IGb08 to IGS14 in EUREF
REFERENCE FRAME MAINTENANCE

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EPN REFERENCE FRAME COORDINATOR

GENERAL RF MAINTENANCE PROCEDURE

Step_1: re-processing of all GNSS data (REPRO_n) on IGS level,

Step_2: REPRO_n on regional level based on the IGS REPRO_n products,

Step_3: release of the ITRFyy solution – based on REPRO_n and the actually available antenna Phase Centre Variation (PCV) models,

Step_4: update of the official PCV models, publication of the ITRFyy-based IGSyy reference solution,

Step_5: run regional densification as the combination of REPRO_n and the routine processing using the updated IGS models.

Iteration with decreasing level of temporary inconsistencies, but with some complications for the regional networks.

C1934 → C1950

WILL BE A MAJOR RF UPGRADE

BASED ON CONSECUTIVE, SUPERIMPOSED STEPS

- NEW BACKGROUND REFERENCE FRAME

  IGB08 TO IGS14 (ATX + SOLN.SNX + RF.SNX)

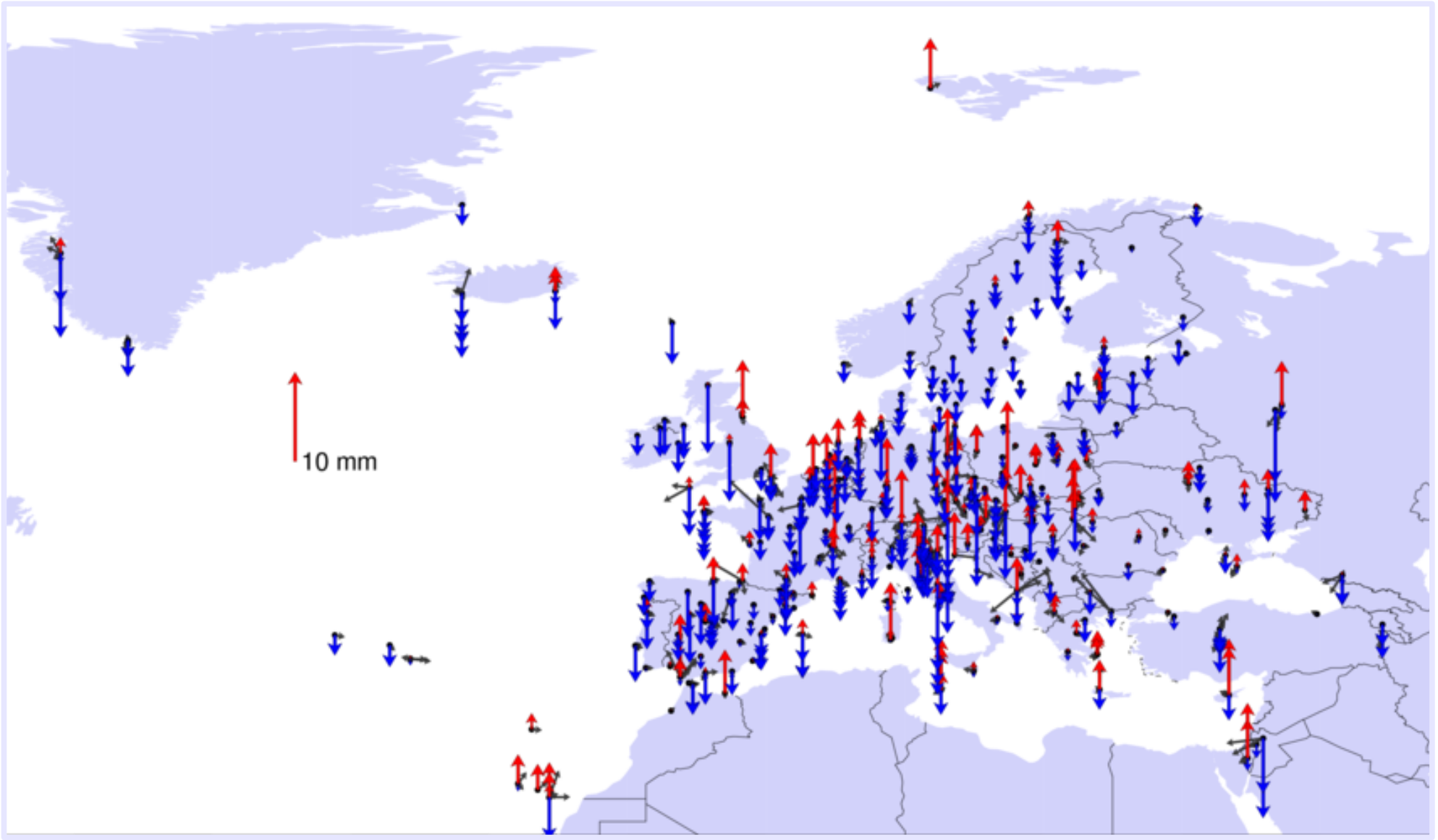
- INTRODUCTION OF EPN REPRO_2
- CHANGE FROM WEEKLY TO DAILY CUMULATIVE SOLUTION

  BETTER TRACK OF CHANGES AND LESS DATA REMOVAL

- CHANGE THE REFERENCE EPOCH FROM 2005.0 TO 2010.0
- INTRODUCTION OF PSD MODELLING
- NEW REFERENCE FRAME COORDINATOR

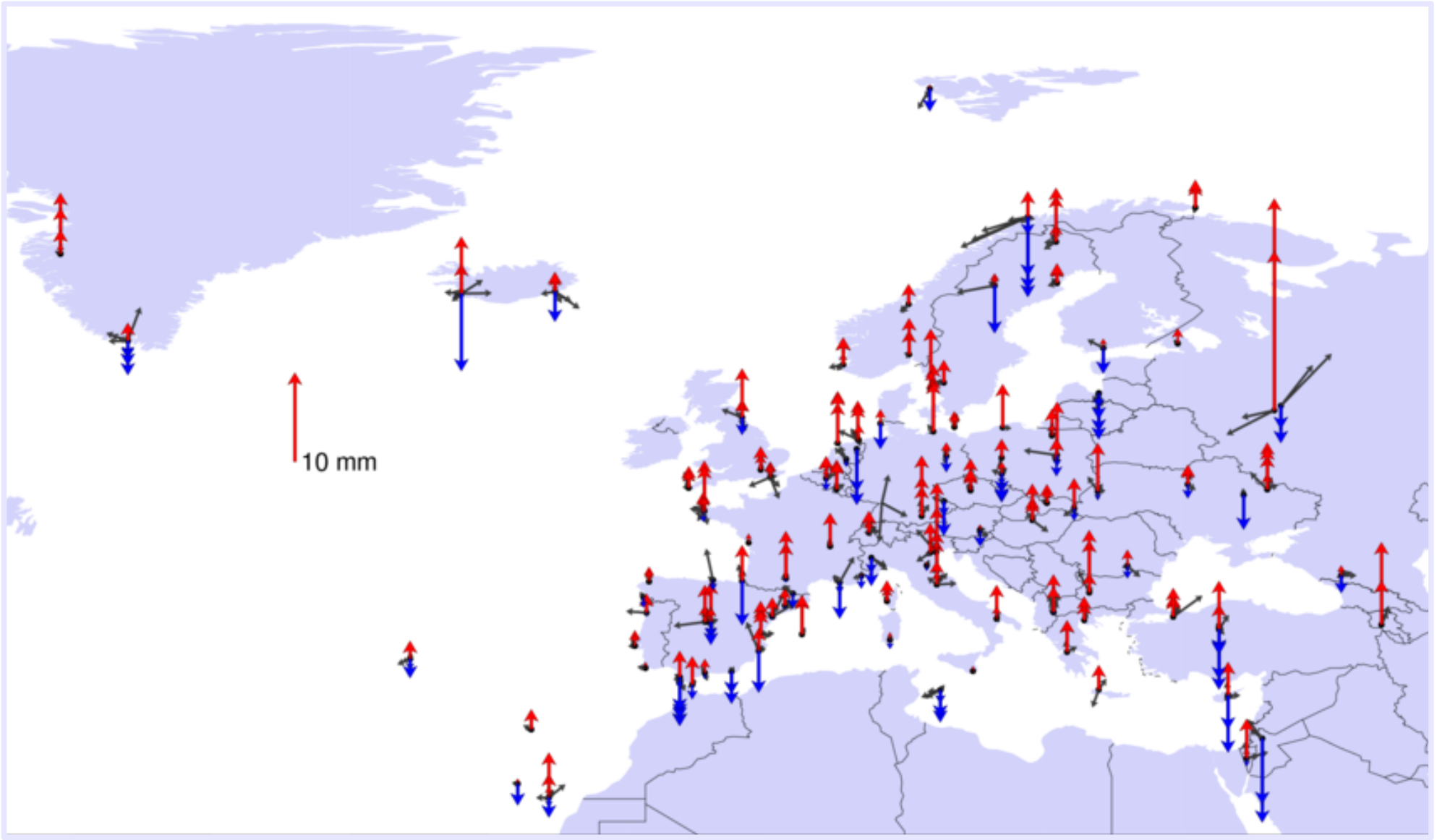
EPN REPRO_2 vs ROUTINE positions

