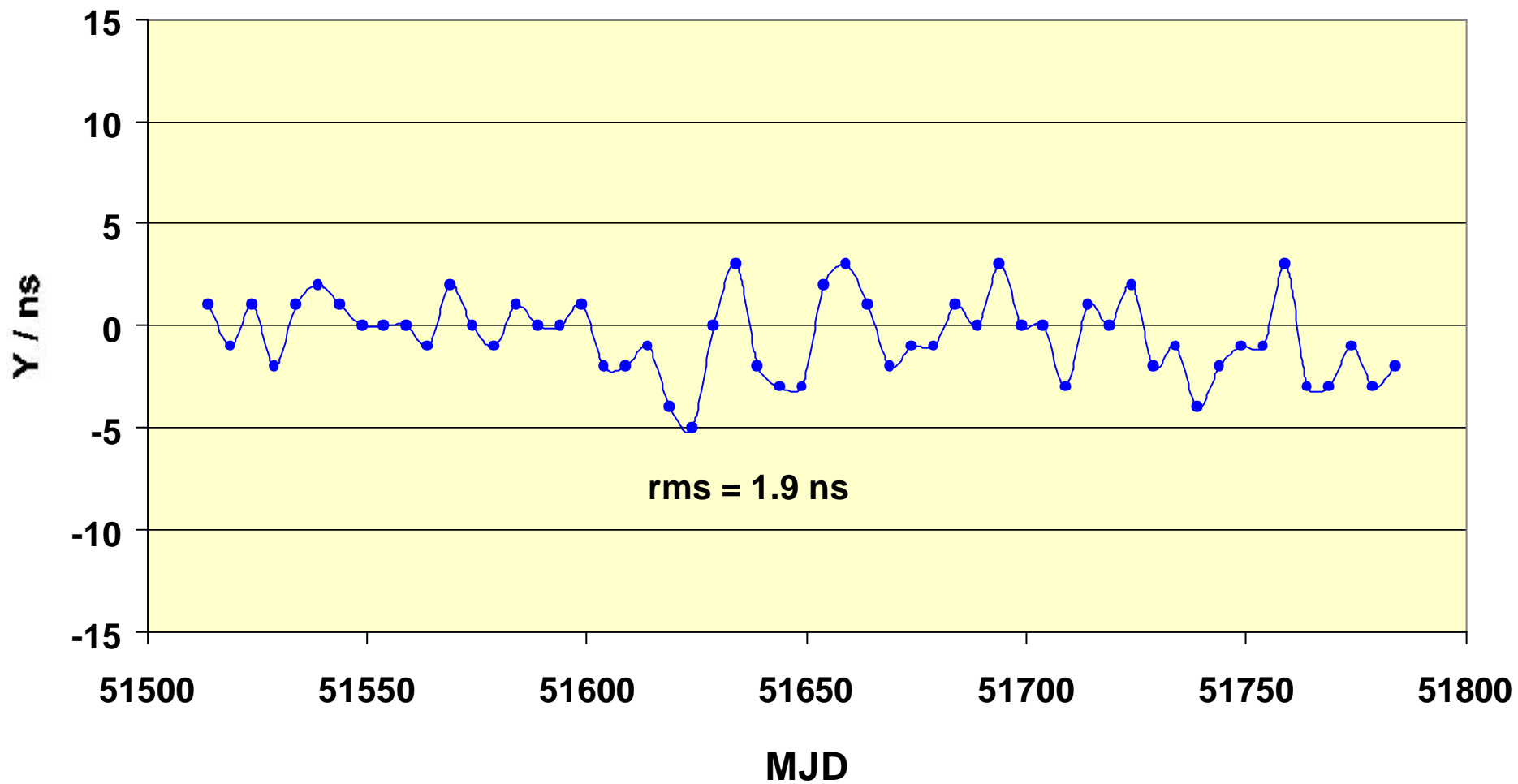
Situation at the Pacific Rim

Suggestion for introduction of new two-way links :  
AUS/CRL, NRLM/CRL, CRL/CSAO,.....

