

National Report France

**Operational contribution to the national and global
geodetic infrastructure**

EUREF 2017 Symposium, Wroclaw, 17 – 19 May 2017
National Report of France

National geodetic infrastructure

GNSS permanent network



Guadeloupe



Martinique



Saint Martin



La Réunion



Guyane



St Pierre et Miquelon



Mayotte

NETWORK :

- 467 stations (392 GPS+Glonass, 53 GPS+Glonass+Galileo)
- 27 EPN , 12 IGS
- 25 stations owned by IGN, all others included via partnership

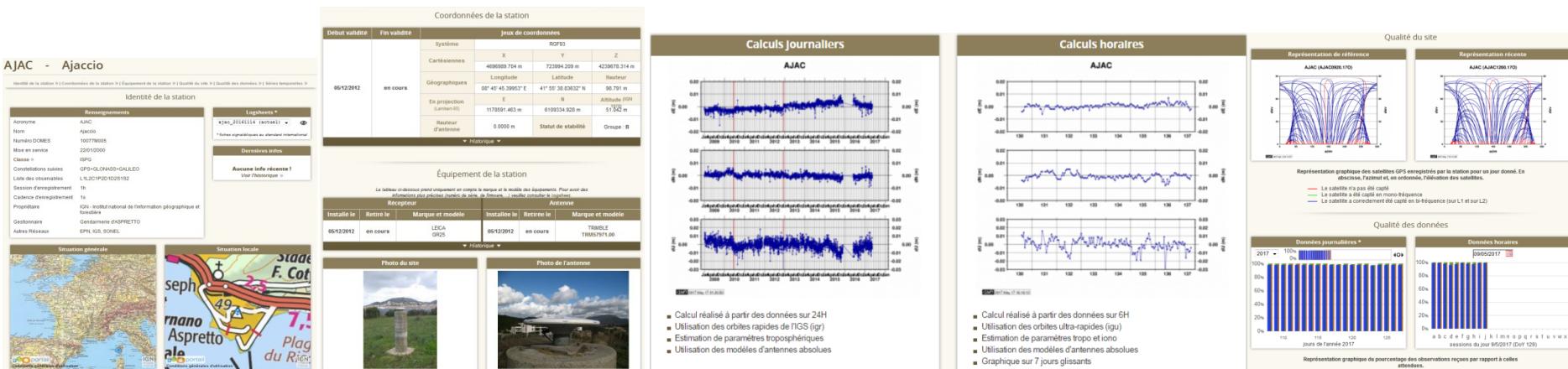
REAL TIME :

- caster (ign-ip.ign.fr) with 56 stations
- 10 stations EUREF-IP, 11 stations IGS-IP
- Streams used by IGN and real time network partners; also provided on request for non commercial applications.

National geodetic infrastructure GNSS permanent network

Services:

- Determination of station coordinates in the National Geodetic Reference System
- Diffusion of station coordinates, metadata and the quality metadata through web site : <http://rgpdata.ign.fr>

