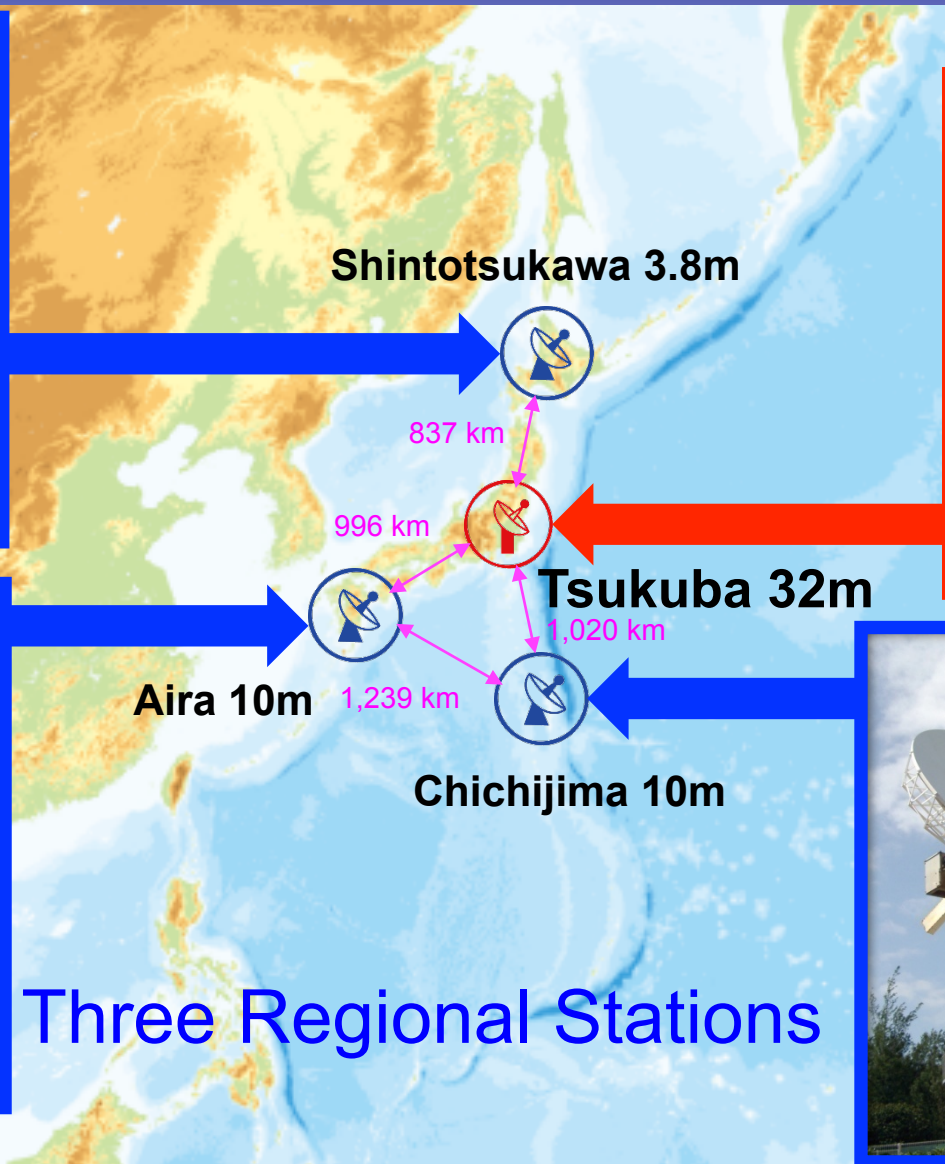


GSI's Regional Stations and AOV Activities

Ryoji KAWABATA and Takahiro WAKASUGI
Geospatial Information Authority of Japan (GSI)

