

**NOTES FROM THE FIRST FORMAL COORDINATED ENERGY AND WATER-CYCLE OBSERVATIONS
PROJECT (CEOP) TELECONFERENCE ON ASIA-PACIFIC-AUSTRALIA REGIONAL HYDROCLIMATE
PROJECTS AND REFERENCE SITE ISSUES HELD ON
12 MARCH 2009
First DRAFT, 21 April 2009**

1. INTRODUCTION

The 2nd Asia-Pacific-Australia RHP and Reference Sites Teleconference related to the Coordinated Energy and Water-Cycle Observations Project (CEOP) took place on Thursday 12 March 2009 at 05:00 UTC.

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

- (i) **Special Announcements:** (a) Calendar of upcoming calls, (b) Outcome of CEOP Report at the GEWEX SSG meeting 19-23 January 2009: Reference document provided for this discussion: (Rapporteurs Report on CEOP doc), (c) Plans for Third Annual meeting (19 – 21 August 2009) and (d) GEWEX/iLEAPS Science Conference (24-29 August 2009) both at Melbourne, Australia.; Benedict/Koike
- (ii) **On-going Requests to Reference Site managers:** (a) Reference Site satellite scene center (250km x 250km square area around the site) (b) Elevation of the MOLTS points (site stations) – please reconfirm/provide the information of elevation of the sites/stations – (needed by the Model group): Steve Williams (Reference document provided for this discussion: “CEOP_AmRS_elev_satcenter.xls”).
- (iii) **Individual Reference Site Documentation Review:** Documentation for all Reference sites must be discussed and reviewed.
- (iv) **Status and Update of the CEOP Reference Site data archive:** Reference document provided for this discussion: “CEOP Americas Region Reference Site Data Status Report.doc and Americas Ref Site Update doc” (Steve Williams, Scot Loehrer)
- (v) RHP/Reference Site data providers/managers reports – update on past activities and perspectives with respect to CEOP

Participants

1. **Toshio Koike** (Japan, CEOP Co-Chair)
2. **Sam Benedict** (Japan, CEOP International Coordination Function)
3. **Petra Koudelova** (Japan, CEOP International Coordination Function)
4. **Katsunori Tamagawa** (Japan, CEOP Asia Reference Site Data Manager)
5. **Tetsu Ohta** (Japan, CEOP Asia Reference Site Data Manager)
6. **Steve Williams** (USA, Data WG Co-Chair)
7. **Jason Evans** (Australia, MDB Site Representative)
8. **Dawen Yang** (China, Downstream of the Yellow River site representative)
9. **Gianni Tartari** (Italy, Himalayas, Karakorum and Northern Apennines site representative)
10. **Elisa Vuillermoz** (Italy, Himalayas, Karakorum and Northern Apennines site representative)
11. **Jianping Huang** (China, Lanzhou site representative)
12. **Jinsen Shi** (China, Lanzhou site representative - data)
13. **Hironori Yabuki** (Japan, Eastern Siberian Tundra, Eastern Siberian Taiga, Mongol Arvayheer, Mongol Nalaikh sites representative)
14. **Kenichi Ueno** (Japan, Tsukuba site representative)
15. **Jun-Ichi Hamada** (Japan, Western Maritime Continent, Central Maritime Continent, Eastern Maritime Continent, Northern Maritime Continent, Southern Maritime Continent sites representative)
16. **Mingguo Ma and Rui Jin** (China, Heihe River Basin site representatives on behalf of Xin Li)
17. **Hideyuki Kamimera** (Japan, Central Vietnam site and Western Maritime Continent sites representative)
18. **Hirohiko Ishikawa** (Japan, Tibet site representative)

