

TL status Report

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12-13 Sep. 2011
NMIJ
AIST, Tsukuba, Japan



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Clocks and Time Scales

➤ **Cesium clocks ensemble:**

Symmetricom 5071A (high performance tube) × 13

-Running: 13 clocks

-Under fixing: 1 clock

TA(TL) is generated by 12 Cs-Clocks

➤ **Active H-masers:**

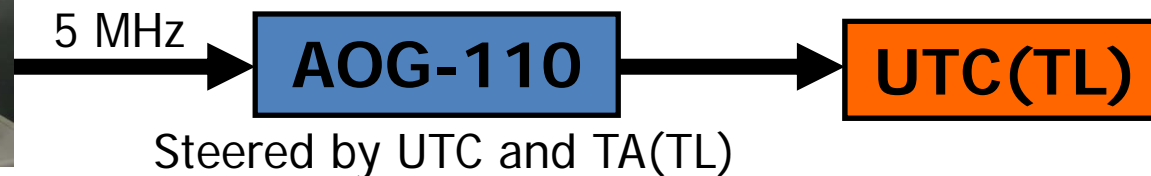
Kvarz CH1-75 × 2 (without CAT)

iMaser-3000 (with CAT, under fixing)

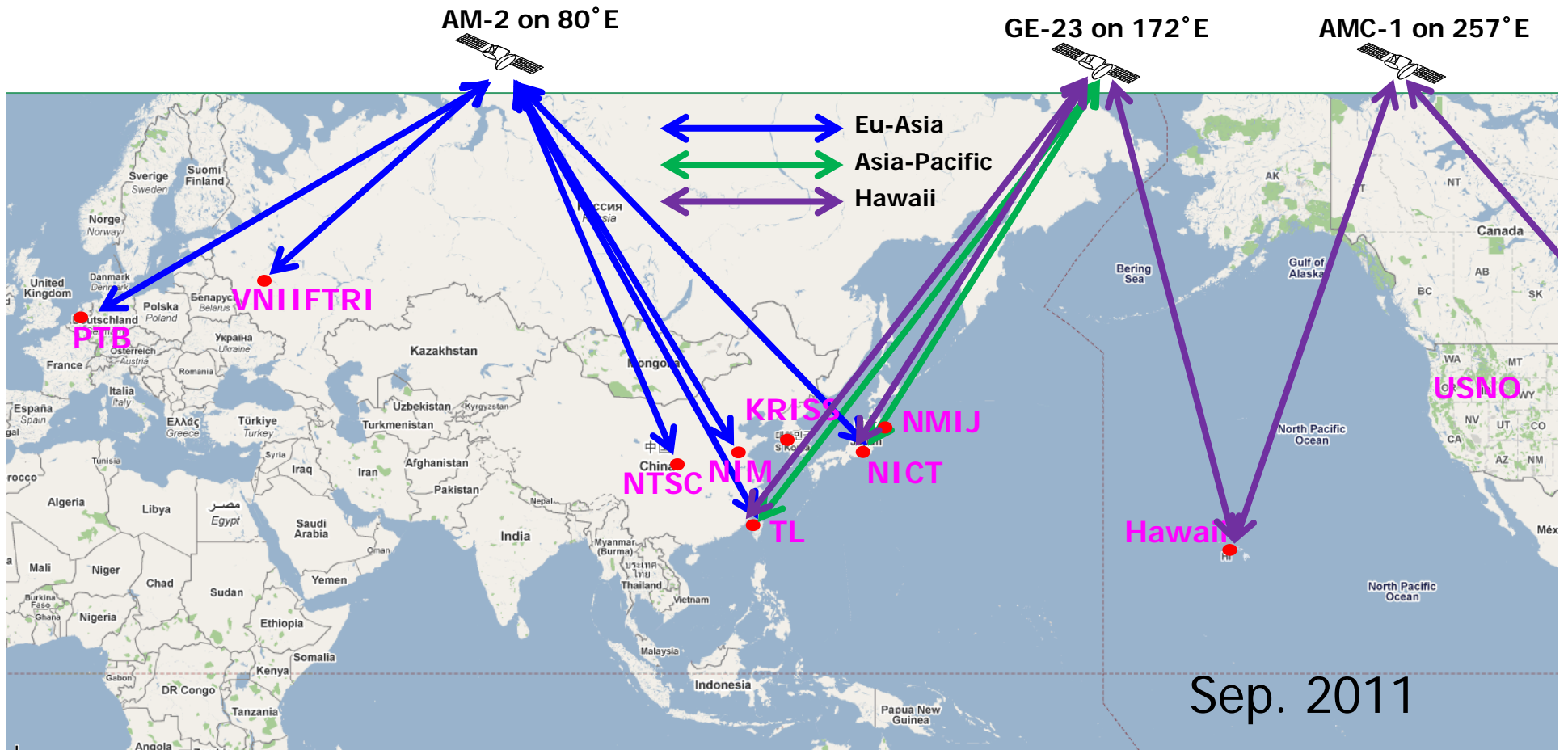
➤ **Time Scale:**



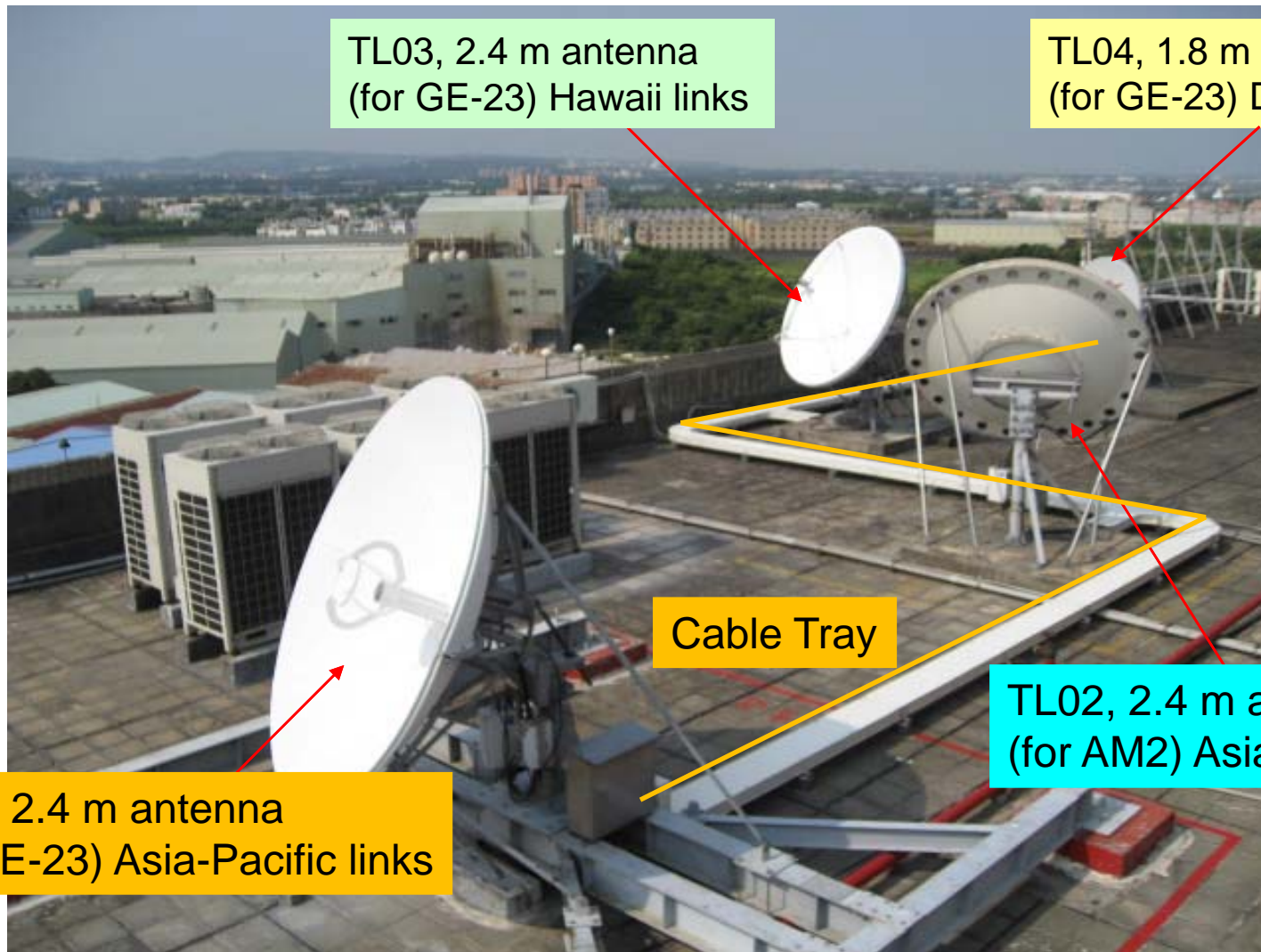
HM6052



TWSTFT Links



Antenna Dishes



TL03, 2.4 m antenna
(for GE-23) Hawaii links

TL04, 1.8 m antenna
(for GE-23) DPN

Cable Tray

TL01, 2.4 m antenna
(for GE-23) Asia-Pacific links

TL02, 2.4 m antenna
(for AM2) Asia-Eu links



TWSTFT facilities

Station	TL01	TL02	TL03	TL04
Link	Asia-Pacific Network	Asia-Eu Network	Hawaii Link	DPN
Satellite	GE-23	AM-2 (will switch to AM-4)	GE-23	GE-23
Antenna	2.4 m	2.4 m	2.4 m	1.8 m
Transceiver	CODAN 5900	CODAN 5900	CODAN 5900	CODAN 5900
Band	Ku, band3	Ku, band1	Ku, band3	Ku, band3
Modem	NICT modem (multi-channel)	Satre 66 (single channel)	Satre 63 (two channels)	AWG and Sampler
Participants	NICT	PTB, NIM, NTSC, NICT, VNIIFTRI	NICT, KPGO	NICT
Internal delay measurement	SR620	SR620	SR620	N/A

TWSTFT Events in 2011

Asia-Pacific network:

