

National Report of Spain

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Spanish National GNSS Reference Stations Network (ERGNSS)

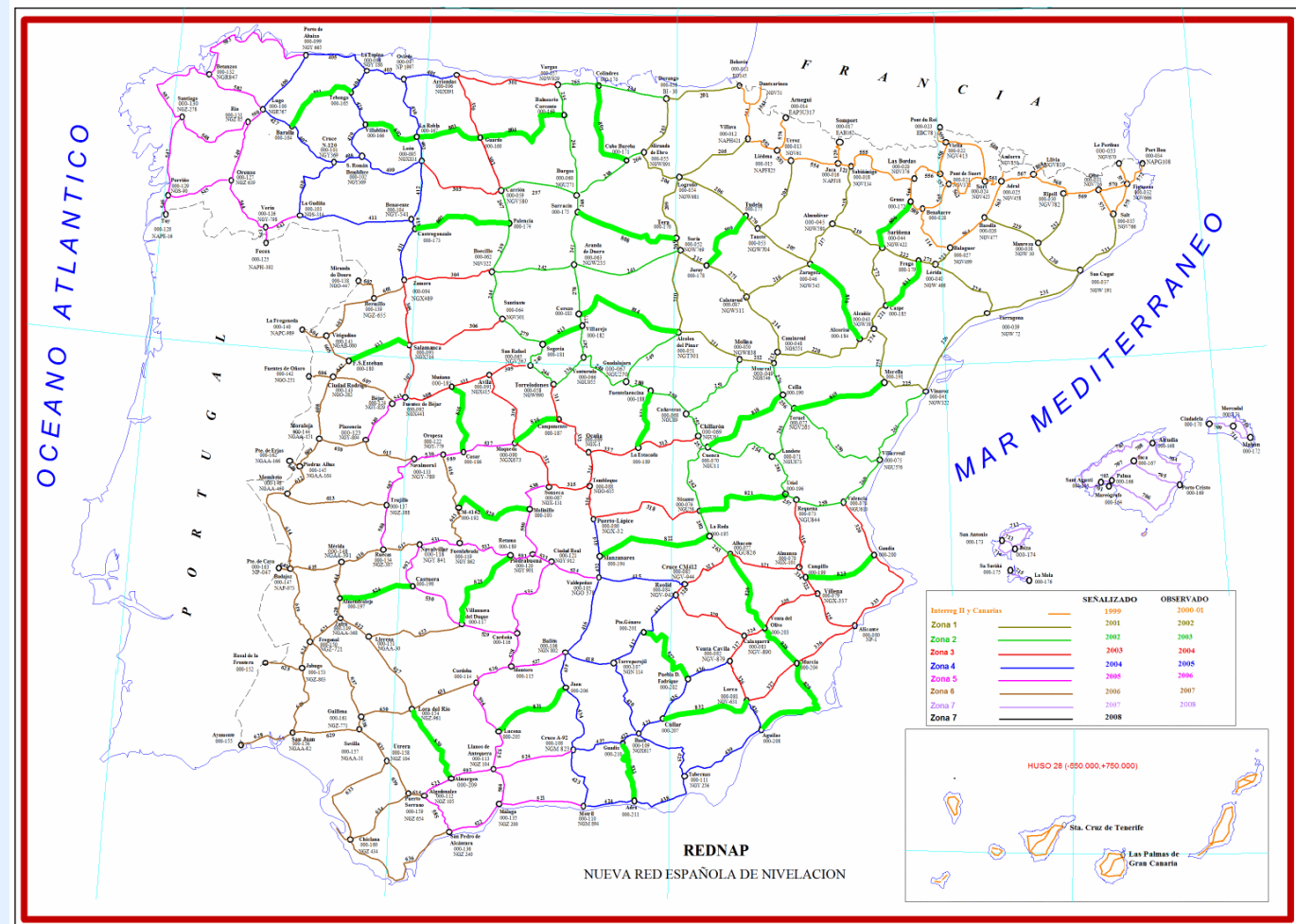
- 34 permanent stations.
 - 2 IGS.
 - 22 EPN.
- 7 new stations.
 - ARDU
 - TARI
 - JACA
 - ZFRA
 - TN05, TN06, TN07
(Tenerife Volcanic Network)
- Post-processing:
 - <ftp://ftp.geodesia.ign.es>
- Real-Time Caster:
 - <http://ergnss-ip.ign.es>



