

Report on the GSI VLBI Activities

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Routine Operations: Observation

Observation Plan for FY2014

- Tsukuba-32m
 - 1-hour Intensives : 148
(Every Mon., Sat., Sun.)
 - 24-hour Sessions: 78
(Including CONT and JADEs)
- Aira 10-m & Chichijima 10-m
 - 24-hour Sessions: 14 (Including JADEs)



Routine Operations: Correlation and Analysis

- JADEs (Japanese Domestic Sessions)
 - 5 sessions in FY2014
 - Baselines including 2 VERA stations and 3 NICT stations
- Intensives
 - 107 sessions for UT1 measurements
 - Automated Processes in weekends
- GSI VLBI Solutions
 - Two global solutions (Sep. and Mar.) in this FY

CONT14

- 15-days Continuous VLBI campaign from 6 May
- 17 Stations (7 in southern hemisphere)
- Half data e-transferred (Including Tsukuba) to Bonn



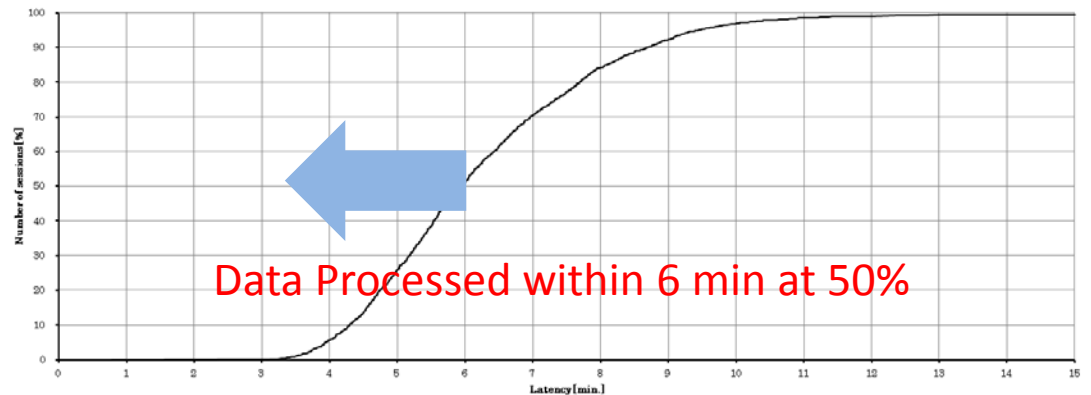
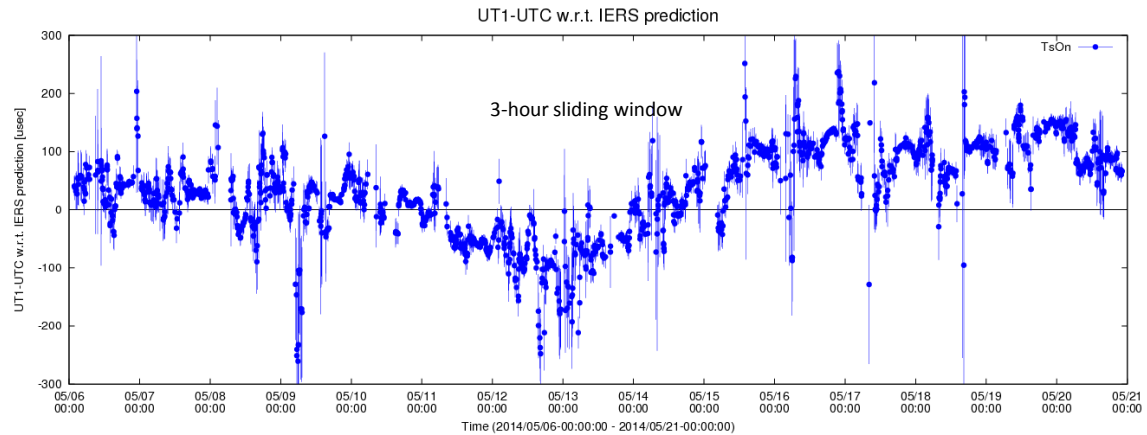
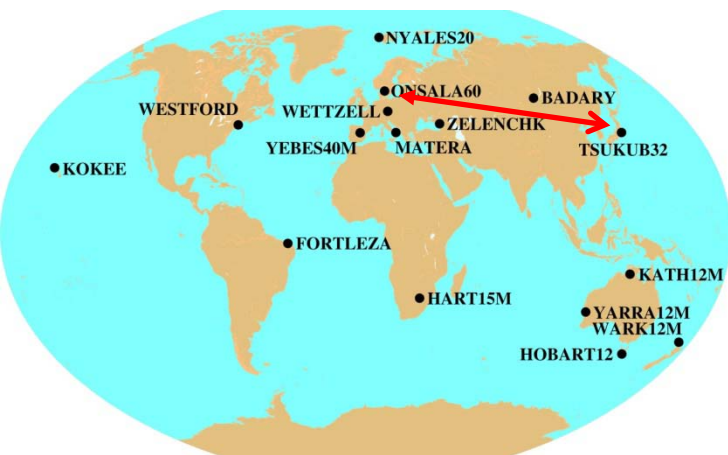
CONT14 (Cont.)

