National Report of PORTUGAL

Direção-Geral do Território

Directorate-General for Territory

Geodesy

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EUREF 2017, WROCLAW, Poland, May 17-19

ReNEP – Portuguese CORS Network

ReNEP
- DGT
- Partners

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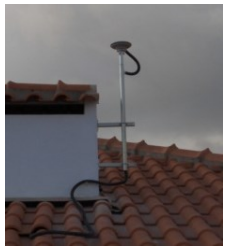
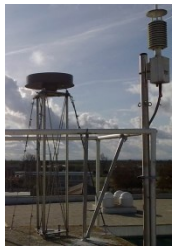
ReNEP – Portuguese CORS Network

48 Stations :

- **42 mainland**
- **4 in Azores**
- **2 in Madeira**

- **GPS & GLONASS**





- **RTK Network Coverage**
- **Continuous Streaming**
- **RTCM (Radio Technical Commission for Maritime Services) over NTRIP (Networked Transport of RTCM via Internet Protocol)**
- **Hourly RINEX files at 5 seconds observation rate**

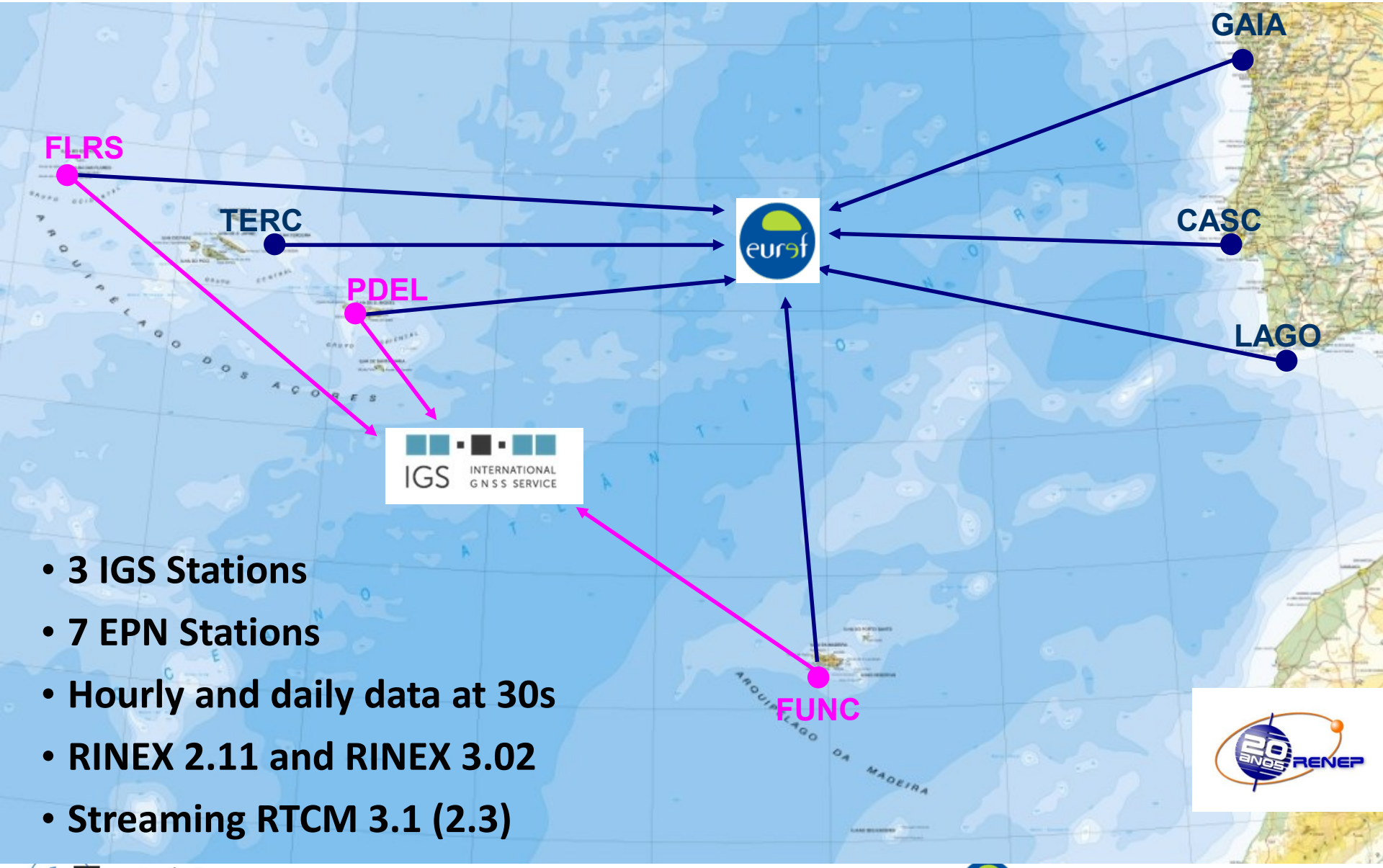
- **Coordinate Systems:**
  - **Mainland:** ETRS89 at epoch 1995.4
  - **Islands:** ITRF93 at epoch 1994.0

ReNEP – Products

- **Post-processing:**
  - Hourly files at 5s
  - EPN Stations: hourly and daily files at 30s
  - RINEX 2.11 format (ftp.dgterritorio.pt)

- **Real Time:**
  - RTCM 3.1 (and 2.3) over NTRIP
  - Frame: PT-TM06 (national realisation of ETRS89)
  - Single Base Station, Nearest Site, Network
  - Free of charge

