

**NOTES FROM THE THIRD FORMAL COORDINATED ENERGY AND WATER-CYCLE OBSERVATIONS  
PROJECT (CEOP) TELECONFERENCE ON ASIA-PACIFIC-AUSTRALIA REGIONAL HYDROCLIMATE  
PROJECTS AND REFERENCE SITE ISSUES HELD ON  
23 JUNE 2009  
FIRST DRAFT, 13 October 2009**

## 1. INTRODUCTION

The 3rd Asia-Pacific-Australia RHP and Reference Sites Teleconference related to the Coordinated Energy and Water-Cycle Observations Project (CEOP) took place on Tuesday 23 June 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) Plans for Third Annual meeting (19 – 21 August 2009) and (c) 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): Current status of the CEOP Reference Site data archive, in particular sites located in Asia and Australia is at: ([http://data.eol.ucar.edu/master\\_list/?project=CEOP/EOP-3/4](http://data.eol.ucar.edu/master_list/?project=CEOP/EOP-3/4)) and the document distributed earlier (CEOP\_Phase2\_51refsite.xls) were used as reference for this task.
- (iii) **Individual Reference Site Documentation Review:** Documentation for all Reference sites must be discussed and reviewed.
- (iv) RHP/Reference Site data providers/managers reports – update on past activities and perspectives with respect to CEOP

### List of Participants

1. **Hirohiko Ishikawa** (Japan, Tibet site representative)
2. **Tsing-Chang (Mike) Chen** (Iowa, Northern South China Sea - Southern Japan site representative)
3. **Toshio Koike** (Japan, CEOP Co-Chair)
4. **Katsunori Tamagawa** (Japan, CEOP Asia Reference Site Data Manager)
5. **Wu Zhang** (China, Lanzhou site representative)
6. **Hironori Yabuki** (Japan, Eastern Siberian Tundra, Eastern Siberian Taiga, Mongol Arvayheer, Mongol Nalaikh sites representative)
7. **Hideyuki Kamimera** (Japan, Central Vietnam site and Western Maritime Continent sites representative)
8. **Toru Terao** (Japan, Northeast Bangladesh site)
9. **Kenichi Ueno** (Japan, Tsukuba site representative)
10. **Jun Asanuma** (Japan, Northern Mongolia site representative)
11. **Manabu D. Yamanaka** (Japan, Western Maritime Continent, Central Maritime Continent, Eastern)
12. **Masatoshi Aoki** (Japan, Chao-Phraya River, North-East Thailand sites representative)
13. **Feng Jianwu** (China, Tongyu site – on behalf of Liu Huizhi)
14. **Steve Williams** (USA, Data WG Co-Chair)
15. **Elisa Vuillermoz** (Italy, Himalayas, Karakorum and Alps and Apennines site representative)
16. **Gianni Tartari** (Italy, Himalayas, Karakorum and Alps and Apennines site representative)
17. **Mingguo Ma and Rui Jin** (China, Heihe River Basin site representatives)
18. **Jason Evans** (Australia, MDB Site Representative)
19. **Hisayuki Kubota** (Japan, Western Pacific Ocean site representative)
20. **Fadli Syamsudin** (Western Indonesia, Central Indonesia, Eastern Indonesia, Northern Indonesia, Southern Indonesia sites representative)
21. **Tetsu Ohta** (Japan, CEOP Asia Reference Site Data Manager)
22. **Sam Benedict** (Japan, CEOP International Coordination Function)

## Could Not Participate

1. **Lei Huimin** (China, Downstream of the Yellow River site representative)
2. **Ichiro Kaihotsu** (Japan, Mongolia site representative)
3. **Masatoshi Aoki** (Japan, Chao-Phraya River, North-East Thailand sites representative)
4. **Shigenori Haginoya** (Japan, Tibet site representatives)
5. **Tetsuo Ohata** (Japan, Eastern Siberian Tundra, Eastern Siberian Taiga, Mongol Arvayheer, Mongol Nalaikh sites representative)
6. **Jun Matsumoto** (Japan, Northeast Bangladesh site and Central Vietnam site representative)
7. **Ming-Cheng Yen** (Taiwan, Northern South China Sea - Southern Japan site representative)
8. **Gombo Davaa** (Mongolia, Northern Mongolia site and Mongolia site representative)
9. **Ryuichi Shirooka** (Japan, Western Pacific Ocean site representative)
10. **Xin Li** (China, Heihe River Basin site representative)
11. **Jianping Huang** (China, Lanzhou site representative)
12. **Dawen Yang** (China, Downstream of the Yellow River site representative)
13. **Lei Huimin** (China, Downstream of the Yellow River site representative)
14. **Shigenori Haginoya** (Japan, Tibet site representatives)
15. **Jun-Ichi Hamada** (Japan, Western Indonesia, Central Indonesia, Eastern Indonesia, Northern Indonesia, Southern Indonesia sites representative)
16. **Liu Huizhi** (China, Tongyu site representative)