Could Not Participate

1. Drs **Jun Asanuma** (Japan, Northern Mongolia site representative)
2. **Liu Huizhi** (China, Tongyu site representative)
3. **Lei Huimin** (China, Downstream of the Yellow River site representative)
4. **Ichiro Kaihotsu** (Japan, Mongolia site representative)
5. **Masatoshi Aoki** (Japan, Chao-Phraya River, North-East Thailand sites representative)
6. **Shigenori Haginoya** (Japan, Tibet site representatives)
7. **Wu Zhang** (China, Lanzhou site representative)
8. **Tetsuo Ohata** (Japan, Eastern Siberian Tundra, Eastern Siberian Taiga, Mongol Arvayheer, Mongol Nalaikh sites representative)
9. **Hisayuki Kubota** (Japan, Western Pacific Ocean site representative)
10. **Jun Matsumoto** (Japan, Northeast Bangladesh site and Central Vietnam site representative)
11. **Manabu D. Yamanaka** (Japan, Western Maritime Continent, Central Maritime Continent, Eastern Maritime Continent, Northern Maritime Continent, Southern Maritime Continent sites representative)
12. **Feng Jianwu** (China, Tongyu site – on behalf of Liu Huizhi)
13. **Ming-Cheng Yen** (Taiwan, Northern South China Sea - Southern Japan site representative)
14. **Fadli Syamsudin** (Indonesia, Western Maritime Continent, Central Maritime Continent, Eastern Maritime Continent, Northern Maritime Continent, Southern Maritime Continent sites representative)
15. **Gombo Davaa** (Mongolia, Northern Mongolia site and Mongolia site representative)
16. **Ryuichi Shirooka** (Japan, Western Pacific Ocean site representative)
17. **Tsing-Chang (Mike) Chen** (Iowa, Northern South China Sea - Southern Japan site representative)
18. **Prof. Terao** (Japan, Northeast Bangladesh site)
19. **Xin Li** (China, Heihe River Basin site representative)

2. NEXT CONFERENCE CALL

The next, **3rd CEOP Asia-Pacific-Australia RHP and Reference Sites Teleconference** is proposed to take place on **Tuesday, 23 June 2009, at 05:00 UTC**. **Benedict** has 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.

3. CEOP AND CEOP DATA GROUP GENERAL ISSUES

3.1 Opening

(3.1a) **Benedict** welcomed everyone on the call and introduced the agenda, reference material that was circulated prior to the call. All participants were reminded that the **latest version of the CEOP Strategic Implementation Plan (SIP)** was available through the CEOP Home Page at: <http://monsoon.t.u-tokyo.ac.jp/ceop2/implementationplan.html>. It was pointed out that the current version was an updated one dated on 1 December 2008 that reflected and responded to the comments from GEWEX SSG earlier this year.

In this context, Koike asked everyone to review the Rapporteurs Report on CEOP that came from the review of CEOP by the GEWEX SSG at the 19-23 January 2009 meeting at Irvine California, USA. The main points of importance to CEOP that the GEWEX SSG highlighted in their report were summarized for the group by Koike. These included the following items:

(i) CEOP has become very large and it is now very important that the Regional Hydroclimate Projects (RHP) in each region must cooperate more closely at the Regional Scales with the main CEOP and GEWEX crosscutting science teams (Extremes, WEBS, Aerosols and Isotopes) and the four CEOP and GEWEX Climate Foci Teams (Monsoons, High Elevations, Cold-Regions and Semi-arid Studies); In particular **every member and group in CEOP must (Action A2)** focus on adhering to the CEOP Strategic Implementation Plan (SIP) to achieve visible results as a contribution to CEOP goals and objectives.

(ii) the RHP's and the reference site operators and managers must work together on improving knowledge of their regional water and energy budget cycles and compare and unify their findings in a manner that contributes to the overall objectives of GEWEX and WCRP to better understand water and energy cycles on a global scale;

(iii) the RHPs must utilize their regional cooperative contacts with the operational hydrological services and related stakeholders in their regions to apply science results to regional hydroclimate issues.

(3.1b) Everyone was reminded that all of the presentation material provided by the participants at the 2nd CEOP Annual Meeting held in Geneva, Switzerland 15-17 September 2008 along with the meeting report, was available on the Internet through the CEOP Home Page at: <http://monsoon.t.u-tokyo.ac.jp/ceop2/meetings.html>.

Everyone was also reminded that the next, **3rd CEOP Annual Meeting** would be held in Melbourne, Australia, 19 – 21 August 2009, i.e. the event will precede the GEWEX and iLEAPS science conferences. The venue for the CEOP meeting will be the Bureau of Meteorology (BoM). Further details and the meeting website will be released in due course. The participants on the call were asked to consider their participation in this important event and also possible contribution to the ensuing GEWEX/iLEAPS conferences that will take place in Melbourne, Australia, 24 – 28 August 2009. The conference website is available at: http://www.gewex.org/2009gewex_ileaps_conf.html. Abstracts for all sessions are currently being accepted and can be submitted on-line through the meeting website. The **deadline for abstract submission has been extended to 31 March 2009**.

3.2 On-going Actions for Reference Site Managers and RHP Representatives: Review/Update of Reference Site Meta-data on the CEOP Data Management Web Page.

