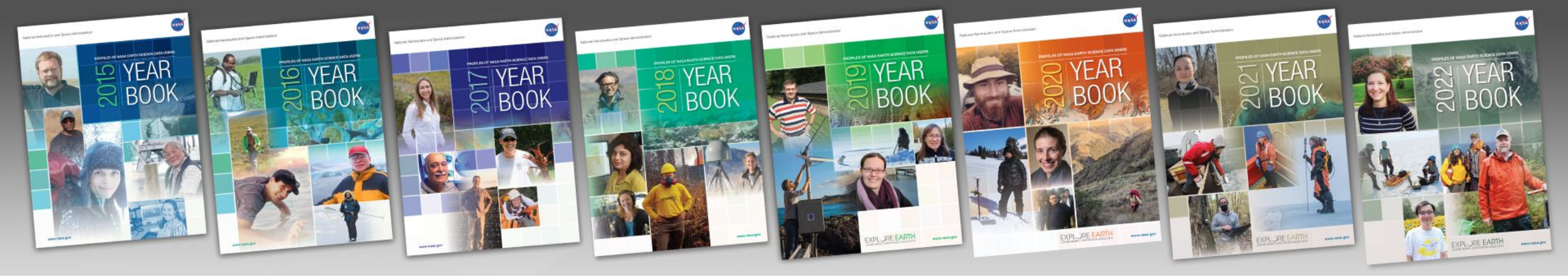
ESDIS
EARTH SCIENCE DATA AND INFORMATION SYSTEM

National Aeronautics and Space Administration

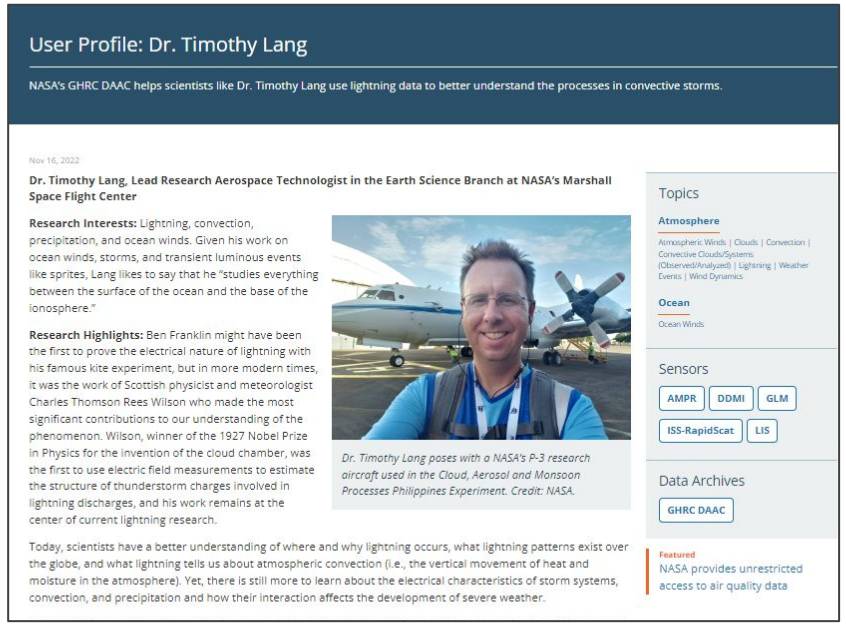
Joint Communications Efforts: ESDIS/GHRC DAAC

October 20, 2022- November 1, 2023

- Data User Profiles
- Data Tool in Focus
- Feature Articles & Dataset Announcements
- Earthdata Webinars/Workshops
- Social Media



Data User Profiles



User Profile: Dr. Timothy Lang

NASA's GHRC DAAC helps scientists like Dr. Timothy Lang use lightning data to better understand the processes in convective storms.

Nov 16, 2022

Dr. Timothy Lang, Lead Research Aerospace Technologist in the Earth Science Branch at NASA's Marshall Space Flight Center

Research Interests: Lightning, convection, precipitation, and ocean winds. Given his work on ocean winds, storms, and transient luminous events like sprites, Lang likes to say that he "studies everything between the surface of the ocean and the base of the ionosphere."

Research Highlights: Ben Franklin might have been the first to prove the electrical nature of lightning with his famous kite experiment, but in more modern times, it was the work of Scottish physicist and meteorologist Charles Thomson Rees Wilson who made the most significant contributions to our understanding of the phenomenon. Wilson, winner of the 1927 Nobel Prize in Physics for the invention of the cloud chamber, was the first to use electric field measurements to estimate the structure of thunderstorm charges involved in lightning discharges, and his work remains at the center of current lightning research.