Spanish Vertical Reference Network. (REDNAP)

■ Densification stage.

- Maximum leveling-rings length:
 - From 500Km
 - To 400 Km.
- Total lenght:
 - 3300Km.
 - In Green.
- Observed:
 - 2200Km.



IGE Analysis Centre.

As a Local Analysis Centre of EUREF

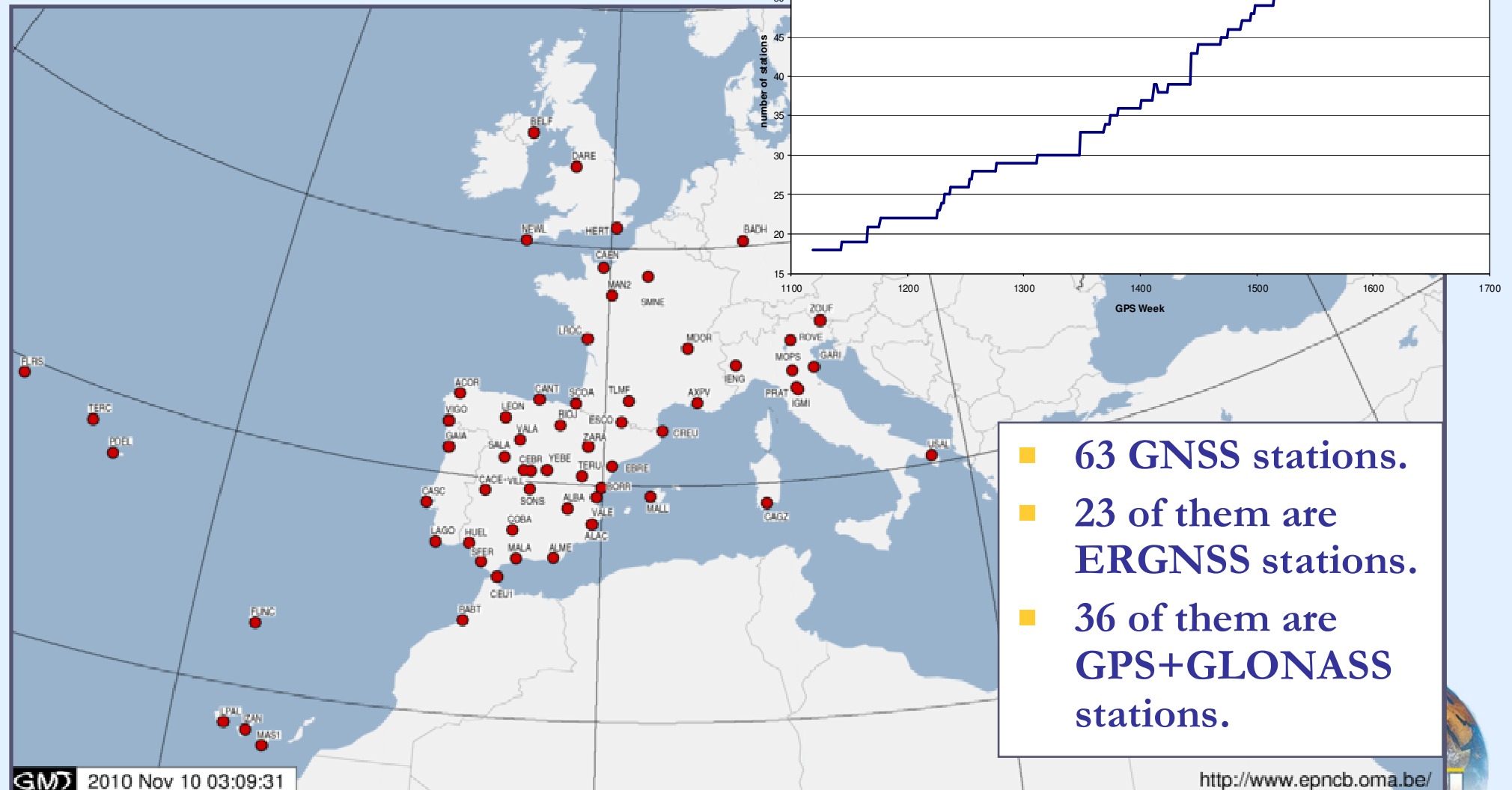
- From 1130 week
- Bernese 5.0.
- EPN Rapid Analysis project (since 1418 week)
- Repro1

