IGS Network Issues
2004 - 2006

Update Since Bern, March 2004

Bob Twilley, Geoscience Australia

Angelyn Moore, IGSCB/JPL

IGS Workshop Darmstadt, May 2006
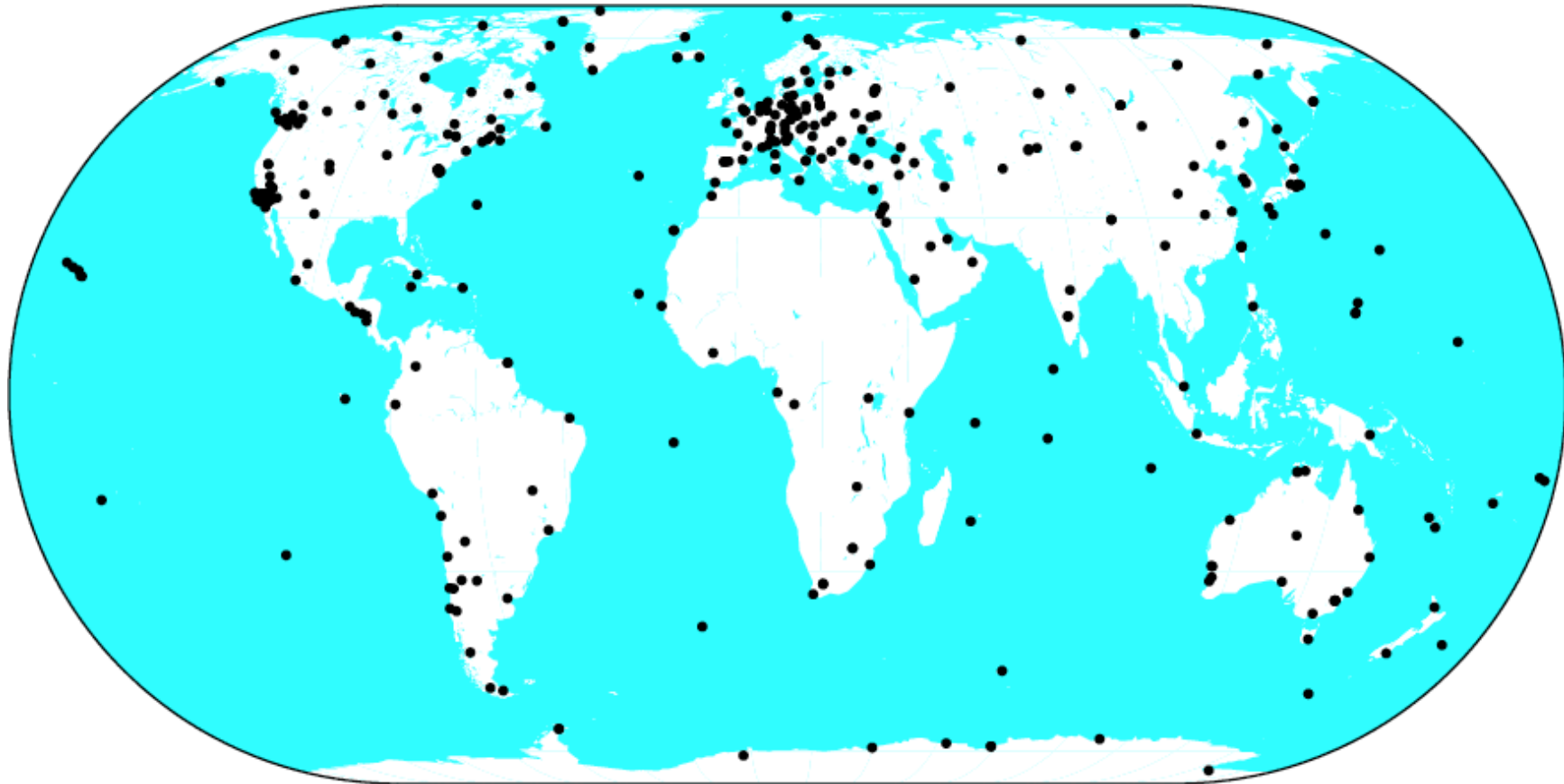
IGS Network 2006

Network composition statistics:

	2004 (Berne)	2006
Total	364	379
Active	-	333
>3 AC (final)	127	165
Hourly	158	207
Hourly Ref. Frame	-	57
15min 1Hz	44	64
GLONASS	42	49

