



TCI Data Management Update

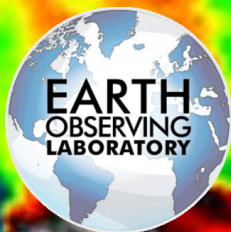
Scot Loehrer, Greg Stossmeister, Jim Moore

NCAR/EOL

ONR TCI Science Meeting

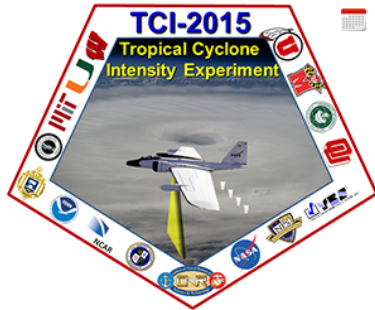
Boulder CO

18-19 October 2016



NCAR/EOL TCI Web Site

Tropical Cyclone Intensity (TCI) Experiment



July 15, 2015 to October 31, 2015

→ [Files & Brochures](#)

What's New?:

The **TCI Science Workshop** is scheduled for 18-19 October 2016 in Boulder, CO. [A preliminary agenda is now available.](#)

Presentations from the 19 August 2016 TCI Telecon are available [here](#).

HRD Tropical Weather Map Discussions: Web: [GoToMeeting](#) Audio: 1-866-700-1361, passcode 491147

[Submit data to the TCI Archive](#)

[Submit a TCI Publication](#)

[DOI Guidance to Authors](#)

Project Description:

The goal of the Tropical Cyclone Intensity (TCI) initiative is to improve the prediction of tropical cyclone (TC) intensity and structure change. The specific focus is an improved understanding of TC upper-level outflow layer processes and dynamics. This will be investigated in a comprehensive manner using the observations obtained during the TCI field phase in 2015 and high-resolution tropical cyclone models. Our ultimate goal is to improve the prediction of tropical cyclone intensity change, especially rapid intensification (RI) and rapid decay (RD) as well as TC structural changes that are hypothesized to occur through synergistic interactions with outflow.

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TCI Long-Term Distributed Data Archive




DATA BY CATEGORY

- Aircraft
- Ancillary
- Forecast Text Products
- Land Based
- Model
- Oceanography
- Photography
- Radar
- Satellite
- Upper Air

[Back to TCI](#)

Email comments & questions to codiac@ucar.edu

TCI Data Sets

Data Set Name (Responsible Group/PIs shown in parentheses)	Date Posted	Info
Aircraft		
Aircraft Data Table		
AXBT Data [Beth Sanabia (USNA)]		
Aircraft: NASA WB-57		
ONR Tropical Cyclone Intensity 2015 NASA WB-57 HDSS Dropsonde Data [M. Bell et al (University of Hawaii)]	2016-03-23	
Ancillary		
TCI Field Catalog Daily Reports [(NCAR/EOL)]	2015-11-12	
TCI Field Catalog Missions Summary [(NCAR/EOL)]	2015-11-12	
Forecast Text Products		
TCI Field Catalog NHC Text Products [(NCAR/EOL)]	2015-11-12	
Land Based		
GTS LDM Surface Hourly Observations (Global_GEMPAK)	2015-12-16	
GTS LDM Surface Synoptic Observations (Global_GEMPAK)	2015-12-16	
LDM Surface METAR Data (METAR format)	2015-12-16	
NOAA/ESRI/GSD MADIS GTS METAR Data (netCDF format)	2015-12-16	
Model		
TCI Field Catalog Model Products [(NCAR/EOL)]	2015-11-12	
Oceanography		

- Lists all TCI-specific data sets whether housed at NCAR/EOL or other locations.
- Data organized by categories.
- Includes TCI research as well as operational data sets.
- Users notified of updates to data sets.
- As per TCI Data Policy, password protection continues to 1 April 2017.