## **BIPM TWSTFT MONTHLY REPORTS**

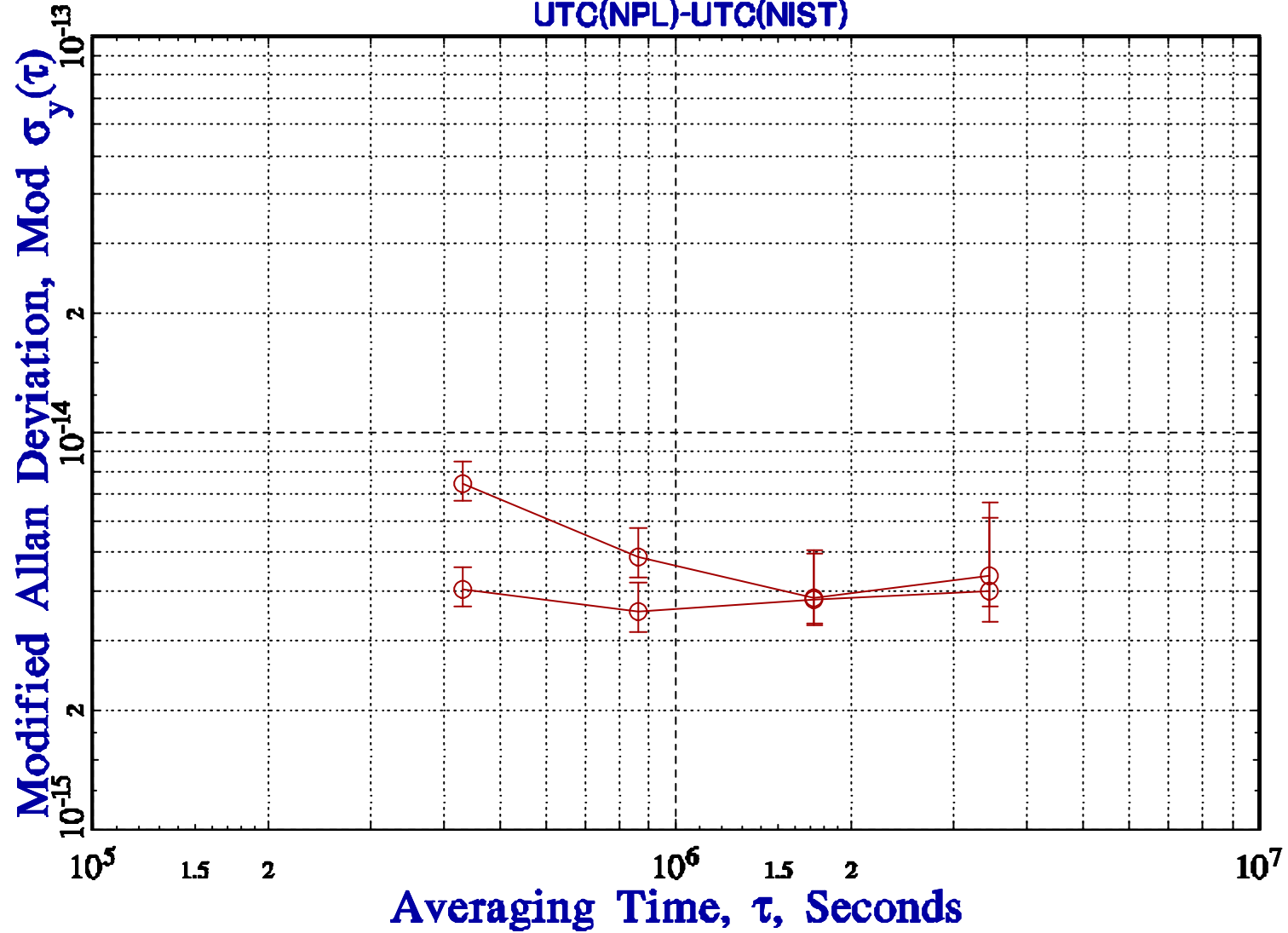
- **First Report edited in April 1999 (following a request from participating stations).**
- **Some chosen two-way links are computed and compared to GPS links at the moment of the computation of TAI.**
- **Practical information is given.**
- **Plots showing (TWSTFT-GPS).**
- **Frequency stability of TWSTFT and GPS CV links.**
- **Brief description of the hardware equipment.**
- ***UTC(k)-UTC(l)* available on the BIPM ftp site.**

