TIGA network coordination: monitoring data fluxes and providing metadata

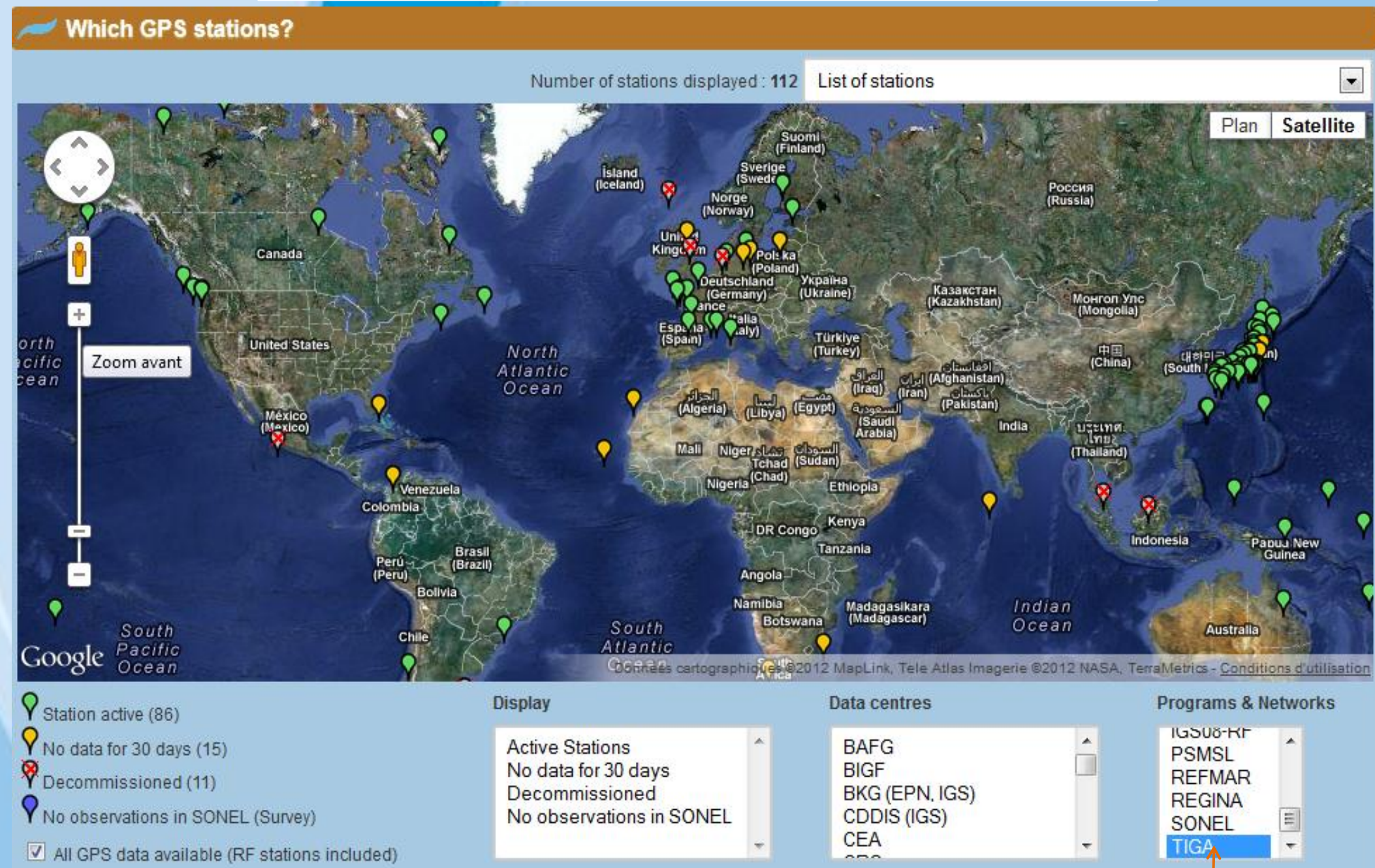E. Prouteau[1], M. Gravelle[1], M. Guichard[1], D. Mesmaker[2], Q. Baire[2], C. Bruyninx[2], G. Wöppelmann[1]

[1]LIENSS (Université de la Rochelle – CNRS), 2 rue Olympe de Gouges, 17000 La Rochelle, France
[2]Royal Observatory of Belgium, Av. Circulaire 3, B-1180 Brussels, Belgium

