



EUREF 2018 SYMPOSIUM

AMSTERDAM 30 May – 1 June 2018

National Report of PORTUGAL



Department of Geodesy

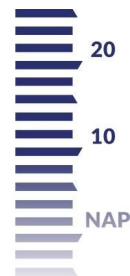


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ReNEP – Portuguese CORS Network



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

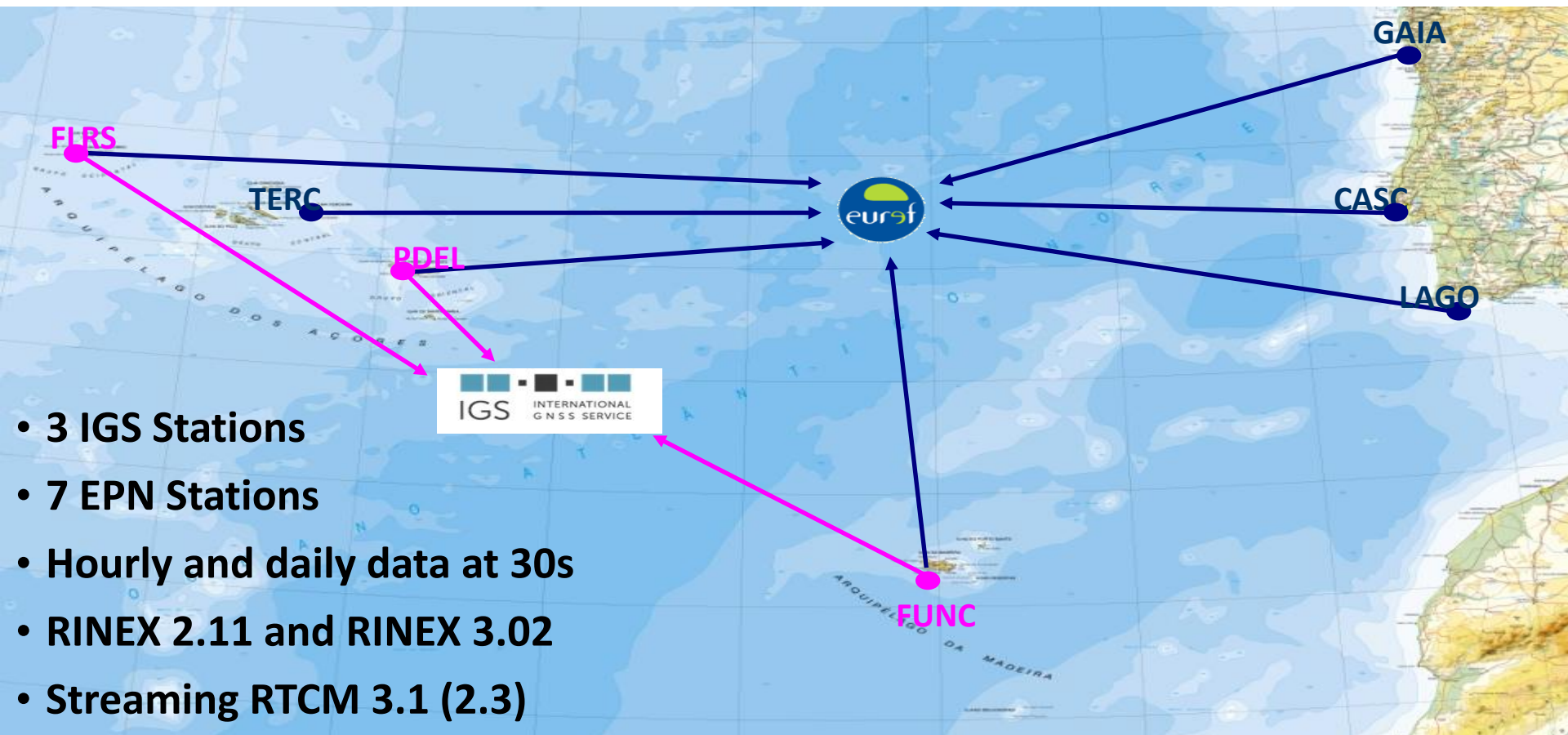
➤ **Post-processing:**

- Hourly files at 5s
- EPN Stations: hourly and daily files at 30s
- RINEX 2.11 format


➤ **Real Time:**

- RTCM 3.1 (and 2.3) over NTRIP
- More than 2600 registered users
- Single Base Station, Nearest Site, Network
- **Free of charge**

ReNEP and Internacional Networks



New ReNEP WebSite



Rede Nacional de Estações Permanentes GNSS

[Início](#) [Estações](#) [Noticias](#) [Ligações](#) [Registo](#)



Bem-vindo à página da ReNEP

A ReNEP é um serviço público de geoposicionamento prestado pela Direção-Geral do Território (DGT) que, no âmbito das suas atribuições de manutenção do Referencial Geodésico Nacional, disponibiliza aos utilizadores de equipamentos GPS dados que facultam a determinação de coordenadas geográficas com precisão melhor que 10 cm.

