Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

armasuisse
Bundesamt für Landestopografie swisstopo

wissen wohin
savoir où
sapere dove
knowing where

swisstopo

swisstopo Report for EGVAP 2014

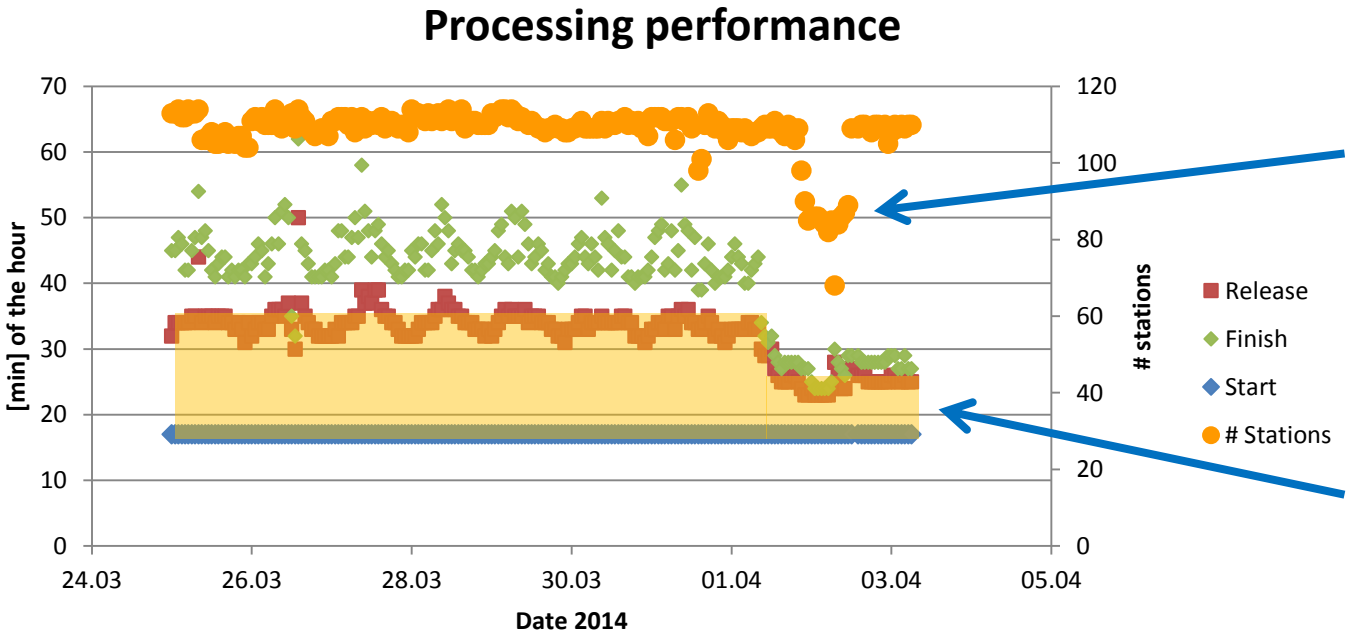
E. Brockmann

Sorry for not being able to join

- Did everything to make Dutch from KLM guys happy …
- Siebren – you certainly are still happy…

Operational aspects

- New server: moving from suse to redhat Linux OS + more CPUs (8+24 -> 32+32). Operational switch on April 1, 2014
  - Reprocessing: first successful run -> EUREF repro2, GNSS4SWEC
  - Improved performance for hourly (and daily solutions)

