



DORIS Cumulative Solution ids18d03

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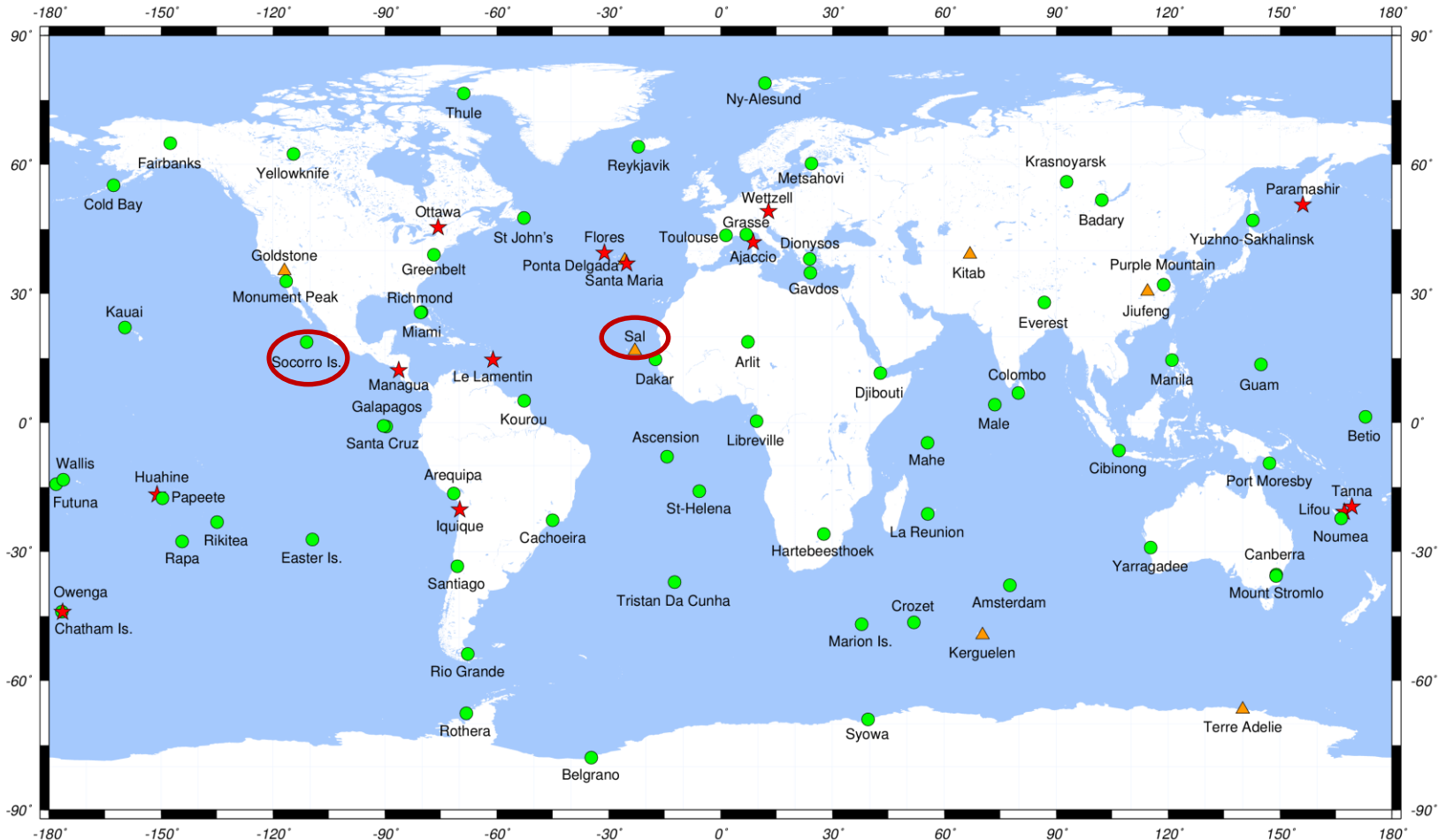
- **Second version of the DORIS position and velocity cumulative solution from the IDS Combination Center.**
 - Stacking of the IDS combined series ids 12 from 1993 doy 003 to 2017 doy 365.
 - Position constraints from the IGN DORIS-to-DORIS ties (2017/09/04).
 - Continuity velocity constraints.
 - Aligned to ITRF2014.
- **Available in SINEX (ids18d03.snx) format.**
- **SINEX solution contains two additional (and unofficial) blocks:**
 - SOLUTION/DISCONTINUITY: origin (ex: earthquake, beacon change, antenna problem...) of the position discontinuities.
 - SOLUTION/DATA_REJECT: periods of time not included in the combination.
- **Can be downloaded from the IDS Data Centers (CDDIS, IGN).**
 - ftp://cddis.gsfc.nasa.gov/pub/doris/products/sinex_global/ids/
 - ftp://doris.ensg.ign.fr/pub/doris/products/sinex_global/ids/
- **Questions and/or comments: ids.combination@ids-doris.org**

