





**EUREF 2018** 

# **GNSS PERMANENT NETWORK**

#### Network

492 permanent stations (31/03/2018)
31 new stations in 2018
Mostly multi constellation (>80 % GPS + GLONASS)
IGN acts as a coordinator of many partners

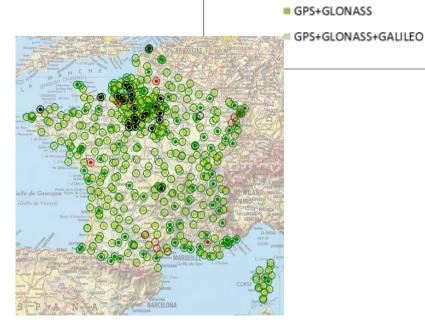
#### Services

Website: http://rgp.ign.fr >3000 visitors / month

Data download: ~3000 dl / month

Online GNSS processing service ~300 processings /

month





Nombre de stations

402

73

■ GPS seul

# **GNSS PERMANENT NETWORK**

# Perspectives

More than 500 stations

Development of the networks in Guyana, Guadeloupe and Martinique

#### Online PPP services









# SCIENTIFIC LEVELLING NETWORK

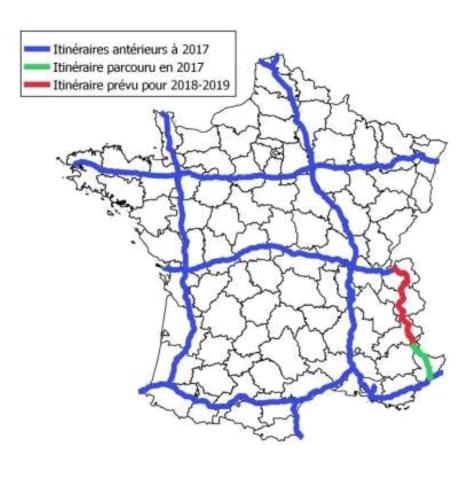
## National Levelling Network

Maintenance of the national levelling network A 12-Years project (2008-2020)

#### **NIREF**

140km in 2017 in the Alpes from Nice 2018-2019: up to Geneve





# **GRAVIMETRIC NETWORK**

#### National Gravimetric Network

Maintenance of the national gravimetric network

- •45 absolute points
- •132 relative points

#### 2018-2019

New reference network in Saint Pierre et Miquelon

Improvements of the network

Tests in areas with high gravimetry variability, like Brittany



# CONTRIBUTION TO THE GLOBAL GEODETIC INFRASTRUCTURE

## IGS (international GNSS service)

- IGS reference frame combination center
- Global data center
- Organization of IGSworkshop 2017 in July in Paris

#### **EUREF**

- Analysis center
- Local data center
- Reprocessing of all our data soon to be released, probably in July 2018

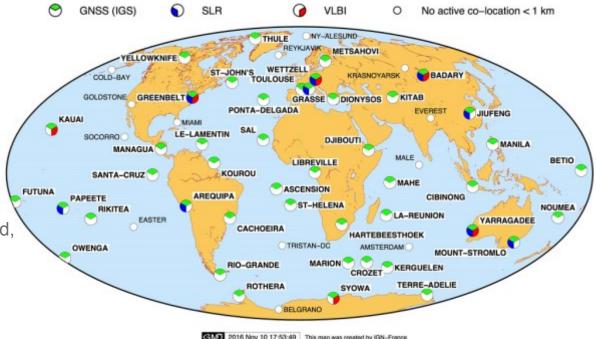
# CONTRIBUTION TO THE GLOBAL GEODETIC **INFRASTRUCTURE**

#### DORIS stations co-located with other IERS techniques



A 30 year partnership between CNFS and IGN.

Ca 60 stations all around the world. co-located with other techniques



GMD 2016 Nov 10 17:53:49 This map was created by IGN-France

#### IGN contributions

DORIS network maintenance and evolution

IDS data center, Member of IDS, DORIS representative at IERS

CONTRIBUTION TO THE GLOBAL GEODETIC

**INFRASTRUCTURE** 



GNSS network for IGS and navigation

Partnership between CNES and IGN. 36 full-GNSS stations all around the world

Real-time service



#### **IGN** contributions

Operational infrastructure management

Redundant mission center

R&D for inter-system calibration and PPP

# CONTRIBUTION TO THE GLOBAL GEODETIC

**INFRASTRUCTURE** 

















Network for sea-level observation from tide gauges (relative sea levels) and from modern geodetic techniques (vertical land motion and absolute sea level)

GNSS datacenter for GLOSS (Global Sea Level Observing System)

#### IGN contributions

GNSS data center

GNSS stations implantation, management and measurement





THANK YOU FOR
YOUR ATTENTION
ign.fr

