

National Report of Finland

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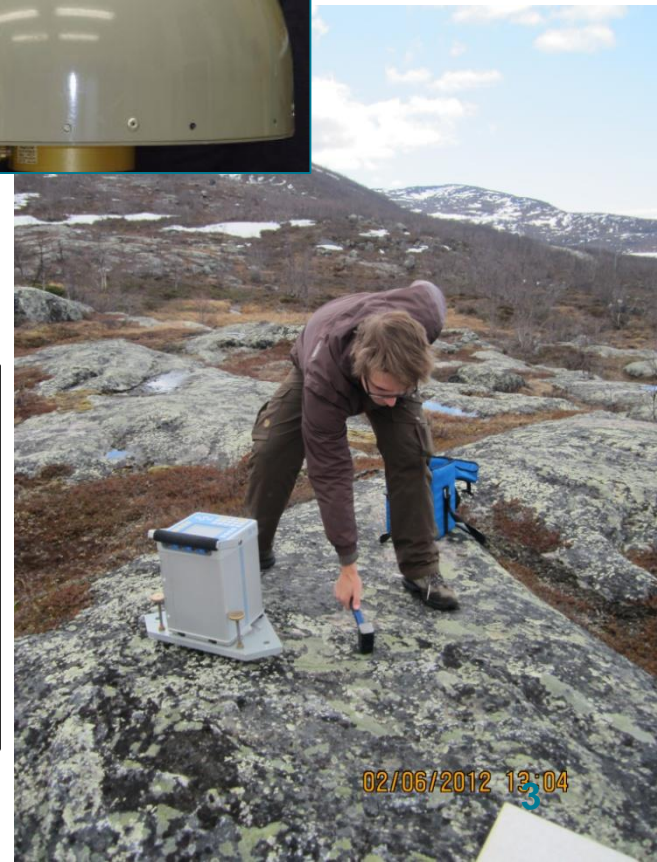
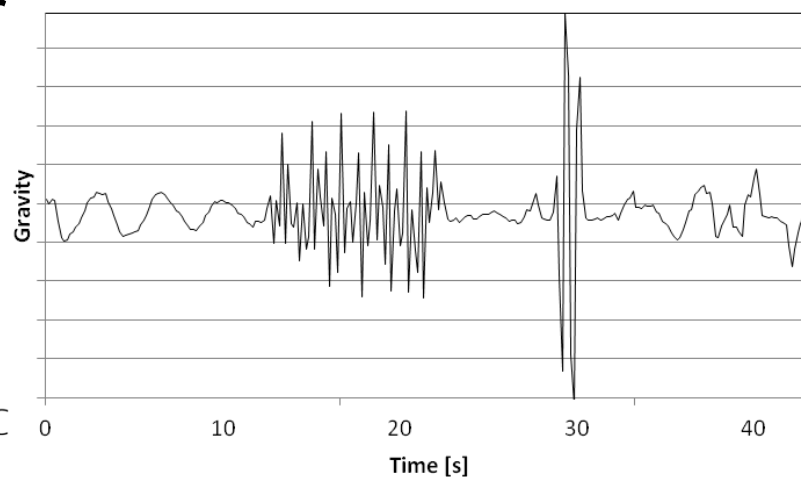
Renewal of Metsähovi and FinnRef

- ❑ Ministry of Agriculture and Forestry allocated special funds for renewal of Metsähovi instrumentation during five years (2012-2016)
- ❑ Finnish Permanent GNSS Network FinnRef (~20 receivers)
 - Schedule 2012-1013; installation going-on, 0.5 m free navigation service
- ❑ SCG; new instrument ordered; installation mid-2013
- ❑ AG; upgraded to FG5-X in 2013
- ❑ SLR (new telescope,); tender open 03-06/2013
 - Schedule 2013-2015
- ❑ VLBI (VLBI-2010 compatible new telescope);
 - Schedule 2013-2016
- ❑ DORIS (owned by CNES, IGN) renewed in 2012
 - New permanent GNSS station (METG), part of global REGINA network
- ❑ Infrastructure, local ties, several minor instruments



