DORIS contribution to ITRF2020-u2024: IDS 25 series









IDS Contribution to ITRF2020-u2024: IDS 25

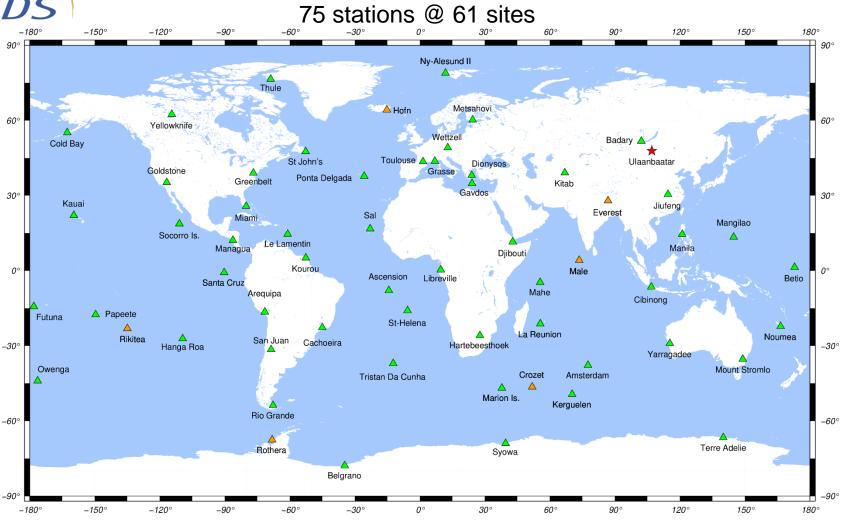
Time span: 2021.0-2025.0.

Nb of weekly SINEX files: 209

- IDS AC Contributions:
 - ESA 16
 - GOP 70
 - GRG 54 (up to 2021doy213) and GRG 56 (since 2021doy2220 new series)
 - GSC 60 (new series)
 - IGN 22 (new series)



IDS 25 2021.0-2025.0 Ground Network



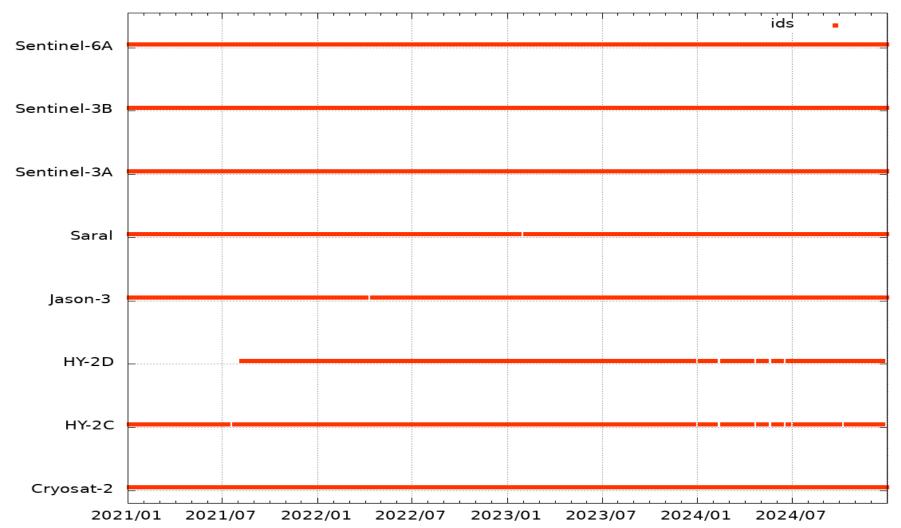
Site with no new beacon since ITRF2020-u2023. Site with new beacon(s) since ITRF2020-u2023. New site since ITRF2020-u2023 (Ulaanbaatar).

