



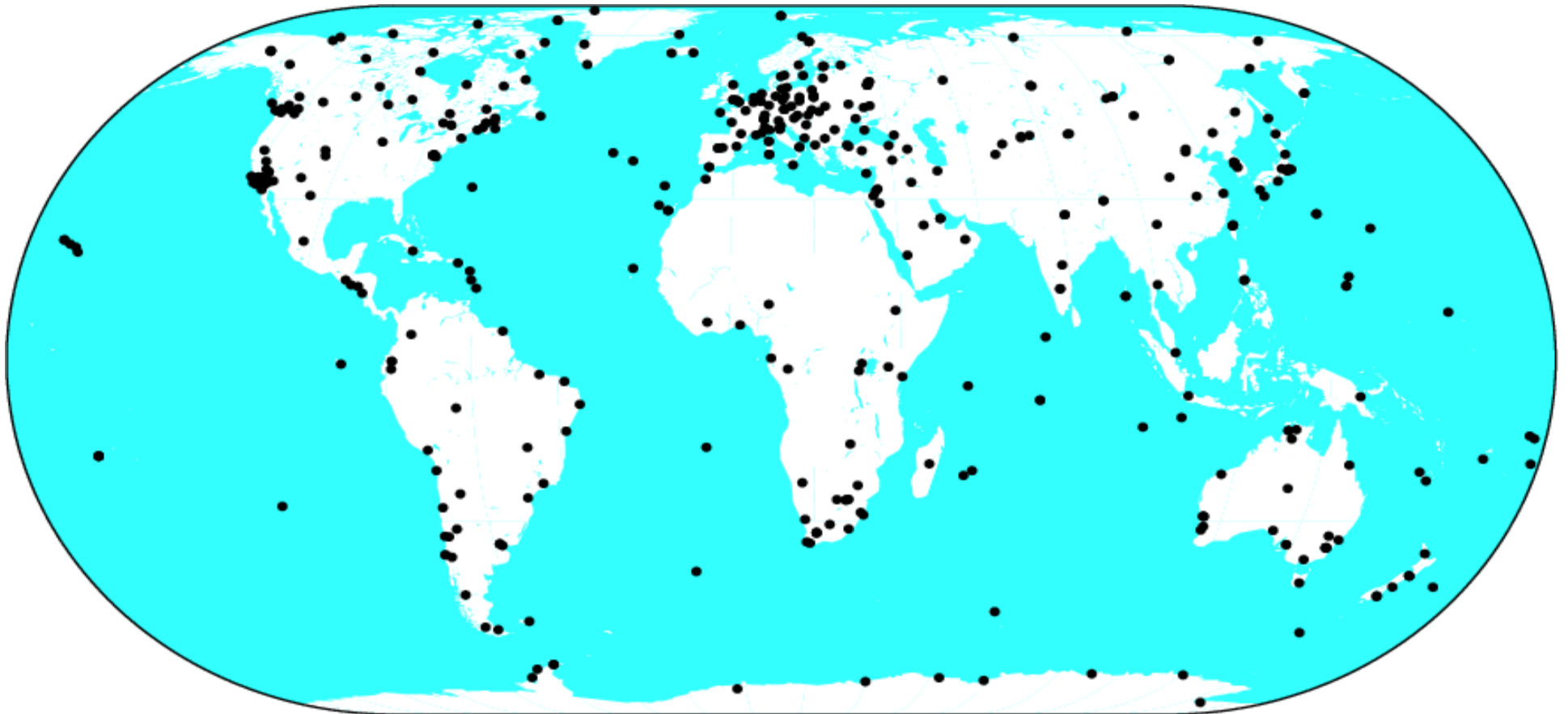
IGS Network Status

Central Bureau, JPL

IGS Workshop – Poland – July 2012



IGS Network - 2012

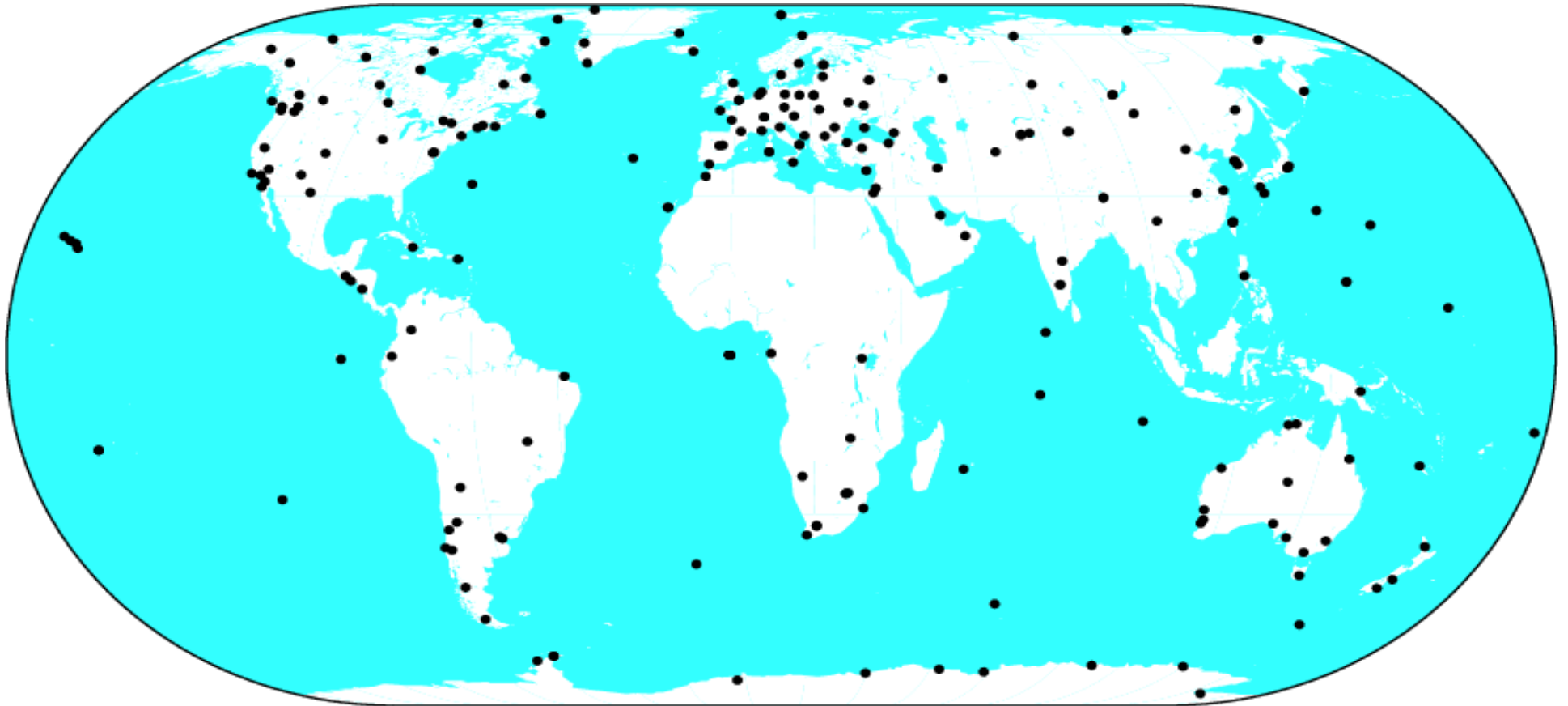


GM 2012 Jul 08 18:48:37

440 Station (376 active)



IGS Reference Frame - 2012

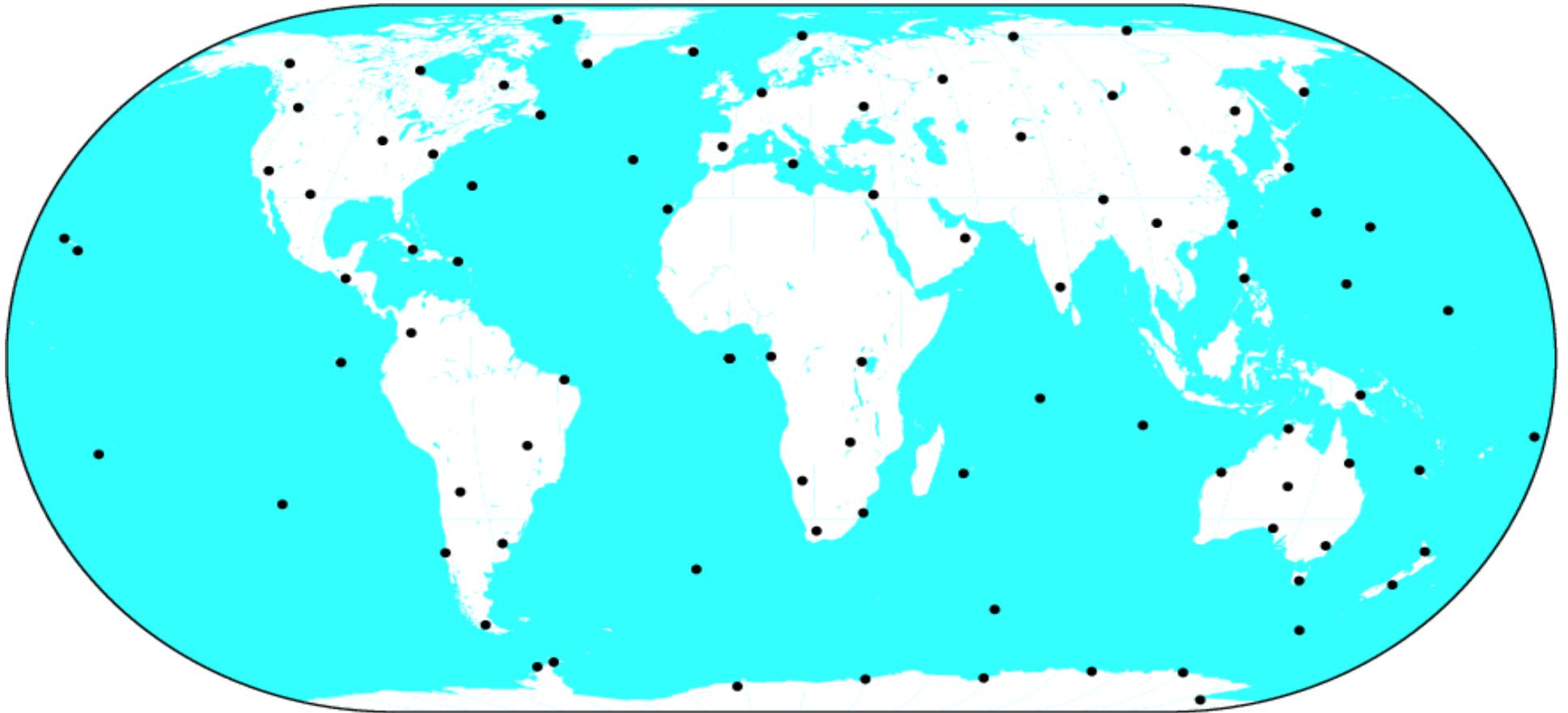


© 2012 Jul 08 18:47:07

232 Stations



IGS Ref Core - 2012



91 Stations



IGS GLONASS - 2012

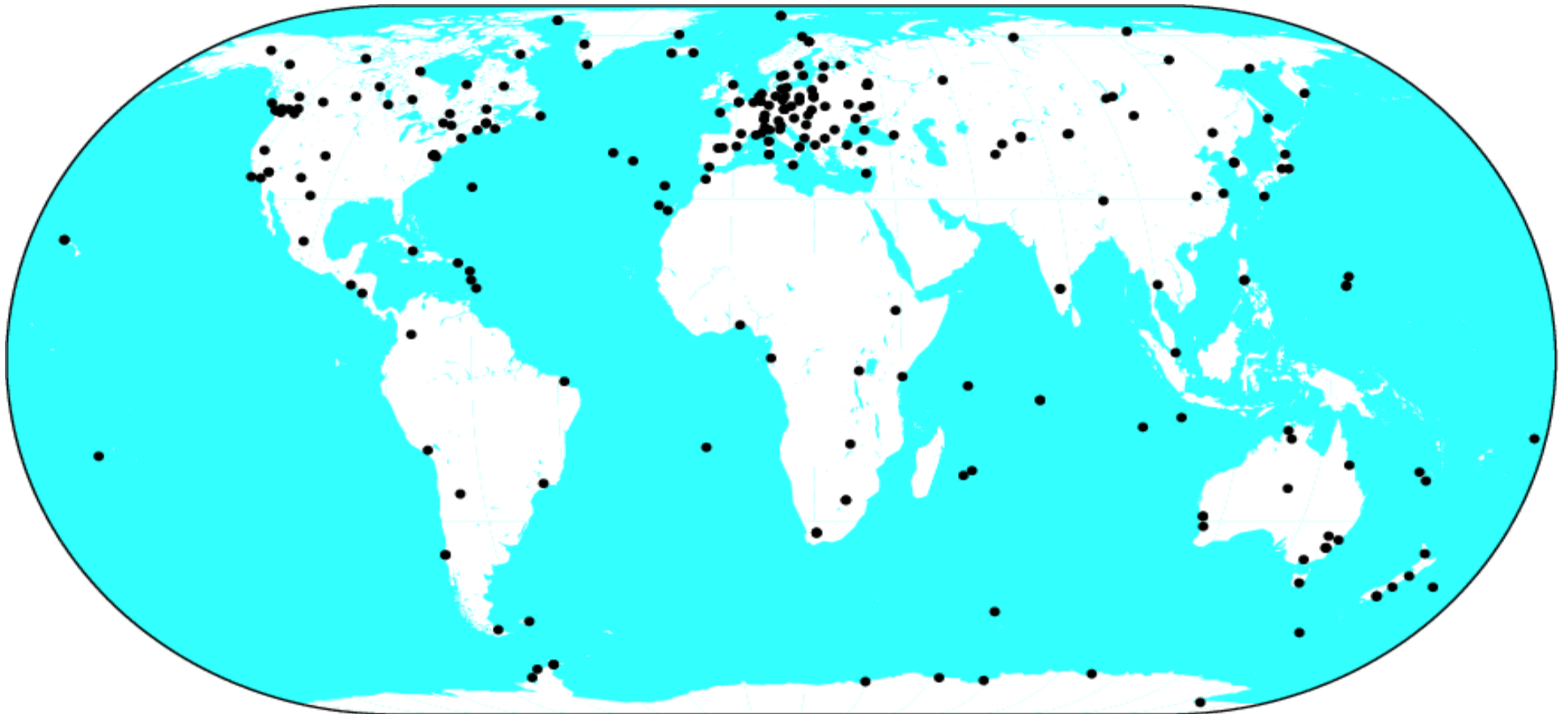


© 2012 Jul 08 18:48:34

174 Stations



IGS Hourly 30s - 2012

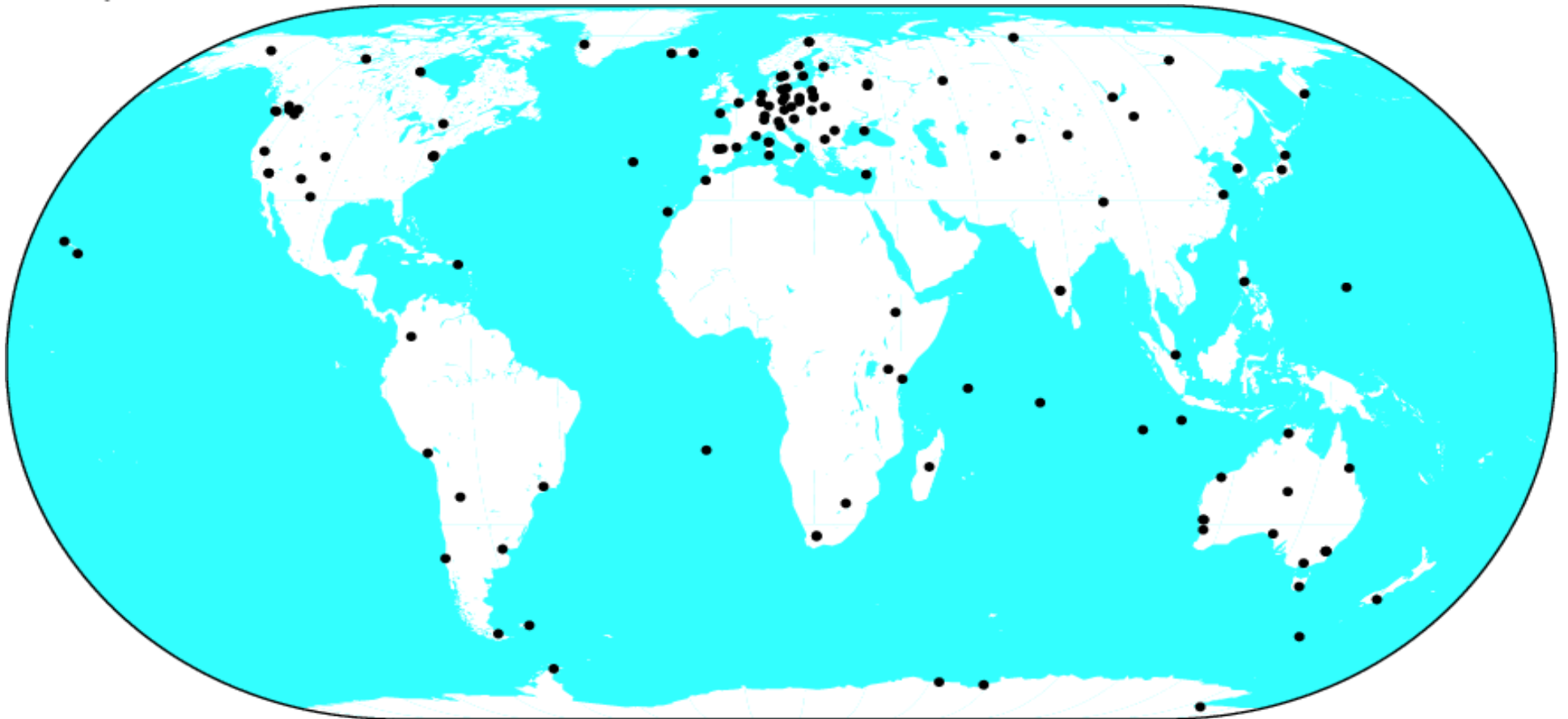


GM 2012 Jul 09 13:01:10

244 Stations



IGS 15min/1Hz - 2012

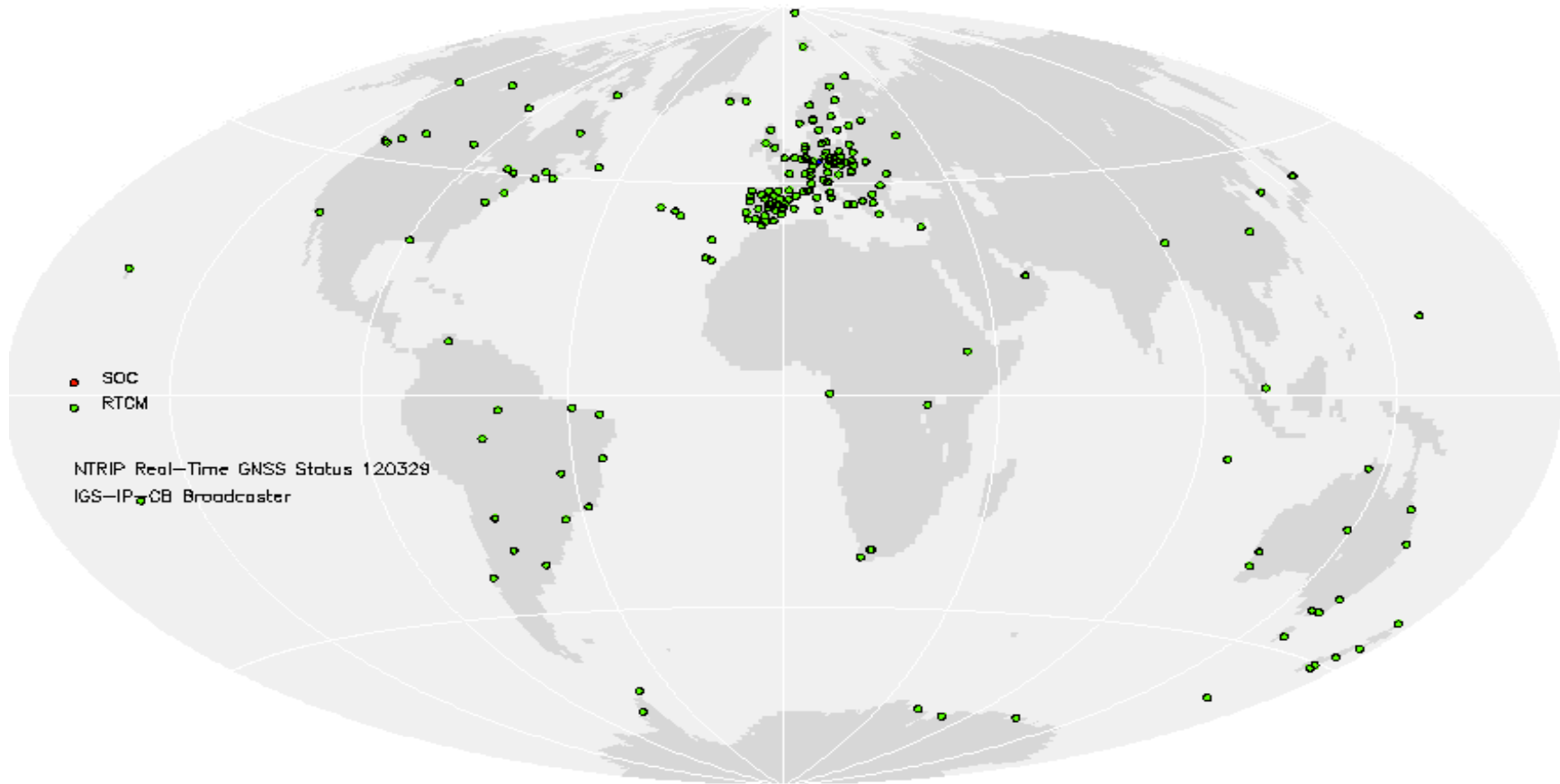


© 2012 Jul 08 18:48:25

131 Stations



IGS Real Time - 2012



219 Stations

<http://igs.org:2101/home>



| IGS Network | 2006 | 2012 |
|--------------------|------|------------------------------|
| Total | 379 | 440 |
| Active | 333 | 376 |
| Ref | 165 | 232 |
| Ref Core | - | 91 |
| GLONASS | 49 | 174 |
| Hourly | 207 | 244 |
| Hourly (15min/1Hz) | 64 | 131 |
| Real Time | - | ~107 (IGS) ~100 (non-IGS) |



Site Guidelines



International GNSS Service Formerly the International GPS Service

| | | | | |
|----------|---------|--------------|----------|--------------|
| Products | Network | Projects | Calendar | Organization |
| Mail | FAQ | Publications | FTP | Site map |

