

**NOTES FROM THE FIFTH FORMAL COORDINATED ENERGY AND WATER-CYCLE
OBSERVATIONS PROJECT (CEOP) TELECONFERENCE ON AMERICAS REGIONAL
HYDROCLIMATE PROJECTS AND REFERENCE SITE ISSUES HELD ON
18 FEBRUARY 2010
Final DRAFT, 9 July 2010**

1. INTRODUCTION

The 5th Americas RHP and Reference Sites Teleconference related to the Coordinated Energy and Water-Cycle Observations Project (CEOP) took place on Thursday 18 February 2010 at 20:00 UTC.

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

1. **Special Announcements:** Outcome of the 22nd GEWEX SSG Mtg (25-29 January 2010) New Delhi, India
2. **On-going Requests to Reference Site managers:** (a) Reference site metadata (documentation) updates; (b) Ancillary dataset availability questionnaire.
3. **Status: Reference Site data archive:**
(http://data.eol.ucar.edu/master_list/?project=CEOP/EOP-3/4)
4. **RHP/Reference Site data providers/managers reports**

Participants

Toshio Koike	(CEOP Co-Chair)
Dennis Lettenmaier	(CEOP Co-Chair)
Hugo Berbery	(LPB Representative)
Luiz Horta	(LBA reference site data manger)
Alessandro Araujo	(LBA representative)
Scot Loehrer	(CEOP Reference Site Data Archive manager)
Sam Benedict	(CEOP International Coordination Function)
Petra Koudelova	(CEOP International Coordination Function)

2. NEXT CONFERENCE CALL

The next, **6th CEOP Americas RHP and Reference Sites Teleconference** is proposed to take place on **Tuesday 15 June 2010 at 20:00 UTC**. **Benedict and Koudelova** 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**). In this context, a calendar of the dates and times of all the CEOP conference calls for 2010-2011 was distributed to the participants for their future reference.

3. CEOP AND CEOP DATA GROUP GENERAL ISSUES

(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. However, this action will involve many members of the CEOP community before it is submitted for publication. Subsequently long and short draft versions of the document were developed and remain under revision including incorporation of more background on the proposed CEOP 10 Year Dataset (see item 3.2a, below). This proposed expansion of the article has delayed its development schedule moving the proposed publication date nearer to the end of 2010. Benedict and Koudelova have the action to move this project forward and keep the group informed of its progress.

(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) 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.

(3.1c) **Loehrer** 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 Americas RHP and Reference Site group is: ceop-rs-americas@eol.ucar.edu and include all the site representatives of American sites and RHPs. To add/remove a person to/from the list, request should be made to Steve Williams or Petra Koudelova and Sam Benedict.

3.2 WCRP and GEWEX related issues

(3.2a) **Koike** reported on the **GEWEX SSG meeting in New Delhi, India in January**. He voiced that the CEOP data component was very well acknowledged at the SSG meeting and in particular the high quality and long-term reference site data was recognized as crucial for the science and thus continuation of this CEOP activity was considered as highly desirable. He reiterated that at the 3rd Annual CEOP Meeting in Melbourne in August 2009, CEOP took commitment of developing **10-year dataset** that is especially needed for climate projection studies focusing on climate model uncertainties. The CEOP 10-year dataset should include in-situ as well as satellite data and added will be data from other projects like the FLUXNET and IGBP iLEAPS data. The goal for this year is to prepare the 10-year dataset for 10 sites selected among CEOP and FLUXNET sites. In this respect, **Koike** advised the group that a request had been sent to the FLUXNET community to nominate suitable sites.

It was emphasized that this task will require special effort on unifying the data format, time interval, variable names, etc. and also to assure metadata interoperability. As the first step, the data group has **action A2** to nominate the suitable sites from the CEOP as well as FLUXNET network.

In this context the representatives of the sites that had been in operation since CEOP Phase 1 were asked for kind cooperation on this task. These include **Meyers** (CPPA-Bondville), **Williams** (SGP, ARM sites), **Thompson** (Canadian sites), and **Horta/Araujo** (LBA sites).

(3.2b) **Lettenmaier** emphasized that in order to demonstrate benefits of the CEOP special data archives it would be desirable to undergo an external review process that would clearly show the value that is added to the collected data including reference site and satellite observations through the CEOP data format unification and data integration efforts. This step is necessary for assuring an adequate incentive for funding agencies to continue to support the CEOP data activities. It was agreed that such external review was very important and reactivation of an international science and advisory group should be considered.

