SOAS Ground Site Data Management

Handled through NOAA

In practice:
- Report data on 1-min time basis (NOAA will provide), 1-sec data to stay with PI
- Slower data use start and stop
- Profile data: image files + time series of derived parameters, e.g. BL height
- Flux data: fluxes only, high-frequency data to stay with PI
- Use 1 file for entire time series
- Naming: Rev A even when data are added, Rev B if calibration changes etc.; Rev 0, 1 etc. for preliminary to final data
- ICARTT format; UTC time

Open for suggestions. Detailed instructions to follow

U.S. Department of Commerce | National Oceanic & Atmospheric Administration | NOAA Research

Earth System Research Laboratory
Chemical Sciences Division

Search CSD:
[   ] Search
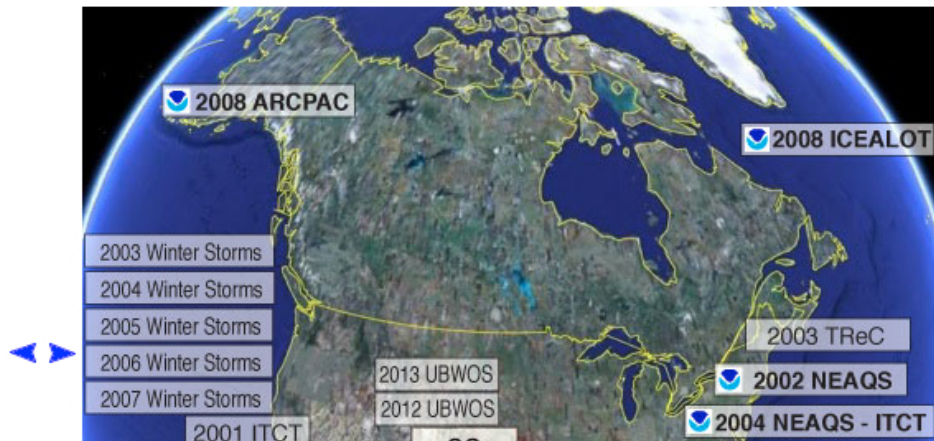Calendar | People | Publications

Tropospheric Chemistry: Measurements

Tropospheric chemical research relies on measurements of the chemical and physical processes of the troposphere, particularly the effects of pollution on those processes. These measurements are obtained from mobile and ground-based platforms during coordinated field projects including CalNex 2010, ARCPAC 2008, ICEALOT 2008, TexAQS 2006, NEAQS-ITCT or ICARTT 2004, ITCT 2002, NEAQS 2002, TexAQS 2000, and SOS 1999. In addition, we also have information about field projects before 1999.

Climate Change, Air Quality, Air Pollution

Our field experiments have been designed to address components of these major topics by making measurements of chemical species, aerosol size and composition, as well as solar radiation using an extensive suite of instruments. These measurements are made by scientists from CSD as well as those from other institutions that we collaborate with. Here you can find this data from all of our major field campaigns.

Please note data access may require authentication. Resources for investigators include Data (Igor) Tools *(authentication required)* and ICARTT Data Format information. Use the faceted datasets search tool to search data across all major projects. Provided for convenience are also datasets for modellers.

Field projects begun after 1999 are identified on the globe below. **Mouse over a project name for basic information, or click a project name for detailed information and data.** Alternatively, view a field missions text listing instead of navigating the globe.

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Search CSD:
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Calendar | People | Publications

CalNex 2010 | Science | Data | Analysis & Tools | Logistics | Participants | Photos | Other Field Projects

Coordinating Activities

CARB Field Study Plan
DOE ARM CARES

CalNex White Paper 📄

CalNex 2010
## California Nexus
Research at the Nexus of Air Quality and Climate Change

Where: California and the eastern Pacific coastal region

When: May - July 2010

What: The focus of NOAA's field study includes ESRL CSD airborne measurements using the NOAA WP-3D aircraft and the Twin Otter Remote Sensing aircraft, and surface measurements using the R/V *Atlantis* mobile platform as well as stationary ground sites.

Who: Investigators in this project include researchers from several universities, industries, and governmental agencies. Participating institutions include Georgia Tech and University of Colorado CIRES.

