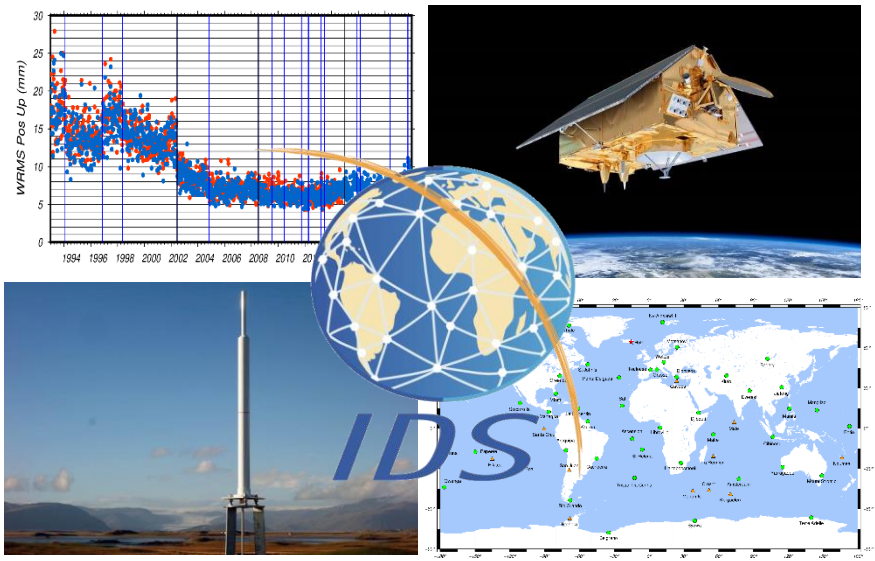
# Status of the IDS CC Activities

Guilhem Moreaux (CLS)



# The IDS contribution to the first ITRF2020 update is based on 6 solutions from 6 different software packages.

| AC / AAC | Software | Series number | Solution Type | EOPs | HY-2C/D | Sentinel-6A |
|---|---|---|---|---|---|---|
| **ESA** | NAPEOS | 16 | NEQ | offset+rate+LOD | No | Yes |
| **GOP** | BERNESE | 70 | COV | offset+rate | Yes | Yes |
| **GRG** | GINS-DYNAMO | 54 | COV | offset | Yes | Yes |
| **GSC** | GEODYN | 55 | NEQ | offset | No | Yes |
| ***IGN*** | *GIPSY-X* | *16* | *NEQ* | *offset* | *No* | *Yes* |
| ***GFZ*** | *EPOS-OC* | *00* | *COV* | *offset+LOD* | *No* | *Yes* |
| **IDS** | **CATREF** | **22** | **COV** | **Motion** | **Yes** | **Yes** |