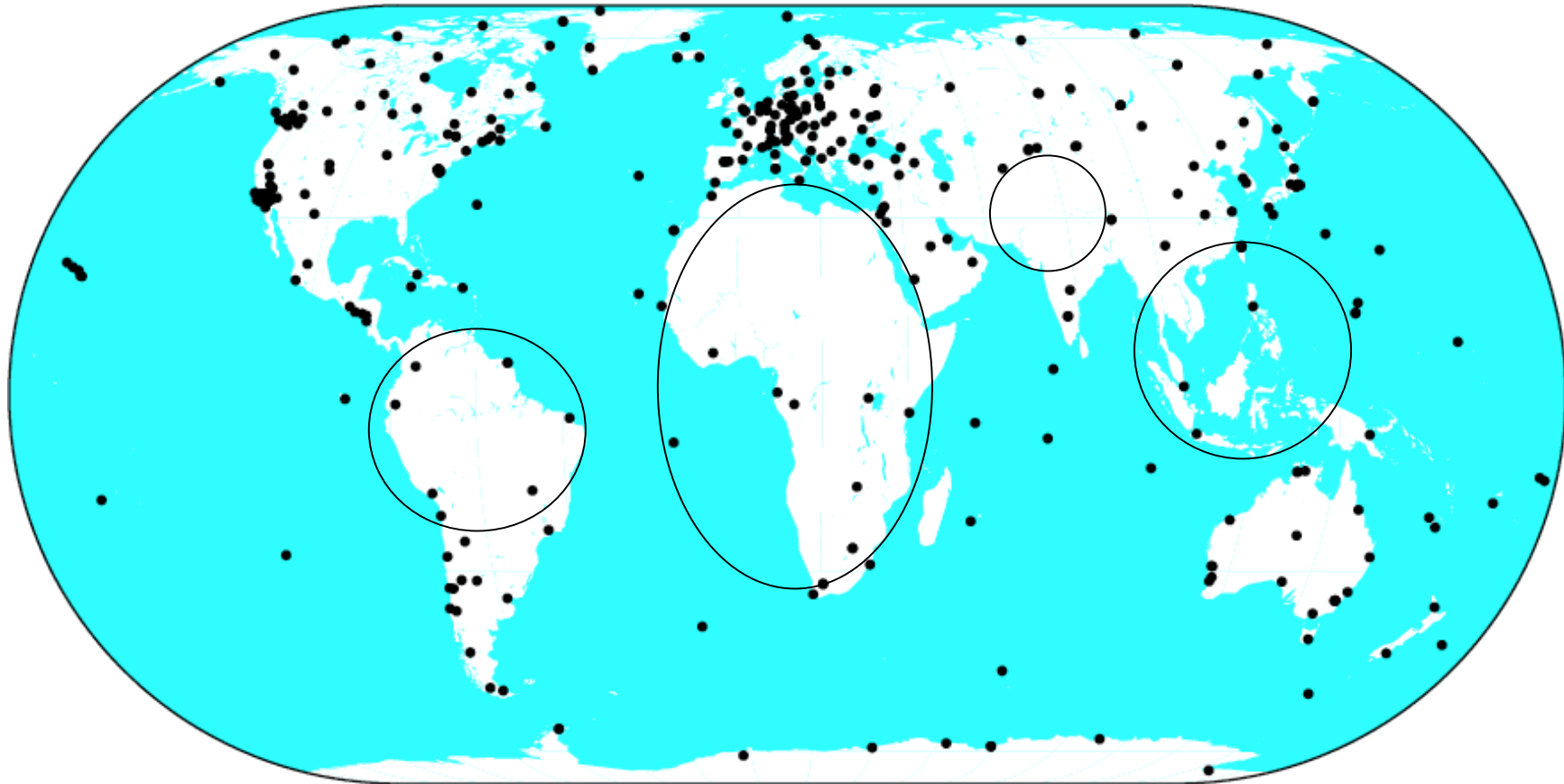End of 2004: 385 stations; End of 2005: 379 stations. First decrease ever.

IGS Network 2006
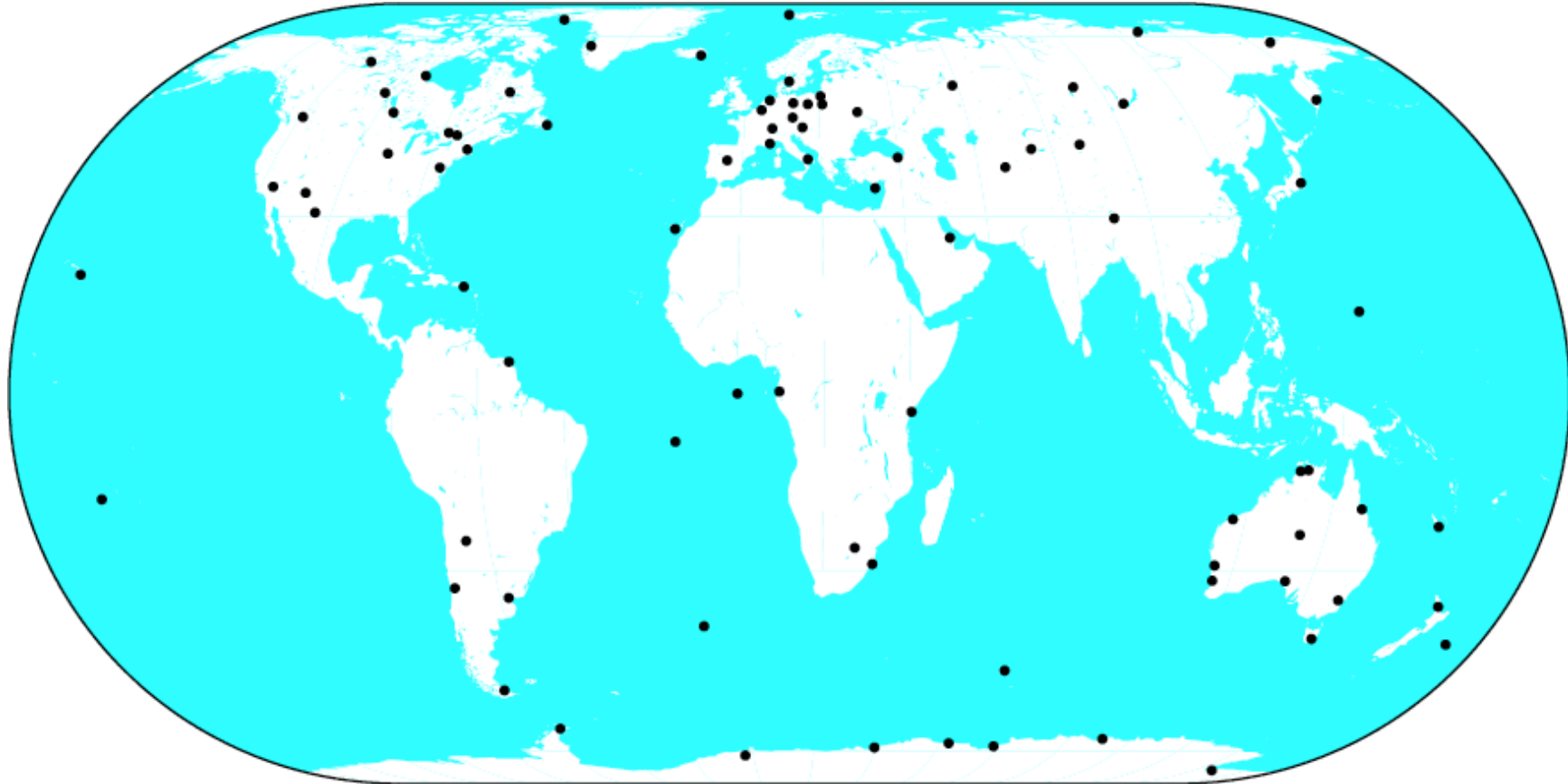
Current Network of 379 Stations

