

CAMS-84, phase 2

Minutes of the

PM-3 progress meeting

WebEx teleconference

Minutes compiled by
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Agenda

PM-3 meeting of CAMS-84,

9:30-12:30, Wednesday 8 May 2019, via WebEx

Agenda

1. Welcome,
2. Announcements by the Service Manager:
Closing of phase-1, 2019 Q1 deliverables, reporting, contract, news from CAMS SLBs ...
3. Progress, latest achievements, activities in the coming months (Henk)
4. WP 2: status and progress (Sander, Jacques)
5. WP 3: evaluation of new experiments
6. Status of the WP1 report, DJF 2019 (short statement from editors) and WP4 report (John)
7. WP 5: status of reanalysis evaluation
8. Reanalysis paper, status (Annette)
9. Coffee break
10. Presentations by all groups (5 minutes), with innovations and interesting new results
11. AOB

Participants

Bavo Langerock, BIRA-IASB
Harald Flentje, DWD
Sara Basart, BSC
Eleni Katragkou, AUTH
Augustin Mortier, MET-NO
Annette Wagner, MPG
John Kapsomenakis, AA
Antje Inness, ECMWF
John Douros (KNMI)
Henk Eskes, KNMI

Yves Christophe, BIRA-IASB
Kaj Mantzius Hansen, AU
Anne-Marlene Blechschmidt, IUP
Anna Benedictow, MET-NO
Yasmine Bennouna, CNRS-LA
Sander Niemeijer, S&T
Christos Zerefos, AA
Natalia Sudarchikova, MPG

Jacques Claas (KNMI)

Excused: Michael Schulz, Michel Ramonet, Abdelhadi El Yazidi

Action items and deadlines

See Redmine for overview of the planning related to the deliverables.

- **Henk:** Further discuss with CAMS-50 on synchronising the use of PM data for Europe (include Sara)
- **Jacques:** Think about the “data use policy”, e.g. a document describing networks + policies, linked to the validation server (question Thorsten)
- **Yasmine:** Compare with scripts of Luke for in-flight IAGOS validation (not only take-off and landing).
- **Jacques, Henk:** Schedule for implementation of new template in WP2 partner webpages
- **Henk, 9 May:** Schedule for e-suite
- **Annette:** send email to authors of the reanalysis validation paper for suggestions on scope

Action items from last meeting

The grey action items can be closed:

- **Henk:** Invite Board Members for CAMS-84 Phase 2
- **Henk:** Contact CAMS-50 on synchronising the use of PM data for Europe (access Sara?)
- **Henk:** Ceck with Richard on case-study report
- **Henk:** Check invoices Q2, Q3 for AUTH (question Eleni)
- **Henk:** Forward email of Michael to Sara/Harald (done)
- **Henk:** Next version sub-contracts before the end of February
- **Anne Blechschmidt:** send feedback on subcontract before 14 Feb.
- **Henk:** discuss the “end date” of the contract with Uni Bremen: Anne and Thorsten
- **Henk:** email to Vincent-Henri that some partners have problems with the unclear ending date of the CAMS-84 contract
- **Henk:** Think about the “data use policy”, e.g. a document describing networks + policies, linked to the validation server (question Thorsten)
- **Henk:** New version of the Technical Specification Document (February)
- **Antje:** Check dates for meeting on CAMS data extraction / download
- **All:** Have a look at the first 137L test data, announced by Antje
- **Michael + Henk:** review of the scoring approach (Feb-March)
- **Henk:** send reminders on deliverables (request Annette)
- **Henk:** D2.1.2
- **Antje, Yasmine:** Check with Luke about scripts for in-flight IAGOS validation (not only take-off and landing).

Announcements by the Service Manager (Jacques, Henk)

Phase 1 close-out:

- The last two deliverables (audit reports) have finally been accepted by ECMWF on April 24.
- KNMI is waiting for the Notice of Acceptance from ECMWF, needed to start the final round of invoicing. Unfortunately, KNMI is only allowed to pay invoices from partners after being paid by ECMWF. No exceptions allowed.