$$Y = [UTC(NPL) - UTC(NIST)]_{twstft-gps}$$

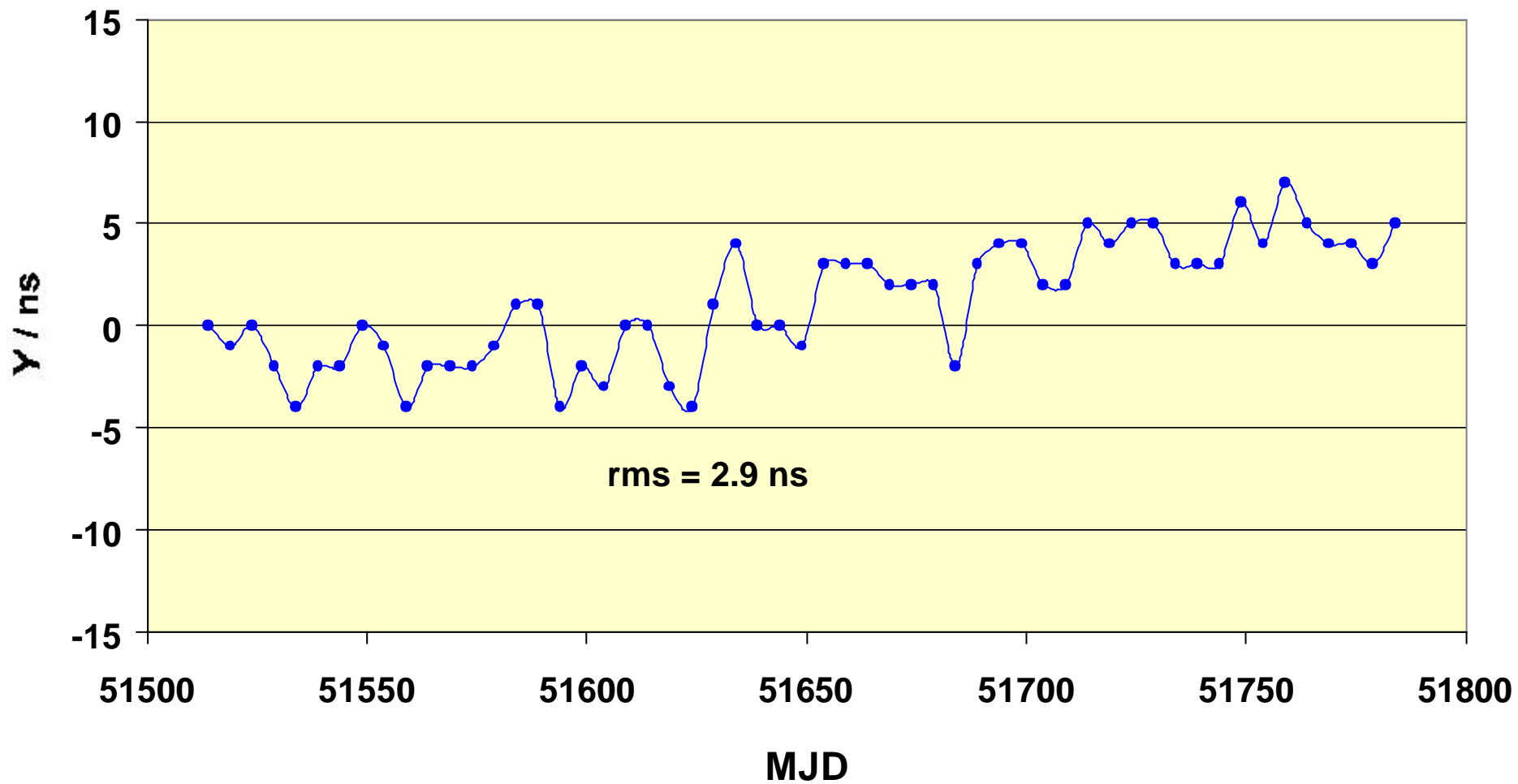


# FREQUENCY STABILITY

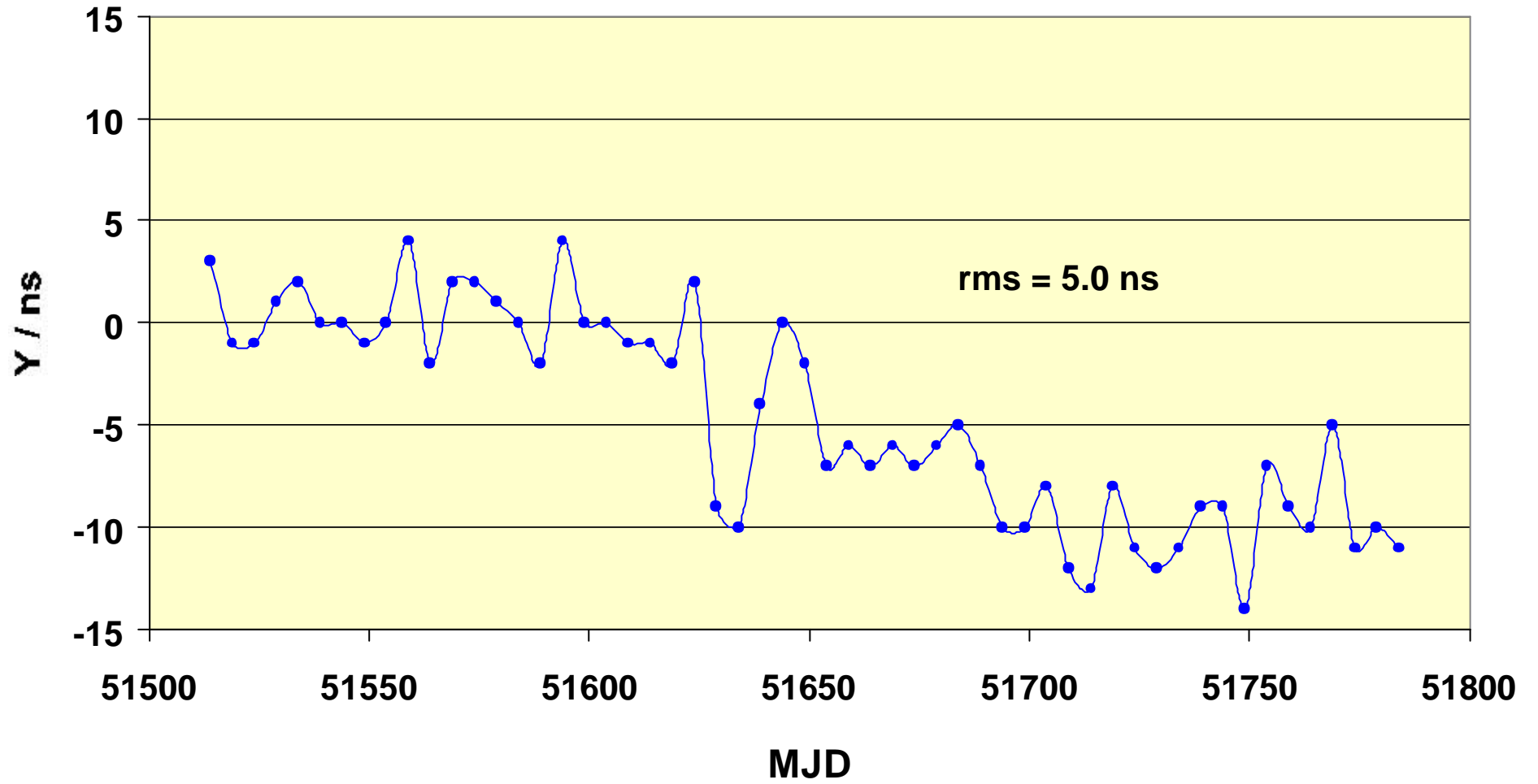
UTC(NPL)-UTC(NIST)