The Infrastructure Committee has conducted a detailed review of the IGS Site Guidelines, resulting in their first major revision since 2007. The revised document is posted below.

In addition to streamlining and updating content, new procedures to preserve the time series as stations are upgraded have been introduced, and a new section covering real-time stations was added.

A second document called "IGS Guidelines Clarifications" contains additional information that users may find beneficial in interpreting the Guidelines.

The revised Guidelines have been provisionally accepted by the Governing Board, though they have asked that comments be solicited from the broad IGS community before formally adopting them. We strongly encourage you to provide input at your earliest convenience, but no later than June 30, to allow time to integrate comments prior to the July 2012 Governing Board Meeting and Workshop.

Comments should be submitted by e-mail to the Central Bureau at [cb \[at\] igs \[dot\] org](mailto:cb@igs.org) with "Site Guidelines" in the subject line.

[Proposed Site Guidelines](#) [Download pdf](#)
[Proposed Site Guidelines Clarification](#) [Download pdf](#)
[Current Site Guidelines](#)

Copyright 2012 IGS

- <http://igs.org/network/guidelines/proposed.html>



Network List

IGS Stations

440 stations and 379 active stations as of 09 Jul 2012.

- N** Designates a site newer than 6 months to the IGS.
- R** Designates a [Reference Frame station](#). Machine-readable list is [available](#).
- H** Designates a site offering hourly data. Machine-readable list is [available](#).
- I** Designates a site offering combined GPS/GLONASS data. Machine-readable list is [available](#).

View a list of [former IGS sites](#).

View a list of [proposed sites](#).

Click on any 4-character id for further information.

~~Dormant sites are lined through~~

| id | City | Location | lon (E) | lat (N) | ht (m) | Agency | Clock |
|--|--------------------------|--------------------|--------------------|--------------------|----------------------|-----------------|-------------------------|
| H I abmf | LES ABYMES | France | 298.4725 | 16.2623 | -25.0000 | IGN-SGN | INTERNAL |
| I abpo | Antananarivo | Madagascar | 47.2292 | -19.0183 | 1552.9923 | JPL | INTERNAL |
| R adel | Salisbury | Australia | 138.6473 | -34.7290 | 38.2000 | NGA | Cesium / Rcvr 1 |
| R ade2 | Salisbury | Australia | 138.6473 | -34.7290 | 38.2000 | NGA | Cesium / Rcvr 2 |
| H I adis | Addis Ababa | ETHIOPIA | 38.7663 | 9.0351 | 2439.1540 | BKG | |
| R aira | Aira | Japan | 130.5996 | 31.8241 | 314.6400 | GSI | CESIUM |
| H I ajac | Ajaccio | France | 8.7626 | 41.9275 | 99.0000 | IGNIGN-SGN | INTERNAL |
