NOTES FROM THE SIXTH FORMAL COORDINATED ENERGY AND WATER-CYCLE OBSERVATIONS PROJECT (CEOP) TELECONFERENCE ON AMERICAS REGIONAL HYDROCLIMATE PROJECTS AND REFERENCE SITE ISSUES HELD ON 15 JUNE 2010
Final DRAFT, 29 July 2010

1. INTRODUCTION

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

1. **Special Announcements:**
   - 10 Year Dataset Project – a collaborative initiative among CEOP, WOAP (CMIP5), FLUXNET, LandFlux, GSWP/GLASS,….
   - 2nd Pan-GEWEX Meeting in Seattle, USA, 23 – 27 August 2010

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

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Jin Huang	**(CPPA Representative)**
Luiz Horta	**(LBA reference site data manager)**
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2. NEXT CONFERENCE CALL

The next, **7th CEOP Americas RHP and Reference Sites Teleconference** is proposed to take place on **Tuesday 12 October 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 that is also available through the CEOP homepage at: http://monsoon.t.u-tokyo.ac.jp/ceop2/calls.html.

3. CEOP AND CEOP DATA GROUP GENERAL ISSUES

(3.1a) **Benedict** welcomed participants on the call and appreciated the work that the Americas RHP and reference site teams had undertaken in response to the action items from the last call.

(3.1b) **Koike** reiterated that a **10-Year Dataset** project had been initiated in response to the climate modeling community need of **a high quality observation data** of a sufficient length for evaluation of climate models under the CMIP5 project and quantification of model projections uncertainties. This activity was proposed by the WCRP Observation and Assimilation Panel (WOAP) and is compliant with the CEOP commitment taken at the 3rd Annual CEOP Meeting in Melbourne in August 2009 to develop the CEOP 10-year dataset as well as with the **GEWEX post 2013 Imperatives** (http://www.gewex.org/2010pangewex/Draft_Imperatives.pdf). The WOAP suggested activity, coordinated by CEOP (T. Koike) and CMIP5 (Karl Taylor), is envisioned as a collaborative effort of a broader observation and climate modeling communities including GEWEX/CEOP, LandFlux-EVAL, GSWP, AsiaFlux, from the observation side. The targeted dataset will consists of **in-situ as well as satellite observations** from multiple providers including CEOP, FLUXNET, AsiaFlux, iLEAPS.

Consequently, the 10-Year Dataset project was discussed with the LandFlux-EVAL, FLUXNET, AsiaFlux, and GSWP representatives at the occasion of the HESSS2 Meeting in Tokyo in June and it was agreed that a Whitepaper would have been developed and submitted for discussion at the Pan-GEWEX meeting in August.

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), **Barr**/**Thompson** (BERMS sites), and **Horta**/**Araujo** (LBA sites).

(3.1c) It was also reiterated 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.

(3.1d) **Benedict** reiterated that the 2nd Pan-GEWEX meeting would take place in **Seattle, USA, 23 – 27 August 2010** (http://www.gewex.org/2010pangewex/home.html). The Pan-GEWEX meeting will address how the GEWEX panels and their projects and working groups will continue to work over the next 2 years to achieve their short-term goals, and how they will evolve to accomplish post 2013 Imperatives. This process will include determining what enabling infrastructure is necessary and developing a strategy for dealing with the GEWEX and WCRP cross cutting or overarching themes.

According to the updated Pan-GEWEX agenda, each panel (including CEOP, GRP, and GMPP) will have one and a half day (Tuesday 24th and Wednesday 25th morning) of separate sessions dedicated to its own issues. A CEOP evening session on Thursday 26th August has been added on the CEOP request. In addition, a half day for panel interaction is scheduled on Wednesday 25th afternoon. Further information including logistics details can be found at the meeting website.