- **Velocities must be constrained.**

Site	DORIS station	Reference station	Technique	Source
Ajaccio	AJAB	AJAC	GNSS	ITRF2014
Flores	FLOA	FLOA	DORIS	DPOD2008 (1.14)
Huahine	HUAA	7123	Laser Ranging	ITRF2014
Iquique	No constraint since seismic active site and no colocation			
Lifou	LIFB	LPIL	GNSS	ITRF2014
<u>Managua</u>	<u>MNAC</u>	<u>MANA</u>	<u>GNSS</u>	<u>ITRF2014</u>
Owenga	OWEC OWFC	CHTI	GNSS	ITRF2014
Tanna	TANB	TANB	DORIS	DPOD2008 (1.14)
<u>Wetzell</u>	<u>WEUC</u>	<u>WTZS</u>	<u>GNSS</u>	<u>ITRF2014</u>

Station	Date	Origin
+ ASEB	15:319:00000	North discontinuity
+ SPJB	14:054:85258	Up velocity
- THUB	13:059:00000	No more up velocity change
+ TRJB	16:139:00000	

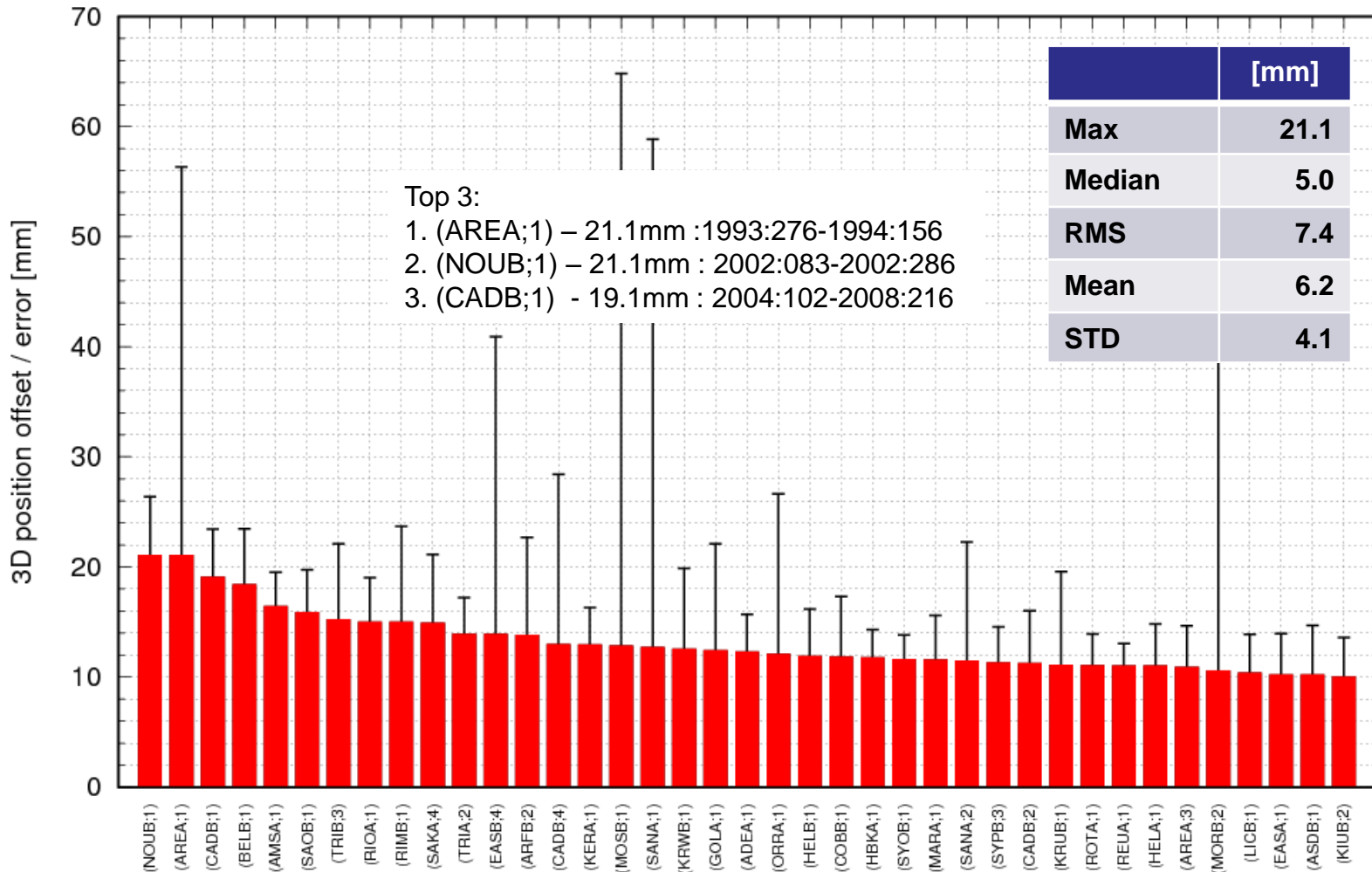
84 DORIS sites – 190 DORIS stations
2 new stations wrt ids17d02: Sal (SAQC) and Socorro (SOFC)



