Minutes of the
ILRS Analysis Standing Committee Meeting No. 2/2025

Thursday, 1st May 2025, Arnold-Schmidt room, Gusshausstrasse 27-29, 6th floor (and online), 12:30 – 15:30: PM UTC

Participants:

AB	Antonio Basoni	ABE	Alexandre Belli	ABG	Adrian Banos-Garcia
AD	Ahmad Desai	AK	Alexander Kehm	AR	Anton Reinhold
AS	Andreja Susnik	CCa	Claudia Carabajal	DK	Daniel König
DS	David Sarrocco	DT	Daniela Thaller	FL	Frank Lemoine
FR	Franck Reinquin	FZ	Frank Zimmermann	JZ	Julian Zeitlhöfler
LG	Linda Geisser	MB	Mathis Bloßfeld	MKC	Magda Kuzmicz-Cieslak
PS	Patrick Schreiner	TS	Tim Springer	UM	Ulrich Meyer

0) Last meeting + open Action Items (AIs) (MB)

	NEW ACTIONS	
# AI	**Description**	**AC/person**
2025_feb01	Send ASC meeting minutes + SLRF2020 (21.02.2025) to ACs	**MB**
2025_feb02	Compile and distribute report on ILRS contribution to ITRF2020-u2024	**ASI CC**
2025_feb03	Set up folder at EDC for ILRS contribution to ITRF2020-u2024	**MB**
2025_feb04	v320 reprocessing of 2024	**All ACs**
2025_feb05	Finalization of DHF including LR-2 entries	**ASI CC**
2025_feb06	Reprocessing and operational submission of v90 solutions	**All ACs**
2025_feb07	Processing and operation submission of v190 solutions	**All ACs**
2025_feb08	Combination of processed and operationally submitted v190/v90 solutions	**ASI and JCET CC**

a. AIs 2025_feb01 until 2025_feb06 done
b. 2025_feb07: Partly done → still some submissions missing but finish expected soon
c. 2025_feb08: Partly done → consequence of 2025_feb07

1) Status reports by SLR ACs and CCs (all)

a. ASI (DS)
   i. Some missing solutions in the daily and weekly solutions (v180/v80)
   ii. Station coordinates:
      1. DGFI-TUM: RMS of 3D RMS for global site w.r.t. ITRF slightly higher and more scattering; good agreement between mid-July and November 2024
      2. JCET: high 3D RMS for global site w.r.t. ITRF in late 2024
   iii. Scale: DGFI-TUM: higher absolute value compared to other ACs

iv. Data: More data between mid-September and November 2024
v. LOD: slightly larger scattering in JCET; GFZ surprisingly without any LOD issues
vi. Geocenter: higher oscillations in the X/Z-component of DGFI-TUM (**new AI for DGFI-TUM**)
vii. Obs. residuals: comparable values among the ACs

b. BKG (DK)

i. Operational series running stable and reprocessing completed
ii. Personnel: Daniela Thaller, Daniel Koenig, Ulrich Meier (AIUB)

c. CNES (ABG)

i. RB estimates from LEO altimetry satellites comparable to values CNES/CLS AC and the DHF

d. DGFI-TUM (MB)

i. Complete ILRS ASC product portfolio operationally computed + numerous multi-satellite solutions comprising different geodetic parameters + orbit predictions to all geodetic spheres

e. ESA (TS)

i. Recent LOD improvement is very significant; ILRS can now provide a valuable solution for comparison with GNSS LOD values
ii. Suggestion of TS: Rename v320 to v290 after official switch from v180/v80 to v190/v90 to be consistent with “old” product lines (v280; **new AI for all ACs**)

f. GFZ (AR)

i. Additional AC support from Margarita until June 2025
ii. Operational v90 and v190 solutions

g. GRGS (MB)

i. F. Deleflie contacted MB about the status of GRGS AC; the situation at GRGS improved and F. Deleflie aims to provide operational solutions soon (**new AI for F. Deleflie**).

h. JCET (FL)

i. Tx: Reduction in scatter from v80 to v90
ii. Tz: DGFI-TUM and NSGF outlier
iii. Scale: Less scattering from v80 to v90
iv. Recent ILSB station validations: Wettzell (SOS-W, 7827), Zimmerwald (ZIML, 7810), Herstmonceux (new laser 9840)
v. Compared to ASI, DGFI-TUM shows no outlier in ILRS-B combination (**new AI for ASI, DGFI-TUM and JCET**)

i. NSGF (AS)

i. Personnel: Andreja Susnik, Graham Appleby, Jose Rodriguez
ii. Re-submission of v90 after ASI/JCET CCs discovered serious issue (scale offset, etc.; **new AI for NSGF**)

iii. Operational submission of v190
iv. Discussion on Stanford counter (**new AI for NSGF**)
    1. AS will provide FORTRAN routine to account for Stanford counter corrections. Prominent explanation should be added to ILRS DHF
    2. Two ACs should volunteer to implement correction function and provide feedback to Andreja before publication
    3. Important: ACs should download uncorrected NP data from EDC/CDDIS if not yet done (especially "older" years around 2000).

