

# **International Cooperative for Aerosol Prediction (ICAP) 5th working group meeting: Recent Progress in Aerosol Observability for Global Modeling.**

## **Meeting Organizers and POCs:**

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## **When and Where:**

Nov. 5 (Tue.) – 8 (Fri.), 2013, Tsukuba City, Ibaraki, Japan.

Meeting hosted at: Tsukuba International Congress Center. Travel Information to follow.

ICAP Website: <http://icap.atmos.und.edu/>

## **Rationale:**

In 2010 aerosol forecast developers from many of the world's forecasting centers met with remote sensing data providers to discuss the aerosol observability issues facing the next generation of aerosol forecast systems. This meeting inaugurated the International Cooperative for Aerosol Prediction, a grass roots community to share best practices and voice common concern. The purpose of the first meeting was not to generate a long list of new variables needed by models, but rather to investigate the continuation and further characterization as to what is available now and plan for the future. The key issues brought up in presentations and discussion were those of observational requirements and available data streams as the field develops from research endeavors, which were supported by research satellites, to fully operational entities with rigid system and operational satellite counterparts. Now 3 years later, much has changed in the remote sensing and observation landscape. NPP has launched, MODIS collection 6 is nearing completion, and a host of new lidar systems are in production. Product and radiance assimilation has greatly advanced, and many new products have come online specifically for operational and quasi-operation developers. Ground based remote sensing systems are also becoming more attractive to assimilation. Many aerosol developers feel it is an appropriate time to evaluate the current state of the science in the field, share recent progress, and prepare for the future.

## **Overarching Goals and Outcomes of Aerosol Observability Meeting:**

- a) Review recent progress in the development of aerosol observation data products and systems that can be utilized for global aerosol forecasting systems.
- b) Share recent experiences and best practices on aerosol data sets including relevant NPP algorithms.
- c) Discuss current capabilities and future directions with space based lidar.
- d) Plan and specify data requests to enable the broader utilization of ground based lidar networks.
- e) Strategize how geostationary sensors can be put to better use.
- f) Highlight progress and products from the Asian aerosol community.
- g) Update data types and timeliness requests from potential data providers.

## **Format:**

ICAP meetings focus on status updates/ discussions between operational centers and data providers. Each member center is allocated 30 minutes to describe current efforts and concerns. The majority of time however is devoted to a theme where invited subject matter experts review the current state of the science and provide recommendations for operational development and transitions. Presentations are by invitation only, and applications are taken for others for observer status. This year's specific topics for lectures focus on aerosol observability, including discussions on current and future data sets for data assimilation, characterization, and verification. Key topics for discussion and debate will include:

- a) NPP and VIIRS: Where are we with aerosol and fire products, and where are we going?
- b) MODIS: A cornerstone of aerosol prediction and still holding on.
- c) Progress with near real time production of some ESA products: What should we expect?
- d) The relative merits of radiance versus product assimilation: Is it time for a unified data request be generated by ICAP?
- e) Functional assessment of the assimilation of ground based lidar and sun photometer data: Are there practical datasets that everyone can share jointly?
- f) What are the best ways to engage the Asian remote sensing community?
- g) The ICAP ensemble and remote sensing data: Is there a good structure for a global aerosol analysis?

## **Who may attend:**

ICAP is grass roots organization of global aerosol forecast developers. ICAP meetings are functional operational working groups used to plan and coordinate operational aerosol forecasting endeavors. Meetings and presentations are by invitation only by core member organizations and their operational partners. Applications are also received for a limited number of observers who have a direct stake in the proceedings. If you believe an appropriate invitation has been overlooked or you wish to apply for observer status, please contact the meeting organizers. Core partner organizations include: ECMWF, ESA, EUMETSAT, JAXA, JMA, NASA, US Navy, NOAA.

## **Currently scheduled invited lecturers:**

Updates will be provided by center developers and remote sensing data providers. In addition, in depth lectures will be given, including the following:

**Oleg Dubovik (U. of Lille):** Practical Polarization-How developers and data assimilation should look on polarization data.

**Robert Holz (U. of Wisc.; PEATE Chief Scientist):** How can the NASA PEATE be a testbed for NRT aerosol products.

**Christina Hsu (NASA GSFC; VIIRS Project Scientist):** Where do we stand with VIIRS aerosol products?

**Edward Hyer (NRL):** Towards a consistent global fire emissions product.

**Robert Levy (NASA GSFC; lead MODIS aerosol developer):** What to expect from MODIS Col. 6.

**Brent Holben (NASA GSFC; lead of AERONET):** Update on AERONET: significant developments on Version 3 processing, new NRT products, expansion and collaboration with SKYNET.

**Simon Pinnock (ESA):** Lessons learned from AEROSOL\_CCI

**Itaru Sano (Kinki U.; GCOM-C Project Scientist):** Development of aerosol algorithm for GCOM-C product

**Nobuo Sugimoto (NIES; lead of NIES lidar network):** Development of EarthCARE ATLID data retrieval algorithm and validation plan using the ground-based lidar network

**E. Judd Welton (NASA, GSFC; lead of MPLnet):** Developing commonality in ground based lidar products.

### **Meeting Location:**

The meeting is held at Tsukuba International Congress Center (Epochal Tsukuba)  
2-20-3, Takezono, Tsukuba,  
Ibaraki, 305-0032,  
Japan

Tel: +81-29(861)0001

Fax: +81-29(861)1209

Website of the facility can be found at: <http://www.epochal.or.jp/eng/>

### **Getting to Tsukuba City:**

The closest international airport is Narita International Airport. From Narita to Tsukuba, you can take either train or bus. The easiest way is to take an express bus that runs directly from Narita airport to Tsukuba station by the Keisei Express Line. For further information, please visit following sites.

<http://www.okura-tsukuba.co.jp/eng/access.php>

<http://www.epochal.or.jp/eng/access/index.html>

### **Hotel Information:**

Several hotels are available near the Tsukuba International Congress Center.

Okura Frontier Hotel Tsukuba EPOCHAL <http://www.okura-tsukuba.co.jp/english/>

Directly connected to the congress center. This is the most convenient.

Okura Frontier Hotel Tsukuba <http://www.okura-tsukuba.co.jp/>

This hotel is located near Tsukuba station. About 8-minute walk to the congress center.

Daiwa Roynet Hotel Tsukuba <http://www.daiwaroynet.jp/english/index.html>

A relatively new hotel. Near Tsukuba station About 10-minute walk to the congress center.

Hotel Grand Shinonome <http://www.hg-shinonome.co.jp/>

A traditional Japanese style hotel. About 13-minute walk.

For further information, please visit the “Hotel and Inn” guide of the Tsukuba International Congress Center website: <http://www.epochal.or.jp/eng/hotels/index.html>

**Points of Contact:**

Questions regarding travel, meeting organization and format can be directed to

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**Registration Fee:** None requested.

**Registration Deadline:** Please submit your intention to participate by **Sep. 1 2013**. Late registrations will still be accepted, but we need a head count.