



Final Meeting

Meeting Minutes

The Final Meeting of NORS took place on Friday the 7th of November 2014, from 13h30 to 17h15 at the premises of Belspo (the Belgian Science Policy Office), 231 avenue Louise, 1050 Brussels, Belgium.

1. Participants

Last name	First Name	Institute
Blumenstock	Thomas	Karlsruhe Institute of Technology (KIT)
Braathen	Geir	WMO
Breebaart	Leo	S&T
De Mazière	Martine	Belgian Institute for Space Aeronomy (BIRA-IASB)
De Rudder	Anne	Belgian Institute for Space Aeronomy (BIRA-IASB)
Engelen	Richard	ECMWF
Franco	Bruno	University of Liège
Frieß	Udo	Institute of Environmental Physics, University of Heidelberg
Gil-Ojeda	Manuel	Instituto nacional de Técnica Aeroespacial (INTA)
Godin-Beekmann	Sophie	LATMOS/CNRS
Goutail	Florence	LATMOS/CNRS
Hendrick	Francois	Belgian Institute for Space Aeronomy (BIRA-IASB)
Henne	Stephan	Empa
Hocke	Klemens	Institute of Applied Physics, University of Bern
Kacik	Monika	Research Executive Agency
Kalb	Nathalie	Belgian Institute for Space Aeronomy (BIRA-IASB)
Kelder	Hennie	University of Technology Eindhoven
Lambert	Jean-Christopher	Belgian Institute for Space Aeronomy (BIRA-IASB)
Langerock	Bavo	Belgian Institute for Space Aeronomy (BIRA-IASB)
Mahieu	Emmanuel	University of Liège
Niemeijer	Sander	S&T
Petri	Christof	IUP, University of Bremen
Pommereau	Jean-Pierre	LATMOS/CNRS
Puenteadura	Olga	Instituto nacional de Técnica Aeroespacial (INTA)
Remmers	Julia	MPI for Chemistry
Richter	Andreas	IUP, University of Bremen
Van Roozendaal	Michel	Belgian Institute for Space Aeronomy (BIRA-IASB)
Vigouroux	Corinne	Belgian Institute for Space Aeronomy (BIRA-IASB)
Wagner	Thomas	MPI for Chemistry

2. Agenda

- 13:30-13:50 Introduction
Martine De Mazière, BIRA-IASB
- 13:50-13:55 Summary of WP3 Rapid data delivery at 4 NDACC stations
Klemens Hocke, IAP Bern
- 13:55-14:10 Summary of WP4 Advanced characterisation of NORS data products
Andreas Richter, IUP, University of Bremen
- 14:10-14:25 Summary of WP5 Integration of tropospheric products
Stephan Henne, Empa
- 14:25-14:30 Summary of WP6 Integration of ozone products
Sophie Godin-Beekmann, LATMOS/CNRS
- 14:30-14:40 Summary of WP7 Reanalysis of ground-based time series back to 2003
Thomas Blumenstock, Karlsruhe Institute of Technology (KIT)
- 14:40-14:55 Summary of WP8 Web-based server for validation of GAS products using NORS data products
Sander Niemeijer, S&T
- 14:55-15:10 Summary of WP9 Validation of GAS products for O₃, NO₂, CO, CH₄, H₂CO, aerosol
Emmanuel Mahieu, University of Liège
- 15:10-15:40 **Coffee/Tea**
- 15:40-15:50 Summary of WP2 Project outreach
Martine De Mazière, BIRA-IASB
- 15:50-16:10 Summary of WP10 Capacity building and sustainability
Martine De Mazière, BIRA-IASB
- 16:10-16:25 Summary of WP1 & WP11 Project coordination & management
Nathalie Kalb, BIRA-IASB
- 16:25-16:55 Feedback by *Hennie Kelder, NORS reviewer*, and *Monika Kacik, REA*
- 16:55-17:15 Discussion about continuation of NORS in Copernicus Atmosphere Monitoring Service (CAMS)
Monika Kacik, REA
- 17:15 **End of meeting**

3. Minutes

3.1. Introduction by Martine De Mazière, BIRA-IASB

See: 01_NORS_FM_MDM

MDM welcomes the participants to the final meeting of NORS. She introduces and welcomes the members of the Steering Committee, the Contracts Officer and the Reviewer.

MDM gives a brief overview of the project and its achievements.

MDM says that all the initial objectives have been achieved or even more. The sustainability is not guaranteed unfortunately.

Most of the results of the NORS project have already been presented during the workshop. The following presentations are very short summaries of the activities performed in the NORS workpackages.

3.2. Summary of WP3 Rapid data delivery at 4 NDACC stations by Klemens Hocke, IAP Bern

See: 02_NORS_FM_KH

KH presents the work performed in the frame of WP3.

HK asks if it is possible to deliver data in near-real time. KH answers that it depends of the station. Some stations, for example in Switzerland, deliver daily files, but others deliver every week or every two weeks.

HK asks if the connection with MACC is secured in the future. RE says that there will be calls in CAMS for the validation activities in connection with in situ data networks, for which the NORS consortium will be able to compete. But no continuation of the activities of NORS in CAMS is foreseen.

MDM adds that the maintenance of the validation server and of the contributions to the MACC validation reports is embedded in the validation subproject of MACC-III, but specifies that it only covers maintenance, and of course provided that the stations continue to provide data. AR fears that most stations are not willing to continue providing data without funding.

MDM has addressed this issue with the EC and Michael Rohn from DG Enterprise. Although all understand the problem, no solution is in view.

3.3. Summary of WP4 Advanced characterisation of NORS data products by Andreas Richter, IUP, University of Bremen

See: 03_NORS_FM_AR

AR presents the work performed in the frame of WP4, following the logic of the seven deliverables.