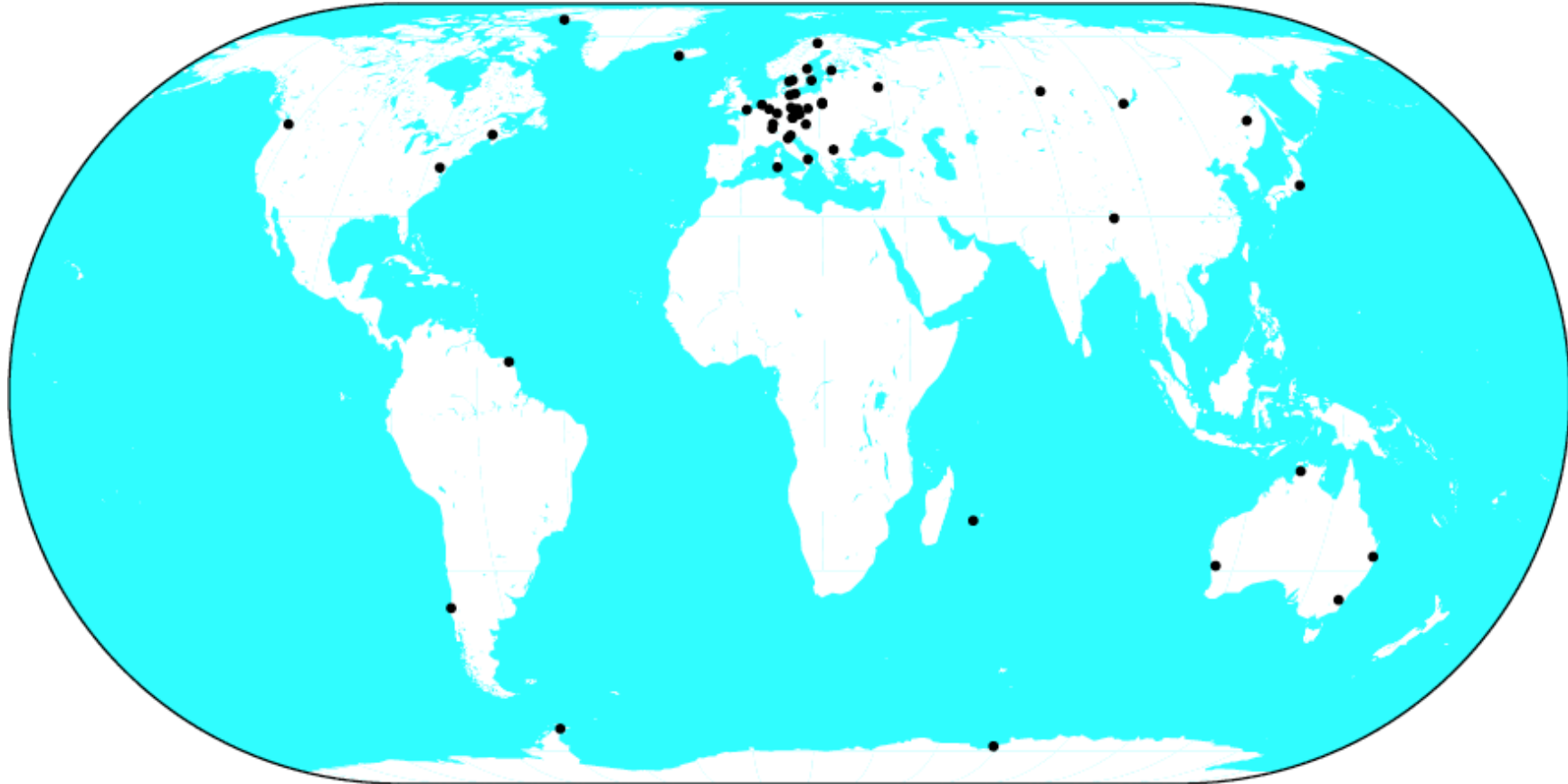# IGS Network 2006

Large Areas Sparsely Covered

GMT 2006 May 3 17:31:03

IGS Network 2006

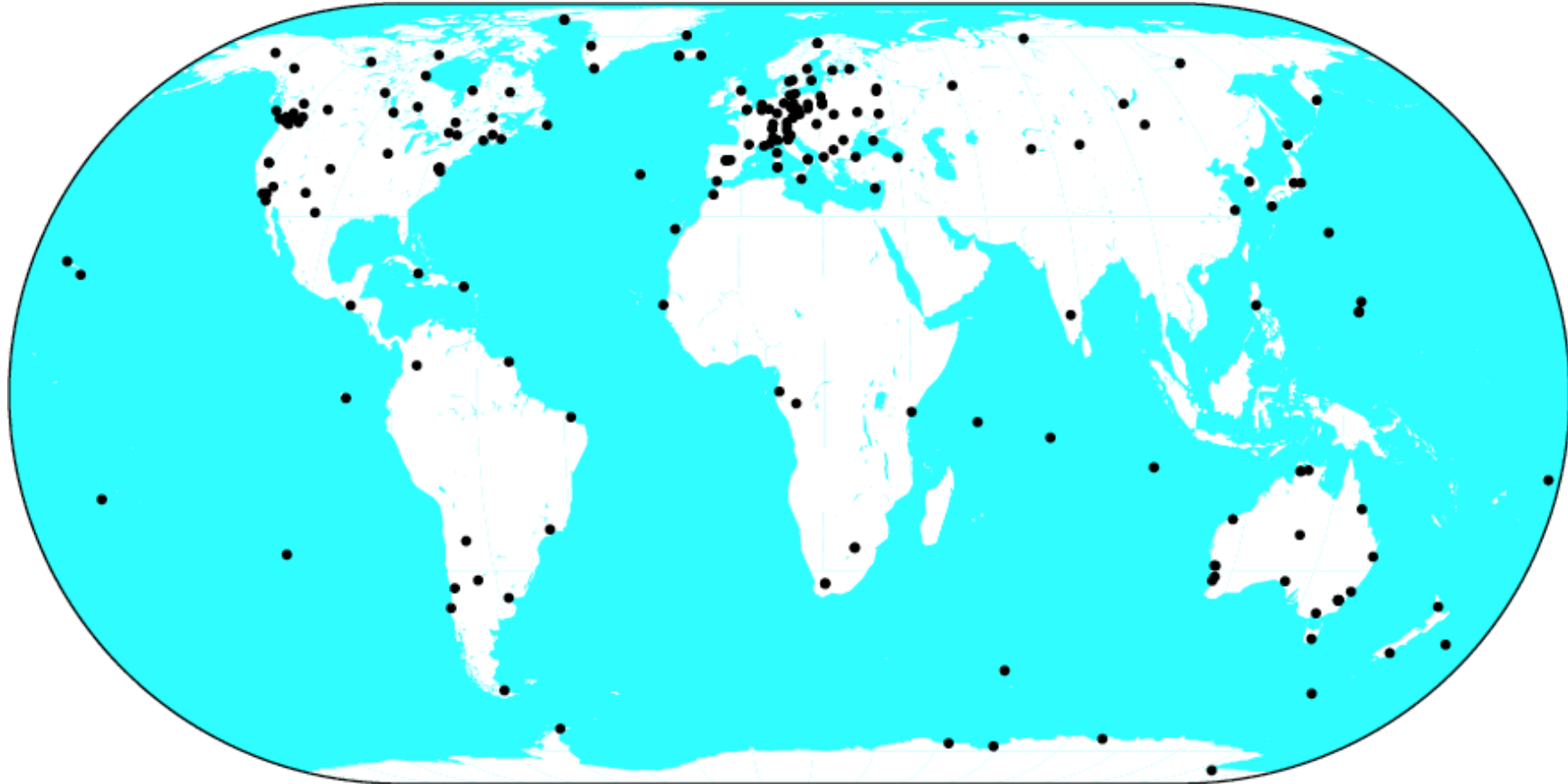# Reference Frame (IGb00) Stations

GMT 2006 May 3 17:34:53

IGS Network 2006

GLONASS stations (49)

IGS Network 2006

Hourly Stations

IGS Network 2006

15min/1Hz Stations (64)

