

**NOTES FROM THE FOURTH FORMAL COORDINATED ENERGY AND WATER-CYCLE
OBSERVATIONS PROJECT (CEOP) TELECONFERENCE ON EUROPE-NEESPI-AFRICA REGIONAL
HYDROCLIMATE PROJECTS AND REFERENCE SITE ISSUES HELD ON
22 JANUARY 2010
Final DRAFT, 25 May 2010**

1. INTRODUCTION

The 4th Europe-NEESPI-Africa RHP and Reference Sites Teleconference related to the Coordinated Energy and Water-Cycle Observations Project (CEOP) took place on Friday 22 January at 13:00 UTC.

The issues that were discussed on the subject conference call included:

- (i) CEOP at the GEWEX Science Steering Group Mtg;
- (ii) Scheduling for Future CEOP Europe-NEESPI-Africa Reference Site Conference Calls;
- (iii) Overview of all site data at CEOP Reference Site Data Archive;
- (iv) RHP/Reference Site data providers/managers reports;

Participants

The participants were:

Toshio Koike	Tokyo, Japan, CEOP Co-Chair & representing JMA
Steve Williams	Boulder, Colorado, USA; Representing CEOP Data Management
Fred Bosveld	The Netherlands, BALTEX Cabauw site representative
Frank Beyrich	Lindenberg, Germany, BALTEX Lindenberg site representative
Philippe Drobinski	France, HyMeX Representative
Pasha Groisman	Representing NEESPI RHP
Esko Kyrö	Finland; FMI representative
Timo Ryyppö	Sodankylä, Finland ; Sodankylä site manager
Sam Benedict	San Diego, California, USA; CEOP International Coordination Function
Petra Koudelova	Tokyo, Japan; CEOP International Coordination Function

Drs Hans-Joerg Isemer (Representing BALTEX RHP and CEOP Data Management) and Charles Wrench (UK, Chilbolton site representative) responded to the announcements but were not available for the call. Nevertheless, the BALTEX RHP update was provided by Dr. Frank Beyrich and Dr. Wrench provided a written update on the Chilbolton site in advance. Dr. Thierry Lebel (Representing AMMA RHP) was not available for the call.

2. NEXT CONFERENCE CALL

Per a new strategy for the organization of CEOP RHP and Reference Site calls that was developed in November 2009, these calls will be held once in every 4 months. Accordingly, the next, **5th CEOP Europe-NEESPI-Africa RHP and Reference Sites Teleconference** is proposed to take place on **Tuesday 11 May 2010, at 13:00 UTC**. Koudelova/Benedict have the **action (A1)** to inform the group of the details of the next call nearer to the time of the call and to coordinate the origination of the call (**action A1a**).

3. CEOP AND CEOP DATA GROUP GENERAL ISSUES

3.1 Opening

(3.1a) Benedict reiterated the main items of interest to the participants that came out of the CEOP Third Annual meeting, held from 19-21 August 2009 at Melbourne, Australia. He noted that efforts had been made to undertake the main action items from the meeting that included:

- (i) Action was assigned to the Data Management Working Group to submit a proposal with an implementation scheme and schedule for defining and organizing a CEOP 10 year dataset.
- (ii) The CEOP Co-Chairs agreed to take action to use existing material contained in the CEOP submittal to the WCRP/GEWEX Legacy document to develop a draft of the initial CEOP Synthesis Document by the end of October 2009, with submission set for early 2010.

(iii) Activation of a number of small Task Teams including a Hydrologic Applications Project (HAP) Team, Land Modeling Team and a Global to Regional Scale Analysis Team.

(iv) It was agreed that CEOP would embrace some of the main tenets of Adaptation to Climate Change (ACC) and would look into ways of contributing to those in a direct manner. Some ideas related to this consensus were:

- (i) Identifying Regional to local Impacts of ACC on the hydroclimate in RHP basins,
- (ii) Quantifying uncertainty by using CEOP data infrastructure,
- (iii) Testing models and ACC scenarios by apply WEBS analysis techniques and
- (iv) Exploiting CEOP/RHP connections to local/basin scale model Centers to assist in ACC work

In particular, initial conference calls have been held that focused on CEOP Hydrologic Applications Project (HAP) and other CEOP fast track activities.

(3.1b) **Koike** informed the group that CEOP Co-Chairs and International Coordinator would represent CEOP at the upcoming GEWEX SSG meeting in India and pointed out that the CEOP integrated dataset including the in-situ data was one of the key CEOP deliverables and thus reference site timely submissions are requested and highly appreciated.

(3.1c) With regards to the “Fast Track” activities as mentioned above, a new strategy for organizing the CEOP Conference Calls was proposed in November 2009. Per this strategy, the CEOP RHP and Reference Sites calls will be held once every 4 months for each of the three regions (Europe-Africa, Americas, and Asia-Pacific). If needed, an ad-hoc focused call can be arranged in between the regular calls.

