



DPOD2014 version 3.0

Guilhem Moreaux (IDS Combination Center) – November 8th, 2018

- **Based on the DORIS position and velocity cumulative solution ids18d03 (stacking of the IDS combined series ids 12 from 1993 doy 003 to 2018 doy 007).**
- **Available in SINEX and text formats.**
- **SINEX solution contains three 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.
 - **STATION/TO_BE_UPDATED:** stations with non-negligible position change wrt DPOD2014v02.
- **Text solution contains a new column 11 (from the left) to identify stations with non-negligible position change wrt DPOD2014 v02**
 - **Y** means station to be updated
 - **N** means station no to be updated
 - **X** means period to not use

Sites with less than 2.5 years of observations

- **Velocities must be constrained (differences wrt DPOD2014v02).**

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

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	

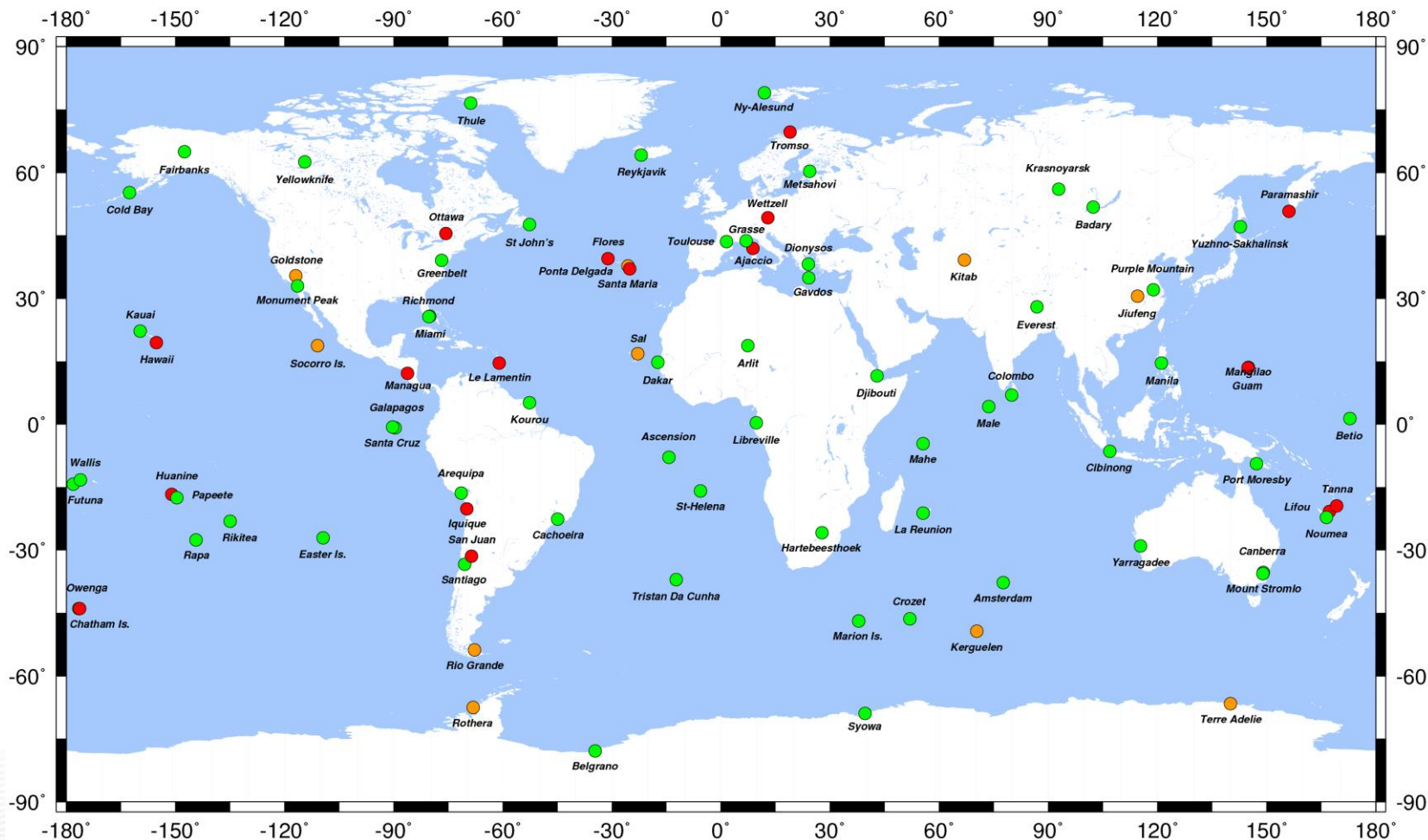


<http://ids-doris.org>

DPOD2014 v03 - Network

88 DORIS sites – 202 DORIS stations

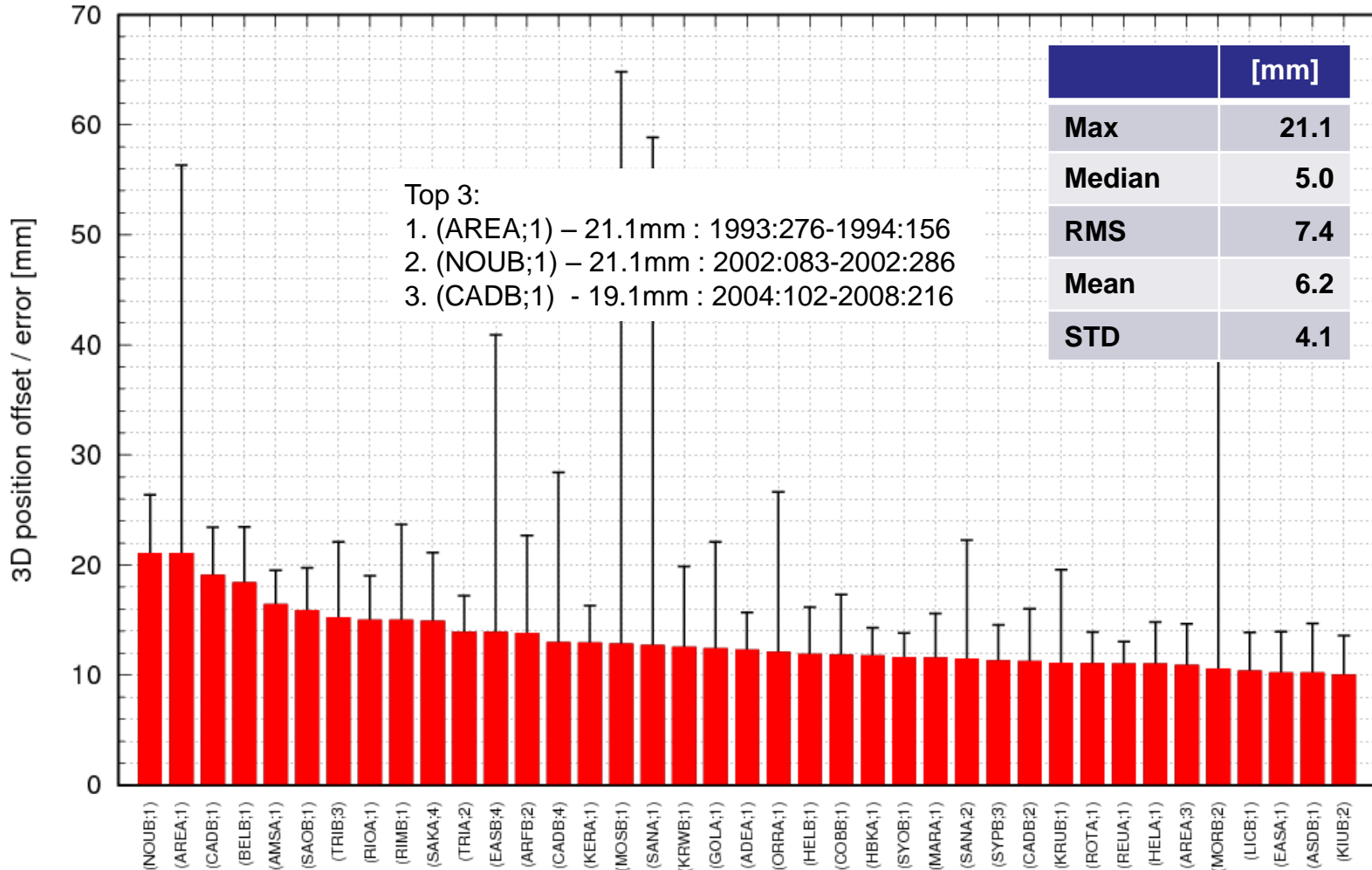
New site: Mangilao (Guam) and San Juan (Argentina) - New stations; MLAC, RISC, ROXC, SARC, SJUC



