

EPN DENSIFICATION OF ITRF2008

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EUREF TWG, 28-29 October, 2011, BKG, Frankfurt

EPN_repro1 benchmark

Discussion around the right combination of the benchmark test

*(BERNESE-**GAMIT**-GIPSY)*

*CATREF test: highly different variance factors
(confirmed by T.Herring)*

Decision: all solutions should be included

*“Final” weekly solutions, delivered at early
October*

EPN_repro1 cumulative

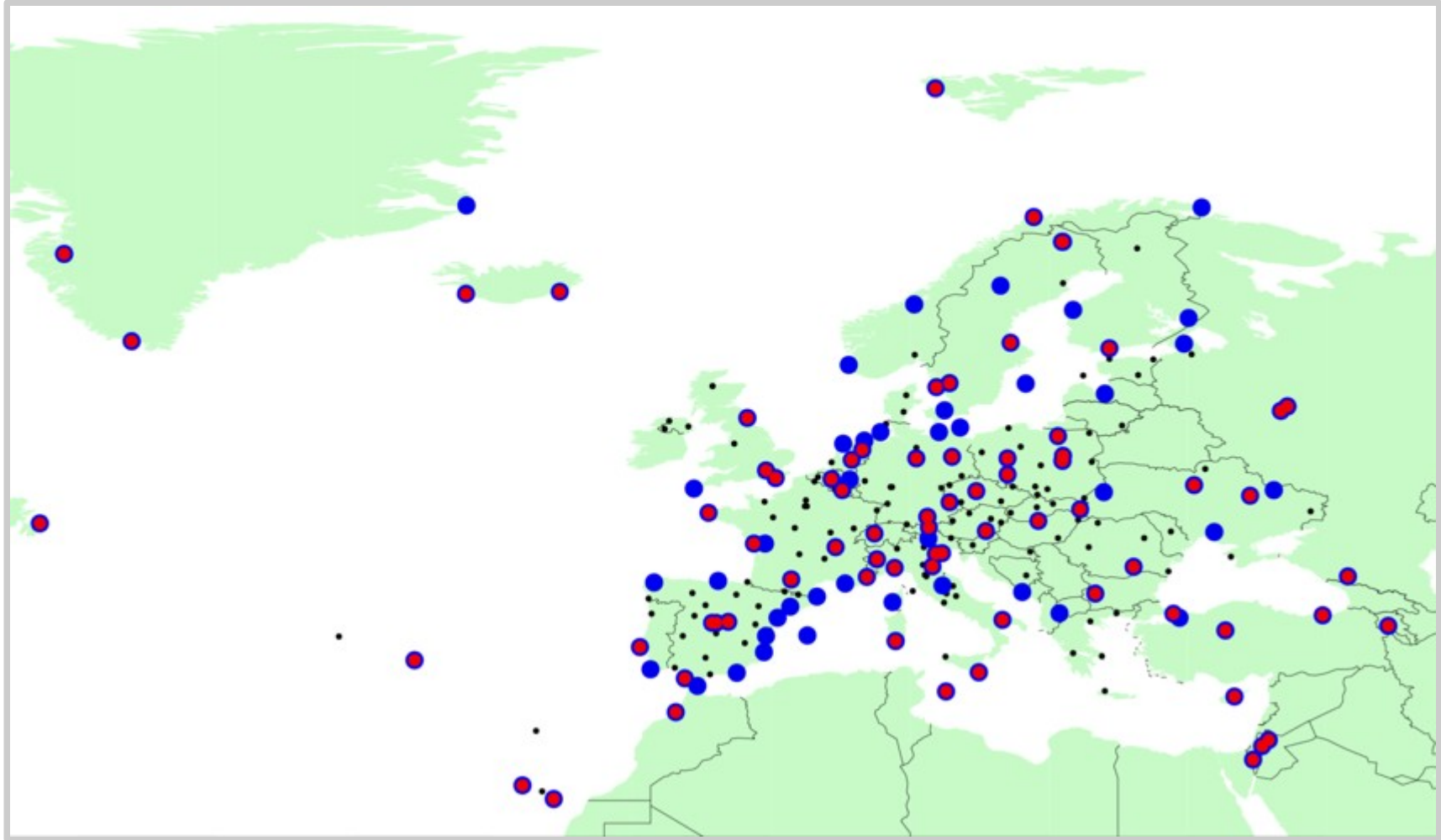
Data included:

- *GPS week 834-1408: repro1*
- *GPS week 1409 – 1538: EPN operational*

Datum:

- *92 ITRF2008 stations (from HH's selection), iteration,*
- *MC,*
- *consistency check, few outliers rejected*