Slide 3



IDS 25 2024.0-2025.0 – DORIS Missions

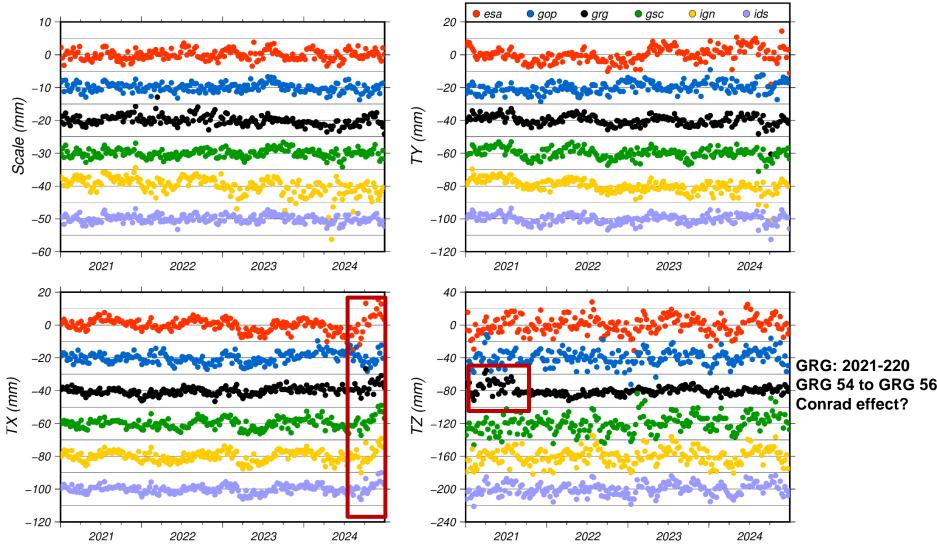
Each week, a satellite is indicated in the mission list of the IDS combined solution if it is included in at least two AC contributions.