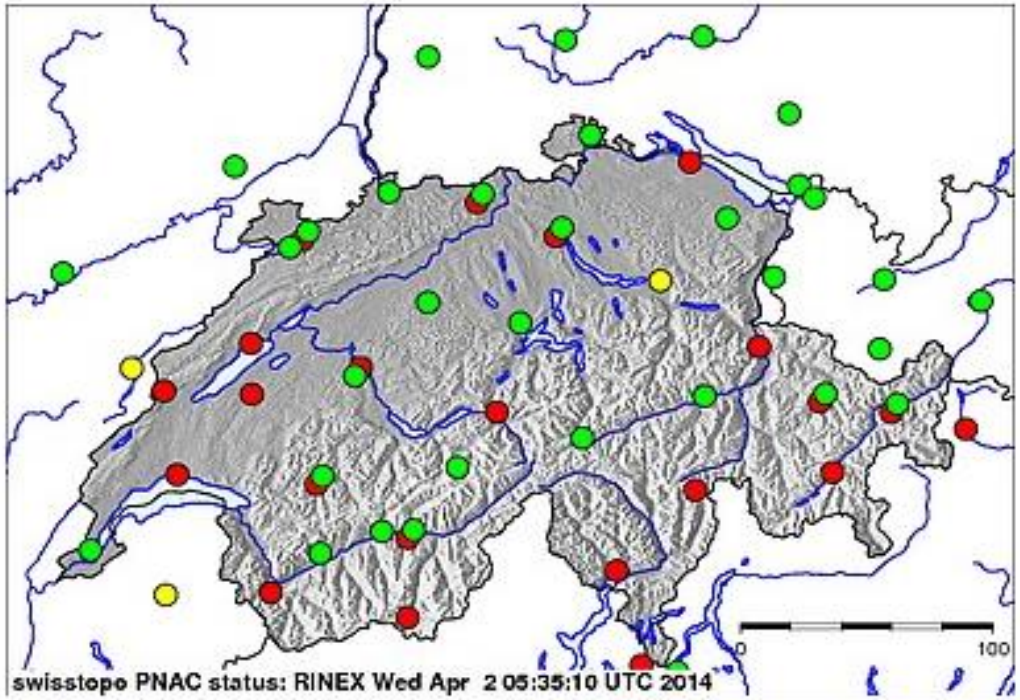


GLONASS outage on April 2: Failure of ~20 sites

18 -> 8 min. processing time ~110 sites

GLONASS Outage April 2, 2014

RINEX status in Switzerland — **02-Apr-2014 07:35:22 (DOY 092)**



Select region

Europe
Switzerland

PNAC status by subject

RINEX
NRT-Meteo
Coordinate Monitoring

Details

Procecessing swipos

Legend

- No data
- data o.k.
- 3<5 h miss./last h late
- > 5 h missing

RINEX status by site

AIGE	AND2	ARDE	ARD2	BLFT	BOUR	BOU2	BSCN	COMO	DAVO
DAV2	EPFL	ERDE	ETHZ	ETH2	FALE	FHBB	FLDK	FREI	FRIC
FRI3	HABG	HOHT	HOH2	HUTT	JUJO	KALT	KOPS	KRBG	KREU
LECH	LIND	LOMO	LUZE	MABZ	MARG	MAR2	MTTI	NEUC	PAYE
PFA2	PRNY	SAAN	SAA2	SAME	SANB	SAR2	SCHA	SIGM	STA2
STCX	STGA	VARE	VISW	WEIN	ZERM	ZIMM	ZIM2		