Consequently, it has been noted that considering the outcomes the individual GEWEX Panels including CEOP are expected to deliver at the Pan-GEWEX meeting, the available time might not be sufficient to also address all the necessary CEOP internal planning issues to the full extent. Accordingly, it has been decided that the Pan-GEWEX meeting CEOP sessions would not fully substitute the 4th CEOP Annual Meeting event and that would be considered to take place early in 2011.

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

(3.2a) **Williams and 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.

(3.2b) **Williams** reiterated the ongoing **action A2** 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.

(3.2c) **Williams** 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 CPPA by Jin Huang, Tilden Meyers, and Steve Williams

(4.1a) **Huang** advised the group that the NOAA's Climate Program Office was in the process of restructuring its grants programs (http://www.climate.noaa.gov/cpo_pa/). The grant activities are now organized within four Programs, and the elements of CPPA are included in two of these, namely the Modeling, Analysis, Predictions, and Projections (MAPP) Program and The Earth System Science (ESS) Program. The CPPA observing activities are being funded through the MAPP Program.

In this context, **Huang** mentioned that the NOAA CPO support currently provided to the CEOP Data Management team at NCAR through the CPPA project would continue till the end of 2010. Since 2011, a new way through the MAPP Program will be sought.

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(4.1c) **Meyers** reported in writing that they were are developing and testing a new gap filling procedure in order to provide the best estimates of fluxes, including water and CO2, since these are used to generated seasonal sums etc. for carbon and water budgets. They are using a combination models that have been tuned to their data and have found this superior to standard regression or statistical methods. The development and testing phase of this new procedure has been completed and implementation will begin soon.

Certain problems have been found with the winter precipitation but correction has been underway and almost completed. The team has also included both MODIS derived NDVI and their own in-situ NDVI that is tuned to get the seasonal trend in the LAI, which is very important for models. For 2010, three more variables will be added in the Bondville site dataset that include: (i) snow depth, (ii) fractional snow coverage, and (iii) in some cases, snow density. These are determined from the live internet PZT (Pan-zoom-tilt) camera installed at the site.

Regarding the data submission to the CEOP Data Archive (CDA) at NCAR, the team plan is to provide a complete final product to all the requesting data repositories including the CDA, FLUXNET, and eventually NCDC at once and with supreme quality. Therefore the team is dedicating special efforts to the data quality control and gap filling procedures. **Meyers** indicated that part of the gapfilled and corrected observation datasets would be submitted to the CDA in July.

(4.1d) **Williams** reported that the SGP sites data were almost complete up to 2009. Nevertheless, he pointed out that there had been substantial changes in terms of individual station locations (number of stations had been shut down and new would be installed in 2011) in order to better fit to higher model resolutions. This needs to be considered when if the SGP site is

nominated for contribution to the 10-YDP. It may require that a subset of stations is selected that have been in operation at the same location since the beginning of the CEOP (or 10-YDP) period.

Williams also voiced that the ARM sites had also completed their data submission up to 2009 and thus were good candidates for the 10-YDP.

4.2 LPB by Hugo Berbery

(4.2a) **Berbery** reiterated that the LPB reference site Cruz Alta was working well and data were being collected. Debora Roberti, CPTEC, the Cruz Alta site representative for CEOP had sent certain datasets to the CDA but several issues with the data were found and reported back to Roberti in April. The NCAR team is still anticipating a reply from her. It was proposed and agreed that another note is sent to her from the **NCAR team** with a copy to **Berbery**, who would assist in communication between Roberti and the NCAR team if necessary (**action A3**). The Cruz Alta site documentation has not been submitted yet and is also requested.

(4.2b) **Berbery** further voiced that he and Dennis Lettenmaier attended the LPB meeting in Argentina in April 2010 visited two additional flux sites in the La Plata basin that have been in operation since 1999 and planned to continue in observations and could possibly provide data to CEOP.