Dr. Timothy Lang poses with a NASA's P-3 research aircraft used in the Cloud, Aerosol and Monsoon Processes Philippines Experiment. Credit: NASA.

Today, scientists have a better understanding of where and why lightning occurs, what lightning patterns exist over the globe, and what lightning tells us about atmospheric convection (i.e., the vertical movement of heat and moisture in the atmosphere). Yet, there is still more to learn about the electrical characteristics of storm systems, convection, and precipitation and how their interaction affects the development of severe weather.

Topics

Atmosphere

Atmospheric Winds | Clouds | Convection | Convective Clouds/Systems (Observed/Analyzed) | Lightning | Weather Events | Wind Dynamics

Ocean

Ocean Winds

Sensors

AMPR | DDMI | GLM | ISS-RapidScat | LIS

Data Archives

GHRC DAAC

Featured

NASA provides unrestricted access to air quality data

Published 11/16/22

https://go.nasa.gov/3FE2PRL

About the Profiles

- Published 4th Thursday of each month
- Each monthly profile features a different DAAC UWG member and his/her research
- Promoted via NASA Earthdata social media

https://earthdata.nasa.gov/profiles

Coming Soon! GHRC DAAC Data Tool in Focus

About this new feature:

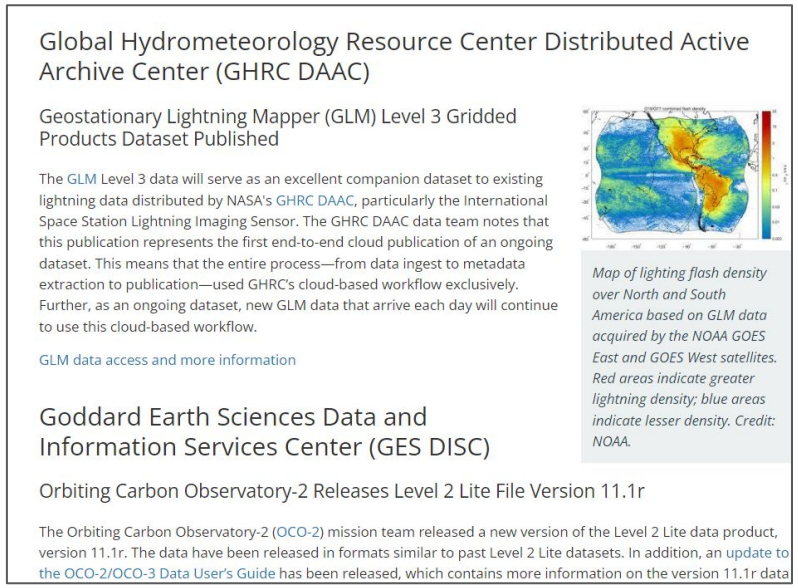
- New monthly article series for NASA Earthdata called “Data Tool in Focus: [Insert Tool Name here].”
- Provide an introduction to and overview of the tool for users who might not be familiar with it.
- Provides links to resources that show data users how to work with it.

The first six in the series focused on AppEEARS (LP DAAC), OpenScienceLab (ASF DAAC), TESViS (ORNL DAAC), and State of the Ocean (SOTO)for PO.DAAC, Data Rods for Hydrology (GES DISC), and SeaDAS (OB.DAAC).

Here are a few links to previous DTiF for your reference:
https://www.earthdata.nasa.gov/learn/articles/soto-po-daac
https://www.earthdata.nasa.gov/learn/articles/data-tool-focus-osl
https://www.earthdata.nasa.gov/learn/articles/appeears-data-tool-focus
https://www.earthdata.nasa.gov/learn/articles/seadas-obdaac

Note: GHRC DAAC Focus will be the Field Campaign Explorer or the Lightning Dashboard

Feature Articles & Dataset Announcements



Global Hydrometeorology Resource Center Distributed Active Archive Center (GHRC DAAC)

Geostationary Lightning Mapper (GLM) Level 3 Gridded Products Dataset Published

The GLM Level 3 data will serve as an excellent companion dataset to existing lightning data distributed by NASA's GHRC DAAC, particularly the International Space Station Lightning Imaging Sensor. The GHRC DAAC data team notes that this publication represents the first end-to-end cloud publication of an ongoing dataset. This means that the entire process—from data ingest to metadata extraction to publication—used GHRC's cloud-based workflow exclusively. Further, as an ongoing dataset, new GLM data that arrive each day will continue to use this cloud-based workflow.