As Analysis Centre

- IBERRED Project (Iberian Region).
- E-GVAP Project (Iberian Region)
 - About 300 stations
- Canary Volcanic Monitoring GNSS Network.



❖ **LAC of EUREF.**



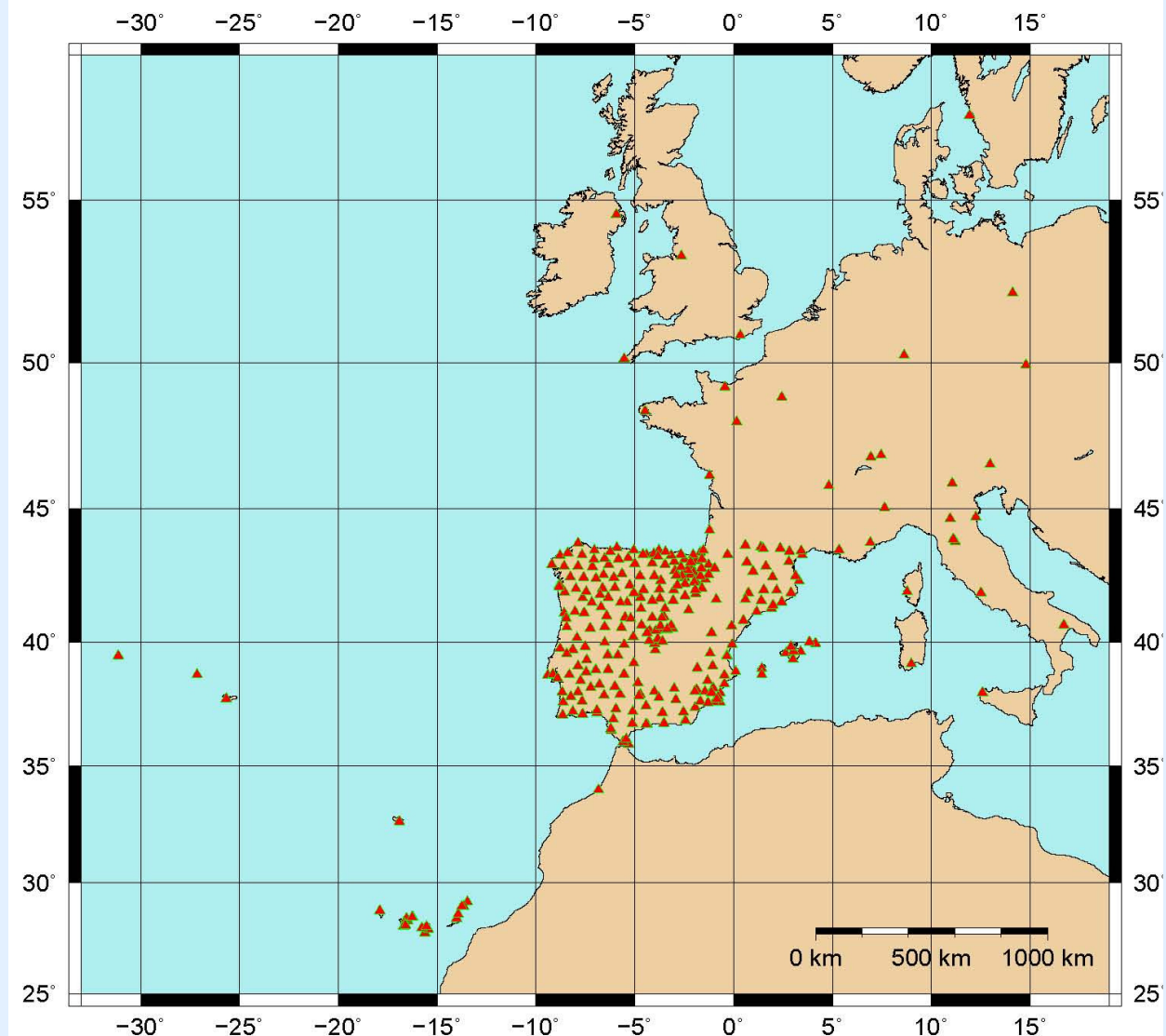
❖ Other IGE Analysis Centre projects

IBERRED

- About 310 stations.

Objectives →

- Positions.
 - Coordinates to EGVAP hourly processing.