Berbery also advised the group that an idea of a filed campaign in the basin had emerged and been discussed among the US and Argentinean scientists, who were much interested in such activity. Berbery will inform the group of progress on this matter in due course.

(4.2c) **Berbery** also mentioned that the LPB community was very active, the most of the activities being coordinated by the CLARIS LPB Consortium (http://eolo.cima.fcen.uba.ar/~sweb/index.php), which is mainly funded by the European Commission. The consortium involves about 20 Partners who contribute to international Programmes or Projects, some have very strong links with stakeholders or governmental decision-makers. Accordingly, the CLARIS LPB activities are carried out more independently, similarly like in the AMMA RHP. It was noted at the call that while the work was being done on the basin by the CLARIS group, it might be desirable for CEOP to focus on their reporting.

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(4.3a) **Horta** reported that the new person hired by on a full-time position for the LBA reference site data processing had begun the work on the LBA data using a fully operational program and thus further data submissions from LBA might be expected in the near future.

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Araujo reported that the 2006-2007 data from the Manaus and Santarem sites were under preparation and would be submitted to NCAR soon.

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Barr reported that the BERMS sites were working well and further datasets (beyond 2006) would be processed and submitted to CEOP in the near future. He also mentioned that they would be willing to contribute their data to the 10-year dataset.

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Certain problems have been found with the winter precipitation but correction has been underway and almost completed. The team has also included both MODIS derived NDVI and their own in-situ NDVI that is tuned to get the seasonal trend in the LAI, which is very important for models. For 2010, three more variables will be added in the Bondville site dataset that include: (i) snow depth, (ii) fractional snow coverage, and (iii) in some cases, snow density. These are determined from the live internet PZT (Pan-zoom-tilt) camera installed at the site.

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nominated for contribution to the 10-YDP. It may require that a subset of stations is selected that have been in operation at the same location since the beginning of the CEOP (or 10-YDP) period.

Williams also voiced that the ARM sites had also completed their data submission up to 2009 and thus were good candidates for the 10-YDP.

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(4.2b) **Berbery** further voiced that he and Dennis Lettenmaier attended the LPB meeting in Argentina in April 2010 visited two additional flux sites in the La Plata basin that have been in operation since 1999 and planned to continue in observations and could possibly provide data to CEOP.

Berbery also advised the group that an idea of a filed campaign in the basin had emerged and been discussed among the US and Argentinean scientists, who were much interested in such activity. Berbery will inform the group of progress on this matter in due course.

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He also voiced that a prototype system monitoring site sensors and transmitting data in the real time that had been installed at the Manaus site would also be installed at the Santarem site soon, which would expedite the data collection process.

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Barr reported that the BERMS sites were working well and further datasets (beyond 2006) would be processed and submitted to CEOP in the near future. He also mentioned that they would be willing to contribute their data to the 10-year dataset.

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NOTES FROM THE SIXTH FORMAL COORDINATED ENERGY AND WATER-CYCLE OBSERVATIONS PROJECT (CEOP) TELECONFERENCE ON AMERICAS REGIONAL HYDROCLIMATE PROJECTS AND REFERENCE SITE ISSUES HELD ON 15 JUNE 2010
Final DRAFT, 29 July 2010

1. INTRODUCTION

The 6th Americas RHP and Reference Sites Teleconference related to the Coordinated Energy and Water-Cycle Observations Project (CEOP) took place on Tuesday 15 June 2010 at 20:00 UTC.

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

1. **Special Announcements:**
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The next, **7th CEOP Americas RHP and Reference Sites Teleconference** is proposed to take place on **Tuesday 12 October 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 that is also available through the CEOP homepage at: http://monsoon.t.u-tokyo.ac.jp/ceop2/calls.html.

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Barr reported that the BERMS sites were working well and further datasets (beyond 2006) would be processed and submitted to CEOP in the near future. He also mentioned that they would be willing to contribute their data to the 10-year dataset.

