



National Report of Spain

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Spanish National GNSS Reference Stations Network (ERGNSS)

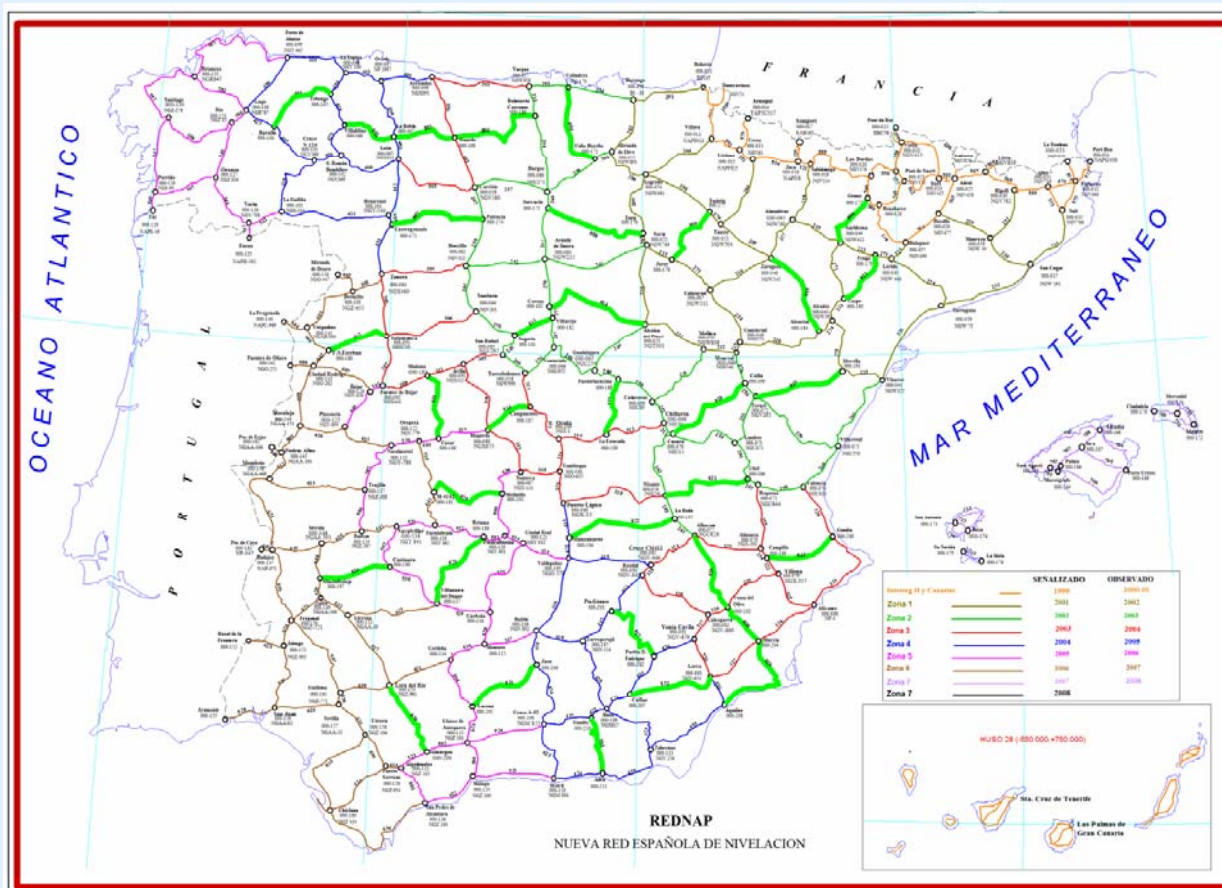
- 27 permanent stations.
 - 2 IGS.
 - LPAL included.
 - 22 EPN.
 - 7 GPS+GLONASS
- 2 new stations.
 - IZAN
 - EPN
 - Tenerife Volcanic System
 - TN04
 - Tenerife Volcanic System
- Post-processing:
 - <ftp://ftp.geodesia.ign.es>
- Real-Time Caster:
 - <http://ergnss-ip.ign.es>



Spanish Vertical Reference Network. (REDNAP)

■ Densification stage.