## 2. NEXT CONFERENCE CALL

The next, 4<sup>th</sup> **CEOP Asia-Pacific-Australia RHP and Reference Sites Teleconference** is proposed to take place on **Wednesday 21 October 2009 at 05:00 UTC**, which is a change from the previously announced date of 6 October 2009 noted in the CEOP Calls Calendar Revision 3. Please see the attached latest version (Rev-4) of the CEOP Calendar for the latest listing of dates for future CEOP Conference Calls. **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) Koike introduced the plans for the upcoming CEOP Third Annual meeting that was planned for 19-21 August, 2009.

Three other issues were discussed:

(3.1b) It was confirmed that the list of names of the reference sites that make up the CEOP\_AP data group in the CEOP in-situ database at NCAR/EOL would be "standardized" with agreement of all the participants. That list is included below for a final verification. All participants have **action A2** to comment on the list if they wish to make any additions, deletions or corrections to what has been presented here.

**Table 1: CEOP\_AP REFERENCE SITES 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
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 South China Sea –  
 Southern Japan (NSCSSJ)  
 Pakistan  
 Eastern Siberian Taiga  
 Eastern Siberian Tundra  
 Southern Maritime Continent  
 Tibet  
 Tongyu  
 Tsukuba  
 Western Maritime Continent  
 (formerly Equatorial Island)  
 Western Pacific Ocean

Northern Indonesia  
 Northern South China Sea –  
 Southern Japan (NSCSSJ)  
 Pakistan Karakorum  
 Eastern Siberian Taiga  
 Eastern Siberian Tundra  
 Southern Indonesia  
 Tibet  
 Tongyu  
 Tsukuba  
 Western Indonesia  
 Western Pacific Ocean

(3.1c) **Prof T. Koike reported 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. The status of this effort was to be provided as part of Koike's presentation at the 3<sup>rd</sup> Annual CEOP Meeting 19-21 August 2009 at Melbourne, Australia. Details will be further described at the time of the next call.

(3.1d) Updates from the CEOP\_AP data center at Tokyo, Japan provided in an email prior to the time of the call Katsunori Tamagawa. These included that Version 1.10c is a new version of the CEOP raw data uploading system. On this version 1.10c, the system corresponds to a file format of "MS Excel", "zip" and "rar". Some issues that were uncovered while previously uploading various raw datasets have also been fixed in this new version.

A revised "Data Upload IF Users Guide" was also provided with this announcement. In it, the updated points have been highlighted in "yellow". It is felt that this user's guide will help the data uploading process. The guide will be linked to the top page of the Upload IF at: <http://dias-d.tkl.iis.u-tokyo.ac.jp/CEOP/upload/>. All participants have the **action A3** to review this newly updated users guide and provide Tamagawa with any questions and comments on the noted updates.

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

##### 4.1 Written Site Reports

The Following written reports were sent in by both persons who were not able to participate directly in the call and by those who did participate in the call but also provided their reports in written form. The list of participants and of those who could not participate are provided in Item 1. above.

##### (4.1a) Lanzhou: Jianping Huang/Jisen Shi

It was 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.

It was confirmed that regarding the agreement for Prof Koike to discuss release of data from the China Reference sites with the CMA director, Dr. Yu Racong, such a talk had taken place and there was a tentative agreement for the Dr Yu Racong to contact each reference site representative individually. Each site representative was asked to anticipate the contact from the CMA Director in due course.

In this respect as noted above and as reported by Wu Zhang, at the time of the call, that the data observed at Lanzhou site was available and only needed a final approval from the CMA Director for it to be released and submitted to CEOP.

##### (4.1b) Tibet

Prof. Hu at CAREERI of Chinese Academy of Sciences and his colleagues retrieved data from several Tibetan sites from 20-25 April 2009. They also did some adjustments and repairs at the site. A change in the measurement configuration was made so that the turbulent sensors were pulled down to 3.2 meter height from 20 m. This was done for the purpose of easier maintenance and for provision of a better site "footprint". Additionally, this change will allow for better consistency with land surface measurements.

A problem was noted where the solar power system of the BJ super site was covered by abnormal snow accumulation and the system lost power after January 20, 2009. The power system was restarted on April 27, 2009 and has been working well since that time. Consideration is now being given to using a commercial power supply, which is now available.

(4.1c) Tibet (West) site: Shigenori Haginoya

Data were not upload from this station to the CEOP website as hoped because of errors discovered in the dataset. These errors are being corrected and when completed the data will be uploaded as previously planned. No new data have been collected since the time of the previous conference call.

