

# NCAR/EOL Data Services

Greg Stossmeister

Manager, EOL Data Management & Services Facility



# Field Project Data Services

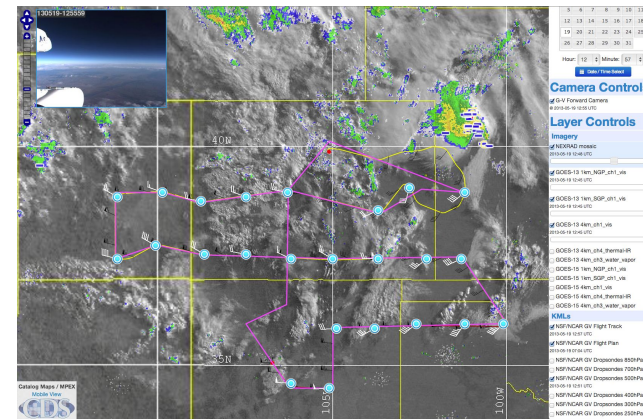


## Planning

- Data Management Strategy
- Project Data Policy
- Dry Run Support
- Operational and Model Data collection requirements

## Operations

- Mission Planning
- Real-time decision-making
- Communications
- Project Documentation
- Protected Data Sharing



## Post-Field

- PI and platform Data and Metadata Archival
- DOIs for Data Citation
- Meetings & Publications
- Embargo & public data dissemination
- Long-term stewardship



# EOL Field Catalog

**RELAMPAGO Field Catalog**  
Remote sensing of Electrification, Lightning, And  
Mesoscale/microscale Processes with Adaptive Ground Observations

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

**Latest Satellite Imagery**

**Tools**

- Catalog Maps

**Documents**

- Help Documentation

**Information**

Day 0: Severe/upscale mission is a NO GO for today.

Due to a lack of interesting weather and logistical constraints, this **CONCLUDES THE RELAMPAGO INTENSIVE OBSERVING PERIOD.**

CSWR is packing up and is expected to leave Villa Carlos Paz on the morning of the 20th.

**MUCHAS GRACIAS A TODOS PARA UN GRAN EXPERIMENTO!**

Last updated 2018-12-17 12:18:12 UTC

**Project Time**

UTC Wed, Mar 6, 22:20 Cordoba Wed, Mar 6, 19:28

**External Webpages**

- RELAMPAGO
- EOL
- EOL/PMO
- EOL/DMS

**Catalog Resources**

- Field Catalogs
- Catalog Users Guide
- Upload Documents
- Contact Us

**Social**

- EOL Facebook
- Mibbit IRC
- Request IRC Password:
- Contact Us

**NSF**  
NCAR  
UCAR

122 catalogs supported in 29 years

<https://catalog.eol.ucar.edu>

- Customizable, Web-based tool
- Easily populated via ftp, email, web forms
- Operational, model and research product browsing, GIS, RT & Post-Field
- Project operations documentation
- Briefing materials
- Instrument Status
- IRC & E-mail notifications
- Preliminary data sharing
- Asset and expendables tracking
- Mission monitoring and playback



# EOL Field Catalog

**Flight Summary**

**VOCALS Research Flight #3**

Location: Arica, Chile

October 21<sup>st</sup> 2008 (Day of Year 295)

Mission Scientist: Rob Wood/Rhea George

Take-off: 06:02 UTC [03:02 local]

Land: 14:22 UTC [11:22 local]

Duration: 8 hours, 20 mins (8.5 hours including taxis)

One liner: First VOCALS 205 Cross-Section Mission, successfully transiting to the IW at low level, with runs below, in, and above cloud, and profiles to 10000 ft. The box from around 1000 m at the coast to around 1700 m at 20S/85W, apparently doing a significant microphysical gradient was observed, with lower cloud droplet conc west, and 300 cm<sup>-3</sup> near the coast. Copious drizzle was detected in the deeper layer. Numerous cold pools were observed. Nevertheless, the cloud cover remained close