The **TIGA** Working Group aims at providing an infrastructure built upon the IGS one for high-quality products stemming from the reanalysis of GNSS data at or near tide gauges (GNSS@TG). The main products are the station positions (time series) and velocities of the committed GNSS@TG stations. A basic TIGA activity is thus maintaining and promoting the expansion of the global GNSS@TG network, as well as the provision of its data and metadata.
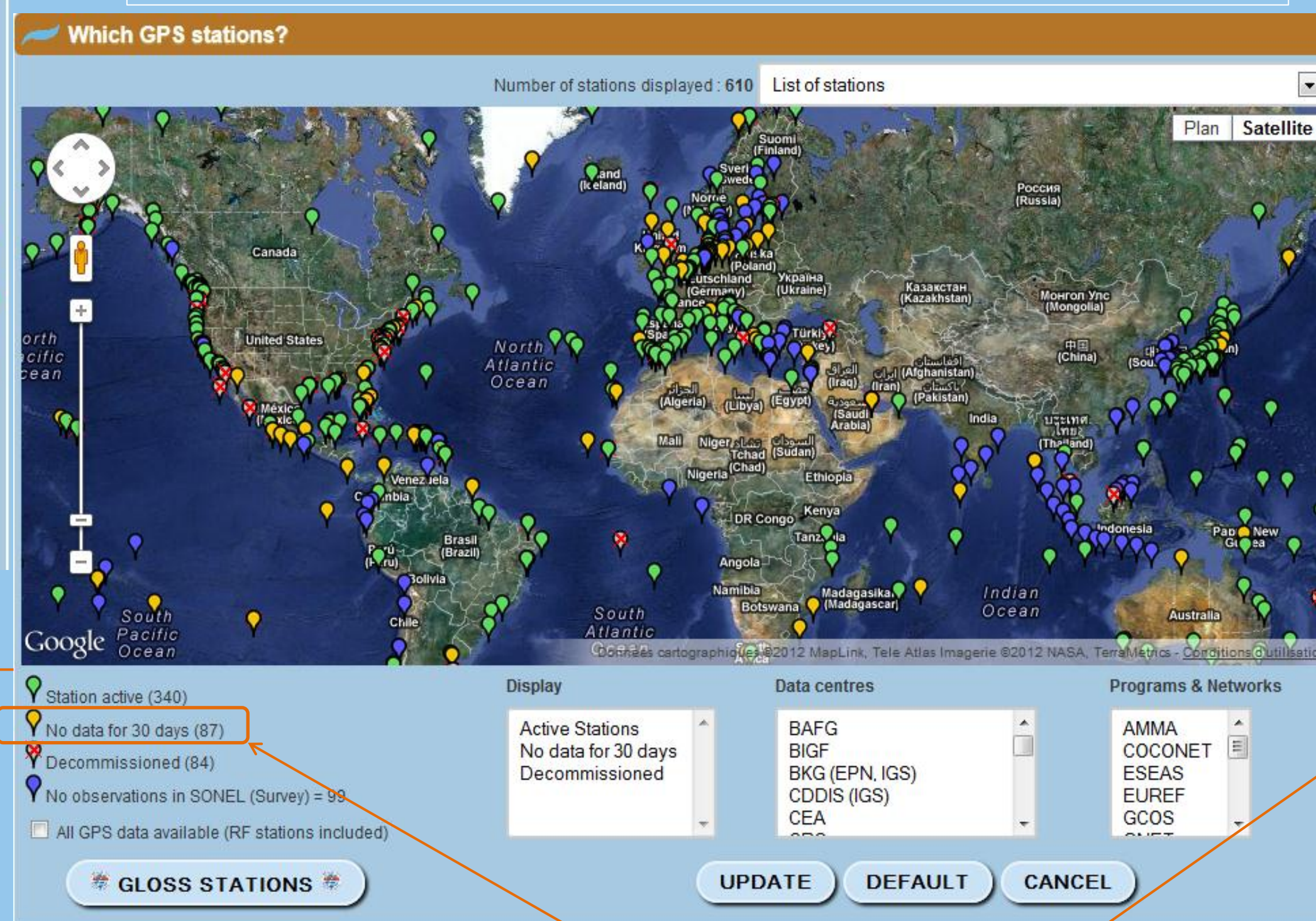
The **TIGA Network Coordinator** has a coordination role with the station operators to assemble the necessary CGSP@TG data and metadata for provision to the TIGA Analysis Centers (TACs) via the TIGA Data Centers (TDCs). Her main functions: Check the availability and consistency of the data and metadata at the TDCs, ensure completeness of the sitelog files, monitor the data flows. Her role is closely related to the TDCs activities.