| R H albh | Victoria | Canada | 236.5126 | 48.3898 | 32.0000 | GSC | Internal |
| R H aigo | Algonquin Park | Canada | 281.9286 | 45.9588 | 202.0000 | NRCan | H-MASER |
| R H I alic | Alice Springs | Australia | 133.8855 | -23.6701 | 603.3581 | GA | QUARTZ/INTERNAL |
| R alrt | Alert (Ellesmere Island) | Canada | 297.6595 | 82.4943 | 78.1100 | NRCan/GSD | Internal |
| R H amc2 | Colorado Springs | U.S.A. | 255.4754 | 38.8031 | 1912.4898 | USNO | H-MASER |
| R H amnn | Amman | Jordan | 35.8888 | 32.0388 | 1055.0388 | RJGC | |
| R H I ankr | Ankara | Turkey | 32.7586 | 39.8875 | 974.8000 | BKG and GCM | INTERNAL |
| R antc | Los Angeles | Chile | 288.4679 | -37.3387 | 745.4000 | G2 | |
| H areq | Arequipa | Peru | 288.5072 | -16.4655 | 2488.9226 | JPL | XL-DC 151-358-108-2 |
| R H artu | Arti | Russian Federation | 58.5605 | 56.4298 | 247.5110 | RDAAC-IRIS | INTERNAL |
| R H I aspa | Pago Pago | U.S.A. | 189.2776 | -14.3261 | 53.6620 | NOAA-NGS | INTERNAL |
| R H I auck | Whangaparaoa Peninsula | New Zealand | 174.8344 | -36.6028 | 132.0000 | GNS | INTERNAL |
| H I azul | Azusa | USA | 242.1000 | 34.1300 | 144.7500 | UNAVCO | INTERNAL |
| H I badq | Badary | Russian Federation | 102.2350 | 51.7697 | 811.4000 | IAA | EXTERNAL H-MASER CHI-80 |
| H baie | BAIE COMEAU | CANADA | 291.7367 | 49.1868 | 27.5000 | NRCan/GFZ | INTERNAL |