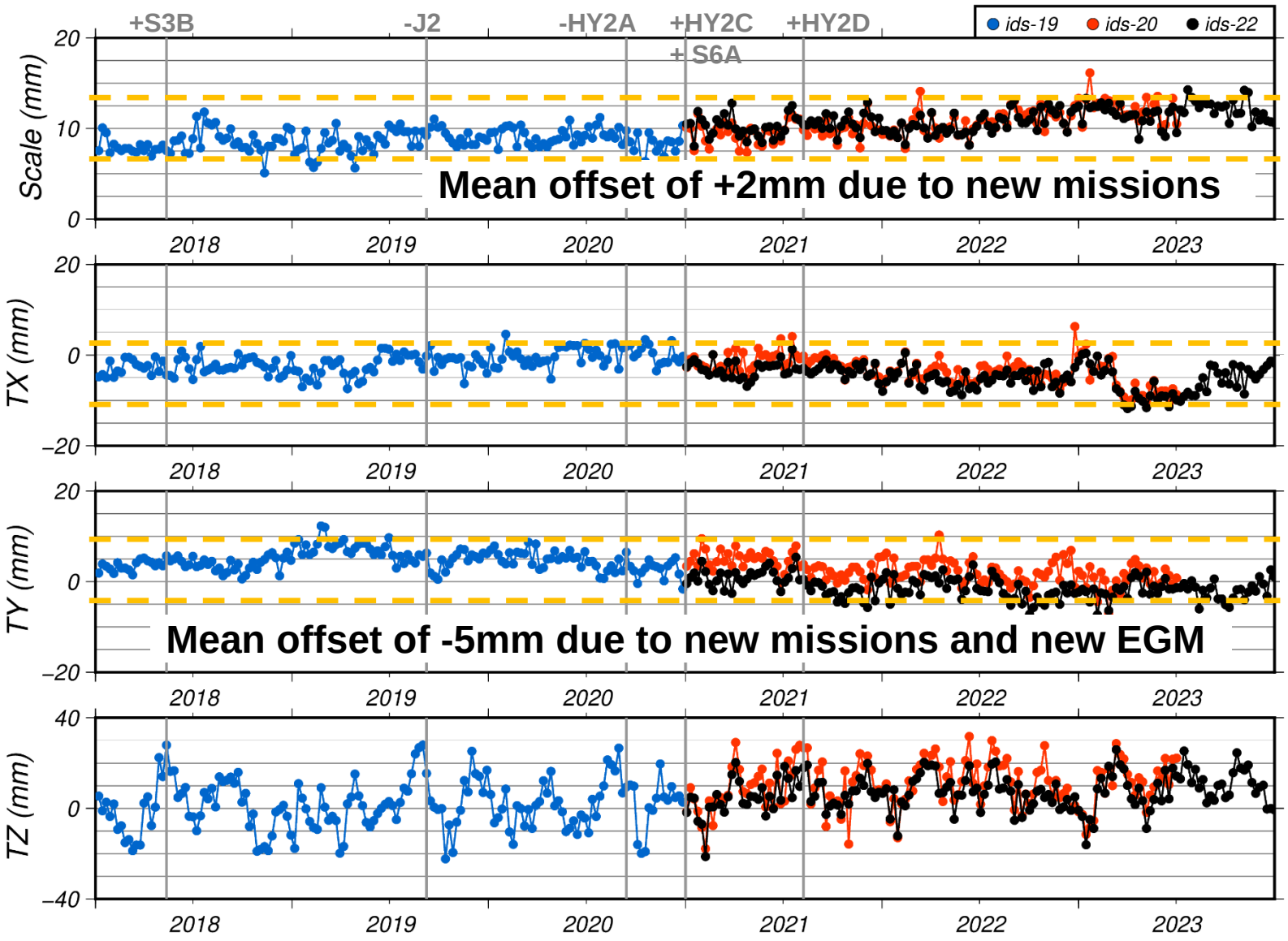
**New since ITRF2020 processing**

**SWOT DORIS data are not yet part of the IDS AC/AAC solutions.**

**ITRF2020 Processing Standards applied**
**+ New Time-Variable models for Earth gravity**
**+ South Atlantic Anomaly mitigation strategies for HY-2A for GRG and GSC**