The **Reference site Managers and RHP Representatives were asked to under take action A2**, namely, to put themselves in the place of users of the CEOP data archive and to 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.

In specific, **Williams** noted that all of the reference site documentation web pages for Asia including all of the new sites and information that had been provided earlier by **Tamagawa** were put on a new web site for the CEOP Asia sites: <http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/mahasri/>. However, there were **actions (A2a)** that must be taken by **participants** on the call to fill out missing information. The needed details include:

- (i) information from 2 new Asian Reference Sites (Vietnam and Bangladesh),
- (ii) missing information from several sites that has been indicated on the web pages as "**no information**"

In addition, it was specified that the **Reference site Managers and RHP Representatives were asked to under take action A2b**, namely, to reconfirm the latitude and longitude center locations for their sites and to provide this information for any new sites for Phase 2. The satellite data available in the CEOP Satellite data archive and the scene center coordinates during Phase1 for 35 Reference Sites are available at the following web sites respectively: <http://monsoon.t.u-tokyo.ac.jp/ceop/data/eop-1/satellite/doc/>; http://monsoon.t.u-tokyo.ac.jp/ceop/data/eop-1/satellite/doc/ref_site_info_r03.txt.

In this context, the group agreed to a naming convention for data from the entire group of Asia-Pacific-Australia RHP and Reference Sites. **It was confirmed**, that the designation "**CEOP-AP**" will be made in the CEOP database for the group of sites from this region, which are contributing data within the CEOP framework.

Two other issues were discussed, in this context, that resulted in specific actions:

(a) Williams accepted the **action (A2c)**, to prepare a list of the reference sites that make up the CEOP_AP data group in the CEOP in-situ database at NCAR/EOL. This list is to suggest new names for specific sites that up to now were too long for the database naming scheme or which were otherwise not descriptive of their location within the CEOP_AP site geographic region or did not appropriately recognize their affiliation or other attributes. Subsequently such a list was provided by Williams and is provided here for review by the CEOP_AP site key persons. **Action A2d is for all participants** to review the proposed naming convention and to comment as appropriate. If no objections are raised to this list with the new naming convention then this list will be adopted as presented in Table 1, below:

Table 1: CEOP_AP REFERENCE SITES PROPOSED NAMING CONVENTION

<u>Current Name</u>	<u>Proposed New Name</u>
Central Maritime Continent	Central Indonesia
Central Vietnam	Central Vietnam
Chao Phraya River	Chao Phraya River
Downstream of the Yellow River	Lower Yellow River

Eastern Maritime Continent	Eastern Indonesia
Heihe River Basin	Heihe River Basin
Himalayas	Himalayas
Korean Haenam	Korean Haenam
Korean Peninsula	Korean Peninsula
Lanzhou	Lanzhou
Mongol Arvayheer	Mongolia Arvayheer
Mongol Nalaikh	Mongolia Nalaikh
Mongolia	Mongolia
Northeast Bangladesh	Northeast Bangladesh
Northeast Thailand	Northeast Thailand
Northern Mongolia	Northern Mongolia
Northern Maritime Continent	Northern Indonesia
Northern South China Sea – Southern Japan (NSCSSJ)	Northern South China Sea – Southern Japan (NSCSSJ)
Pakistan	Pakistan Karakorum
Eastern Siberian Taiga	Eastern Siberian Taiga
Eastern Siberian Tundra	Eastern Siberian Tundra
Southern Maritime Continent	Southern Indonesia
Tibet	Tibet
Tongyu	Tongyu
Tsukuba	Tsukuba
Western Maritime Continent (formerly Equatorial Island)	Equatorial Island
Western Pacific Ocean	Western Pacific Ocean

(b) **Prof T. Koike** accepted the **action (A2e) to report the outcome of efforts to standardize meta-data and descriptive documentation utilized in CEOP**. Efforts have been underway in CEOP and related initiatives to attempt to review standard protocols such as ISO-90115 to determine their suitability for application in CEOP or to introduce modifications to such protocols to provide for a standard to be used in CEOP for all the documentation and meta-data provided in conjunction with the data sets themselves. A final decision on this effort is due at least by the end of June. The participants will be advised of the outcome as soon as it is known.

4. Status and Update of the CEOP Reference Site Data Archive: RHP and Reference Site Reports

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

Williams and Loehrer provided a CEOP Asia and Australia Region Reference Site Data Update Report that was current through 10 March 2009. The details included:

MDB Murrumbidgee SFC data submitted through November 30, 2007. Data have been checked and are in the queue for loading into our CEOP database.