Science to Support Decisions
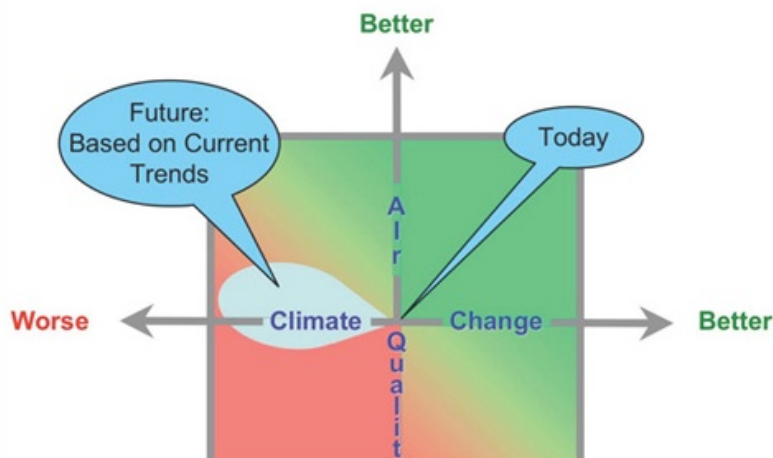
www.esrl.noaa.gov/csd/groups/csd7/measurements/2010calnex/P3/DataDownload/

Google ▼   News ▼   Weather ▼   JGR Atmospheres   VOC Group   ISI Web of Knowledge   ResearcherID.com   Wikipedia   Pandora   Simplenote

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Coordinating Activities

CARB Field Study Plan
DOE ARM CARES

CalNex White Paper 📄

WP-3D Data Download

Data policy

☐   Please check this box to signify agreement with our data policy. Then click the submit button below.

Use of Data

These NOAA Chemical Sciences Division (CSD) field project data are made freely available to the public and the scientific community, and are the product of extensive research and effort to maintain and improve their accuracy and quality. However, the availability of these data does not constitute publication, and NOAA CSD and their collaborating partners require citable outputs from their research to ensure its continued support. We therefore expect all users of this data to ensure that the responsible scientists receive fair credit for their work, and are offered the opportunity to contribute to the research uses of the data as they deem appropriate.

Accordingly, we ask that all users note and adhere to the following guidelines and procedures when using these data:

1. These data are freely available for exploratory analysis. At such time as a journal publication or conference presentation is planned using these data, the relevant PIs of measurements included in the analysis should be informed of the nature and aims of the research project and the intended use of the data. PI contact details are given in the header files of the ICARTT-formatted data.

2. Contacting the PIs will ensure they have adequate foreknowledge of the proposed research and thus the opportunity to contribute as appropriate to the use of CSD field project data in the proposed research project.

3. If the PI makes a significant intellectual contribution to the research, or if the data are essential to the work, or if an important result or conclusion depends on the data, co-authorship would normally be expected. This should be discussed at an early stage in the work.

4. Manuscripts using the data with NOAA field project co-authors should be sent to the coauthors for review

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Coordinating Activities

CARB Field Study Plan
DOE ARM CARES

CalNex White Paper 📄

WP-3D Data Download

Data options:

- Read about data updates (Notices) or details on all species measured (Data Info).
- The P3 log file contains dates and times (CO local time) of data submitted.
- Search for data submitted after a certain date.
- Download merged file for a parameter (all flights concatenated).
- Download a parameter for all flights (each flight in its own folder).
- Download AWAS Flask merge files and one minute merge files containing all species for a flight.
- Select a flight below to download data.

[Select a flight   ⇕] [Go]

flt20100504 is currently selected. View flight track or see flight descriptions

All files are zipped. Click on the icon to download. See the Data ID table for file details.
Data revision is indicated by R followed by a letter (preliminary data) or number (final data).
All data except VOCsAWAS and PILS are aligned to AOCTimewave - the master time base for all the measurements.

The [icartt text] indicates files in ICARTT ascii format.

The [Ig] indicates files in Igor binary format.

The ❌ indicates no files will be available - contact the PI.

All time is UTC.

Download the entire data set: [Ig] [icartt text] Be patient as these files can be large and slow.

| **Aircraft** [Ig] [icartt text] ⓘ				**Chem** [Ig] [icartt text] ⓘ				**Aerosol** [Ig] [icartt text] ⓘ				**Radiation** [Ig] [icartt text] ⓘ			
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Forecast, Imagery and Modeling

1. GOES visible and IR: every 15 min, archived for the entire study period, U.S. and sub-regions

2. Composite radar - base reflectivity

Examples for DC3 (Owen Cooper):