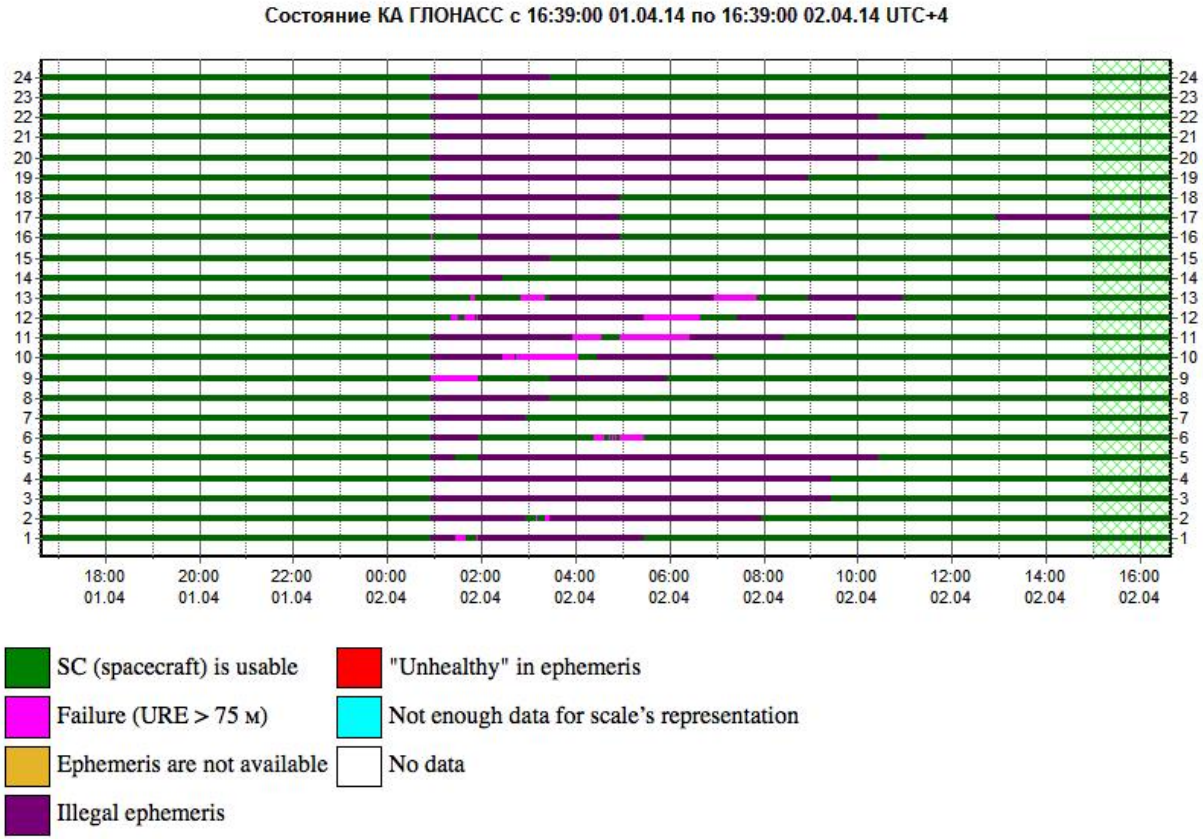
GLONASS Outage April 2, 2014

GLONASS Gone . . . Then Back

April 2, 2014 - By Alan Cameron

Share this: Facebook 359 Twitter 198 Google LinkedIn 133

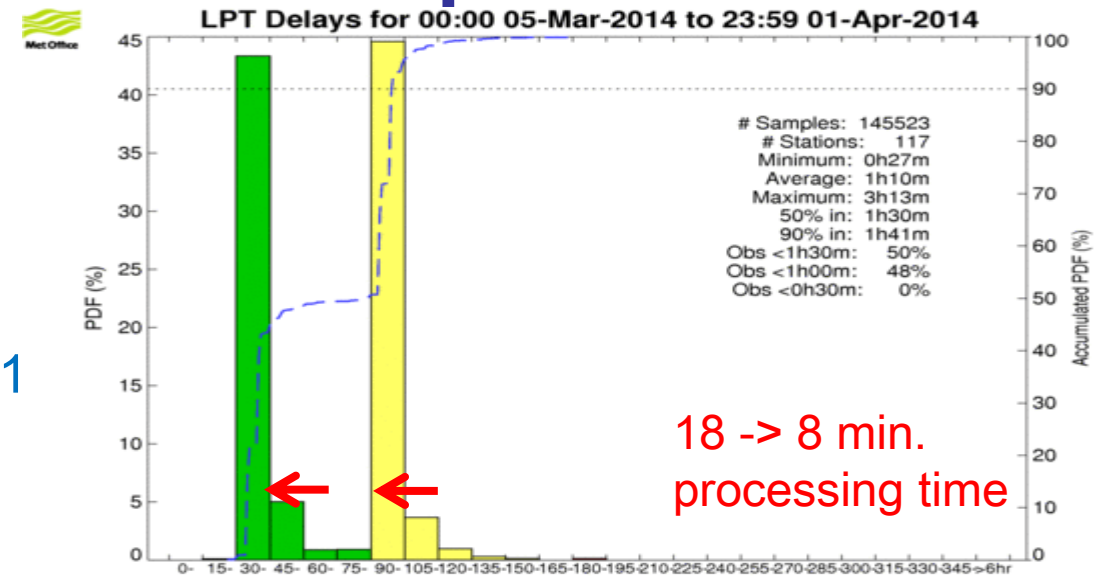
In an unprecedented total disruption of a fully operational GNSS constellation, all satellites in the Russian GLONASS broadcast corrupt information for 11 hours, from just past midnight until noon Russian time (UTC+4), on April 2 (or 5 p.m. on April 1 to 4 a.m. April 2, U.S. Eastern time). This rendered the system completely unusable to all worldwide GLONASS receivers. Full and correct service has now been restored.



