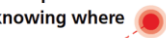




Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

armasuisse
Bundesamt für Landestopografie swisstopo

wissen wohin
savoir où
sapere dove
knowing where



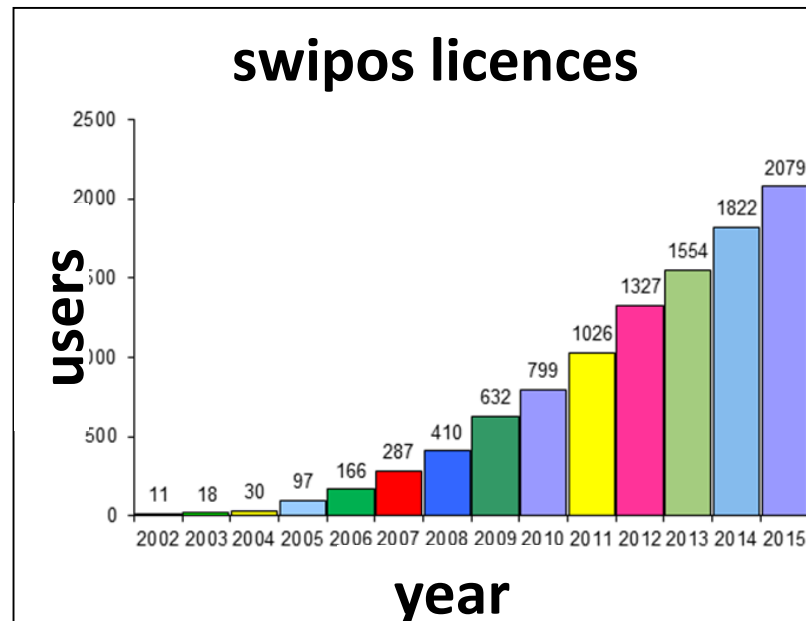
National Report of Switzerland to EUREF 2016 Symposium

E. Brockmann et al.



Positioning service swipos

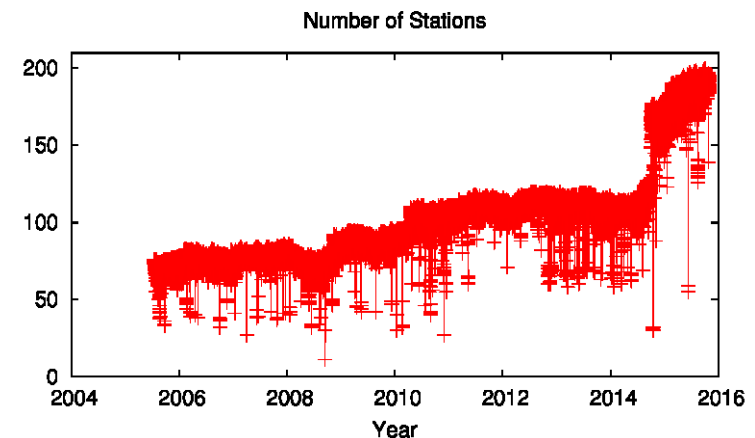
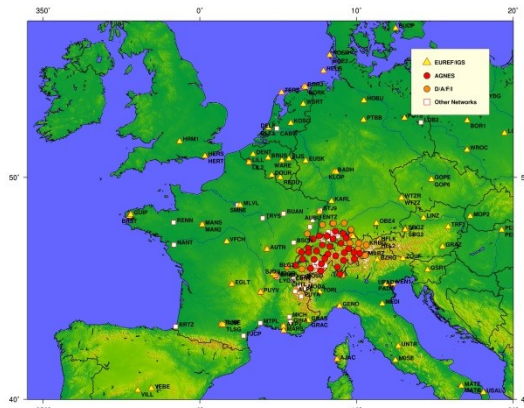
- AGNES/swipos central moved to new Swisscom computing center in April 2015
- Re-Programming of real-time transformation DLL
- Trimble Pivot Platform (TPP) version 3.5 operational End 2015
- Number of users still increasing





Analysis Center

- Operational contribution to EPN (50 stations) as LAC
 - Final weekly
 - Rapid and Ultra-Rapid based on NRT processing
 - Repro2: October 23, 2014: **LP0 (GMF)**
LP1 (VMF)
- Operational NRT processing (EGVAP/EUMETNET)
2015: 99.9% availability

