

# CONTRAST



CONvective TRansport of Active Species in the Tropics: Guam, Jan–Feb 2014

## CONTRAST Web Site & Data Management

Janine Aquino<sup>1</sup>

Linda Echo-Hawk<sup>1</sup>

Steve Williams<sup>1</sup>

Greg Stossmeister<sup>1</sup>

CONTRAST Workshop, Oct 20, 2014, NCAR



<sup>1</sup> Earth Observing Laboratory, National Center for Atmospheric Research,  
Boulder, CO, United States



# EOL CONTRAST Project Page

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Closures/Emergencies

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About EOL

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Facilities & Instruments

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Data & Software

News & Events

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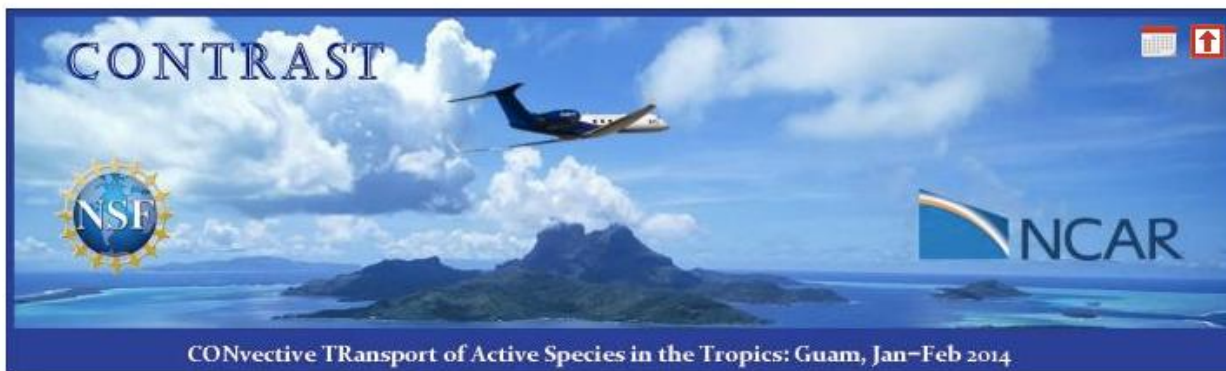


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January 15, 2014 to February 28, 2014 Project Location: Guam, Western Pacific

Project Phase: Accepted

Funding Type: NSF Funded

### What's New?:

**Coming Soon:** 2014 Western Pacific Airborne Campaign (WPAAC) and CAST), 20-23 October 2014, [Agenda Now Available](#)

### Project Description:

#### Principal Investigators

- [Elliot Atlas](#) - RSMAS, University of Miami
- [Ross Salawitch](#) - University of Maryland
- [Laura Pan](#) - Atmospheric Chemistry Division/NCAR

The most extensive deep clouds in Earth's climate system occur during Northern Hemisphere winter. These clouds pack a punch as they pass through the boundary that separates the lowest atmosphere from the stratosphere. As Earth warms, the intensity of tropical convection will increase. The Tropics are the nexus between global warming and large-scale changes in atmospheric composition.

### Plus:

- Meetings & presentations
- Logistics & Safety
- Related links
- Digital Media
- Participants & Mailing Lists
- Contact info

### CONTRAST PAGES

[NCAR/ACD CONTRAST Page](#)

### DATA ACCESS

[Data Access](#)  
[Field Catalog](#)

### FACILITIES & PLATFORMS

[HIAPER](#)

### DATA DOCUMENTATION

[CONTRAST Data Set Documentation \("Readme"\) Guidelines](#)  
[CONTRAST Data Submission Instructions](#)  
[CONTRAST Draft Data Policy](#)

### DOCUMENTS

▶ [CONTRAST GV Documentation Summary](#)

# CONTRAST Data Archive



## DATA BY CATEGORY

- Accompanying Archives
- Aircraft
  - NASA Global Hawk
  - NSF/NCAR GV HIAPER
  - UK BAE-146
- Ancillary
- Chemistry
- Land Based
- Lightning
- Model
- Oceanography
- Photography
- Radar
- Radiation
- Satellite
- Upper Air

## Back to CONTRAST

Email comments & questions to [codiac@ucar.edu](mailto:codiac@ucar.edu)