| R I bake | BAKER LAKE | Canada | 263.9977 | 64.3178 | 4.4000 | NRCan | INTERNAL |
| I bako | Cibinong | Indonesia | 106.8500 | -6.4900 | 158.1800 | BAKOSURTANAL | |
| H bamf | Bamfield | Canada | 234.8649 | 48.8353 | 11.1000 | GSC | INTERNAL |
| R H ban2 | Bangalore | India | 77.5116 | 13.0343 | 831.9000 | GFZ | EXTERNAL RUBIDIUM |
| R H I barh | Bar Harbor | USA | 291.7783 | 44.3950 | 7.4000 | NOAA-NGS | INTERNAL |
| H I bdos | Bridgetown | Barbados | 300.3909 | 13.0879 | -38.6000 | NOAA-NGS | INTERNAL |
| R bhr1 | Manama | Bahrain | 50.6081 | 26.2091 | -13.9000 | NGA | Cesium /Rcvr1 |
| R bhr2 | Manama | Bahrain | 50.6081 | 26.2091 | -13.9000 | NGA | Cesium /Rcvr2 |
| R bili | Bilibino | Russian Federation | 166.4388 | 68.0761 | 456.2388 | RDAAC-IRIS | INTERNAL |
| R bill | Temecula | USA | 242.9400 | 33.5800 | 470.0500 | UNAVCO | INTERNAL |
| I bico | Cotonou | Benin | 2.4500 | 6.3847 | 30.6000 | MCA-Benin | |
| R I bifs | Fangshan | China | 115.8925 | 39.6086 | 87.4130 | NGCC | |
| N bjnm | Beijing | China | 116.2241 | 40.2453 | 118.6000 | NIM | EXTERNAL HYDROGEN MASER |
| R blyt | Blythe | United States | 245.2900 | 33.6100 | 85.9000 | USGS | INTERNAL |
| H I boqi | Borowa Gora | Poland | 21.0352 | 52.4750 | 139.9000 | IGiK | EXTERNAL RUBIDIUM |
| R H boza | Borzhomi | Georgia | 43.8888 | 42.8888 | 2222.8888 | IGiK | INTERNAL |