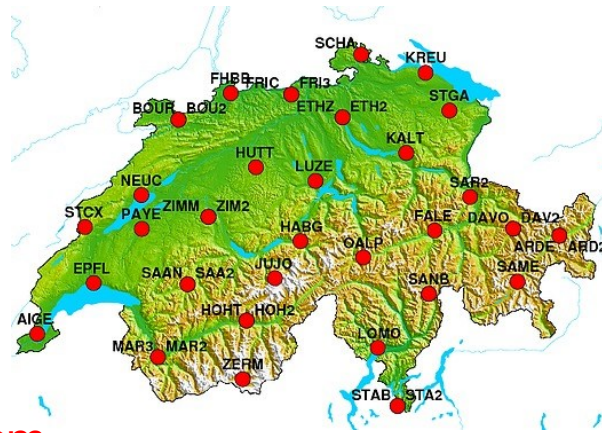
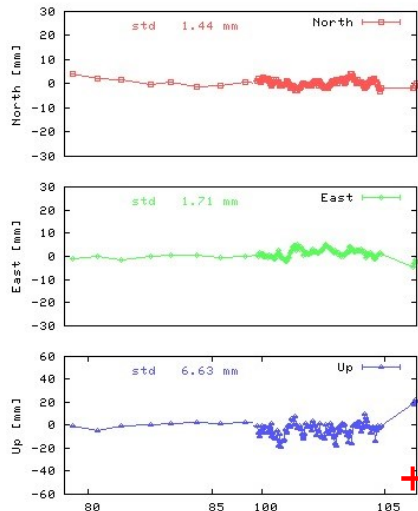




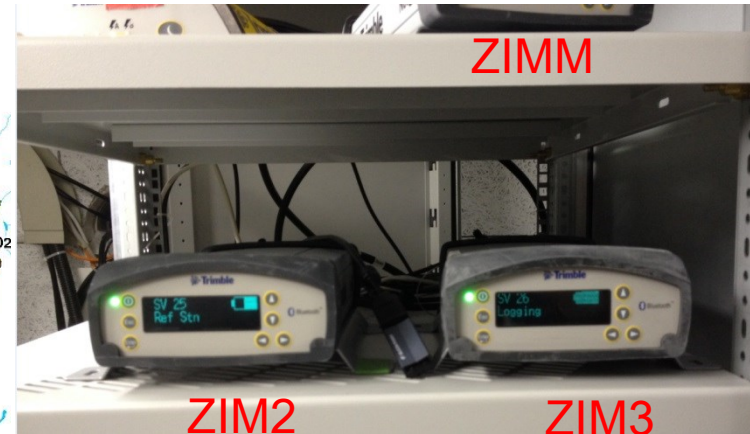
Multi-GNSS at Swiss permanent stations

- Feb-May 2015: all 41 Swiss stations are enhanced from **GPS/GLO receivers to Multi-GNSS** (+ 15 chokering antennas: causing jumps of ~ 2 cm despite individual antenna PCVs)

PAYE



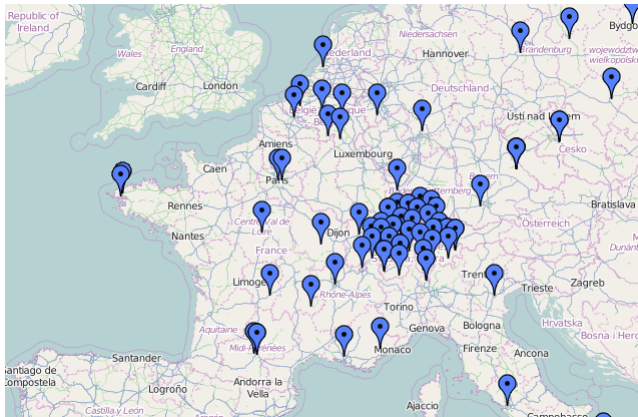
ZIMJ
(Javad)





Data flow RINEX3 parallel to RINEX2

- Daily and hourly data flow RINEX3 since June 19, 2015



S/S	0/F	RINEX observation codes and their priority											
***	***	***	***	***	***	***	***	***	***	***	***	***	***
G	L1	L1C	L1P	L1W									
G	L2	L2W	L2P	L2L	L2S	L2X	L2C	L2D					
G	C1	C1C	C1P	C1W									
G	C2	C2W	C2P	C2L	C2S	C2X	C2C	C2D					
R	L1	L1C	L1P										
R	L2	L2P	L2C										
R	C1	C1C	C1P										
R	C2	C2P	C2C										
E	L1	L1C	L1X										
E	L2	L5Q	L5I	L5X									
E	C1	C1C	C1X										
E	C2	C5Q	C5I	C5X									

- Also first network solutions making use of Galileo in parallel since Aug 2015 -> using BSW53 -> experimental -> see EUREF Multi-GNSS presentation Leipzig + EUREF LAC WS in October (Berne)



Daily RINEX 3 QC (115 stations)



~50 plots per day per station per RINEX version collected in a pdf-file !