www.esrl.noaa.gov/csd/groups/csd4/metproducts/2012dc3/
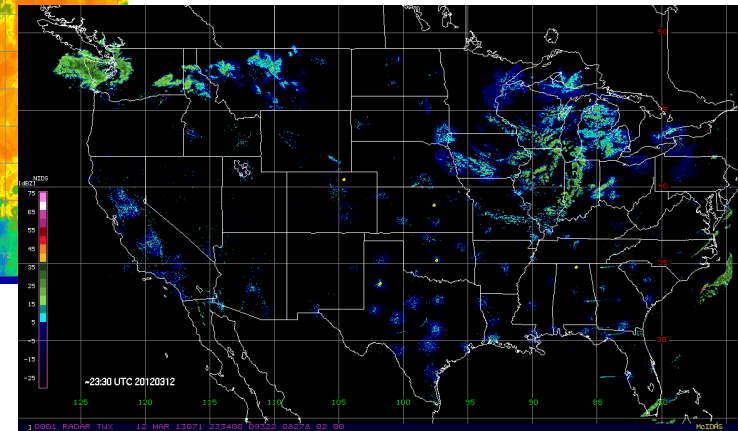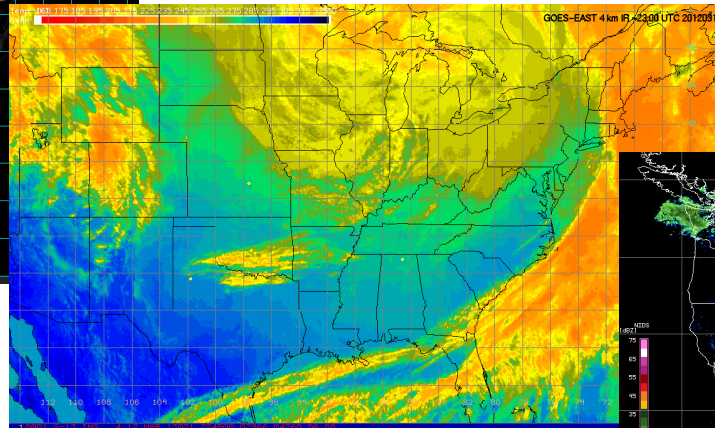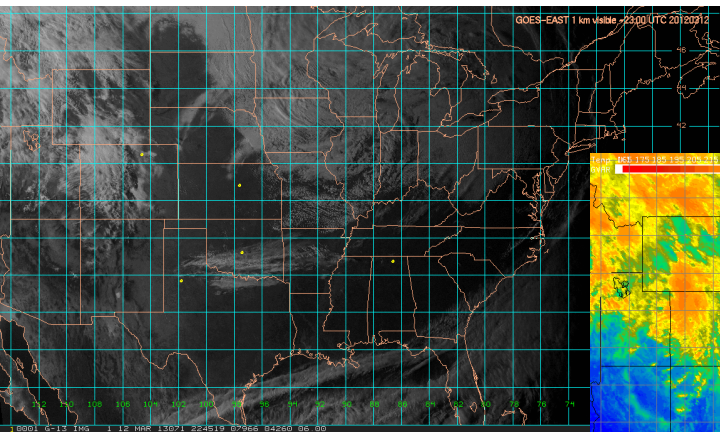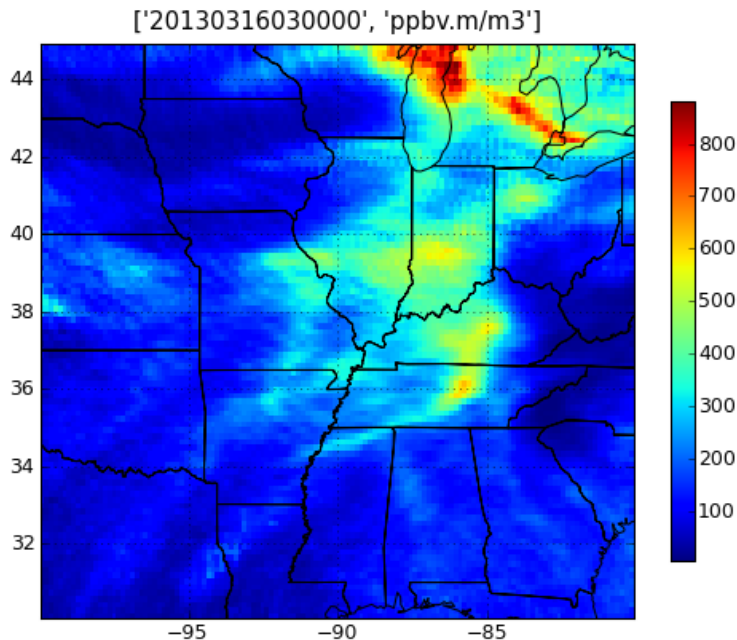
Forecast, Imagery and Modeling

3. Flexpart forecasts (biomass burning, anthropogenic, perhaps simplified biogenic)

4. Flexpart analyses: time series and footprints for WP-3D flight tracks and ground sites

Forecast site already up (Jerome Brioude):

www.esrl.noaa.gov/csd/groups/csd4/forecasts/senex/

North-American CO
Forecast for March 16, 2013
Column CO
Transport time of 10 days

Forecast, Imagery and Modeling

5. WRF-Chem model output: not forecasts (Stu McKeen and Ravan Ahmadov)

6. GFDL AM3 model: output along WP-3D flight tracks and for ground sites (Larry Horowitz, Jingqiu Mao)

7. Emissions: Map viewer (Greg Frost)

8. Real time NOAA WP-3D data on top of various imagery and model forecasts

Communication

Need regular communication (phone calls) between platform PIs:
- Discuss forecasts, planned flights, observations, coordinate
- Daily?
- What time works best?
- What technology?

Communication across all Southeast 2013 participants
- Social media?
- Need to have some control who has access for science findings, flight plans, etc.