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Final DRAFT, 29 July 2010

1. INTRODUCTION

The 6th Americas RHP and Reference Sites Teleconference related to the Coordinated Energy and Water-Cycle Observations Project (CEOP) took place on Tuesday 15 June 2010 at 20:00 UTC.

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

1. **Special Announcements:**
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2. NEXT CONFERENCE CALL

The next, **7th CEOP Americas RHP and Reference Sites Teleconference** is proposed to take place on **Tuesday 12 October 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 that is also available through the CEOP homepage at: http://monsoon.t.u-tokyo.ac.jp/ceop2/calls.html.

3. CEOP AND CEOP DATA GROUP GENERAL ISSUES

(3.1a) **Benedict** welcomed participants on the call and appreciated the work that the Americas RHP and reference site teams had undertaken in response to the action items from the last call.

(3.1b) **Koike** reiterated that a **10-Year Dataset** project had been initiated in response to the climate modeling community need of **a high quality observation data** of a sufficient length for evaluation of climate models under the CMIP5 project and quantification of model projections uncertainties. This activity was proposed by the WCRP Observation and Assimilation Panel (WOAP) and is compliant with the CEOP commitment taken at the 3rd Annual CEOP Meeting in Melbourne in August 2009 to develop the CEOP 10-year dataset as well as with the **GEWEX post 2013 Imperatives** (http://www.gewex.org/2010pangewex/Draft_Imperatives.pdf). The WOAP suggested activity, coordinated by CEOP (T. Koike) and CMIP5 (Karl Taylor), is envisioned as a collaborative effort of a broader observation and climate modeling communities including GEWEX/CEOP, LandFlux-EVAL, GSWP, AsiaFlux, from the observation side. The targeted dataset will consists of **in-situ as well as satellite observations** from multiple providers including CEOP, FLUXNET, AsiaFlux, iLEAPS.

Consequently, the 10-Year Dataset project was discussed with the LandFlux-EVAL, FLUXNET, AsiaFlux, and GSWP representatives at the occasion of the HESSS2 Meeting in Tokyo in June and it was agreed that a Whitepaper would have been developed and submitted for discussion at the Pan-GEWEX meeting in August.

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Final DRAFT, 29 July 2010

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3. CEOP AND CEOP DATA GROUP GENERAL ISSUES

(3.1a) **Benedict** welcomed participants on the call and appreciated the work that the Americas RHP and reference site teams had undertaken in response to the action items from the last call.

(3.1b) **Koike** reiterated that a **10-Year Dataset** project had been initiated in response to the climate modeling community need of **a high quality observation data** of a sufficient length for evaluation of climate models under the CMIP5 project and quantification of model projections uncertainties. This activity was proposed by the WCRP Observation and Assimilation Panel (WOAP) and is compliant with the CEOP commitment taken at the 3rd Annual CEOP Meeting in Melbourne in August 2009 to develop the CEOP 10-year dataset as well as with the **GEWEX post 2013 Imperatives** (http://www.gewex.org/2010pangewex/Draft_Imperatives.pdf). The WOAP suggested activity, coordinated by CEOP (T. Koike) and CMIP5 (Karl Taylor), is envisioned as a collaborative effort of a broader observation and climate modeling communities including GEWEX/CEOP, LandFlux-EVAL, GSWP, AsiaFlux, from the observation side. The targeted dataset will consists of **in-situ as well as satellite observations** from multiple providers including CEOP, FLUXNET, AsiaFlux, iLEAPS.

Consequently, the 10-Year Dataset project was discussed with the LandFlux-EVAL, FLUXNET, AsiaFlux, and GSWP representatives at the occasion of the HESSS2 Meeting in Tokyo in June and it was agreed that a Whitepaper would have been developed and submitted for discussion at the Pan-GEWEX meeting in August.

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), **Barr**/**Thompson** (BERMS sites), and **Horta**/**Araujo** (LBA sites).