http://data.eol.ucar.edu/master_list/?project=TCI

TCI Long-Term Distributed Data Archive

TCI Flight Data Table

Jump to Storm: [Erika](#) [Marty](#) [Joaquin](#) [Patricia](#)

Data format descriptions: [Serial Data](#) [Flight Director's Log](#) [P-3 LF Radar Sweep File](#) [SFMR](#) [HAMSR](#)

Erika											
25 August 2015											
Aircraft	Flight ID	TO Time	Drops	Flight Level Data				Flight Logs	Radar	SFMR	Other
				1 sec	Serial	30 sec	NetCDF				
NOAA 49	WA05A	1345	X	X	X		X	X			
USAF 301	0105A	1632	X	X			SUM SYS DIAG SAT		X		
NOAA 43	WB05A	2048	X	X	X		X	X	X		
26 August 2015											
Aircraft	Flight ID	TO Time	Drops	Flight Level Data				Flight Logs	Radar	SFMR	Other
				1 sec	Serial	30 sec	NetCDF				
NOAA 43	WC05A	0554	X	X	X		X	X	X		
USAF 301	0205A	0847	X	X			SUM SYS DIAG SAT		X		
NASA DC8	1046	~1100		X			X				
NASA AV6	WX05A	1400					SUM			HAMSR	
NOAA 43	0305A	1706	X	X	X		X	X	X		
USAF 301	0405A	2120	X	X			SUM SYS DIAG SAT		X		
27 August 2015											
Aircraft	Flight ID	TO Time	Drops	Flight Level Data				Flight Logs	Radar	SFMR	Other
				1 sec	Serial	30 sec	NetCDF				
NOAA 43	0505A	0456	X	X	X		X	X	X		
USAF 303	0605A	1018	X	X			SUM SYS DIAG SAT		X		
NASA DC8	1047	~1200		X			X				
NOAA 49	0705A	1728	X	X	X		X	X			
USAF 309	0805A	1938		X			SUM SYS DIAG SAT		X		
28 August 2015											
Aircraft	Flight ID	TO Time	Drops	Flight Level Data				Flight Logs	Radar	SFMR	Other
				1 sec	Serial	30 sec	NetCDF				
NOAA 43	0905A	0607	X	X	X		X	X	X		
USAF 303	1005A	0819	X	X			SUM SYS DIAG SAT		X		
NASA DC8	1048	~1300		X			X				
NOAA 49	1105A	1726	X	X	X		X	X			

- Contains listing of all flights into 2015 storms flown by TCI
- Includes NOAA G-IV, NOAA P-3, USAF C-130, NASA DC-8, NASA Global Hawk, and NASA WB-57.
- Links to all data sets for each flight including dropsondes, flight level data, aircraft radar, SFMR, flight logs, and other instrumentation (e.g. HAMSR).
- Other than WB-57 data not currently housed at EOL.

https://www.eol.ucar.edu/projects/tci/flight_data/

TCI Data Sets

- **HDSS Dropsondes (M. Bell)**
- **HIRAD (D. Cecil; recently submitted)**
- **AXBT (B. Sanabia; not yet submitted)**
- **GOES Atmospheric Motion Vector Data (C. Velden)**

- **NOAA G-IV Dropsondes, Flight Level, Flight Logs, Radar**
- **NOAA P-3 Dropsondes, Flight Level, Flight Logs, Radar, SFMR**
- **USAF C-130 Dropsondes, Flight Level, Flight Logs, SFMR**
- **NASA DC-8 Flight Level, Flight Logs (more to come)**
- **NASA Global Hawk Dropsondes, Flight Logs, HAMS**

- **NWS High Resolution Radiosonde Data (NCAR/EOL)**
- **Caribbean and Mexican GTS Mandatory/Significant Level Data (NCAR/EOL)**
- **AMDAR/ACARS Data**
- **MADIS Mesonet Data**
- **GTS METAR Data (NetCDF, ASCII, GEMPAK formats)**
- **GTS SYNOP Data**
- **GTS Ship and Buoy Data (NetCDF and GEMPAK formats)**
- **USPLN Lightning**