Green circles: ITRF2014 sites. Orange triangles: ITRF2014 sites with new station(s) since ITRF2014. Red stars: sites not included in the ITRF2014.

ids18d03 vs ITRF2014 (PSD included)

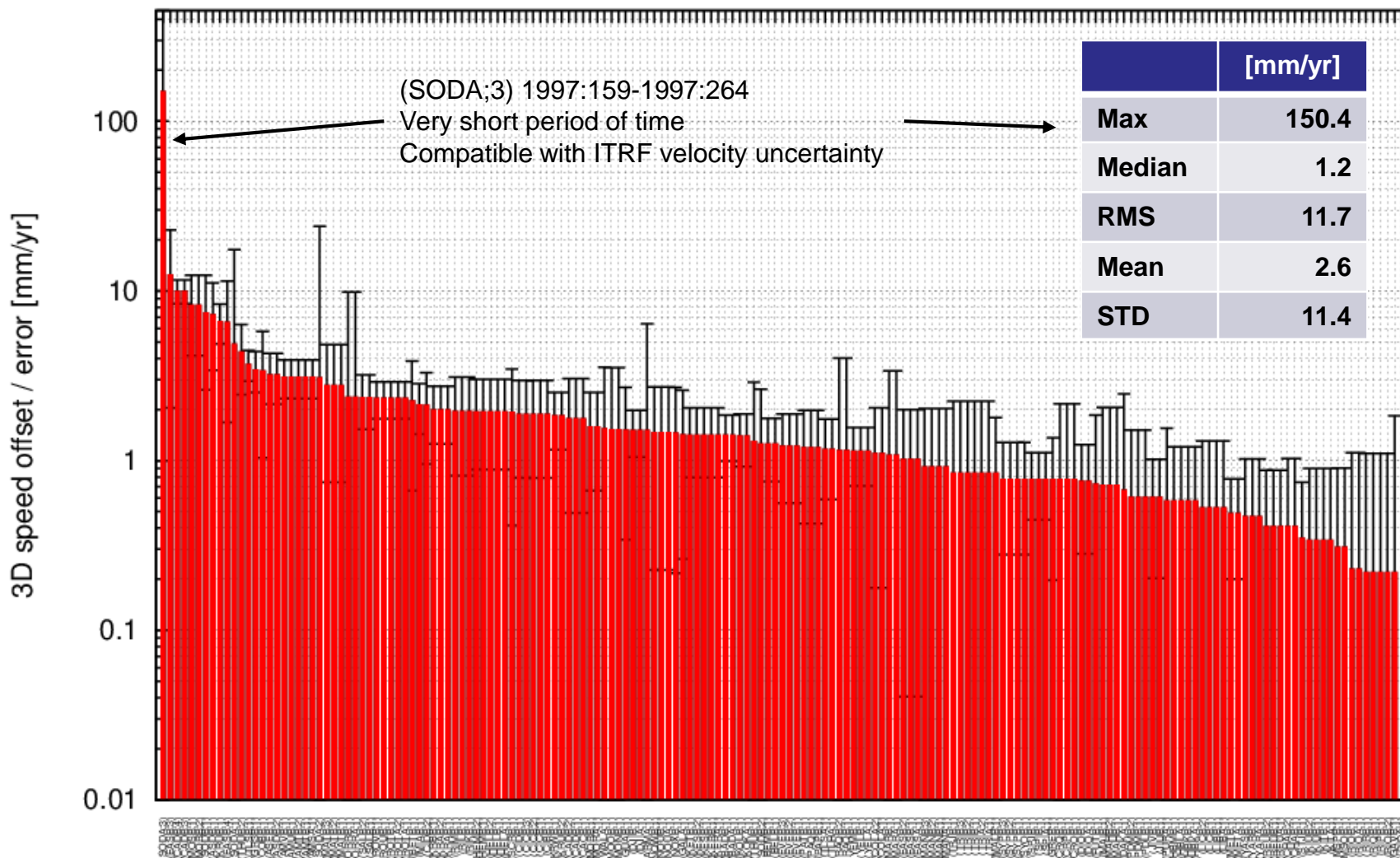
Position differences at the mean epoch of the observations
Differences larger than 10mm only