(3.1c) It was also reiterated 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.

(3.1d) **Benedict** reiterated that the 2nd Pan-GEWEX meeting would take place in **Seattle, USA, 23 – 27 August 2010** (http://www.gewex.org/2010pangewex/home.html). The Pan-GEWEX meeting will address how the GEWEX panels and their projects and working groups will continue to work over the next 2 years to achieve their short-term goals, and how they will evolve to accomplish post 2013 Imperatives. This process will include determining what enabling infrastructure is necessary and developing a strategy for dealing with the GEWEX and WCRP cross cutting or overarching themes.

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Consequently, it has been noted that considering the outcomes the individual GEWEX Panels including CEOP are expected to deliver at the Pan-GEWEX meeting, the available time might not be sufficient to also address all the necessary CEOP internal planning issues to the full extent. Accordingly, it has been decided that the Pan-GEWEX meeting CEOP sessions would not fully substitute the 4th CEOP Annual Meeting event and that would be considered to take place early in 2011.

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Final DRAFT, 29 July 2010

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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)

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3. CEOP AND CEOP DATA GROUP GENERAL ISSUES

(3.1a) **Benedict** welcomed participants on the call and appreciated the work that the Americas RHP and reference site teams had undertaken in response to the action items from the last call.

(3.1b) **Koike** reiterated that a **10-Year Dataset** project had been initiated in response to the climate modeling community need of **a high quality observation data** of a sufficient length for evaluation of climate models under the CMIP5 project and quantification of model projections uncertainties. This activity was proposed by the WCRP Observation and Assimilation Panel (WOAP) and is compliant with the CEOP commitment taken at the 3rd Annual CEOP Meeting in Melbourne in August 2009 to develop the CEOP 10-year dataset as well as with the **GEWEX post 2013 Imperatives** (http://www.gewex.org/2010pangewex/Draft_Imperatives.pdf). The WOAP suggested activity, coordinated by CEOP (T. Koike) and CMIP5 (Karl Taylor), is envisioned as a collaborative effort of a broader observation and climate modeling communities including GEWEX/CEOP, LandFlux-EVAL, GSWP, AsiaFlux, from the observation side. The targeted dataset will consists of **in-situ as well as satellite observations** from multiple providers including CEOP, FLUXNET, AsiaFlux, iLEAPS.

Consequently, the 10-Year Dataset project was discussed with the LandFlux-EVAL, FLUXNET, AsiaFlux, and GSWP representatives at the occasion of the HESSS2 Meeting in Tokyo in June and it was agreed that a Whitepaper would have been developed and submitted for discussion at the Pan-GEWEX meeting in August.

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), **Barr**/**Thompson** (BERMS sites), and **Horta**/**Araujo** (LBA sites).

(3.1c) It was also reiterated 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.

(3.1d) **Benedict** reiterated that the 2nd Pan-GEWEX meeting would take place in **Seattle, USA, 23 – 27 August 2010** (http://www.gewex.org/2010pangewex/home.html). The Pan-GEWEX meeting will address how the GEWEX panels and their projects and working groups will continue to work over the next 2 years to achieve their short-term goals, and how they will evolve to accomplish post 2013 Imperatives. This process will include determining what enabling infrastructure is necessary and developing a strategy for dealing with the GEWEX and WCRP cross cutting or overarching themes.

According to the updated Pan-GEWEX agenda, each panel (including CEOP, GRP, and GMPP) will have one and a half day (Tuesday 24th and Wednesday 25th morning) of separate sessions dedicated to its own issues. A CEOP evening session on Thursday 26th August has been added on the CEOP request. In addition, a half day for panel interaction is scheduled on Wednesday 25th afternoon. Further information including logistics details can be found at the meeting website.

