



National Report of France

EUREF 2005

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GPS permanent network : RGP



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- Developed in partnership with Public institutes (universities, research laboratories, ...) and Private partners
- 44 stations (19 IGN, 25 partners) : observations files 1h/1s
- 13 stations (1 IGN, 12 partners): observations files 24h/30s

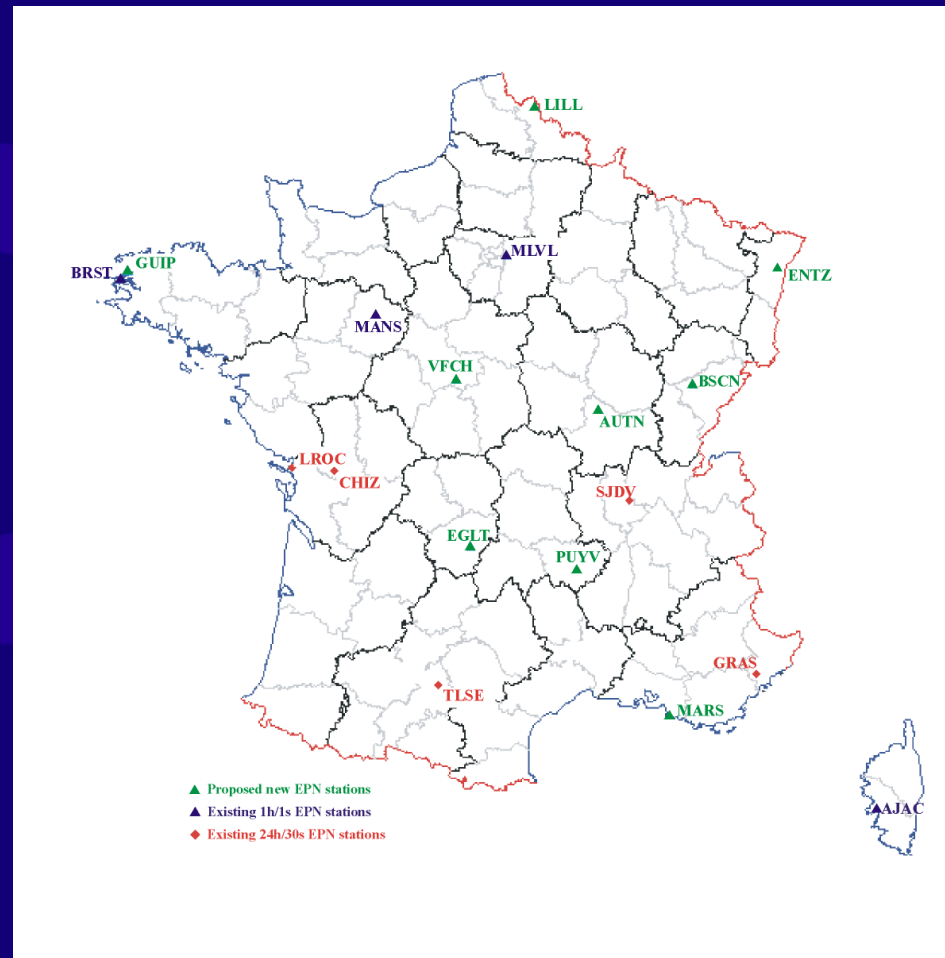
RGP participation to EPN and IGS

EPN

- 10 existing
- 8 proposed

IGS

- 7 existing



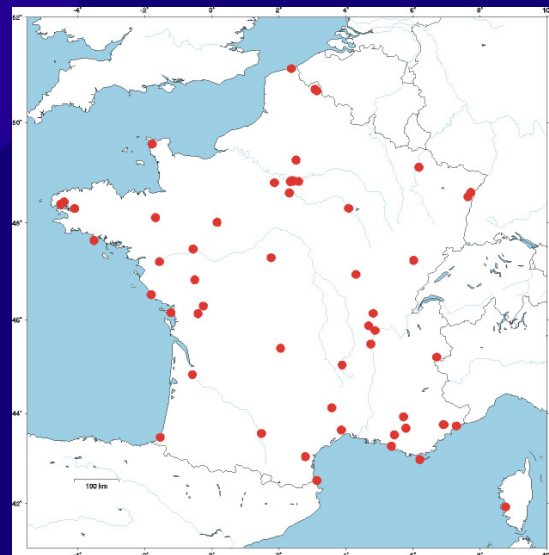
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A real time network project : TERIA