TCI Field Catalog and Catalog Maps

TCI Field Catalog
Tropical Cyclone Intensity Experiment

Home Maps Reports Status Products Missions Tools & Links Data Access Help

Two-Day Graphical Tropical Weather Outlook
National Hurricane Center Miami, Florida

No Disturbances
Satellite Image from 1:30 pm EDT Oct 14

NICOLE

E. PACIFIC OUTLOOK
2:00 pm EDT
Fri Oct 13 2016

Current Disturbances and Two-Day Cyclone Formation Chance: < 40% 40-60% > 60%

Tropical or Sub-Tropical Cyclone: Depression Storm Hurricane

Post-Tropical Cyclone Remnants

Current Reports
Operations Plan of the Day
Weather Discussion
WB-57 Mission Science Summary

Tools
Catalog Maps (GIS Tool)

Chatrooms
IRC Chat Access
Help Documentation
Get a Password:
catalog@eol.ucar.edu

Schedule
No data found.
Last updated 2016-08-24 21:55:55 UTC

mibbitz

<http://catalog.eol.ucar.edu/maps/tci>

TCI Catalog Maps also is part of the Long-Term Data Archive and contains the full set of layers available in real-time allowing for playback of TCI missions.

The TCI Field Catalog and Catalog Maps contain ~2.7 million products and reports and use ~355Gb of disk space.

<http://catalog.eol.ucar.edu/tci>

TCI Field Catalog is part of the Long-Term Data Archive and contains the full compliment of reports and products generated in the field.

Most products also collected for 2016 season.

Catalog/Maps / TCI
NCAR / EOL / CDS

Time / Playback
Mode: Playback
Map Time: 2016-10-07 01:04 UTC
Reset to Latest

Time Step
Back 3 hours Forward

Date / Time Select
October 2016

Su	Mo	Tu	We	Th	Fr	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Hour: 1 Minute: 4
Date / Time Select

Tools

- Latitude/Longitude Lines
- Mouse Position
- Measure Tool
- Waypoints Tool
- Camera
- Layers
 - NSF/NCAR GIV Camera Imagery
- Positions
 - NSF/NCAR GIV Position
 - NASA WB-57 Position
 - NASA Global Hawk Position
 - NOAA WP-3D N43RF Position
 - NOAA GIV N49RF Position

TCI Publications Library



Tropical Cyclone Intensity (TCI) Experiment



Submit Publication References to this List

Publications

Other Citation Links

PUBLICATIONS

[A-D](#) [E-H](#) [I-L](#) [M-P](#) [Q-T](#) [U-Z](#) [Back to Top](#)

- Creasey, R., and R. Elsberry, 2016: Tropical Cyclone Center Positions from Sequences of HDSS Sondes Deployed along High-Altitude Overpasses. *Wea. Forecasting.*, doi:10.1175/WAF-D-16-0096.1, in press. [edit]

OTHER CITATION LINKS

[Web of Science](#)
[Meteorological Abstracts](#) - (UCAR Access Only)

The NCAR Library provides UCAR/NCAR/UCP staff Remote Access to the Library's electronic journals from anywhere in the world. Visit the [Library home page](#), click on "Remote Access" on the top bar of the page, and enter your UCAS username and password.

- Contains links to TCI publications as they become available.
- Includes referred papers, reports, theses, and conferences.
- Investigators can submit their own publications to the page via a form.

Publication Reference Submission

To submit a publication reference, please fill out the form below.

Related Field Project(s) *

Enter the field project acronym(s) associated with the publication (e.g. PECAN, DYNAMO, ACADIS, etc.).

Reference *

Doe, J., and M. Smith, 2010: Publication Title. *Journal*, 54, 234 - 240, doi: 10.1029/exampleDOI555.

Enter a full publication reference above. AMS reference format (as shown in the example) is preferred.