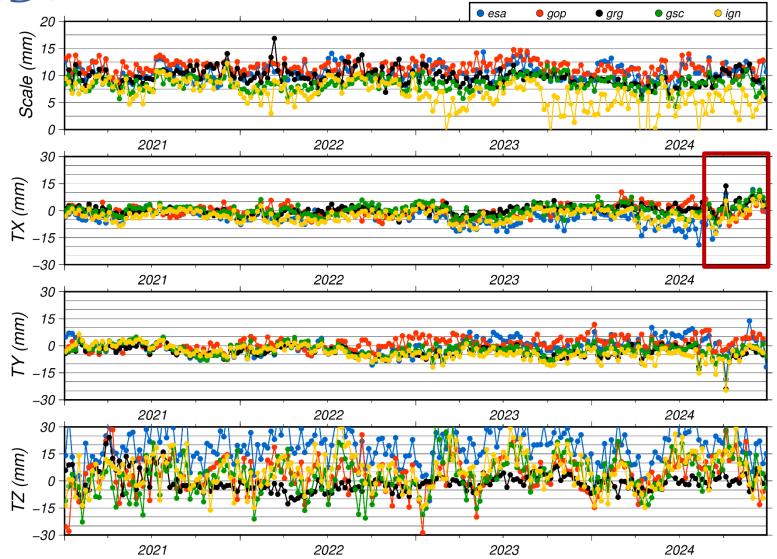
Helmert Parameters wrt ITRF2020-u2023

Each series is shifted for a better viewing



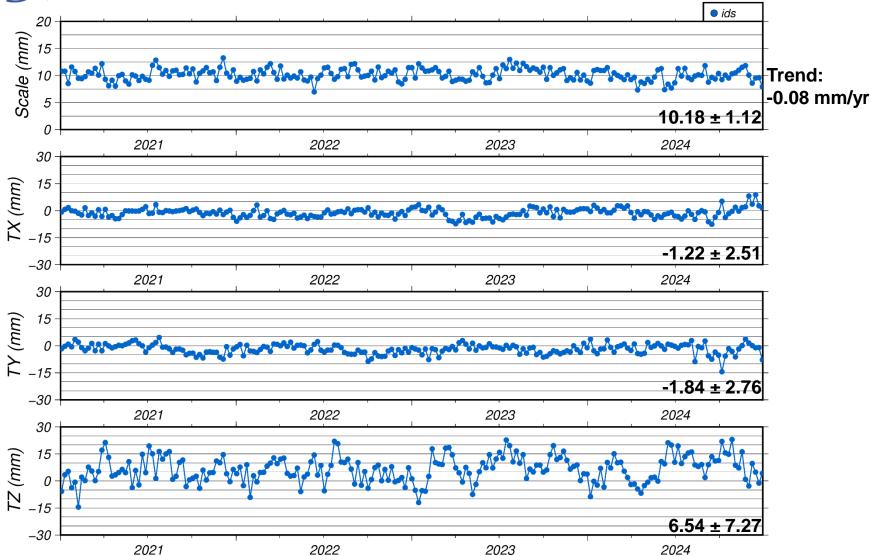


Helmert Parameters wrt ITRF2020-u2023



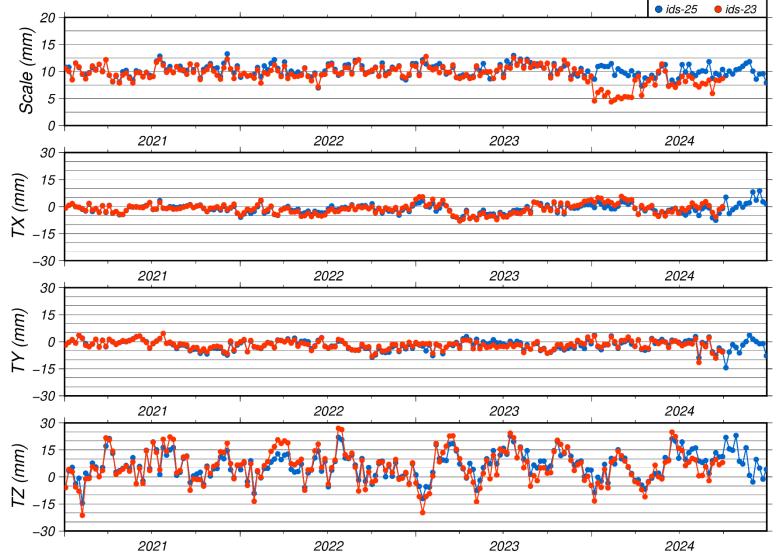


IDS 25 - Helmert Parameters wrt ITRF2020-u2023



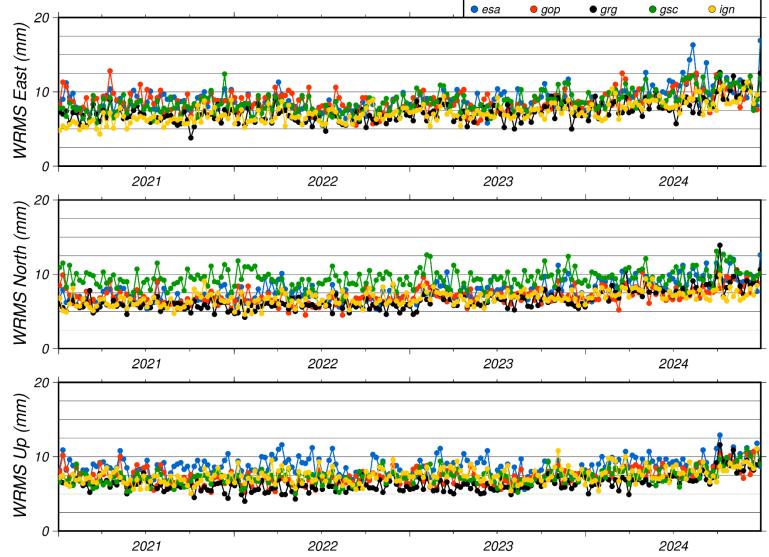


IDS 23/25 - Helmert Parameters wrt ITRF2020-u2023



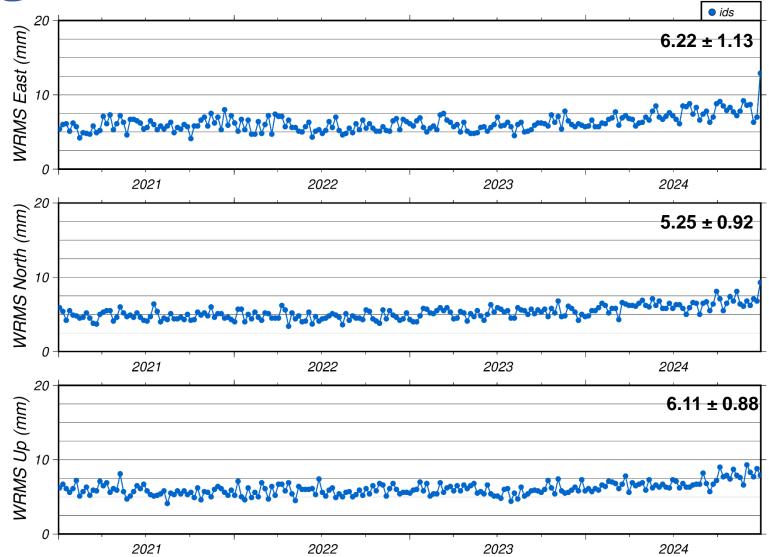


Station Position Residuals wrt ITRF2020-u2023



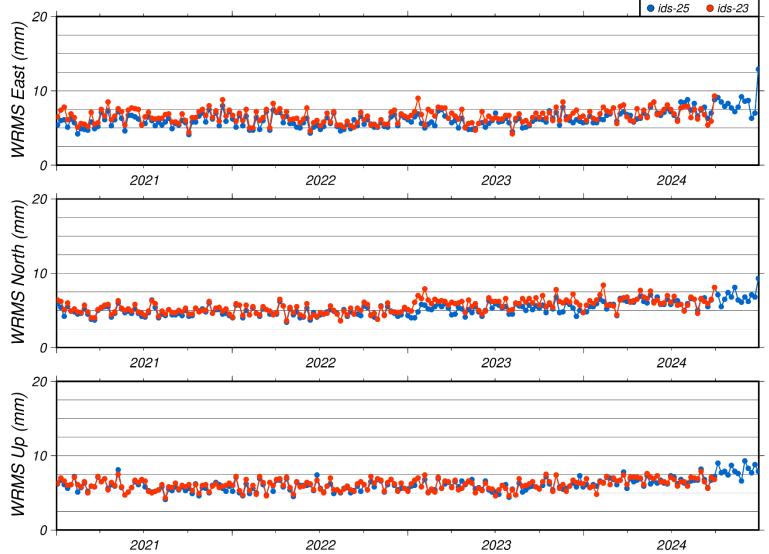


IDS 25 - Station Position Residuals wrt ITRF2020-u2023



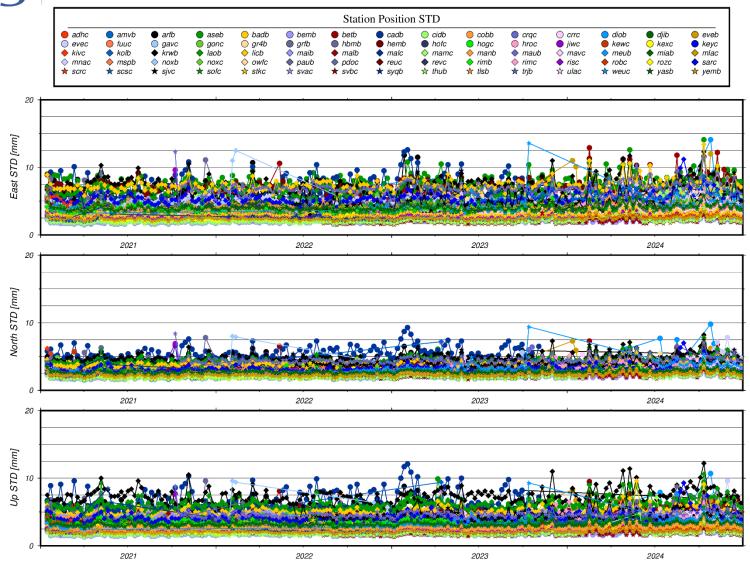


IDS 23/25 - Station Position Residuals wrt ITRF2020-u2023