MDB Murrumbidgee STM data submitted through May 31, 2008. Data have been checked and are in the queue for loading into our CEOP database.

MDB Tumbarumba FLX submitted through December 31, 2008. Data are in the queue for checking.

MDB Tumbarumba STM and SFC data sets are expected to be submitted within the next month.

Other ARM TWP SFC data through December 31, 2007 have been converted and checked. Data are now available from our CEOP database.

Other ARM TWP SONDE data through 20081231 are in house and are in the queue for loading into our CEOP database.

4.2 Updates to summary status of reference site archive

Updates to the status summary of the sites were provided at the time of the call. They included:

Himalayas:

Data from the **Himalayas** sites that had been discussed at the time of the last call was being processed at NCAR/EOL and that by this process the previous **action** related to acknowledging receipt of this data and beginning evaluation of its completeness had been undertaken as described in the notes of the previous call.

In this context, **Benedict accepted responsibility for following up on an earlier action** to provide a formal letter acknowledging that the "Italian Alps and Apennines" sites are formally requested and accepted to be part of CEOP.

Tartari/Vullermoz noted that data from these sites for 2005-2006 are available for download from their site and that the 2007 data should be ready before the time of the CEOP 3rd Annual Meeting at Melbourne Australia. **Tartari/Vullermoz** accepted action to send (**action A3**) an example of data (1 File) to **Williams** from their atmospheric site, which contains specialized ancillary information that is not formatted into the standard CEOP format. The data file will be used to determine **how to place it into the CEOP database**.

Tsukuba:

Any issue of the status of data from 2007 from the **Tsukuba** site, including data from 7 stations, as discussed at the time of the last call was clarified and the **action A3 from the notes of that call was closed by Williams/Loehrer** who downloaded the data from the Tsukuba site and began its evaluation. None-the-less, **Uneo** accepted the **Action (A4)** to review the documentation at the NCAR/EOL site and to update it as necessary and, in addition, to review the remaining flags on the Tsukuba site data. Subsequently, **Uneo contacted Williams** as requested and clarified the remaining issues with the Tsukuba data and related documentation.

4.3 Written Site Reports

The Following written reports were sent in by persons who were not able to participate directly in the call. These submittals are greatly appreciated and in fact provide an excellent and accurate means of communicating and reporting on site status. **Benedict** has accepted **action A5** to communicate with the site representatives at the time of the planning for the next call **to ask all participants to submit brief written status reports prior to or just after the conference call itself**. This will allow for a more efficient organization and implementation of the call itself. **All members of this Group of Conference Call participants list who are responsible for site management/operations should be prepared near the time of the next call to undertake action A5a to submit brief WRITTEN status reports**.

(4.3a) Mongolia site: Ichirow Kaihotsu:

We are continuing the ground-based monitoring of water cycle by three AWS and eleven ASSH (Automatic Station for Soil Hydrology). They were working well as of last December. We replaced all old AWS and ASSH with new ones in 2008 and are trying to compare some old sensors with new ones (air temperature, soil temperature sensors, soil moisture probes etc.).

(4.3b) Tibet (West) site: Shigenori Haginoya:

Site Report Tibet (West)

The site name: Western Tibet is Gaize - Gaize station is installed in the field of meteorological observatory for easy maintenance and safety. The staff of Gaize observatory collects the data every month and sends to Japan through CAMS (Chinese Academy of Meteorological Sciences, Beijing) about several month delay.

According to the agreement between Japan and China, the Japanese renewed the Gaize station in June 2007 to continue the observation normally and maintain the data quality. After the renewal, the Gaize station has been put in the framework of another project named JICA Project.

The observations are continuing. The latest data have been collected until 25 November 2008. The available data after CEOP phase-1 are from January 2005 to November 2005, June 2006 and from November 2006 to December 2006. We plan to provide these data for CEOP. The collected data in CEOP phase 2 are as follows: January 2007 - June 2007: old observation system and June 2007 - November 2008: new observation system.

(4.3c). Western Pacific Ocean site: Hisayuki Kubota:

We went to Palau on January 2009 and collected observation data. Action was taken to partly upload the 2007 station data to the CEOP website and work is still continuing on this process. We found some errors in our dataset, so action is being taken to upload the data again following an error check effort.

(4.3d) Chao-Phraya River, North-East Thailand sites: Masatoshi Aoki:

(i) In February - March 2009, a visit was made to the sites to do maintenance works and data collections. Some sensors were out of order or not in good condition, because of 7-8 years in operation. Efforts are underway to replace the bad sensors and supply new equipment. But it will become more difficult year by year, because budget reductions.