- 512Mbps (256Mbps for usual IVS sessions)
- Tsukuba observed 8000 scans in total
(i.e. ~2.5 min interval with ~25 sec rec.)
- Tsukuba also observed INT2 (weekends) during CONTs (downtime)
- Switching sessions in Unmanned Operation
- No Serious Problem

CONT14 (Cont.)

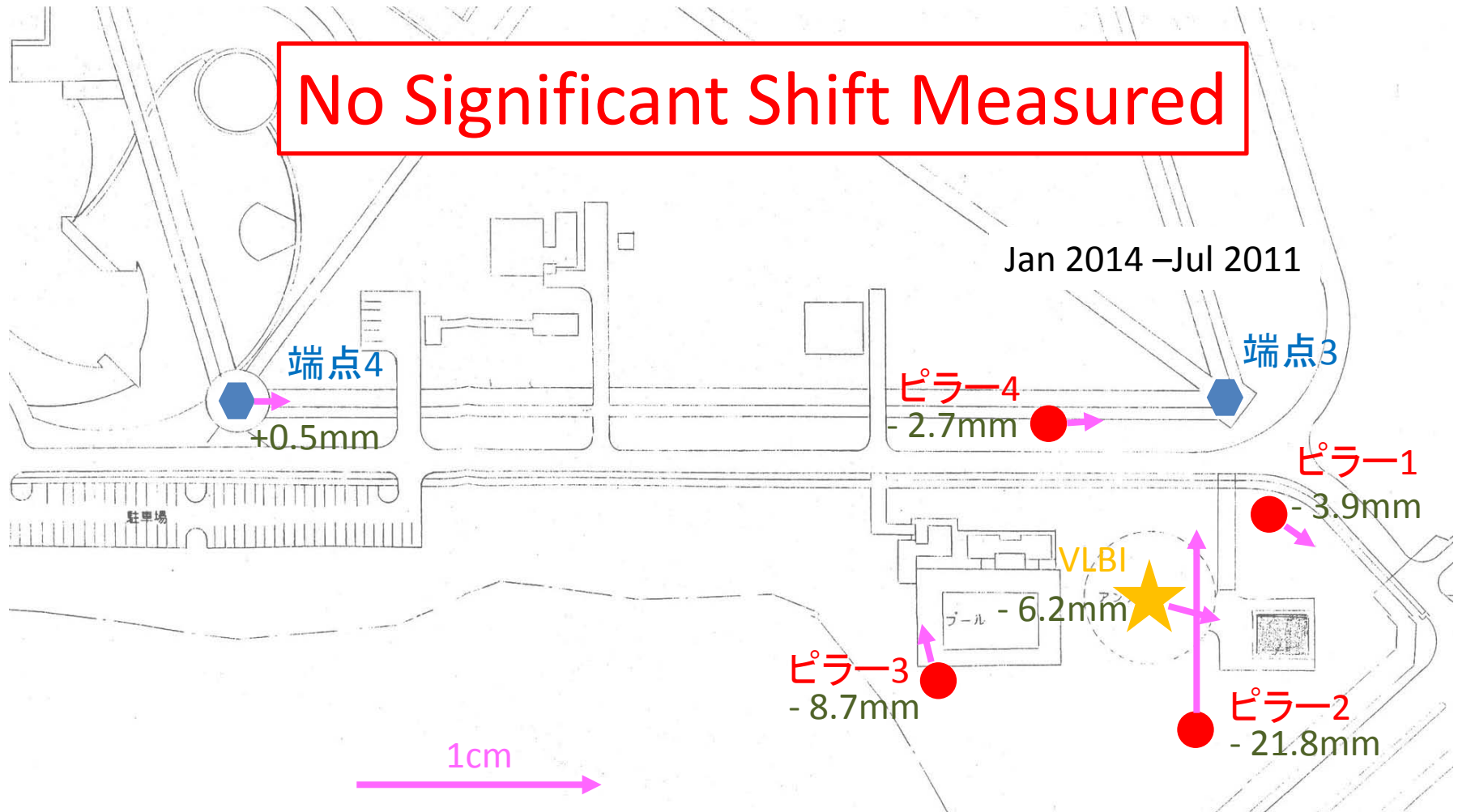
- Ultra-rapid EOP Determination by GSI
- Onsala data e-transferred and processed **automatically**