j. General remarks on status reports by SLR ACs and CCs (MB)
    i. Global coverage of ASC not ideal (mainly Europe); MB should reach out for other ACs to foster global diversification (some groups in Japan and South Korea. JPL? MB should contact AACs for status, **new AI for MB**)
    ii. Currently, it is unclear who uses daily/weekly TRF+EOP products or combined LA-1/2, ET-1/2 orbits
    iii. Discussion about if ILRS ASC should go for an official geocenter product. General opinion is yes (cf. agenda point 4))

2) LARES-2 as 5th satellite in the ILRS operational products (AB, DS, MB)

a. Similar RBs are obtained for LA-1 and LR-2
b. Submission status v90/v190: NSGF not yet included; new version of NSGF data will be provided soon!
c. Core site 3D WRMS of DGFI solution higher compared to other ACs (cf. AI 2025_may04)
d. Degradation of Tsukuba in v90 → update of SLRF2020 necessary (cf. next agenda point)

3) Fundamental ILRS files for the SLR analysis (MB)

a. Essential files for the SLR obs. processing are the SLRF2020, the ILRS eccentricity (ECC) files and the ILRS data handling file (DHF)
b. For all files, the versioning is realized by the publication date of the file given in the file name
c. All files are stored at CDDIS and the ILRS website as well as a newly installed analysis section at the EDC (https://edc.dgfi.tum.de/en/ilrs-ac/). After registration and login at EDC, the ASC members are also able to see an inventory of the internal folders (not accessible by the public).
d. Recently, the files were updated by new stations (SLRF2020), new eccentricities (ECC) and LR-2 biases in the DHF
e. Other decisions from the discussion:
    i. No merging of ECC and DHF
    ii. No git suggested for version control
    iii. Keep the distribution as it was until now (notification mail)
    iv. Problem with current version of SLRF2020; Tsukuba coordinates after earthquake at end of 2024 are not optimal → revision needed (**new AI for MB**)

4) LARES and SH pilot project (MB)

a. It was extensively discussed how to proceed with the further inclusion of other spherical satellites into the operational ASC products.
b. MB suggested proceeding quickly with the inclusion of more satellites.
c. Suggestion of adding one satellite by one by MV; agreed by DS; agreed by DT
d. FL: Lares-1, Starlette, AJI big TS variability, arc-wise CR coefficient required
e. Non-spherical satellites: challenges with complicated attitude models; maneuver handling required.
f. Decision by the ASC: finish inclusion of LR-2, evaluate time series with 5-sat-solution (DS), plan next priorities and start including one satellite after the other into the solution time series (but with much faster performance than for LR-2).
g. Procedure to include LR-1 and estimate low-degree SH:
    i. cf. slides.
    ii. 5 steps defined to proceed with pilot project (initial survey by MB; **new AI for MB**).
    iii. Schedule for PP: 1)-2) until mid of June; 3)-5) until end of June.
    iv. Next steps: include LR-1 in pilot project (v510).

5) ESA's GENESIS mission (MB)

a. The strategy to include new satellites was discussed in the agenda point before.
b. Task force will be installed within ASC how to proceed with Genesis inclusion into ASC products (**new AI for MB**).

6) ILRS core stations (MB)

a. Differences between ILRS-A and -B results might be related to the inconsistent list of core sites.
b. New task force will be installed to revisit ILRS core site definition and update list of core sites; LG and CCs will support MB (**new AI of MB**).

7) Publications (of the ILRS ASC) (MB, CL, DS)

a. No news about this.

8) Any other business and next ASC meeting (all, MB)

a. Next meeting in the second half of September 2025.
b. Old and new AIs for ACs/CCs (cf. below).

	OLD ACTIONS	
# AI	**Description**	**AC/person**
2025_feb07	Processing and operation submission of v190 solutions	**All ACs**
2025_feb08	Combination of processed and operationally submitted v190/v90 solutions	**ASI and JCET CC**

	NEW ACTIONS	
# AI	**Description**	**AC/person**
2025_may01	Clarify why DGFI-TUM shows higher scatter of transformation parameters, scale offset and geocenter variation than other ACs	**MB**
2025_may02	Rename v320 to v290 after official switch from v180/v80 to v190/v90	**All ACs**
2025_may03	Provide operational daily/weekly v190/v90 solutions	**GRGS AC**
2025_may04	Clarify different scatter for AC solutions (esp. DGFI-TUM)	**ASI CC, JCET CC, DGFI-TUM AC**
2025_may05	Replace erroneous v90 submissions	**NSGF AC**
2025_may06	Under leadership of NSGF should correction routine for Stanford counter effect be tested by two ACs + adding note to DHF	**NSGF AC**
2025_may07	Contact other groups to foster global diversification of ASC (including contacting AACs for status)	**MB**
2025_may08	Revision of Tsukuba coordinates in SLRF2020	**MB**
2025_may09	Initiate SH pilot project (v500)	**MB**
2025_may09	Install task force for genesis inclusion	**MB**
2025_may10	Install task force to revisit ILRS list of core sites	**MB**