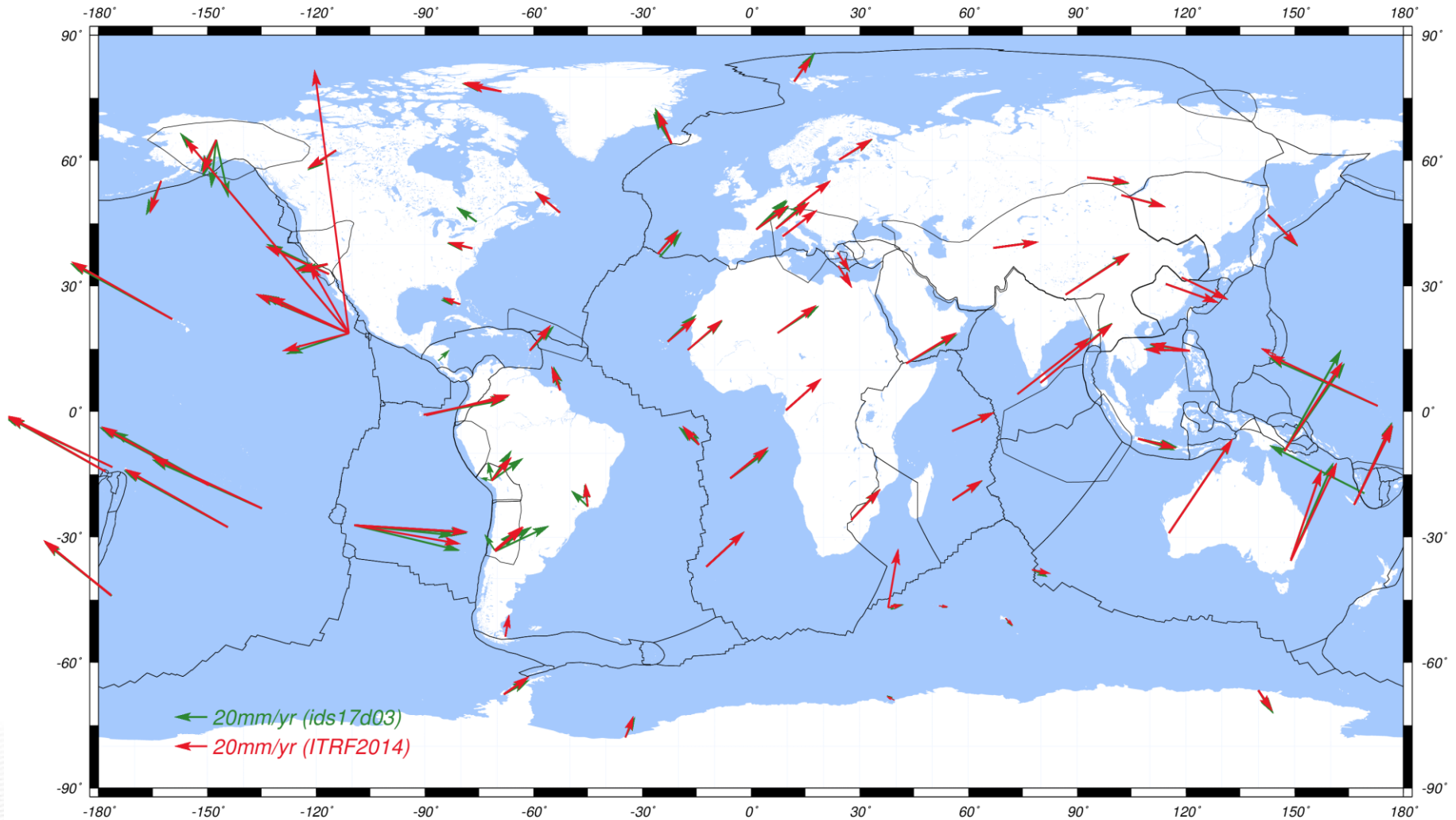


<http://ids-doris.org>