IGS

2006 May 3 17:29:55
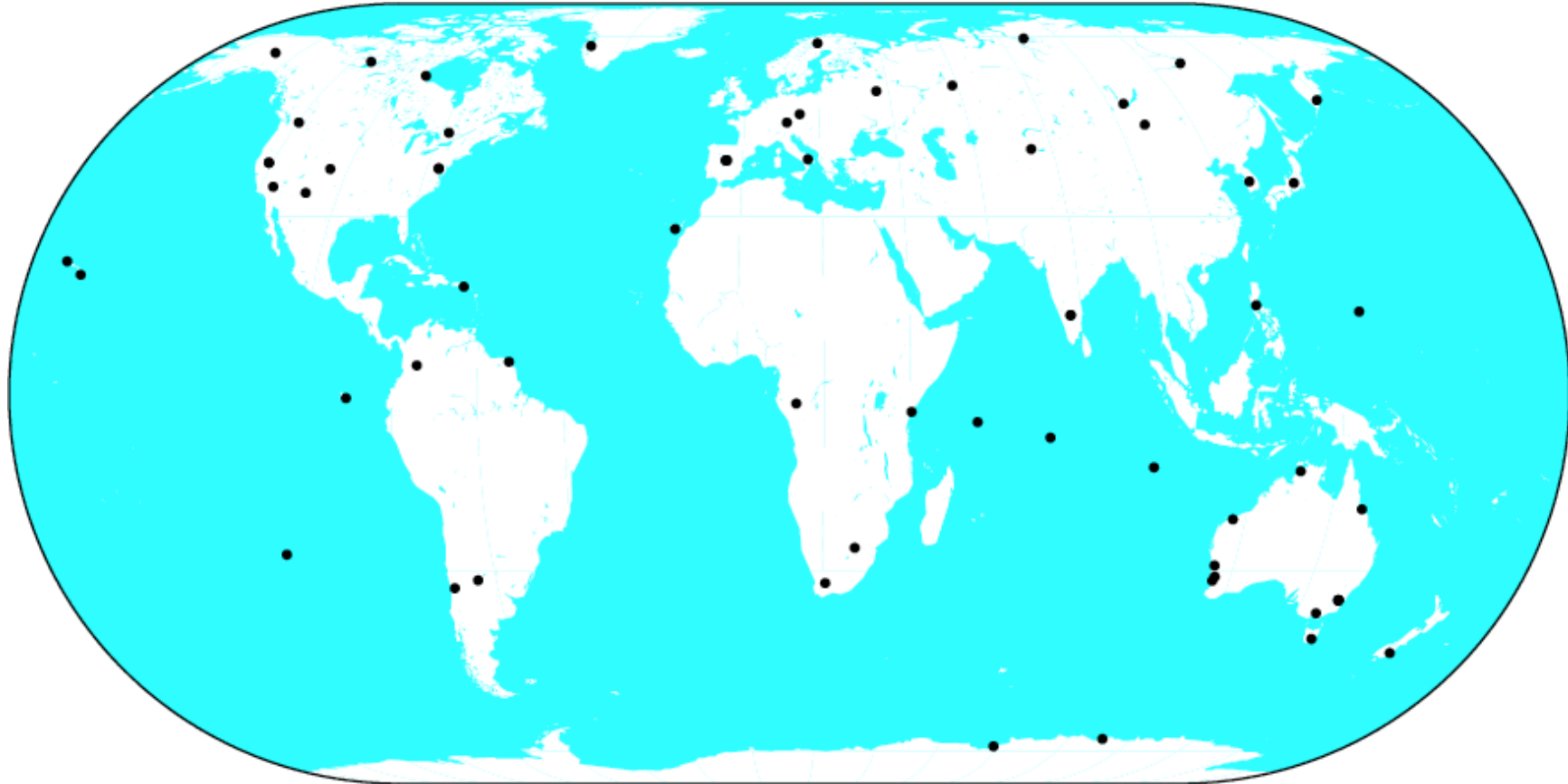
IGS Network 2006

New sites since 2004

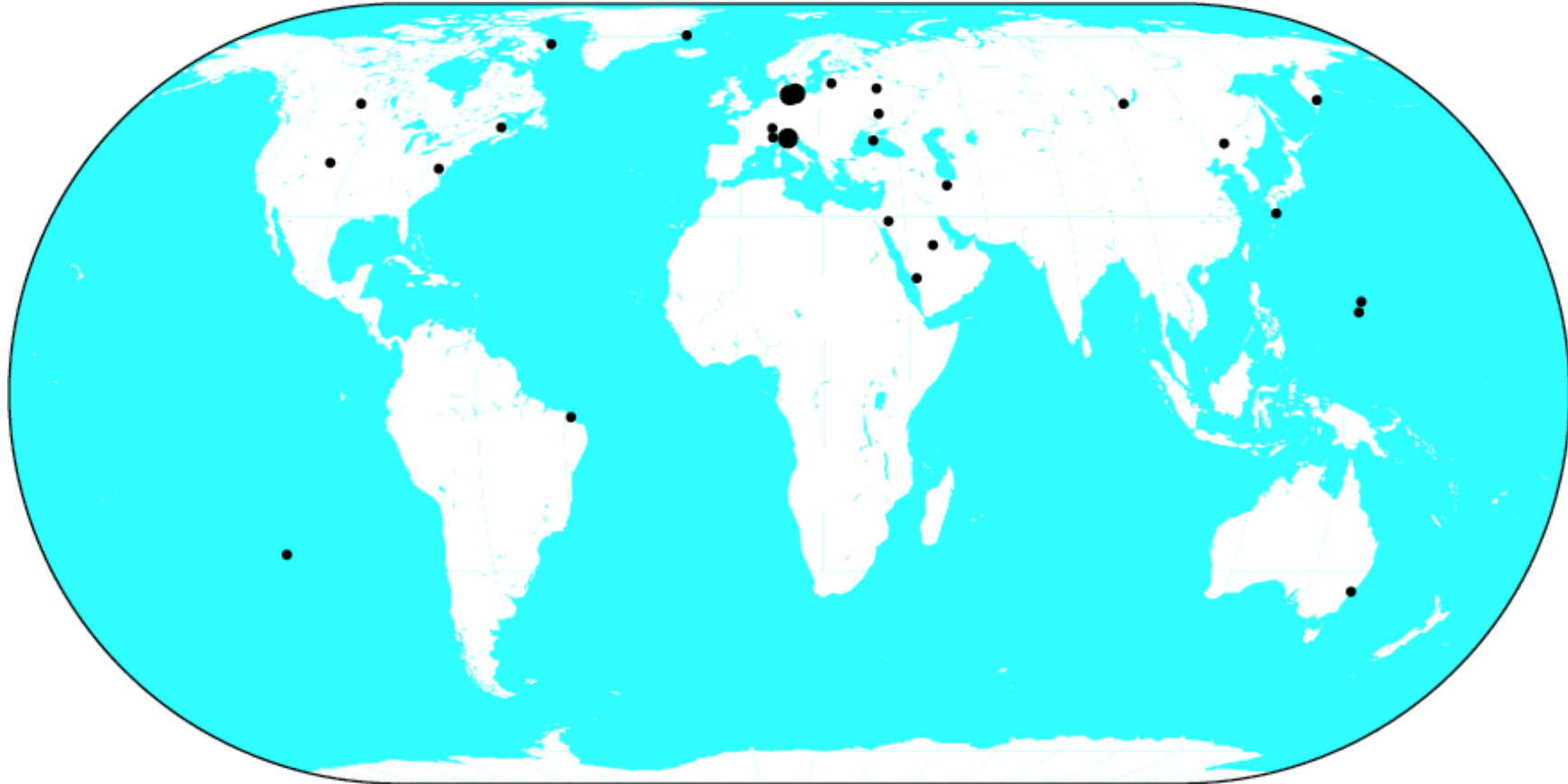- 6 co-located with SLR and/or VLBI
- 8 with H-MASER or national timescales
- >3 GLONASS