É constituída por Estações GPS/GNSS, de observação contínua, que difundem observações nos Sistemas de Referência ETRS89 (continente) e ITRF93 (regiões autónomas), para posicionamento em tempo-real, utilizando a técnica RTK, ou para pós-processamento com ficheiros [RINEX](#).

Para ter acesso aos [produtos](#) disponibilizados pela DGT em tempo-real é necessário efetuar um [registo](#).

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Notícias

[ReNEP - Operacional](#)
22/02/2018


[Paragem dos Serviços da ReNEP – 14 a 23 de Fevereiro](#)
02/02/2018

[Nova Estação PCO1](#)
15/12/2017

[Estação do Fajão inoperacional](#)
08/11/2017

[Estação Permanente Paredes de Coura](#)
08/11/2017

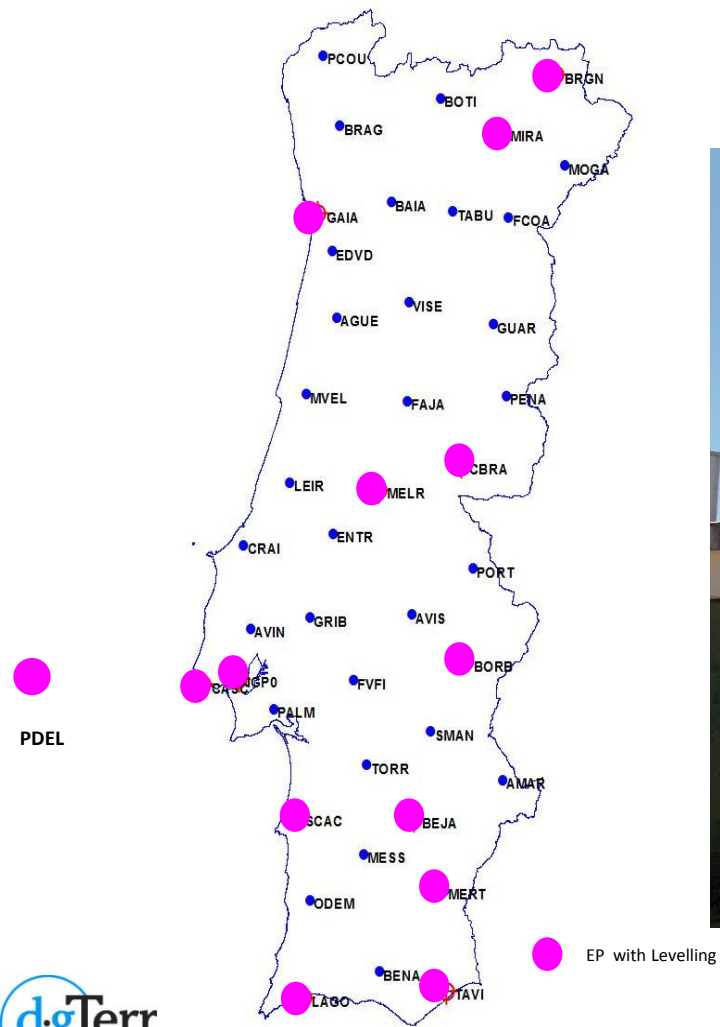
[\(ver todas\)](#)



Direção-Geral do Território

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ReNEP Leveling



•EP leveling: 3



Tide Gauges



Cascais



Lagos

- New sensors: RADAR technology for water leveling
- Real-time data logging and uploading data to DGT servers
- New sensors for measuring water temperature, air temperature and pressure



ReNEP – 20 years

- Invited speakers who presented short lectures on the usefulness and value of the Portuguese GNSS Network