# Origin and scale wrt DPOD2020 v2.1

**ids 19** (ITRF2020) – **ids 20** (extension) – **ids 22** (Update)



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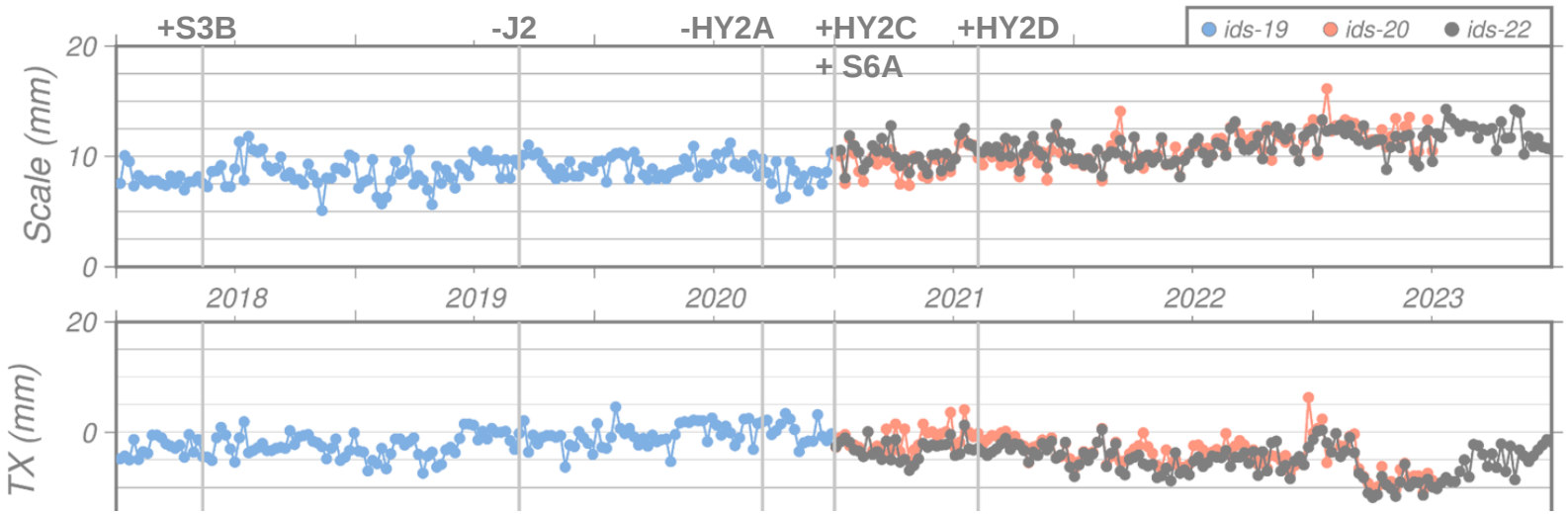
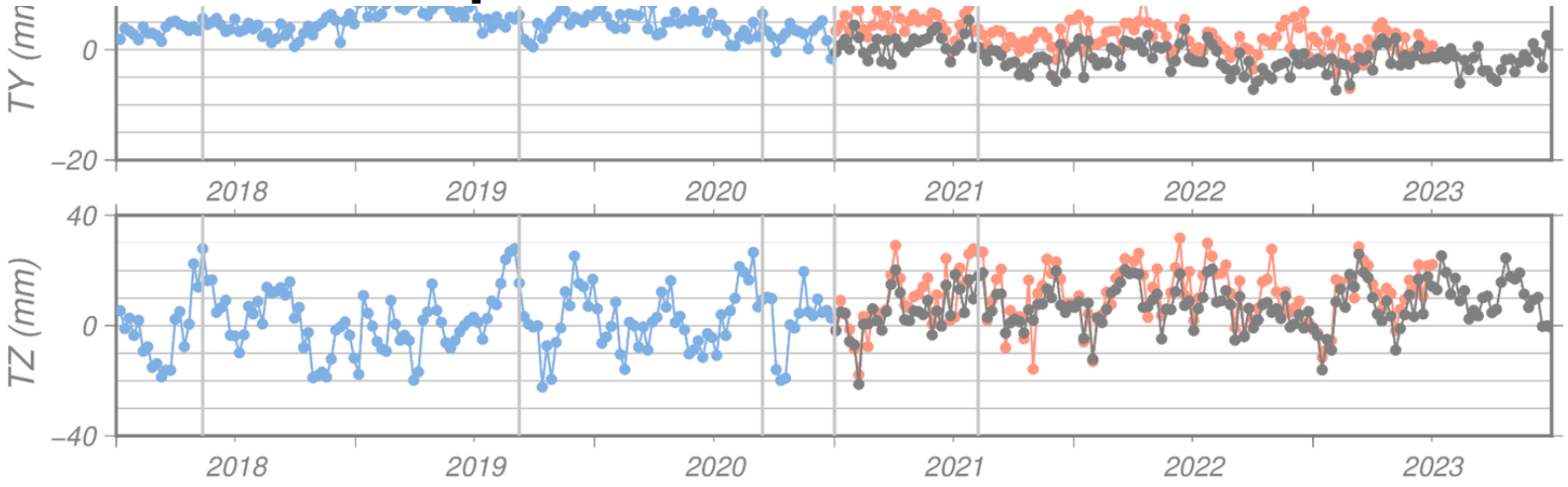
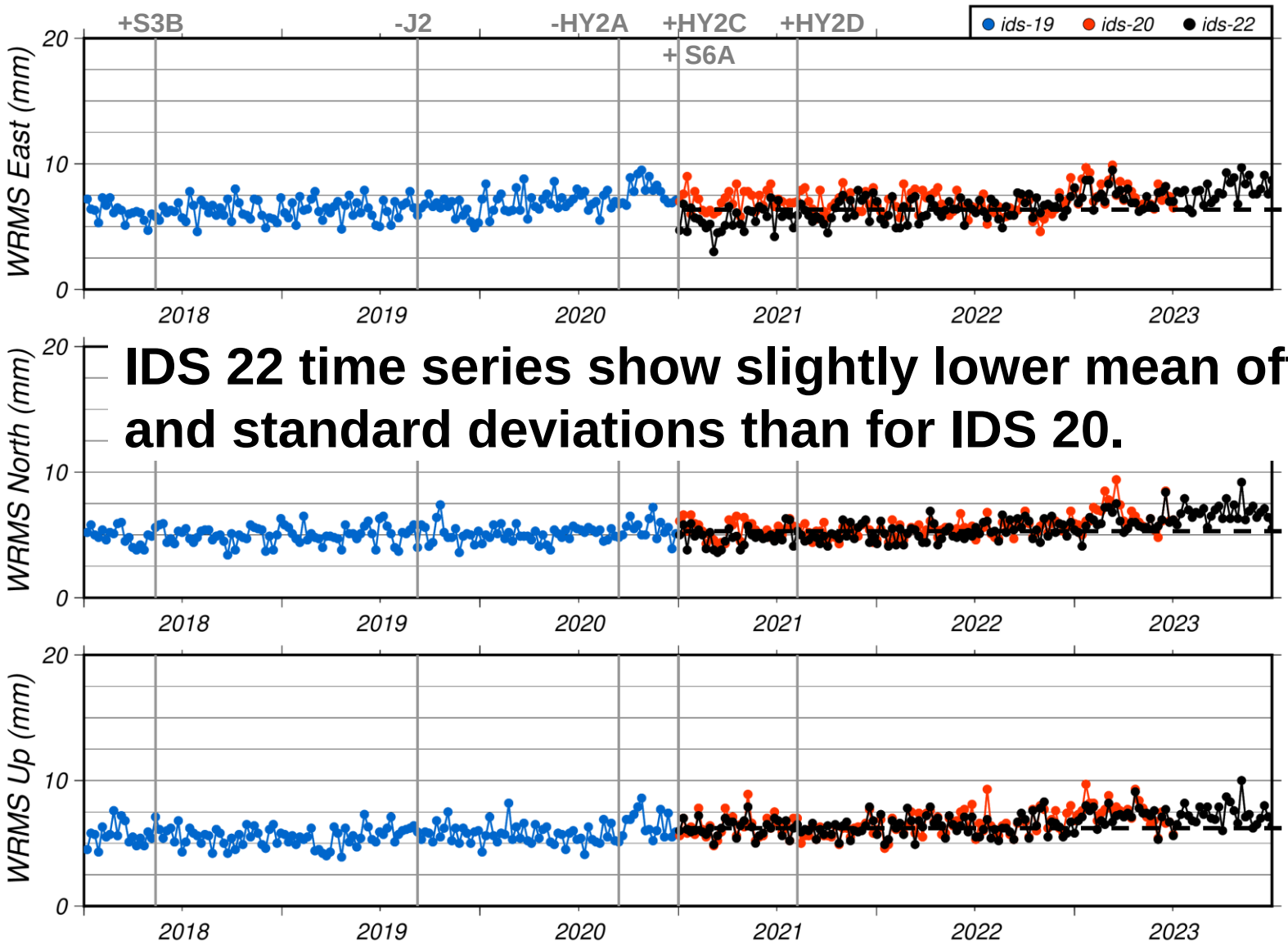