Aircraft: NSF/NCAR GV HIAPER		
<a href="#">AeroLaser Vacuum Ultra Violet (VUV) Fluorescence In Situ Carbon monoxide (CO) mixing ratio [Campos (NCAR-ESL-CARI, NCAR/RAF)]</a>	New 2014-10-17	
<a href="#">AMAX-DOAS Data [Volkamer, Rainer (U. Colorado)]</a>		
<a href="#">Digital Camera Movies [NCAR/RAF] - preliminary [Beaton (NCAR-EOL-RAF)]</a>	New 2014-08-22	
<a href="#">Downward-Looking Digital Camera Imagery [Beaton (NCAR-EOL-RAF)]</a>	2014-04-11	
<a href="#">Flight Tracks (Catalog Maps screen grabs) [(NCAR-EOL)]</a>	New 2014-07-28	
<a href="#">Flight Tracks (Google Earth .kml files) [(NCAR-EOL-RAF)]</a>	New 2014-09-04	
<a href="#">Forward-Looking Digital Camera Imagery [Beaton (NCAR-EOL-RAF)]</a>	2014-04-11	
<a href="#">Georgia Tech Chemical Ionization Mass Spectrometer (GT - CIMS) [Huey, L. Gregory (Georgia Tech.)]</a>	New 2014-09-29	
<a href="#">HAIS Advanced Whole Air Sampler (AWAS) [Atlas (U. Miami)]</a>	New 2014-09-17	
<a href="#">HIAPER Atmospheric Radiation Package (HARP) CCD Actinic Flux Spectrometers Photolysis Frequencies [Hall (NCAR-ACD)]</a>	New 2014-09-09	
<a href="#">In Situ Chemiluminescence NO, NO2, O3 Data [Weinheimer, Andrew (NCAR-ESL)]</a>	New 2014-10-06	
<a href="#">In-Situ Airborne Formaldehyde (ISAF) Data [Hanisco, Thomas (NASA-GSFC)]</a>	New 2014-09-17	
<a href="#">Left-Looking Digital Camera Imagery [Beaton (NCAR-EOL-RAF)]</a>	2014-04-11	
<a href="#">Low Rate (LRT - 1 sps) Navigation, State Parameter, and Microphysics Flight-Level Data [(NCAR-EOL-RAF)]</a>	New 2014-09-04	
<a href="#">PICARRO G1301-f In Situ Carbon dioxide (CO2) mixing ratio, Methane (CH4) data [Campos (NCAR-ESL-CARI, NCAR-RAF)]</a>	New 2014-10-17	
<a href="#">PMS-2D Two-dimensional Cloud Probe data [(NCAR-EOL-RAF)]</a>	2014-04-11	
<a href="#">Right-Looking Digital Camera Imagery [Beaton (NCAR-EOL-RAF)]</a>	2014-04-11	
<a href="#">TOGA VOC Analyzer Data [Apel, Eric (NCAR-ACD)]</a>	Updated 2014-10-10	
Aircraft: UK BAE-146		
<a href="#">Aircraft-Integrated Meteorological Measurement System (AIMMS-20) Data [(FAAM)]</a>		



# CONTRAST Field Catalog

## CONvective TRansport of Active Species in the Tropics

[Home](#) [Reports](#) [Status](#) [Products](#) [Missions](#) [Tools & Links](#) [Data Access](#) [Help](#)



### Status

The CONTRAST Field Campaign took place between 1/15 - 2/28 2014 in the West Central Pacific. The base of operations was located at Guam. The NSF/NCAR-GV conducted a series of flights in concert with other collaborating projects that included the FAAM BAe-146 (CAST) and a NASA Globalhawk (ATTREX).

For a summary of these operations and related products, please click on the "**Missions**" link above.

To replay previous cases via the Field Catalog GIS tool, click on [Catalog Maps](#)

For a list of reports related to project operations, click on the "**Reports**" link above.

Datasets for this project can be found in the [CONTRAST Data Archive at EOL](#).

For other data management related questions, please see the [CONTRAST Data Management Pages at EOL](#).



