

Minutes of the 5th plenary E-GVAP meeting, held January 17, 2008, at Météo France in Toulouse

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. Welcome, practicalities
2. Information about E-GVAP work and programme from the E-GVAP team.
3. Information about the GPS meteorological status in each member country by each member representative.
4. Discussion of the results for E-GVAP of the PB-OBS user questionnaire about EUMETNET programmes.
5. Discussion of status and plans for next period
6. Discussion of the future of E-GVAP (beyond next period)
7. Next meeting(s)
8. Other matters

Attendees Pierre Jeannet (Switzerland), Jonathan Jones & Gordon Hutchinson (UK), Hans Andersson (Sweden), Hugues Brenot (Belgium), Sofus Linge Lystad (Norway), Siebren de Haan (Netherlands), Kreso Pandzick (Croatia), Jennifer Hanafin (Ireland), Enric Terradellas (INM), Sylvie Dufour, Magali Stoll & Michel Mauprivez (France), Henrik Vedel (Denmark).

Many thanks to Michel and his co-workers at Météo France for organising all practical matters associated with the meeting and the dinner afterwards. We all felt very welcome in Toulouse!

1) Welcoming speech by Magali Stoll, leader of upper air observing network at Météo France.

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

Maintain same budget for next period (corresponding member contributions listed in DMI presentation).

Surplus travel money to be used for extra travels during remainder life of E-GVAP.

Investigate, in PB-OBS, whether part of surplus travel money may be used for¹

- 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).

Discussed possibility of de-central injection of BUFR files to GTS. BUFR encoding software is available (should be verified), so this can start. However, not all ACs are tightly collaborating with an NMS providing GTS access, some encoding of other ACs data at the METO dataserver must remain. Furthermore, some NMS still rely on the ascii COST-format files at the ftp-server, where upload of these will still be necessary for some time.

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

¹ Météo France final view to be determined.

Access to auxiliary E-GVAP information: On French initiative we decided to open private part of E-GVAP homepage for collaborating institutes on geodetic side. Will convert most of the material available to pdf from original format.

Workshop: Make workshop in second half of 2008. Investigate possibility of using E-GVAP travel funds in support of workshop.

Agreement with facility to process extra free data that may become available²: Unclear at present to which degree and how fast this can take place at the EUCOS “central data hub” which is currently in the early planning and investigation stage. There is some free capacity at current ACs at E-GVAP member institutes, but not enough in the long run. Discussed possibility of aiding “geodetic” ACs where hardware is a barrier – requires PB-OBS support.

3) National reporting.

France: The processing of the French data is now stable and good, taking place at IGN/SGN. The French network has been and will be expanding, following a detailed plan, leading to a network with a rather even spatial distribution.

Michel pointed out that the current use of “59 minutes” in COST files to mean in fact 00 minutes (for the ZTD at the end of the one hour window represented in a cost file) leads to poorer arrival statistics for SGN in the E-GVAP validation. While this does lead to problems for the users of the data, it is something that ought to be remedied in order to get proper arrival time estimates.

We also discussed the problem that whereas the GPS data processing each time includes GPS data for an extended period (6 h at SGN), only ZTD estimates for the last hour is submitted to E-GVAP, despite the fact that the quality of the ZTD estimates improve longer into the timeslot. This is an old problem, but increasingly relevant, as some assimilation systems use 6 or 12 hour time windows, in which case they can gain from improved ZTD estimates arriving much later than 1 h 30 min to the met centre databases. Decided to have a discussion about this issue at the joint user and processing working group meeting primo May. A general change is not straight forward, as enabling updates of ZTD for a given time will require changing both the COST file format as well as updates of some met office databases. And it will expand the amount of data transferred and stored significantly.

Operational use of E-GVAP data in both global and regional model.

Spain: Earlier plans of starting GPS data processing at INM has been put at halt. We decided that the E-GVAP team should work closely with Enric trying to get agreements with Spanish sites owners to down or upload data for processing at UKMO. In case of an excess of data relative to capacity at UKMO, KNMI can process additional data. Already now UKMO process a significant fraction of the data to which non-operational Spanish centre IEEC has access. IEEC processing is currently not stable enough for operational use, and IEEC is not interested in becoming a truly operational processing centre. Much more sites that could potentially be used exist in Spain.

Passive assimilation of E-GVAP data to provide assimilation statistics.

² To clarify: This does not concern data presently being processed at E-GVAP processing centres. Restrictions in access to raw data, for example across borders, makes it impossible to have just one central data processing facility.

Sweden: Runs processing centre NGAA, that started and became operational during 2007. This is a big step forward, for a time there was (nearly) no processing of Scandinavian data at all. Currently processing data from mainly Sweden and Denmark, but also from Finland and Norway. The access to “GFZ clocks and orbits”, which is important to the processing scheme adopted, has been very stable. Estimates that today's 193 sites will increase to about 300 by the end of 2008.

No current assimilation work.

Finland: (See report from Reima in DMI presentation) FMI is providing an ftp server to the Geotrim company, to enable transfer of data from the 86 Geotrim sites to FMI and NGAA in due time for processing.

Work on bias correction methods and slant delays. Wish access to slant delay estimates.