Site not included ITRF2014 (# 17) – Site with new station(s) since ITRF2014 (# 10)

DPOD2014 v03 vs ITRF2014 Position differences

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

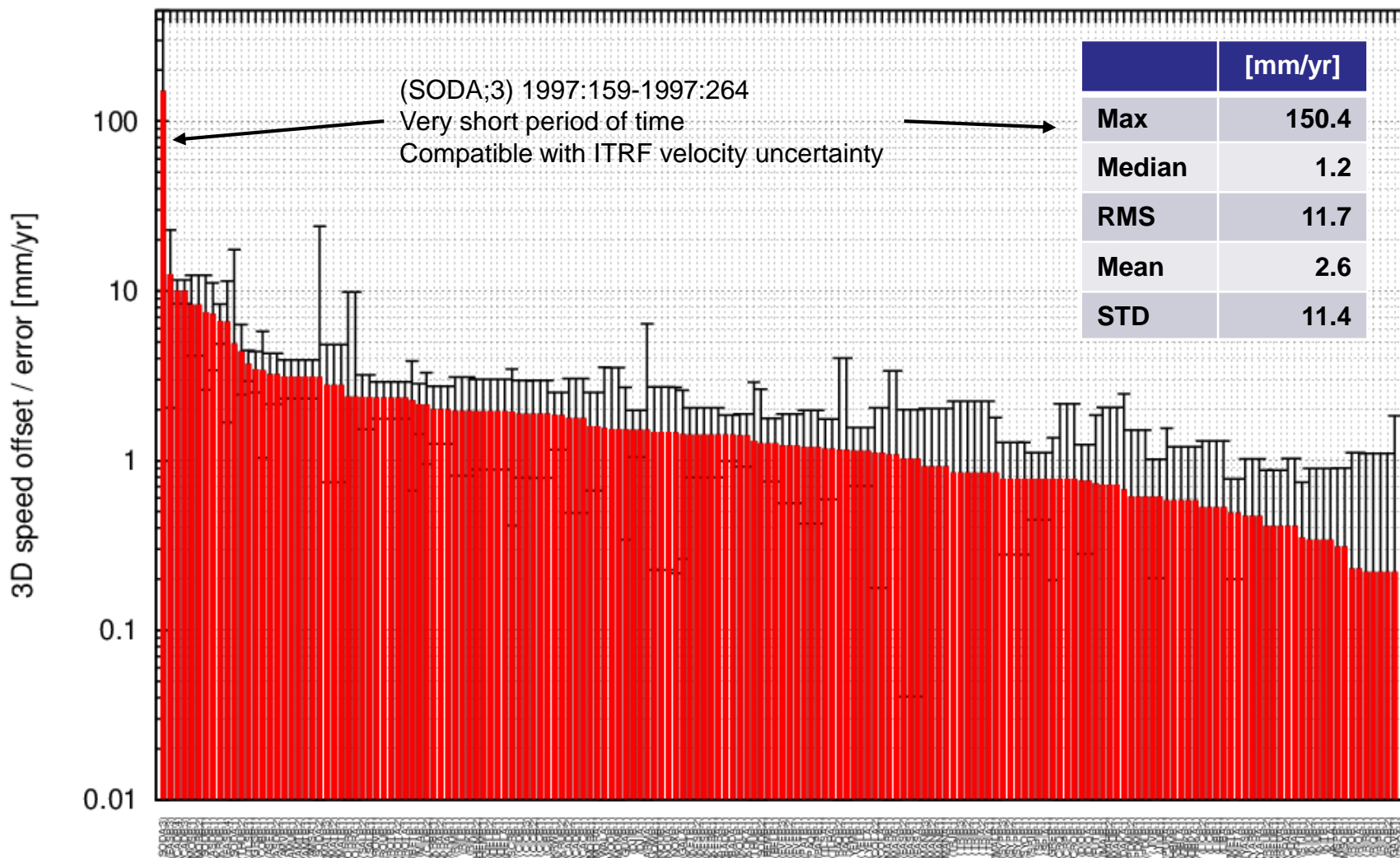




<http://ids-doris.org>

DPOD2014 v03 vs ITRF2014

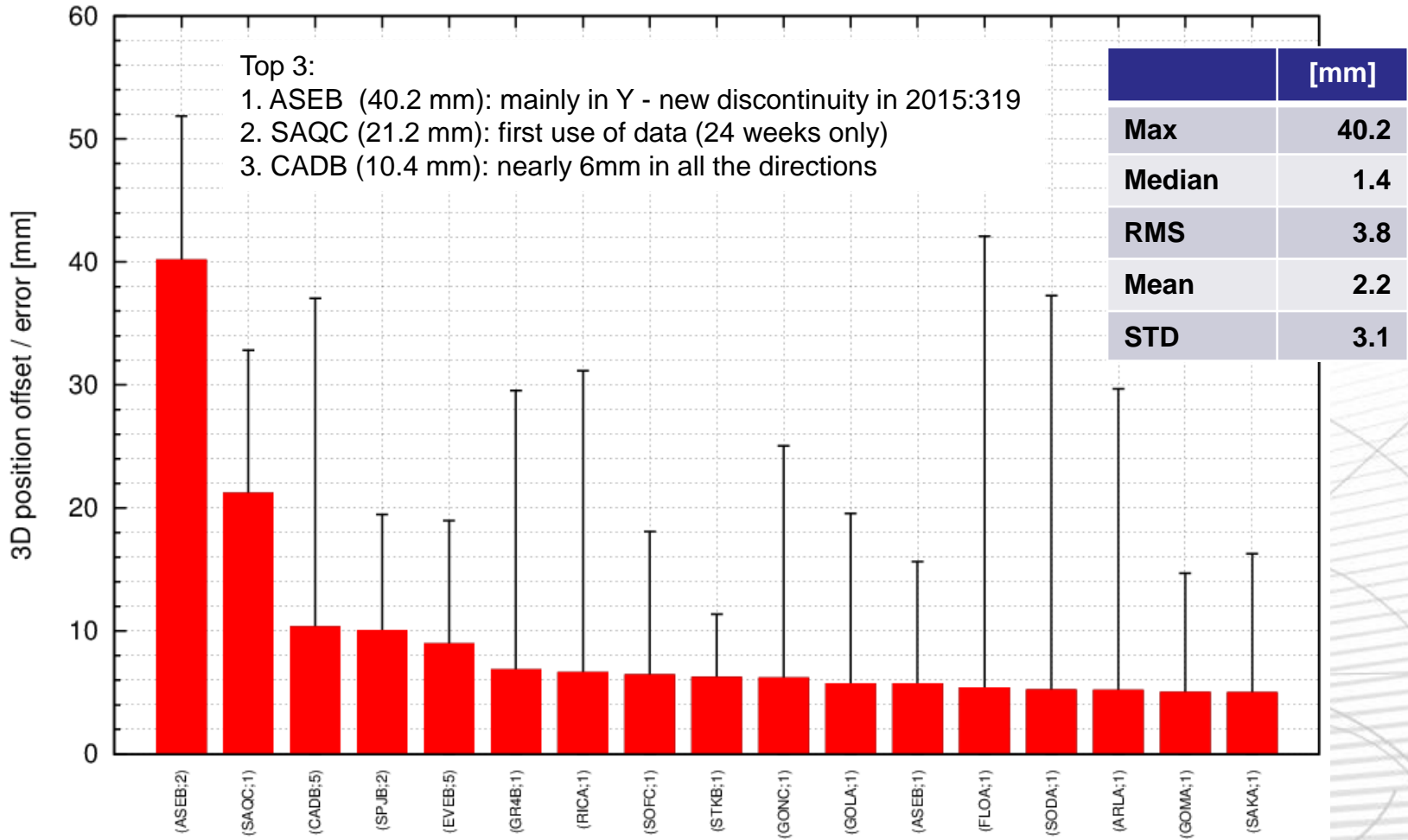
Velocity differences – PSD sites excluded