Phase 2:

- Status subcontracts:
 - KNMI signed subcontracts were sent to partners by registered mail on March 28.
 - With a few partners, the discussion on the content of subcontract is still ongoing as the KNMI legal adviser has not accepted (part of) the comments provided in January.
 - Other partners have already signed the subcontract or are about to sign.
 - Service Manager currently tries to find a work-around.
- Deliverables (see within Redmine folder “WP0 management”):
 - Annual Report 2018, accepted by ECMWF after ingesting comments.
 - Quarterly Report 2019/Q1, accepted by ECMWF after ingesting comments.
 - Preliminary Financial Information 2018, accepted by ECMWF.
 - Draft Implementation plan 2020
 - Minutes of PM2
- Feedback from the Service Level Board meeting:
 - The 4th CAMS-GA will be held in Hungary/Budapest, September 16-20.
 - As usual, we plan to have a CAMS-84 meeting during the GA. Most likely on Friday.
 - Check for any updates: <https://atmosphere.copernicus.eu/cams-4th-general-assembly>.
 - Johannes Flemming: Raised a question on synchronising the use of PM data for Europe with CAMS-50. In particular this concerns the choice of AIRBASE stations/datasets.
(Action for Henk)
 - The DOIs were discussed. Henk sent a manuscript with all public deliverables of CAMS-84 (phase-1 and phase-2) to Richard, with metadata that may be used for “landing pages”.

2019 Q1 deliverables:

Status of the deliverables and milestones up to 8/5: (yellow: delivered; green: approved; orange: delayed)

WP number	Deliverable / Milestone number	Responsible	Nature	Title	Due	Planned payment
4	M4.1.2-JJA2018	KNMI	Milestone	Availability of JJA 2018 summary for the ensemble, five weeks before publishing the full report, for inclusion in the CAMS-50 reports	26-10-18	2
0	D0.1.5-2019	KNMI	Report	Finalised Implementation plan 2019	31-10-18	2
0	D0.2.1-2018Q3	KNMI	Report	Minutes of internal progress meeting with CAMS-84 partners, kick-off meeting at GA2018	31-10-18	2
0	M0.2.1	KNMI	Milestone	Kick-off meeting - Minutes of meeting	31-10-18	2
4	M4.1.2-JJA2018	KNMI	Report	Availability of D4.1.1-JJA2018 two weeks before publishing	15-11-18	2
1	D1.1.1-JJA2018	KNMI	Report	EQA report of the CAMS Real-Time Atmospheric Composition Service JJA 2018	30-11-18	2
1	M1.1.1-JJA2018	KNMI	Milestone	Availability of D1.1.1-JJA2018 draft validation report two weeks before publishing	30-11-18	2
2	D2.1.1	KNMI and partners	Website, graphics	Initial set of verification websites with up-to-date content	30-11-18	2
4	D4.1.1-JJA2018	KNMI	Report	EQA report regional services JJA 2018	30-11-18	2
0	D0.2.1-2018Q4	KNMI	Report	Minutes of internal progress meeting with CAMS-84 partners	31-12-18	2
2	D2.2.1	KNMI and partners	Report	Operational Validation Requirements document	31-12-18	2
2	D2.2.2	KNMI and partners	Report	Operational Validation Architectural Design Document	31-12-18	2
3	D3.1.1-2019	KNMI	Report	EQA plan 2019 for experimental suite(s) and global development experimentation	31-12-18	2
5	D5.1.1-2017	KNMI	Report	EQA report for the global reanalysis, year 2017 (2003-2017) , CHEM+AER	31-12-18	2
5	D5.1.1-2018-initial	KNMI	Note	Initial assessment of the global reanalysis, year 2018, CHEM+AER	31-12-18	2
5	D5.1.2-2010-initial	KNMI	Note	Initial assessment of the global reanalysis, years 2006-2010 GHG	31-12-18	2
0	D0.1.6-2018	KNMI	Other	Preliminary financial information 2018	15-01-19	2
0	D0.1.1-2018Q4	KNMI	Report	Quarterly Report Q4 2018	20-01-19	2
4	M4.1.2-SON2018	KNMI	Milestone	Availability of SON 2018 summary for the ensemble, five weeks before publishing the full report, for inclusion in the CAMS-50 reports	25-01-19	2
2	D2.1.2-2018Q4	KNMI and partners	Website, graphics	Up-to-date websites with EQA graphics, incorporating the developments from WP2 and WP6 - Q4 2018	31-01-19	2
4	M4.1.2-SON2018	KNMI	Report	Availability of D4.1.1-SON2018 two weeks before publishing	15-02-19	2
0	D0.1.2-2018	KNMI	Report	Annual implementation report 2018	28-02-19	2
0	D0.1.4-2020	KNMI	Report	Draft Implementation plan 2020	28-02-19	2
1	D1.1.1-SON2018	KNMI	Report	EQA report of the CAMS Real-Time Atmospheric Composition Service SON 2018	28-02-19	2
1	M1.1.1-SON2018	KNMI	Milestone	Availability of D1.1.1-SON2018 draft validation report two weeks before publishing	28-02-19	2
4	D4.1.1-SON2018	KNMI	Report	EQA report regional services SON 2018	28-02-19	2
0	D0.2.1-2019Q1	KNMI	Report	Minutes of internal progress meeting with CAMS-84 partners	31-03-19	2
5	D5.1.1-2018	KNMI	Report	EQA report for the global reanalysis, year 2018 (2003-2018) , CHEM+AER	31-03-19	2
5	D5.1.2-2010	KNMI	Report	EQA report for the global reanalysis, year 2003-2010 , GHG	31-03-19	2
0	D0.1.1-2019Q1	KNMI	Report	Quarterly Report Q1 2019	20-04-19	2
4	M4.1.2-DJF2019	KNMI	Milestone	Availability of DJF 2019 summary for the ensemble, five weeks before publishing the full report, for inclusion in the CAMS-50 reports	26-04-19	2
2	D2.1.2-2019Q1	KNMI and partners	Website, graphics	Up-to-date websites with EQA graphics, incorporating the developments from WP2 and WP6 - Q1 2019	30-04-19	2