**OTREC Total Research Flight Hours**

**OTREC Total Dropsondes**

**OTREC Mission Table**

Name	Begin (UTC)	End (UTC)	Catalog Products	GV tracks	Reports	Flight Plan	Mission Summary	Actions
RF01	2008-08-08 06:00	2008-08-08 20:00	Aircraft Model Radar Satellite Surface Uppepar	OV level OV plot		Ferry	OV ferry flight from Colorado to Costa Rica	<a href="#">View</a> <a href="#">Download</a>
RF02	2008-08-07 22:30	2008-08-07 18:00	Aircraft Advisory Model Radar Satellite Surface Uppepar	OV level OV plot		Mission Summary	A massive deep convective blowup occurred during the flight along the TCZ between roughly 8N and 9N. Shallow stratocumulus existed south of the blowup. Significant whitecaps were visually observed in this region. The blowoff from the deep convection extended mostly to the south with 50 m hPa winds at flight level. Winds were light north of the main convection at flight level. Isolated shallower convection was observed north of the main deep convective region. The div's landed with no difficulty in light rain. Ground observers noted the presence of lightning in Playa Hermosa near this time.	<a href="#">View</a> <a href="#">Download</a>
RF02	2008-08-08 22:30	2008-08-08 18:00	Aircraft Advisory Model Radar Satellite Surface Uppepar	OV level OV plot		Mission Summary	A strong MCS was encountered in Box 8(a). Lightning and heavy rainfall was observed during the night from Colombia. High stratiform clouds and elevated ontop cumulus clouds were observed in the south part of the box. Heading north heavy rain started. Deep convection was observed on the W side of the box between 8N and 7N.	<a href="#">View</a> <a href="#">Download</a>
RF02	2008-08-08 22:30	2008-08-08 18:00	Aircraft Advisory Model Radar Satellite Surface Uppepar	OV level OV plot		Mission Summary	At the south end of Box 8, 3N - 5N, westerlies of 15 - 20 kt at flight level were observed with dominant Sc clouds. Around 8 N Sc were replaced by Cu clouds with clear air in between. Wind from NW, 10 - 18 kt at flight level. At 7 N Cu congestus and Cs started developing, weak wind from the N, NE at flight level. At 8 N there was an MCS at the east leg of our box. The last N leg of the Box not clear air.	<a href="#">View</a> <a href="#">Download</a>

**Model Viewer**

**Generational Satellite Products**

**Dropsondes Released**

**OTREC Resource Usage**

**NSF/NCAR GV Research Flight Hours**

**Tools & Links / OTREC Resource Usage**

**Figure 1: Overlay of RF02 track on visible GOES image at 16:45 UTC Oct. 21<sup>st</sup> 2008. Image cut**

- Provides broad access to community, Real-time and post-field
- Allows remote participants to monitor operations and communicate with field staff
- Archives products and information that is available long after the campaign
- Often provides the first step in researching particular case days/events
- Facilitates the sharing of briefing materials, mission highlights, research data and products
- Provides framework for dry runs