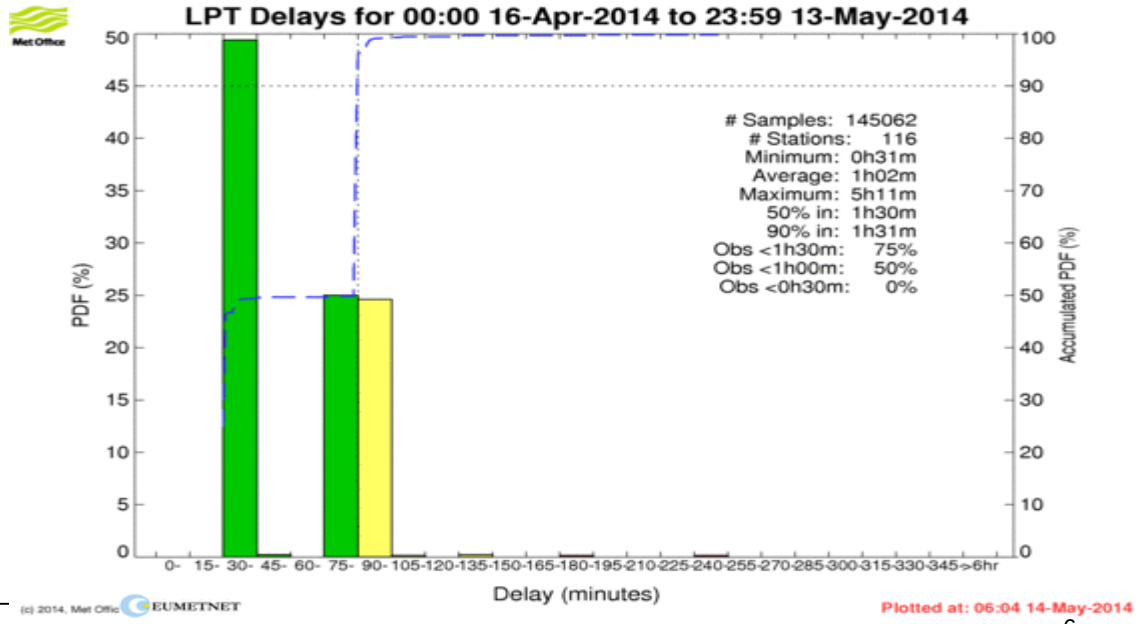
AMET performance improvement

Monthly delays
monitored by UK MetO

Before April 1

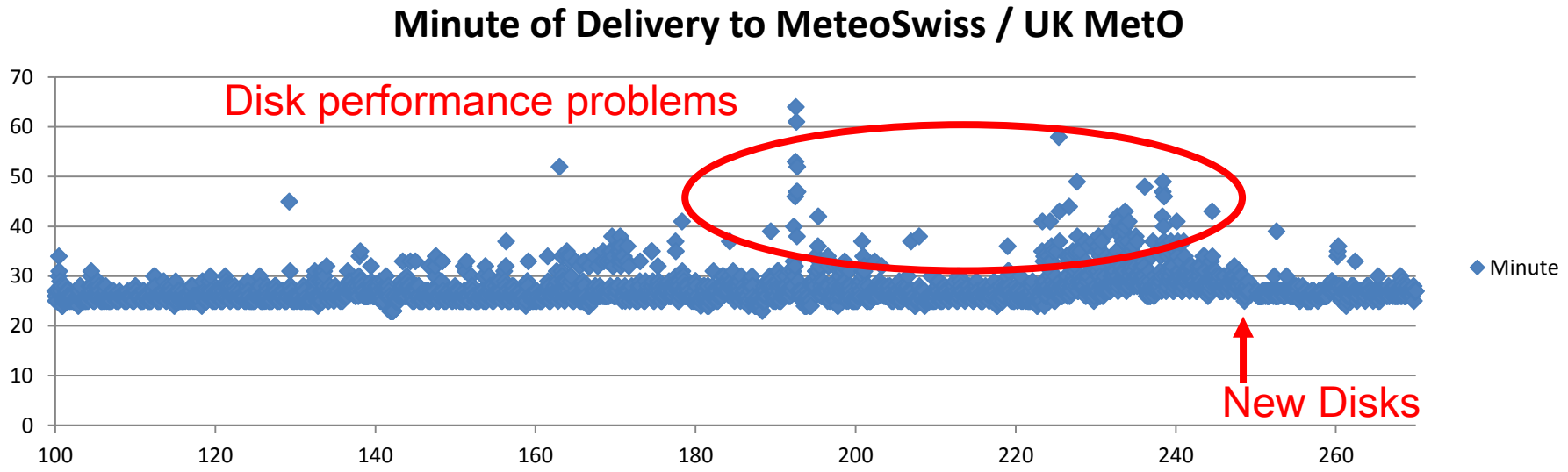


After April 1



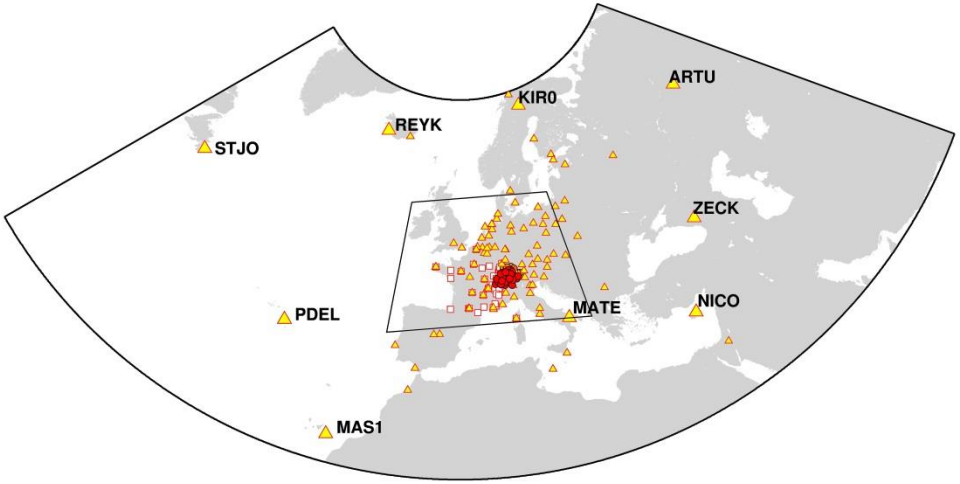
Operational aspects (3)

- September 5 – use better performant data disks



Operational aspects (4)

- October 2 (275L)
  - Increased number of stations (125 -> 180) – mainly stations with good long-term performance
  - new clustering (6 instead 3 clusters)
  - Other optimizations (fast SNGDIF observation count) to keep same delivery performance