$$Y = [UTC(PTB) - UTC(NIST)]_{twstft-gps}$$

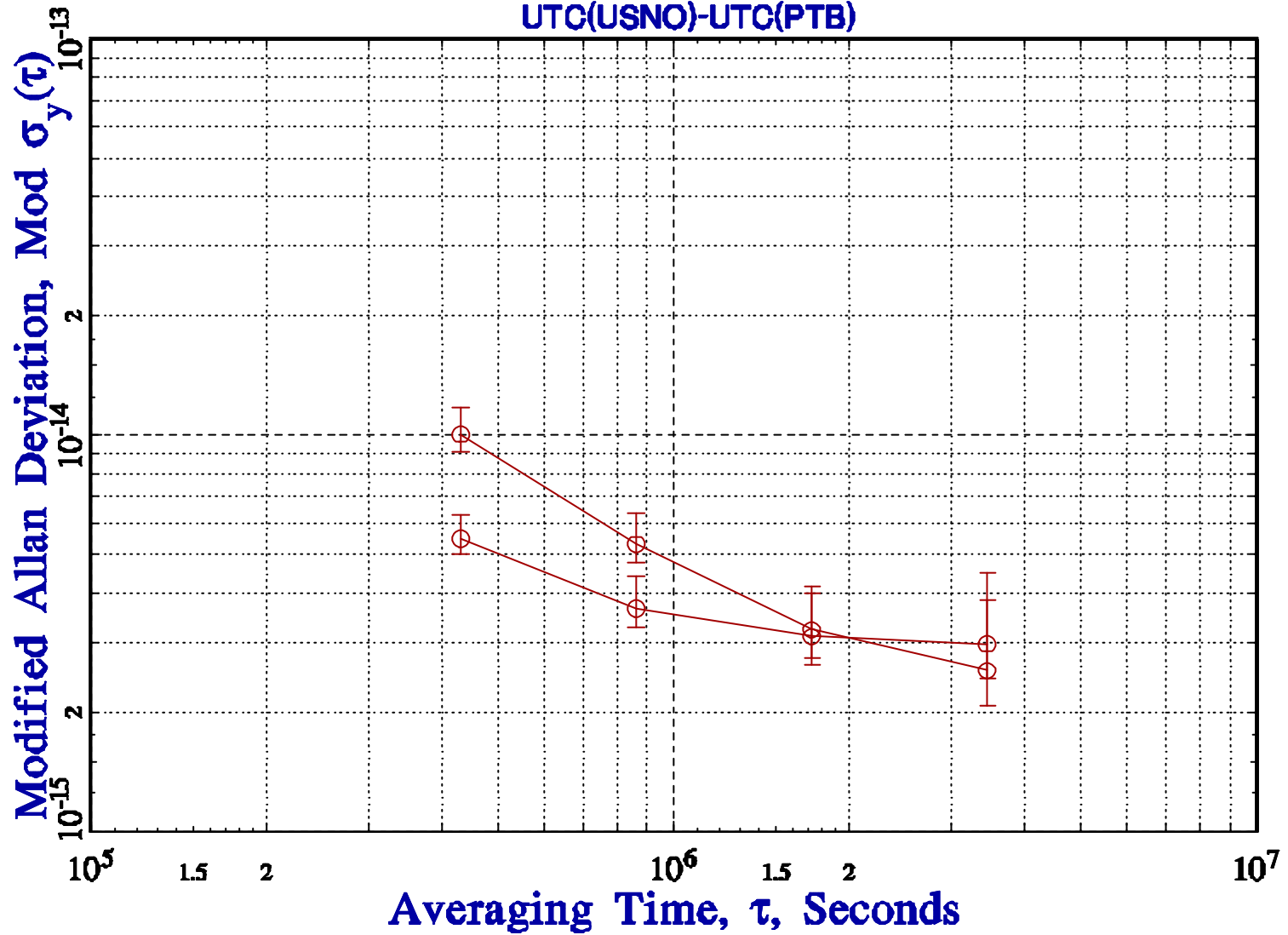


$$Y = [UTC(USNO) - UTC