# Catalog Maps

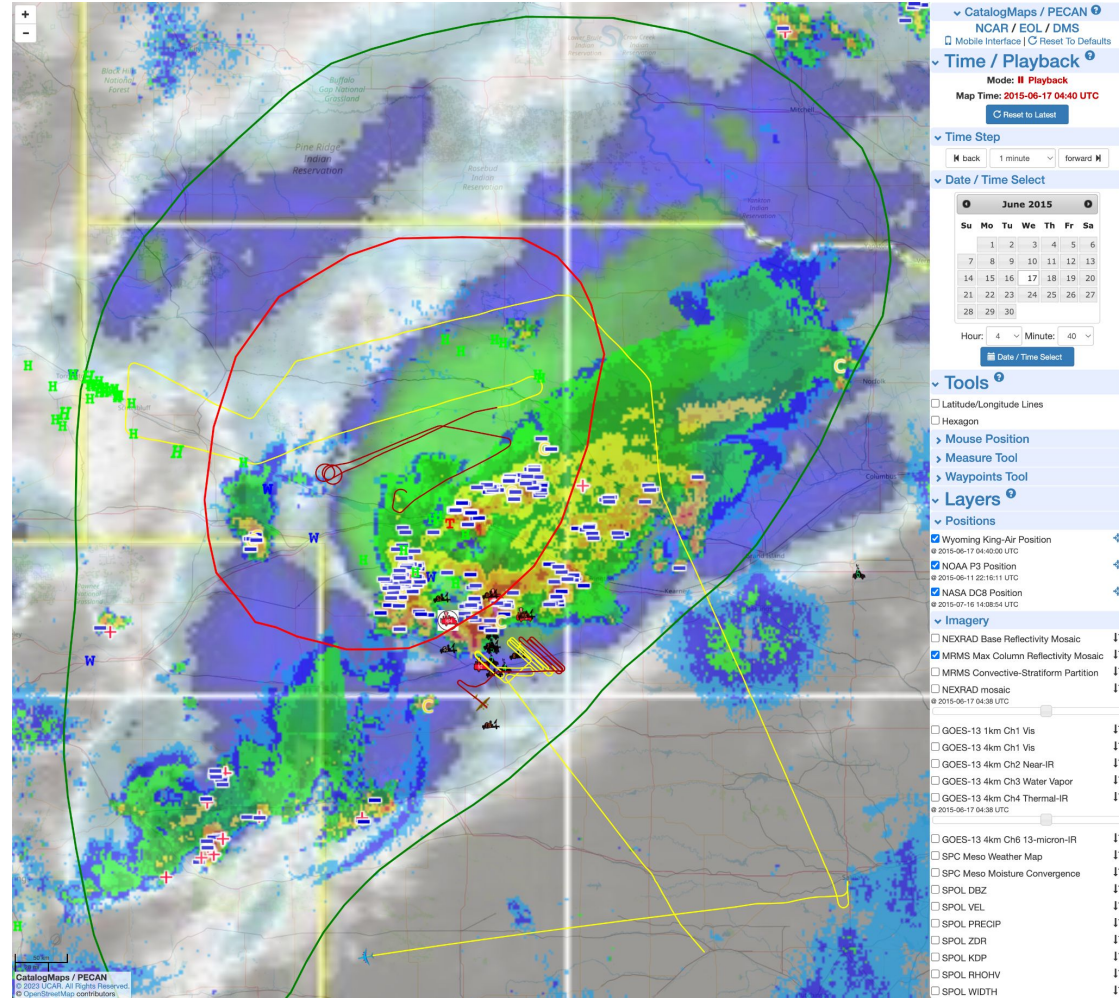
Interactive Mapping and Display Tool

Image files, Map and Static products, json, kml

Overlay, Transparency, Playback Controls

Date/Time labels for each layer

Drawing, Measuring, Location Tools, Mobile-friendly





# EOL Data Archive Services

**NCAR** | EARTH OBSERVING LABORATORY EOL

Contact Us Search

WHO WE ARE ▾ RESEARCH FACILITIES ▾ FIELD PROGRAMS ▾ SUPPORT SERVICES ▾ DATA & SOFTWARE ▾ RESEARCH & DEVELOPMENT ▾ NEWS & EVENTS ▾

[Home](#)

## PECAN

Plains Elevated Convection at Night

**PROJECT DATES:** 06/01/2015 - 07/15/2015  
**PROJECT LOCATION:** United States Southern Great Plains

**PROJECT DESCRIPTION**  
The PECAN (Plains Elevated Convection at Night) campaign was envisioned as a multi-agency project (NSF, NOAA, NASA, DOE) designed to advance the understanding of continental, nocturnal, warm-season precipitation. PECAN was focused on nocturnal convection in conditions over the Southern Great Plains with a stable boundary layer (SBL), a nocturnal low-level jet (NLLJ) and the largest CAPE (Convectively Available Potential Energy) located above the SBL. Thunderstorms are most common after sunset across this region in summer and much of the resulting precipitation falls from mesoscale convective systems (MCSs). Nocturnal MCSs may produce heavy rainfall; their intensity is correlated with the NLLJ. To date, an accurate prediction and an in-depth understanding of elevated convection in this environment remains an elusive goal.

**PARTICIPATING FACILITIES:**  
King Air w/ WCL, NCAR S-PolKa, 3 DOWs, 3 NCAR ISS, 449 Profiler, Field Catalog and Data Management, Ops Center, potentially Mission Coordinator Display for participating aircraft. Other facilities include NASA DCB, NOAA P3, SMART-Rs, RAXPOL, NOXP, FM-CW radar, MAX, Mobile mesonets, MIPS, Tethersondes, AERI, Water Vapor lidars, wind lidars, etc.

**CONTACT INFORMATION**  
**Principal Investigators**

- [Bart Goerts](#) U. of Wyoming
- [Tammy Weckwerth](#) NCAR/EOL
- [David Parsons](#) OU
- [Conrad Ziegler](#) NSSL
- [David Turner](#) NSSL
- [Richard Ferrare](#) NASA Langley

**Project Manager**

- [Vidal Salazar](#) NCAR/EOL
- [Jim Moore](#) NCAR/EOL

**Data Management**  
**Data Manager:**

- [EOL Archive](#) NCAR/EOL/DMS

**PECAN Publications**  
PECAN Publications

**Data Access**  
PECAN Data Access

**Field Catalog**  
PECAN Field Catalog

**PECAN Data Documentation**  
PECAN Data Policy  
PECAN Data Submissions Instructions  
PECAN Data Set Documentation ("Readme") Guidelines

