

Time & location:

Online meeting Thursday, May 28, 2020, 9-11:30 a.m. CEST (10-12:30 EEST), via zoom (prepared and provided by MP/FGI)

MINUTES**1. Opening**

WS welcomes the participants, which mostly work still from home, to the 83rd Governing Board meeting. No further additions to the agenda.

2. Approval of minutes of 82th GB meeting in Munich

There are no comments to the minutes from last meeting in Munich. KK will prepare the final version and send it to Helena Ribeiro for publication.

3. Review of Action Items from previous GB meetings

There are some actions items from last meeting open or in progress.

InSAR: CV explains that he is in contact with Hans van der Marel and that a EUREF mail should only be sent out if the list of key words, which are necessary to fully describe the InSAR technology and infrastructure, is complete. AC mentions that it is not clear what to do with the transponders and the data. We should not only mention the sitelogs but the potential of the technique. EB asks AC for the added value of transponders for the content of the InSAR images. It should be clear that transponders should be beneficial for the images. AK explains exemplarily the problems with buying and installing a transponder in Hungary. It should be clear to us that the technique is still new. Moreover, good software is needed. AC mentions that he is using a commercial software, which produces the results. The GB agrees to keep contact to Hans v.d. Marel and to consider this topic in particular for the next symposium. Finland has installed three transponders and one corner reflector, MP adds.

Strategy -> on agenda.

GSSC: WS says that BKG is concerned about the plans of GSSC. CB emphasizes that they will collect everything they get. WS is urged to contact one of the external staff and inform the GB.

Coordinates in real-time streams: WS recalls a few of the problems that the BKG found when the coordinate message type would provide coordinates with an accuracy of a few centimetres. AC adds, from some discussions he recently had, he has the impression that some clarification about the value of the coordinates in the streams is needed.

Individual densification solution: AK agrees in general to share his results with JZ but points to the problem that the results usually were not online. JZ and AK agree to continue the discussion offline. JZ emphasizes that his investigations and exercises should be considered as a EUREF activity. AK is willing to write a letter to the contributors explaining shortly the work of JZ and asking if there were complaints against sharing the contributions to the EPN Densification with JZ's activity.

4. EUREF symposia 2021 and 2022

The colleagues from Slovenia, Klemen Medved and Sandi Berk, tried everything to keep the plan of a 2020 symposium as long as possible alive. Finally, with the travel restrictions all over Europe and, they had to cancel the symposium for this year. Another date in 2020, for example in September, was discussed but turned out to be not an option.

Arrangements for 2021 and 2022 (i.e. postponing Croatia for one year) were made.

CB states that we should be prepared for a plan B. ZA agrees that a plan B is absolutely necessary. He gives the example of the IAG. A webinar should be prepared. This should be shorter or arranged differently compared to a usual face-to-face symposium.

5. EUREF Governance**a. EUREF Strategy**

One of the ongoing actions of the GB is the EUREF strategy. The current version is

not sufficient. ML explains his idea to focus a bit more on the scientific approach EUREF should have as an IAG sub-committee. He would like to prepare a list of challenges, AC agrees to contribute. MP emphasizes that we should figure out the specific topics for Europe with respect to global challenges. RD and ML discuss about the different goals and targets of the organisations EUREF versus IGS. MP and AK mention that we should also focus on the potential users and contributors, not only for the geodetic community, but also what is good for society. CV proposes to extend such listing to scientific and technical challenges. Especially the technical aspects are important for the NMAs (society) in order to apply them in their work. RP proposes to consider also climate and beyond for this list.

b. Election of GB members 2020 and 2021

WS explains the results of the nomination process. With the loss of the symposium, the originally planned on-site elections were not possible. Online voting would be an option but it is not implemented in the terms of references, moreover, there is the unsolved question, who has the right to vote online. So it seems to be the best solution, meaning with the lowest impact, to postpone the elections to next year's symposium. WS still has the action item to write such a EUREF mail.