DPOD2014 v03 vs DPOD2014 v02

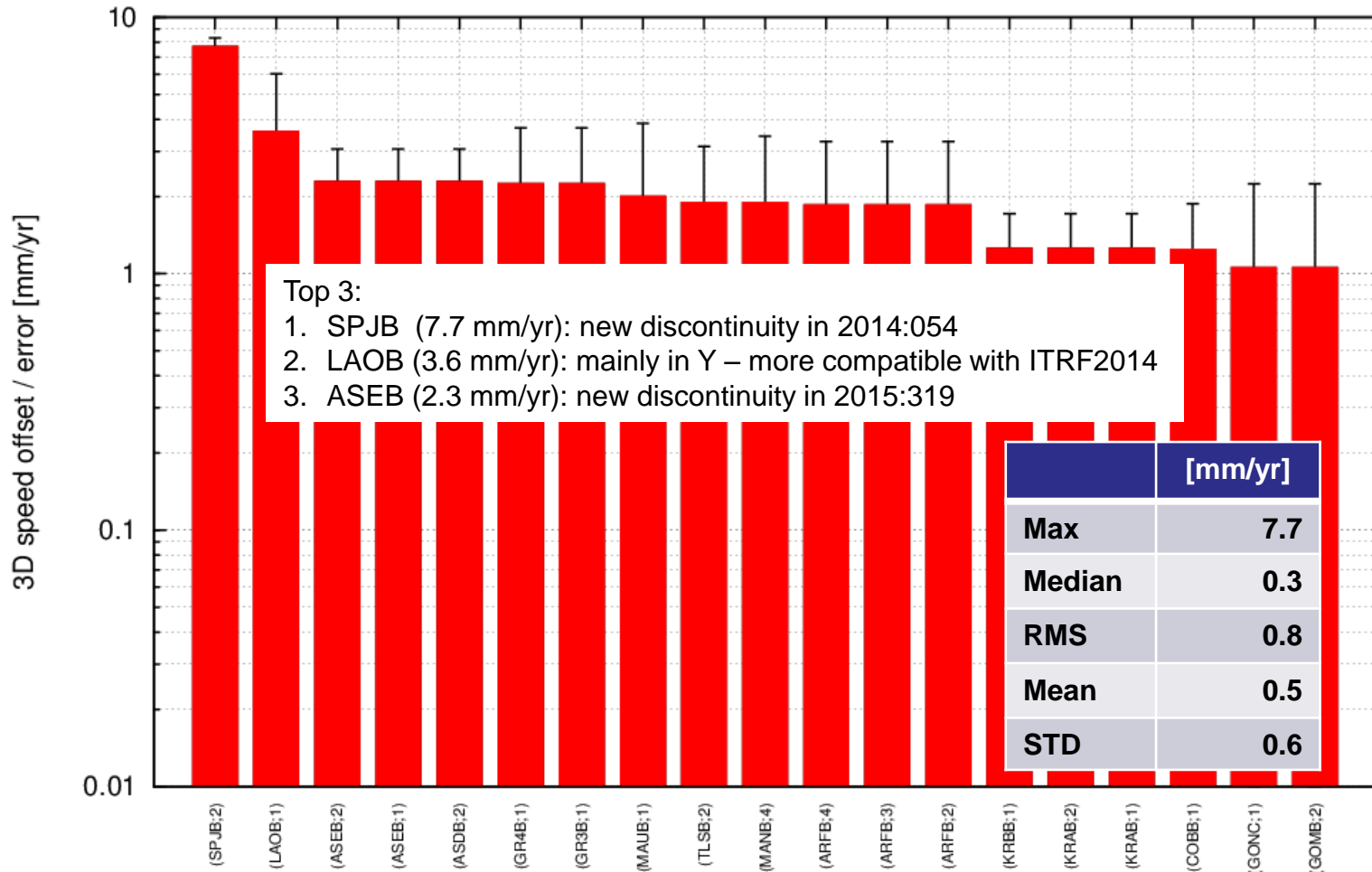
Position differences

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



