

Fiducial Reference Measurements for Ground-Based DOAS Air-Quality Observations



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Deliverable D14: Intercomparison Campaign Data Protocol

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Contributing authors:

F. Hendrick and M. Van Roozendael (BIRA-IASB)

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1 Introduction

This document gathers the three data protocols which have been prepared for the CINDI-2 campaign: a general data protocol for the access and exchange of all campaign data including the ancillary data, a semi-blind intercomparison data protocol for the access and exchange of the measurement data collected during the semi-blind exercise, and the EVDC data protocol for the submission of the CINDI-2 data to the ESA Validation Data Center.

2 General Data Protocol

Second Cabauw Intercomparison of Nitrogen Dioxide measuring Instruments



Cabauw, The Netherlands
25 August – 7 October 2016

DATA PROTOCOL

The aims of this protocol are: a) to encourage rapid dissemination of the data and scientific results from the CINDI-2 campaign; b) to uphold the rights of the individual scientists; and c) to have all involved researchers/groups treated equitably. The rules and guidelines with respect to the use of CINDI-2 data are the following:

1. Each PI of participating instrument(s) and/or ancillary data products listed in the Campaign Planning Document (see last version of the document at <http://www.tropomi.eu/science/cindi-2>) should make his/her data available to the whole CINDI-2 consortium, either through the campaign ftp server, or by giving free access to his/her own database. The CINDI-2 consortium is defined as being all scientists/groups participating to the campaign.
2. The CINDI-2 ftp data server will be hosted by KNMI, which will take the responsibility of the server management.
3. All campaign data are and remain the exclusive property of the respective group.
4. All scientists involved in CINDI-2 are to have equal and complete access to all campaign data, including ancillary data products.
5. Data should not be distributed outside the CINDI-2 consortium without prior permission of the corresponding PI(s). This statement is valid during and after the campaign.
6. In order to foster discussions on scientific results during the campaign, participants should make their data available as soon as possible after acquisition, preferably on a daily-basis.
7. Each participating group is invited to attend the workshops and briefings which will be regularly organized during the campaign. During the intensive semi-blind intercomparison part (12-25 September), these meetings will be organized each day at 1pm. Participation is mandatory for the groups involved in the semi-blind intercomparison (see dedicated data protocol).
8. The persons willing to use measurement data from others in scientific papers or presentations should offer the data owner(s) participation and co-authorship. If the data

owner(s) refrain(s) from co-authorship, a second option is to mention the data owner(s) in the acknowledgements.

9. The ESA Validation Data Center (EVDC) will provide the ECMWF meteorological fields (analysis and forecast) for the campaign area and period. Participants to the campaign are asked to not distribute these data outside the CINDI-2 consortium, neither to make commercial use of them.

The undersigned agrees to the conditions of this data protocol.

Signature :

Date :

Name :

Position (PI, Post-doc, student...) :

Address :

.....

.....

E-mail :

Please return to:

BIRA-IASB

3, Avenue Circulaire

B-1180 Brussels

Belgium

Attn: Dr François Hendrick francois.hendrick@aeronomie.be

3 Semi-blind Intercomparison Data Protocols

Second Cabauw Intercomparison of Nitrogen Dioxide measuring Instruments



**Cabauw, The Netherlands
25 August – 7 October 2016**

SEMI-BLIND INTERCOMPARISON DATA PROTOCOL

The CINDI-2 semi-blind intercomparison exercise will be held from 12 to 25 September 2016, with a possible 1-one week extension (26 September-3 October 2016). The aims of this data protocol are: a) to encourage rapid dissemination of the measurement data collected during this exercise; b) to uphold the rights of the participating scientists; and c) to have all involved researchers/groups treated equitably. The rules and guidelines with respect to the production and use of measurement data are the following:

1. For their analyses, each group will apply the DOAS settings defined in the Semi-blind Intercomparison Protocol which is available on the CINDI-2 website (<http://www.tropomi.eu/science/cindi-2>). The measurement files will be formatted according to the prescribed ascii text format.
2. Each group engage to follow the recommendations formulated in the Semi-blind Intercomparison Protocol, in particular to adopt the measurement sequences and to perform the required calibrations to the best of their possibilities.
3. Each group engage to submit their daily data files to the CINDI-2 ftp server by 10am local time at the latest. Data will be collected by the Campaign Referee and semi-blind comparison results will be presented at the daily briefings which will start at 1pm local time. The ftp server will be hosted by KNMI at an address to be communicated ahead of the campaign. KNMI will take the responsibility of the server management.
4. Each participating group engage to have at least one representative attending the daily briefings. The possibility to attend via a teleconferencing system (Skype or Webex) will be offered. Daily briefings will address the discussion of fresh semi-blind comparison results. Upon relevance they will also cover relevant science or logistical topics in relation with the overall campaign organisation.
5. After completion of the formal two weeks intercomparison exercise, all scientists involved in CINDI-2 will have equal and complete access to all semi-blind intercomparison measurement data.
6. Data submitted to the CINDI-2 ftp server are and remain the exclusive property of the respective group.

7. Data will not be distributed outside the CINDI-2 consortium without prior permission of the corresponding instrument PI(s). The CINDI-2 consortium is defined as being all scientists/groups participating to the campaign.
8. Persons interested in using measurement data from others in scientific papers or presentations should offer the data owner(s) participation and co-authorship. If the data owner(s) refrain(s) from co-authorship, a second option is to mention the data owner(s) in the acknowledgements.
9. In agreement with the ESA CINDI-2 contract supporting the campaign, each group funded by ESA for its participation to the semi-blind intercomparison engage submitting its measurement data to the ESA Validation Data Center (EVDC) hosted at NILU within 3 months after the end of the semi-blind intercomparison exercise, i.e. by 31 December 2016 at the latest. They should also sign the EVDC/NILU data Protocol. The other participants are encouraged to submit their data according to the same protocol.
10. In agreement with the ESA FRM₄DOAS contract supporting the preparation of the campaign and the development of a prototype centralised MAXDOAS processing system, the campaign data submitted to EVDC will be used for testing and validating the profiling algorithms implemented in the FRM₄DOAS processor. All participating CINDI-2 data providers will be associated to this activity.
11. The ownership of data submitted to EVDC remains with the instrument PI.
12. EVDC will provide ECMWF meteorological fields (analysis and forecast) for the campaign area and period. Participants to the campaign are asked to not distribute these data outside the CINDI-2 consortium, neither to make commercial use of them.

The undersigned agrees to the conditions of this data protocol.

Signature :

Date :

Name :

Position (PI, Post-doc, student...) :

Address :

.....

.....

E-mail :

Please return to:
 BIRA-IASB
 3, Avenue Circulaire
 B-1180 Brussels
 Belgium
 Attn: Dr François Hendrick francois.hendrick@aeronomie.be

4 EVDC Data Protocol

Protocol for exchange of data for the ESA Validation Data Centre – EVDC for the Sentinel-5P mission

The aims of this protocol are to encourage rapid dissemination of results for scientists involved in ESA funded measurement campaigns and to respect the rights of the individual scientists:

- i) Preliminary data should be made available to the EVDC data centre at NILU as soon as possible.
- ii) Old data should be replaced as soon as possible by corrected data in the EVDC database. The descriptive information in the data file shall also reflect such an update.
- iii) All EVDC data are to be submitted in the HDF version 4, 5 or nc formats. All files should be in conformity with the GEOMS metadata guidelines.
- iv) The ownership of data remains with the data originator.
- v) Each Principal Investigator has access to the database, but any publication resulting from its use requires prior written permission from the owner.
- vi) Access to the EVDC data hosted at NILU is granted only after having signed this protocol. Re-distribution of data is nominally not allowed and requires written permission from ESA.

The undersigned agrees to the conditions of this data protocol (PLEASE PRINT CLEARLY)

Name :

Position (PI, Student, etc) :

Project or AO (Name, Number) :

E-mail :

Address :

:

:

Date :

Signature :

Please return to:
NILU
P.O. Box 100
N-2027 Kjeller
NORWAY
Attention: NADIR team

Tel: (+47) 63 89 80 00
E-mail: nadirteam@nilu.no