To conclude:

CAMS-84 has submitted most deliverables and milestones for Q1-2019. The reanalysis report GRG+AER 2003-2018 is late (with permission by ECMWF). Reporting due in the first weeks of April was delivered. Jacques is back at work and we are catching up with management and WP2.

Validation reports, Q1-2019:

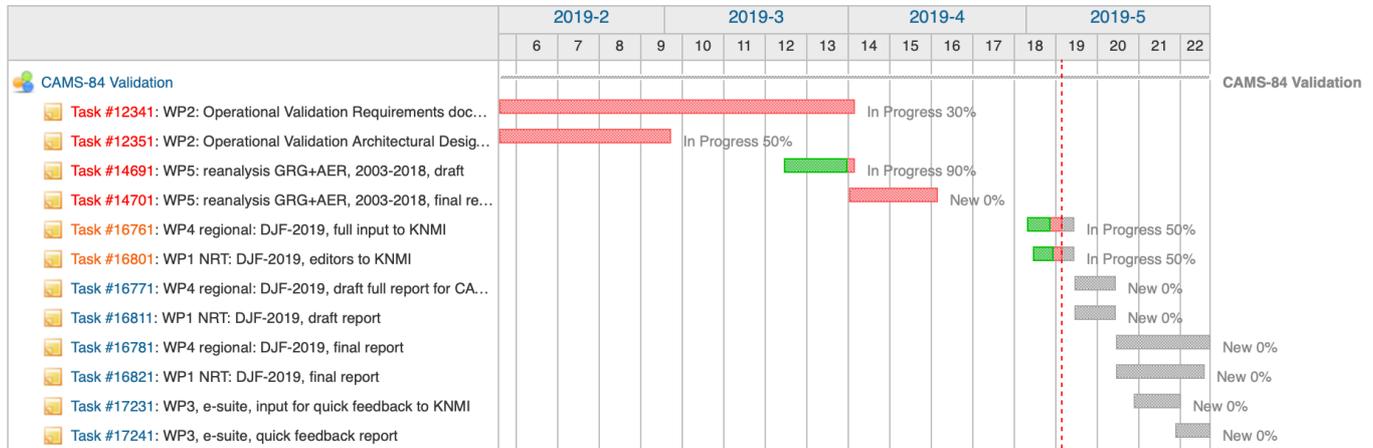
The following deliverables were completed:

- SON-2018 report for the global CAMS forecasts (WP1)
- SON-2018 report for CAMS-regional

In progress:

- Reanalysis GRG+AER, 2003-2018 (draft nearly complete)
- Reanalysis GHG, 2006-2010 (final version submitted, waiting for final approval ECMWF)

Upcoming activities:



The project is on track, but WP-2 is somewhat delayed and the reanalysis report 2003-2018 will be delivered a month later.

