TIGA Network Coordinator report

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- SONEL -
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TIGA network status

GNSS@TG stations committed to TIGA

SONEL GNSS@TG network

IGS Virtual Workshop, 2022, June 27 – July 1st

Elizabeth PROUTEAU
TIGA network status

Number of RINEX files for TIGA and GNSS@TG stations

This graph shows the evolution of the number of Rinex files available on SONEL (per DOY) since 1990-079 for GPS@TG and TIGA stations.
SONEL data holdings

Number of RINEX files for GNSS near tide gauge stations

Evolution of the number of Rinex files available on SONEL (per DOY) since 1991-079

Number of RINEX files on SONEL, per day
TIGA network status

Time series lengths for TIGA and GNSS@TG stations

Number of stations whose record length reaches x (years) value.

19: 34 Japanese stations + BUDP, DUNT, HLFX, KIRI, LYTT, PHGM, Pohn, OHI3, WARN

30: ALBH, STJO

31: ONSA, NYAL

29: CHUR, HOLB, METS

30: ALBH, STJO
TIGA network status

Levelling status for TIGA stations

94 TIGA stations with leveling information in SONEL
18 TIGA stations GNSS@TG < 1km without any leveling information in SONEL
275 GNSS@TG stations with leveling information in SONEL
269 Tide gauges without any known geodetic connection (GNSS-TG ≤ 1000 m)
TIGA network status

48% of the TIGA stations have a filling ratio of the observations completeness ≥ 95%.

31% for GPS@TG stations on SONEL.

92% of TIGA station have more than 95% of good data.

BORK@BORKUM:
- Filling ratio = 99.46%
- % good data = 100%

Filling ratio < 50%
50 % <= Filling ratio < 80 %
80 % <= Filling ratio < 95 %
Filling ratio >= 95 %

92% of TIGA station have more than 95% of good data.
TIGA network status

Identified problems with TIGA stations: stations with filling ratio < 80%

<table>
<thead>
<tr>
<th>ACRONYM</th>
<th>Filling ratio</th>
<th>Start date</th>
<th>Date of last data</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREE</td>
<td>8%</td>
<td>07/06/1999</td>
<td>21/10/2001</td>
<td>BHMA nearby, but few data</td>
</tr>
<tr>
<td>TGCV</td>
<td>14%</td>
<td>29/04/2000</td>
<td>02/12/2014</td>
<td>CPVG-&gt; TG=5km, green (TGCV-&gt;TG=5m)</td>
</tr>
<tr>
<td>MNZO</td>
<td>18%</td>
<td>04/11/2001</td>
<td>12/02/2014</td>
<td>MZNC-TG=0,4km, manual collect</td>
</tr>
<tr>
<td>SIMO</td>
<td>27%</td>
<td>01/01/2001</td>
<td>28/01/2022</td>
<td>RINEX3 only since 2017-110</td>
</tr>
<tr>
<td>KLPD</td>
<td>26%</td>
<td>07/12/2004</td>
<td>04/11/2012</td>
<td>No information since the hurricane break</td>
</tr>
<tr>
<td>CART</td>
<td>40%</td>
<td>03/02/2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLUZ</td>
<td>33%</td>
<td>06/04/2004</td>
<td>01/10/2018</td>
<td></td>
</tr>
<tr>
<td>GETI</td>
<td>38%</td>
<td>01/01/1999</td>
<td>30/11/2014</td>
<td>GET1 annonced, no news</td>
</tr>
<tr>
<td>PALA</td>
<td>50%</td>
<td>02/08/1996</td>
<td>24/04/2017</td>
<td>Decommissioned, Replaced by PALR</td>
</tr>
<tr>
<td>RBAY</td>
<td>62%</td>
<td>03/10/2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIN1</td>
<td>46%</td>
<td>19/09/2007</td>
<td>25/03/2017</td>
<td>BINT: 12% decommissioned</td>
</tr>
<tr>
<td>MALD</td>
<td>67%</td>
<td>12/08/1999</td>
<td>11/06/2006</td>
<td>HULE nearby, but few data</td>
</tr>
<tr>
<td>MARN</td>
<td>69%</td>
<td>31/07/2006</td>
<td>21/12/2021</td>
<td>Communication problems</td>
</tr>
<tr>
<td>FFT2</td>
<td>79%</td>
<td>03/12/2015</td>
<td></td>
<td>FFTG: 27% decommissioned, FFT2 good, restarted in April 2019 after more than 1 year break</td>
</tr>
<tr>
<td>DUM1</td>
<td>72%</td>
<td>30/01/1995</td>
<td>20/03/2017</td>
<td>Replaced by DUM2</td>
</tr>
<tr>
<td>LYTT</td>
<td>67%</td>
<td>15/11/1999</td>
<td>01/01/2019</td>
<td></td>
</tr>
</tbody>
</table>

No data for more than 30 days
Continued RINEX data delivery
Decommissioned station

10% of TIGA stations have less than 50% of data, with no other GNSS station nearby: CART, FREE, GETI, KLPD, PLUZ, SIMO.
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
iv. Regular levelling TG-Benchmark->TG_Zero and TG-Benchmark-ARP
v. Regular leveling of the benchmarks of the GNSS-marker
Questions?