

**NOTES FROM THE THIRD FORMAL COORDINATED ENERGY AND WATER-CYCLE OBSERVATIONS
PROJECT (CEOP) TELECONFERENCE SATELLITE DATA ISSUES HELD ON
3 DECEMBER 2008
FINAL DRAFT, 12 February 2009**

1. INTRODUCTION

The Third CEOP Satellite Data Teleconference took place on Wednesday 3 December 2008 at 13:30 UTC. The issues that were brought up and discussed on the subject conference calls included:

- (i) Outcomes of the CEOP Annual Meeting held in Geneva, September 2008;
- (ii) Status of the CEOP satellite data archive and the CEOP Satellite Data Gateway;
- (iii) Satellite data providers reports;

Participants

The participants were:

Toshio Koike	Tokyo, Japan, CEOP Co-Chair & Satellite Data WG Chair
Michael Teague	Maryland, USA, NASA MODIS Team
Gang Ye	Maryland, USA, NASA MODIS Team
Bruce Vollmer	Maryland, USA, NASA AIRS data
Ed Kearns	Washington DC, USA, NOAA NESDIS
Kazuo Umezawa	Tokyo, Japan, JAXA
Yoshiyuki Kudo	Tokyo, Japan, JAXA/RESTEC
Steve Williams	Boulder, Colorado, USA, CEOP Data Management
Petra Koudelova	Tokyo, Japan; CEOP International Coordination Function
Sam Benedict	San Diego, California, USA; CEOP International Coordination Function

Drs Einar-Arne Herland (Representing ESA), Michael Theobald (Representing NASA AIRS Team), Christopher Lynnes (Representing NASA AIRS team), John Bates (Representing NOAA NESDIS), and Satoko Miura (Representing JAXA) were not available for this call, however the NASA AIRS team was represented by Dr. Bruce Vollmer, the NOAA NESDIS team was represented by Dr. Ed Kearns, and JAXA team was represented by Drs. Kazuo Umezawa and Yoshiyuki Kudo.

2. NEXT CONFERENCE CALL

The next, **4th CEOP International Satellite Data Teleconference** is proposed to take place on **Wednesday 18 February 2009**. **Koudelova/Benedict** have the **action (A1)** to inform the group of the details of the next call nearer to the time of the call and to coordinate the origination of the call through the WebEx service (**action A1a**).

3. SATELLITE DATA GROUP GENERAL ISSUES

3.1 Opening

Benedict welcomed everyone on the call and introduced the call agenda. He mentioned that **CEOP Strategic Implementation Plan (SIP)** had been revised reflecting the comments received from the GEWEX SSG. The latest version of the SIP documents is available through the CEOP Home Page at: <http://monsoon.t.u-tokyo.ac.jp/ceop2/implementationplan.html>.

3.2 Outcomes of the 2nd CEOP Annual Meeting in Geneva

(3.2a) **Benedict** reported on the outcomes of the 2nd CEOP Annual Meeting that took place in Geneva in September 2008. The meeting was planned and undertaken to move ahead with the implementation of CEOP in accordance with the strategy outlined in the Strategic Implementation Plan. All of the presentation material provided by the participants at the meeting, including abstracts of talks and posters is available on the Internet through the CEOP Home Page at: <http://monsoon.t.u-tokyo.ac.jp/ceop2/meetings.html>. A brief summary report on the meeting has been published in the November issue of the GEWEX News (<http://gewex.org/Nov2008.pdf>) and subsequently the **full meeting report** has also been completed and posted on the said CEOP Meetings page.

Koike pointed out that at the meeting, the science components of CEOP highlighted the importance and usefulness of CEOP data, in particular the satellite data. Strong call for MODIS and ALOS data was and is being voiced by number of scientists and thus NASA MODIS and JAXA teams were asked for their continued efforts on processing MODIS and ALOS data and making them available through the CEOP Satellite Data Gateway. At the same time **Koike** mentioned that also other satellite data from all the providers are highly desirable in numerous scientific studies and thus CEOP needs to make effort to fulfill its commitments in delivering the whole range of satellite data as stated in SIP.

(3.2b) 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.

3.3 CEOP Satellite Data Gateway

The CEOP Satellite Data Gateway was opened in June 2008 and allows the registered users to download satellite data available in the CEOP Satellite Data Archive administered jointly by the University of Tokyo and JAXA. The University of Tokyo IT team is responsible for the database management and making the data accessible through the Gateway. The Gateway is available at: <http://monsoon.t.u-tokyo.ac.jp/ceop2/satellite/> and the link has been added to the main CEOP Data Management Page (<http://www.eol.ucar.edu/projects/ceop/dm/>).

CEOP satellite as well as in-situ and model output data are also accessible through the CEOP Centralized Data Integration System that offers multiple tools for data visualization and analysis. The System is available at: http://monsoon.t.u-tokyo.ac.jp/ceop-dc/ceop-dc_top.htm.

4. THE SATELLITE DATA ARCHIVE STATUS AND AGENCY REPORTS

4.1 The CEOP Satellite Data Archive Status

(4.1a) The work on making new satellite datasets available through the CEOP Satellite Data Gateway is progressing but it was reiterated that this task was demanding on human as well as financial resources and therefore it is being undertaken gradually. As it was agreed to at the time of previous calls, the priority would be on the CEOP Phase 1 EOP-4 data in order to achieve as much complete database as possible for the most recent period of CEOP Phase 1 that is in connection to current CEOP. Data for EOP-3 will follow up and subsequently more recent data for current CEOP phase will be added.