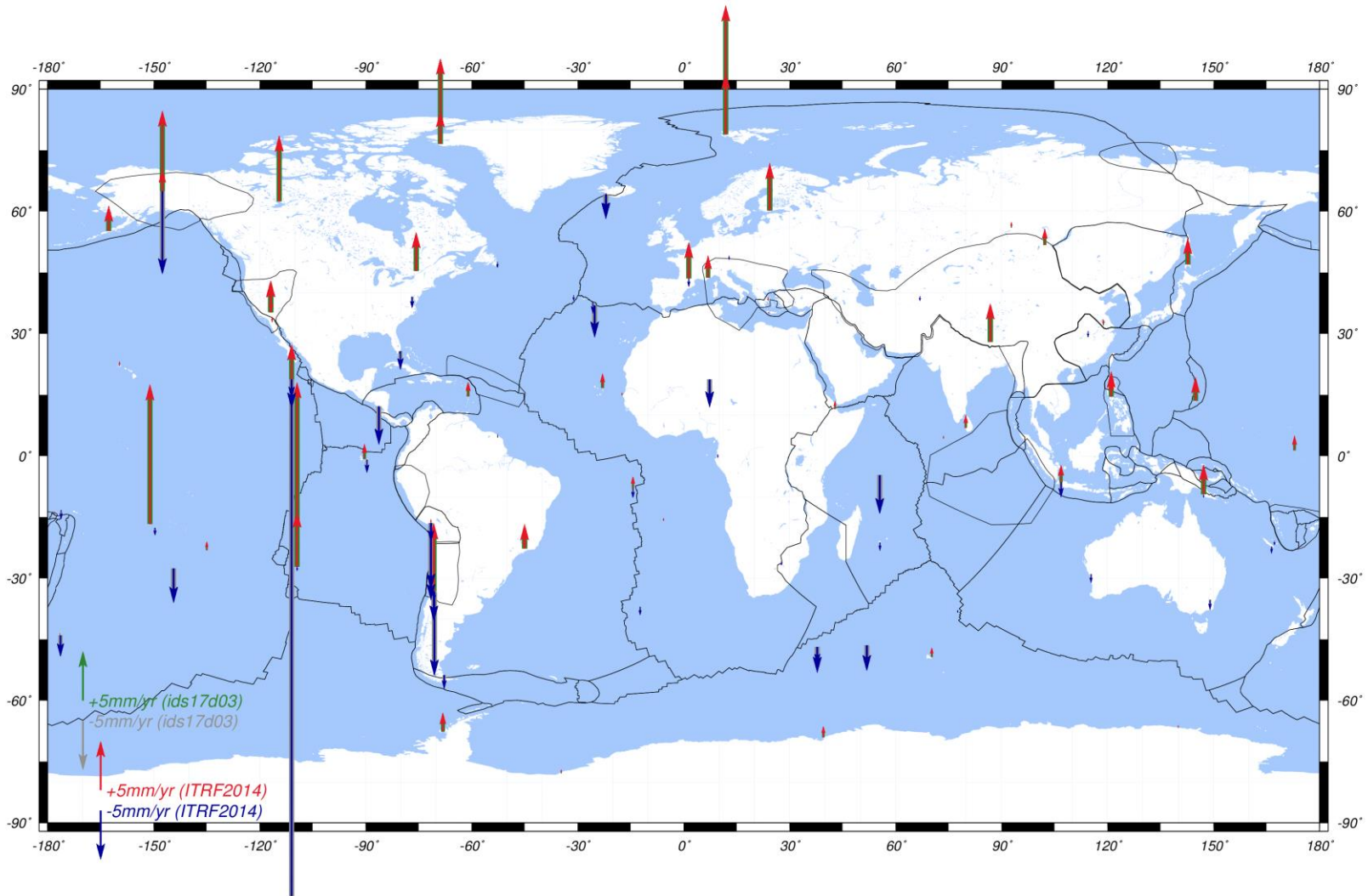
ids18d03 vs ITRF2014 Velocity differences – PSD sites excluded