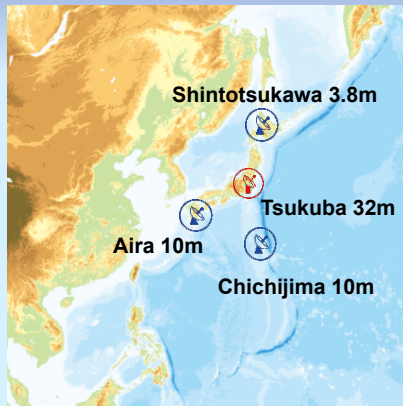
GSI's Stations



Main Station



GSI's Stations



Station		Tsukuba	Aira	Chichijima	Shintotsukawa
Diameter		32 m	10 m	10 m	3.8 m
Slew Rate	AZ	3 deg/s	3 deg/s	3 deg/s	2 deg/s
	EL	3 deg/s	3 deg/s	3 deg/s	1 deg/s
SEFD	X	300 Jy	12,000 Jy	12,000 Jy	140,000Jy
	S	400 Jy	8,000 Jy	8,000 Jy	100,000Jy
Operation		1998 ~	1997 ~	1997 ~	1995 ~

Operation of Regional Stations

- Unmanned Operation
 - Operated Remotely from Tsukuba with limited network (128kbps)
 - Media shipped to Tsukuba by janitors
 - Monthly Regular Observation
 - Monitoring Plate Motions around Japan
- ⇒ JADE sessions

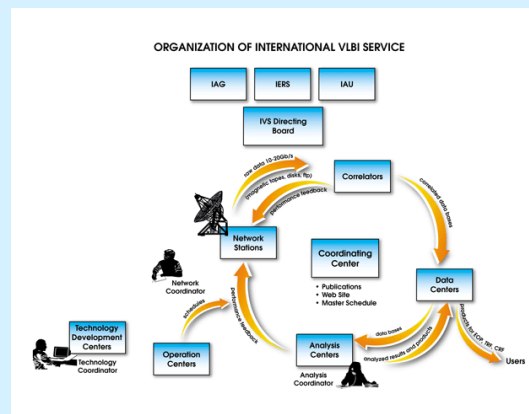


JADE Sessions

- Japanese Domestic Sessions since 1996
- To Monitor Plate Motions
- Tsukuba + GSI's Regional Stations + NICT, NAOJ
- 152 sessions in 20 years
- Scheduled, Correlated, Analyzed by GSI
- Maintaining Operation Technique

Number of Regular JADE sessions

Year	JADEs	Year	JADEs
1996	3	2006	12
1997	4	2007	11
1998	6	2008	9
1999	6	2009	7
2000	4	2010	9
2001	7	2011	8
2002	7	2012	8
2003	11	2013	9
2004	12	2014	5
2005	12	2015	2