Consequently, it has been noted that considering the outcomes the individual GEWEX Panels including CEOP are expected to deliver at the Pan-GEWEX meeting, the available time might not be sufficient to also address all the necessary CEOP internal planning issues to the full extent. Accordingly, it has been decided that the Pan-GEWEX meeting CEOP sessions would not fully substitute the 4th CEOP Annual Meeting event and that would be considered to take place early in 2011.

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

(3.2a) **Williams and 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.

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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.

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NOTES FROM THE SIXTH FORMAL COORDINATED ENERGY AND WATER-CYCLE OBSERVATIONS PROJECT (CEOP) TELECONFERENCE ON AMERICAS REGIONAL HYDROCLIMATE PROJECTS AND REFERENCE SITE ISSUES HELD ON 15 JUNE 2010
Final DRAFT, 29 July 2010

1. INTRODUCTION

The 6th Americas RHP and Reference Sites Teleconference related to the Coordinated Energy and Water-Cycle Observations Project (CEOP) took place on Tuesday 15 June 2010 at 20:00 UTC.

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

1. **Special Announcements:**
   - 10 Year Dataset Project – a collaborative initiative among CEOP, WOAP (CMIP5), FLUXNET, LandFlux, GSWP/GLASS,….
   - 2nd Pan-GEWEX Meeting in Seattle, USA, 23 – 27 August 2010

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)**
Hugo Berbery	**(LPB Representative)**
Jin Huang	**(CPPA Representative)**
Luiz Horta	**(LBA reference site data manager)**
Alessandro Araujo	**(LBA representative)**
Alan Barr	**(BERMS Reference site Representative)**
Steve Williams	**(CEOP Reference Site Data Archive manager)**
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, **7th CEOP Americas RHP and Reference Sites Teleconference** is proposed to take place on **Tuesday 12 October 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 that is also available through the CEOP homepage at: http://monsoon.t.u-tokyo.ac.jp/ceop2/calls.html.

3. CEOP AND CEOP DATA GROUP GENERAL ISSUES

(3.1a) **Benedict** welcomed participants on the call and appreciated the work that the Americas RHP and reference site teams had undertaken in response to the action items from the last call.

(3.1b) **Koike** reiterated that a **10-Year Dataset** project had been initiated in response to the climate modeling community need of **a high quality observation data** of a sufficient length for evaluation of climate models under the CMIP5 project and quantification of model projections uncertainties. This activity was proposed by the WCRP Observation and Assimilation Panel (WOAP) and is compliant with the CEOP commitment taken at the 3rd Annual CEOP Meeting in Melbourne in August 2009 to develop the CEOP 10-year dataset as well as with the **GEWEX post 2013 Imperatives** (http://www.gewex.org/2010pangewex/Draft_Imperatives.pdf). The WOAP suggested activity, coordinated by CEOP (T. Koike) and CMIP5 (Karl Taylor), is envisioned as a collaborative effort of a broader observation and climate modeling communities including GEWEX/CEOP, LandFlux-EVAL, GSWP, AsiaFlux, from the observation side. The targeted dataset will consists of **in-situ as well as satellite observations** from multiple providers including CEOP, FLUXNET, AsiaFlux, iLEAPS.

Consequently, the 10-Year Dataset project was discussed with the LandFlux-EVAL, FLUXNET, AsiaFlux, and GSWP representatives at the occasion of the HESSS2 Meeting in Tokyo in June and it was agreed that a Whitepaper would have been developed and submitted for discussion at the Pan-GEWEX meeting in August.

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), **Barr**/**Thompson** (BERMS sites), and **Horta**/**Araujo** (LBA sites).

(3.1c) It was also reiterated 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.

(3.1d) **Benedict** reiterated that the 2nd Pan-GEWEX meeting would take place in **Seattle, USA, 23 – 27 August 2010** (http://www.gewex.org/2010pangewex/home.html). The Pan-GEWEX meeting will address how the GEWEX panels and their projects and working groups will continue to work over the next 2 years to achieve their short-term goals, and how they will evolve to accomplish post 2013 Imperatives. This process will include determining what enabling infrastructure is necessary and developing a strategy for dealing with the GEWEX and WCRP cross cutting or overarching themes.