DPOD2014 v03 vs DPOD2014 v02 Velocity differences

Plot of differences larger than 1mm/yr only

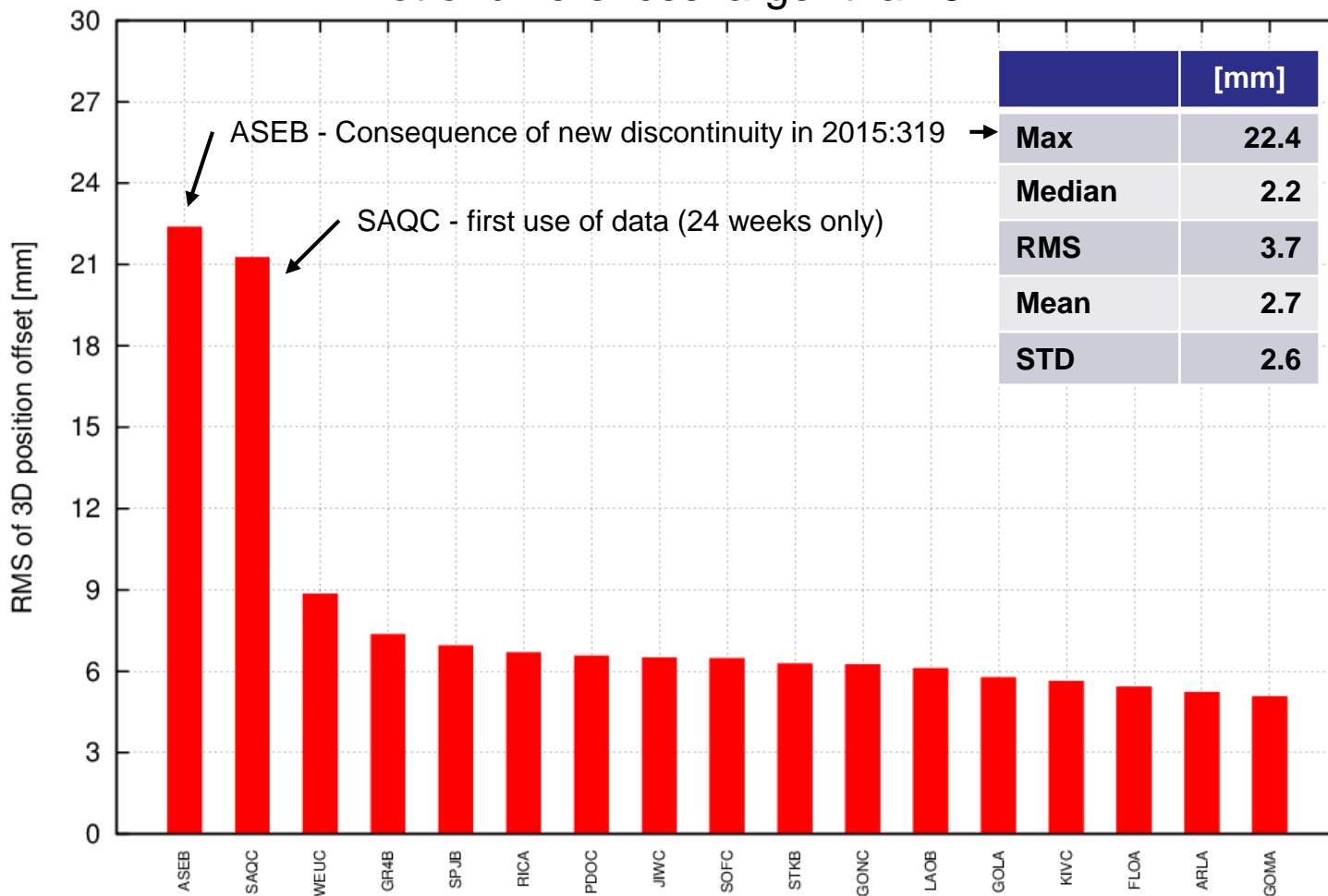