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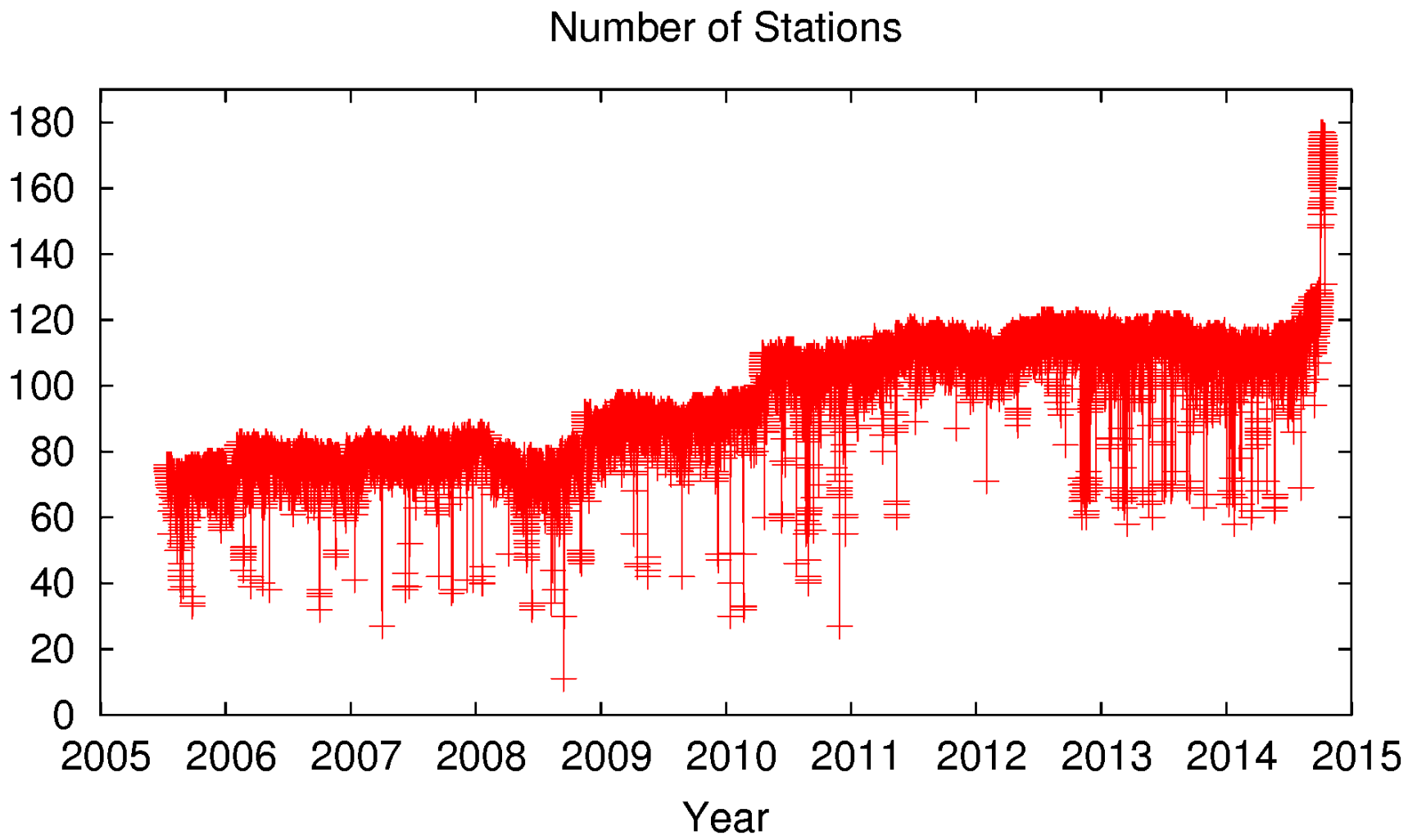
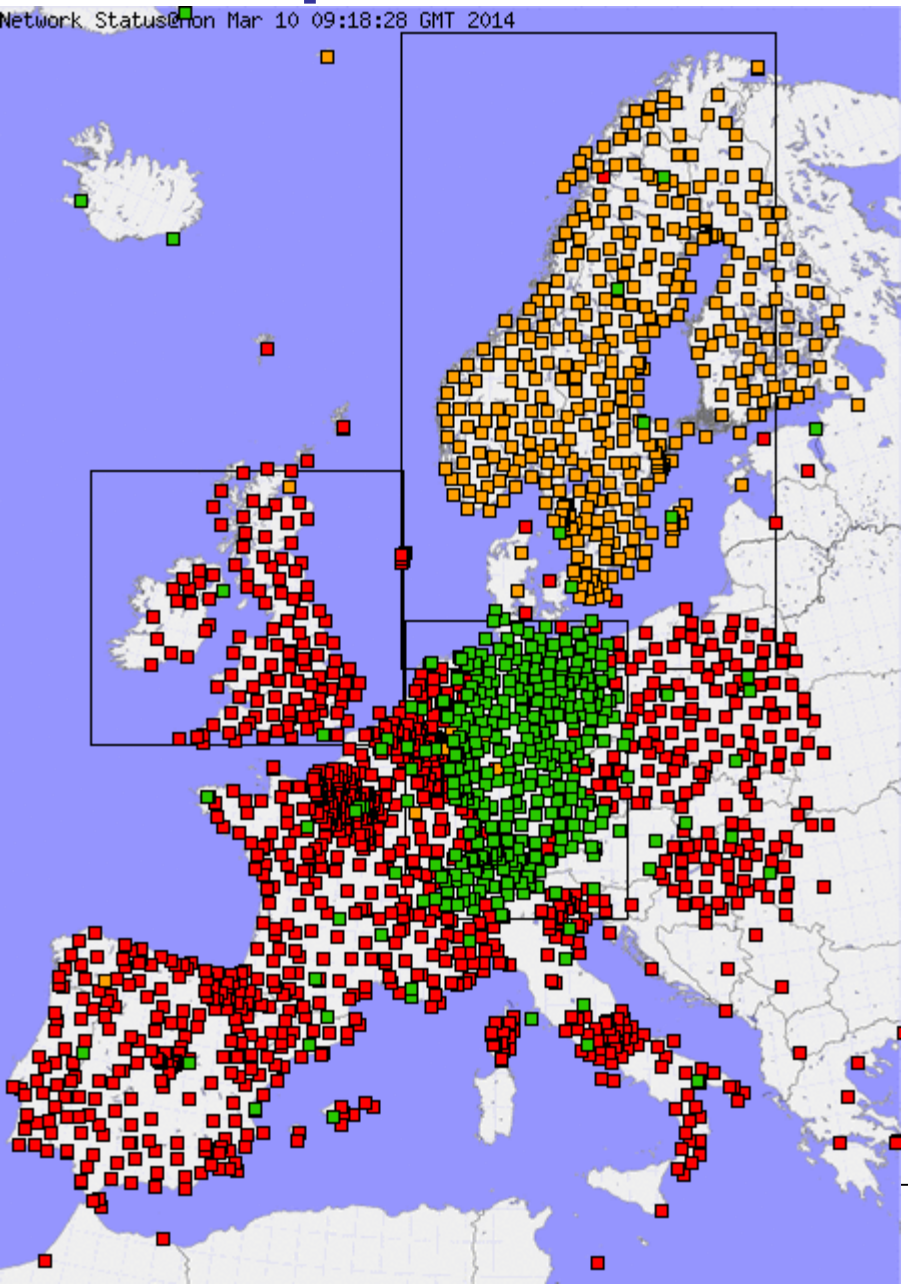
BADH BORJ BUDP BYDG CASC CBRY DELF
DENT EIJS FJCP GWWL HELG HERT HOBU
HOE2 HOFN JOZ2 JOZE LAMA LODZ MICH
NOT1 POTS PTBB PUYA RABT REDU REDZ
SFER SOFI SUR4 SWKI TERS TSLE TOR2
TRO1 UNTR USDL VAAS VILL WROC WSRT
ZOUF