(ii) In 2009, cooperative professors obtained a certain support budget amount from Kasetsart University, Thailand, so in the year of 2009 some funds for the site are available. The budget in the year of 2010 is not confirmed.

(iii) Kubota will visit the site again from 14th -18th March, 2009, to supply sensors.

(iv) In 2009 from April onward Kubota will visit the sites about 3-4 times.

(4.3e) Northeast Bangladesh: Toru Tearo:

More than 20 raingauges and three AWSs are in the Bangladesh area. However, it is difficult to get the data consistently/continuously for many of the sites, because they are in remote areas. The data can be obtained only once or twice in a year.

Only AWS data in Dhaka and Matlab are accessible from the internet. Technically, we can supply data of these 2 points within 6 months. These sites are now maintained under a joint project with an international research organization, ICDDR,B. So, some discussion is needed before exposing data to the CEOP project. We will discuss this issue during our stay in Bangladesh from 14 to 22 March.

(4.3f) Northern South China Sea - Southern Japan site: Mike Chen:

The EAMEX field experiment includes two components: 1) Late Spring-Early Summer Rainstorm Field Experiment, and 2) Winter Rainfall Field Experiment. The former covered the area stretching from northern Indochina, across Taiwan, to southern Japan and was conducted during 16 May 2008-30 June 2008. This field experiment was successfully finished. The genesis mechanism of rainstorm was disclosed. The latter field experiment consists of two components: The first component covers the central Vietnam to explore the cause of heavy rainfall events in central Vietnam during 10/1-11/30 of 2008. It turned out that there was a very unusual severe flood event occurred in Haoni on 10/30. This event was caused by a northwestward propagating storm channeled by an anomalous 700-mb anticyclone over the SCS-western tropic Pacific region. This component of the Winter Rainfall Field Experiment was successfully completed. The second component of the Winter Rainfall Field Experiment covers the area between southern Japan and Taiwan to explore the rainfall produced by Taiwan lows. This field experiment should be conducted during 1 December 2008-28 February 2009. Because the impact of La Nina, the weather was very mild in East Asia during this time period. Therefore, a plan change has been adopted that this Winter Rainfall Field Experiment will be conducted again during the same time period of the 2009/10 winter. By then, the future climate condition may hopefully return to a normal one from the current aging La Nina.

The radiosonde observations conducted the Summer Rainstorm Field Experiment and the first component of the Winter Rainfall Experiment were compiled and available. The assimilation data of these two field experiments are still processing under the direction of Dr. Jordan Alpert of NCEP and hope they will be available in the near future.

4.4 Oral Site Status Reports

The following reports were provided by persons who were able to participate directly in the call. The accounts for each site listed in this section are based on notes taken by **Benedict** during the oral discussions. They must therefore be considered a very rough draft of the exact information provided by each site representative during the call. The information presented by the participants is greatly

appreciated and everyone feels they benefit from the oral discussion but as noted in item 4.3 above brief written summaries provided in advance of the call will always be a very good way to assist with and stimulate the oral discussion and will also be an excellent way of ensuring accuracy of the call report and the actions noted in that report. **In the future, therefore, brief written summaries will be asked for in advance of the call from ALL participants as well as from those who are unable to participate.**

As noted above in item 4.3 **Benedict** has accepted **action A5** to communicate with the site representatives at the time of the planning for the next call **to ask all participants to submit brief written status reports prior to the conference call itself.** This will allow for a more efficient organization and implementation of the call. **All members of this Group who are responsible for site management/operations should be prepared near the time of the next call to undertake action A5a to submit brief WRITTEN status reports.**

(4.4a) MDB by Jason Evans

Evans reported that the evaluations of the data were completed and the data were ready for up loading to the CEOP database. The details of the data submittals was given in item 4.1 above. Evans was commended for this very responsive initiative to obtain data, clear it through a preliminary error evaluation and provide the CEOP data management group access for it to be loaded on the CEOP database. In addition,

(4.4b) Himalayas, Karakorum by Gianni Tartari and Elisa Vuillermoz

As reported in item 4.2 above data from the **Himalayas** sites was being processed at NCAR/EOL. Other actions with respect to these sites were also summarized in 4.2 above.

(4.4c) Tsukuba by Ken'ichi Ueno

Updates and actions with regard to these sites were reported on by **Ueno** and were summarized in item 4.2 above.