- OGE (ordre des géomètres experts)
- 100 stations
- Real time service with an admission charge
- Post processing : stations integrated to RGP , free of charge
- Operational in 2006



RGP



TERIA stations

RGP : two operational centers

- IGN/LAREG in Marne-la-Vallée
- IGN/SGN in Saint-Mandé

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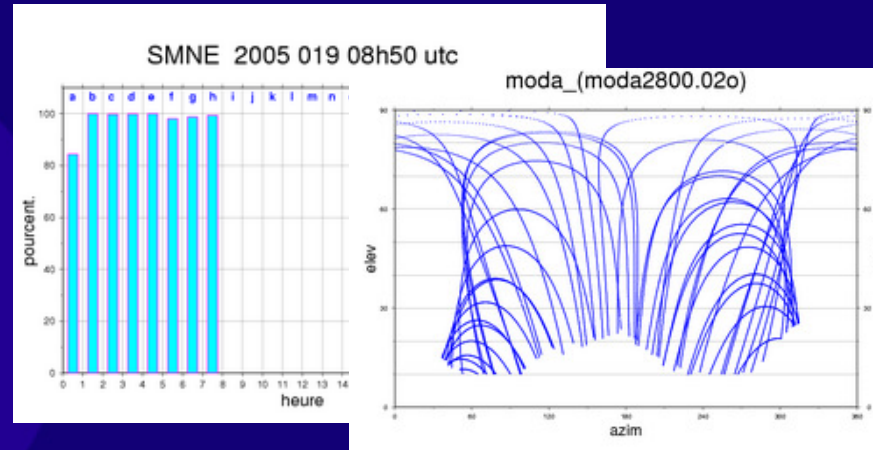


RGP : two operational centers

Data processings :

- hourly and daily solutions for data quality check ...

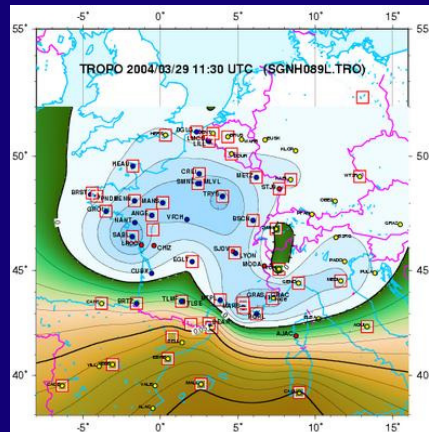
Data flow



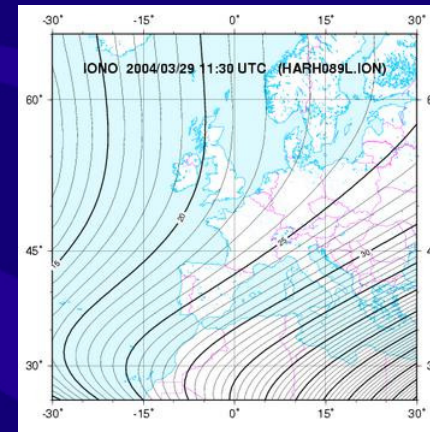
Site obstructions

... and atmospheric products

ZTD



Ionospheric
models



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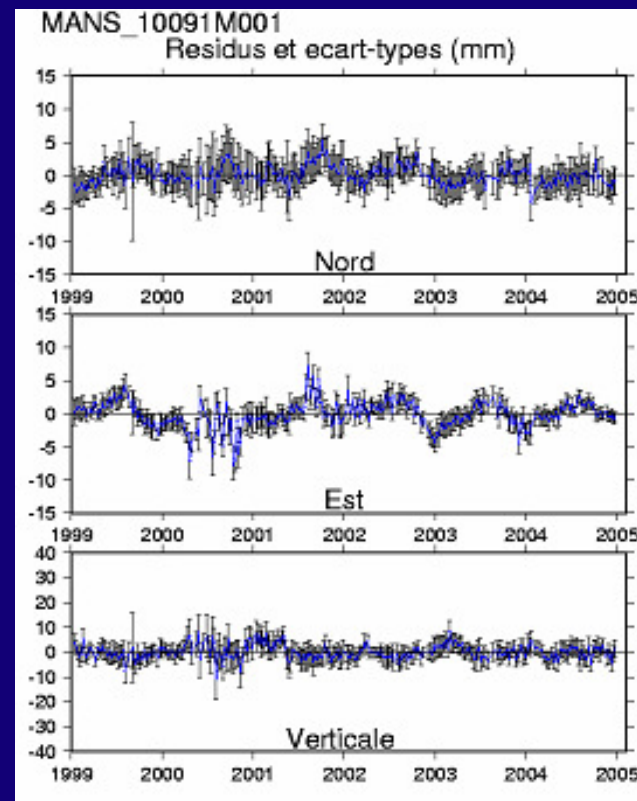
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RGP : two operational centers

Data processings (cont.)