(PTB)]_{twstft-gps}$$



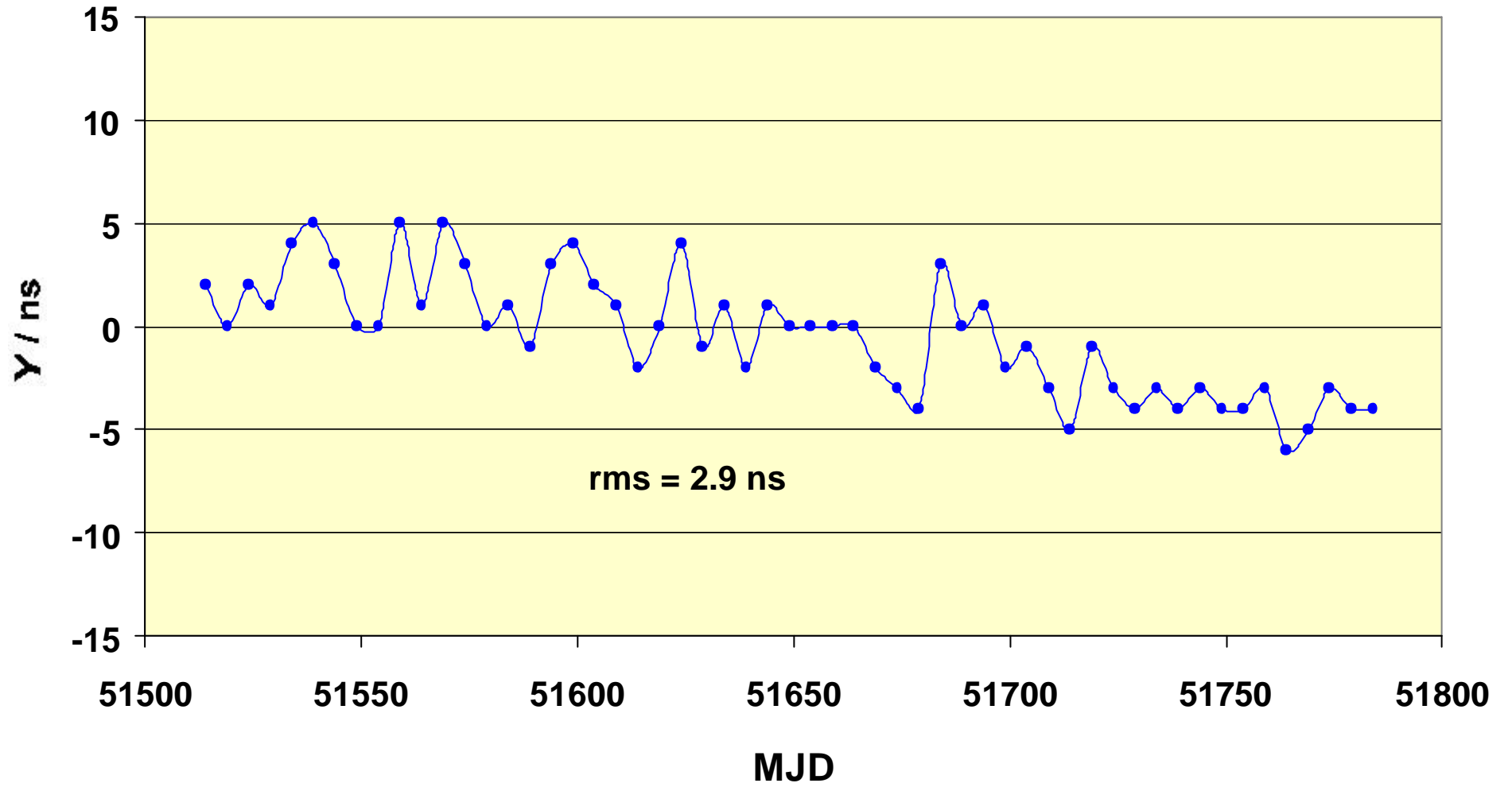
# FREQUENCY STABILITY

UTC(USNO)-UTC(PTB)



