



PMT Teleconference #11

8 October 2014

Meeting Minutes

1. Introduction

The eleventh PMT Meeting was organized in the form of a teleconference on 8 October 2014.

The teleconference started at 14:00 and ended at 15:00.

2. Participants

Name		Short name	Role in project	Institute
Martine	De Mazière	MDM	Project Coordinator	BIRA-IASB
Nathalie	Kalb	NK	Project Manager	BIRA-IASB
Bavo	Langerock	BL	Scientist	BIRA-IASB
Klemens	Hocke	KH	WP3 Lead	UBern
Andreas	Richter	AR	WP4 Lead	UBremen
Stephan	Henne	SH	WP5 Lead	EMPA
Sophie	Godin-Beekmann	SGB	WP6 Lead	CNRS
Thomas	Blumenstock	TB	WP7 Lead	KIT
Sander	Niemeijer	SN	WP8 Lead	S&T
Leo	Breebaart	LB	Collaborator in WP8	S&T
Emmanuel	Mahieu	EM	WP9 Lead	ULg

Excused:

Name		Short name	Role in project	Institute
Emmanuel	Mahieu	EM	WP9 Lead	ULg

3. Agenda

Status of the project and progress of work packages

Status of deliverables

MACC follow-on

NORS Final Workshop programme

Status of action items

AOB

4. Minutes

MDM welcomes the participants.

4.1. Status of the project and progress of work packages

4.1.1. WP1 Project coordination

All minutes of meetings can be found on the private part of the website (documents).

NK will circulate the minutes of this teleconference for correction and load the final version up on the website.

Our Project Officer, Stijn Vermoote, has informed us that he will be replaced by Monika Kacik in his role as Project Officer of NORS.

Monika Kacik is a very motivated and highly experienced Project Officer and will cover several of the Copernicus Climate Change and Atmosphere projects together with Stijn Vermoote.

Stijn Vermoote said that he really enjoyed working with us and wishes us all the best for the final months of NORS and the NORS/NDACC/GAW workshop in November.

MDM and NK have met Monika Kacik on 12 August at BIRA-IASB to introduce ourselves and give her an introduction to the project.

4.1.2. WP2 Project outreach

The public part of the website contains publications, presentations and deliverables that are of public nature. The private part of the website contains the deliverables that are of restricted nature and working documents. To access the private part of the website, one needs an account (see bottom of the Login Form to create an account).

An editorial for PAN European Networks magazine about NORS, the need for validation data and data acquisition has been published and uploaded on the website.

4.1.3. WP3 Rapid data delivery at 4 NDACC stations

WP 3 is going well. The new station Rio Gallegos (DOAS) rapidly delivers data to RDDS. DOAS instruments are generally in good shape with rapid delivery. Some stations or instruments have delayed submission, e.g. software problem at Izana (DOAS) which will be fixed soon. Generally RDDS made good progress over the last half year, but it has still potential for improvement. The attached table gives an overview (species in brackets indicates that there are only a few data files inside RDDS).



	DOAS	MAX DOAS	Lidar	MWR	FTIR
Ny Alesund	(O ₃ , NO ₂)			O ₃	(CH ₄ , CO)
Bern (Alps 1)				O ₃ , H ₂ O	
Jungfraujoch (Alps 2)	O ₃ , NO ₂				CH ₄ , CO, NO ₂ , O ₃
OHP (Alps 3)	O ₃ , NO ₂		O ₃		
Izana	O ₃ , NO ₂				CH ₄ , CO, NO ₂ , O ₃
Xianghe		aerosol, NO ₂			
Maido, La Réunion			(O ₃)		CH ₄ , CO, NO ₂ , O ₃ , HCl, HF, HNO ₃
St. Denis, La Réunion	O ₃ , NO ₂				
Rio Gallegos	O ₃ , NO ₂				

NORS Workshop, 5-7.11.2014

4.1.4. WP4 Advanced characterisation of NORS data products

AR reports about the status of work in WP4.

ULG:

- a manuscript by Franco et al dealing with HCHO has been accepted by AMTD (joint work with BIRA-IASB).