Publication DOI (or URL)

http://dx.doi.org/10.102doi_example.555

Enter the DOI for the publication above. If a DOI is not available enter the URL of the online publication.

Publication Type *

Publications

Select the category associated with this reference (publication, conference proceeding, report, etc.)

Corresponding Author *

Full name of the main author associated with this publication.

E-mail *

Enter the e-mail of the corresponding author above.

Organization/Institution *

Enter the corresponding author's organization or institution above.

EOL Facility/Instrument

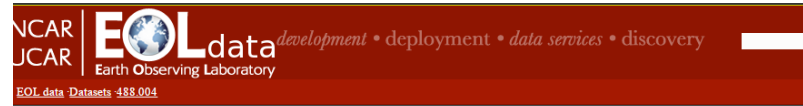
Please list any EOL observing facilities, platforms or instruments that generated datasets used in this publication.

Submit

NCAR/EOL DOI Implementation

- EOL has started routinely issuing DOIs for data sets from EOL instrumentation for current projects as well as for projects going back to 2005.
- For current projects EOL has also been issuing DOIs for PI data sets housed at EOL after consultation with PI.
- Links the publication with the data set(s) used in the research.
- Allows for the tracking of the use of EOL-hosted data sets to provide useful metrics.
- Provides users a simple, standard way to reference EOL-hosted data sets.
- Provides recognition for authors whose creativity and work created the data sets.
- Lead the EOL community in following modern data citation practices.

TCI DOI and Citation Information



ONR Tropical Cyclone Intensity 2015 NASA WB-57 HDSS Dropsonde Data



Summary

This data set contains the high vertical resolution (0.5 second PTH and 0.25 second GPS and winds) profiles from the expendable Digital Dropsondes (XDD) from the High Definition Sounding System (HDSS) that was on the NASA WB-57 aircraft for the Tropical Cyclone Intensity (TCI) 2015 field campaign sponsored by the Office of Naval Research (ONR). The data set includes a total of 786 quality controlled dropsondes from 11 flights in four tropical cyclones in the eastern Pacific (Marty and Patricia) and Atlantic (Erika and Joaquin) basins. The data are in the columnar ASCII EOL Sounding Format and in tar files by flight.

Data access

- [ORDER](#) data for delivery by FTP

Additional information

Identifiers	<ul style="list-style-type: none">• Local archive identifier: 488.004• doi:10.5065/D6KW5D8M <p>Permanent Link Search ReFindit</p>
Versions	1.0
Metadata download	<ul style="list-style-type: none">• DataCite• ISO/TC 211• Text <p><i>Note that your browser may not display the above metadata links, but automatically save them as files in a folder such as "downloads"</i></p>

Related projects	TCI Tropical Cyclone Intensity Experiment
Spatial Type	point
Frequency	criteria
Language	English
Categories	Upper Air , Sounding
Platforms	NASA WB-57
Documentation	TCI2015_HDSS_QA_Summary.pdf [203 KiB]

Citation

Example citation following [ESIP guidelines](#):

Bell, M., Doyle, J., Beaubien, M., Allen, T., Brown, B., Dunion, J., Duran, P., Feldmeier, J., Harrison, L., Hendricks, E., Jeffries, W., Komaromi, W., Martinez, J., Molinari, J., Moskaitis, J., Stern, D., Vollaro, D. 2016. ONR Tropical Cyclone Intensity 2015 NASA WB-57 HDSS Dropsonde Data, Version 1.0. UCAR/NCAR - Earth Observing Laboratory. <http://doi.org/10.5065/D6KW5D8M>. Accessed 14 Oct 2016.

Today's date is shown— please replace with the date of your most recent access.

Additional citation styles

Citations are obtained from the [CrossCite](#) DOI citation service and may take a few seconds to load. Today's date is shown— please replace with the date of your most recent access.