Network List

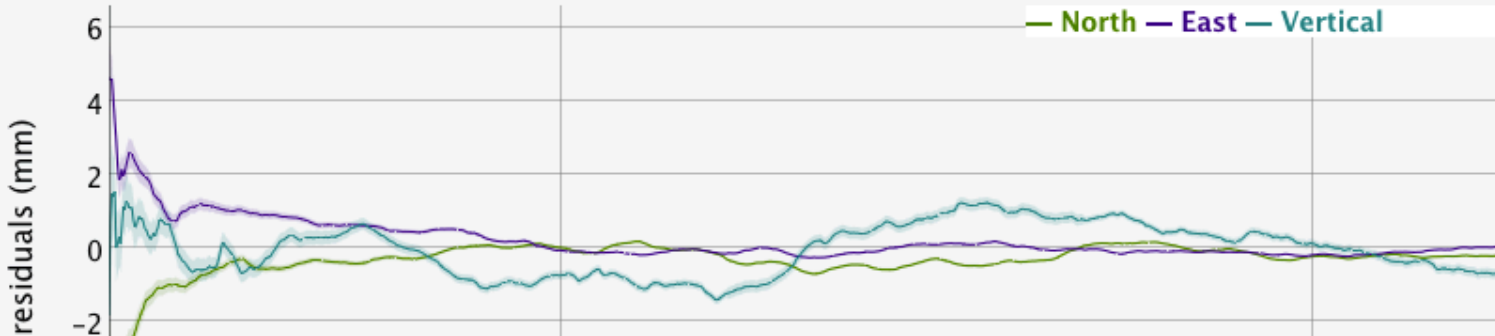
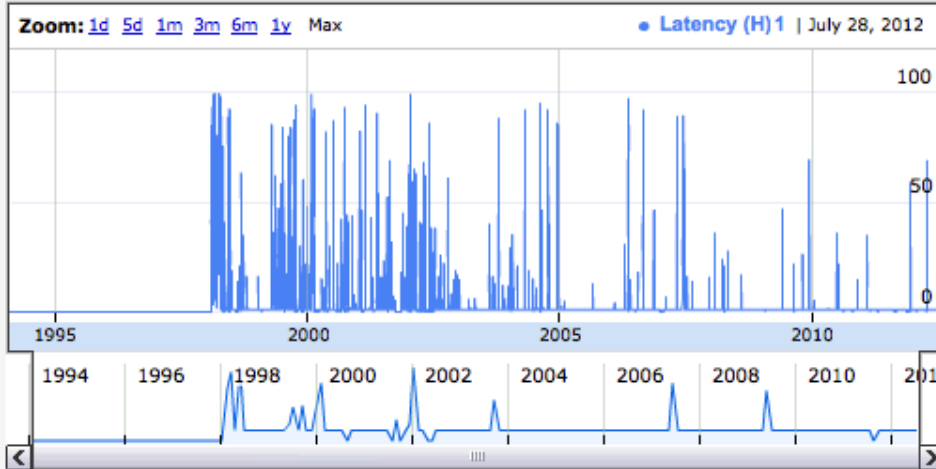
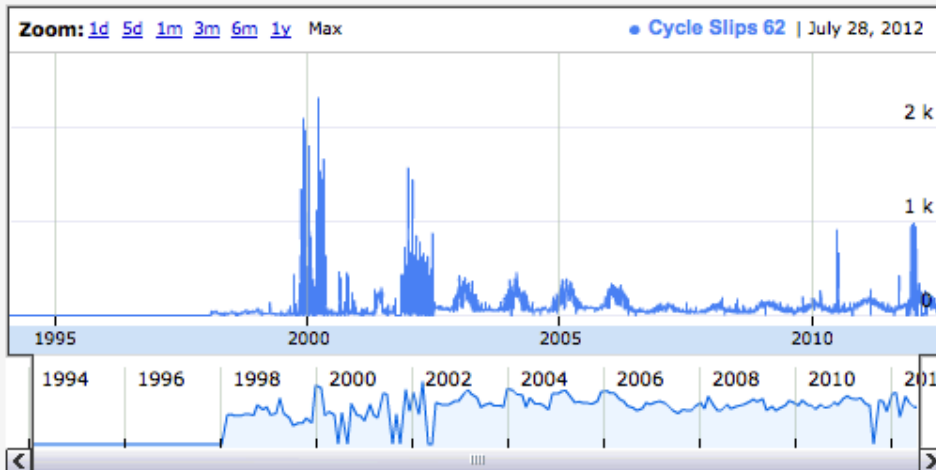
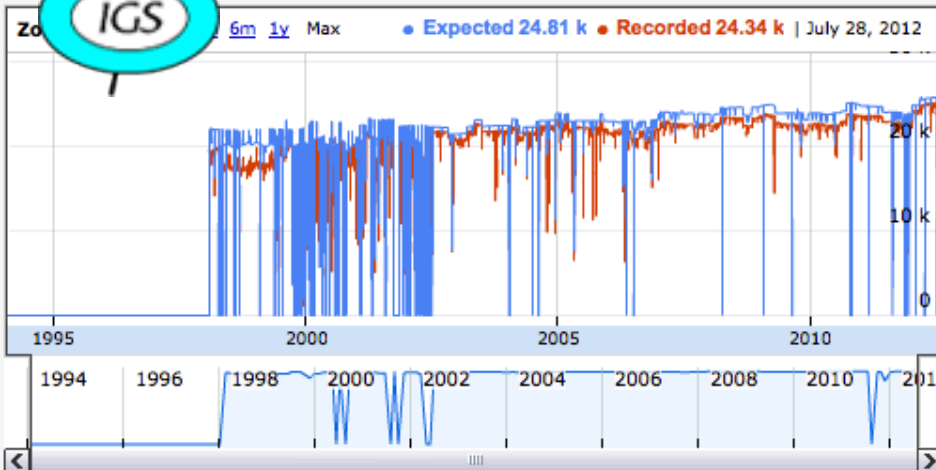