CNRS:

- GEOMS/UVVIS template v006 was implemented for the real time data of SAOZ O₃ and NO₂ measurements. The data files are sent to NORS/NDACC RD database each day.
- Last validation of the effective air mass location is finished and will be implemented in October.

BIRA-IASB:

- Validation of MACC-II data products using MAX-DOAS observations made by BIRA at Beijing (NO₂), Xianghe (NO₂/H₂CO), and Bujumbura (NO₂). This work is done in collaboration with Bavo Langerock (BIRA), Antje Inness and Johannes Flemming (ECMWF), and Vincent Huijnen (KNMI). The comparisons with MAX-DOAS NO₂ profiles in Beijing will be part of the MACC IFS validation paper led by Antje Inness.
- C. Gielen (BIRA) is working on the retrieval of aerosol and NO₂ profiles from MAX-DOAS observations at Bujumbura (one of the NORS Capacity Building stations). Preliminary results will be shown at the NORS final meeting.
- Comparison between MAX-DOAS and FTIR measurements of H₂CO at Jungfraujoch and simulations by the IMAGES and GEOS-CHEM models. This study led by the University of Liège is now accepted by AMTD (see above) and will be presented at the NORS final meeting
- Comparison between parametrized and OEM-based profiling methods based on MAX-DOAS measurements of NO₂, H₂CO, and aerosols at Xianghe. This study led by Tim Vlemmix (TU Delft) is now published on AMTD.
- Paper in preparation: Development of a method for the retrieval of tropospheric NO₂ columns from daytime zenith-sky scattered sunlight observations (Tack et al., to be submitted to AMTD)

MPI:

- Preparation of an analysis software for the MAX-DOAS measurements with different choices for the selection of the Fraunhofer reference spectrum (e.g. fixed daily, from before or after individual elevation sequences, etc.)
- Development of an algorithm for the absolute calibration of colour indices and O4 DSCDs (or O4 differential AMFs)
- Preparation of set of universal threshold values for cloud classification

IUP-UB:

- Validation of the MACC Lotos-Euro regional model using MAX-DOAS measurements from IUP-Bremen, IASB and KNMI. Comparisons were made with and without averaging kernels. Meteorological and observational parameters were used to evaluate possible impacts. Overall, the absolute agreement and correlation was good but not very good. Details will be presented at the NORS/NDACC workshop

IAP-Bern

- Martin Lainer is working on trajectory mapping of ground-based data of middle atmospheric water vapour

WP4 relevant presentations at the NORs final workshop:

- Hendrick et al., Overview of the progress achieved by the NDACC UV-vis Working Group during the NORS project
- Remmers et al., Azimuthal variability of trace gases and aerosols measured during MADCAT in summer 2013 in Mainz, Germany
- Wagner et al., Absolute calibration of sky radiances, colour indices and O4 DSCDs obtained from MAX-DOAS measurements
- Franco et al., Retrievals of formaldehyde from ground-based FTIR and MAX-DOAS observations at the Jungfraujoch station and comparisons with GEOS-Chem and IMAGES model simulations
- Puentedura et al., Intercomparison of NO₂ total column derived from DOAS and FTIR over the subtropical NDACC Izaña observatory from 2000 to 2012 and validation of OMI and SCIAMACHY NO₂ products
- Frieß et al., On the ability of MAX-DOAS to detect clouds
- Richter et al., Spatial and temporal variability in Athens observed by MAX-DOAS

4.1.5. WP5 Integration of tropospheric products

SH has finished the surface in-situ comparison of MAXDOAS data from Jungfraujoch and Izana. For Jungfraujoch profile retrievals of NO₂ were available. For Izana O₃ and NO₂ were obtained with the geometric method. The comparison looks reasonably well for O₃, but for NO₂ there is a lot of noise in both datasets (in-situ and MAXDOAS). This is due to the fact that both instruments are often measuring close to their detection limit. For Izana the method that takes the representativeness of the samples into account does not improve the comparison a lot, because for the geometric method only a single sampling volume along the line of sight of the MAXDOAS could be taken into account. Results are now being compiled for the final deliverable of the WP.