(3.2c) The group was advised that the **4th CEOP Annual Meeting** would be held as part of the 2nd Pan-GEWEX meeting that will take place in **Seattle, USA, 23 – 27 August 2010**. The CEOP sessions will include two full-day CEOP sessions on Tuesday 24 and Wednesday 25 August and one evening session on Thursday 26 August, while morning and afternoon of Thursday will be dedicated to Panel interaction (including CEOP, GRP, and GMPP). Further information of the meeting including logistics details can be found at the meeting website at: <http://www.gewex.org/2010pangewex/home.html>. The participants on the call were encouraged to consider their participation in this event.

3.3 Overall status of the CEOP reference site data archive and related issues

(3.3a) **Loehrer** provided updated overall status of the Americas reference sites that is copied below in Attachment 1 and can also be accessed on the Internet at: http://data.eol.ucar.edu/master_list/?project=CEOP/EOP-3/4.

(3.3b) **Loehrer** reiterated the ongoing **action A3** on updating the site documentation/metadata that all of the **Reference site Managers and RHP Representatives** were asked to undertake. Namely, they should go on line to review all the documentation for their Reference sites that is available through the following web site: <http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/> and to verify that it is complete and accurate and report necessary updates to Williams.

(3.3c) **Loehrer** also reiterated that the discussion in the CEOP model community and the definition of the scientific foci for the new CEOP period has resulted in the interest in / request for **additional data from the CEOP in-situ reference sites**. This mainly covers three groups of parameters: **clouds, aerosol, and groundwater**. It would be desirable if the Reference Site Managers complete the survey and provide this information to the NCAR/EOL database. The on-line survey is located at: <https://survey.ucar.edu/s?s=3003> and can be found through the Data Management site at: <http://www.eol.ucar.edu/projects/ceop/dm/questionnaires/>.

4. RHP and Reference Site Reports

4.1 LPB by Hugo Berbery

(4.1a) **Berbery** reported that the LPB reference site Cruz Alta was working well and data were being collected. He reiterated that Debora Roberti, CPTEC, was nominated as the Cruz Alta site representative for CEOP and would participate in these conference calls in future. Subsequently, Debora Roberti has been included on the Americas RS and RHP mailing list.

Berbery also mentioned that CPTEC (Brazil) was strongly involved in the LPB activities, in particular in the observational component.

(4.1b) An LPB meeting was scheduled in April 2010 and other reference sites in the LPB region were to be discussed that may potentially be contributing to CEOP.

4.2 LBA by Horta, Araujo

(4.2a) **Horta** reported that CPTEC had hired a new person on a full-time position for the LBA reference site data processing that would start in March 2010. In addition, a new server has been installed to enhance the capacities for reference site data procedures. The new person will address the comments from NCAR/EOL on the latest submissions as listed by Loehrer in the overall status (Attachment 1) as soon as possible and will also send further datasets (flux and soil data).

(4.2b) **Araujo** reported that the Rondonia and Manaus site data were being checked and would be dispatched to the CPTEC office in Cachoeira Paulista soon.

4.3 CPPA sites by Loehrer

Neither Tilden Meyers, nor Jin Huang were available for the call but **Loehrer** reported that there had been a good progress in the CPPA associated sites data submissions, in particular sonde data.

ATTACHMENT 1: Overall status of the Americas sites

CPPA ARM SGP TWR data available through 2009.
CPPA ARM SGP SONDE data available through 2009.
CPPA Bondville SONDE data available through 2009.
CPPA Ft. Peck SONDE data available through 2009.
CPPA Oak Ridge SONDE data available through 2009.
Other ARM NSA SONDE data available through 2009.
Other ARM TWP SONDE data available through 2009.

The items that are currently in the midst of conversion or checking:

- LBA Manaus SFC - completed checking of the 2005 data and sent issues to Horta.
- CPPA ARM SGP FLX, SFC and STM data through 2009 are in the process of being converted into the CEOP formats.
- CPPA Bondville, Ft. Peck, Oak Ridge - Meyers is planning to submit data from these sites by the end of February. Time period unclear.
- Other NSA SFC and TWR - are in the process of being converted into the CEOP formats.
- Other TWP SFC is in the process of being converted into the CEOP format.