SONEL : primary TIGA data center. Collects GNSS data from stations at or near tide gauges (<15 km). Provides access to that observational data, plus the TAC solutions, in particular for the TIGA combination.
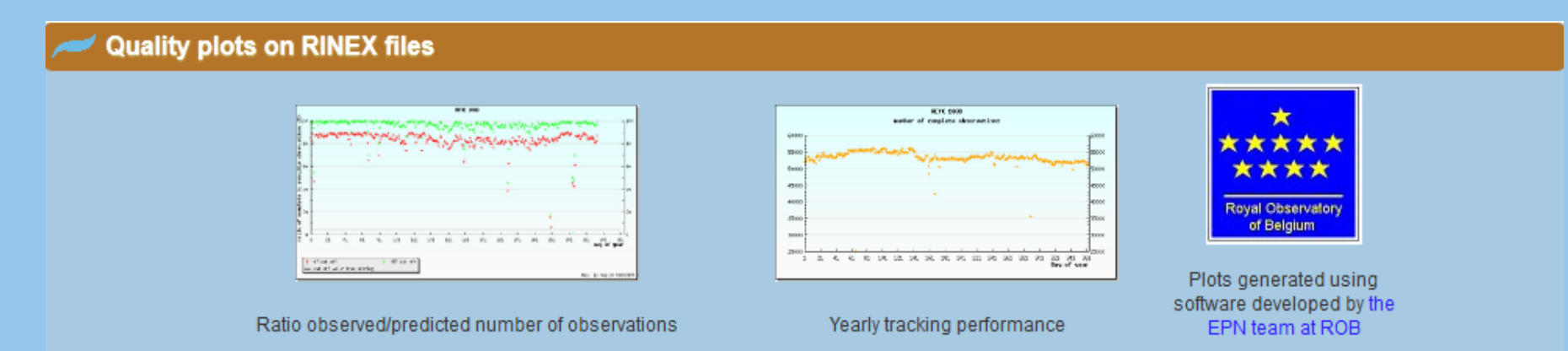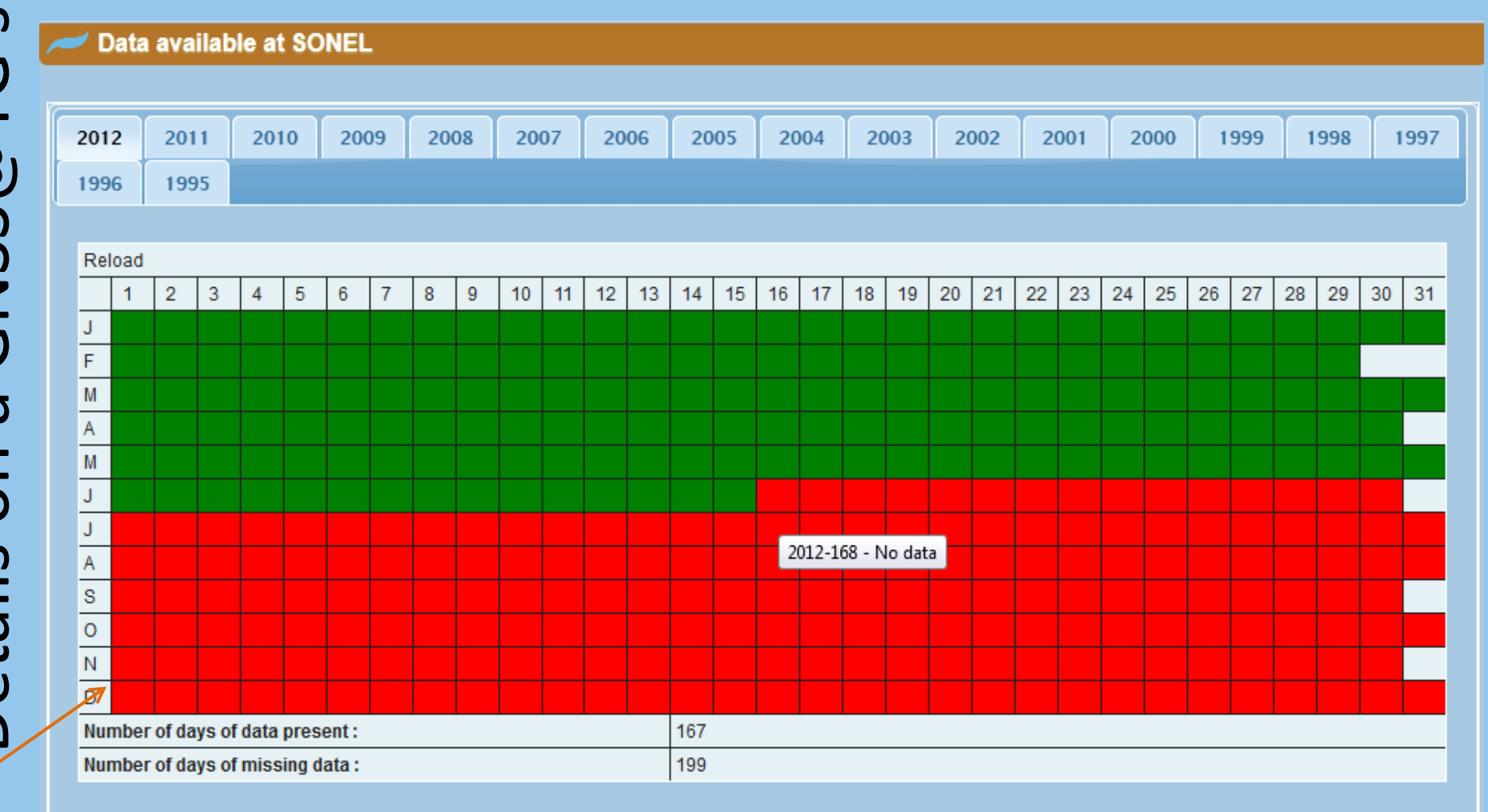