(4.1d) MDB: Jason Evans

The Murrumbidgee surface meteorology and soil temperature/moisture data has been updated through 2007. A change in the variance of the Tumbarumba flux data was discovered (probably associated with a change in the gap-filling technique used) and is being investigated before more data is submitted.

(4.1e) Tsukuba:Ken'ichi Ueno

Based on comments from the CEOP data archive group, it was noted that all the Tsukuba reference site data during 2007-08 are ready to upload, from: [http://www.geoenv.tsukuba.ac.jp/~ceoptsukuba/data/data\\_access.html](http://www.geoenv.tsukuba.ac.jp/~ceoptsukuba/data/data_access.html). The data with dlag "U" was checked, and flux data at the paddy rice field in 2007 were added through the special efforts of Dr. Miyata.

Data at Staukuba site duriing 2007-2008 are available for access through the Internet Page at: <http://www.geoenv.tsukuba.ac.jp/~ceoptsukuba/>. The CEOP Data Management function has checked the contents and discovered formatting problems. The data have being rechecked by the providers and will be resubmitted. Information about the station will be provided by the station manager and sent to the CEOP data management group. Efforts are also underway to improve problems discovered with the site information as it appears on the CEOP Home page.

(4.1f) Northeast Bangladesh: Toru Tearo:

At this site in Sylhet, only a raingage is being maintained not an AWS. This raingage data are downloaded two or three times in a year. The next visit to Sylhet will be in August 2009. Data will be uploaded in September after being quality checked. Some AWS units have been installed in Bangladesh. However, these are controlled under a joint project with an international research institute, ICDDR,B. This may make it difficult to provide this data in the proposed 6 month period after it is collected.

(4.1g) 5 Indonesian sites: M. D. Yamanaka, F. Syamsudin, Hamada J.-I. and H. Kamimera

After the 2nd CEOP reference site call it was decided to use the following naming convention for the sites in this region (see Table 1 above):

- Western Indonesia (Kototabang and MIA stations, since Oct. 2006)
- Central Indonesia (Pontianak station, since Mar. 2008)
- Southern Indonesia (Serpong station, since Feb. 2008)
- Northern Indonesia (Manado station, since Jan. 2009)
- Eastern Indonesia (Biak station, since Feb. 2008)

Raw data for 2007 have been collected from the automatic weather station at the MIA (Minangkabau International Airport) site in Western Indonesia (VAISALA MAWS201, 1 minute data logging for surface air temperature, relative humidity, pressure, sun radiation, wind speed/direction and precipitation). These have been formatted into 30 minute averaged values following a process designed to eliminate unrealistic values.

The data were uploaded at: <http://dias-d.tkl.iis.u-tokyo.ac.jp/CEOP/upload/> and the data will then be submitted for processing on through the QC system of the University of Tokyo for data quality control after converting original data format to the QC system format. This process should be completed by the end of July. This would allow the data to be submitted to NCAR EOL for final checking and archiving.

(4.1h) Palau-Western Pacific Ocean: Hisayuki Kubota

Observation data was collected up to June 2009. The AWS dataset for 2007 for Palau has been formatted into 30 minute averaged values following a process designed to eliminate unrealistic values. These have been sent on to the University of Tokyo for application of their QC system. More work is being done to continue the process of arranging the new data into the CEOP data format. It is hoped this can be completed by the end of July 2009.

(4.1i) Central Vietnam: J. Matsumoto and H. Kamimera

Measurements and logged data from the Da Nang AWS in Central Vietnam has been collected since October 2008. Transfer of this data to Ha Noi and Japan began in March 2009. Surface meteorological data composed of 7 elements sampled at a 1-minute interval has continued logging locally, but the data transfer to the remote locations at both Ha Noi and Japan has recently been stopped due to an unstable connection at the ADSL. Therefore, at the time of the call the data were no longer able to be collected remotely in real time. The key investigators planned to visit Da Nang possibly in September, which is at a time just before the beginning of rainy season. At that time, the locally collected data will be retrieved and an attempt will be made to re-start automatic data transfer process.

(4.1j) Mongolia Arvayheer and Nalaikh, Eastern Siberian Taiga and Tundra: Hironori Yabuki

- Mongolia Arvayheer

This station has been closed since May 2009 due to limited funding to support its continued operation. The data available up to April 2009 will be updated in the archive.

- Mongolia Nalaikh:

At the time of the call, this station was undergoing maintenance, which is expected to be successfully completed by the time of the next reporting period.

-Eastern Siberian Taiga

The station has been operating properly and data available from it were collected in early June for further processing and format conversion for handling on the QCIF system and submittal to the CEOP archive in due course.