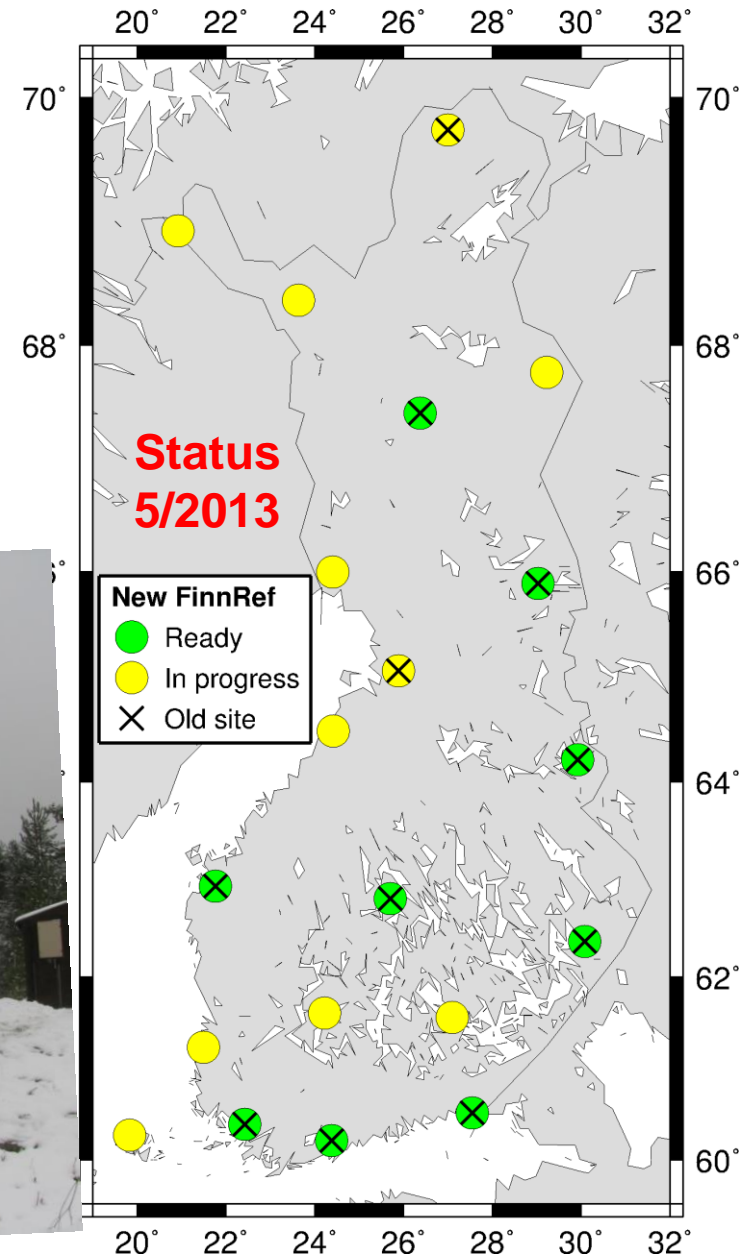
Renewal of permanent FinnRef GNSS network

- ~20 new stations in 2013-2013
- Equipment
 - Javad Delta-G3T
 - Javad Choke Ring antenna and SCIGN radome
- Stability of the bedrock verified with Scintrex CG5 spring gravimeter



Renewal of permanent FinnRef GNSS network

- Status 5/2013
 - **Nine stations ready**
 - Rest by the end of 2013
- New 0.5m positioning service in the beginning of 2014
 - Free of charge



Open data

- Principal decision by the Finnish Government in 2011
 - Promote accessibility of digital data from the public sector
- **National Land Survey of Finland** opened some data sets free of charge in May 2012, see <http://www.maanmittauslaitos.fi/en/opendata>. Data include e.g.:
 - Laser scanning data
 - Benchmarks
 - Elevation models (2m, 10m, 25m and 200m)
 - Aerial and orthophotos
 - Topographic database
 - Basic, topographic and general maps in different scales
 - Municipal boundaries
 - Name register
- GNSS data/services by the **Finnish Geodetic Institute** will be freely available by 1.1.2014
 - Rinex data for post-processing
 - Data streams from individual stations
 - Positioning services

New recommendations for the public administration (JHS)

- New guidelines released/to be released
 - JHS184: Measuring of control points in EUREF-FIN reference frame
 - Control point hierarchy, including passive and active control points
 - Measurement techniques (static and kinematic GNSS surveys, tacheometry)
 - Guidelines to measure control points
 - JHS185: Large scale map for city plans
- www.jhs-suositukset.fi