 - Atmosphere products.
 - Time series.
- Almost the same strategy as EPN LAC.
 - With clustering
 - Double differences.
 - Final and Rapid IGS products.



❖ Other IGE Analysis Centre projects

IBERRED and Earthquake

■ Earthquake in Lorca

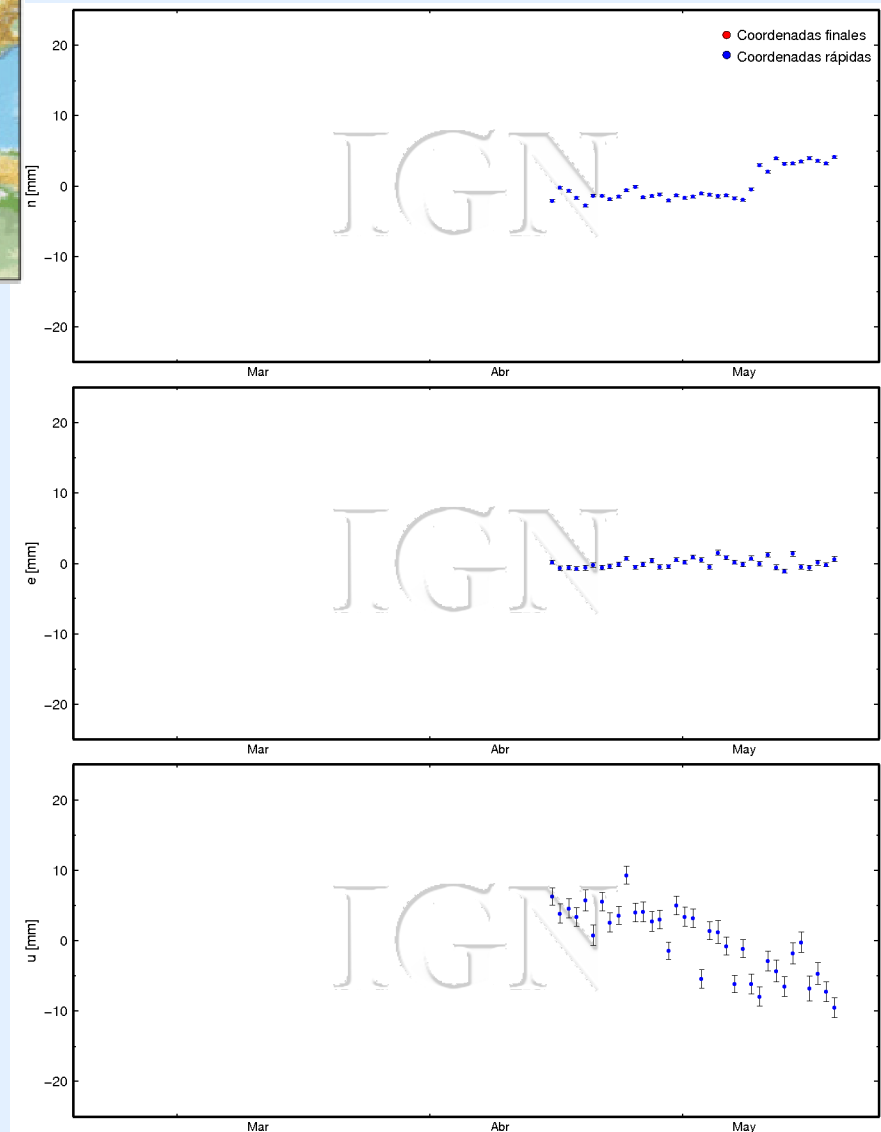
- SE of Spain.
- 11-5-2011.
- Magnitude 5.1 (3 Km depth).
- 9 people killed.