- weekly solutions (including EUREF one) for national reference maintenance (time series)



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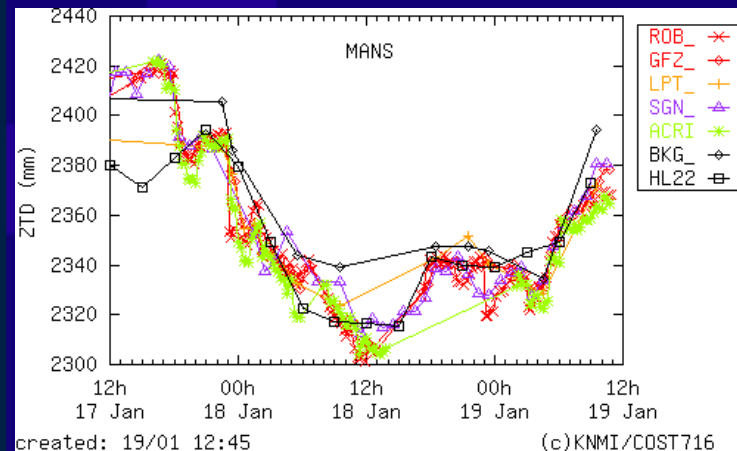
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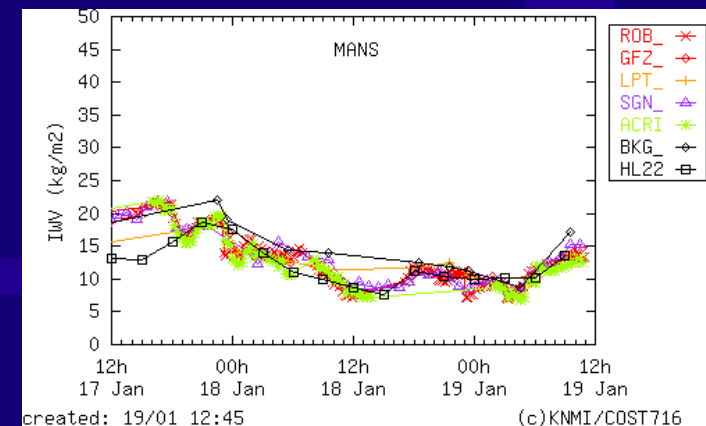
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RGP : two operational centers

- COST and TOUGH participation
- 55 stations (RGP and EPN)
- IGN-SGN computing center



