

## **Minutes of the 6<sup>th</sup> plenary E-GVAP meeting, held September 16, 2008, in Dubrovnik, hosted by DHMZ**

These minutes are to be seen as a supplement to the presentations. The presentations from the meeting are available at the egvap homepage (uid is egvap and pw gps2user).

### **Agenda**

1. Practicalities.
2. Approval of agenda.
3. Approval of minutes from 5<sup>th</sup> plenary meeting.
4. Information about E-GVAP work and progress from the E-GVAP team.
5. Information about the GPS meteorological status in each member country, by each member representative.
6. Discussion of status and plans for next period.
  - a. Specific item: User Workshop November 6<sup>th</sup> in Copenhagen.
7. Discussion of E-GVAP-II proposal.
8. Discussion of update of User Requirements
9. Planning of next, final plenary meeting
10. Other matters

**Attendees** Reima Eresmaa (Finland), Pierre Jeannet (Switzerland), Jonathan Jones (UK), Madelene Eriksson (Sweden), Sofus Linge Lystad (Norway), Siebren de Haan (Netherlands), Kreso Pandzick (Croatia), Enric Terradellas (Spain), Michel Mauprivez (France), and Henrik Vedel (Denmark).

Many thanks to Kreso and his hotel agent in Dubrovnik for organising all practical matters associated with the meeting and the dinner afterwards. We were certainly taken very good care of, and long for Dubrovnik!

**2) OK**

**3) OK**

**4) See part of presentations by DMI, KNMI and UKMO.**

Plan from previous plenary meeting of asking PB-OBS whether part of surplus money could be used for other purposes, invitation of experts to E-GVAP workshop, hardware support to processing centre for processing of additional data (e.g. GOPE, which have had an extended down period due to pc breakdown), was not followed by Henrik, because of the necessity to focus on E-GVAP-II approval on a short notice.

Access to data: Decided to continue with present scheme, ie. access to non E-GVAP members on conditions of scientific or educational use only.

Consider making Ekkofisk (platform in the North Sea) a supersite.

**5) National reporting.**

See the presentations.

INM. The IGN has started processing of Spanish sites, sending data to the test directory of the E-GVAP server since July. Of the order 150 sites are processed from Spain and Portugal (incl. Azores and Madeira and Canary Islands), more are available. Work on getting more sites, also from Morocco. Data currently being monitored (O-B) at INM.

Norway. Data from platforms in the North Sea to be included in NGAA processing. Discussions with NMA on setting up NGAA access to data from more inland stations as well.

Croatia. No current collaboration with potential data providers. Eventual data can be processed by GOPE.

6) We agreed on the content of the workshop.

7) This was the first time we had a chance to discuss the E-GVAP-II proposal at a meeting, after it having passed already the PB-OBS meeting in June with approval. Few days after the plenary meeting an updated proposal should go to EUMETNET Office and Council for Council consideration.

Small alterations were made, the most important being

- Changed the frequency of mandatory plenary meetings from 2 per year to only one per year, but with the comment that the programme manager, as well as the members, can call for additional meetings if they see a need for it.
- Inclusion of midterm review of programme status, at 2 years and 9 months, with possibility of final implementation into EUCOS and shortening of E-GVAP-II as independent programme at this stage (explicit mentioning of this possibility was also requested by PB-OBS).

8) At the joint expert meeting in Potsdam early May an update of the URD was discussed, but there was no voiced wish for changes. The email inquire distributed later in May, with a deadline of July first, did not results in support of any substantial changes from the users. At the plenary meeting we concluded there was in general no urgency to update the URD, but that a section of slant delays ought to be included.

A few centres are working on *slant estimation* and some on assimilation and verification of slants. For them inclusion of requirements in the URD will be helpful. E-GVAP is not required to make slants available, but aiding members and ACs working on the subject, via URD updates and server space, will further gb GNSS meteorology to the benefit of all members in the long run.

The issue of cut-off times was raised. In some cases it appear the current one hour slots starting at each full hour, leads to the ZTD estimates must wanted by the NWP people, at the full hour, arriving later than necessary. Should one consider to move the one hour slots or make other changes?

Next opportunity for users and producers to update the URD will be at the joint expert team meeting in Copenhagen, primo November.

On the data distribution side Dave Offiler has voiced strong interest to update the URD and to change the format (abandon ascii, using Netcdf and BUFR), and to have the encoding into BUFR

done by the ACs rather than UK Met Office. For two reasons it is currently difficult to decide on this. Firstly, the whole data distribution system within meteorology will change of the coming years, moving to the WIS, and the majority of the current ACs are not on the GTS, many of them not even in countries where the met office is an E-GVAP partner. However, Netcdf will be one the formats accepted on the WIS, wherefore use of Netcdf is something to consider when updating the data format. Secondly, in E-GVAP-II a cornerstone is the implementation of active quality control. For this to function the ZTD data must pass a central facility for comparison and screening of poor data, preferably prior to being send to the users (via BUFR or ftp download currently, via the WIS in the future).

9) Next meeting January 20 in Exeter, hosted by UK Met Office.

**10) ZTD/IWVs for climate monitoring and archiving.** There is an increasing, strong wish from the climate community for access to gb GNSS ZTD and IWV data. In parallel it would be beneficial if E-GVAP data at large could be available online, e.g. via handing them over to a data centre for climate data. We agreed, and felt strongly about, the NRT gb GNSS ZTD/IWVs *not* be used for climate monitoring purposes. There is considerable risk such use will lead to gb GNSS data either being deemed useless for climate monitoring, or lead to false conclusions. For proper use in climate monitoring the gb GNSS data must be reprocessed, using the same software, assumptions, etc. for the whole period and all the data, after having had time to remove data which are likely in error. This must be done by GNSS processing and validation experts. We concluded that not only will we not give the E-GVAP NRT data to climate studies, nor will we store the data at a location where we cannot control who get access to them. It could both be climate monitoring people deciding to use the NRT data for climate studies, and it could be people not working in meteorology and atmospheric research, in which case we go beyond the agreements on data distribution in the MoU.

We will seek an alternative way of making all of the COST716 and E-GVAP NRT ZTD data available online or at least at short notice.

**Collaboration beyond E-GVAP territory.** We discussed collaboration with the Turkish met office and a Turkish geodetic inst. on GPS meteorology. We agreed they can be invited as guests to our meetings, and if they start processing E-GVAP supersites, the data can included in the E-GVAP monitoring, to help them monitor the performance of their own system.