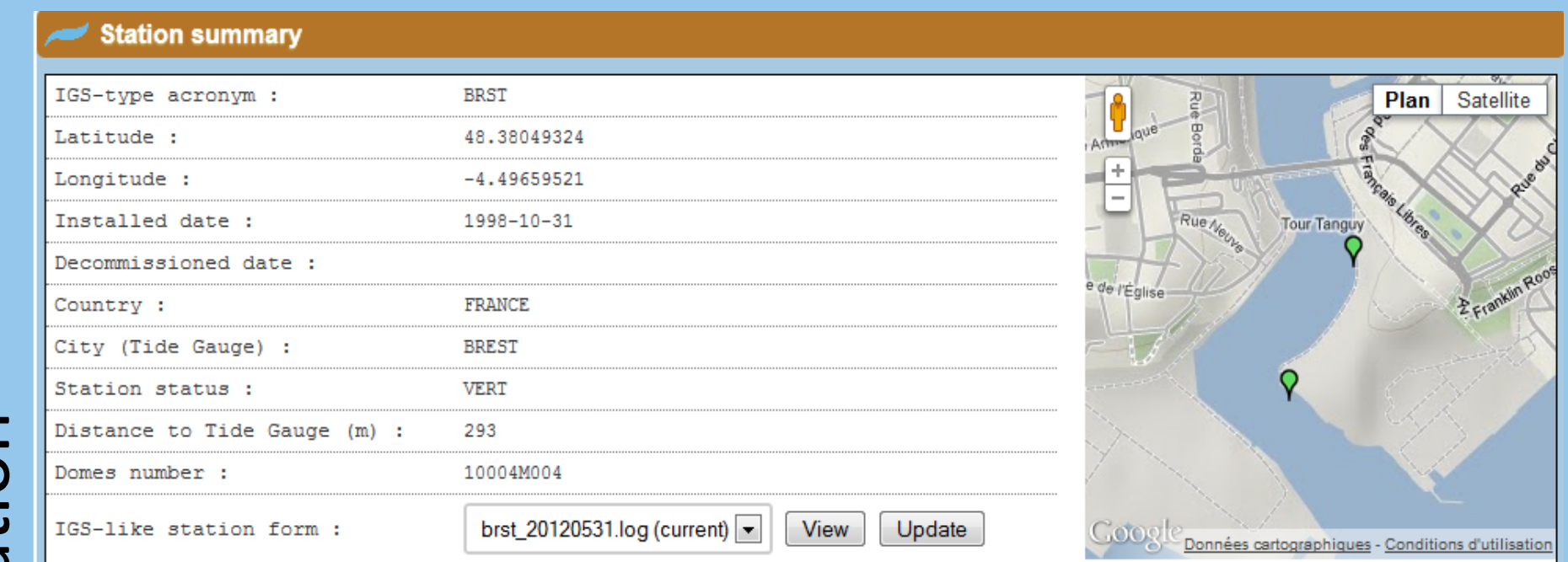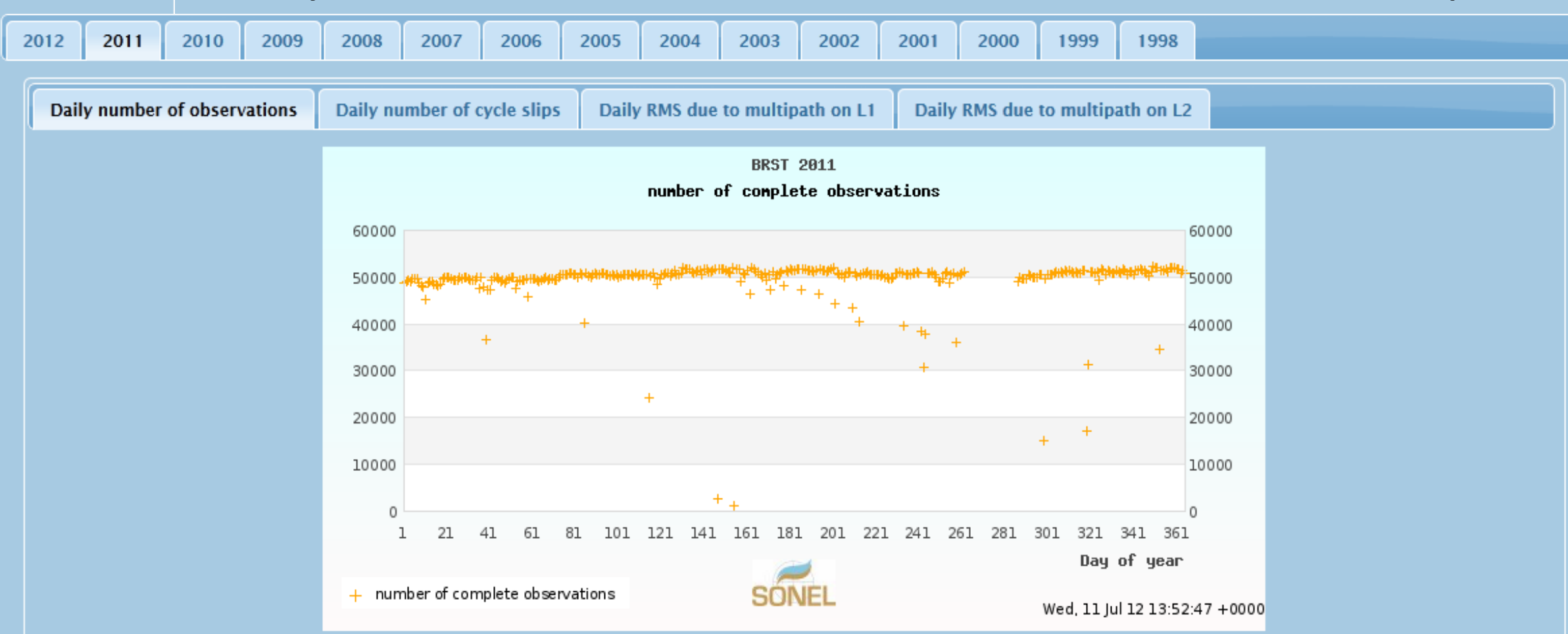
GNSS@TG stations committed to TIGA