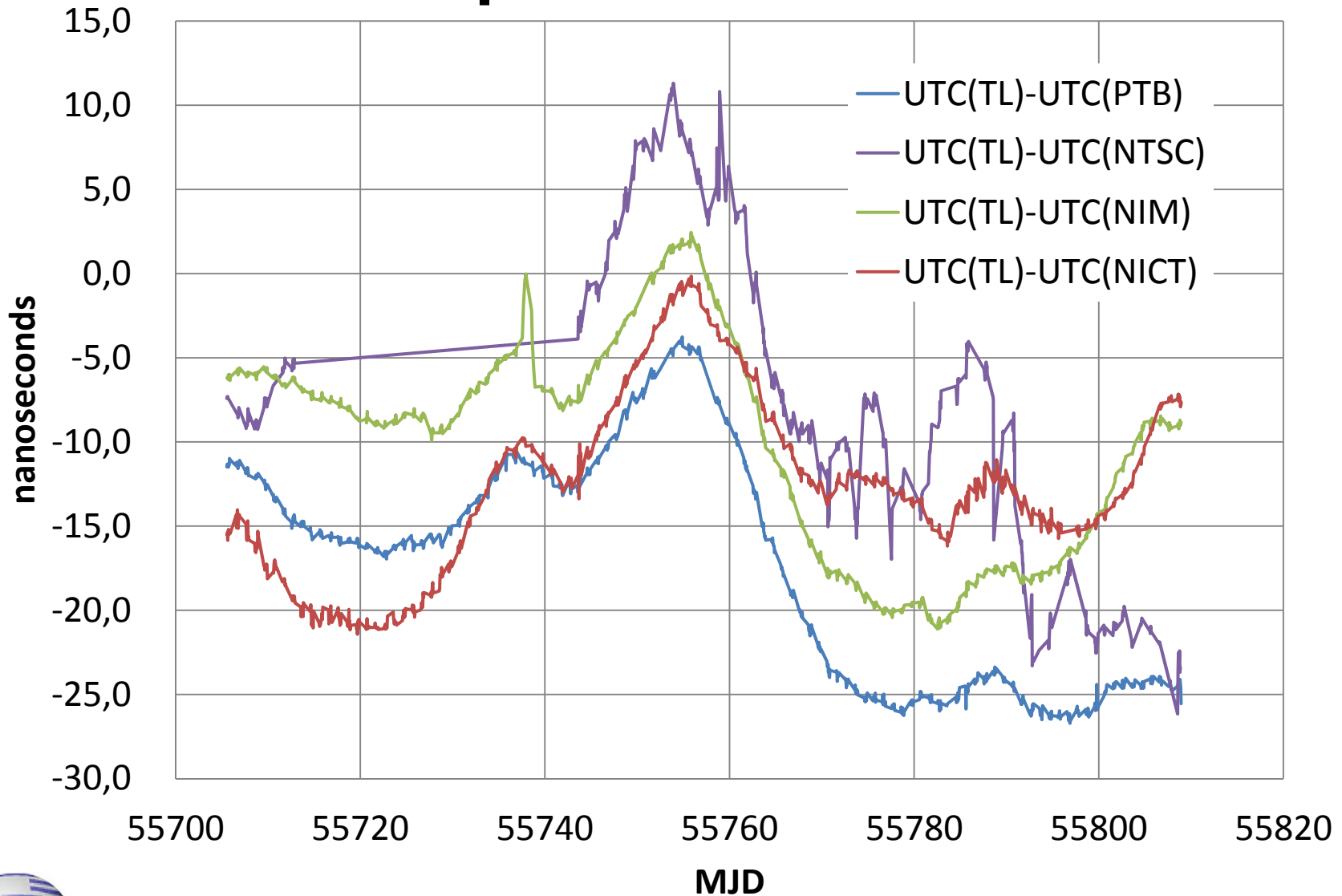
- IS-8 reached its end of life on Mar. 31
- Satellite has been switched to GE-23
- Perform 24 hours in a day
- **Continuous experiment with NICT**

Asia-Europe network:

- Satellite has been switched to AM-2
- Perform 10 hours in a day
- Replace LNB to lock external reference
- **Continuous experiments with PTB, NICT, NIM, NTSC and VNIIFTRI**