Style: Locale:

Bell, M., and Coauthors. 2016. ONR Tropical Cyclone Intensity 2015 NASA WB-57 HDSS Dropsonde Data, Version 1.0. doi:10.5065/D6KW5D8M. <https://doi.org/10.5065/D6KW5D8M>. Accessed 14 Oct 2016.

DOI Metadata

Sample Citation

Additional Citation Styles

Whenever data are ordered, there is a special readme file included as part of the data set that contains dataset metadata including the citation information.

EOL DOI Guidance for Authors

Guidance to Authors

The National Center for Atmospheric Research Earth Observing Laboratory uses Digital Object Identifiers (DOIs) to promote attribution of EOL-hosted Lower Atmospheric Observing Facilities (LAOF) and datasets. We do so to recognize the work and creativity of dataset authors, follow modern data citation practices, obtain reliable metrics, and implement reproducible research practices.

This document provides guidance for authors on citing EOL LAOF and datasets both within the body of a publication, and well as in the references section. These guidelines take guidance from the Harvard citation style and other sources referenced at the end of this document. If you are submitting your publication to a journal, please be sure to follow their required guidelines.



Accessing Datasets and Citing a Dataset in the Reference Section of a Publication

Within the [EOL data archive](#), each dataset landing page contains a link to order/download the data.

A screenshot of a web browser displaying a dataset landing page from the EOL data archive. The page header includes the NCAR UCAR logo and the text "EOLdata Earth Observing Laboratory". The main title of the dataset is "AeroLaser Vacuum Ultra Violet (VUV) Fluorescence In Situ Carbon monoxide (CO) mixing ratio". Below the title, there is a "Summary" section, a "Data access" section with a link to "ORDER data for delivery by FTP", and an "Additional information" section. The "Additional information" section lists "Identifiers" (Local archive Identifier: 483.005 and doi:10.5065/D4MPS1B4), "Versions" (0), and "Metadata download" links for "Datafile", "INSTRCT_111", and "Text". A note at the bottom states: "Note that your browser may not display the above metadata links, but automatically save them as files in a folder such as 'Downloads'".

Includes information on:

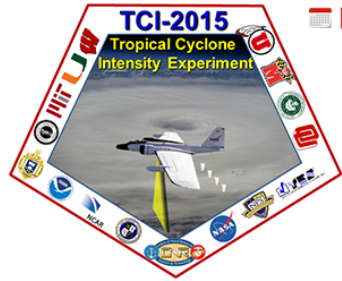
- Where to find DOI and citation information for data sets housed at NCAR/EOL.
- How to cite data sets within the body of the publication as well as in the reference section.
- How to get a citation in the required format for specific journals.
- How to cite an EOL LAOF Facility or instrument.

<https://www.eol.ucar.edu/content/DOI-guidance-to-authors>

TCI Meetings and Presentations



Tropical Cyclone Intensity (TCI) Experiment



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→ [Files & Brochures](#)

Meetings and Presentations

- 2016
 - [TC Outflow & Structure: Early Results from TCI](#), 19 April 2016, AMS 32nd Conference on Hurricanes and Tropical Meteorology, San Juan, PR
 - [TCI Information Meeting at the AMS](#), 11 January 2016, AMS, New Orleans, LA
- 2015
 - [Tropical Cyclone Intensity \(TCI\) Field Program Planning Meeting](#), 14-15 April 2015, NRL - Monterey

Science Telecons

- [TCI Telecon](#), 2 September 2016
- [TCI Telecon](#), 19 August 2016
- [All TCI Telecon, Research Plans and Priorities](#), 3 May 2016 (password protected link)

Planning Telecons

- [Telecon Notes](#), 14 July 2015
 - [TCI Mission Science Dry Run](#)
- [Telecon Notes](#), 7 July 2015
- [Telecon Notes](#), 30 June 2015

- Password protected pages for all TCI meetings and science telecons
- All presentations in PDF or PPTS format
- Will set up a password protected page for this meeting containing all presentations. If there are any slides that you do not want included on such a page, please let me know.

<https://www.eol.ucar.edu/node/5760>