Zenital Total Delay



Integrated Water Vapor

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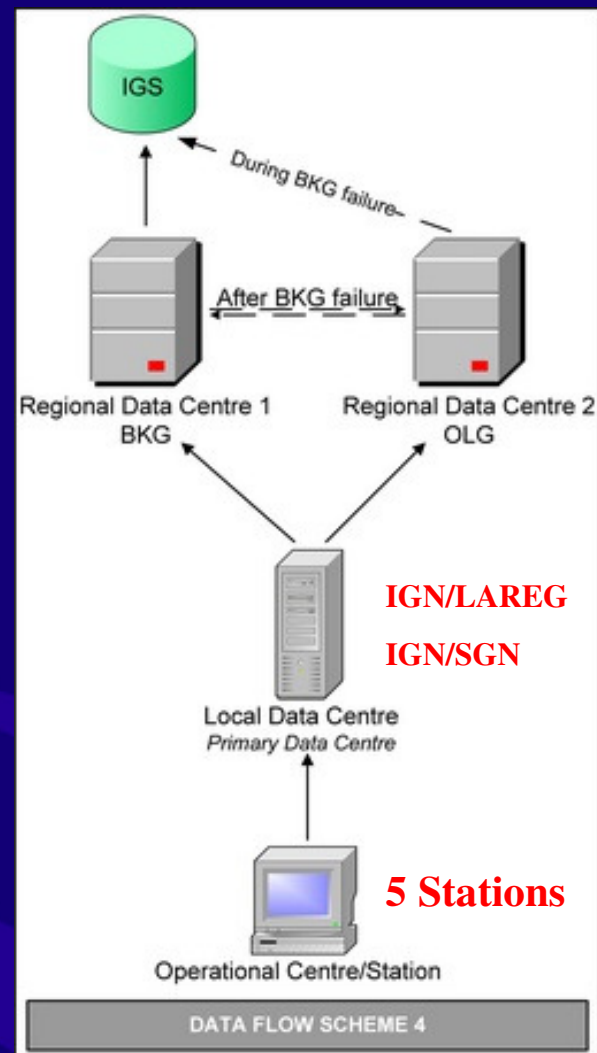
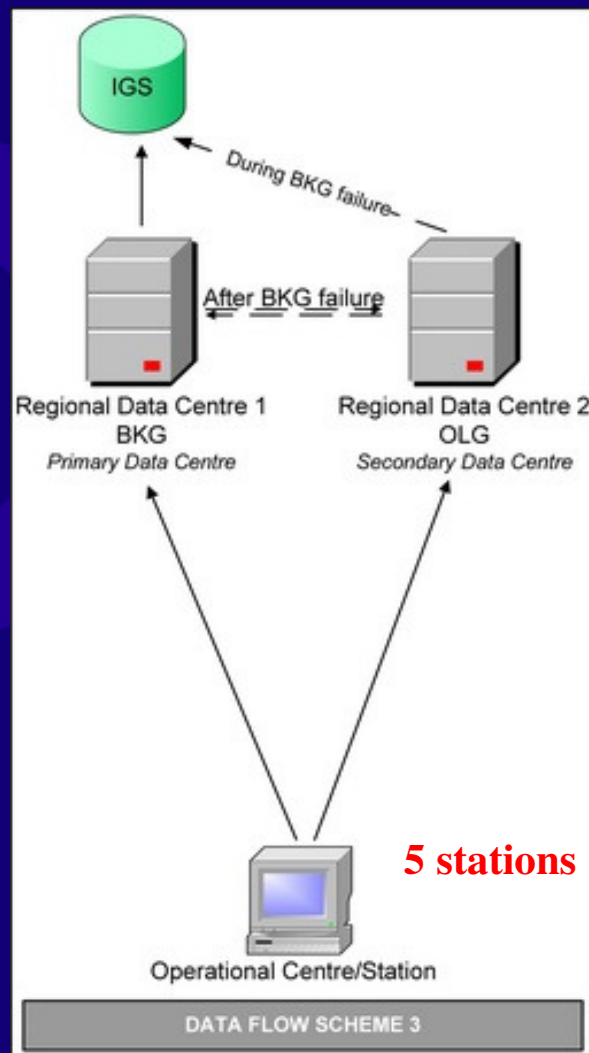
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IGN Local Data Center for EPN (LDC)

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IGN Local Analysis Center For EPN (LAC)

- Bernese 4.2 (switch to 5.0 in the next few weeks)
- Observations of 89 GPS permanent stations are routinely processed, and a solution for 25 of them is extracted to provide IGN LAC solution

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ETRS89 realisation in France

- First realisation : RGF93

- 1029 RBF points observed in 1994-1995-1996
- Computed 96-97
- Accuracy estimated 2-3 cm

- Since december 2000, a law states RGF93 (ETRS89) as National reference

- RGP stations were tied to RBF network to provide RGF93 coordintes

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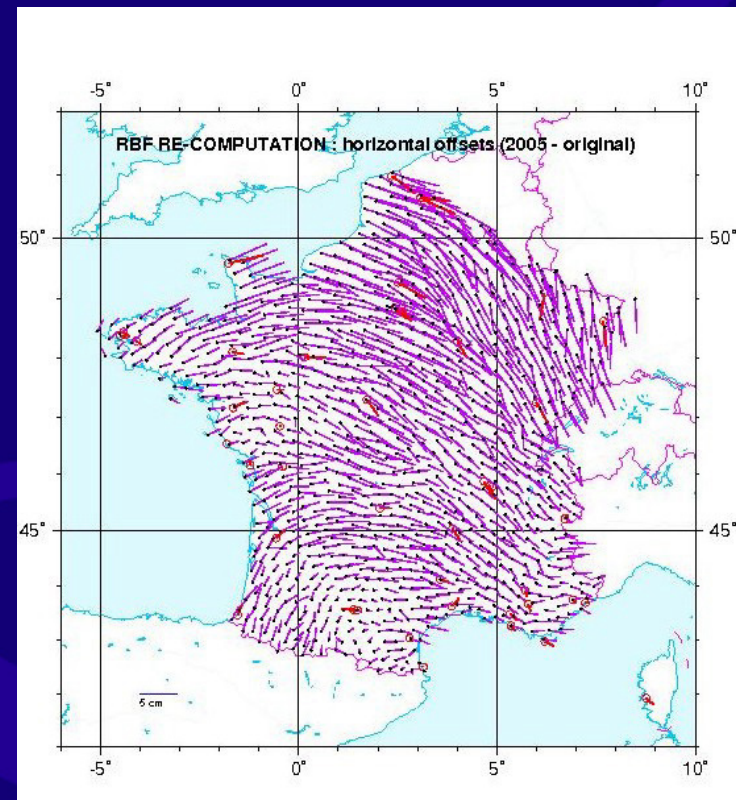
New ETRS89 Realisation in France