```

Operational aspects (4.1)



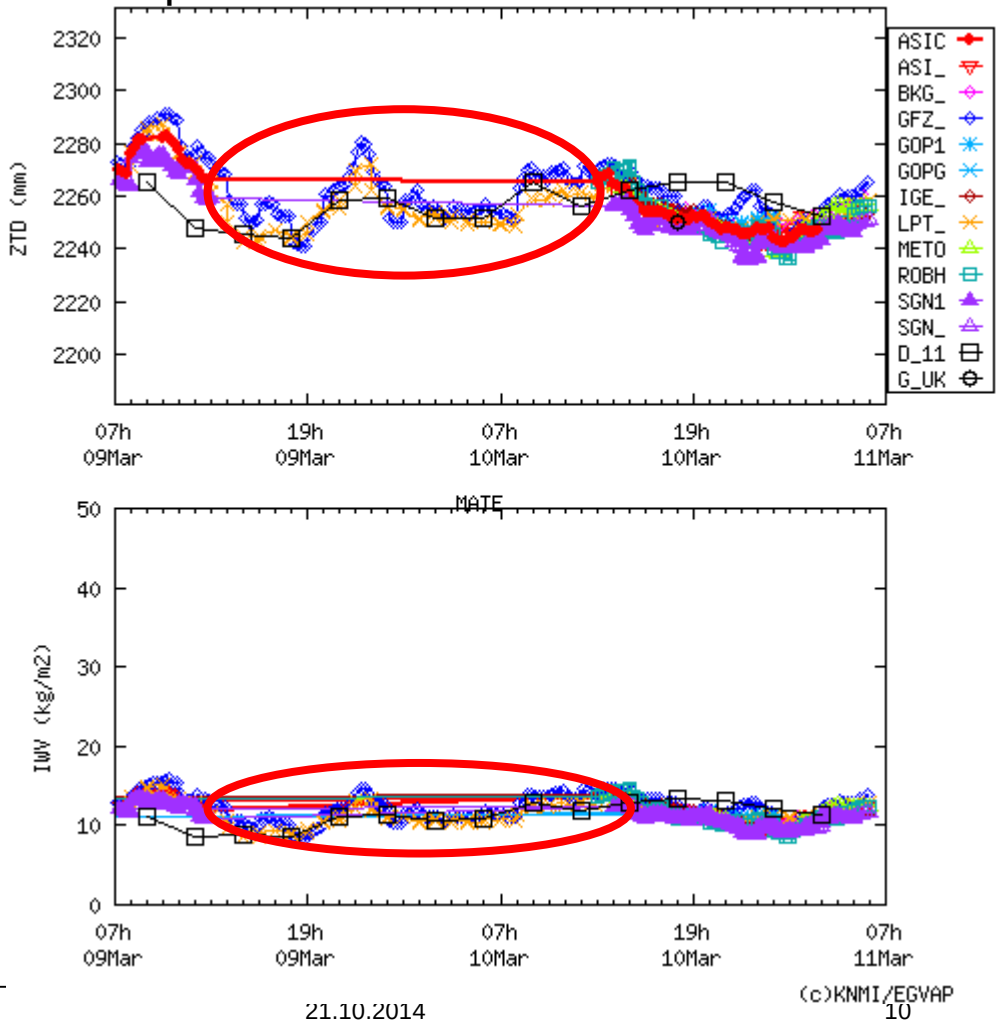
15/10/14 08:29

Aspect 5: IGU orbits missing (March 9-10)



MATE: 2 instead 13 contribs

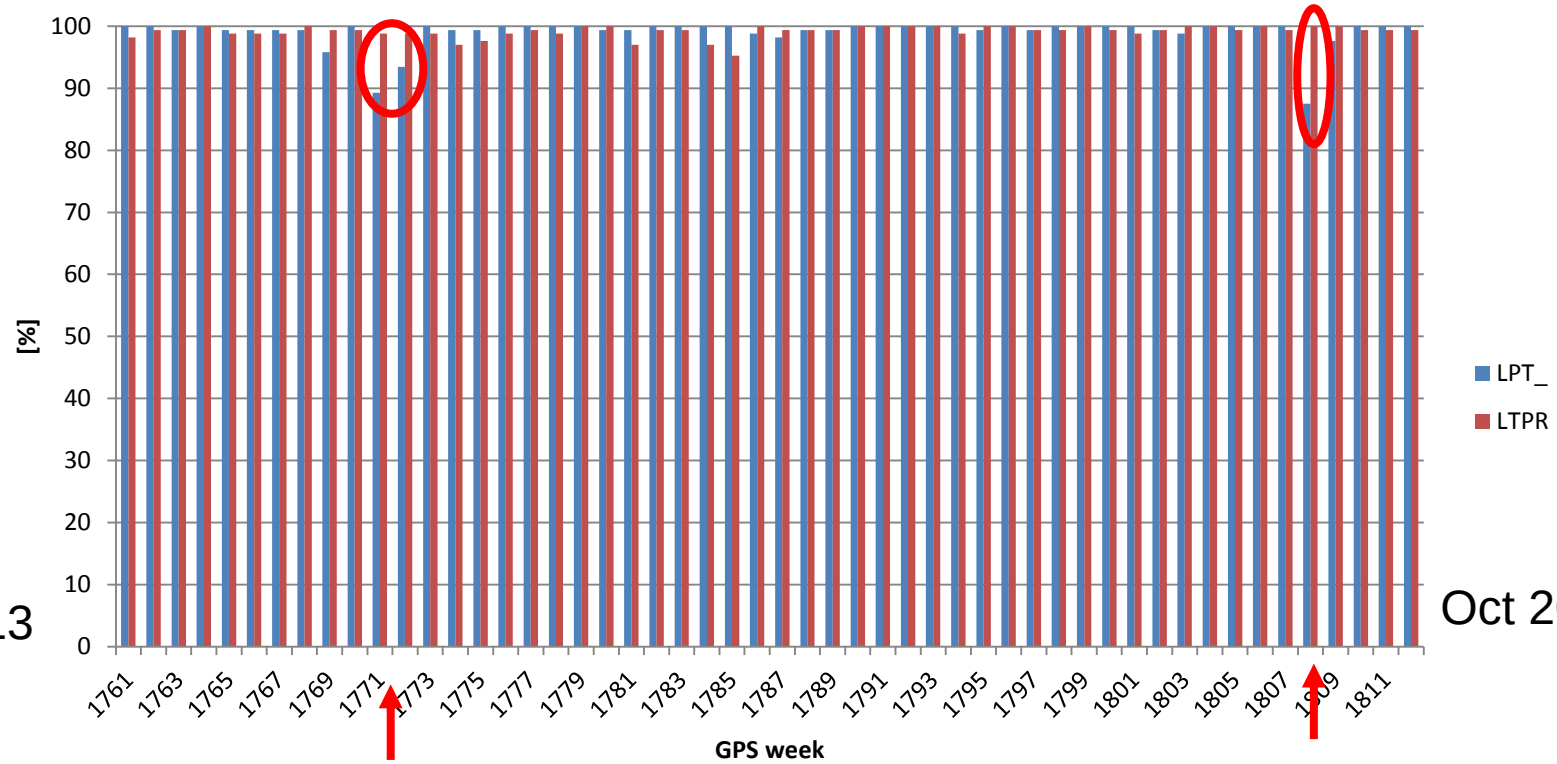
swisstopo: use of CODE Ultra, GFZ also independent



Aspect 6: Availability

- Last 52 weeks: Availability: LPT: 99.06 % LPTR: 99.21 % (1 % better than last year)