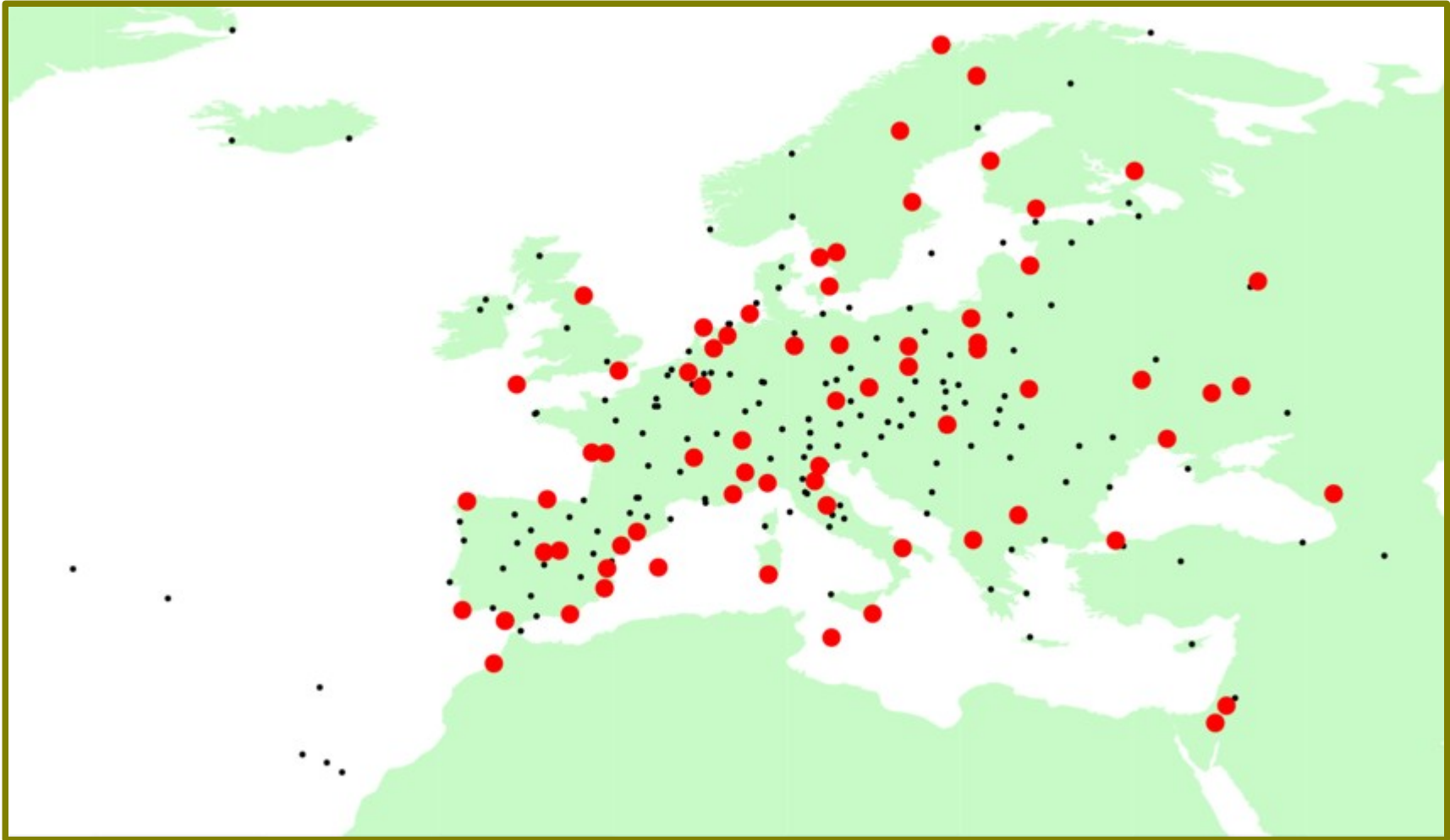
ITRF2005/2008 EPN sites



91 ITRF2005

131 ITRF2008

ITRF2008_densification datum



datum validation

7 parameter transformation between frame and results over the datum defining site subset

Should be all zero in case of MC!