(3.1d) **Williams** advised the group that new mailing lists were created using the NCAR Mailman service that with intention to facilitate the CEOP groups communication and material distribution. The address for the Europe- Africa RHP and Reference Site group is: ceop-rs-europeafrica@eol.ucar.edu and include all the site representatives of European, NEESPI, and African sites. To add/remove a person to/from the list, request should be made to Steve Williams or Petra Koudelova and Sam Benedict.

4. RHP and Reference Site Reports

4.1 Summary status of the reference site archive at NCAR/EOL

(4.1a) **Williams** introduced the current status of the CEOP reference site data archive for the Europe-NEESPI-Africa region, pointing out new submissions by the Sodankylae site.

(4.1b) **Williams** further reiterated that it would be desirable to update the metadata information of individual sites and asked the **site representatives** to review the information that is available through the Data Management website at: <http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/> and update it if necessary (**action A2**).

4.2 HyMeX RHP report by Philippe Drobinski

(4.2a) **Drobinski** reported that their priority now was to finalize the HyMeX data format for CEOP from the 3 nominated sites in Israel and Italy. For that purpose, he suggested that a separate call be organized that would include the HyMeX site representatives and CEOP data management leaders and would focus on practical issues of data preparation for the CEOP data archive. Such call took place on 2 March 2010 and the Minutes of the discussion is included in the Attachment 1 below.

(4.2b) **Drobinski** further voiced that the 4th HyMeX Workshop would take place in Bologna, Italy from 8 through 10 June 2010, at the CRN facilities and that it would be highly desirable if CEOP representatives attend this workshop in order to learn about the full breadth of the HyMeX activities and identify further areas for closer collaboration between CEOP and HyMeX. In particular, HyMeX is very active in the WCRP CORDEX program and has a strong modeling focus. It was agreed that CEOP would participate in this important event.

4.3 BALTEX: Cabauw by Fred Bosveld

Bosveld reported that the 2007 – 2008 datasets were available at their database (<http://www.cesar-database.nl/Welcome.do>) and would be submitted to the CEOP archive in the near future. He advised the

group of this web-based database system created by The Cesar (Cabauw experimental site for atmospheric research) Consortium where the data is in the NetCDF format following the CF convention. In addition, **Bosveld** mentioned that they were cooperating with the Wageningen University and Research Center to improve the soil moisture observation method.

4.4 BALTEX: Lindenberg by Frank Beyrich

Beyrich reported that the Lindenberg datasets for 2008 were being finalized and would be submitted by March 2010. The raw radiosonde data for 2008 have been submitted to the NCAR archive and should be made available through the GEOP Data Gateway soon. The Lindenberg site has been experiencing “real” winter conditions with continuing freezing temperatures around –10 degree Celsius and continuous snowcover up to 20 cm that are rather rare to this area.

4.5 BALTEX: Sodankylä by Esko Kyro and Timo Ryyppo

Kyro and Ryyppo reported that the surface meteorological datasets and radiosonde datasets for 2004 – 2008 had been completed and submitted to the NCAR archive. The soil and flux datasets are being processed and would be submitted in the near future. This important contribution was acknowledged and appreciated by the group.

4.6 NEESPI by Pasha Groisman

Groisman reported that a great effort was being made to collect various permafrost data in the Northern Russia of the NEESPI region and that the data was being submitted to the Cooperative Arctic Data and Information Service (CADIS) of NCAR that supports the Arctic Observing Network (AON). The contact point for this data is Dr. Vladimir Romanovsky. In addition, NEESPI has established closer collaboration with the local Hydrometeorological Center of Russia that may result in provision of further data including tower observations. This activity is led by the German NEESPI group.

4.7 Others: Chilbolton by Charles Wrench

Wrench reported in writing that progress was being made with enhancements to their flux measurement set up at Chilbolton and that this work should be completed within the next 4-6 weeks.

4.8 AMMA

Benedict voiced that negotiations with the AMMA community had advanced and GEOP had received a formal letter expressing AMMA's interest in contributing their data to the GEOP database. In addition, the AMMA data is being used for GEOP studies through the AMMA data gateway.

5. CLOSING

Koike acknowledged the participants for attending the call and providing their valuable contributions, comments and suggestions. The call was adjourned at 14:15 UTC.

ATTACHMENT 1 Notes from the special call on the HyMeX data issues on 2 March 2010

(see below)

**Minutes of the GEWEX/CEOP-HyMeX teleconference
March, 2, 2010**

Attending the conference: S. Benedict, M. Borga, G. Delrieu, P. Drobinski, V. Ducrocq, E. Morin, R. Stewart, S. Williams, P. Koudelova

Excused: H.J. Isemer

a) review the CEOP requirements in terms of data type (fluxes, precipitation,...), data format (time series, ASCII or netcdf,...) and transfer (review led by Steve)

S. Williams: surface, model and satellite data in same format for comparison. In 2003, data formatting report (column ascii, http://www.eol.ucar.edu/projects/ceop/dm/documents/refdata_report/).