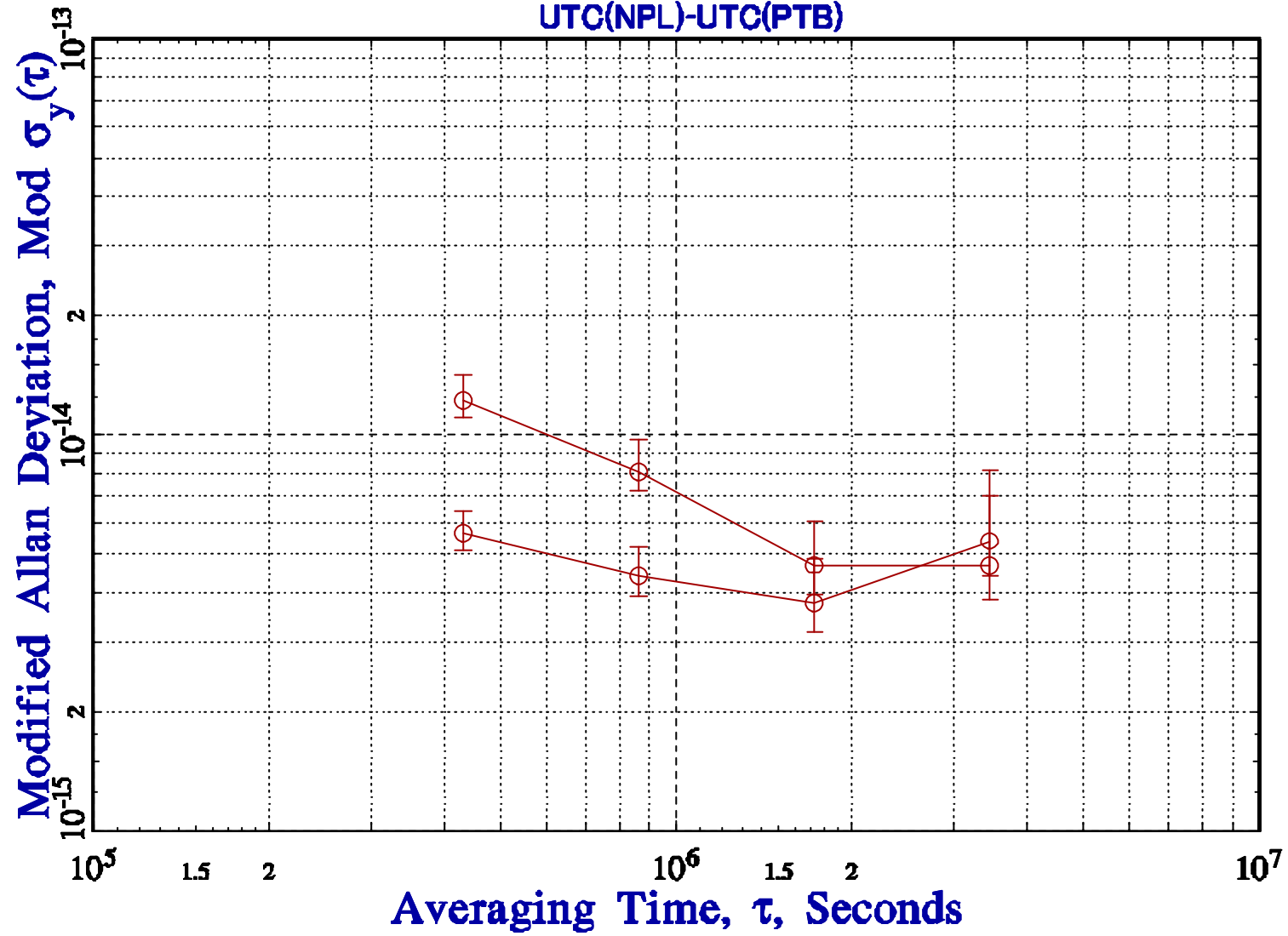


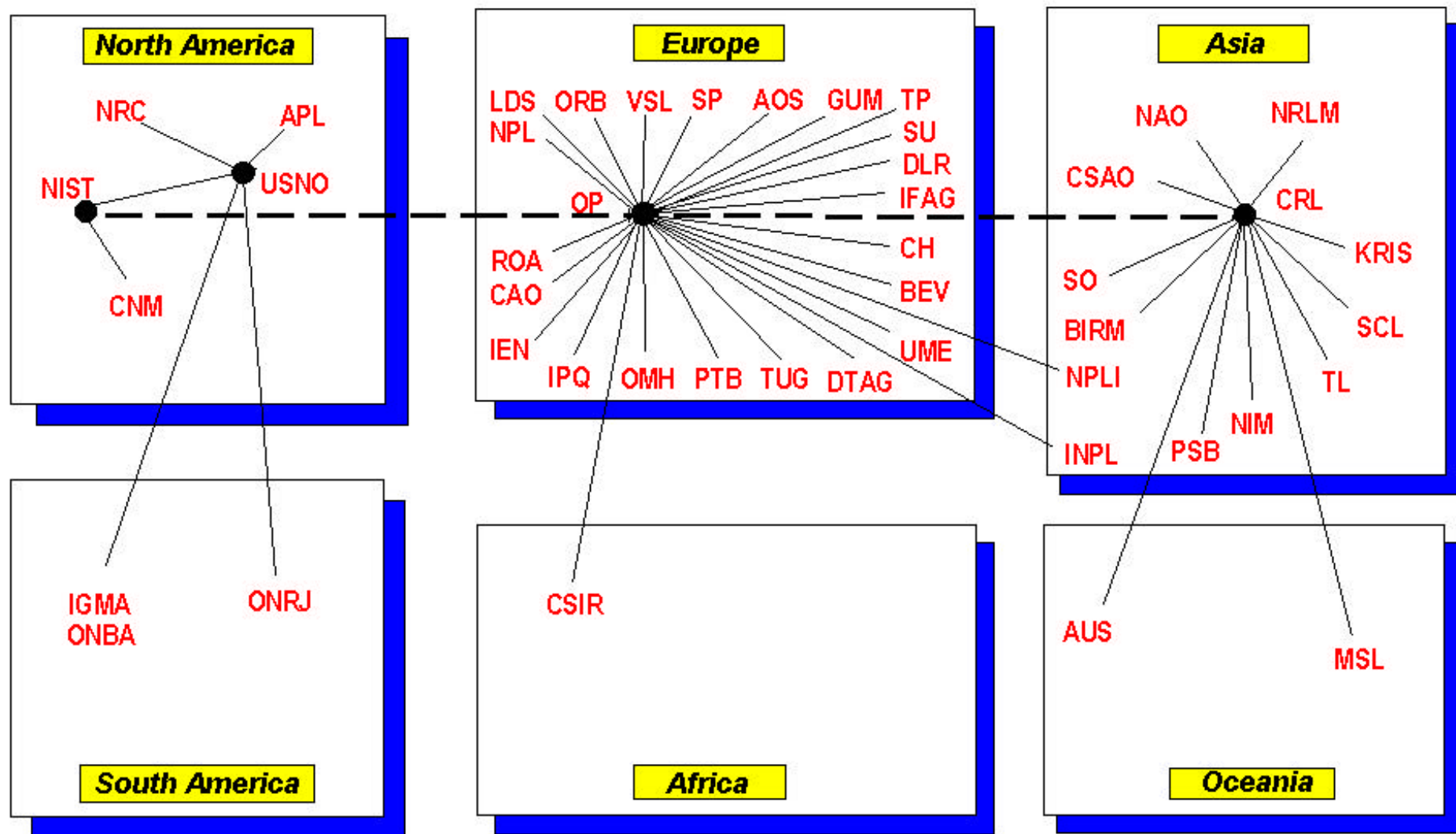
$$Y = [UTC(NPL) - UTC(PTB)]_{twstft-gps}$$



# FREQUENCY STABILITY

UTC(NPL)-UTC(PTB)