- Many of the newest sites are not being analyzed regularly.
- Evidently there is a need for an Analysis Centre priority lists.
- 3 new stations have been offline essentially since they were proposed and added to the network. Very frustrating.
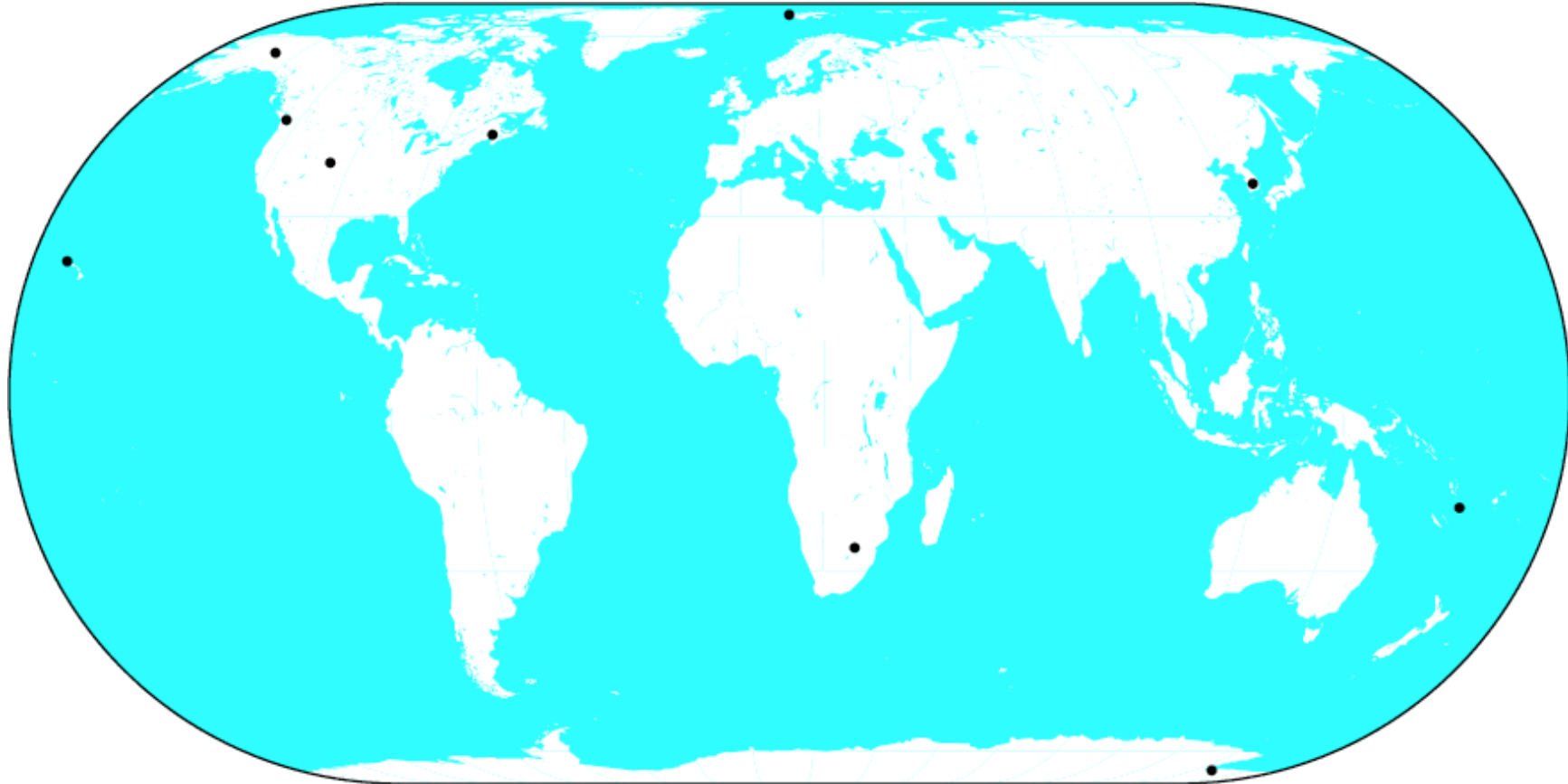
IGS Network 2006

New sites 2004-2006

Large circles= GLONASS

IGS Network 2006

L2C demonstration (9)

2006 May 4 16:30:29

Thanks to those participating

IGS Network 2006

Some topics discussed at Berne 2004

- Site classification (Dormant/Active). Completed ✔
- Metadata uniformity
  - Reprocessing topic – progress is being made. Analysis priority lists are needed to assist with this.
- Site guidelines completed and agreed to. ✔
  - EUREF, NGS, GA, (most likely others) have adopted IGS guidelines as standards with local modifications.
- Splitting of IGSMail into IGSStation & IGSMail ✔
- Former sites should be added to SINEX template
  - Template history on only the current sites (since mid 2000) ✔
  - pursuing 2 former sites identified as priority for reprocessing
  - Other old ones will follow as able