position

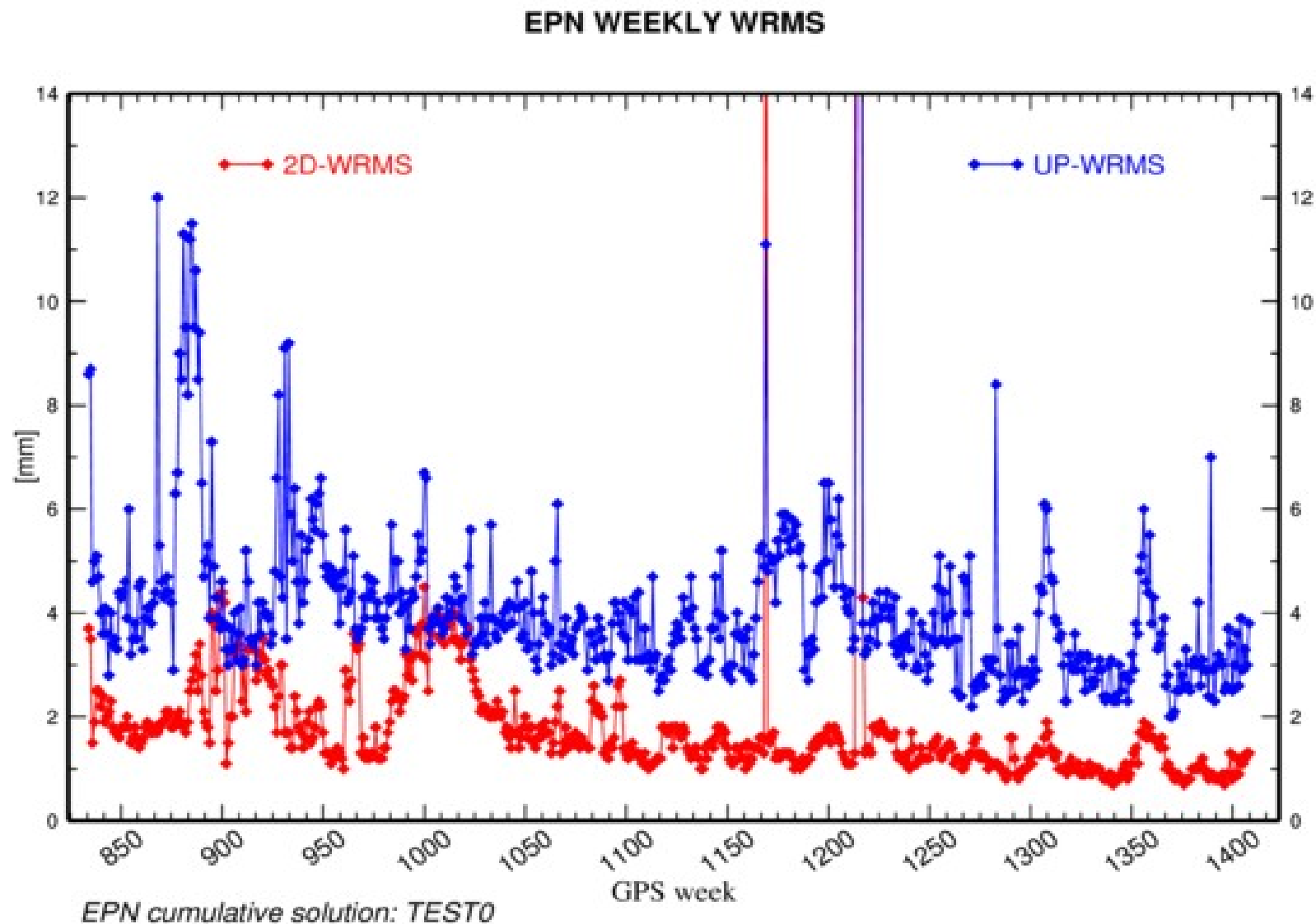
T	0.00	0.00	0.00	0.000	0.000	0.000	0.000
+/-	0.05	0.06	0.05	0.007	0.018	0.018	0.016