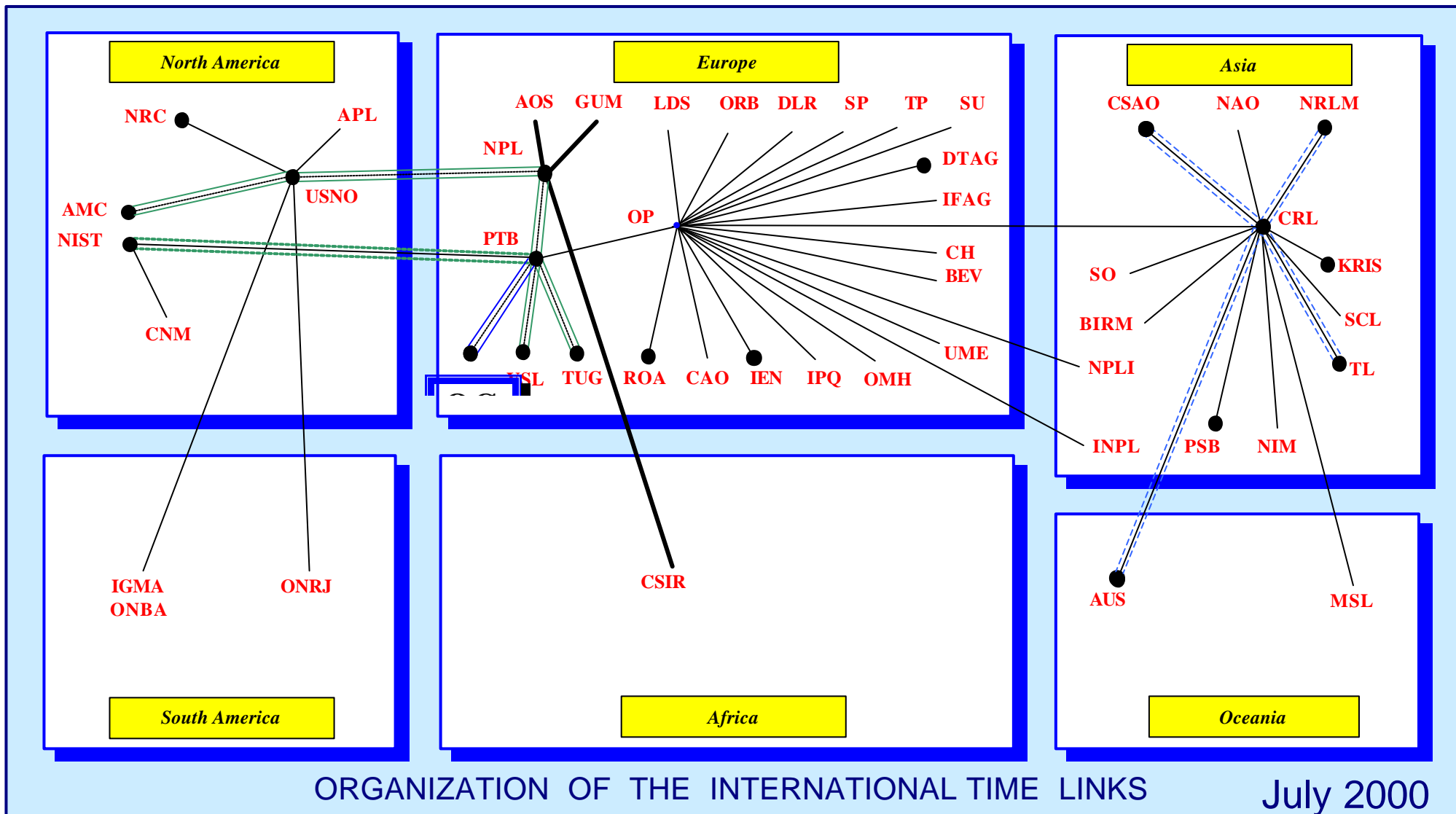




June 1999

## ORGANIZATION OF THE INTERNATIONAL TIME LINKS

- GPS common-view
- - - GPS common-view (corrected with IGS precise ephemerides and ionospheric measurements)



- TWSTFT
- TWSTFT back-up link
- TWSTFT link in preparation for introduction into TAI
- ==== OCA/PTB link not used for computation of TAI
- Laboratory equipped with TWSTFT

- GPS CV single-channel
- GPS CV single-channel back-up link
- GPS CV multi-channel

TUG operational until June 2000



## **SUGGESTIONS FOR NEW TWO-WAY LINKS IN TAI**

**Recommendation S 7 (CCTF 1999) :**

**Second recommends :**

**that necessary studies be undertaken to allow the  
incorporation of TWSTFT data into the construction of TAI  
and that be implemented as soon as practical**

**AUS / CRL LINK**

**NRLM / CRL LINK**

**CSAO / CRL LINK**

**AND OTHERS LINKS IN PACIFIC RIM**