CB and AC ask for the numbers and names of the candidates. So far, this information was not communicated to the majority of the GB members. AC recalls the proposal of CV to find a continuation for RD to keep his expertise in the GB. In case if next year the symposium could not take place, an alternative procedure should be investigated and prepared.

6. EPN

a. Latvian campaign

JL informs the GB about a question she received from colleagues from Latvia concerning a densification with five stations. Some points remain unclear to the GB members, e.g., on the length of the campaign and on the classification (A and/or B), if a report for validation is already announced, if the proposed campaign is different from the contribution to the EPN Densification or to the Nordic campaign, etc. The GB asks JL to keep the contact to Latvia and ask them for an official letter to the EUREF GB.

b. AOB

WS mentions the first stations from Belarus proposed to the EPN, which was noticed in some publications outside the EUREF community. AC mentions the IGS switch to IGB14 and asks if JL could give some information on the reference frame stations usable in the EPN while switching to IGB14.

7. Coordinators

a. Analysis Centres Coordinator

TL starts his report with some numbers and plots while switching to IGB14. 14 new reference stations could be used. He recalls the reprocessing of several weeks due to a wrong antenna height of 5 cm for the station KIRU in Sweden. He shows some preliminary combination results with a new ASI solution provided with GipsyX. It is a PPP solution, not a network solution.

b. Troposphere Coordinator

RP shows some results from the operational troposphere combination. Problems with new station ENAO where ASI shows a large bias of approx. 40 mm ZTD. She asks for a fourth AC processing ENAO, so it could be included in the combination in case ASI solution is excluded. Also problems with station RAEG. She shows that solutions computed with GipsyX could solve the problem.

c. Reference Frame Coordinator

JL recently started some investigations on the switch of IGS14 to IGB14. She will provide some results to the GB. Some small changes to the classification scheme while preparing the webinar for the EGU.

8. Working Groups

a. Reprocessing

For a third EPN reprocessing we are waiting on the progress and the results of the IGS reprocessing. The ITRF is pushing the techniques to finish in the first quarter of 2021, but the IGS already indicated a slight delay. RD comments on the IGS reprocessing. He recalls some important details on the scale, which were already reported at the AC workshop in Warsaw. CV asks for the PCC used in the IGS reprocessing and RD confirms that absolute PCC for the antennas are used mainly by Geo++ (robot) and a smaller part from IGG (Bonn; chamber). For the Galileo satellites PCC are used from GSC.

b. EPN Densification

AK explains the delay to the provision of D2050 as announced at the last GB meeting. He observed some inconsistencies while switching from IGB08 to IGS14 in particular with GAMIT solutions. Some new solutions have to be integrated. He announces new web pages for the EPN Densification, embedded in the EPN CB web site. Since the amount and the maintenance work of these pages are growing, CB indicates that the EPN CB cannot extend its present support to the EPN Densification. AK and CB will therefore discuss how AK can take over part of the EPN densification web pages now available at EPN CB. An independent web presentation of the EPN Densification should be considered and discussed.

c. Dense Velocities

Two new contributions ('turk14' (161 stations) and 'mont19' (908 stations)) added since last presentation. Thanks to JZ's work the "wind animation", which can make the results more visible e.g. to non-geodetic users, was added to the web page (http://pnac.swisstopo.admin.ch/divers/dens_vel/index.html).

9. EVRS

MS summarizes the paper work she had during the last months on the agreement of the countries with the publication of the EVRF2019 results. She points to a paper coming from Turkey, showing differences from national heights to EVRF2007. She computed the results w.r.t. EVRF2019 and contacted the author of the paper.

10. AOB

a. Next GB meeting(s)

The GB does not expect a physical meeting in October or November this year. WS proposes some shorter meetings online meetings, to dedicated topics. AK asks whether the GB should be prepared for plan A, i.e. a web meeting? The GB agrees and proposes to start as early as possible with the proper arrangements.

PARTICIPANTS

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