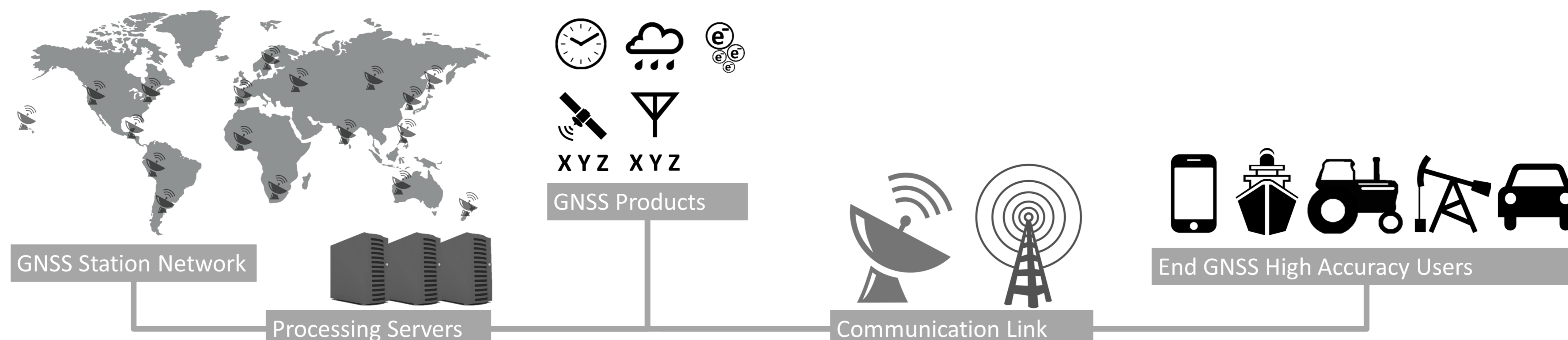# *magicGNSS*' CONTRIBUTION TO
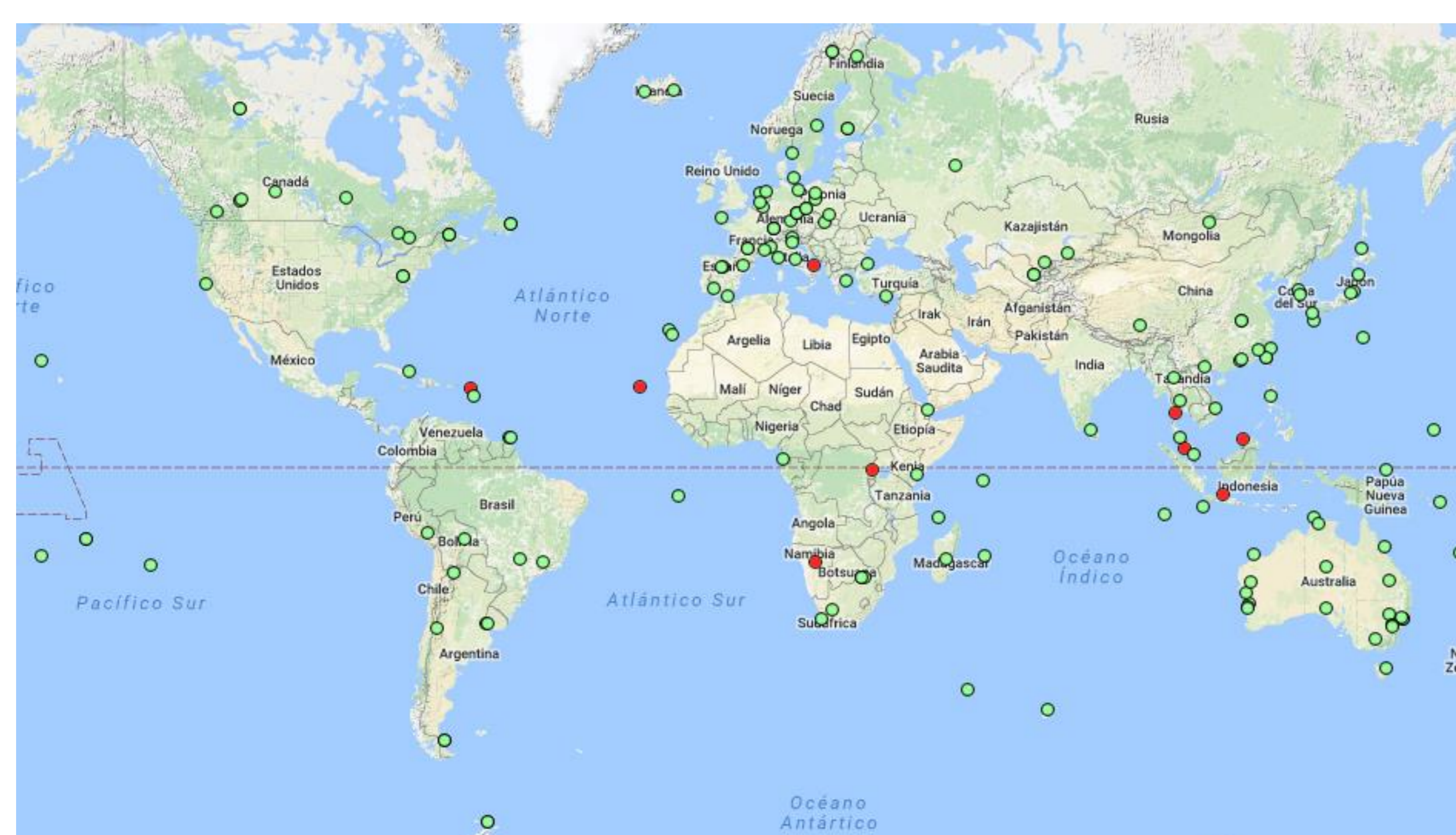# REAL TIME IGS SERVICE