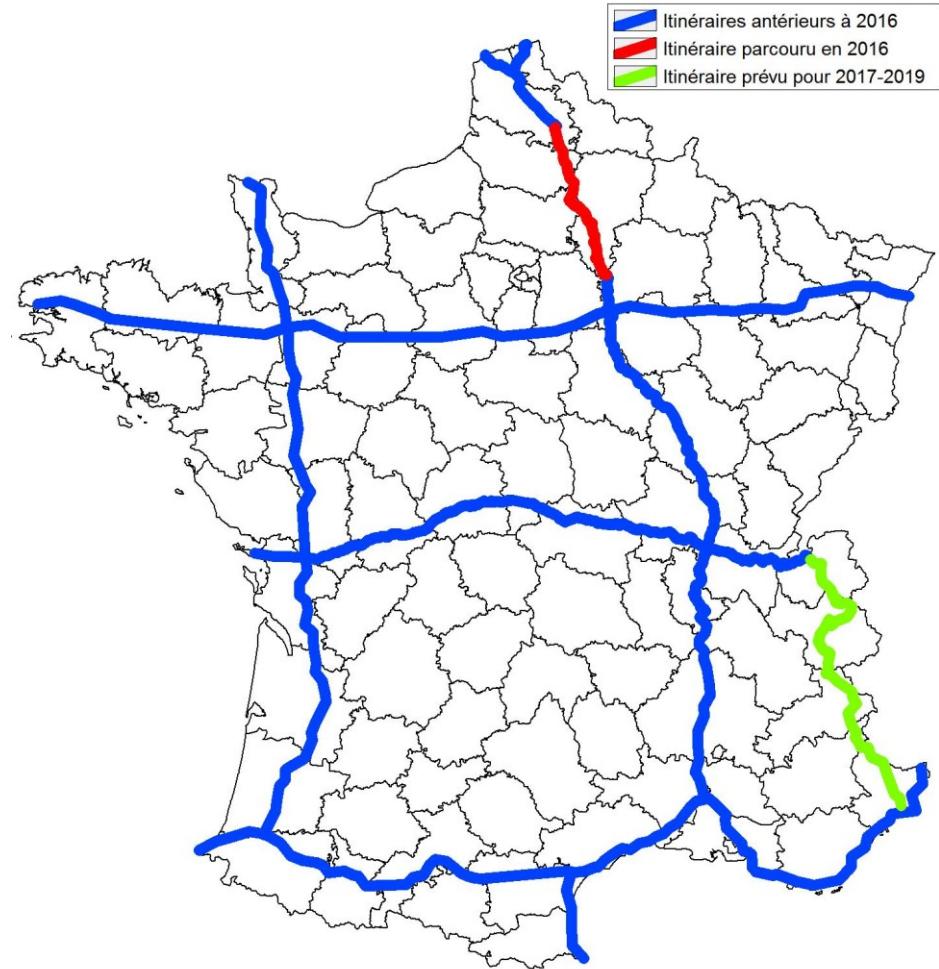


- Diffusion of Rinex Observations for post-processing : <http://rgp.ign.fr/DONNEES/diffusion/>, <ftp://rgpdata.ign.fr>
- Online Processing service : http://rgp.ign.fr/SERVICES/calcul_online.php



The figure shows the 'Calcul GPS en ligne' interface. It includes a 'Fichiers d'observation au format RINEX' section with a 'Pivot' dropdown set to 'Période'. Below this is a 'Stations GNSS Permanent à intégrer' section with dropdowns for 'Nombre maximum' (set to 5) and 'Eloignement maximum' (set to 1000 km). There is also a 'Adresse Email' field and a 'Télécharger' button. At the bottom, there is a note about responsibility and a 'SOUSCRIRE LA DEMANDE' button.

National geodetic infrastructure Scientific leveling network (NIREF)



National geodetic infrastructure

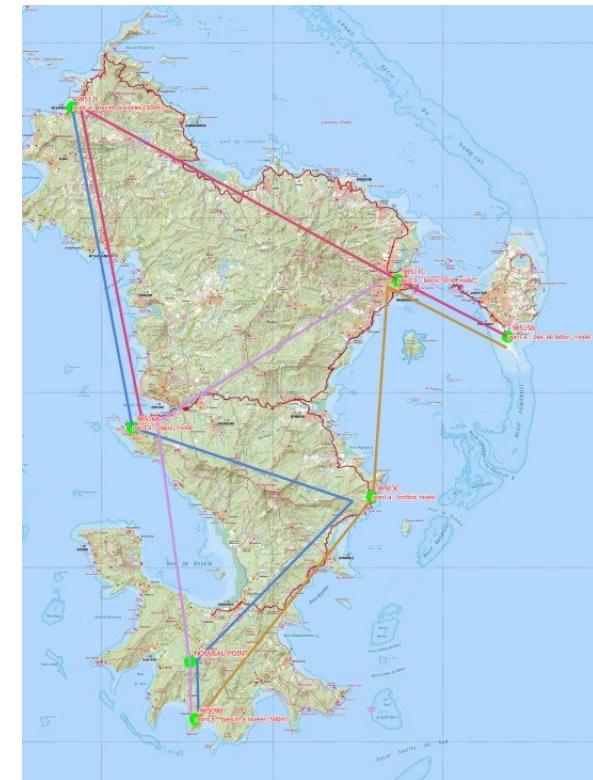
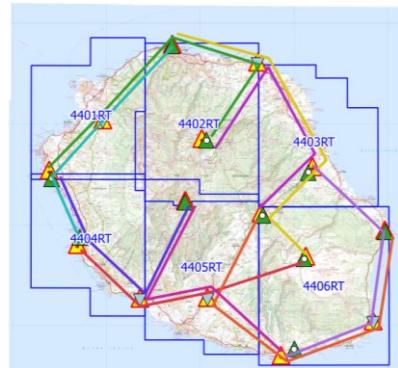
Gravimetric reference network

➤ Maintenance of the existing network :

- . 29 relative remeasures

➤ New networks

- . 2014 : Guadeloupe
- . 2015 : Martinique
- . 2016 : Guyane
- . 2017 :
 - . Ile de la Réunion (10 absolute, 5 relative)
 - . Mayotte (7 absolute)
- . 2018 : Saint Pierre et Miquelon



IAG services and commissions / développements

- IGS (International GPS-GNSS Service)
 - . IGS reference frame combination center (coordinates & ERPs) and Global Data Center
 - . IGS14 (released early 2017), Igsworkshop2017 (3-7 july, Paris)
- EUREF :
 - . Analysis center
 - . Local data center
- Other developments
 - . Gravimetric quasigeoid and altimetric conversion grid : to be released in 2017
 - . UltraRapid orbits and clocks (available 2 hours after observations)
 - GPS/GLONASS, using Bernese5.2 : soon to be released
 - GPS/GLONASS/GALILEO using Napeos : soon to be released
 - . ITRF14 : All our process are now using the new realisation, including PSD to propagate coordinates