- Most EPN stations with Rinex3



G-Nut/Anubis
-> GOPE

BNC-> BKG

MARKER	RECEIVER	ANTENNA	Vers	In	Epo	G	R	E	C	PDF
AJAC 10077M005	LEICA GR25	TRM57971.00	NONE	3.02	30	2880	30	24	6	8 ajac_r3.pdf
AUTN 10080M001	LEICA GR25	TRM57971.00	NONE	3.02	30	2880	30	24	6	8 autn_r3.pdf

[http://\[redacted\]pages/en/anubis_monitor_r3.html](http://[redacted]pages/en/anubis_monitor_r3.html)

National Report Switzerland, EUREF16, E. Brockmann
swisstopo





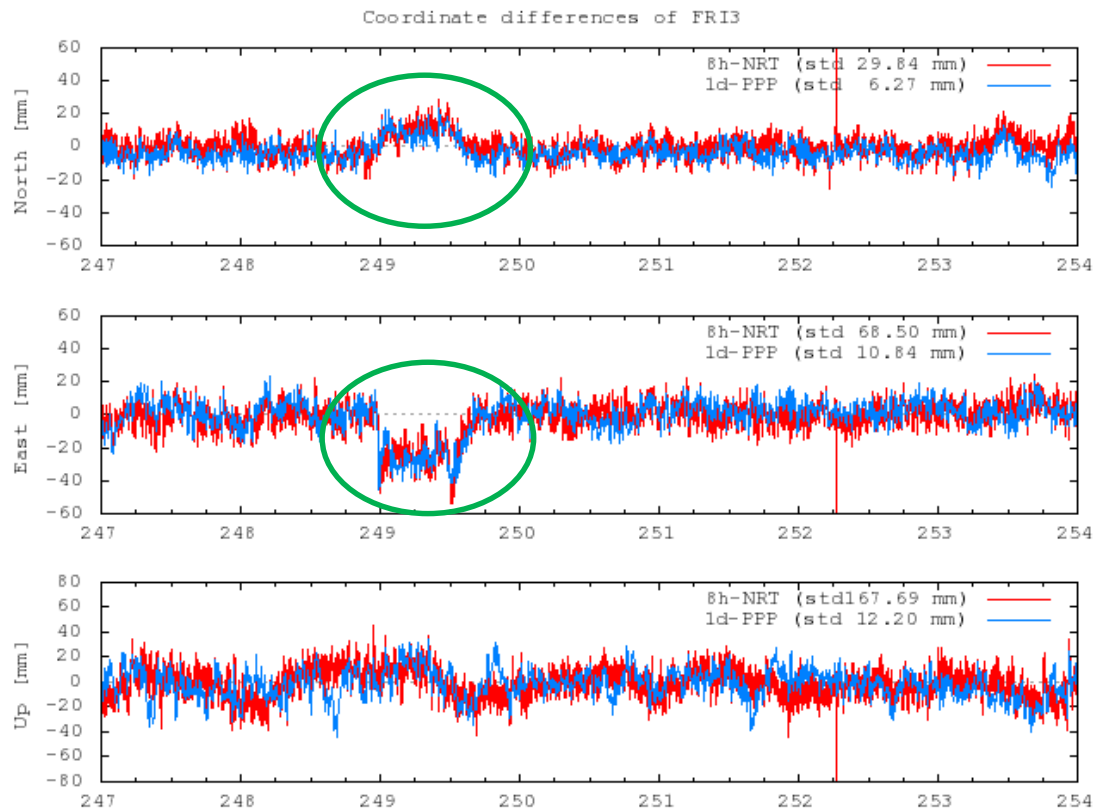
PPP solutions

- 210 stations
- Observation window: 1 week, daily PPP solutions
- CPU: 30 minutes for 1 day
- Estimates:
 - Coordinates: daily and kinematic
 - Troposphere: hourly
- Validation plots: comparison with classical NRT solution
- <http://pnac.swisstopo.admin.ch> 



PPP and Network: kinematic coordinates (example FRI3)

Similar kin. residuals of network solution and PPP



<http://pnac.swisstopo.admin.ch>



Multi-GNSS Field Campaign 2016

200 ref. points with 48 hours, 16 field weeks (3 done...)