Tsukuba-Onsala Baseline



Position Shift By Tsukuba-32m Repair

No Significant Shift Measured



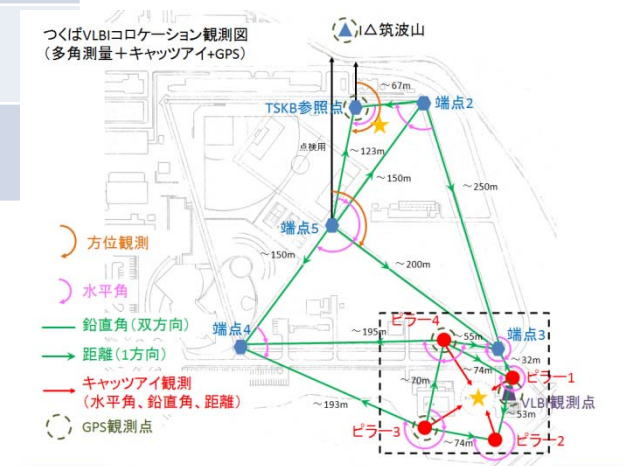
※ Antenna height change by temp. diff. :
 $dh = 17m \times 17 \times 10^{-6} / K \times 20 K = 6 \text{ mm}$

Local-Tie for Three Station

Year, Month	Site	σ for Baseline	Submission to IERS	Contribution to ITRF
2001, Mar.	Tsukuba	---	Yes	ITRF2005
2006, Oct.	Chichijima	1.4 mm	---	---
2008, Feb	Tsukuba	1.0 mm	Yes	ITRF2008
2008, Oct.	Aira	2.3 mm	Yes	ITRF2013?
2010, Sep.	Shintotsukawa	0.4 mm	Yes	ITRF2013?
2011, Jul.	Tsukuba	1.1 mm	Yes	ITRF2013?
2013, Feb.	Chichijima	1.0 mm	Yes	ITRF2013?



Submitted to IERS in Feb 2014



Very Very Recent Topics

- Inauguration of Ishioka VGOS Station on 28 Oct.



Very Very Recent Topics

- IVS Board Meeting on 27 Oct.
 - Held twice per year
 - 16 Directing Board Members
 - Determine policies, standards, and goals of IVS
 - Held in Tsukuba 12 years ago
- This Symposium of course

iGOS, It's Plan

Ishioka Geodetic Observing Station (iGOS) for GGOS

- VGOS telescope in Ishioka

- 2014.3
 - New 13-m Telescope Constructed
- FY 2014
 - Tentative Observation (System Integration)
- FY 2015-2016
 - Legacy S/X Observation
- FY 2017-
 - Full VGOS Observation

GSI Regional Stations

- GNSS could take over Monitoring Plate Motions around Japan from VLBI (Takashima+13)
- Sintotsukawa
Operation was Finished in 2013
- Aira & Chichijima
Operation will be Finished in FY2014
- No JADE in FY2015



Asia-Oceania VLBI Group for Geodesy and Astrometry (AOV)

- Subgroup of IVS (c.f.EVGA)
- ToR established in this September
- 12 Institutes: 4 in JP (GSI, NAOJ,NICT,NIPR)
2 in KR, 3 in CN, 3 in AU, 1 in NZ
- Jim Lovell elected to Chair
- Jim appointed RK Secretary
- GSI actively involved in AOV

AOV Activities have just Started !!

Thank you