**IDS 22 time series are less scattered than for IDS 20.**
**Still room fo improvement with the new missions.**



# Station Position WRMS wrt DPOD2020 v2.1

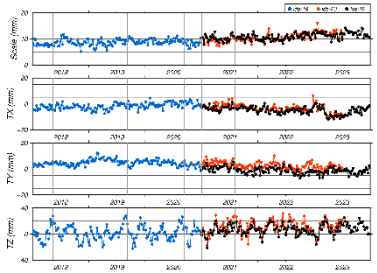
**ids 19** (ITRF2020) – **ids 20** (extension) – **ids 22** (Update)

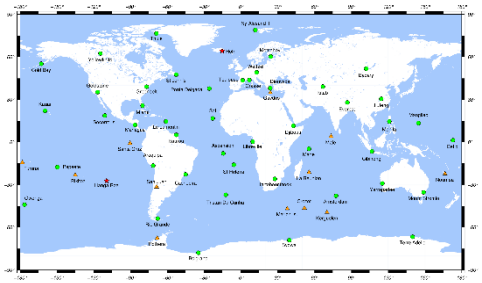



**IDS 22 time series show slightly lower mean offsets and standard deviations than for IDS 20.**

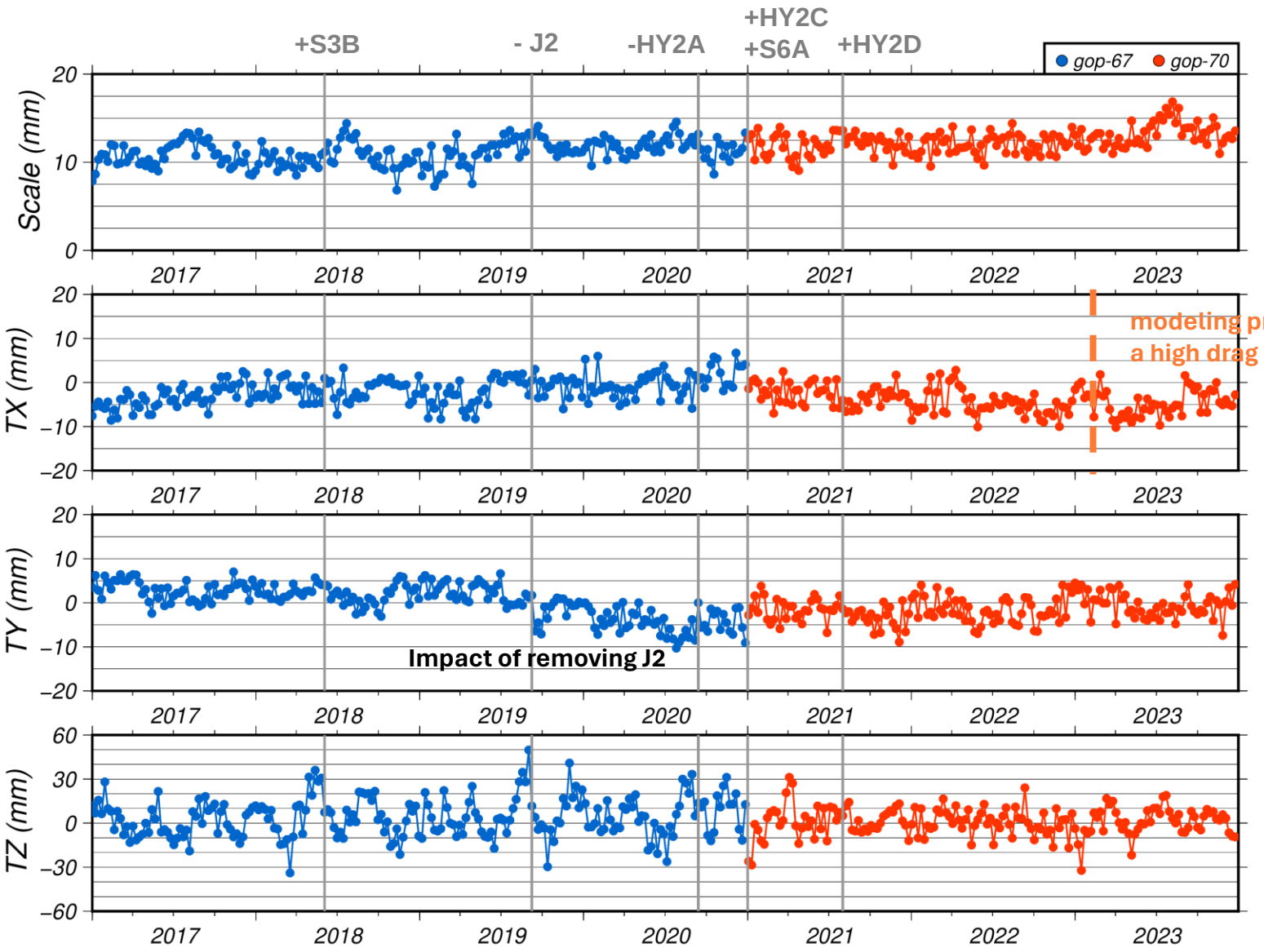
# The IDS contribution to the first ITRF2020 update

- **Is based on 6 AC contributions from 2021.0 to 2024.0.**
- **Makes use of 8 DORIS missions including 3 new ones.**
- **Includes positions of 68 stations@60 sites.**
- **Performs better than the extension of the IDS contribution to the ITRF2020 in terms of both Helmert parameters and station positioning.**
- **Was delivered to the IERS and IDS DCs on March 8th.**