ids17d03 vs ITRF2014 – Horizontal velocities



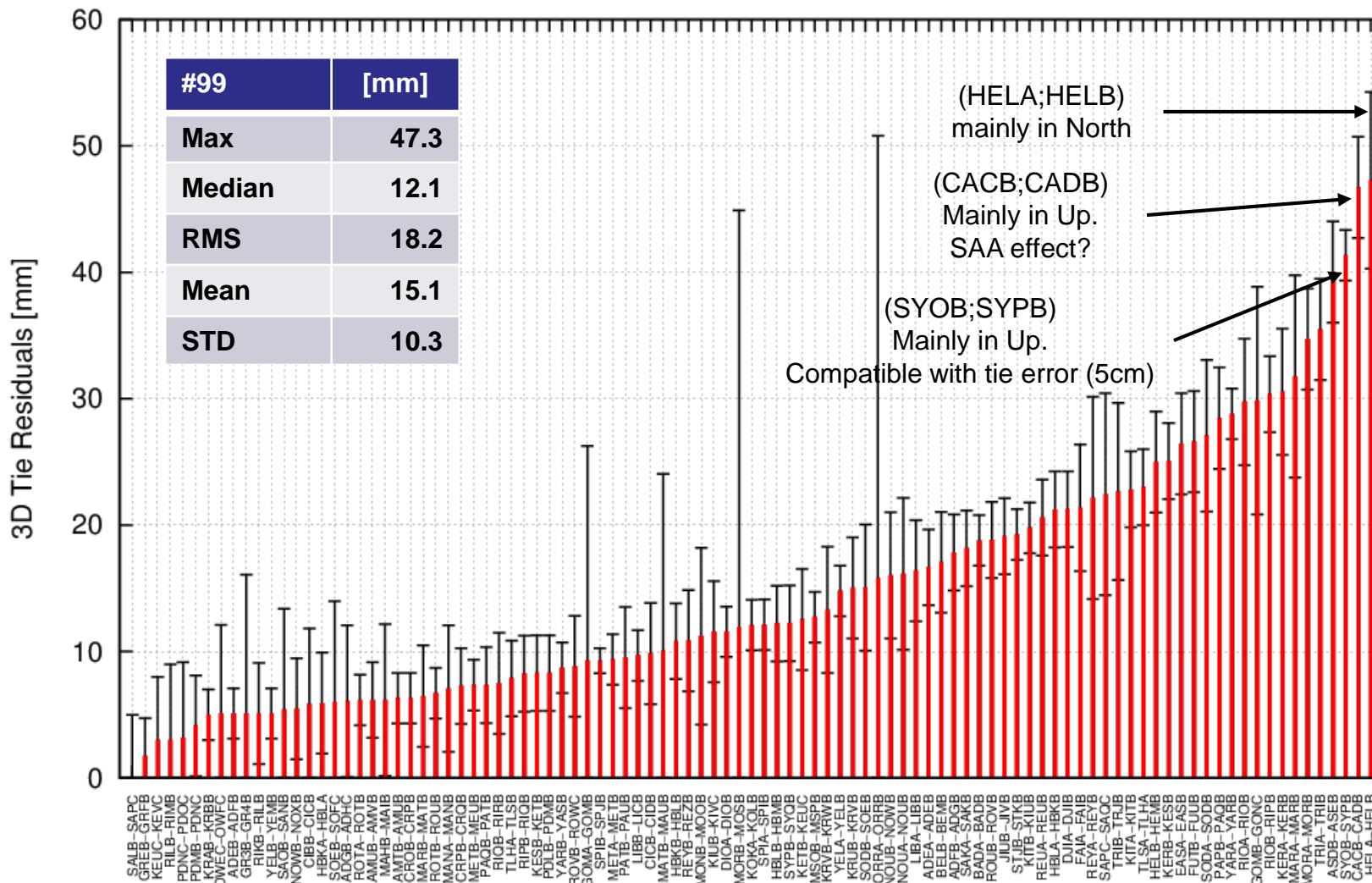
ids17d03 vs ITRF2014 – Vertical velocities