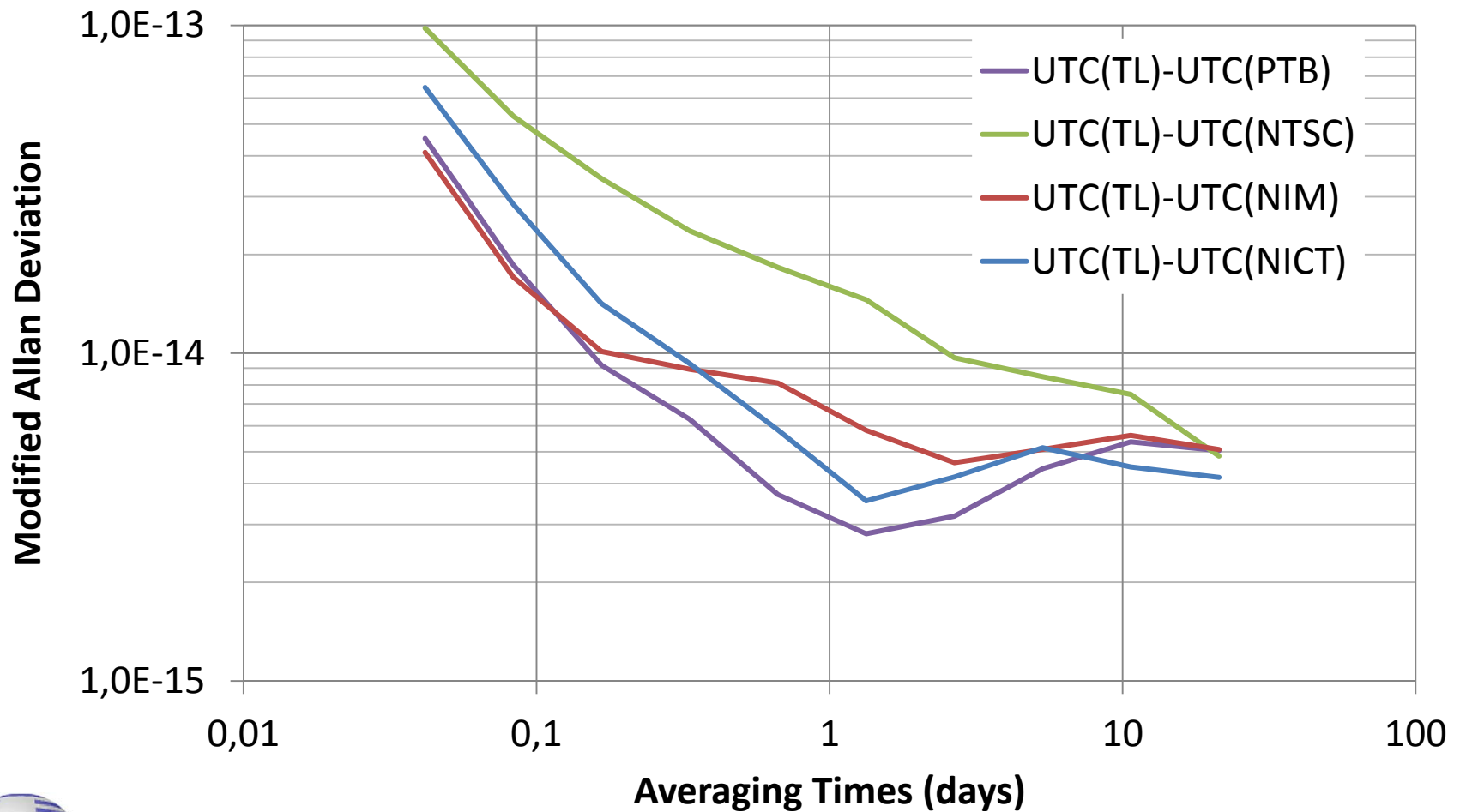
Asia-Europe, MJD 55705 ~ 55805



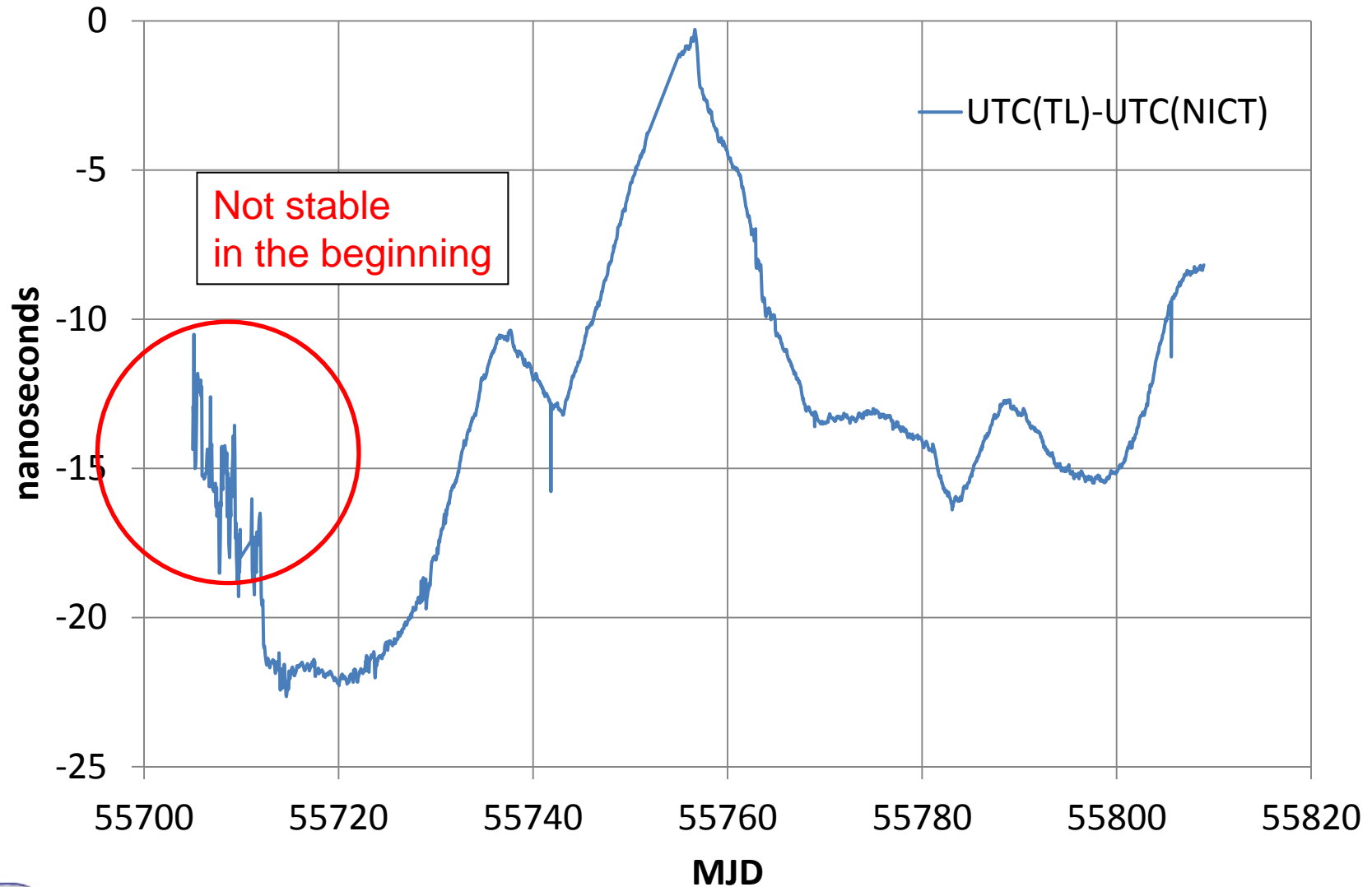
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*Data were agreed with Cirt. T on 55744