3.4. Summary of WP5 Integration of tropospheric products by Stephan Henne, Empa

See: 04_NORS_FM_SH

SH presents the work performed in the frame of WP5.

3.5. Summary of WP6 Integration of ozone products by Sophie Godin-Beekmann, LATMOS/CNRS

See: 05_NORS_FM_SGB

SGB presents the work performed in the frame of WP6.

MK asks what was the problem that SGB mentioned about delivering to the server. MDM and SGB answer that the server requires the GEOMS template. Conversion to GEOMS was not part of the NORS contract and it requires averaging kernels, which are not available at the moment.

3.6. Summary of WP7 Reanalysis of ground-based time series back to 2003 by Thomas Blumenstock, Karlsruhe Institute of Technology (KIT)

See: 06_NORS_FM_TB

TB presents the work performed in the frame of WP7.

HK asks if the ozone trends from the ground-based stations correspond with the satellite ozone trends. TB answers that they compare very well. MDM says that CV has written a paper on this and it will also be included in the WMO assessment and in the SI2N initiative.

3.7. Summary of WP8 Web-based server for validation of GAS products using NORS data products by Leo Breebaart, S&T

See: 07_NORS_FM_LB

LB presents the work performed in the frame of WP8 and gives a demonstration of the validation server.

HK asks if there is any interest from other customers in the validation server. SN says that the commercial interest is obviously quite low, but he approaches the EC, ESA and any large organization that could be interested. There is some interest from ESA.

LB asks all to send him feedback and comments about any odd-looking feature, even after the end of the project.

MK asks more precisions about the process of submitting data to the server. LB says that the entry point is NDACC (and thus certification is needed) as well as NDACC-RD for which certification is not required but format compliance is required. The server browses the entire NDACC database and picks up automatically anything that matches the requirements. All the

NDACC stations archive their data. NDACC certification is not needed to submit to the rapid delivery database, but it does require authorization by the database manager.

SGB comments that it would be nice to have an explanation of the figures when browsing the reports. LB agrees that the user friendliness could be improved, by providing more background context information for example.

MDM suggests to provide at least a link to the algorithms paper by Langerock et al.

3.8. Summary of WP9 Validation of GAS products for O3, NO2, CO, CH4, H2CO, aerosol by Emmanuel Mahieu, University of Liège

See: 08_NORS_FM_EM

EM presents the work performed in the frame of WP9.

RE comments that from the different model versions that are shown, only fnyp is an official output from MACC. MDM comments that this is the reason that the tailored plots and cross-comparison plots are only available to VIP users and not to all public. RE says that we can use the plots in the deliverables, but we should mention that only fnyp is an official output from MACC.

3.9. Summary of WP2 Project outreach by Martine De Mazière, BIRA-IASB

See: 09_NORS_FM_MDM

MDM presents the work performed in the frame of WP2.

MK asks if it has been dealt with IPR issues. SN says that everything is open source. MDM will check this.

3.10. Summary of WP10 Capacity building and sustainability by Martine De Mazière, BIRA-IASB

See: 10_NORS_FM_MDM

MDM presents the work performed in the frame of WP10.

3.11. Summary of WP1 & WP11 Project coordination & management by Nathalie Kalb, BIRA-IASB

See: 11_NORS_FM_NK

NK presents the work performed in the frame of WP1 and 11.

3.12. Feedback by Hennie Kelder, NORS reviewer, and Monika Kacik, REA

HK says that he was already impressed at the start of the project by the ambitions of the project and is even more impressed now by the presented achievements. He congratulates the entire NORS team.

He thinks that the cooperation within the consortium and the management of the project was excellent.

According to him, the success of workshop reflects the recognition of the value of NORS for the atmospheric science community.

He says that the biggest question is now how to continue. Long term commitments for some form of continuation are needed.

3.13. Discussion about continuation of NORS in Copernicus Atmosphere Monitoring Service (CAMS) by Monika Kacik, REA

MK thanks everybody for the very interesting presentations.

She says that this is not the best timing to discuss the matter of sustainability, since the delegation agreement with ECMWF should be signed very soon. She can only say that services such as validation will be taken care of via procurements. There is no guarantee that the NORS consortium will win the procurement, but it is very well placed with regards to other competitors given its experience.

MK says that it is difficult for the EC to justify funding for provisioning of data, since it is at the edge of the operational domain. The FP7 programme is a research programme. When it gets operational, then it goes over to ECMWF. In H2020 the main focus is still research but not solely.

MDM asks if there will be room in H2020 to fund research about open questions that were raised in NORS. MK answers that there will be of course funding for research in H2020, but it depends on the topics of the calls. Every year there are new work programmes. She also reminds that before every launch, there is a series of consultations with national delegates.

GB says that the usefulness of the work performed in NORS goes beyond NDACC. It should be applied to a larger scale. There is a need for overarching the different data streams of GAW. Maybe an idea for NORS-II?

MDM is in touch with the initiative to put an atmospheric sciences Research Infrastructure on the ESFRI Roadmap. ESFRI must be supported by the member states. The role of the national delegates is crucial. She says that all should lobby with their national delegates for support.

GB adds that sustainability also comes from relevance to society. He says that NORS should make itself useful to society, like MACC.

SGB asks when the call for the validation activities within MACC will be issued. MK answers that the procurement should be open by the beginning of 2015. MDM will keep the consortium informed.

MDM says that there will be a gap between the end of MACC-III and the operational service of CAMS. Some services will be bridged.

MDM thanks HK for the feedback and MK and the EC for the support and the entire consortium for its good work. She closes the meeting

End of meeting