- RGP stations including IGS and EPN ones : computation of all observations since 1999 (0991) to 2004 (1294)

Accuracy : a few millimeters

- New computation of the RBF original observations with Bernese software including observations of French and EPN GPS permanent stations

- Perspectives : add recent observations between RBF and RGP



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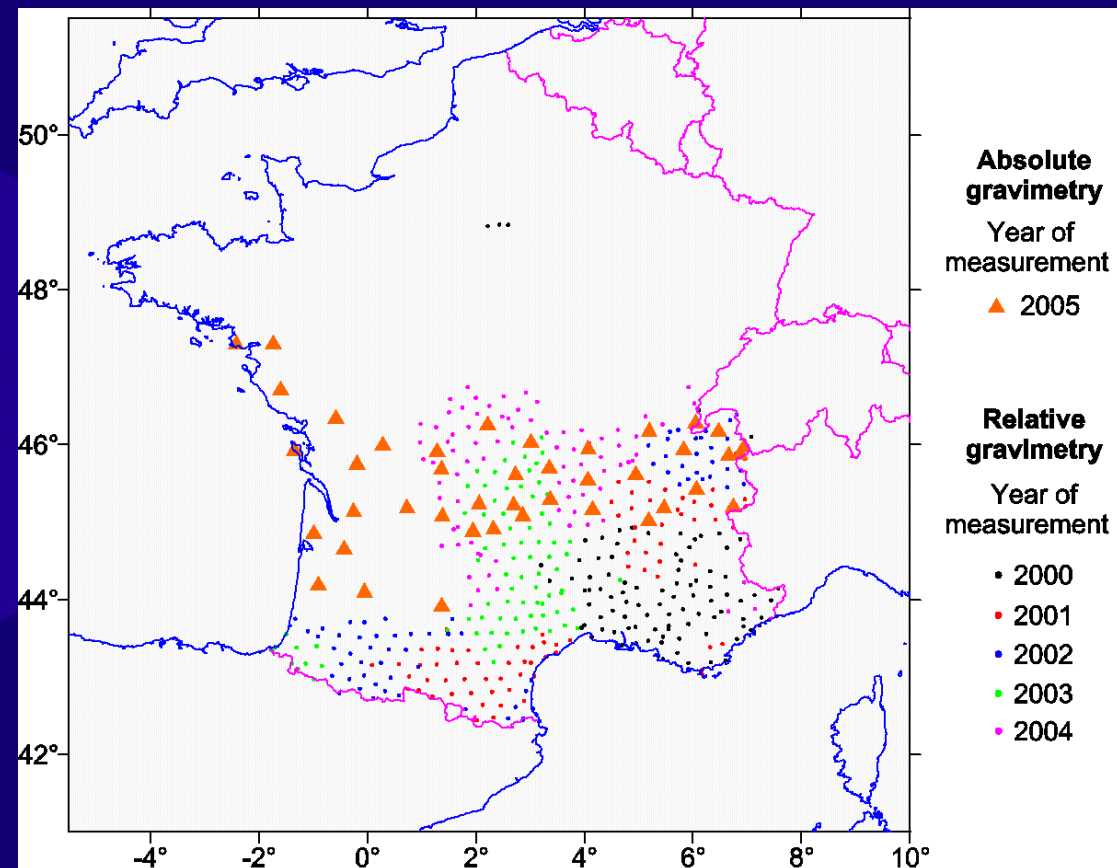
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The new French gravity network



(see presentation in the next session)

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