Oct 2013



Oct 2014

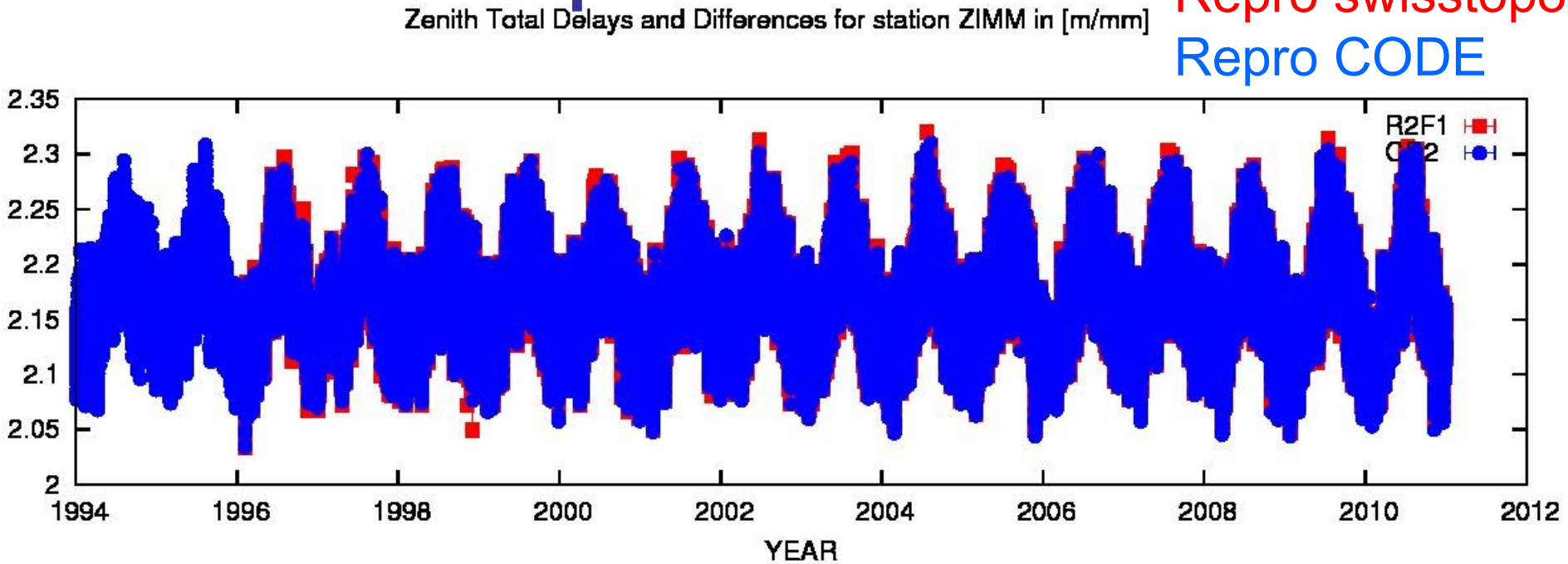
28 hours missing (Christmas)
(CODE Sat file inconstency)

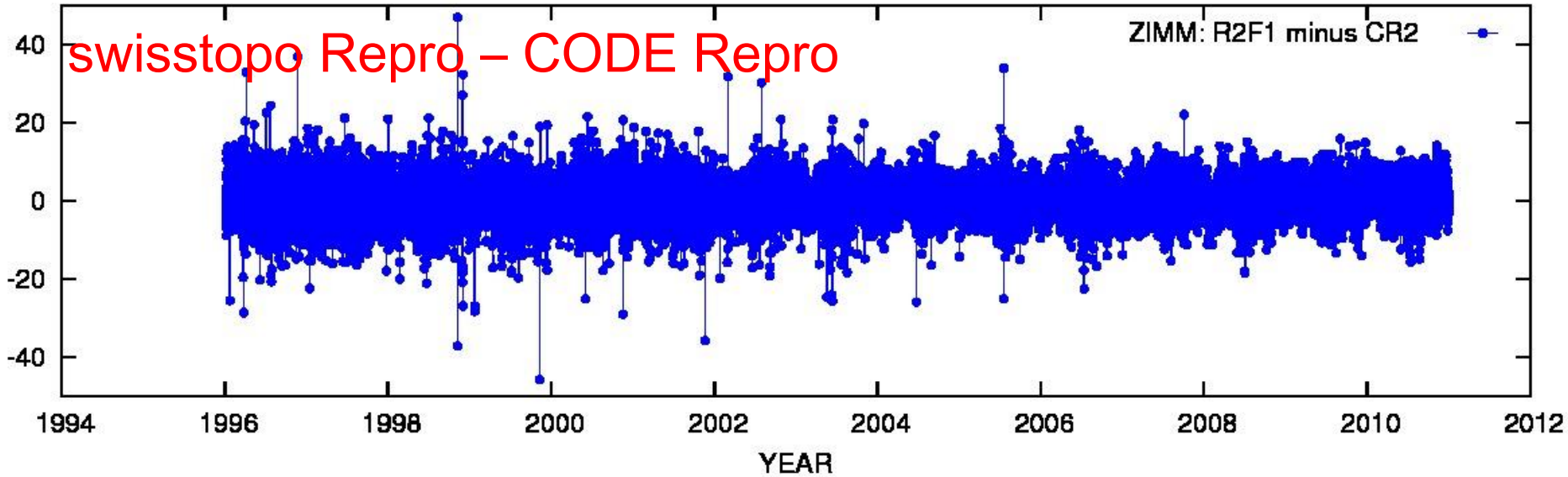
25 hours missing (weekend)
(CODE Sat file inconstency)

Planned Development: validation of externally used info first

GNSS4SWEC: Repro

Repro swisstopo
Repro CODE