One completed classification

"Dormant" sites (>60 days with no data) are now highlighted (lowlighted?) on the www station lists
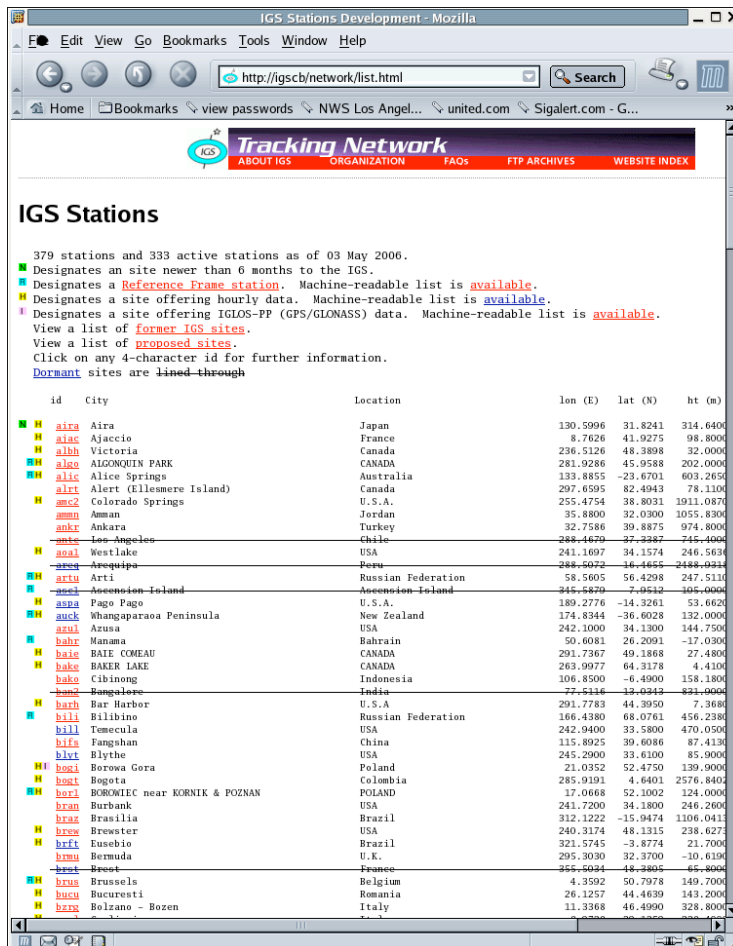
Site	days
Ammn	
Antc	768
Areq	76
Asc1	67
Ban2	139
Brst	90
Casa	157
Cfag	393
Cic1	144
Copo	64
Coyq	
Davr	372
Dubr	139
Dyr2	
Esti	
Gol2	482
Haly	359
Harv	78
Holc	406

Site	days
Ineg	
Iqqe	196
Jama	970
Kouc	
Kstu	589
Kwj1	
Mald	108
Mdvo	
Nama	360
Nssp	170
Obet	358
Osje	214
Parc	954
Riop	
Roch	64
Scip	233
Simo	796
Slor	
Sola	359

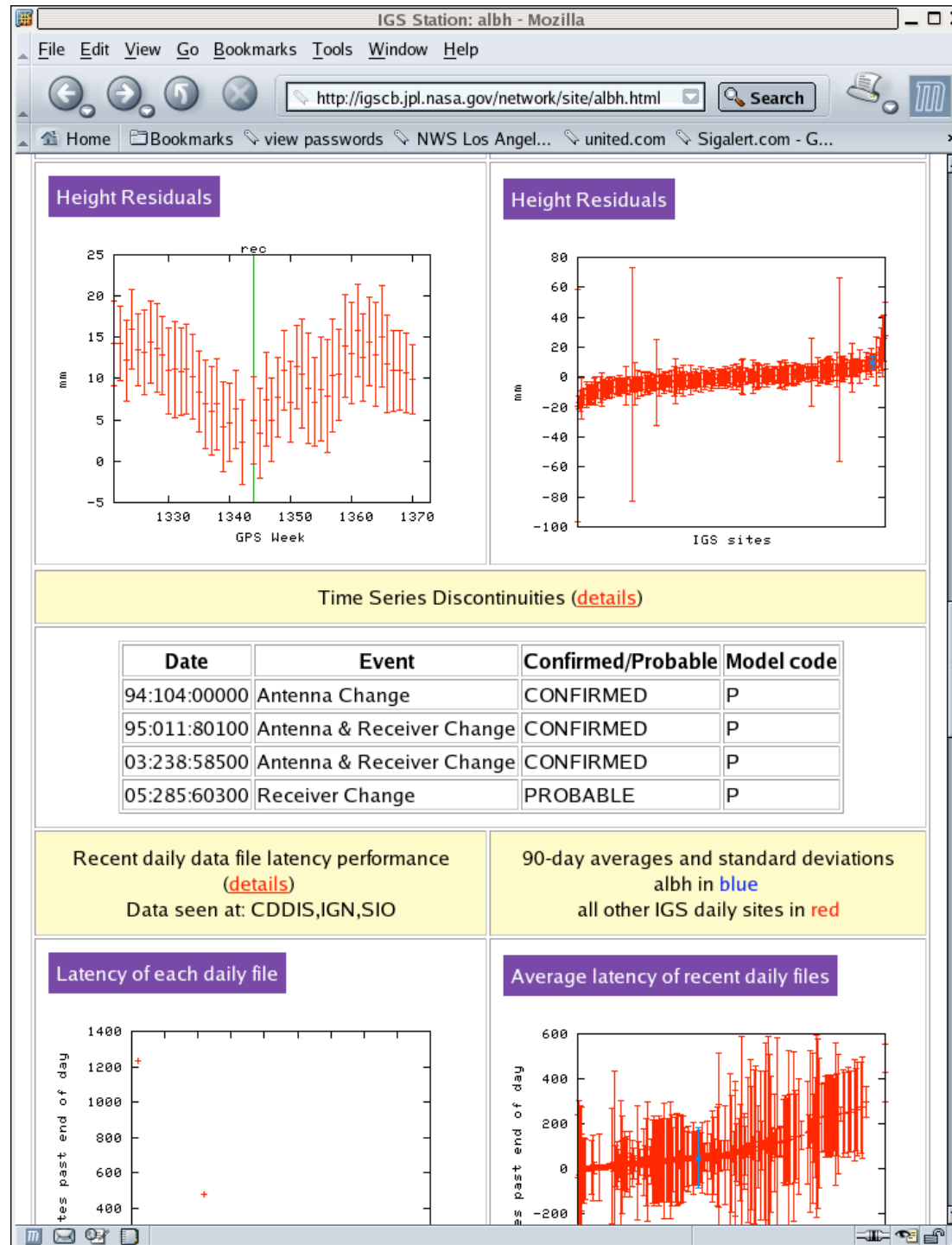| Site	days
Suva	
Tgcv	968
Valp	
Xian	
Yakz	
Ykro	586
Zamb	395
Zeck	198

Suggested Previously:

Reference Frame coordinator's discontinuity information displayed on site web pages.