Three requirements to become a TIGA station:
i. Availability of GNSS data & sitelog at the TDCs
ii. Tide gauge data being sent to the PSMSL or UHSLC
iii. Provision of the TOS (TIGA Observing Station) form

Survey on GNSS@TG stations (IOC/GLOSS umbrella)

Details on a GNSS@TG station

Alert

Quality check is aimed at on all RINEX files collected
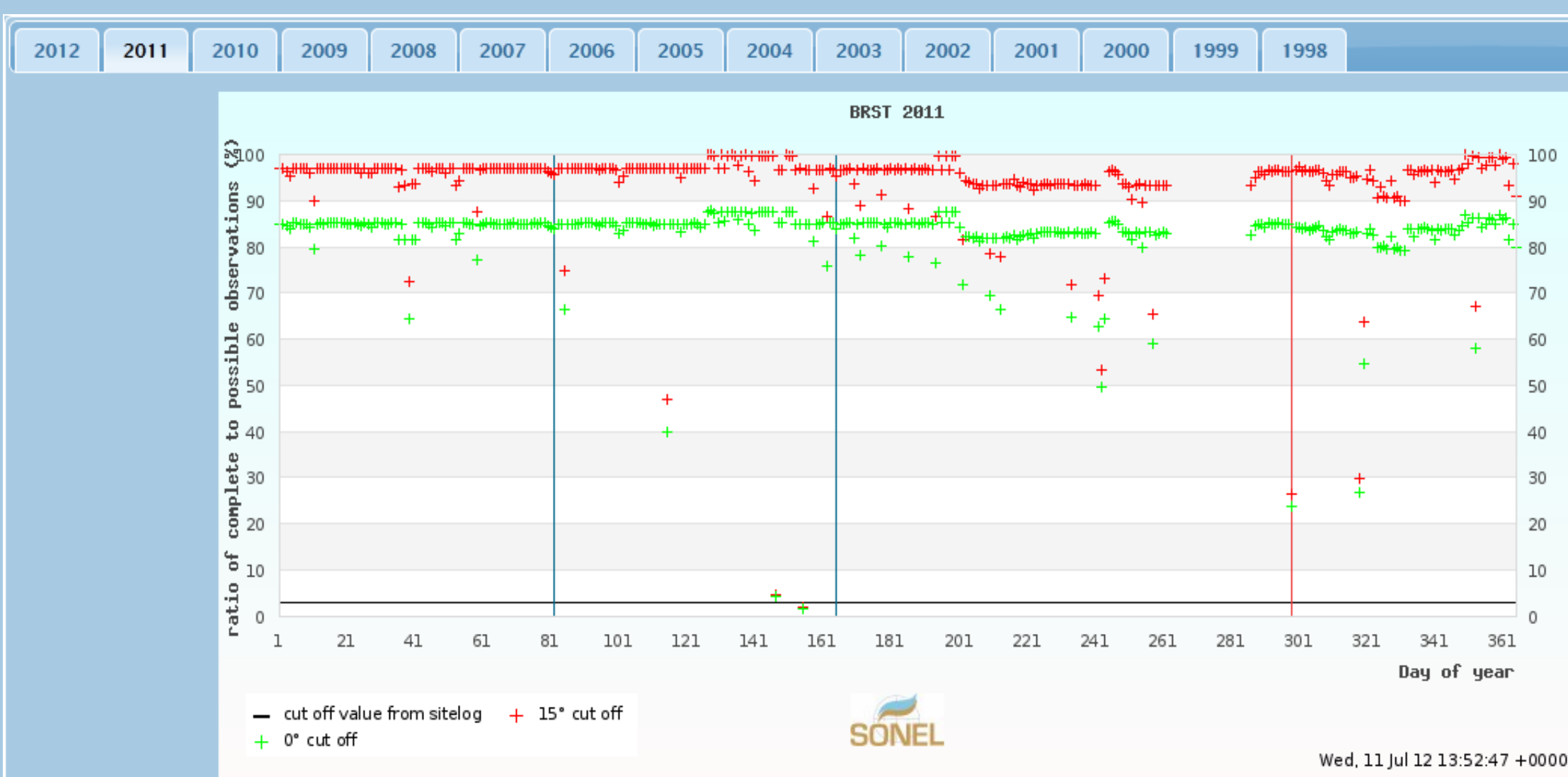
Technical support in RINEX conversion and quality control is important for sea level agencies that are not experts and not processing GNSS data for their own purposes, and thus may not notice when their observation files are corrupted.

GPS sitelog generation tool – Guidelines for operators

A tool to support operators to enable them to commit to TIGA more easily (IGS standards, formats…). Only 112 out of 503 stations in SONEL are committed to TIGA.

Future developments

o Ideally the operators would manage the station on the data center SONEL website. And have on his/her area direct access to the results of the quality checks (consistency with RINEX files, …).

o Automatize the consistency check between the RINEX and sitelog files

18% RINEX files have wrong MARKER NAME field

References : SONEL website: http://www.sonel.org, Contact: sonel@sonel.org including corresponding author: elizabeth.prouteau@univ-lr.fr