

42nd Directing Board Ersatz Meeting II – Minutes

Location: 2-hour Zoom session (virtual meeting)
Date: 25 June 2020
Note taker: Dirk Behrend
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Attending Board members: Axel Nothnagel (Chair), James Anderson, Dirk Behrend, Johannes Böhm, Patrick Charlot, Francisco (“Paco”) Colomer, Alet de Witt, John Gipson, Rüdiger Haas, David Hall, Hayo Hase, Ed Himwich, Nancy Kotary, Chet Ruszczyk, Oleg Titov, Gino Tuccari, Stuart Weston.

Absent: Evgeny Nosov, Jinling Li.

1. Welcome

Axel Nothnagel welcomed the attending Board members. Stuart Weston is the newly confirmed IVS Network Coordinator replacing Ed Himwich in this position.

2. Approval of Agenda

The Board approved the agenda for the ersatz meeting.

3. Effects of Massive Satellite RFI on VGOS

The VGOS spectrum will suffer massive RFI from satellite missions (e.g., SpaceX’s Starlink) in the upper end of the spectrum as well as from ground-based emissions (e.g., 5G antennas) in the lower end. The ITU (International Telecommunication Union) is the agency that coordinates the global use of the radio spectrum. Within the ITU, the term ‘VGOS’ is not known and can thus not be referenced. To introduce the term to the ITU, a *Question* needs to be submitted to the Radiocommunication Sector (ITU-R); the next relevant meeting for this takes place in the middle of September 2020. The CRAF-VGOS group drafted a *Question* document for this purpose; feedback is requested prior to submitting the document. It is important that VGOS stations register with the ITU. The stations were approached to do so. Ideally, the IVS would introduce the position of a Frequency Manager.

In this context, it was emphasized that fixing the frequencies of the four 1-GHz-wide VGOS bands would be important for further activities in this respect. Since detailed studies (e.g., on the optimal spacing of bands and the effects of bands compromised by RFI w.r.t. accuracy and reliability of the observables) are still missing, IVS associates are asked to dedicate resources to these studies.

4. The IVS as Globally Critical Infrastructure

The concept of ‘critical infrastructure’ is only defined on a national level. There is no global equivalent. In Germany, BKG is in the process of attaining critical infrastructure status for Wettzell. This status ensures, for instance, a 72-hour backup power provision in the case of a general power failure. In the U.S., the correlation center at USNO is working on this as well; the correlator is currently considered mission critical. The Network Coordinator together with the two Network Representatives will compile an overview list of IVS Network Stations w.r.t. their status as national critical infrastructure and will trigger appropriate actions.

5. Developments in India

There are efforts under way in India to establish a network of three VLBI stations. The project is an undertaking of several groups, with the Indian Institute of Technology Kanpur (IIT Kanpur) being the lead of the VLBI Initiative. A detailed project report is expected to be submitted to the Indian government for funding by the deadline of July 20, 2020.

6. IVS Web Presence

An internal discussion about the IVS Web presence led to the idea of transferring part of the contents of the IVS Web site hosted at the CC (e.g., publications, Board pages) to the one hosted at the OOC. The transfer, however, was not put into practice because of concerns of proper merit assignment; the Web presence should reflect the work done according to the IVS Terms of Reference. It is foreseen to change the IVSCC Web site to follow NASA touch-and-feel.

7. Forming of Election Committee for Next DB Elections

The next IVS Directing Board elections will be held at the end of the year for two representative positions and three at-large positions. The Election Committee was formed with Hayo Hase (chair), Gino Tuccari, and Nancy Kotary. The new Board will assemble for the first time in March/April 2021. As Axel Nothnagel is not eligible for re-election, the new Board will have to elect a new Chair at that time.

8. Discussion of Consequences of Newly Elected IVS Network Coordinator

The newly elected Network Coordinator (NC), Stuart Weston, stems from an organization outside of the closer inner circle. This will allow a fresh view on the tasks at hand. The outgoing NC, Ed Himwich, and the Board expert on VGOS technology, Chet Ruszczyk, will provide help and input to the new NC if needed.

9. Local Interferometer Sessions

The Board approved to prepare an IVS Resolution about local tie sessions for sites with two or more telescopes. Axel Nothnagel will write a draft of the resolution. The onus of organizing local tie sessions should lie with the sites, but the IVS can support the effort with limited resources such as correlator time, schedule writing support, or logistics if requested.

10. Miscellaneous

10.1 CRF Committee

A draft charter for a Celestial Reference Frame Committee was presented. The Board requested an updated version in which the administrative and operational parts are separated out and which adds formal aspects (e.g., chairmanship) to it.

10.2 Infrastructure Development Plan 2030

A draft document that started out as a strategy paper was distributed to the Board members for comments. The feedback period extends to after the meeting. The document was renamed to the Infrastructure Development Plan 2030 and it is planned to be distributed to all stakeholders once completed.

10.3 Clock Service

Ed Himwich will make available on GitHub the peculiar offset table and a corresponding adjust program as the foundation of a service to monitor station clocks. With the correlators being the main users, the maintenance of the clock service should be taken over by a correlator. David Hall was asked to look for options at USNO.

11. Next Face-to-face Meeting

The next face-to-face meeting of the Board is penciled in for the EVGA 2021 in Paris, France. There has been no discussion yet within the EVGA on the practicality of an in-person meeting in the COVID-19 context.

12. Next Meeting by Telecon

The Board will hold its next virtual meeting in about three months (last week of September). The exact date will be determined in a poll.