Next on the list:

- Signing of the last few subcontracts CAMS-84 Phase 2.
- Complete the WP1 DJF report for CAMS-global
- Complete the WP4 DJF report for CAMS-regional
- Evaluate the e-suite and pre-e-suite runs, WP3

Status of the WP1 report

Note that the preparations are on schedule, and not yet all inputs have to be available today.

- Annette: Some contributions on time, two still missing, hopefully summary at end of the week.
- Michael: The DJF 2019 report for the aerosol is on redmine, with contributions from Anna, Sara and Harald. Looks good. No new big messages this time it seems to me.
- Yves: Has already posted the stratospheric contribution.
- Michel: The report has been compiled with ICOS, TCCON, NDACC contributions. I have to finalize the executive summary.

To conclude: there are no delays in the preparation of the report so far.

WP2 – websites and verification server

- Task 1 (maintain verification websites with up-to-date content):
 - Most but not all websites have up-to-date content. John Kapsomenakis hopes his website will be up-to-date within a week, but also many ESRL data are late.
 - Update where necessary, covering till at least period D2018-JF 2019.
 - Templates for the new CAMS website are on RedMine. KNMI will provide a schedule for implementation, due at next PM.

- Task 2 (development tasks by S&T with support from other partners):
 - Demo server hosted by S&T still operational
 - Operational Validation Server hosted by BIRA: S&T/Sander is currently configuring this server. BIRA/Bavo will provide all NDACC data in HARP format needed for the first release of the server, end of June 2019.
 - Hostname server: <http://global-evaluation.atmosphere.copernicus.eu/>
 - Deliverables (due end of May):
 - Technical Specification Document: various partners already contributed, but if not done yet (CEA-LSCE, DWD), please provide input asap. Release end of May. Main goal: establish minimum baseline for comparisons and how to present these.
 - Requirements document: still to be written.

- Task 3 (Run the Operational Validation Server):
 - This task has not started yet as the Operational Validation Server is currently being developed.

- Task 4 (Provide validation software to ECMWF):
 - As this is related to the release of the Operational Validation Server, delivery has not taken place yet.

Remark Michael: Our CAMS 84 evaluation website was indeed down, since we moved all our servers recently to gain stability and performance for the AEROCOM web interfaces. However, now the <https://aerocom.met.no/cams-aerocom-evaluation/> is working again and is up to date.

Remark Michael: We could show maybe next time (?) the new AeroCom evaluation web interface, which also contains CAMS model results. Augustin knows more about it. Its probably a bit too packed tomorrow to show it properly. Augustin will share the link.

Milestone D2.1.2-2019Q1 (about the partner websites) has been sent yesterday to ECMWF.

Question Sara: when should the partners start to send the data to the validation server? Jacques: the document has a table with the release dates for the different datasets. The sooner partners start to develop the upload, the better. Sander: first we have to agree on file names and content. We need a harmonized approach!

WP 3 - evaluation of new experiments

KNMI and ECMWF had a meeting on 21 Feb 2019 to discuss the transition from 60L to 137L, and the consequences for access to CAMS archives. Present were Richard Engelen, Antje Inness, Johannes Flemming, Henk Eskes, John Douros.

- Specific question: What are the implications for CAMS-84 of the move from 60L to 137L?
- Generic question: How can CAMS-84 optimise the access to CAMS-global fields

KNMI has send a questionnaire to it's CAMS-84 partners on this point before the meeting.

Conclusions of the meeting are available on request.

Antje informed us about the runs to be tested. There is a separate run for 2017 (h4x1 and h4xd), and an e-suite configuration in parallel (no information yet). Info is on the wiki on redmine.

Status of "h30x"? For Antje it is not so important to look at this experiment... Main ones are h4x1 and h4xd.

The proper e-suite has been started. The email of Antje of this morning will be shared with the partners.

