National Report of Spain

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New Spanish National Geodetic Reference System

ETRS89 (REGENTE Frame)

- Law
  - 1071/2007 Royal Decree.
  - BOE 207 29/08/2007
- Affect to all the
  - official cartography.
  - geographical information.
- Frame → REGENTE Network
- REGENTE Network was supported in
  - IBERIA95 → R1-Bad Neuenahr–Ahrweiler 1998.
  - BALEAR98 → R1-Tromsoe 2000.
- Canary Islands
  - REGCAN95
New Spanish Vertical Reference System.
(REDNAP Frame)

- Since 2001
  - 25175 bench-marks
  - along 20000 kilometers
- Now:
  - Adjusting stage
  - Densification
Spanish National GNSS Reference Stations Network (ERGNSS)

- 25 stations.
  - 1 IGS station
  - 19 EPN stations
- 2 new stations.
  - TERU
  - CEU1
- FTP server.
  ftp://ftp.geodesia.ign.es
EUREF-IP Project in ERGNSS Network

- Started on February 2004.
- Data availability is the next:
  - Total of 28 Real-Time Streams.
  - 28 stations broadcasting RTK.
  - 21 belonging to EPN/IGS Network.
    - 20 belonging to IGN
    - 1 belonging to Valencian Cartographic Institute (ICV)
IGE Analysis Centre.

**IGE as a Local Analysis Centre of EUREF**
- IGN is an EUREF Local Analysis Center (IGE). From 1130 week
- 46 stations with Bernese 5.0.
- EPN Rapid Analysis project (1418 week)

**IGE as Analysis Centre**
- Iberian Network.
- E-GVAP Project (Iberian Region)
Tenerife Volcanic Monitoring System Project

- **Planned.**
  - 3 Tide gauges
  - 10 GPS Permanent stations.
  - 307 Km of High Precision levelling Network.
  - Absolute and relative Gravity Network.
  - 6 Tiltmeters.
  - New GPS campaigns.
  - About 28 points.

- **Installed.**
  - 3 Tide gauges
  - 4 GPS Permanent stations.
  - 307 Km of High Precision levelling Network.
  - Gravity Network Monumentated.