DPOD2014 v03 vs DPOD2014 v02

Position differences

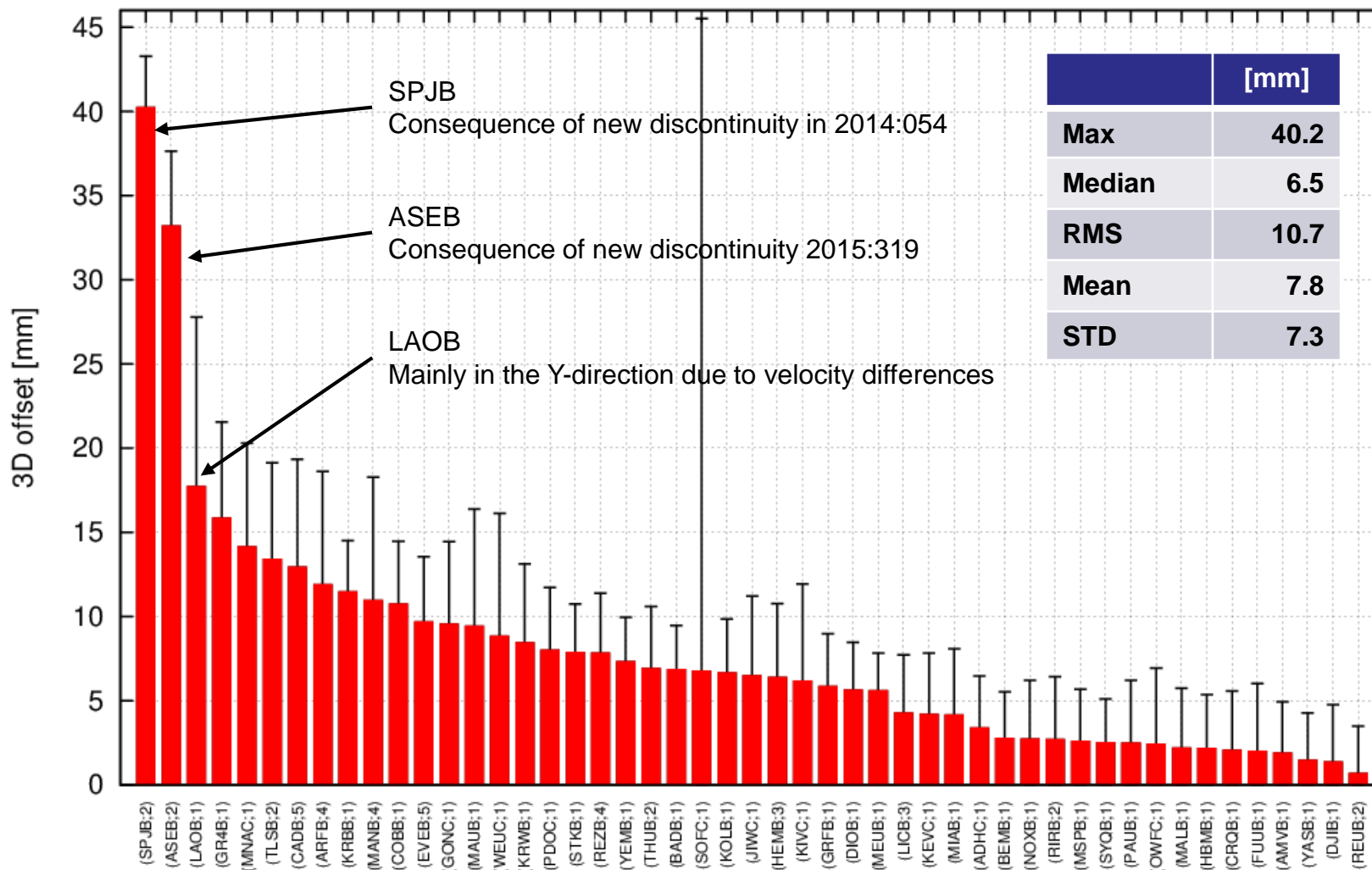
RMS of 3D position differences over the whole period of the observations