According to the updated Pan-GEWEX agenda, each panel (including CEOP, GRP, and GMPP) will have one and a half day (Tuesday 24th and Wednesday 25th morning) of separate sessions dedicated to its own issues. A CEOP evening session on Thursday 26th August has been added on the CEOP request. In addition, a half day for panel interaction is scheduled on Wednesday 25th afternoon. Further information including logistics details can be found at the meeting website.

Consequently, it has been noted that considering the outcomes the individual GEWEX Panels including CEOP are expected to deliver at the Pan-GEWEX meeting, the available time might not be sufficient to also address all the necessary CEOP internal planning issues to the full extent. Accordingly, it has been decided that the Pan-GEWEX meeting CEOP sessions would not fully substitute the 4th CEOP Annual Meeting event and that would be considered to take place early in 2011.

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

(3.2a) **Williams and 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.

(3.2b) **Williams** reiterated the ongoing **action A2** 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.

(3.2c) **Williams** 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 CPPA by Jin Huang, Tilden Meyers, and Steve Williams

(4.1a) **Huang** advised the group that the NOAA's Climate Program Office was in the process of restructuring its grants programs (http://www.climate.noaa.gov/cpo_pa/). The grant activities are now organized within four Programs, and the elements of CPPA are included in two of these, namely the Modeling, Analysis, Predictions, and Projections (MAPP) Program and The Earth System Science (ESS) Program. The CPPA observing activities are being funded through the MAPP Program.

In this context, **Huang** mentioned that the NOAA CPO support currently provided to the CEOP Data Management team at NCAR through the CPPA project would continue till the end of 2010. Since 2011, a new way through the MAPP Program will be sought.

(4.1b) **Huang** voiced that the 10-Year Dataset Project would be of high interest for the MAPP Program and requested further details on this activity. It was mentioned that a Whitepaper on the 10-Year Dataset Project would be developed and submitted to the Pan-GEWEX meeting for discussion and revision.

(4.1c) **Meyers** reported in writing that they were are developing and testing a new gap filling procedure in order to provide the best estimates of fluxes, including water and CO2, since these are used to generated seasonal sums etc. for carbon and water budgets. They are using a combination models that have been tuned to their data and have found this superior to standard regression or statistical methods. The development and testing phase of this new procedure has been completed and implementation will begin soon.

Certain problems have been found with the winter precipitation but correction has been underway and almost completed. The team has also included both MODIS derived NDVI and their own in-situ NDVI that is tuned to get the seasonal trend in the LAI, which is very important for models. For 2010, three more variables will be added in the Bondville site dataset that include: (i) snow depth, (ii) fractional snow coverage, and (iii) in some cases, snow density. These are determined from the live internet PZT (Pan-zoom-tilt) camera installed at the site.

Regarding the data submission to the CEOP Data Archive (CDA) at NCAR, the team plan is to provide a complete final product to all the requesting data repositories including the CDA, FLUXNET, and eventually NCDC at once and with supreme quality. Therefore the team is dedicating special efforts to the data quality control and gap filling procedures. **Meyers** indicated that part of the gapfilled and corrected observation datasets would be submitted to the CDA in July.

(4.1d) **Williams** reported that the SGP sites data were almost complete up to 2009. Nevertheless, he pointed out that there had been substantial changes in terms of individual station locations (number of stations had been shut down and new would be installed in 2011) in order to better fit to higher model resolutions. This needs to be considered when if the SGP site is

nominated for contribution to the 10-YDP. It may require that a subset of stations is selected that have been in operation at the same location since the beginning of the CEOP (or 10-YDP) period.

Williams also voiced that the ARM sites had also completed their data submission up to 2009 and thus were good candidates for the 10-YDP.

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