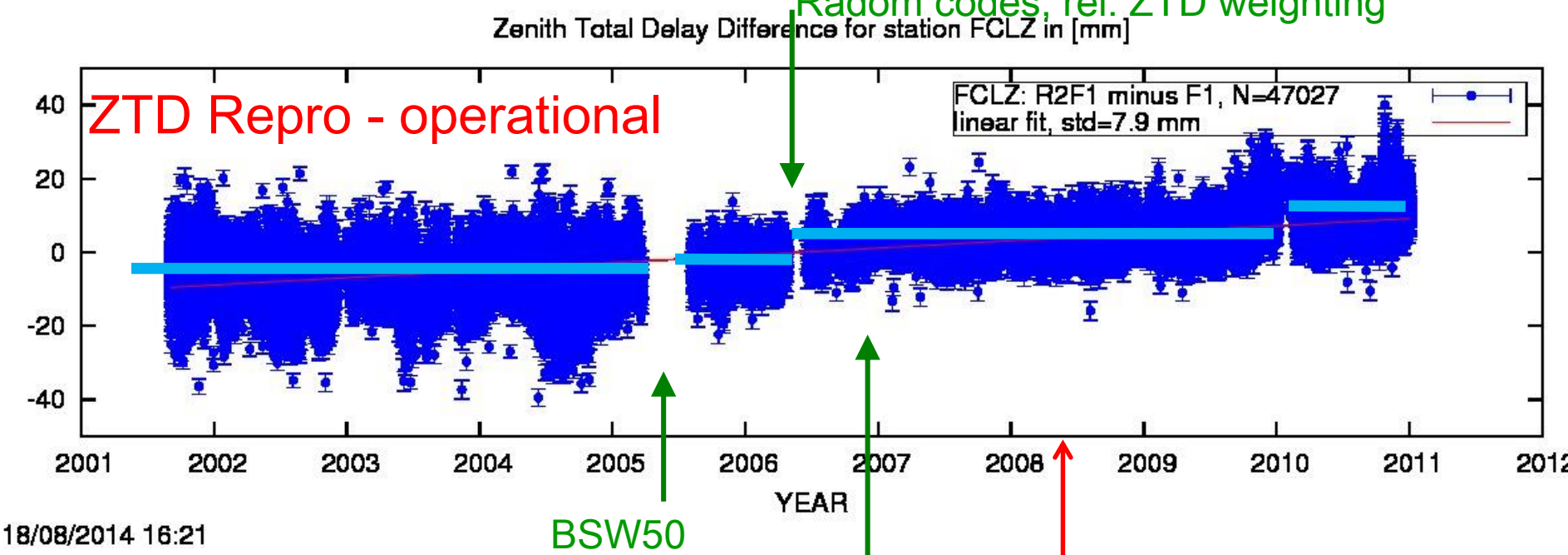




Troposphere differences: FCLZ

- Offsets due to model changes (in operational daily as well as NRT)

Radom codes, rel. ZTD weighting



BSW50

I05, CODE orbits
(add. solutions: GLO, elev.-cut,gradients, …)

2008: antenna change – seem to have no big impact on TRP (not true for coordinate parameters)