International GNSS Service Formerly the International GPS Service

| | | | | | |
|-----------------------|--------------------------|------------------------------|--------------------------|--------------------------|------------------------------|
| About | Products | Network | Projects | Calendar | Organization |
| Mail | FAQ | Publications | FTP | Site map | |

-
-

| SiteID | Country | Lat | Lon | Height | Receiver | Antenna | Calibration | Clock | Last Data Avail | Satellite System | |
|----------------------|------------|--------|---------|-----------|--------------------|--------------|-------------|--------|------------------------------|------------------|-------------|
| ABMF | France | 16.26 | -61.53 | -25.0 | TRIMBLE NETR9 | TRM57971.00 | NONE | ROBOT | INTERNAL | 08-Jul-12 | GPS+GLO+GAL |
| ABPO | Madagascar | -19.02 | 47.23 | 1552.9923 | ASHTECH UZ-12 | ASH701945G_M | SCIT | FIELD | INTERNAL | 03-Jul-12 | GPS |
| ADE1 | Australia | -34.73 | 138.65 | 38.2 | ASHTECH Z-XII3 | ASH700936B_M | SNOW | ROBOT | EXTERNAL CESIUM / RCVR 1 | | GPS |
| ADE2 | Australia | -34.73 | 138.65 | 38.2 | ASHTECH Z-XII3 | ASH700936B_M | SNOW | ROBOT | EXTERNAL CESIUM / RCVR 2 | | GPS |
| ADIS | ETHIOPIA | 9.04 | 38.77 | 2439.154 | JPS LEGACY | TRM29659.00 | NONE | ROBOT | | 08-Jul-12 | GPS+GLO |
| AIRA | Japan | 31.82 | 130.60 | 314.64 | TRIMBLE 5700 | TRM29659.00 | DOME | | EXTERNAL CESIUM | 08-Jul-12 | GPS |
| AJAC | France | 41.93 | 8.76 | 99.0 | LEICA GRX1200GGPRO | LEIAT504GG | NONE | ROBOT | INTERNAL | 08-Jul-12 | GPS+GLO |
| ALBH | Canada | 48.39 | -123.49 | +32.0 | AOA BENCHMARK ACT | AOAD/M_T | SCIS | | INTERNAL | 08-Jul-12 | GPS |
| ALGO | Canada | 45.96 | -78.07 | 202.00 | AOA BENCHMARK ACT | AOAD/M_T | NONE | ROBOT | EXTERNAL H-MASER | 08-Jul-12 | GPS |
| ALIC | Australia | -23.67 | 133.89 | 603.3581 | LEICA GRX1200GGPRO | LEIAR25.R3 | NONE | ROBOT | QUARTZ/INTERNAL | 08-Jul-12 | GPS+GLO |
| ALRT | Canada | 82.49 | -62.34 | 78.11 | ASHTECH UZ-12 | ASH701945D_M | NONE | COPIED | INTERNAL | 08-Jul-12 | GPS |
| AMC2 | U.S.A. | 38.80 | -104.52 | 1912.4898 | ASHTECH Z-XII3T | AOAD/M_T | NONE | ROBOT | EXTERNAL H-MASER | 08-Jul-12 | GPS |
| AMMN | Jordan | 32.03 | 35.88 | 1055.83 | ASHTECH Z-XII3 | ASH700936D_M | SCIS | FIELD | | | GPS |
| ANKR | Turkey | 39.89 | 32.76 | 974.8 | TPS E_GGD | TPSCR3_GGD | CONE | ROBOT | INTERNAL | 08-Jul-12 | GPS+GLO |
| ANTC | Chile | -37.34 | -71.53 | 745.4 | TRIMBLE NETRS | ASH700936D_M | SNOW | ROBOT | | 02-Jul-12 | GPS |
| AREQ | Peru | -16.47 | -71.49 | 2488.9226 | ASHTECH UZ-12 | AOAD/M_T | JPLA | | EXTERNAL XL-DC 151-358-108-2 | 08-Jul-12 | GPS |