Yasmine indicated problems with the download from MARS, needs 1 day for 1 day. Antje: MARS issue related to the ERA-5 download. Please email the ECMWF helpdesk to report slow MARS access. (CAMS data on same MARS server as ERA5) (NRT data is different because this can be picked up on the day it is produced).

Implementation date is **9 July**, and a report is needed before that. Henk will set a schedule for the report.

John Douros is providing support for ozone and CO comparisons at sites (in-situ, profiles) by extracting e-suite profiles (h4x1 and h4xd) at a given set of locations for some of the partners. Status: These are now available at KNMI and John will send an email informing the partners involved.

On RedMine there is a schedule for first quick-look feedback for these runs. Deadline for input to KNMI: 26 May.

Remark Michael: For the e-suite, Anna is currently running the evaluation and results should be on the AeroCom website. First results look reasonable for aerosols.

Status of the WP4 report (DJF-2019)

John Douros: DJF-2019 report

- The summary for CAMS-50 was sent on 26 April, according to schedule. We received feedback from Antje and Augustin Collette. New version will be sent this week.
- Preparations for the full report are on schedule.
- Note Michael: Augustin has an interesting update for WP4, using an updated EARLINET climatology (see slides).

Status of the WP5 reanalysis validation reports

The following reanalysis reports were prepared:

- GRG-AER: 2003-2018
- GHG: 2003-2010

The GHG 2003-2010 report:

Version 0.2 became available 29 March, a bit later than originally planned.

This version was reviewed by Antje and Anna. Anna was pleased with the report and “impressed by the images”.

A final version was prepared by Michel on 2 May, and was sent to ECMWF and TempoBox on 7 May. The dataset 2003-2010 will now be released by ECMWF together with the validation report (Antje: not clear when because the ADS is the highest priority; maybe this will be put directly on ADS; Antje will inform us).

The GRG-AER 2003-2018 report:

It was discussed with ECMWF to delay the delivery of the report by one month. Main reason was the late availability of the control run, and problems of partners to download the data related to slow access to MARS. A beta-draft version was prepared by Henk, but Henk has contacted about half of the partners with additional requests. Hopefully the draft report can be submitted to ECMWF this week.

Note Michael: The reanalysis was also extended to 2018. We had to switch to Aeronet v3 11.5 for the entire period to make it consistent and available until end of 2018. Which took a little time, but I guess this is well taken into account.

Status of the WP6 scoring document

Michael: This is on my to-do list.

Status of the reanalysis validation paper

Annette prepared several slides to discuss the paper and the way forward (see presentation pdf). ECMWF has sent feedback on the draft paper. Annette will send an email to partners for suggestions on the scope of the paper.

Note Michael: The reanalysis paper by Annette and “very brief aerosol evaluation”. That is difficult to solve. Aerosol is a multi-parameter component and more difficult to evaluate than “ozone” concentrations. I am happy that ECMWF plans to participate in the 2019 AeroCom experiments. That will probably more fruitful than a slight aerosol expansion of Annettes paper. Open for suggestions.

Presentations by all partners

On RedMine the slides presented at the meeting are available (merged to 1 pdf). There were presentations by the persons listed below. Focus on WP1/WP4:

- New developments in analysis approach, measurements used, other new aspects
- Major (unexpected) results for the DJF 2019 reports,
- New developments
- Other results, e.g. case studies

There were presentations from:

Eleni (AUTH): Global-regional comparisons, WP4.

Annette (MPG): Describing the status of the reanalysis paper.

Kaj (AU): Arctic.

Anne (IUP): NO₂, HCHO, satellite and MAX-DOAS; NRT, WP4.

Yasmine (CNRS-LA): IAGOS.

John & Christos (AA): ESRL, EMEP, Airbase; NRT, WP5, Mediterranean.

Yves (BIRA): Stratosphere;

Bavo (BIRA): NDACC

Michel (LSCE): ICOS CO₂, methane.

Augustin (MET-NO): Aerosols; reanalysis, NRT, e-suite, WP4.

Sara (BSC): Dust; NRT, Mediterranean.

Harald (DWD): Ceilometer.

Natalia (MPG): MOPITT/IASI CO, IASI O₃, ATOM aircraft

For the detailed results we refer to the slides.

AOB

No AOB