# Investigations on the Tx and Ty Patterns

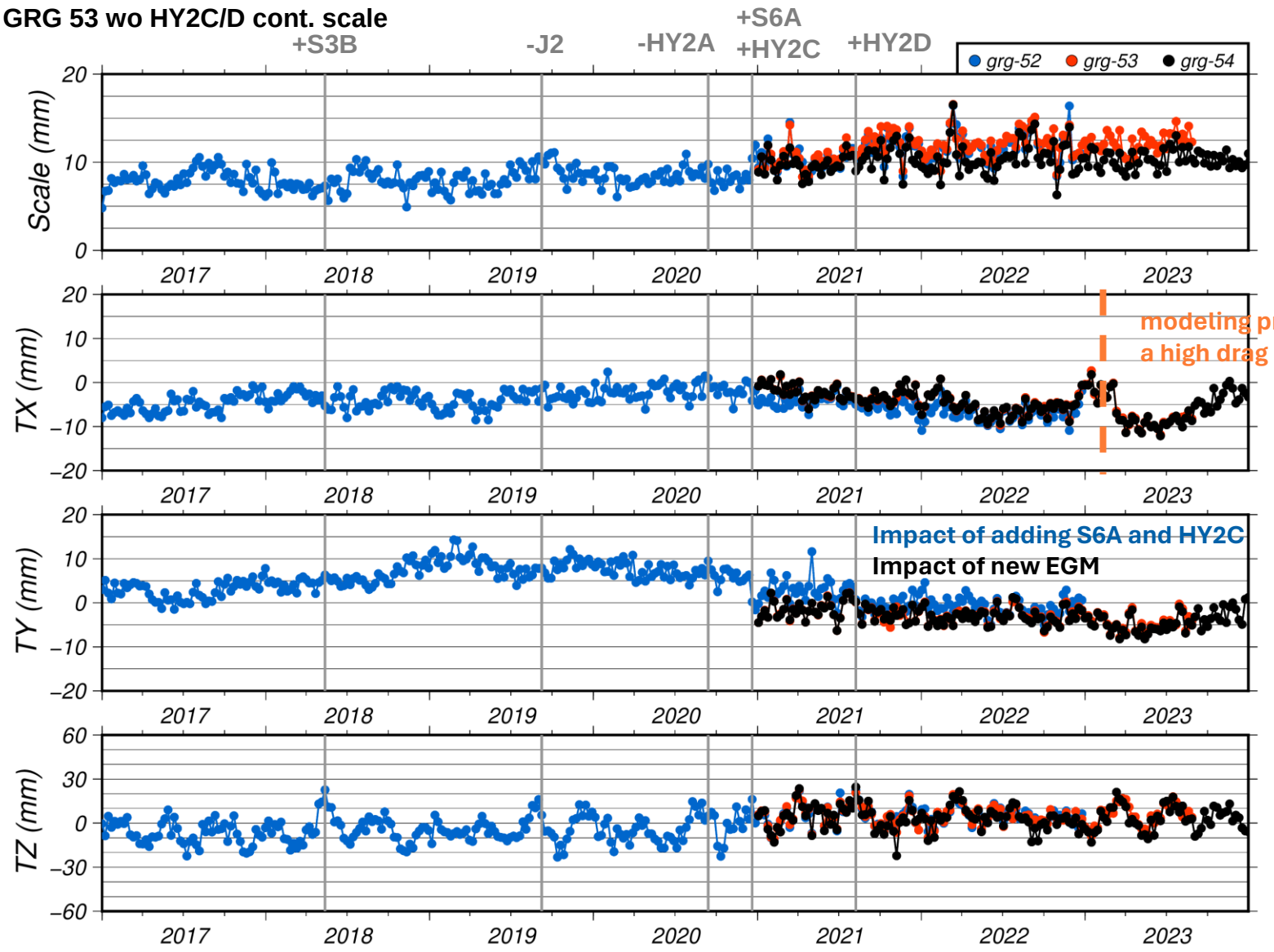


# Investigations on the Tx and Ty Patterns

**GRG 52: EGM = GRGS RL04**

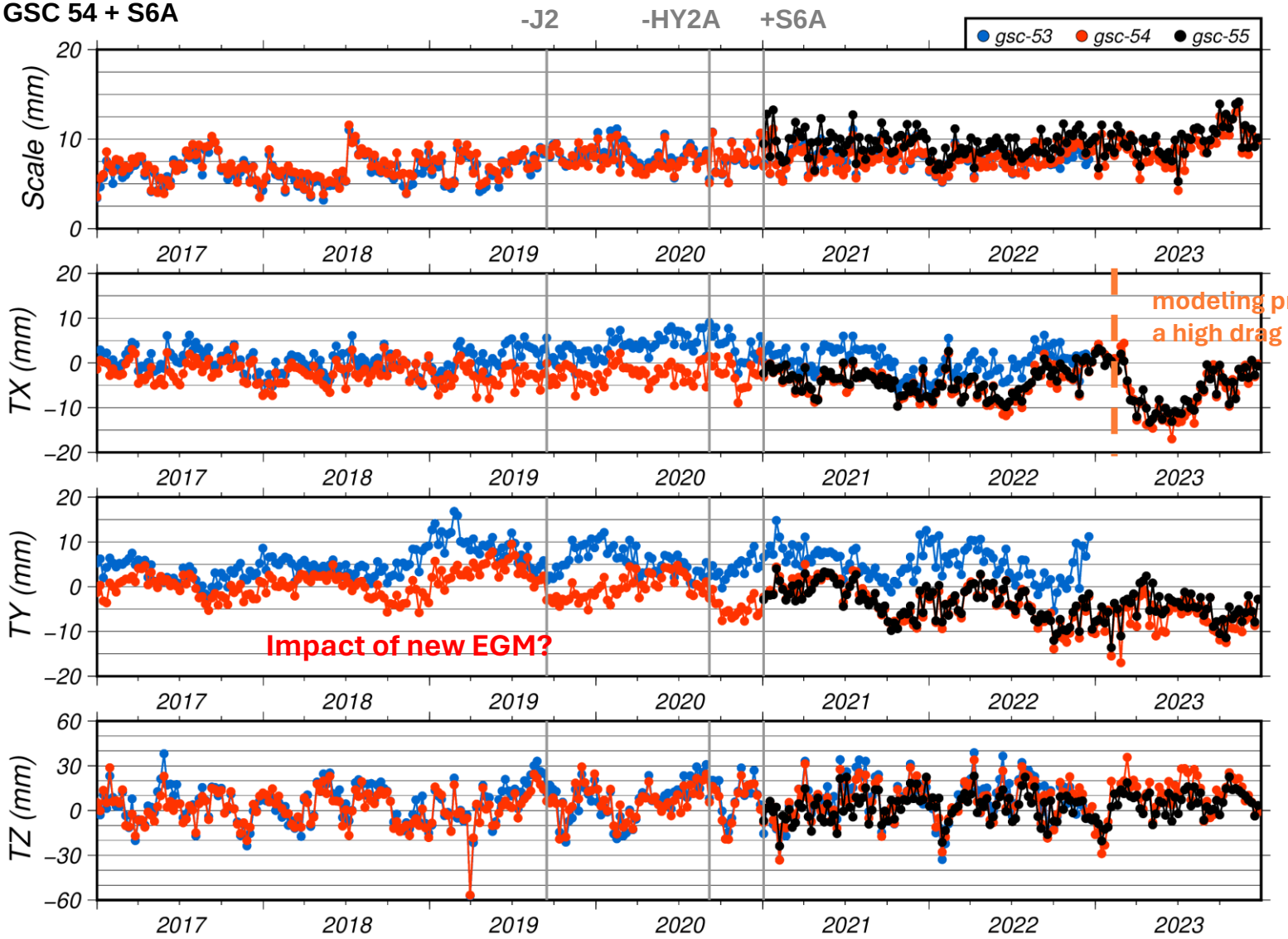
**GRG 53: EGM = GRGS RL05**

**GRG 54 = GRG 53 wo HY2C/D cont. scale**



# Investigations