Norway: File format problems and lack of manpower at the National Mapping Agency (NMA) has prevented transfer of data to NGAA. This appears to be taken care of now, and data from a subset of the Norwegian sites are expected to be included in the NGAA processing very soon, with more to follow later from the land stations, totally about 70. First with hourly download capability, then 15 min.

The 15 GPS receivers mounted on oil platforms in the North Sea belong to the oil companies. The NMA has access to the data, but with download only once per 24 hours. Sofus and Henrik agreed to collaborate in contacting the oil companies, likely including also NMA, to ask for hourly access. It is known that data connections to the platforms are more than sufficient for this.

No current assimilation work.

Denmark: Danish data from a private agency go to NGAA for processing. Network density high. Hans reported transient problem with access to data. Henrik and NGAA to solve together.

Passive assimilation + impact experiments. Setting up parallel assimilation experiment. Planning operational use in 2008.

Netherlands: Stable high quality processing at KNMI of data from high density national network. Make also a real time product, available within 5 min. – with hourly upload to E-GVAP data-server.

15 min resolution IWV maps of Netherlands + Belgium and parts of UK and France for now-casting. Single case study, comparing water vapour density, wind, radar rain density and lightning detections gave impressive example of the potential of using IWV information in now-casting in combination with other met. data.

Has started a parallel assimilation experiment in preparation of operational assimilation.

Belgium: Belgish EUREF sites included in processing by some ACs. ROB processing of Belgish sites from dense Belgium network(s) with 70 sites appeared and ceased. RMI contacts with ROB and discussions in near future at RMI to decide future route for processing of data from Belgium (personal com. after meeting).

Growing interest at RMI for use of E-GVAP products in now-casting, NWP validation, and assimilation.

United Kingdom: UK network has high spatial density. METO processing stable and high quality. Of the order 350 stations processed by METO.

Upgrade of IWV films for now-casting, in the form of regional maps of the UK and Ireland region which has a relatively uniform network density. Actual use of the IWV maps in forecasting still in an initial phase.

Operational assimilation into regional model.

Rep. of Ireland: Irish data processed at METO, medium network density. 2 additional receivers to be installed at sites with co-existing meteorological observing equipment, giving inter comparison capabilities that Jennifer will exploit in her project.

Assimilation experiments expected to start late 2008 as part of Jennifer's project.

Croatia: New in E-GVAP. Possibility of access to data from existing Croatian sites to be investigated. Of existing processing centres GOPE would be the most natural for processing of the data. Discussed our possibilities of supporting the GOPE processing centre with hardware – requires acceptance at PB-OBS and possibly higher.

Switzerland: Network with high spatial density and stable, high quality processing. Pierre requested more easy access for members to results of expert working groups.

Assimilation research (in collaboration with ETH Zurich) in the field of tomography, leading to 3D water vapour fields. Quality of fields not yet good enough for assimilation, but the work continues.

Iceland: Currently 4 sites included at processing. Potentially more sites if download can be upgraded to run fast enough. Processing taking place at METO, but could move to NGAA, freeing METO capacity for other, non Nordic sites.

No assimilation work.

4) The E-GVAP members agreed to the answers for E-GVAP previously given by Henrik to the outcome of the EUMETNET user questionnaire.

5) Specific items to supplement team presentations regarding work in next period:

- Continue with setup of data transfer of met data to EUREF partners, based on institute specific data access and acceptance of conditions of use document from a named responsible person from each institute getting access to data.
- Agreed that automated feedback should initially go to E-GVAP team, which will decide which type of action is required in each case.
- Attempt to make MoU with GFZ and BKG in connection with joint expert team meeting at GFZ in Potsdam in May 2008.
- Strengthen attempts to make DWD become a member, now that DWD has since 2007 started to work again on assimilation of ground based GPS data.³

³ Météo France opinion that such an MoU should be between GFZ and BKG on one side and DWD on the other.

- Make a clear description at homepage of AC datasets (which are operational, experimental, NRT, and real time). Necessary to distribute all data sets for experiments and improvements to be possible.
- Include discussion of user requirements, data formats, data exchange methods in upcoming joint expert team meeting May 2008.

6) We agreed that to us it appear a good idea, brought forward by UK Metoffice and supported by Henrik, to prolong E-GVAP with 9 months, to get in sync with the common EUCOS and PB-OBS scheduling, and to allow more time for EUCOS implementation, since EUCOS is currently facing transient problems with its resources. We were careful to realise that we did not take this decision with the support from all the institutions we represent, only at UK Metoffice has the idea been discussed at higher levels. The view of the members is important to the outcome of a prolongation anyway.

Henrik is now to investigate how the idea of a prolongation can be brought forward through a proposal to the next PB-OBS meeting in June 2008 for an E-GVAP prolongation.

It will ease transition into EUCOS⁴ if DWD becomes a member of E-GVAP.

7) Next plenary meeting to be held in Dubrovnik, September 16, 2008.

8) No other matters discussed.

Compiled by Henrik Vedel.

Draft, ultimo January, 2008.

Current version, primo September, 2008

⁴ EUCOS = programme for core observing systems under EUMETNET. In comparison E-GVAP is creating/managing a new and still somewhat experimental observing system, which has to prove its value in operational NWP and now-casting.