1. 1st step: CEOP Reference Site Data Set Metadata web page
2. 2nd step: produce the data in CEOP format for all stations

b) review by the contact points of the available data (time series) they propose to transfer to CEOP data center, as well as their present format (review led by the contact points). They should also detail the period covered by these data (review by Marco, Guy and Efrat).

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c) discuss the actions, and the associated schedule, to fit the data proposed by the reference sites to the CEOP requirements (all)

G. Delrieu and V. Ducrocq: 2 solutions: data formatting and transfer to CEOP (reference data set) or link to the OHM-CV online data base (associated reference site). G. Delrieu also points out that the OHM-CV manages mainly hydrological data (see Figure 1). V. Ducrocq proposes that Météo-France complements with meteorological data. V. Ducrocq suggests to providing soil moisture measurements on 12 stations (SWATMEX, see Figure 2). There is a need to merge the OHM-CV and Météo-France data. G. Delrieu proposes to put the OHM-CV/Météo-France data in CEOP format and extraction can then be made. The question of data access is tricky and needs further extraction. A sample of formatted data can be provided to CEOP in March.

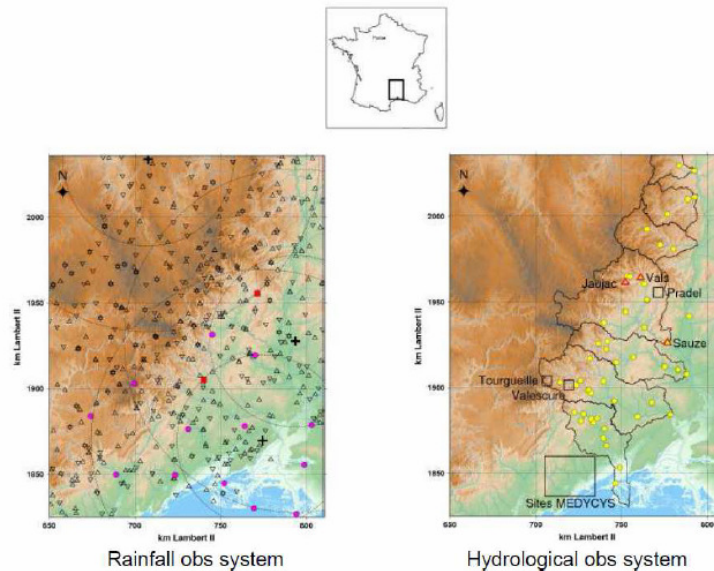


Figure 1

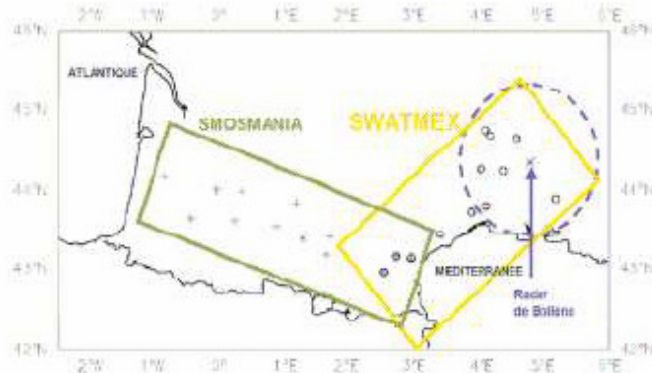


Figure 2

M. Borga: Can pursue the same steps as OHM-CV with a 30-min data available from 2003 (M. Borga should send a map of the station locations), and auxiliary data. There should not be any problem with data format and policy. A sample of formatted data can be provided to CEOP in March.

E. Morin: 3 sites (North, Center in Jerusalem, South area in Negev; see Figure 3) with meteorological data (3 hourly resolution. E. Morin will try to re-negotiate 30-min outputs), rain gauges (some at 10-min resolution, others at daily resolution) and radiation measurements (Jerusalem only). The data that do not meet the CEOP time resolution requirement, they can be refereed as an auxiliary data set. For the moment, no web page for metadata information. E. Morin will try to provide information accessible through web page. S. Williams proposes to help in building the web page. A sample of formatted data can be provided to CEOP in March.

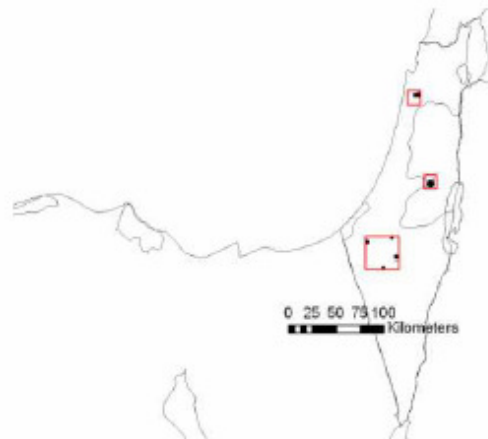


Figure 3

d) review by Marco and Guy of the “golden case” data sets of heavy precipitation combining radars, surface stations,... followed by a discussion on the possibility to make these datasets available to the CEOP community

S. Benedict and R. Stewart: strong interest for CEOP activities (especially on extremes).