Plot of differences larger than 5mm



DPOD2014 v03 vs DPOD2014 v02

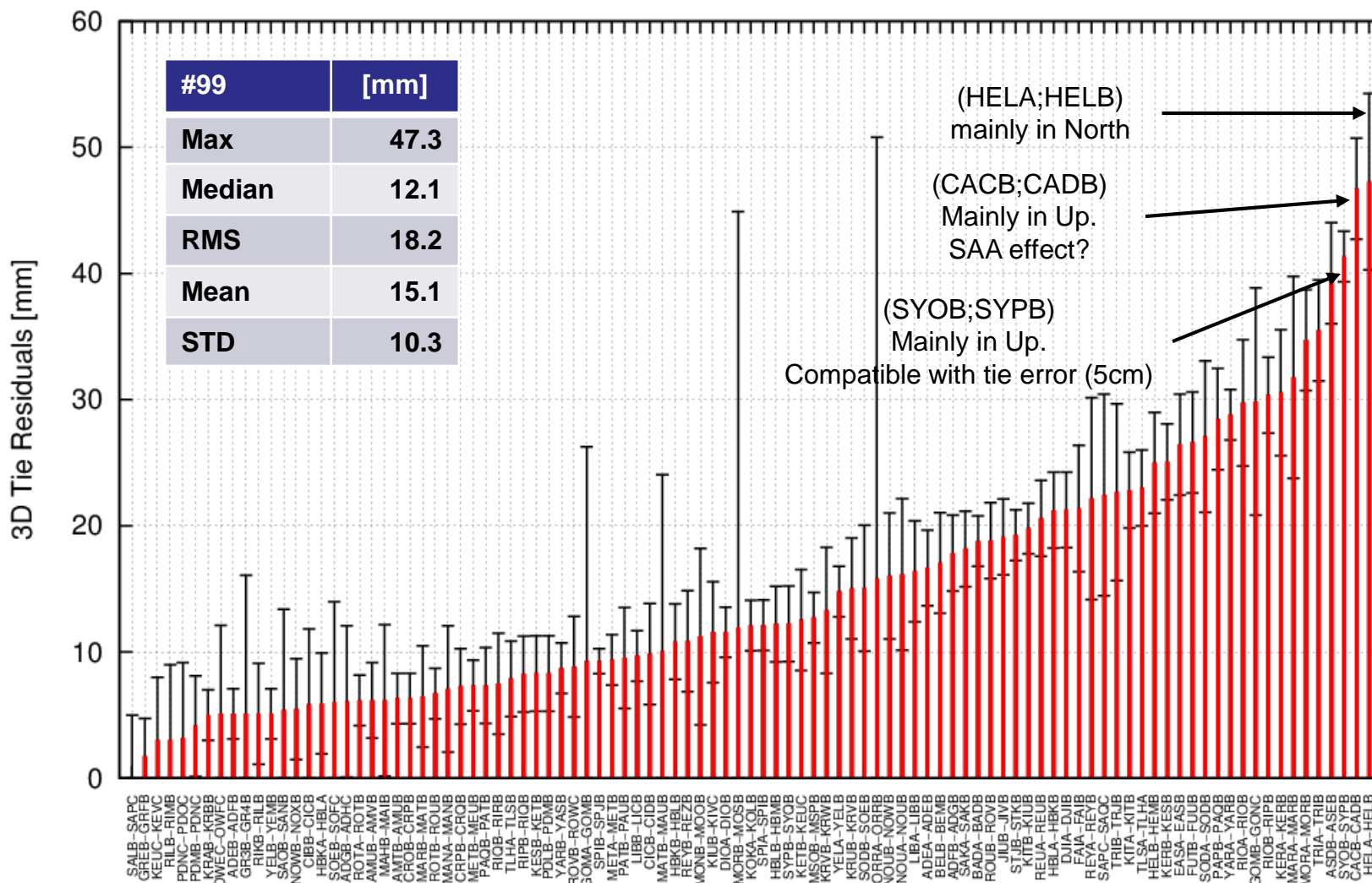
Position differences in 2019:365





DPOD2014 v03 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

DPOD2014 v03 vs IGN DORIS-to-GNSS ties

Coordinate differences estimated at max(time_beg_GNSS, time_beg_DORIS)