(4.4.d) Tongyu by Feng Jianwu/Huizhi Liu

The status of the data from Tongyu remained consistent with the report provided at the time of the last call. All data sets from Tongyu had been put into the CEOP NOAA/EOL database that had been completed through 2004. So far no data has been submitted for any years beyond 2004. Work is continuing on those data and progress is expected during the time leading up to the next call on 23 June 2009.

(4.4e) Lanzhou Jianping Huang/Jisen Shi

Huang reported that the Lanzhou site had data ready for uploading for the period 2006-2008. There are still some operational/technical issues related to the process for upload of the data to the CEOP database but more importantly there were other policy matters that needed to be addressed before the data could be put into the CEOP database for sharing with the CEOP and the broader community. The China Meteorological Administration (CMA) has never formally become part of CEOP in the sense that it has not fully accepted the sharing of data from sites in China through the CEOP data management system. **Koike agreed to accept the action A6** to meet or to otherwise **contact the appropriate CMA leaders** to find out **what is necessary** for CMA to agree to have **data from Lanzhou and other sites in China** that are of great importance to the success of CEOP science objectives **placed into the CEOP database.**

(4.4f) Yellow River by Dawen Yang

Yang reported that data were available from this site for the period March 2005 to the present. All the instruments have been running well during the entire period and that the only technical issue for getting the data readied for the CEOP database was having it converted into the CEOP format and quality checked. This task is planned to be undertaken in the near future in cooperation with the UT team and the UT data system. However, as with Lanzhou the Yellow River site data must be approved for distribution through the CEOP data management system. This step is more related to policy than to issues of a technical nature. **Koike has action A6 as noted above to attempt to obtain an agreement with CMA to have the data added to the CEOP database.**

(4.4g) Huihe River Basin by Mingguo Ma/Xin Li/Rui Jin

The report noted that the site included 4 stations that were installed in different land cover areas at both the upper and lower reaches of the basin. Some sites have data only from 2007 on ward but some sites have data extending back to 2005. The collected data continue to be checked for errors and need to be converted into the CEOP format. It is expected that this work can be accomplished by the time fo the next call (23 June 2009).

(4.4h) Siberia and Mongol Arvayheer and Nalaikh sites by Hironori Yabuki

Yabuki noted that the data from some of the sites were seasonal and were operational only during those periods. Otherwise, other sites such as the Siberia Tundra and Taiga sites were continuing participation in CEOP from Phase 1 up to the current time. That data had already been collected and all the data are now being processed into the CEOP format and quality checked in cooperation with the UT team. This work is expected to be done by the time of the next call on 23 June 2009. The Mongol Arvayheer and Nalaikh are new sites that would contribute data for the current CEOP Phase. Data up to 2008 have been collected at these sites and will be processed as the other sites.

(4.4i) Maritime Continent by Jun-ichi Hamada

Hamada advised the group that only the Western Maritime Continent site in Sumatra had continuous observations since 1 January 2007. Those data are expected to be provided to CEOP in the near future. Also at the Western site there is AWS data from instruments at the International Airport that have been collecting data since 2006. That data may also be made available at some time in the future. The Four other sites Central, Eastern, Northern and Southern were established after the Western site and can only provide data starting from 1 January 2008. A new AWS site was also installed and began producing data as of 1 January 2009.

(4.4j) Central Vietnam by Hideyuki Kamimera

Kamimera advised the group that the observations in Central Vietnam were conducted in collaboration of MAHASRI with National Hydro – Meteorological Service of Vietnam and included surface meteorology data. The AWS was installed in October 2008 and thus the data from this date will be provided to CEOP. First part of the data will be collected in March 2009 and data processing and submission to CEOP will follow in due course.

5. OTHER ISSUES

5.1 Meetings

(5.1a) The next **3rd CEOP Annual Meeting** will be held in **Melbourne, Australia, from 19 through 21 August 2009** in conjunction with the GEWEX/iLEAPS science conferences that will take place in Melbourne, 24 – 28 August 2009 (http://www.gewex.org/2009gewex_ileaps_conf.html). Participants were asked to consider their participation in this important event. Further details of the CEOP meeting will be provided in due course.

(5.1b) The **2nd Lund Regional-scale Climate Modeling Workshop** will be held in **Lund, Sweden from 4 – 8 May 2009** (see the GEWEX calendar page: http://www.gewex.org/gewex_meetings.html for more information).

6. CLOSING

Koike acknowledged the participants for attending the call and providing their valuable contributions, comments and suggestions.