velocity

VT	0.01	0.00	0.01	-0.003	0.001	0.000	-0.001
+/-	0.05	0.06	0.05	0.007	0.018	0.018	0.016

ITRF2008 cumulative WRMS

unfiltered; repro1 only

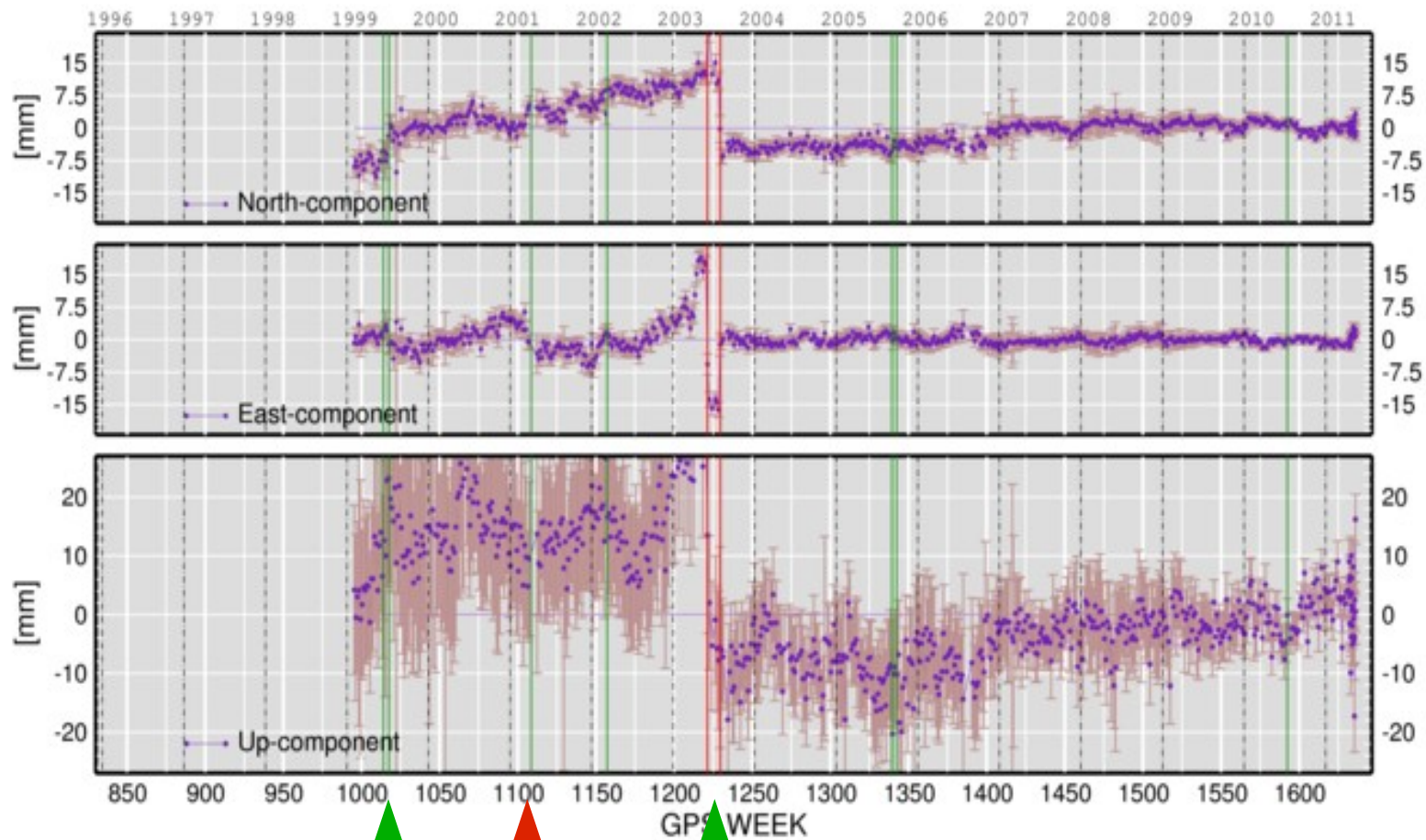


data inconsistencies

- **Non-EPN stations involved (short series)**
IAVH, SCOR, STJO **WHY?**
- **Additional, non-consistent EPN data included**
FUNC, *MADR, MAD2 - partial removal*
- **DOMES number inconsistencies**
FUNC, KELY, IISC - rename
NOTO(1080), MDVO(1202), OBET(1204) single week
- **IGS/ITRF and EPN solution number definitions**
CHIZ, CREU, NEWL, ORID, OROS, TRDS, UNPG, VARS

ITRF2008 vs EPN 'soln'

CREU_13432M001 (RAW)