on the Tx and Ty Patterns

**GSC 53: EGM = GOCO5S**
**GSC 54: EGM = GRGS RL05**
**GSC 55 = GSC 54 + S6A**



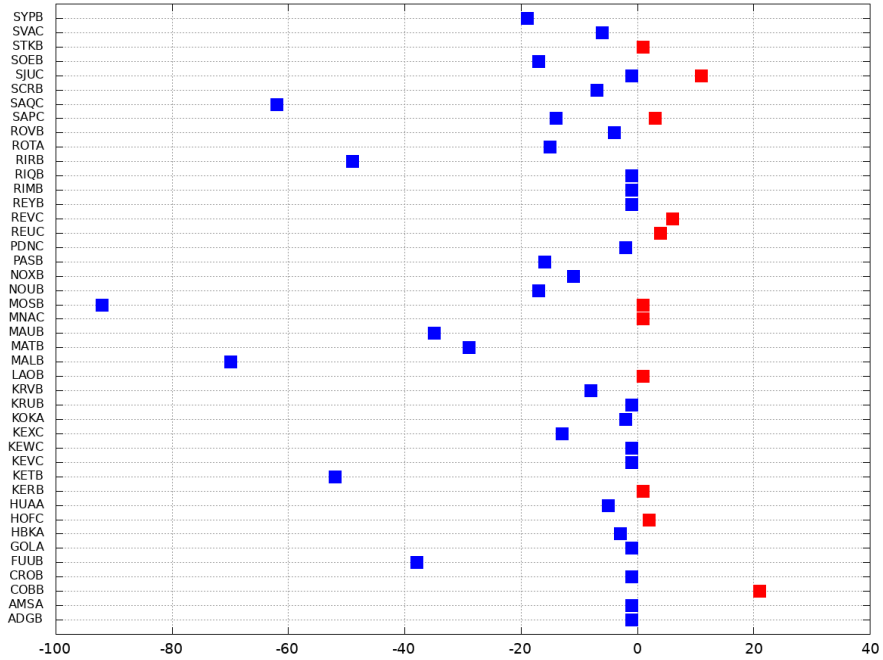
# DORIS Data User Guide for Beginners

- **Objectives:**
  - **Facilitate first use of DORIS data.**
  - **FAQ on DORIS data files.**