SH is writing a publication about this work. MDM asks if the publication will be published before the end of the project. SH answers negatively but says that the results will be part of the deliverable.

EM informs SH that he will provide the requested information.

4.1.6. WP6 Integration of ozone products

SGB says that Maud Pastel, the person who was responsible for the deliverables of WP6, left CNRS in July 2014 without completing the work she was committed to. In the mean time, a new person, Sergey Khaykin, has been hired and has already taken over the job and is making good progress. So we are confident that the deliverable will be ready by the end of October. He's working on finishing the merging of the data. Already 3 stations are done; the work on the Alpine station is ongoing. The final results will be presented at the WS.

MP has sent data but SGB needs to check them. SGB says that the merged data sets will be stored on their server.

MDM asks in which format the data will be provided. SGB says that the format is ascii for the moment, but HDF format can be provided. MDM says that it would be useful to have them in HDF if we want to use them for validation of MACC products. BL suggests following the GEOMS guidelines to generate the HDF format.

4.1.7. WP7 Reanalysis of ground-based time series back to 2003

The reanalysis of data sets back up 2003 is finished. MWR, DOAS (UVVIS), FTIR and Lidar data are on the archive. MWR, FTIR and Lidar data files are complete. For DOAS a few data files are (still) missing: (1) NyAlesund DOAS data is missing before 2010, (2) Izana DOAS data is still flagged as RDD data.

4.1.8. WP8 Web-based server for validation of GAS products using NORS data products

LB reports that the cross reports containing comparisons for comparing multiple MACC models vs. single NORS locations have been added to the server. Based on feedback from users, many templates and parameters have been tweaked to improve the quality of the reports. Reports for H₂O comparisons are now available. New stations also continue to be picked up automatically when their data appears on the NDACC archive in the correct format. Administrative tooling was added to the server to better manage and keep track of 'failed' reports (where e.g. when data in products is not correct, or something else goes wrong). The reports are now appearing in google results.

The remaining actions are (1) Install the Server on the virtual machine provided by BIRA, and deploy that virtual machine at BIRA. (2) Move to the new MACC model (requires changes to the ingestion backend).

MDM is happy to hear that new stations are still coming in.

4.1.9. WP9 Validation of GAS products for O₃, NO₂, CO, CH₄, H₂CO, aerosol

EM reports that for O₃, FTIR, Lidar and MW measurements have been compared to MACC products. For CO, FTIR products have been compared for two sites. For H₂CO UV-vis measurements were involved because we decided earlier not to upload any FTIR data.

BL says that validation reports are generated every 3 months, currently it's the operational model (o-suite). At the end of November, BL will use NDACC data to validate that model. He will use MW O₃, Lidar, FTIR O₃, FTIR CO, UV-vis H₂CO, aerosol and NO₂ FTIR.

MDM is happy to hear that more and more NDACC data are used in every report.

MDM asks about methane. BL says that there is not a lot of interest from MACC. But in principle we could do it. SH comments that his comparison of methane with MACC shows a trouble with the reanalysis. There is a strong bias in the model and the vertical structure is off.

4.1.10. WP10 Capacity building and sustainability

MDM summarizes the different capacity building activities reports by the different institutes.

KIT:

- Michel Grutter and Wolfgang Stremme from the FTIR site in Mexico - Altzomoni - asked for NDACC affiliation. The NDACC certification is ongoing. They don't archive data at this moment.
- Addis site: Dr. Gizaw Mengistu, PI of FTIR Addis site has got a Georg-Forster stipendium from Humboldt foundation to visit us. This year he visited us from June 2014 to end of October 2014. He analysed Addis FTIR spectra and submitted a paper on H₂O to AMT. There will be another visit next year.

MDM Comments that the sites BIRA-IASB is dealing with don't have NDACC certification yet, but are submitting data to the RD database. Then the data can be picked up by the server. TB will suggest this to the Mexico team.

MPIC:

- in August Jianzhong Ma from CAS Beijing visited our group. We worked together on the analysis of MAX-DOAS measurements made in Tibet
- in August Fahim Khokhar from NUST, Pakistan visited our group. We worked together on the analysis of car-MAX-DOAS measurements in Pakistan.