**PECAN Documents**  
Site Survey Sep 18, 2014  
PECAN Operations Plan

**ISS at PECAN**  
PECAN ISS  
PECAN ISS JOPs  
PECAN ISS Surface Observations

**PECAN Meetings and Presentations**  
PECAN Meetings and Presentations

**PECAN Education**  
PECAN Advanced Education Resources  
PECAN K-12 Educational Resources  
PECAN Teacher Workshop  
How Do Radars Work?  
PECAN Q&A Forum

**PECAN Outreach**

Field Project Data Archive with dedicated project web pages

Access to the Data Archive and Field Catalog(s)

Project Documentation

Data Submission Guidance

Publications Tracking

Meetings and Presentations Collection & Access

Long Term Support & Access

Project Mailing Lists

# EOL Data Archive Services

EOL | Field Data Archive    Help    Contact Us    Sign In    [Access Data Archive](#)

## What is the EOL Field Data Archive?

The EOL Field Data Archive is a curated collection of largely observational datasets from atmospheric research field campaigns, carried out in various places around the globe, dating back to the late 1960s. Datasets are included from field instrumentation operated by NCAR as well as other organizations and investigators. Links are provided, where necessary, to datasets housed at other data archive centers.

[Access Data Archive](#)

### Mission Statement

The mission of the EOL Data Management and Services facility is to provide responsive, high quality data services to researchers in field campaigns including pre-field phase planning, real-time decision-making tools, and long-term data curation to support the complete project life cycle.

Come to the Data FAIR for more details and a demo!

Archival of all project data and metadata from PI instruments as well as FARE instruments/platforms

Preliminary and Final dataset collection

Collection of requested operational datasets

Provenance Tracking

DOIs for data citation

Tracking of publications that cite your DOI

Version Control, checksums for data integrity

OpenDAP Access for suitably formatted datasets

New Interface includes text search as well as search by GCMD keyword, platform, instrument, date, location and author

# EOL Data Archive Services

EOL | Field Data Archive

Help Contact Us Sign In

Datasets > Dataset Details

## Multi-Network Composite 5mb Vertical Resolution Sounding Composite [NCAR/EOL]

Subscribe Add to cart

### Summary

This data set is a composite of radiosondes collected from 7 sounding platforms during the Deep Convective Clouds and Chemistry Experiment (DC3) with data collected from 1 May 2012 through 18 July 2012. This project was conducted in the central United States. This dataset includes a total of 5887 soundings from the following networks: ARM Radiosonde Data (238 2-second soundings), NCAR/EOL MGAUS Colorado Sounding Data (91 1-second soundings), NCAR/EOL MISS Colorado Radiosonde Data (27 1-second soundings), NSSL MGAUS Oklahoma-Texas Sounding Data (39 1-second soundings), National Weather Service (NWS) High Resolution Radiosonde Data (5520 1-second soundings), Redstone Arsenal Radiosonde Data (10 2-second soundings), and University of Alabama Huntsville (UAH) Mobile Alabama Sounding Data (22 1-second soundings). This data set contains upper-air sounding data interpolated to a constant vertical resolution of 5 hPa in the National Center for Atmospheric Research (NCAR) Earth Observing Laboratory (EOL) Sounding Composite Format.

### Spatial Coverage



Maximum (North) Latitude: 48.56467, Minimum (South) Latitude: 24.95311

Maximum (East) Longitude: -78.72474, Minimum (West) Longitude: -116.21092

### Temporal Coverage

Begin date 2012-05-01

End date 2012-07-18

### API

DC3: Deep Convective Clouds & Chemistry Project  
<https://ruby-dev.eol.ucar.edu:8443/rest/project/353>

### Additional Information

Data Quality final

Documentation N/A

Citation UCAR/NCAR-Earth Observing Laboratory. (2013). Multi-Network Composite 5mb Vertical Resolution Sounding Composite, Version 1.0 (Version 1.0) [Data set]. UCAR/NCAR - Earth Observing Laboratory. <https://doi.org/10.5065/D6CR5RPW> Accessed 09 Aug 2023.