#### Phone Numbers

Operations Center: +671 646 1835 X5361

#### Daily Planning Meetings via Readytalk:

Access Number: +866-740-1260

Web Access for Presentations: [www.readytalk.com](http://www.readytalk.com)

Access Code for Phone and Web Access: 4978380

#### External Webpages

[CONTRAST \(EOL\)](#)

[CONTRAST \(ACD\)](#)

[ATTREX \(NASA\)](#)

[CAST \(FAAM\)](#)

[EOL](#)

[EOL/CDS](#)

[EOL/FPS](#)

#### Catalog Resources

[Field Catalogs](#)

[Catalog User Guide](#)

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[IRC Chat Access](#)

Request IRC Password:

[catalog@eol.ucar.edu](mailto:catalog@eol.ucar.edu)



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Still available on-line and will continue to be. Front page (shown) has been modified to point to the Data Management and archive pages at EOL.

DRAFT – 14 August 2014

## CONTRAST Data Submission Instructions

**FTP:** ftp.eol.ucar.edu

**Login:** anonymous

*(No password required.)*

**cd /pub/data/incoming/contrast**

*(NOTE: This command should be done all in one step.)*

It is very important to send an e-mail to [sfw at ucar.edu](mailto:sfw@ucar.edu) indicating that the data file(s) have been FTPed

1. All investigators participating in CONTRAST agree to promptly submit their quality controlled data to the CONTRAST Data Archive Center (CDAC) at the latest by 31 August 2014 (six months after the end of the field campaign) to facilitate inter-comparison of results, quality control checks and inter-calibrations, and integrated interpretation of the combined data set.
2. Model output related to the CONTRAST or combined CONTRAST/ATTREX/CAST data sets will be similarly made available to the science teams as soon as is practical.
3. It has been agreed that collaborating project data (ATTREX and CAST) will be submitted to their respective archives according to their respective data policies and will be made available to CONTRAST Principal Investigators (PIs) during ATTREX and CAST restricted periods. A reciprocal agreement similarly allows data access for CONTRAST investigators to the restricted CAST and ATTREX archives.
4. During the initial data analysis period, defined as a one-year period following the agreed submission deadline to the CONTRAST archive, CONTRAST, ATTREX and CAST Investigators will have exclusive access to these data and model products. This initial analysis period is designed to provide an opportunity to quality control the combined data set as well as to provide the investigators ample time to prepare manuscripts for publication and presentation.
5. All data shall be promptly provided to other CONTRAST investigators upon request if not available through the archive. All CONTRAST investigators will have equal access to all data. A list of CONTRAST investigators will be maintained by NCAR/Atmospheric Chemistry Division (ACD) and will include the Investigators directly participating in the field experiment as well as collaborating scientists (including ATTREX and CAST) who are members of the CONTRAST Science Team. No restricted data will be provided to non-CONTRAST Investigators without the permission of the PI who collected that data.
6. During the initial analysis period, the Investigator(s) who collected the data or generated model output must be notified of the intent to use the data or model products in the early phase of the research project. It is agreed that PIs responsible for acquisition of data or generation of model output be invited to become collaborators and co-authors on any projects, publications and presentations that results from use of the data or model product they have provided.
7. All data will be considered public domain one year after the agreed submission deadline to the CONTRAST archive (i.e., on 31 August 2015 and thereafter). A data set within the CONTRAST archive can be opened to the public domain earlier at the discretion of the data provider for this particular data set. ATTREX and CAST data will be opened to the public domain according to their respective data policies. Links to ATTREX and CAST data archives will be made and maintained through the CDAC.

Event	Deadline
End of Field Campaign	28 February 2014
Preliminary Data Submission Deadline	31 August 2014
Final Data Submission Deadline	31 August 2015
Initial Data Analysis Period (CONTRAST Science Team members have exclusive access to the data during this period.)	31 August 2014 - 31 August 2015
Data becomes Public Domain	1 September 2015

# CONTRAST Movies

Movies showing a montage of all four camera pointings: <http://data.eol.ucar.edu/codiac/dss/id=383.011>

Can create movies containing any of the four camera directions plus a select set of data parameters taken from the low rate netCDF files. Would this be a helpful product, and if so, what variables you would like to see alongside the imagery?

HIPPO example:



```
rf01
06/14/2011
```

## Standard Variables:

```
Date                2011-06-14
Start.UTC            16:03:55
GGALT                1841.556030
GGLAT                39.914497
GGLON                -105.126328
ATX                  18.354078
DPXC                 0.340819
PSXC                 815.912476
RHUM                 29.678720
TASX                 96.133041
THDG                 302.866211
PITCH                16.295364
ROLL                 1.890679
WSC                  13.800118
WDC                  279.698914
DP_VXL              0.340819
VMR_VXL              7679.721680
```