■ One permanent GNSS station.

- LORC
- belong to Murcia Region GNSS Network.
- 5.5 Km from epicenter.
- Processing.
 - Rapid IGS products.

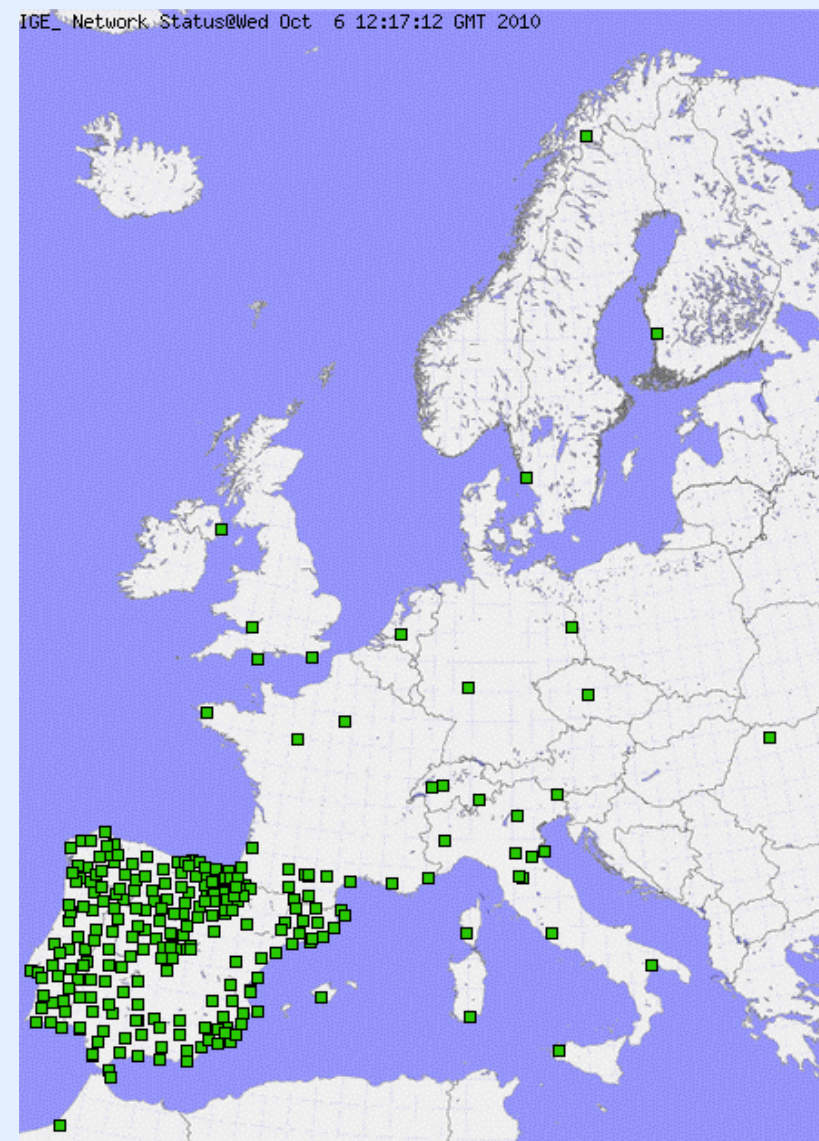
■ Detected 5 mm jump to East.