Related Links N/A

Identifier 353.107

Related Project DC3: Deep Convective Clouds & Chemistry Project

Version 2016-07-28T22:25:54.000Z

Keywords EARTH SCIENCE > ATMOSPHERE > ATMOSPHERIC TEMPERATURE > UPPER AIR TEMPERATURE > VERTICAL PROFILES

EARTH SCIENCE > ATMOSPHERE > ATMOSPHERIC WINDS > UPPER LEVEL WINDS > WIND DIRECTION

EARTH SCIENCE > ATMOSPHERE > ALTITUDE > GEOPOTENTIAL HEIGHT

EARTH SCIENCE > ATMOSPHERE > ATMOSPHERIC TEMPERATURE > UPPER AIR TEMPERATURE > DEV. POINT TEMPERATURE

EARTH SCIENCE > ATMOSPHERE > ATMOSPHERIC WINDS > UPPER LEVEL WINDS > WIND SPEED

EARTH SCIENCE > ATMOSPHERE > ATMOSPHERIC TEMPERATURE > UPPER AIR TEMPERATURE

EARTH SCIENCE > ATMOSPHERE > ATMOSPHERIC PRESSURE > ATMOSPHERIC PRESSURE MEASUREMENTS

EARTH SCIENCE > ATMOSPHERE > ATMOSPHERIC WATER VAPOR > WATER VAPOR INDICATORS > HUMIDITY > RELATIVE HUMIDITY

Platforms Radiosonde, Valisala RS62-SGP

Rawinsonde, Other

Sounding composite of research and operational data – qc'ed, common format and vertical resolution (e.g. highest res, 5 mb and 50 m)

Relay of research sounding data to GTS in near real-time

Processing and generation of sounding data into SkewT plots (from selected PI systems) in real-time for the Field Catalog

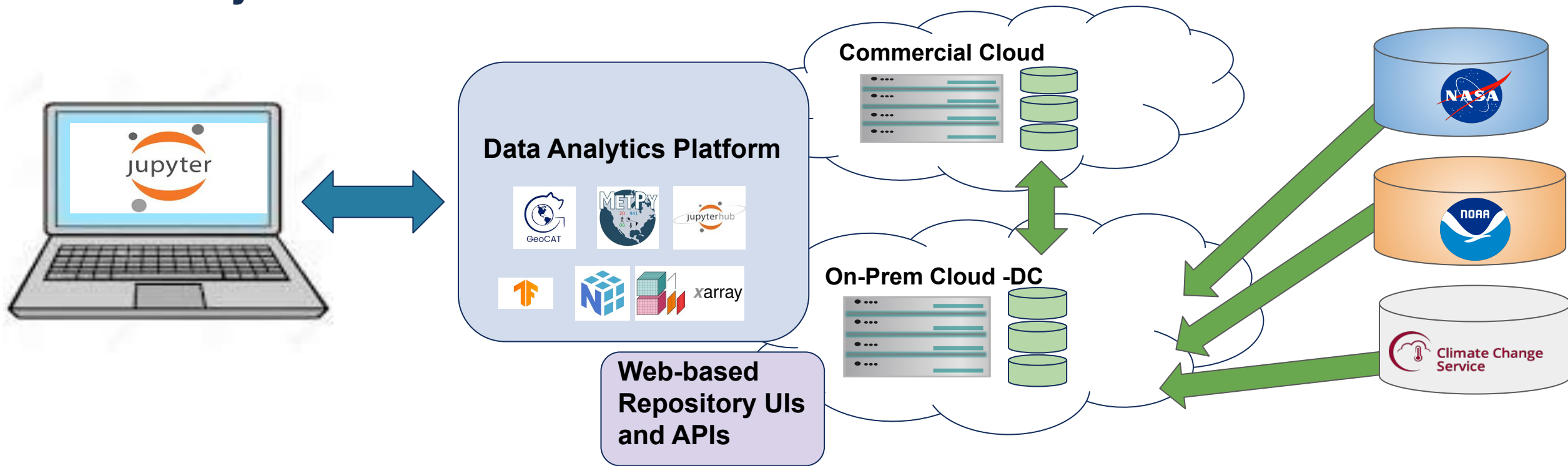
Operational dataset collection (e.g. MADIS, NLDN, Upper-air, etc.)

Up to 1-year embargo on all project datasets to limit data sharing to project participants only



# Pivoting to NCAR's Next Generation GDEX - Integrated Research Data Commons

**Data science infrastructure that connects analysis and AI ready geoscience data sets with community developed analytics tools to allow users to share, integrate, analyze, and visualize geoscience research data to drive scientific discovery.**



# FARE Data FAIR

**Findability, Accessibility, Interoperability, and  
Reuse of Our Digital Assets**

## QUESTIONS?