-Eastern Siberian Tundra

The station has been operating properly and measurements made there were collected in early June for further processing and format conversion for handling on the QCIF system and submittal to the CEOP archive in the near future.

(4.1k) Mongolia site: Ichirow Kaihotsu:

Ground-based monitoring of the water cycle by three AWS and eleven ASSH (Automatic Station for Soil Hydrology) were continuing. At the time of the call, efforts were still underway to compare some old sensor data with data from newer sensors that were installed this year.

(4.1l) Northern Mongolia: Jun Asanuma

Currently the observation at the site, Kherlen Bayan Ulaan, is going well. The data are currently undergoing a quality control process. The quality check scheme that is being applied is one that has been used by the Fluxnet community, and if it is successful data for the period starting January 2007 through January 2009 will be submitted by the next reporting period. Meta-data will be also submitted with the data.

(4.1m) Northern South China Sea - Southern Japan site: Mike Chen

Because it was under the influence of an "aging" La Nina last (08/09) winter, the weather activity in the vicinity of Taiwan was weakened. Although the weather development was monitored at this site, the second phase of the Winter Rainfall Field Experiment between southern Japan and Taiwan was not

undertaken. The first phase of the field experiment between central Vietnam and Philippine, was accomplished. Because of the unusual development of the cross-Pacific winter short-wave train over SE Asia, a cold surge vortex was steered by the anomalous anticyclonic flow to reach northern Vietnam. An unprecedented heavy rainfall event occurred at Hanoi on 10/30/08. A plan has been developed to expand the second phase of the winter field experiment. The site team is hoping to include more components of tropical SE Asia, particularly the impact of East Asian cold surges on the regional severe weather development, in addition to the originally planned component between southern Japan and Taiwan. The science plans of different components over SE Asia were completed and the implementation plans of these components are underway. It is hoped they will be in place by the time of the next reporting period.

#### 4.2 Site Reports Obtained From The Oral Discussion or From Other Sources (e.g. Internet/Personal)

The Following reports were either provided by persons who were able to participate directly in the call or information was obtained by way of the Internet or through other sources. The accounts for each site listed in this section are based on notes taken by **Benedict** during the oral discussions or obtained later by other means. 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 4.1 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 **Benedict** has accepted **action A4** 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 A4a to submit brief WRITTEN status reports.**

##### (4.2a) Tibet (West) site

As noted previously the site name: Western Tibet is Gaize - Gaize station is installed in the field of meteorological observatory for easy maintenance and safety. The site which is part of the JICA Project collects the data monthly and sends it to Japan through CAMS (Chinese Academy of Meteorological Sciences, Beijing) with a delay of up to several months.

At the time of the call, the observations were continuing.

##### (4.2b) Chao-Phraya River, North-East Thailand sites

Efforts have been taken to repair some sensors that were previously reported to be in need of upgrading. This work has been taking place as efficiently as possible under the circumstance of reduced budgets. The effort to upgrade the site and continue the data collection was considered to be very commendable, especially the support obtained in this year from the Kasetsart University in Thailand.

Future visits are planned to take place on a regular basis during 2009 and collection and processing of the data will continue in concert with the site visits.

##### (4.2c) Himalayas, Karakorum

As previously reported the **Himalayas** sites data were being processed at NCAR/EOL and communication between the site representatives and the CEOP Data Management Group are continuing to ensure this data is properly handled and formatted for entry into the CEOP database. Action was taken to have letters sent to the site managers for the other sites in this group so that the data can be provided to CEOP. The data should be forthcoming during the next reporting period.

##### (4.4.d) Tongyu

The status of the data from Tongyu remained consistent with the report provided at the time of the last call. At the time of the previous call all data sets from Tongyu had been put into the CEOP NOAA/EOL database that had been completed through 2004. Work continued on those data and additional progress is expected to be reported in the next reporting period;

#### (4.4e) Yellow River

Yang could not attend the call but had earlier 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. Work to get the data readied for the CEOP database has gone on in concert with UT data system group and progress in this respect has been made since the last reporting period. However, as with Lanzhou the Yellow River site sharing of the data must be approved for distribution through the CEOP data management system. As noted in item (4.1a), it was confirmed that regarding the agreement for Prof Koike to discuss release of data from the China Reference sites with the CMA director, Dr. Yu Racong, such a talk had taken place and there was a tentative agreement for the Dr Yu Racong to contact each reference site representative individually. Each site representative affected by this situation was asked to anticipate the contact from the CMA Director in due course.

#### (4.4f) Huihe River Basin

As reported earlier, this site includes 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 process is underway for the collected data to be checked for errors and converted into the CEOP format. It is expected that this work can be accomplished by the time of the next call.

### **5. CLOSING**

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