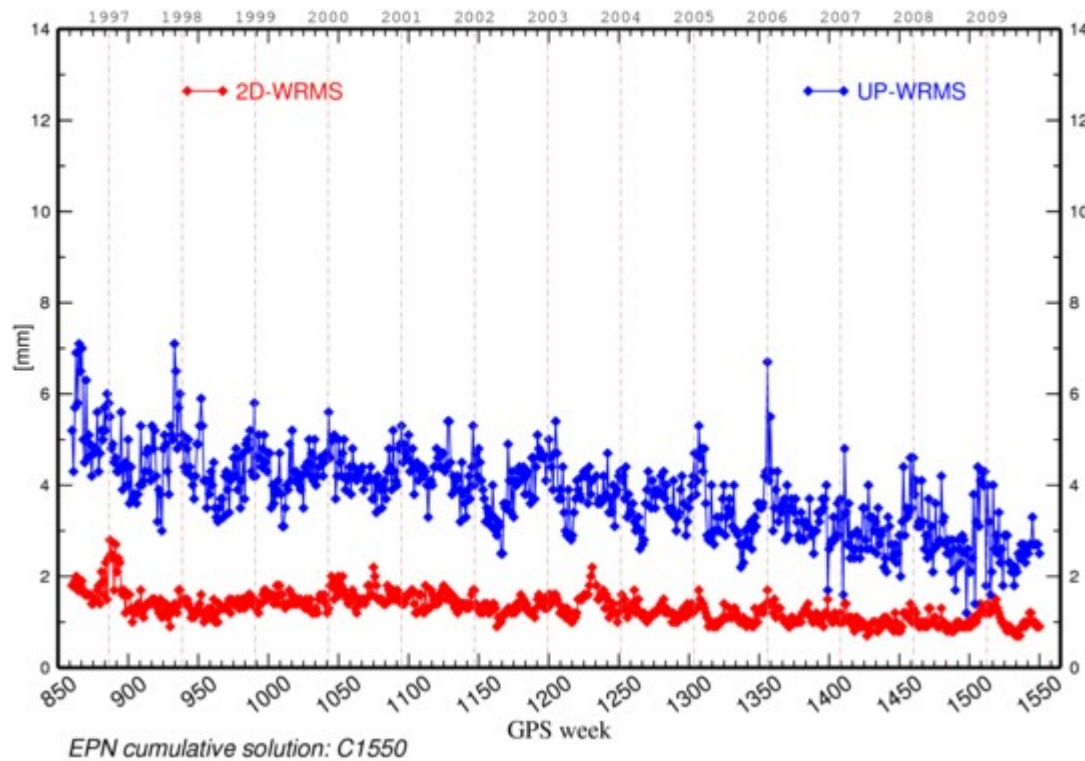
EPN CB

Wed May 18 04:40:14 2011

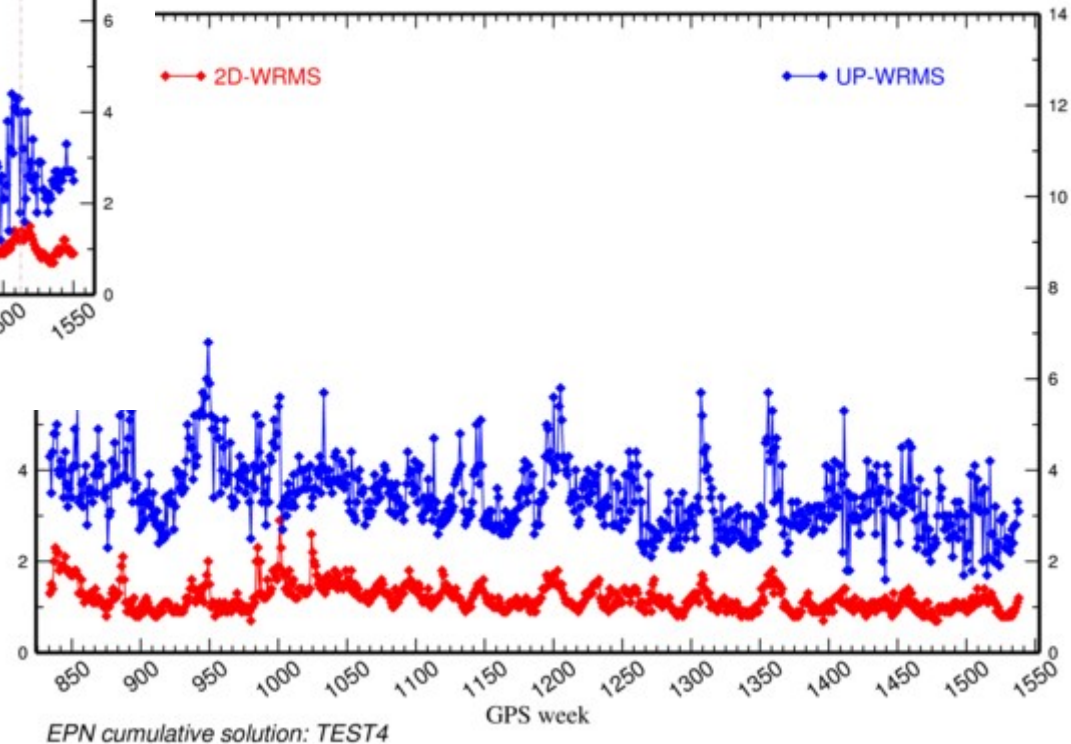
only this offset is considered in ITRF