Asia-Europe, MJD 55705 ~ 55805



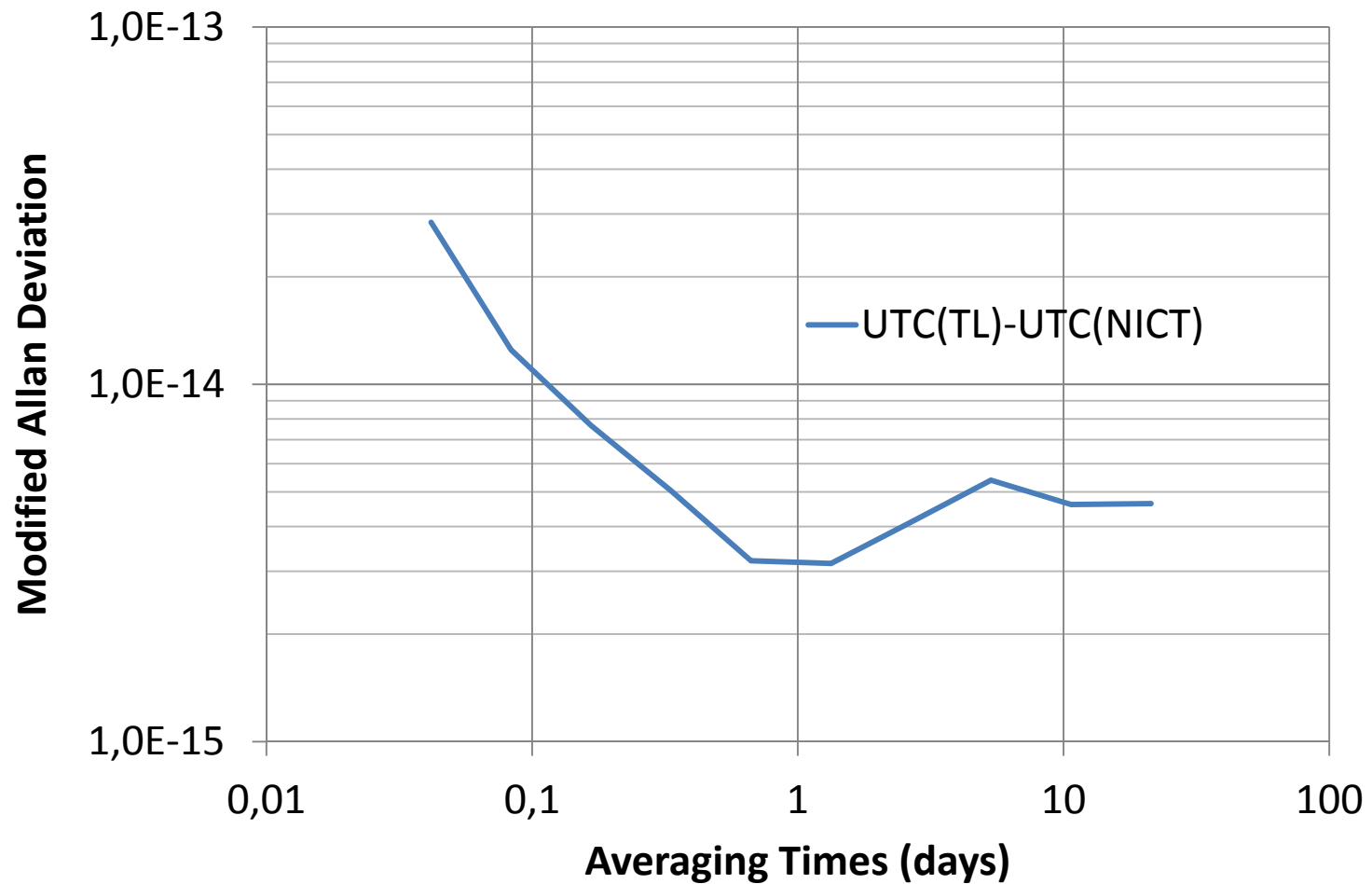
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Welcome to Visit TL

TL's FTP:

- <ftp://ftp.stdtime.gov.tw/pub>
- Username : anonymous, port : 21
- For TWSTFT, 1s and supplement data are available
- For GNSS, RINEX and CGGTTS data are available

TL's Website:

- <http://www.stdtime.gov.tw/english/e-home.aspx>
- News announcement

National Time and Frequency Standard Laboratory

Home | Chinese

Introduction | Clocks and Time scales | Time Dissemination | Time and Frequency Transfer | Other Research Activities | International Activities

For Time & Frequency

Web Sites of T&F

- BIPM
- IERS
- CHITL
- TL T&F FTP Server

Download

- NTP Clock Software (Win95/98/2000/NT&P)

National Standard Time : 2011/09/07 09:53:35 (Notes on National Standard Time)

National Time and Frequency Standard Laboratory
Telecommunication Laboratories (TL)
ChungHwa Telecom Co. Ltd.

In order to cater for the demand of the industrial development and the continuous economic growth in our country, our laboratory, entrusted by BSMI of MOEA, is devoted to establishing and keeping the national highest standard of time and frequency so as to ensure the agreement of accuracy of measurement and calibration. Besides, our laboratory is measuring up to the international standard to provide itself as the tracing source for domestic measurement and calibration, which of the goal is to upgrade domestic industries and promote the technology research.



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Future Works

- The Hawaii link may start in the near future
- NICT-TL link would restart DPN at the beginning of 2012 with new frequency allocation and parameters

Thanks for your attention!