Data currently available through the CEOP Satellite Data Gateway in the three subsets (global, monsoon regions, and reference sites) include:

CEOP Phase 1 EOP-1 period (01/07/2001 – 30/09/2001): DMSP F13 – F15 SSM/I; TRMM PR, TRMM TMI, GMS-5 VISSR, NOAA AVHRR, TERRA MODIS

CEOP Phase 1 EOP-3, EOP-4 period (01/10/2002 – 31/12/2004): DMSP F13 – F15 SSM/I; TRMM PR, TRMM TMI, GMS-5 VISSR, GOES-9 VISSR, ADEOS-II AMSR, ADEOS-II GLI, Aqua AMSR-E

Detailed data overview is available at the mentioned Gateway site at:

<http://monsoon.t.u-tokyo.ac.jp/ceop2/satellite/docs/eop1.pdf> for the CEOP 1 EOP-1 datasets and

<http://monsoon.t.u-tokyo.ac.jp/ceop2/satellite/docs/eop3-4.pdf> for the CEOP 1 EOP-3, EOP-4 datasets.

(4.1b) It was reiterated that it would be highly desirable to periodically prepare “data metrics” describing the available data and also including statistics of usage. **Koike and the UT group** have ongoing **action (A2)** to prepare such document.

4.2 JAXA report (Kazuo Umezawa)

Umezawa reported that JAXA continued the generation of the 2008 JAXA’s products according to the prioritized list provided by CEOP Co-Chair, T. Koike. These include: Aqua/AMSR-E, TRMM/PR, TMI, DMSP/SSM-I re-sampled on three scales (52 reference sites, 5 monsoon areas and entire area of the Earth) and ALOS products on the 12 prioritized areas including the CEOP sites and the Asian Water Cycle Initiative (AWCI) river basins (<http://monsoon.t.u-tokyo.ac.jp/AWCI/>).

In addition, JAXA continues work on generation of Terra/MODIS products for CEOP Phase 1 (EOP-4) in cooperation with the NASA MODIS Team. After resolving certain remaining issues, the actual transfer of the Terra/MODIS products from NASA to JAXA has just begun. However, the transfer speed is not as fast as it would be desirable and thus other options of data transfer are being considered, namely shipping of a physical disc with the data (see section 4.3 below). Due to time limitation, the work on Aqua/MODIS data will not begin before April 2009.

4.3 NASA MODIS team report (Michael Teague)

Teague acknowledged and emphasized the excellent work the JAXA team has accomplished in preparation for the MODIS data transfer and processing into the CEOP format datasets. He confirmed that the actual transfer of data had begun but mentioned that the transfer speed was roughly half of data production speed. **Umezawa** confirmed that the JAXA team would be able to increase data processing speed according to the data transfer and thus it was suggested that an alternative way of data transfer be investigated. One possibility is copying the NASA data on a physical disc and shipping it to JAXA to Japan. **Teague and Umezawa** took the **action (A3)** to investigate this option and if reasonable to proceed with this step.

Teague further confirmed the MODIS team's plan to begin with the Aqua/MODIS data generation and transfer in April 2009.

4.4 NASA AIRS team report (Bruce Vollmer)

Vollmer reiterated that the NASA AIRS team would make the maximum effort to provide the final products of the all required AIRS data in the requested formats. He reported that the work on the reference site subsets for the EOP-3 and EOP-4 periods was advancing and that the team has been evaluating the monsoon region subset procedure. The results of this evaluation will be communicated with the group in due course.

Vollmer further voiced that Drs. Theobald and Lynnes were attending the AIRS science team meeting and thus could not attend the call. The outcomes of the meeting will be introduced at the next call.

4.5 NOAA report (Ed Kearns)

It was reiterated that the details of data provision procedure by the NOAA team were under discussion. **Koike** and the UT group has on-going **action (A4)** to review the NOAA data requirements and to communicate with the NOAA team possibilities of the NOAA data provision.

Kearns voiced that they were anticipating further specification of data requirements from CEOP and thus they were not currently undertaking any steps in the CEOP data preparation. Nevertheless, they plan to be involved in the process and participate in these calls.

4.6 JAXA CEOS/WGISS Test Facilities (WTF) for CEOP

(4.6a) **Kudo** reported that regarding the JAXA Distributed Data Integration System, no new data or functionality was being added due to budget limitations for this fiscal year. **Kudo** further provided the brief statistic summary on the system use:

- currently 138 users registered
- 20 users accessed the system in October
- the required data mostly included satellite and Model Output Location Time Series (MOLTS) data

Kudo further informed the group that their server had been broken and thus the system was operating from a provisional hardware and thus the services are slower. Subsequently, in January 2009, a new, more powerful server was installed and the system services can be accessed at the former URL: <http://ceop.restec.or.jp/>.

(4.6b) **Koike** reported that the JAXA's Distributed Data Integration System was a very convenient tool for new users of CEOP data and emphasized the need of not only maintaining but further development of the System. He reported that participants at various meetings where the system was introduced were much interested in its capabilities.

5. OTHER CEOP 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. 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 **6th International Scientific Conference on GEWEX and the 2nd iLEAPS Science Conference** would be held in Melbourne, Australia, 24 – 28 August 2009 and the preparations were underway. 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 is **15 March 2009**.

6. CLOSING

Koike acknowledged the participants for attending the calls and providing their valuable contributions, comments and suggestions. The call was adjourned at 14:30 UTC.