Not Offensive, infact helpful

If agreed upon here, this can be made public.

IGS Network 2006

New station policy discussed at Berne 2004

- Change in **new** station policy was proposed and adopted:
  AC must request a proposed site to be included.

- Resulting in – lower number of sites being accepted.
  - In some cases sites have not been requested by an AC's due to "I thought it was obvious."

- Even with an AC request, important new sites not being analyzed regularly.
  Analysis priority list would be helpful.

IGS Network 2006

New station policy discussed at Berne 2004

- Procedure altered to remove some of the mechanics ie DOMES # request, rigorous site log & RINEX header consistency until AFTER the AC's request
  - Reduced the expectation that going through the motions will automatically result in addition to the IGS network.

- Pursuing the idea of relating an entire network to the IGS rather than potentially each site. Whole network could be reviewed and added.

IGS Network 2006
Australian Regional CORS Network
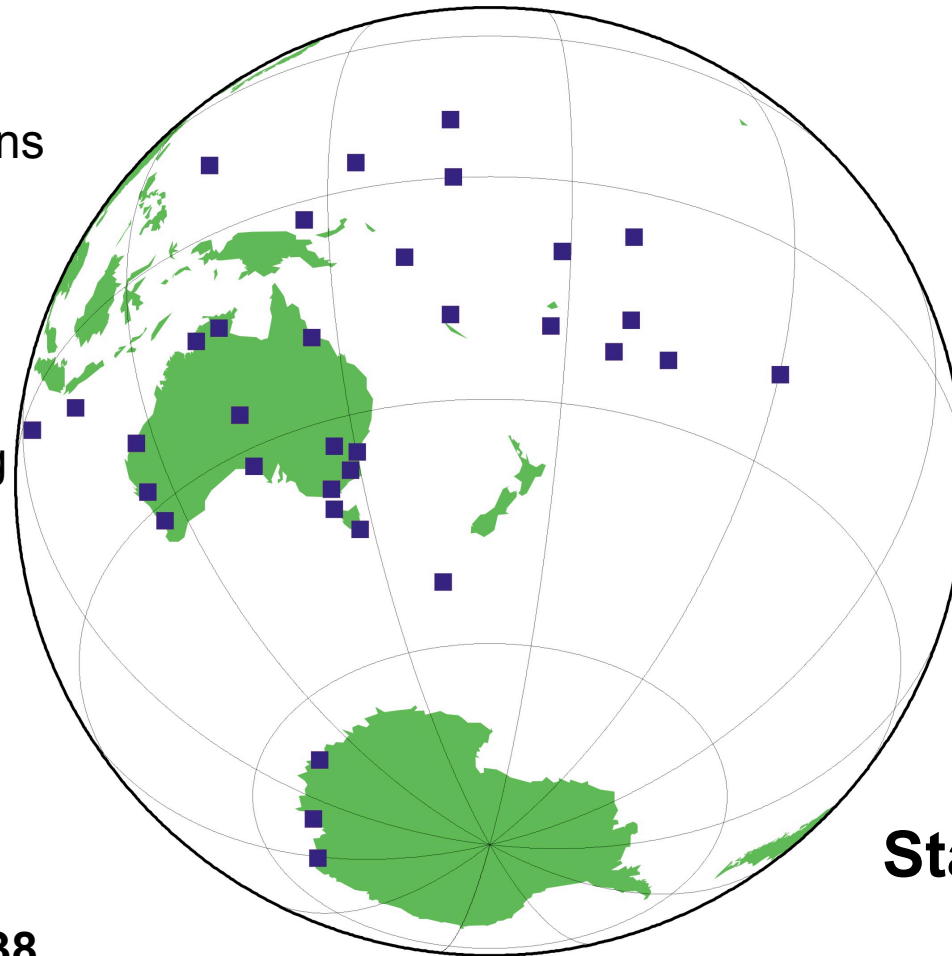
17 IGS GPS Stations

3 IGS GLONASS Stations

2 DORIS

14 Sea Level Monitoring
GPS Stations (TIGA)

2 Soon to be IGS
GPS Stations

2 Soon to be IGS
GLONASS Stations

Total GNSS Station = 38

Data:

Daily &
Hourly Sites = 24

1Hz Sites = 23

RTIGS
Sites = 20

Staff = 2.5

IGS Network 2006

Regional Data Centre Issues

- Some regional networks cover a very large area.
- Some stations in very remote areas with no trained operators.
- Challenging communications systems.
- Staffing issues.
- Not easy to keep networks operational 24/7, when no organisation mandate to do so.
- Delayed responses to analysts concerns (email) on data quality or unavailability, unavoidable.
- Analysts need to provide information to Network Coordinators on issues of data quality and usability, not just "don't use it anymore".
- Analysts could provide useful information to regional network managers on equipment and site issues. RFT's, site maintenance.
- Regional networks need also to be included into IGS.
- THANK YOU