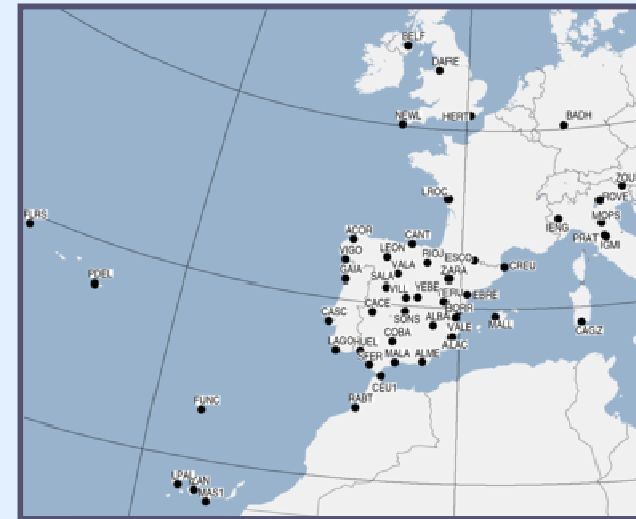
- Maximum leveling-rings length:
 - From 500Km
 - To 400 Km.
- Total lenght:
 - 3300Km.
 - In Green.
- Observed:
 - 1300Km.



IGE Analysis Centre.

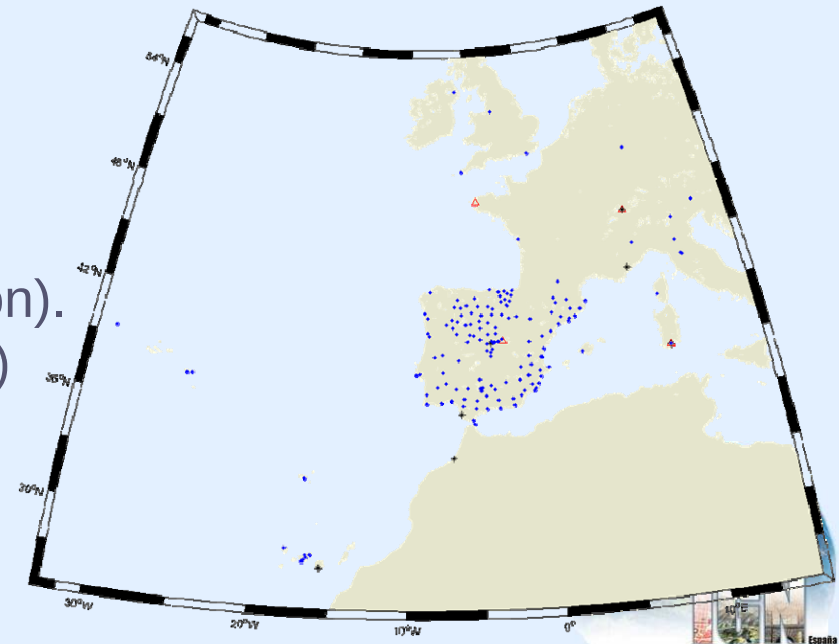
IGE as a Local Analysis Centre of EUREF

- From 1130 week
- 51 stations with Bernese 5.0.
- EPN Rapid Analysis project (since 1418 week)



IGE as Analysis Centre

- IBERRED Project (Iberian Region).
- E-GVAP Project (Iberian Region)
 - About 200 stations



Official National ETRF coordinates of the Spanish Permanent Stations

- Legal Geodetic System for Iberian Peninsula and Balearic Islands (ETRS89):
 - Law 1071/2007 Royal Decree BOE 207 29/08/2007.
 - REGENTE Frame (is not a permanent network). ($s=\pm 5\text{cm}$)
 - REGENTE Frame was aligned to IBERIA95 Network (ETRF96).
- IGN permanent stations of Iberian Peninsula and Balearic Islands [21 stations] (ERGNSS).
 - Weekly solutions of all the year 2007.
 - IGS05→ETRF2005 (epoch 2007,9).
 - Consistency with REGENTE Frame (2cm) under the level of its precision.
 - Later on:
 - TWG Recommendation → ETRF00(R05)
 - In a new version we will take into account TWG recommendation.
- Stations of other institutions in Spain.
 - Processed for IGE AC in IBERRED Project.
 - Aligned to IGN stations (ETRF2005(epoch 2007.9)).





Thanks!