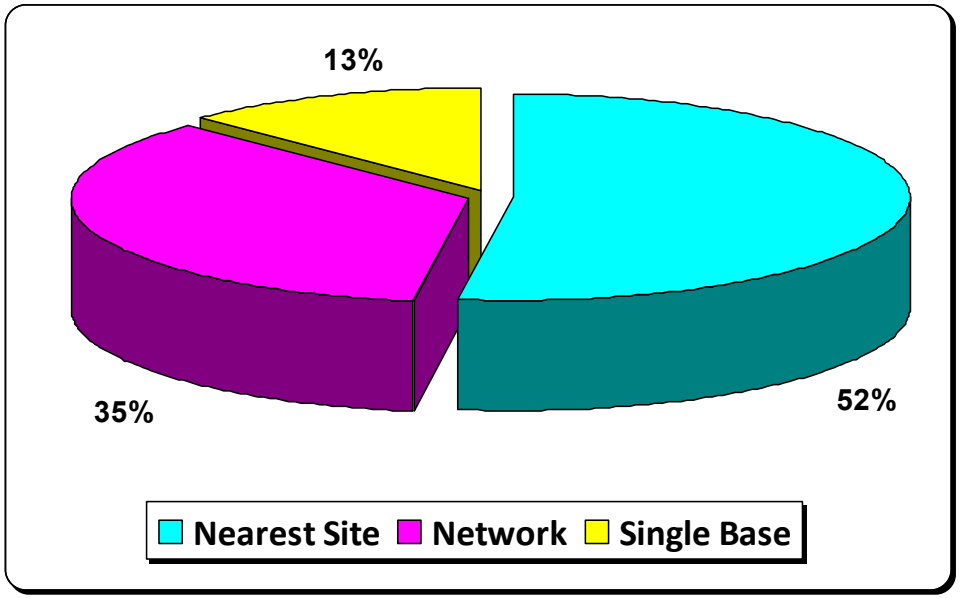
ReNEP and Internacional Networks

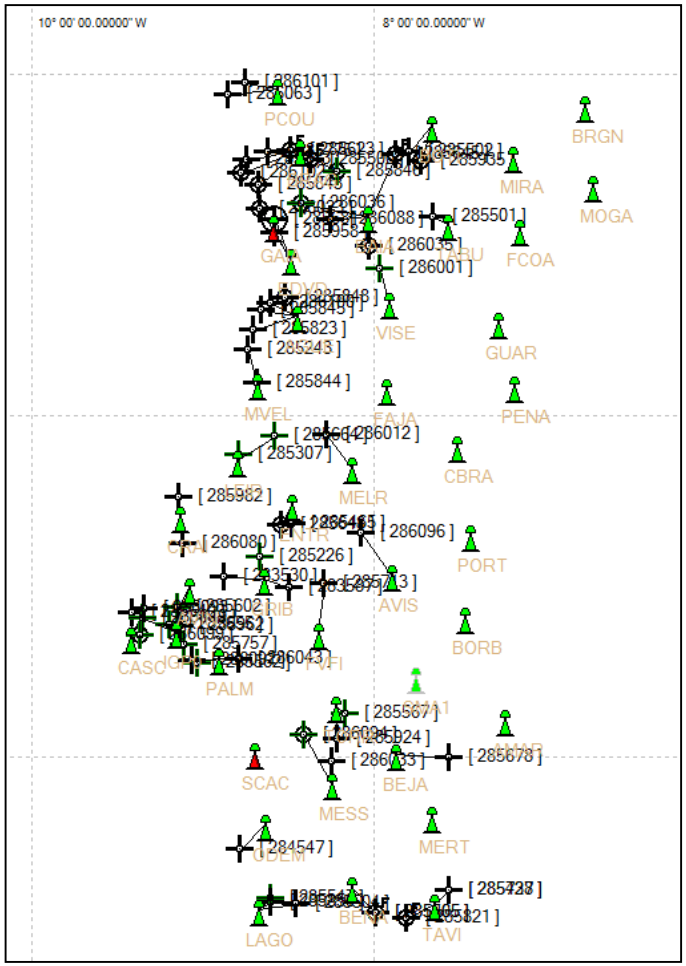


- 3 IGS Stations
- 7 EPN Stations
- Hourly and daily data at 30s
- RINEX 2.11 and RINEX 3.02
- Streaming RTCM 3.1 (2.3)

ReNEP – Users

- More then 2100 register users for RTK
- More then 40 000 connections monthly to our server





ReNEP – User Questionnaire

Purpose:

- Characterize network users
- Get to know the utility and quality of services provided
- Listen to user opinions and suggestions

Methodology

- The survey had 11 questions and was built with Google tools
- Sent by e-mail to all registered users.

Main conclusions:

Strength

- Technical support
- The good quality of the Network and the data
- Free of charge

Weakness

- Web portal for data update
- Technical assistance at weekends and holidays
- Website with network information

EUREF Web Page

http://www.euref.eu

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Geodesy 2020 is a vision for the national geodetic infrastructure for 2020, and was built by collaborative processes in a structured blue sky thinking session held on December 5, 2016 in the DGT.

The purpose was to define the guidelines for a national geodetic infrastructure that allow the production of reliable geographic information for the sustainable development of the national territory.

Future projects:

- **Study the feasibility of adopting a new realization of ETRS89, based on the ETRF2014.**

- **Work towards the establishment of a new vertical reference for mainland, linked to the official EUREF solution for EVRS2007 and based on new geodetic observations.**

We have to take into consideration that the adoption of a new ETRS89 realization and a new vertical reference has implications in the production of cartographic, so we need to be prepared to give support to the users in the transition period.

Levelling Network

Recognition and coordination of levelling marks

From Cascais Tide Gauge to Mafra.

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Thank You

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