ITRF2008 cumulative WRMS repro1(+) vs operational EPN

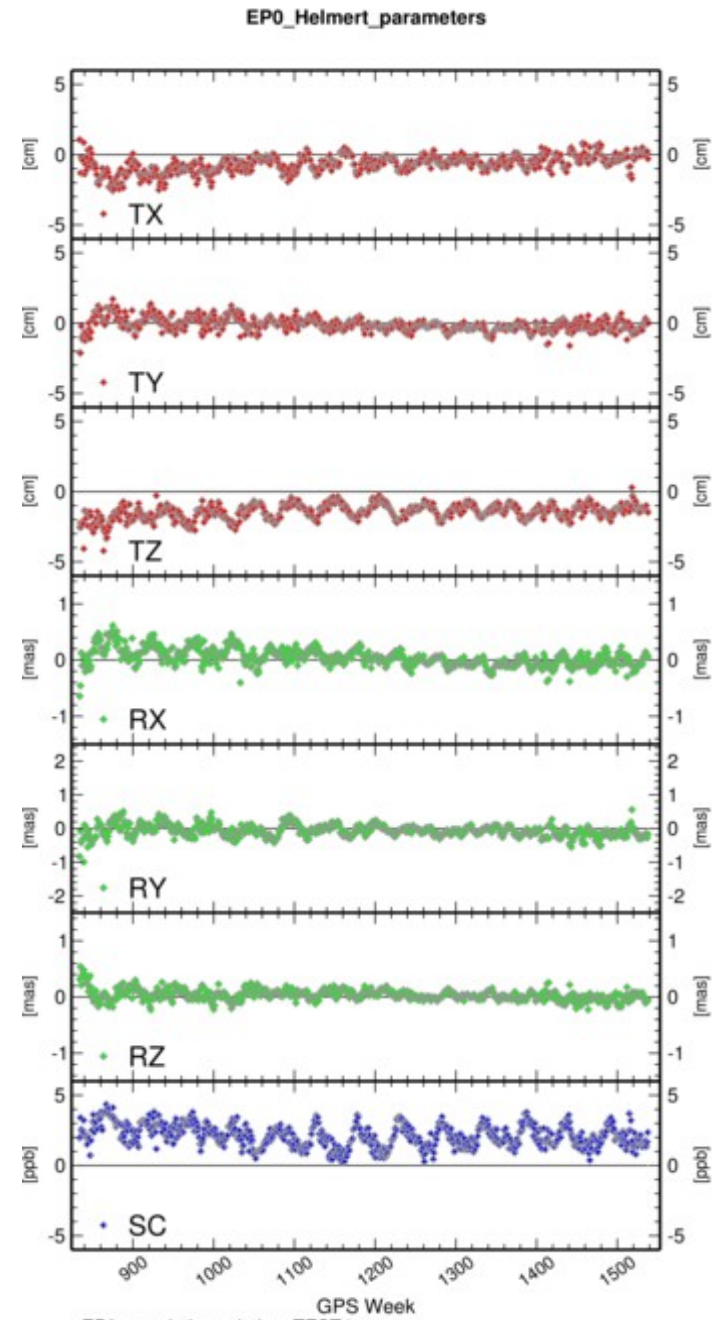
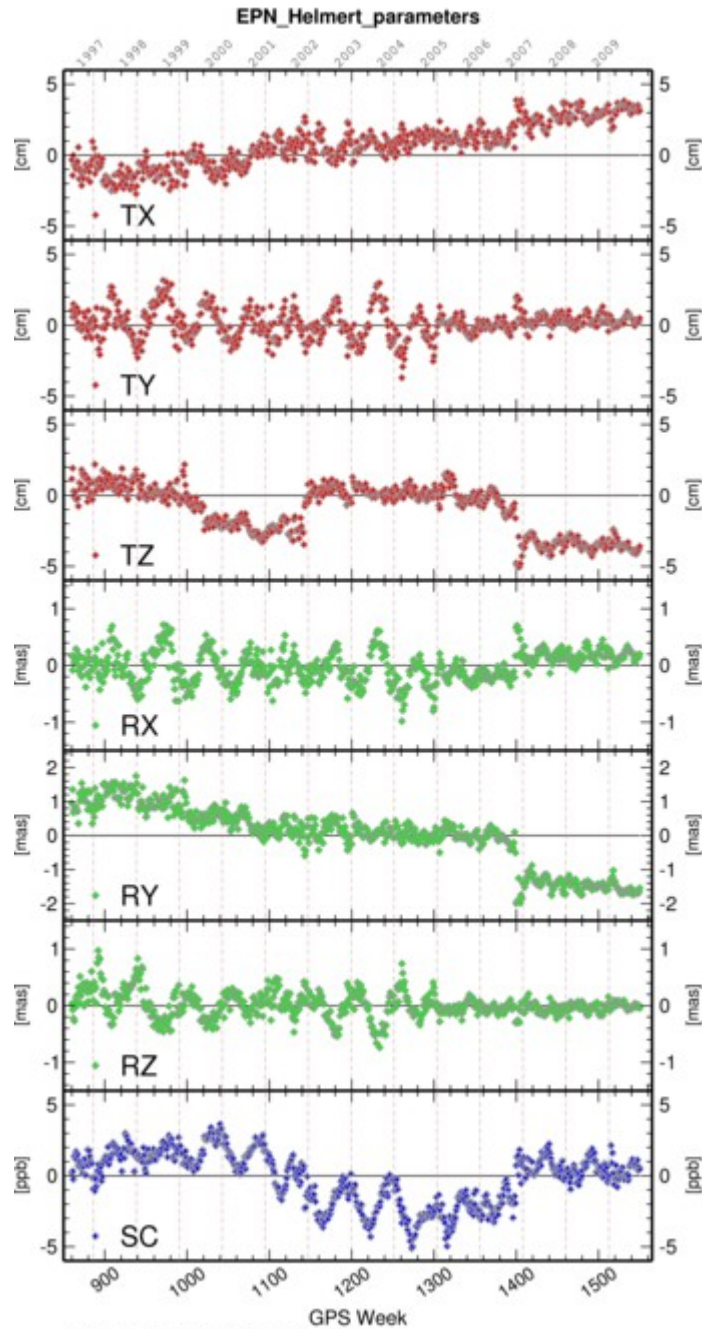
EPN WEEKLY WRMS