- **In line with comments from Arnaud and Samuel, the IDS CC initiated the work by looking at inconsistencies on first and last epochs of DORIS stations between DORIS data files and IDS siteweb information (sitelog page, table of events).**

- **IDS CC also identified observations for unknown stations.**

- **All information/remarks from all the users are welcome.**




**Time delay (in days) between dates of first (red) and last (blue) observations from the IDS website and the DORIS data files.**

# DPOD2020 Version 3.0

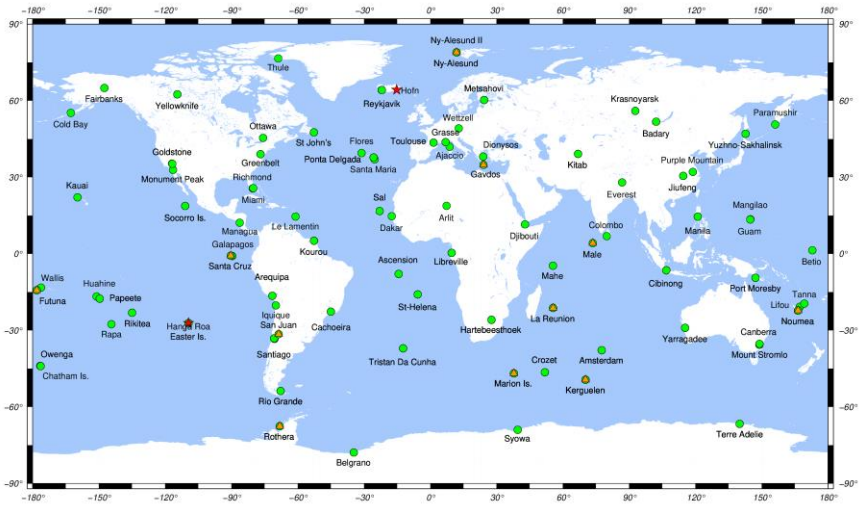
- **Time span: 1993.0-2024.0.**
- **IDS series: 19 + 23 (ESA16+GOP70+GRG54+GSC56)**

- **Includes estimation of annual, semi-annual, 118 and 59-day signals.**
- **Includes DORIS Post-Seismic Deformation corrections for SODA.**

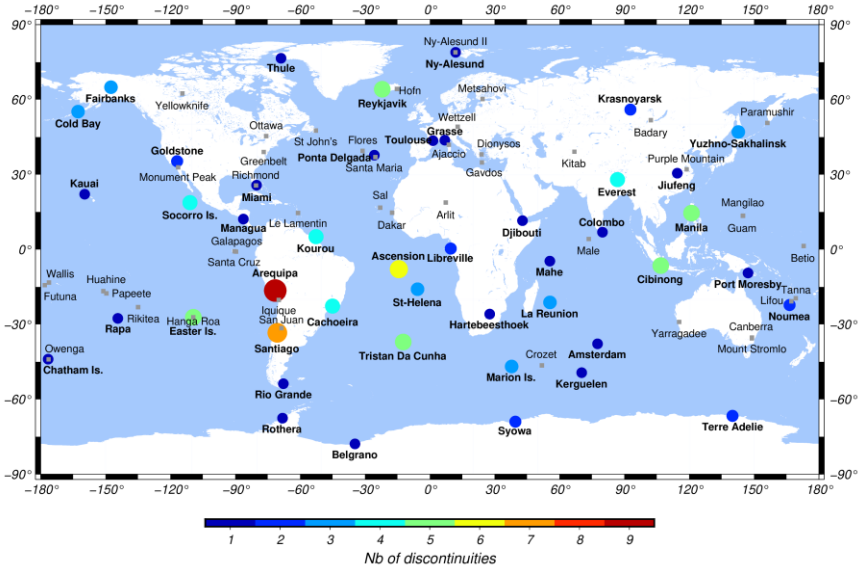
- **First step: estimation of the DORIS cumulative solution (ids24d01).**

- **Objectives:**
  - **Delivery to the POD validation group early July.**
  - **Available by early October.**

- **Questions:**
  - **Is there still a need for the text version?**
  - **Is there still a need for mean positions and velocities of old sites with very short time span (less than 1 year – Ajaccio, Flores, Lifou, Iquique, Paramushir)?**




**ids24d01 DORIS station network**




**ids24d01 DORIS station discontinuities**

# Jason-3 Scale wrt ITRF2020

**GOP scale trend: 1.90 mm/yr**
**GRG scale trend: 1.98 mm/yr**
**GSC scale trend: 2.66 mm/yr**