Guillermo Tobias, Pedro F. Navarro, Irma Rodriguez/ GMV

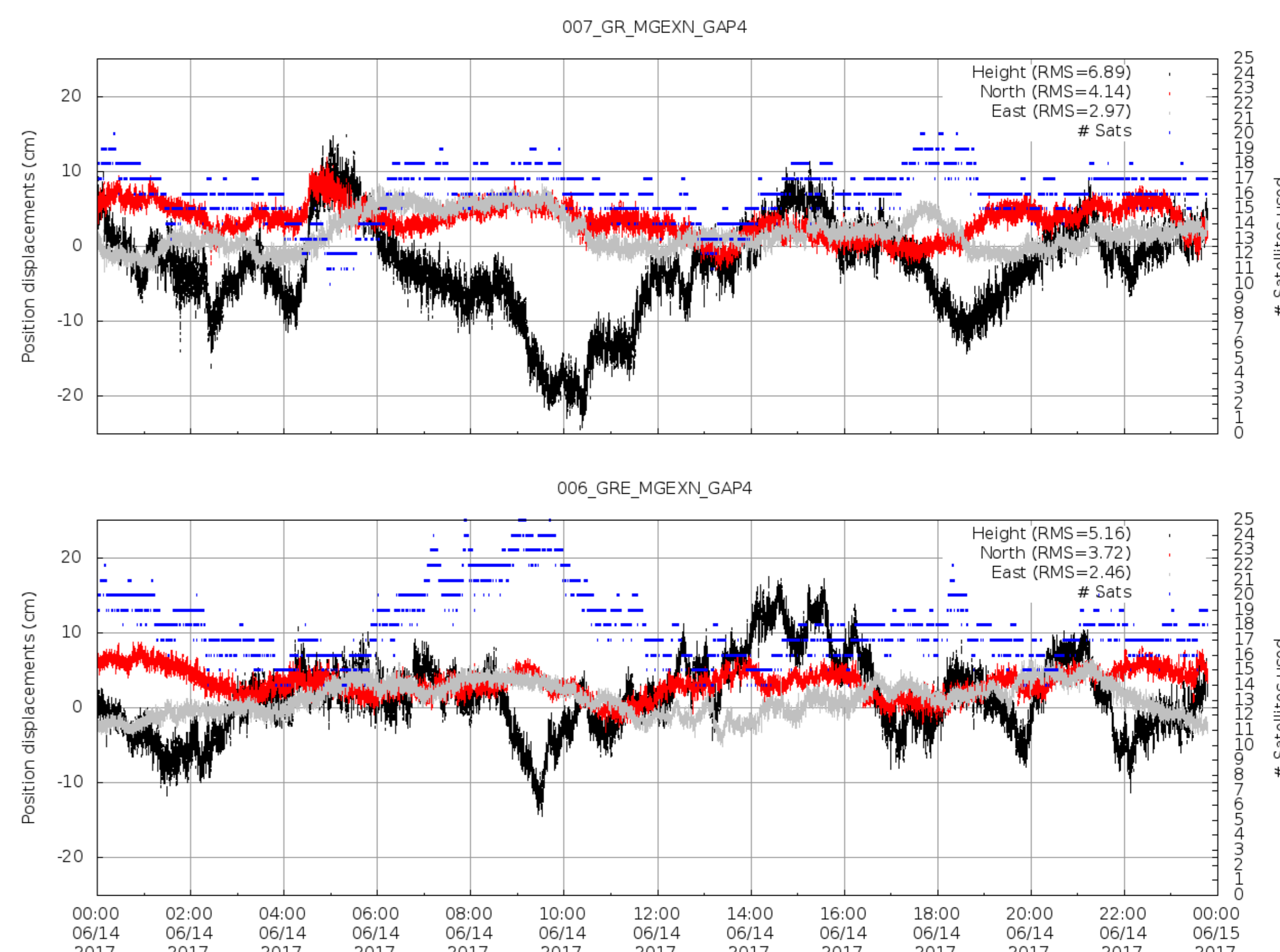## magicPPP INFRASTRUCTURE

MULTI-GNSS SOLUTION

- Multi-GNSS solution based on RTCM MGEX data processing
- **GPS + GLONASS + Galileo + BeiDou + QZSS** combined process
- Sequential constellation processing approach for computation time reduction
- Usage of **draft RTCM messages** for BeiDou ephemeris and Galileo ephemeris corrections

REAL-TIME PPP PERFORMANCES

End performances evaluated at user level both for:

- **Nominal G+R RTIGS Contribution**: 4cm HRMS, 7cm VRMS
- **Multi-GNSS MGEX-based Solution**: 3cm HRMS, 5cm VRMS

MONITORING SYSTEM

Real-Time monitoring of the reference GNSS station network data to prevent RTIGS contribution performance degradation.

Key features monitored:

- Data availability / Data quality.
- Position stability
- GNSS receiver clock stability
- Tropospheric Zenith Delay stability
- Ionosphere Delay
- Alert thresholds configurable by the users

gmv
INNOVATING SOLUTIONS

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