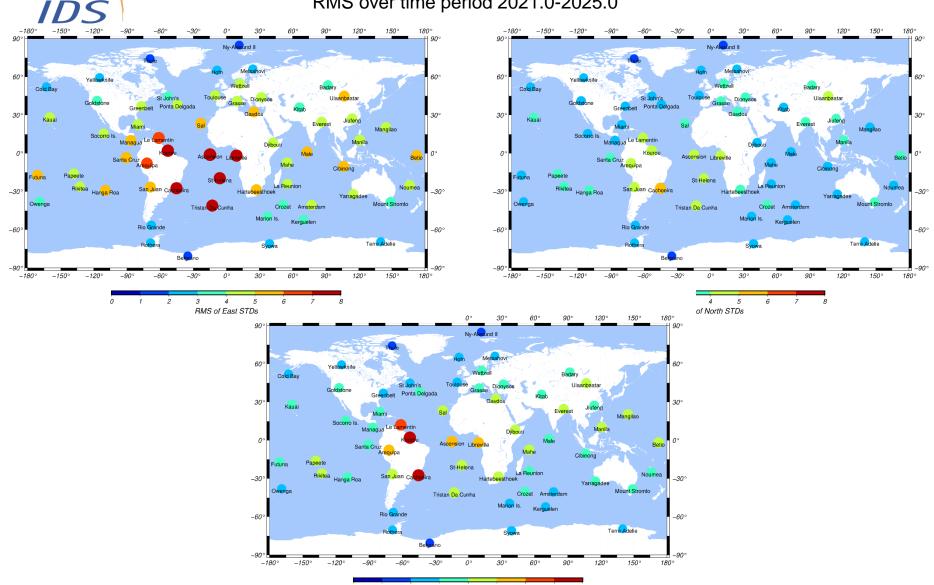
IDS 25 – ENU Station Position Formal Errors





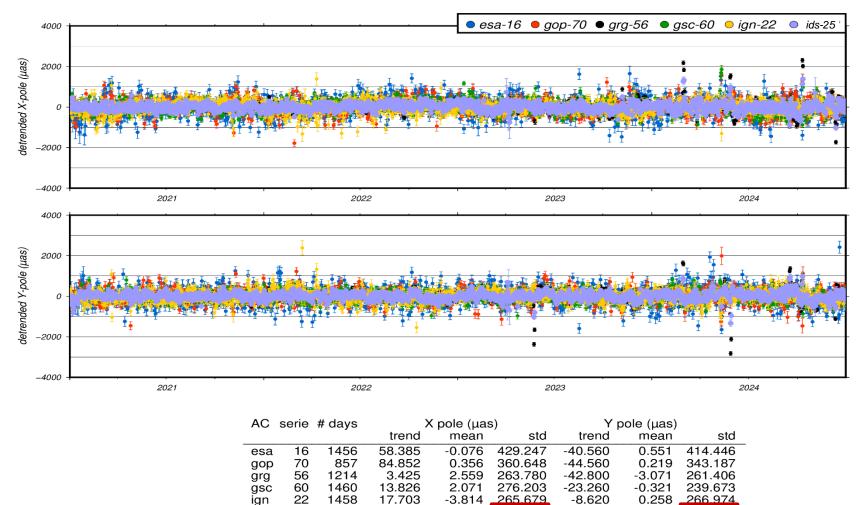
IDS 25 – ENU Station Position Formal Errors

RMS over time period 2021.0-2025.0





EOP Differences wrt IERS C04



19.091

1467

IDS CC – IDS AWG - 2025/03/24 Slide 14

1.280

-31.780

-0.931



IDS Contribution to ITRF2020-u2024: IDS 25

- New IDS Combined solution IDS 25 from 5 ACs contributions:
 ESA 16, GOP 70, GRG 54/56, GSC 60 and IGN 22.
- Time span: 2021.0-2025.0.
- IDS 25 weekly SINEX files were delivered to the IDS DCs on April 18th.
- Nice stability of the IDS 25 scale, Tx and Ty parameters.
- IDS 25 station position residuals wrt ITRF2020-u2023 are at the order of 5-6 mm.
- IDS 25 X- and Y-pole differences wrt IERS C04 show STDs at the order of 200µas.
- No combined LOD even if in addition to ESA, GOP started to estimate it since 2024doy098.



IDS CC Recent and Future Activities

- DORIS evaluation of the ITRF2020-u2023 solution.
- Computation of ESA, GOP, GRG and GSC cumulative solutions from 1993.0 to 2025.0.
- Realization of the DPOD2020 version 4.0 based on a DORIS cumulative solution from 1993.0 to 2025.0 aligned onto ITRF2020u2023.
- Tests on a combined LOD.
- Oral presentation of the IDS contribution to ITRF2020-u2024 @ EGU 2025 (G2.2 session – room K1 on Monday, 28 April 2025, 17:50).