NETWORK 2004 REVIEW: EVOLUTION, MAINTENANCE AND COLOCATIONS

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What’s new in the network since Feb. 2003?

• New permanent stations:
  – Jiufeng (China): Dec 2003
  – Crozet (French Southern Indian Ocean territories): Dec 2003
  – Belgrano (Antarctica): Feb 2004, following an IDS proposal

• Renovations:
  – Manila (Feb 2003)
  – St Helena + Ascension (Mar 2003)
  – Yaragadee (Nov 2003)
  – Mount Stromlo (Jan 2004)
  – Cachoeira Paulista (Mar 2004)

• IDS stations:
  – Wettzell (May 2003 to Jan 2004)
  – Gavdos (starting Sep 2003, may become permanent once validated)
  – Sorsdal (Nov 2003 to Jan 2004): follow-up of last year’s experiment
Network’s evolutions since Feb. 2003
Permanent network renovation progress

Number of stations


Poor  Dubious  Good  Excellent
Antennas estimated stability (2004/04)
Network’s planned evolutions in 2004

- **Next renovations:**
  - Marion Island: under way
  - Badary & Yuzhno-Sakhalinsk: August
  - Reykjavik: this summer
  - Libreville: before the end of the year

- **New stations in project:**
  - Pohnpei, Micronesia: replacement of Guam, planned reconnaissance by Geoscience Australia
  - Tamanrasset, Algeria: replacement of Arlit
  - Other projects: Maldives, Midway, etc

- **IDS stations:**
  - New sites to be selected
Maintenance: sometime in the network’s lifetime…

Stations status on 2004/04/19:

- **OK**
- **no data**
- **planned removal**

Visibility circles are for SPOT and Envisat satellites, 12 degrees cut-off.
Distribution of the DORIS equipment

1st generation (1.0 or 1.1) beacon

- Alcatel antenna
  - Starec antenna
  - 8 stations

2nd generation beacon

- Alcatel antenna
  - Starec antenna
  - 14 stations

3rd generation beacon

- Alcatel antenna
  - Starec antenna
  - 1 station

- Alcatel antenna
  - Starec antenna
  - 12 stations

- Alcatel antenna
  - Starec antenna
  - 1 station

- Alcatel antenna
  - Starec antenna
  - 24 stations
Maintenance: number of active/broken beacons per model
Maintenance: working rate for each beacon model

- % 1G OK
- % 2G OK
- % 3G OK
- % OK, all models
3rd generation beacons: deployment status & failures

Status of the 40 delivered beacons

- Installed, working (21)
- On site, pending installation (2)
- In repair (10)
- In retrofit (5)
- Spares (2)

Nature of the 11 failures since delivery

- OUS (3)
- 2 GHz (8)
Colocations (<10 km) with other active IERS techniques
All ties have been measured, except: HBKA-HBLA, KERA-KERB, GOLA-GOMA
Tide gauges colocations (<10 km)

- Measured tie
- Planned tie
- Missing tie