- Visit to the first Portuguese GPS CORS – Cascais



GTGeod2020

Working group of the Portuguese geodetic community

Goals: diagnosis, evaluation and support strategy to geodetic activities

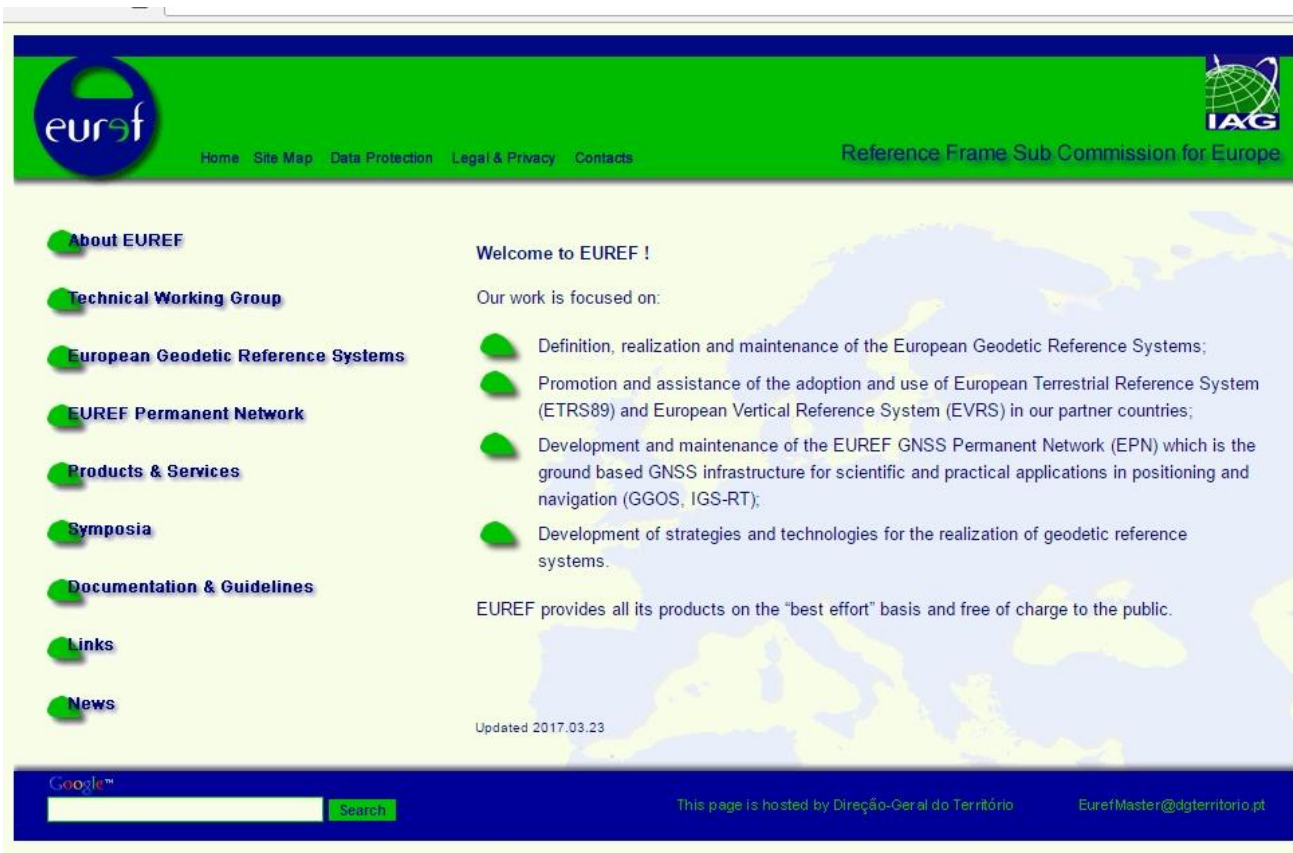
1st meeting: 18 de abril 2018

Topics:

- Reference Frame (ITRF2014 and EVRF2007)
- Geoid Model
- New Tide Gauges
- Absolute Gravimetry

EUREF Web Page

<http://www.euref.eu>



The screenshot shows the EUREF website homepage. The header is green with the EUREF logo on the left and the IAG logo on the right. Below the header is a navigation bar with links: Home, Site Map, Data Protection, Legal & Privacy, and Contacts. The main content area has a light blue background with a map of Europe. On the left is a sidebar with a list of links: About EUREF, Technical Working Group, European Geodetic Reference Systems, EUREF Permanent Network, Products & Services, Symposia, Documentation & Guidelines, Links, and News. The main content area contains the text 'Welcome to EUREF !' followed by 'Our work is focused on:' and a list of four bullet points. Below the list is the text 'EUREF provides all its products on the "best effort" basis and free of charge to the public.' and a date 'Updated 2017.03.23'. At the bottom is a Google search bar and a footer with contact information.

euref Home Site Map Data Protection Legal & Privacy Contacts **IAG** Reference Frame Sub-Commission for Europe

About EUREF

Technical Working Group

European Geodetic Reference Systems

EUREF Permanent Network

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Symposia

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News

Welcome to EUREF !

Our work is focused on:

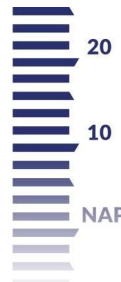
- Definition, realization and maintenance of the European Geodetic Reference Systems;
- Promotion and assistance of the adoption and use of European Terrestrial Reference System (ETRS89) and European Vertical Reference System (EVRS) in our partner countries;
- Development and maintenance of the EUREF GNSS Permanent Network (EPN) which is the ground based GNSS infrastructure for scientific and practical applications in positioning and navigation (GGOS, IGS-RT);
- Development of strategies and technologies for the realization of geodetic reference systems.

EUREF provides all its products on the "best effort" basis and free of charge to the public.

Updated 2017.03.23

Google™ Search

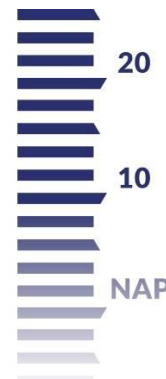
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Future projects:

- Study the feasibility of adopting a new realization of ETRS89, based on the ETRF2014 - New coordinates for the GNSS CORS by the end of this year.
- Work towards the establishment of a new vertical reference for mainland, linked to the official EUREF solution for EVRF2007 and based on new geodetic observations.
- New adjustment of the Geoid model, using new GNSS observations.
- Absolute gravity observations that will be done by the Finnish Geospatial Research Institute next year.



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Portugal

