

# 45th Directing Board Ersatz Meeting II – Minutes

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*Location:* 2-hour Zoom meeting  
*Date:* 13 January 2022  
*Note taker:* Dirk Behrend  
*Version history:* 11 February 2022, 16 February 2022

Attending Board members: Rüdiger Haas (Chair), Dirk Behrend, Johannes Böhm, Patrick Charlot, Alet de Witt, John Gipson, David Hall, Nancy Kotary, Chet Ruszczyk, Nadia Shuygina, Oleg Titov, Gino Tuccari, Pablo de Vicente.

Excused: James Anderson, Hayo Hase, Yu Takagi, Stuart Weston.

## 1. Welcome and approval of agenda

Rüdiger Haas welcomed the attending Board members. The Board approved the agenda for the ersatz meeting.

## 2. ESA/ESOC proposal to become IVS AC

The Board approved the proposal from ESA/ESOC to become an IVS Analysis Center. The group will start out as an Associate AC and will be elevated to an Operational AC after a qualifying period. At the time of the Board meeting, Galactic Aberration was not implemented in the all-technique (GNSS, SLR, DORIS, and VLBI) NAPEOS analysis software; i.e., the software did not yield operational solutions yet.

## 3. Status of ITRF2020p evaluation

The IERS (Zuheir Altamimi) requested feedback on the ITRF2020p solution by the end of January 2022. The IVS Analysis Coordinator John Gipson met with several Analysis Centers to discuss the evaluation of the preliminary solution. Overall, the scale agreement is better; however, the scale seems to change from about 2014 onward displaying a slight positive slope. This may be due to the fact that Zuheir only used VLBI data until 2014 for the scale determination. Another contributing factor may be that from about that year many more VLBA sessions were observed; this may need to be studied.

For roughly 10 stations, the use of post-seismic deformation (PSD) models generally resulted in a better fit. When comparing ITRF2020p with VLBI data only, there generally is a better agreement than with ITRF2014 vs. VLBI data. The velocities of the stations Yebes, Katherine, and Yarragadee show significant differences between ITRF2020p and ITRF2014.

## **4. Status of EOP format proposal, EOP parameterization/representation**

Claudia Flohrer prepared a solid proposal for an updated EOP format and there were significant comments by Leonid Petrov and James Anderson. A final version was created at the end of December. The update of the format will require software updates at various places, for instance, Analysis Center software and Data Center software. A reasonable target date for the transition to the new format may be March 31, 2022.

A different EOP parameterization (piece-wise linear functions) would allow an easier combination of the IVS EOP products. Axel Nothnagel is working on this in VieVS. John Gipson would be the only person left at GSFC to implement this in Solve.

## **5. VGOS Intensives at 0 UT**

The Board endorsed to align the UT1 Intensives to the needs of sister services (mostly IGS) using the VGOS Intensives (V2) as a logical start. Shifting the V2 to a midnight reference epoch (23:30–00:30 observing time period) avoids an extrapolation step in the satellite orbit determination. A change of the observing time may require automated operations at some of the stations.

## **6. IVS white paper discussion**

The Board agreed that the VGOS Development Plan (“The Plan”) is an important document to further the implementation of the VGOS system. It mostly serves as an internal paper indicating where improvements can be done. But it is also useful to the stakeholders. The Plan does not provide the typical depth or scope of a white paper; hence, it is more appropriate to call it Memo or Plan. It may be useful to release a version of The Plan a few weeks before the GM to solicit feedback. The Board agreed on the content of The Plan.

## **7. Status of IVS VLBI training school 2022 and IVS GM 2022**

The VLBI Training School was changed to a virtual event with no charge to the participants. It will be held from March 22–25, 2022 and will last one day longer than in the original plan. The individual days will run for 5–6 hours starting at 10 am EET. The program will consist of 11 lectures and 5 exercises. As of January 10, there were 63 sign-ups from 22 countries.

The GM plus splinter meetings will be held March 28 – April 2, 2022. The meeting is planned as a hybrid event; however, this is contingent on having 30 in-person participants. The general layout of the GM week is to have GM sessions from March 28–31, splinter meetings on April 1, and the Directing Board meeting on April 2. Challenges will be the handling of posters in a hybrid setup, the meeting schedule following Helsinki time, and the planning uncertainty due to a possible move to online only. [A good week after the DB meeting, the GM and splinter meetings were changed to an online format altogether.]

## **8. Planning of future meetings**

The next Board meeting will be held in conjunction with the GM.

## **9. Miscellaneous**

The IVS Newsletter was redesigned and the first edition in the new layout was published in December. The new, fresh look was generally well received.

James Anderson sent a note about his resignation from the IVS Directing Board to the IVS Chair. He left the GFZ Potsdam group and found employment outside of VLBI. The Board will decide who will replace James as an Analysis and Data Center representative on the Board until the end of his nominal term (February 2023).