CNRS:

- Jacobo Salvador, responsible of the lidar measurements at Rio Gallegos stations spent 10 days at LAMOS in early September in order to retrieve the latest version of the DIAL ozone retrieving programme, including the HDF conversion for NRT retrieval. The objective is to be able to send NRT DIAL ozone profiles of Rio Gallegos by the end of 2014.

4.2. Status of deliverables

4.2.1. D6.2 Integrated Ozone profile data (M36) and D6.3 Integrated Ozone tropo- and stratospheric column data (M36)

The initial delivery date of "D6.2 Integrated Ozone profile data" and "D6.3 Integrated Ozone tropo- and stratospheric column data" was M30=April 2014. A delay of two months had been requested and accepted. The reason for this was an O₃ campaign at La Reunion in the beginning of June. This campaign was a good opportunity to validate and correct NORS WP6 products at this station. The Ny-Alesund, Izana and OHP data should have been available sooner.

During the writing of these minutes, a new delay until the end of October has been requested and accepted. The reason is an unexpected leave of the person who was responsible for this work and deliverable at the CNRS (responsible partner's institute). In the mean time, a new person has been hired who has already taken over the job and is making good progress. The delay of these deliverables will have no negative impact on any other workpackages.

4.2.2. D2.3 Publications / Communications (M37)

NK to write this report, based on the final report.

4.2.3. D2.4 Final NORS Workshop & report (M37)

MDM to write this report after the final workshop. The final report should be submitted 60 days after the end of the project, i.e. 31 January 2015.

4.2.4. D3.3 Final documentation of data delivery system (M37)

KH says he will start to work on this. But he doesn't expect any problem. He will ask inputs in due time.

4.2.5. D5.3 Cross comparisons report (M37)

SH doesn't expect any problem. He started writing and will send around a draft/request for inputs.

4.2.6. D9.2 Assessment of GAS products (M37)

EM is in contact with BL about this document. EM says we will use the results of the reports that are generated by the validation server.

4.2.7. D10.1 NDACC Capacity report (M37)

MDM has started a draft and will send it around to request inputs. She asks all to share their comments about the content of the document or additional stations quite quickly.

4.2.8. D10.2 NDACC status report (M37)

BL will be leading this deliverable and will contact the partners when necessary.

4.2.9. D10.3 NORS capacity and sustainability (M37)

MDM has started a draft and will send it around to request inputs. She will emphasize that sustainability is a big issue and that the continuation of this kind of activities is uncertain.

4.2.10. D10.4 NORS as an in-situ GAS (CAS) component (M37)

MDM has started a draft and will send it around to request inputs.

4.3. MACC follow-on

MDM summarizes the recent evolutions in terms of follow-on.

The MACC final review meeting took place on 10-11 September 2014 in Brussels. ECMWF has been designated to be the coordinator of CAMS. Their plan is to launch open calls for proposals for activities planned in CAMS by the beginning of 2015. There will be a gap between the end of MACC-III (March 2015) and the launch of CAMS (not earlier than September 2015). For some activities, where there exists some sort of monopoly (in situ networks, global production, etc.), there won't be calls but direct negotiation with identified partners. The in situ component will also be done by direct negotiation. Funding will not be granted to fund data acquisition and analysis, but only to fund one person per network to be the interface between CAMS and the network (supervise data stream, assure quality, etc.). So we end up with the same problem for our kind of activities.

MDM is attentive to any possibility of getting funding from ESA, since they are also interested in these data streams.

4.4. NORS Final Workshop programme

The draft programme has been distributed to the PMT, keynote speakers, reviewer and project officer. All agree with the programme.

AR says that the number of posters is relatively small. He suggests NORS people to make a few NORS posters. NK will send an email to NORS people to ask for a few posters.

The presentations of the WPs during the final review meeting should be short summaries of the entire project, not just the second period.

4.5. Status of action items

AI #	Description	Assigned to	Status

All actions have been closed.

4.6. AOB

MDM thanks all the participants and closes the meeting.