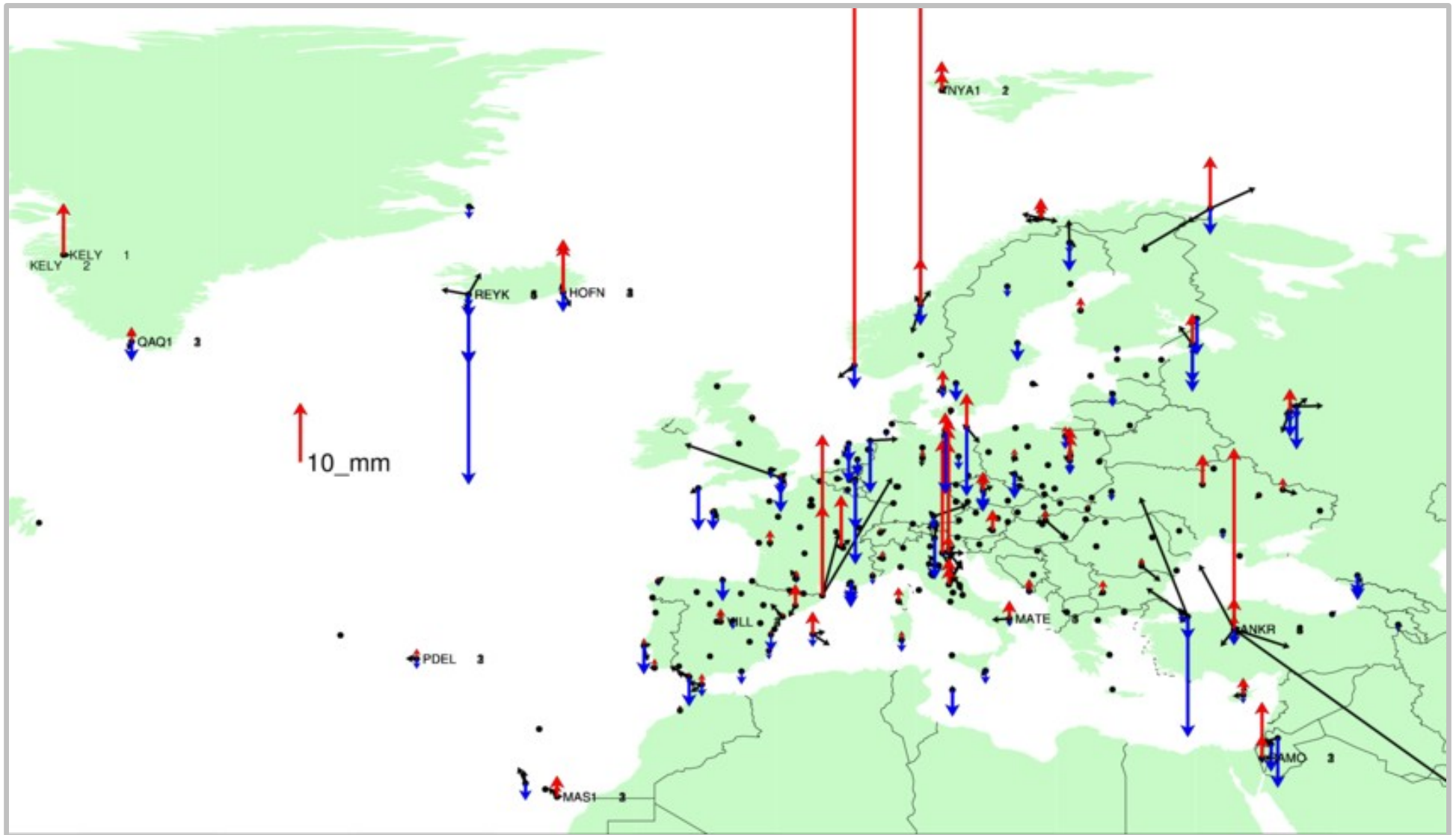
EPN WEEKLY WRMS



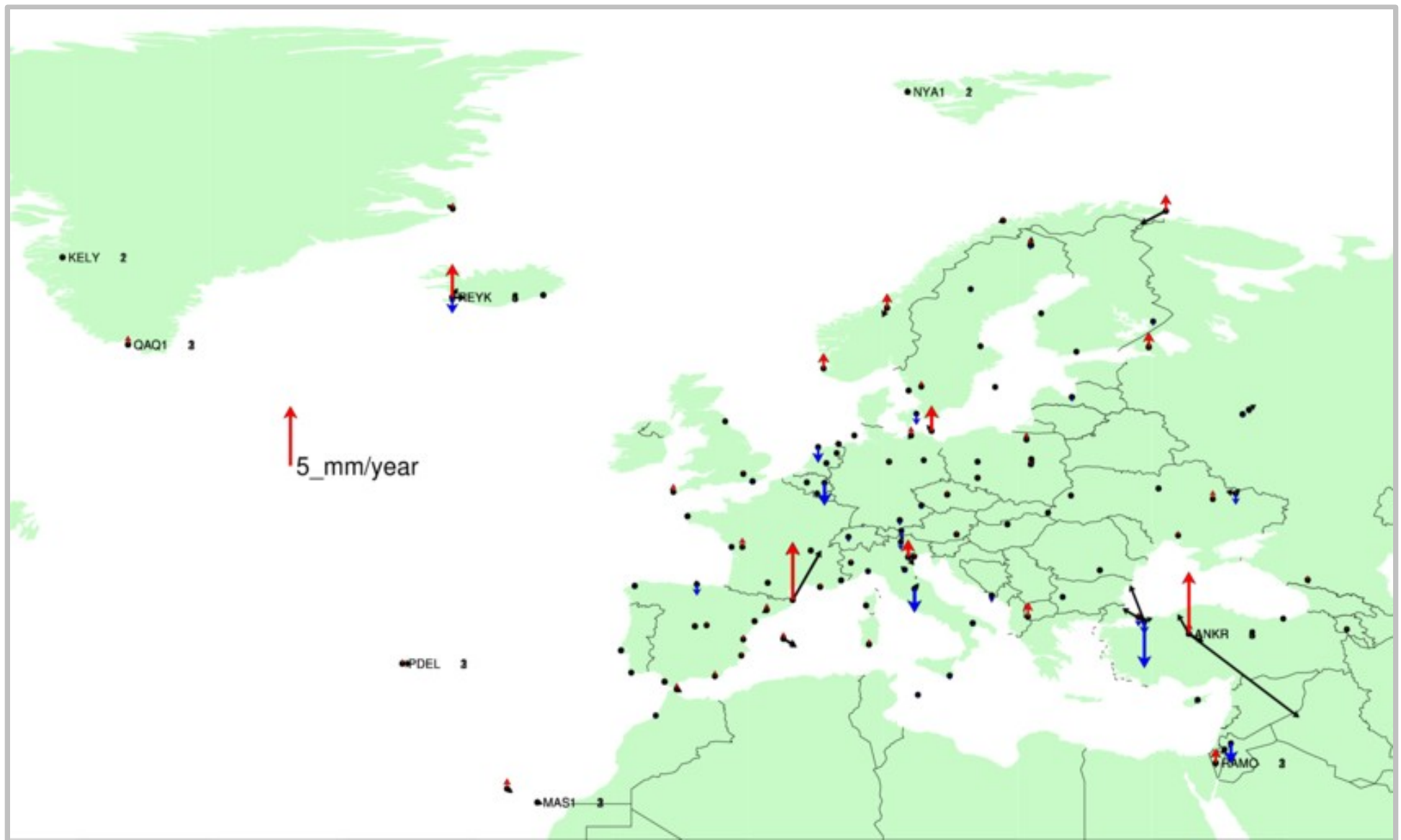
ITRF2008 cumulative: Helmert operational EPN vs repro1(+)



