

# Atmospheric Composition Forecasting Working Group: Aerosol Observability

**Meeting Organizers:** Jeffrey Reid, NRL([Jeffrey.Reid@nrlmry.navy.mil](mailto:Jeffrey.Reid@nrlmry.navy.mil)), Angela Benedetti, ECMWF ([Angela.Benedetti@ecmwf.int](mailto:Angela.Benedetti@ecmwf.int)), Greg Carmichael ([GCarmich@engineering.uiowa.edu](mailto:GCarmich@engineering.uiowa.edu)); and Peter Colarco, NASA ([Peter.R.Colarco@nasa.gov](mailto:Peter.R.Colarco@nasa.gov))

**When and Where:** April 27-29, 2010, Monterey, CA. Casa Munras Hotel  
700 Munras Avenue · Monterey, CA, See information at bottom.

**Issue:** While the last 3 years has seen rapid operational implementation of aerosol and pollution models around the world, the key to the further development of these models is aerosol observing data from satellites and ground stations for model evaluation and data assimilation. However, while the dynamical meteorology community has a well developed near real-time observing system to support forecasting, the aerosol community is only beginning to address the problem. Indeed, there does not yet exist a truly operational global aerosol satellite product suitable for aerosol data assimilation.

**Response:** NRL, ECMWF, NASA, and the University of Iowa are co-organizing a series of workshops on operational atmospheric composition forecasting to discuss the problem of observability/predictability from research to operations. We invite participation by representatives from operational forecast and remote sensing centers which support atmospheric composition prediction. The first of these workshops—to be held in Monterey, CA—will focus on underlying aerosol *observability* issues faced by operational centers for model evaluation and data assimilation purposes. This will be followed by a meeting this summer hosted by ECMWF on operational aerosol *predictability*. Subsequent meetings will be organized as deemed necessary.

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

- a) Allow operational centers to describe their current state of atmospheric composition forecast development and research.
- b) Provide a venue for the discussion of operational observability requirements for data assimilation and verification with potential data providers.
- c) Generate a joint statement from operational stakeholders on research requirements for the next generation of products.
- d) Plan for advancing research on relevant observability issues

**Format:** This meeting will host a series of center level presentations and open discussions. Presentations are by invitation only. A tentative schedule is:

Day 1 AM: Forecast centers presentations on the current status of their program and immediate plans (ECMWF, FNMOG, GMAO, NCEP, UKMO etc...)

Day 1 PM: Briefings by observation data providers (EUMETSAT, NASA, NESDIS, NPOESS, etc.)

Day 2 AM: Applied science and development-observations

Day 2 PM: Applied science and development-models, data assimilation, and verification

Day 3 AM: Presentation, discussion and debate-observability requirements

Day 3 PM: Discussion- Research needs and final discussion

## Potential statements for discussion or debate:

- a) Future satellite sensors, retrievals, and products need to be designed with models and assimilation in mind. Must develop a framework to ensure this input is provided and considered. Effort is required to specify how this should be done.
- b) A real funding push is required for multi-sensor product and single sensor joint product development (i.e., physical consistency across products).
- c) Competitive products need to be encouraged at data centers.
- d) The applied science community should be consulted during sensor and product development for research satellites.
- e) External cal/val, outside of product developers, is required and must involve strong programmatic oversight.
- f) A realistic assessment of future sensors and data gap mitigation must be completed.
- g) Near real-time processing/best available processing is imperative for leveraging basic research and operations community.
- h) Better coordination of product development across air, land and ocean is needed.
- i) The community must specify some common formats for data distribution and display.
- j) Finally, how do we maintain our momentum for cross agency collaboration?

**Registration Fee:** We request participants pay a \$50 registration fee on arrival in US cash. Receipts will be given a receipt.

## Hotel Information:

A block of rooms is reserved at the Casa Munras Hotel:

<http://larkspurhotels.com/collection/casa-munras/accommodations>

700 Munras Avenue · Monterey, CA · 93940 · T: (831) 375-2411

The hotel offers government rates at \$140 per night (+tax) from April 26-May 1st, has free parking, internet, and use of the heated pool/sauna. A restaurant credit is provided with the standard room rate. If reserving by phone, please mention the 'NRL Meeting' If booking online, please use the following group code: **GGOV10**

## Getting To Monterey

Travelers can fly into Monterey Airport (MRY) from a transfer at San Francisco (SFO), Los Angeles (LAX), or Denver (DEN). Rental cars are available at MRY, although the hotel is conveniently located downtown. Taxi from the airport to the hotel is ~\$15. You may elect to rent a car or take a shuttle from San Francisco (SFO, about 2 hour drive) or San Jose (SJC, about 1 hour). Shuttle services include:

<http://www.montereyairbus.com/>

[http://supershuttle.shuttletfare.com/make\\_res.jsf?gclid=CLrrybaA5J8CFQMsawodNiW9GQ](http://supershuttle.shuttletfare.com/make_res.jsf?gclid=CLrrybaA5J8CFQMsawodNiW9GQ)

<http://www.californiaairportshuttleinc.com/?gclid=CPvy4KeA5J8CFRwUawodBCDyHQ>

## Point of Contact:

Questions regarding travel, meeting organization and format can be directed to Jeffrey S. Reid

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