| SiteID | Country | Lat | Lon | Height | Receiver | Antenna | Calibration | Clock | Last Data Avail | Satellite System | |
|--------|------------|--------|--------|-----------|----------------|--------------|-------------|-------|--------------------------|------------------|-------------|
| ABMF | France | 16.26 | -61.53 | -25.0 | TRIMBLE NETR9 | TRM57971.00 | NONE | ROBOT | INTERNAL | 08-Jul-12 | GPS+GLO+GAL |
| ABPO | Madagascar | -19.02 | 47.23 | 1552.9923 | ASHTECH UZ-12 | ASH701945G_M | SCIT | FIELD | INTERNAL | 03-Jul-12 | GPS |
| ADE1 | Australia | -34.73 | 138.65 | 38.2 | ASHTECH Z-XII3 | ASH7009368_M | SNOW | ROBOT | EXTERNAL CESIUM / RCVR 1 | | GPS |

3.x Receiver Type : (A20, from rcvr_ant.tab; see instructions)
 Satellite System : (GPS/GLONASS/GPS+GLONASS)
 Serial Number : (A20, but note the first A5 is used in SINEX)
 Firmware Version : (A11)
 Elevation Cutoff Setting : (deg)
 Date Installed : (CCYY-MM-DDThh:mmZ)
 Date Removed : (CCYY-MM-DDThh:mmZ)
 Temperature Stabiliz. : (none or tolerance in degrees C)
 Additional Information : (multiple lines)

3.x Receiver Type : (A20, from rcvr_ant.tab; see instructions)
 Satellite System : (GPS+GLO+GAL+COMP+QZSS+SBAS)
 Serial Number : (A20, but note the first A5 is used in SINEX)
 Firmware Version : (A11)
 Elevation Cutoff Setting : (deg)
 Date Installed : (CCYY-MM-DDThh:mmZ)
 Date Removed : (CCYY-MM-DDThh:mmZ)
 Temperature Stabiliz. : (none or tolerance in degrees C)
 Additional Information : (multiple lines)



go

Stations

| [Login](#)

| | | |
|---------------------------------------|-----------------------------------|---|
| 6 stations + | 0. Site Form | GODE GNSS Information - Receiver/s + |
| <input checked="" type="radio"/> GODE | 1. Site Identification | Receiver Type: ASHTECH UZ-12 |
| <input checked="" type="radio"/> GODZ | 2. Site Location Information | Satellite System: GPS |
| <input checked="" type="radio"/> GOL2 | 3-4. GNSS Information | Serial Number: ZR520013801 |
| <input checked="" type="radio"/> GOLD | Receiver/s | Firmware Version: CQ00 |
| <input checked="" type="radio"/> GOPE | Antenna/s | Elevation Cutoff Setting: 4 |
| <input checked="" type="radio"/> GOUG | 5. Surveyed Local Ties | Date Installed: 2006-04-11T00:00Z |
| | 6. Frequency Standard | Date Removed: CCYY-MM-DDThh:mmZ |
| | 7. Collocation Information | Temperature Stabiliz.: none |
| | 8. Meteorological Instrumentation | Additional Information: |
| | 9. Local Ongoing Conditions | |
| | 10. Local Episodic Effects | |
| | 11. Operational Contact | |
| | 12. Responsible Agency Info | |
| | 13. More Information | |



Concern: Deterioration of IGS Network because a large number of RF stations are excluded from weekly ITRF solutions.

As of week 1637:

- 232 IGS08 Stations
 - 141 Stations in weekly ITRF solution
 - 91 Exclusion
 - 10 Former sites
 - 2 replaced with nearby stations
 - 9 Nearby earthquakes
 - 7 Upgraded with uncalibrated antenna/radome
 - 16 High residual on equipment change
 - 32 Short-term data outage (most common) or unexplained
 - 15 Degraded fit with IGS08 for unknown reason



Concern: Dormant stations – 60+ days of no RINEX data.

- 64 Total Dormant Stations:
 - 18 – NGA stations
 - 9 stations * 2 receiver per
 - No data for 1.5+ years
 - 27 – Long term outages – former?
 - 19 – short term outages

NGA

- Upgraded equipment to uncalibrated antenna
- CB has recently received station configuration history
- Awaiting for calibration approval for data to be released



Thank You!

Central Bureau, JPL

IGS Workshop – Poland – July 2012