ids18d03 vs IGN DORIS-to-DORIS ties

Coordinate differences estimated at the begin of the most recent station

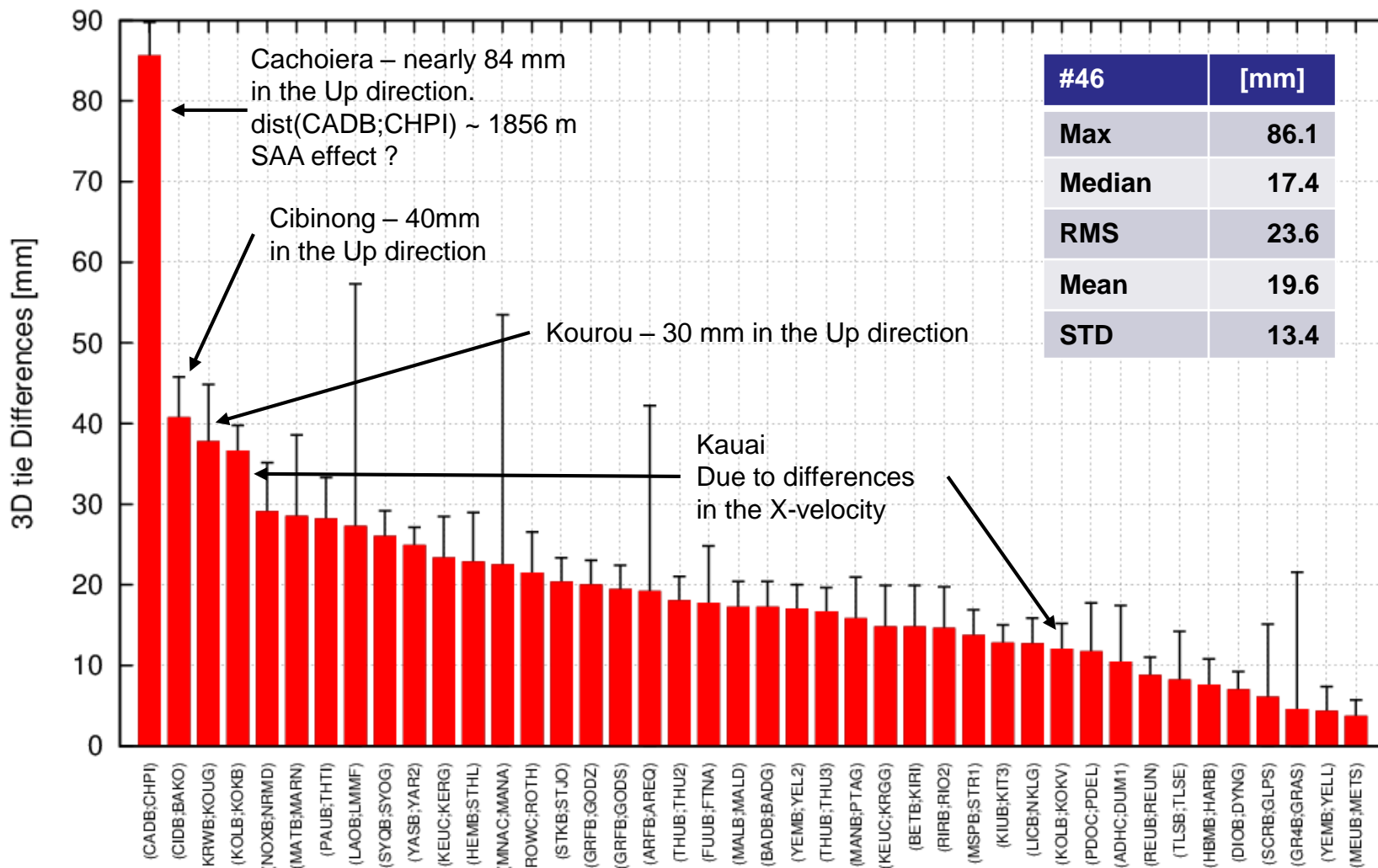


AREA-AREB removed due to earthquakes in between

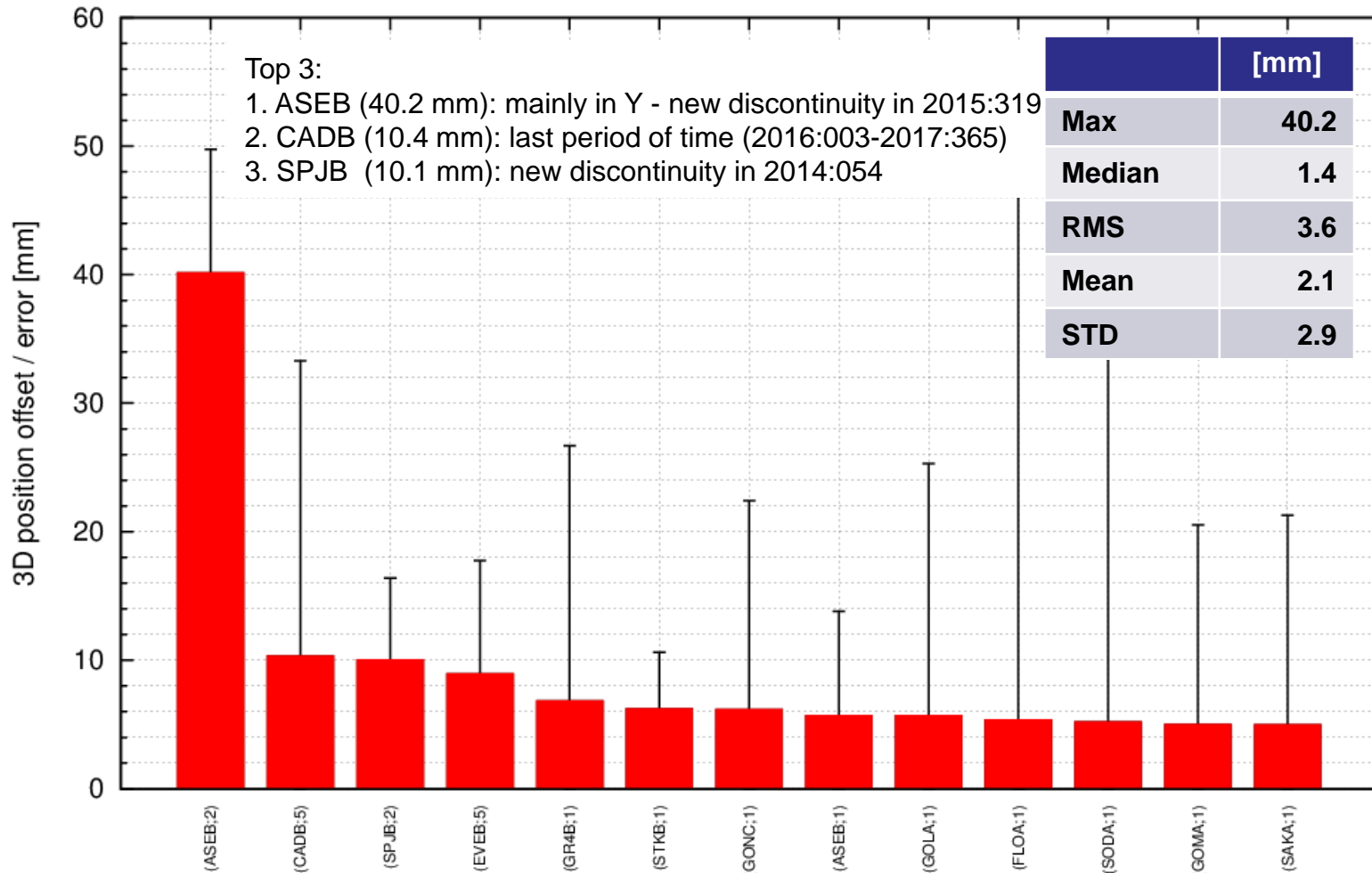
OTTA-OTTB removed due to more than 18 months in between

ids18d03 vs IGN DORIS-to-GNSS ties

Coordinate differences estimated at max(time_beg_GNSS, time_beg_DORIS)



Position differences at the mean epoch of the observations
Differences larger than 5mm only



ids18d03 vs ids17d02 Velocity differences

Differences larger than 1mm/yr only

