

46th Directing Board Meeting – Minutes

Location: 4-hour Zoom meeting
Date: 5 April 2022
Note taker: Dirk Behrend
Version history: 13 May 2022

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

Excused: Chet Ruszczyk.

1. Welcome and approval of agenda

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

2. ITRF2020 Certificates and IVS Publication

The IERS ITRS Center at IGN France will announce the availability of the ITRF2020 solution very soon [it was announced on April 15, 2022; <https://itrf.ign.fr/en/solutions/ITRF2020>]. The IVS components that supported the creation of ITRF2020 shall receive certificates for their contribution. Nancy prepared a draft of the certificate. The Board preferred to have an electronic version as well as a paper version distributed. The Coordinating Center can handle the physical shipment.

The IVS shall prepare a publication about the IVS contribution to ITRF2020. To reference the many contributors, the publication place could be Astronomy & Astrophysics (A&A) or similar. A&A was used for the reference article about the *Gaia* data release and it included a long list of authors and institutions.

3. Task Force on VLBI scale drift

The Board supported the creation of a task force to look into the VLBI scale drift seen with ITRF2020. Zuheir Altamimi only used VLBI data up to 2013.75 (and nothing after) for the scale determination of ITRF2020. John will send a message to ivs-analysis to kick this off. He volunteered to be a co-lead of this effort.

4. Use of Intensive derived UT1 results

At the recent General Meeting, Rolf Dach outlined the dependency of satellite techniques on UT1 from VLBI. He concluded that most of the computational work can be done in a self-consistent way where UT1 deficiencies can be compensated for by satellite orbit parameters. Thus, the need for UT1 from VLBI in real-time applications is minor. It becomes relevant, however, in geodetic analyses over longer time periods. David reported that some products at USNO degraded after about a week without Intensive data. Johannes added that UT1 is essential for spacecraft tracking; for instance, accuracy requirements are included in ESA specifications.

5. Frequency protection and CRAF

The CRAF-VGOS group submitted a report/response to ITU Working Party 7D (WG7D) on geodetic VLBI (VGOS). There will be a face-to-face meeting of WG7D in Geneva from 23–30 April 2022. The New Zealand Space Agency (NZSA) approached the IRASR group at AUT w.r.t. policies about large satellite constellations and their possible impact on radio astronomy and space research. Among other things, spacecraft tracking could be impacted. An additional voice to support frequency protection/management would be helpful. Stuart was encouraged to take up the cause in this National Body also in an IVS function and perhaps connect to RAFCAP as well.

6. VGOS development plan discussion

The Board agreed that further discussion of the VGOS Development Plan should be postponed to the anticipated IVS retreat (see TOP 11a).

7. Ny-Ålesund (Ns): VGOS or legacy S/X?

The Board recommended that the southern antenna of the Ny-Ålesund twins (Ns) continues to observe with the legacy S/X system. The legacy S/X 20-m antenna (Ny) will be demolished in about 6 months; the northern twin (Nn) uses a VGOS system. It is important to continue the time series and to measure local ties.

8. Changes in observing plan because of co-observing rules

The Board agreed on a compromise solution to implement the co-observing rules into the IVS observing plan. At the time of the meeting, the IVS Network Stations that did not observe together with the Quasar stations in the same sessions were Onsala, Yebes, and Santa Maria. The Coordinating Center worked in these constraints by alternating weeks of using Quasar stations with weeks of using On, Ys, and Sa. The largest impact was on the R4 sessions.

9. Replacement of James Anderson

The Board decided to go back to the latest election to determine who should fill the vacant position of the second Analysis and Data Center representative on the Board after the resignation of James Anderson. Dirk will contact the runner-up of that election. [After the meeting, Anastasiia Girdiuk (BKG) agreed to serve out James' original term until February 2023.]

10. Review of IVS VLBI School and IVS GM2022

The Board members agreed that both the School and the GM were very successful events. A big thank-you goes to Nataliya Zubko and the local organizers in general. Rüdiger will prepare a formal thank-you letter from the Board.

There was general agreement that an in-person school is to be preferred over a hybrid or online option. Several Board members experienced distractions at their home institutions while attending. In a face-to-face setting, the school can be longer with extended lectures and more exercises. For the GM, it was good to have a talk from a sister service. Some of the invited talks could have been longer. The Q&A portion was a bit deficient. Some members missed an icebreaker event.

11. Planning of future meetings

a) IVS retreat, next Board meeting

The format (in person vs. virtual) of the next Board meeting was still open. If virtual, there could be two ersatz (2-hour) Zoom meetings, perhaps one in mid-August and the second in early December. For a physical meeting, a mid-October date would be a reasonable choice. The October slot could be organized in conjunction with the REFAG meeting in Thessaloniki, Greece.

The Board agreed that an IVS retreat could be useful, if there was a dedicated topic/agenda and sufficient lead time for preparation. The earliest time frame was identified as end of August. The retreat would consist of 2+1 days, where the one day is the regular Board meeting. Participants of the retreat would be the Board members plus invited guests. The retreat should be tabled by June; the 34th calendar week (August 22–26, 2022) was chosen as possible target time frame. Possible venues include Sexten (South Tyrol), Italy and Sao Miguel (Azores), Portugal.

b) 25th anniversary of IVS

The 25th anniversary will be celebrated in conjunction with the General Meeting in Tsukuba, Japan, in March 2024. GSI has no specific plans for the event yet. Possible activities include history talks or presentations by all living IVS chairs.

c) Next VLBI school

The next VLBI school is scheduled for 2025. Following the current scheme, it would be tagged on to the EVGA meeting of that year (likely in Paris). However, in order to cover other parts of the world, the Board supported the idea of going to the Asia-Oceania region and possibly tag the school on to an AOV event. There are new antennas coming online in Thailand, Malaysia, and Indonesia, among other places. A concern can be a limit on essential travel for some of the teachers.

12. Miscellaneous

Astronomers started to warn that one out of every 15 points of light in the night sky could soon be a satellite. Starlink satellites could appear in each quadrant. Hence, a topic for the retreat could be what VLBI might look like in the future.