❖ Other IGE Analysis Centre projects

E-GVAP

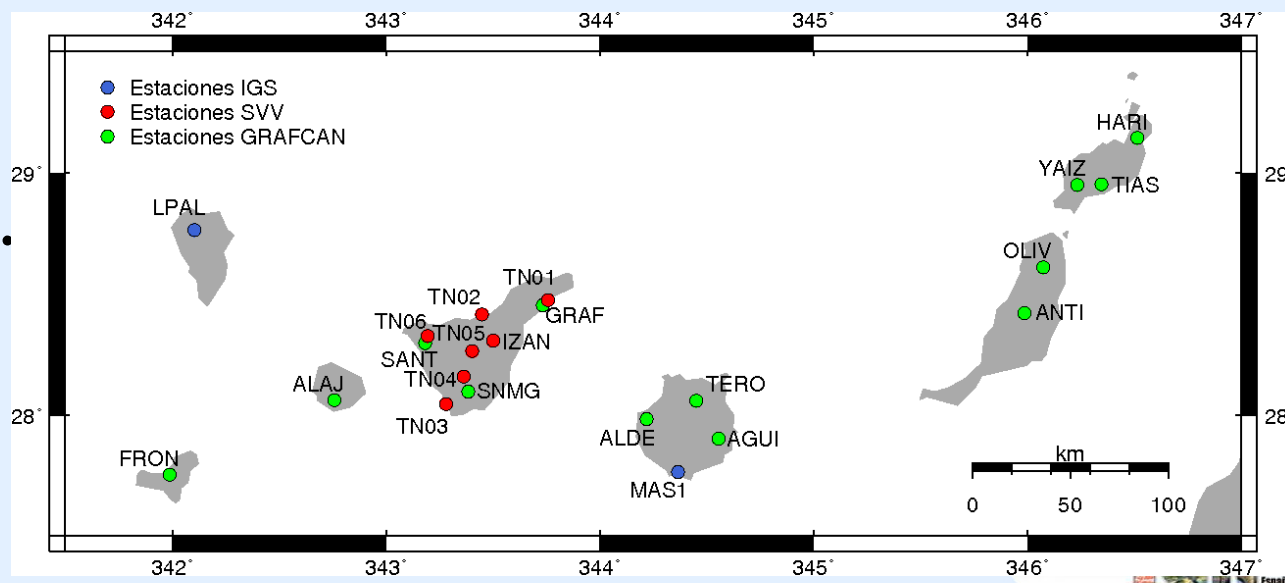
- Try to get the same IBERRED stations.
- Hourly NRT process.
(using coordinates from the IBERRED processing)
 - Objective → ZTD
 - Double differences.
 - Ultra rapid IGS orbits.
 - Finally → The 12 last hours are combined.



❖ Other IGE Analysis Centre projects

Canary Volcanic Monitoring Permanent GNSS Network

- Canary volcanic monitoring system → (Canary Islands).
- Around 30 stations are processed in and out Canary Islands.
- Testing strategies.
- Now as EPN LAC.
 - Final IGS products.
 - Rapid IGS products.





Thanks!