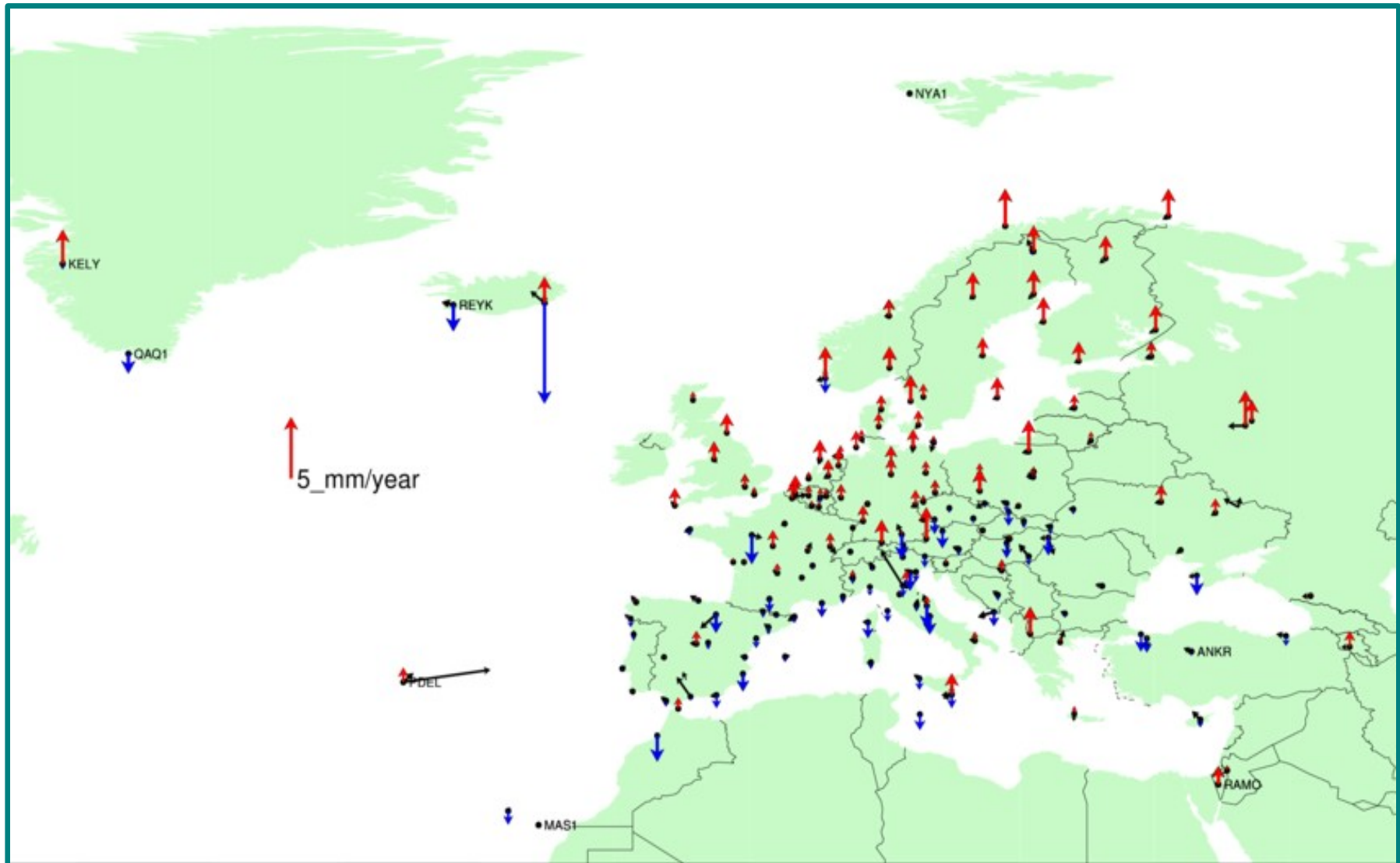
ITRF2008 vs densification coordinates



ITRF2008 densification velocities



ITRF2005d vs ITRF2008d velocities (C1600-REPR4)



ITRF2008/IGS08 densification ***next steps***

- *ITRF2008 densification solution ready*
- *Conversion to IGS08*
- *Release of EPN_CWWWW series*