epoch 2010.0

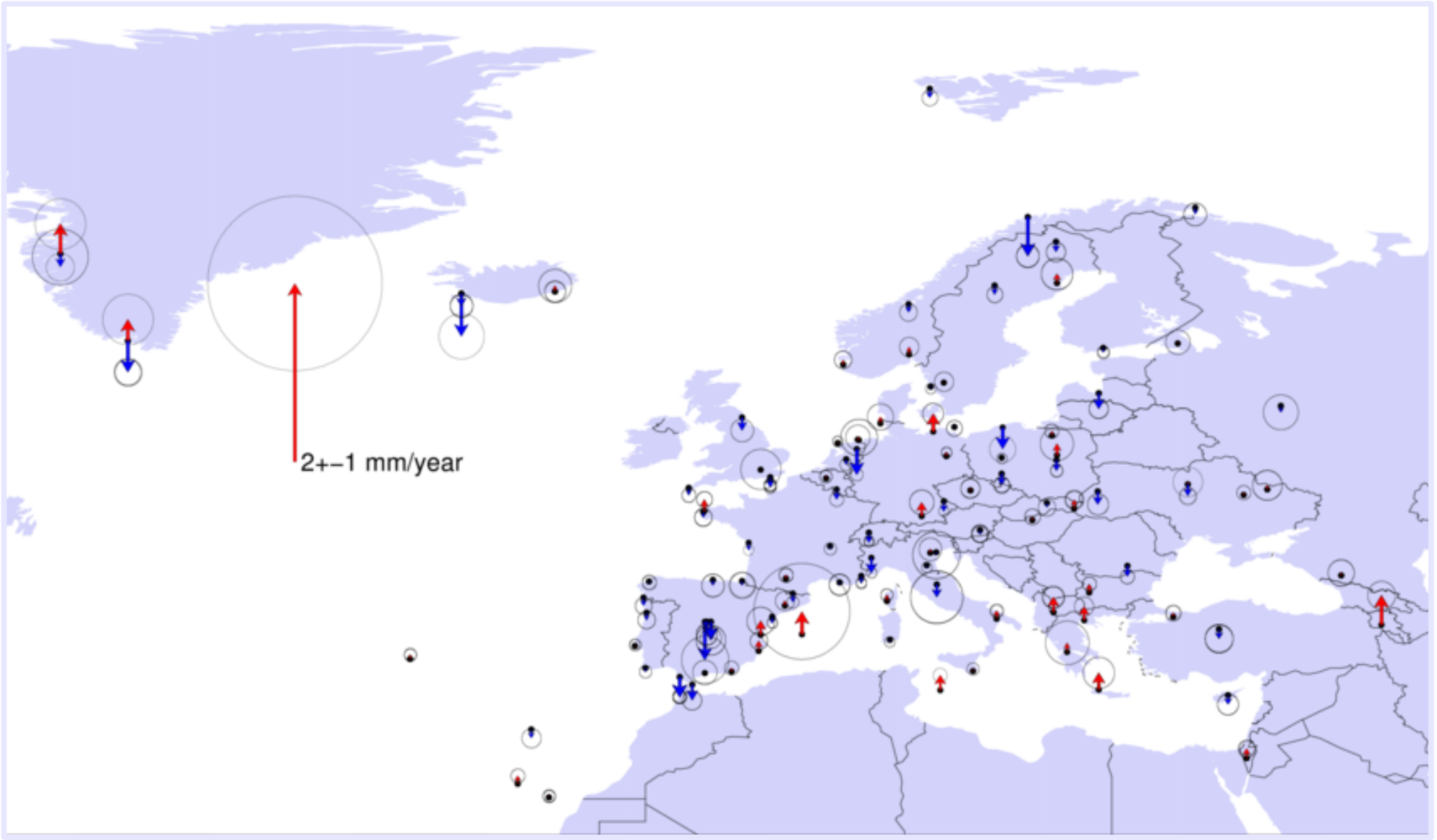


ITRF2014 vs EPN REPRO_2 positions

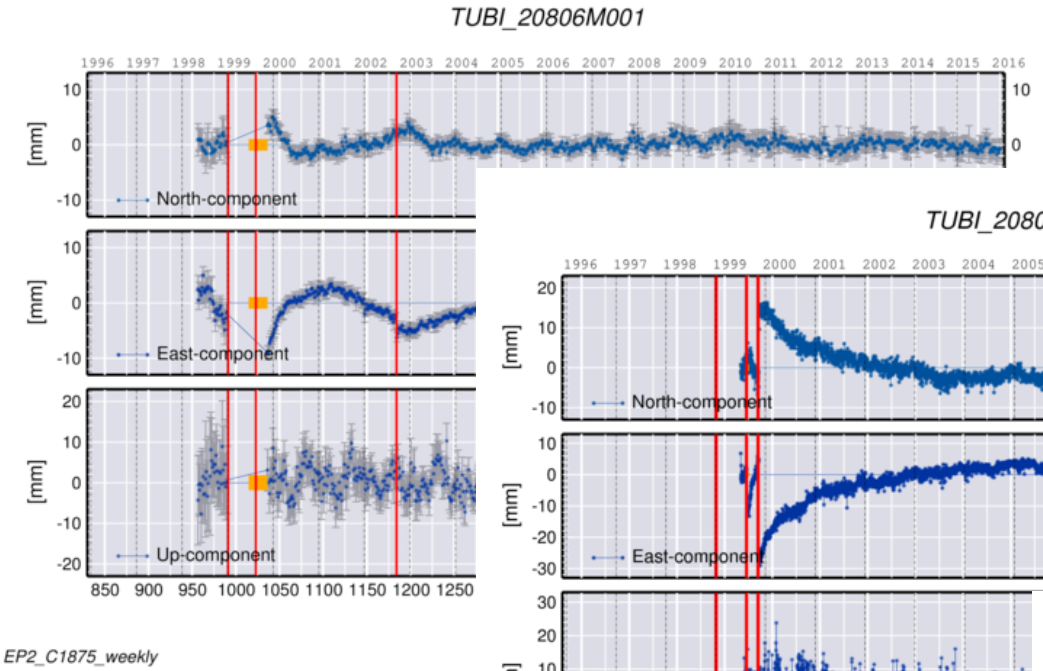
with PSD epoch 2010.0

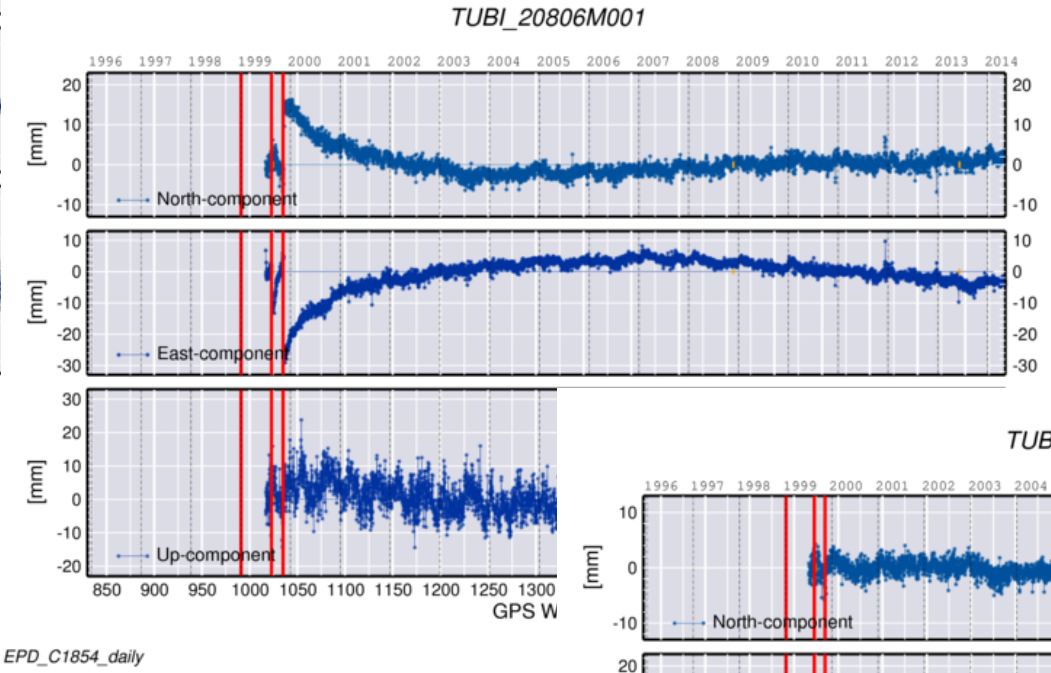


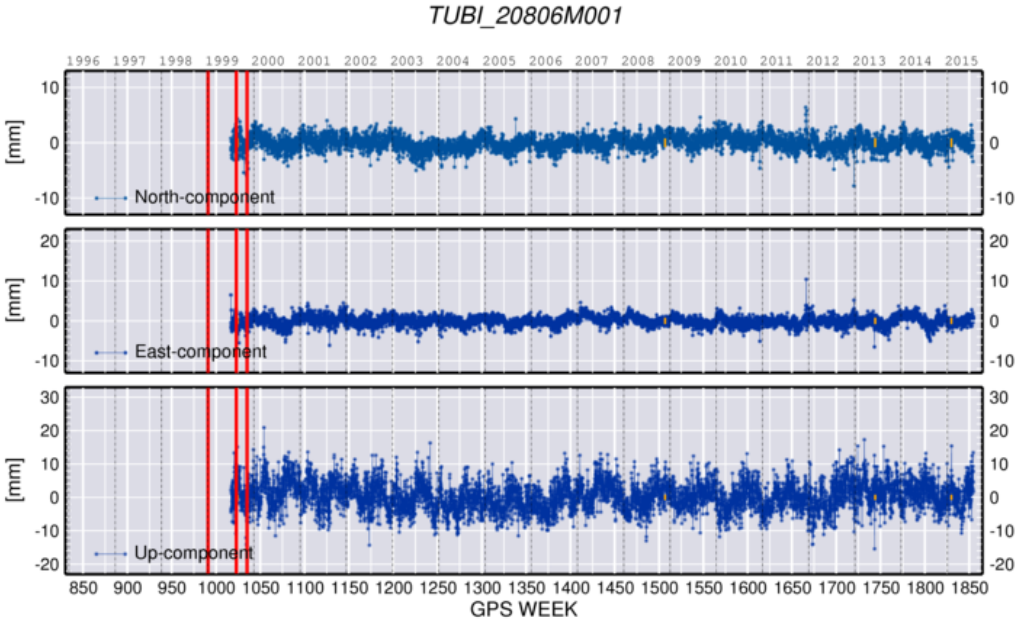
ITRF2014 vs EPN REPRO_2 velocities



HANDLING OF POST-SEISMIC DEFORMATION







PROPOSED TRANSITION (FRAME & RFC) SCHEDULE

Publication of C1934 based on **weekly routine EPN** SINEX product and expressed in IGb08	RFC_1	done
– – Change from weekly to daily multi-year combination – –		
Correction of daily SINEX solutions with POS offsets due to antenna calibration update	RFC_2	done
Preparation of discontinuity SINEX compatible with IGS14 soln.snx	RFC_1-2	in progress
Reference network selection and computation of the multi-year solution iteratively	RFC_1-2	in progress
Publication of C1950 expressed in IGS14	RFC_1-2	2nd half of 2017