Contribution of Regional Stations

- To Monitoring Plate Motions
- To Maintaining Operation Technique through JADEs

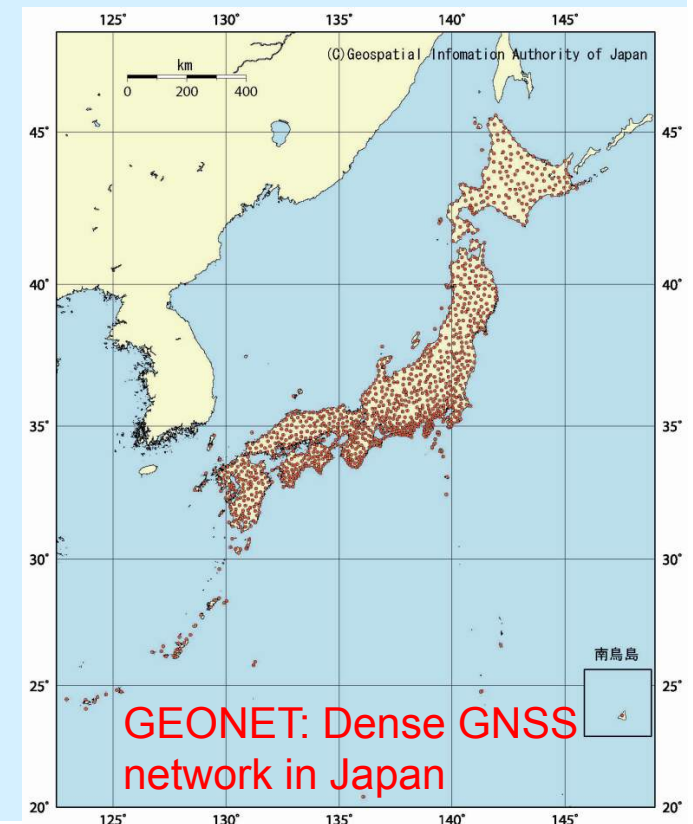
In Addition,

- To ITRF with Local Ties
 - Collocated with IGS Stations
 - Local ties in three stations submitted to IERS
- To Check and Backup of Tsukuba
 - Aira observed R1 instead of Tsukuba in 2014
- To Test-Operation of ADS3000+ with DBBC
 - New sampler to replace aging backend
 - Operational Knowhow helpful for Ishioka operation (in S/X)



However

- Aging System (Almost 20 Y/O)
- Operation of New VGOS Antenna in Ishioka
- GNSS can support Monitoring



GSI's Regional Stations from 2015

- Operation of regional stations Ended by March 2015
- Hydrogen Masers Stopped
- Dismantling Reflector of Chichijima for Safety



JADE Sessions from 2015

- No regular JADE Sessions from March 2015
- Several sessions only for Ishioka-Tsukuba Tie

SESSION NAME	SESSION CODE	DATE mondd	DOY ddd	TIME hh:mm	DUR hr	STATIONS	SKED	CORR
JADE-1501	JD1501	JAN22	22	02:00	24	AiCcKlKbKgTsVm -Vs	GSI	GSI
JADE-1502	JD1502	FEB19	50	02:00	24	AiCcIsKlKbKgTsVmVs	GSI	GSI
JADE-1503	JD1503	MAR05	64	02:00	24	AiIsTs	GSI	GSI
JADE-1504	JD1504	MAR12	71	02:00	24	AiIsTs	GSI	GSI
JADE-1505	JD1505	APR23	113	02:00	24	IsKgTs	GSI	GSI

- Losing opportunity of Scheduling and Correlation
⇒ Difficult to maintain operational technique

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

- IVS Subgroup newly established in 2014
c.f. EVGA in Europe
- Fostering Cooperation in this region
- Chair: Jim Lovell, Secretary: RK
- Six Regional Sessions in 2015
- For more detail, see Poster (P2-02) and
Web Site (<http://www.spacegeodesy.go.jp/vlbi/AOV/>)



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

- Good opportunity for GSI after loosing regional stations
- Tsukuba and Ishioka participating in all AOV sessions instead of JADEs
- GSI's Contribution in Scheduling and Correlation

SESSION NAME	SESSION CODE	DATE mondd	DOY ddd	TIME hh:mm	DUR hr	STATIONS	SKED	CORR
AOV001	AOV001	MAR21	80	00:00	24	AiHbIsKlKeKgKmShTsUrWwYg	UTAS	SHAO
AOV002	AOV002	APR30	120	19:00	24	HbIsKeKvSyTsVmWwYg	GSI	GSI
AOV003	AOV003	MAY17	137	00:00	24	HbIsKlKeKgKmPaT6TsVmWwYg	UTAS	GSI
AOV004	AOV004	AUG26	238	18:00	24	HbIsKbKeKvShTsWwYg	SHAO	NGII
AOV005	AOV005	SEP26	269	00:00	24	HbIsKlKbKeKgTsUrVmWwYg	GSI	NGII
AOV006	AOV006	DEC16	350	18:00	24	HbIsKbKeKmKvShTsUrWwYg	SHAO	SHAO

⇒ maintaining operational technique
without regional stations !!



Summary

- GSI's Regional Stations stopped VLBI Operation in 2015
- No regular JADE Sessions from this March
- GSI is contributing to AOV in Observation, Scheduling, Correlation, and other

Thank you !!
Good bye ...