GLM data access and more information

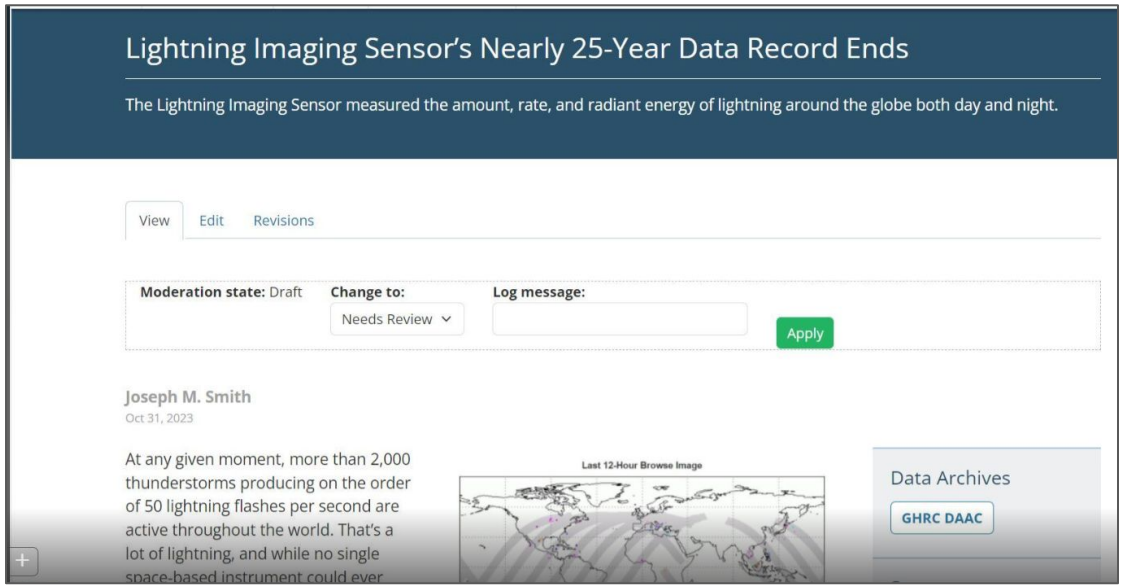
Map of lighting flash density over North and South America based on GLM data acquired by the NOAA GOES East and GOES West satellites. Red areas indicate greater lightning density; blue areas indicate lesser density. Credit: NOAA.

Goddard Earth Sciences Data and Information Services Center (GES DISC)

Orbiting Carbon Observatory-2 Releases Level 2 Lite File Version 11.1r

The Orbiting Carbon Observatory-2 (OCO-2) mission team released a new version of the Level 2 Lite data product, version 11.1r. The data have been released in formats similar to past Level 2 Lite datasets. In addition, an update to the OCO-2/OCO-3 Data User's Guide has been released, which contains more information on the version 11.1r data

July 2023, Data Roundup
https://go.nasa.gov/3PFgTR6



Lightning Imaging Sensor's Nearly 25-Year Data Record Ends

The Lightning Imaging Sensor measured the amount, rate, and radiant energy of lightning around the globe both day and night.

View Edit Revisions

Moderation state: Draft **Change to:** Needs Review **Log message:** Apply

Joseph M. Smith
Oct 31, 2023

At any given moment, more than 2,000 thunderstorms producing on the order of 50 lightning flashes per second are active throughout the world. That's a lot of lightning, and while no single space-based instrument could ever

Last 12-Hour Browse Image

Data Archives
GHRC DAAC

Coming next week….

GHRC DAAC Specific/Related
Published 10/20/22 -11/2/23

- 1 Feature (coming soon) ISS LIS Decommisioning
- 2 NASA Earth Science Data Roundups (since May 2023)

Earthdata Webinars

Lightning in a Flash— Using Cloud and Open Source Capabilities to Improve Data Access and Analysis

Metrics/Live Webinar Event held 5/3/23

- **151 Participants, Education 54%, Government 26%, Commercial 13.33%, Non-Profit 6.67%; Country: 54% U.S. and 46% International from 33 other countries**

YouTube Webinar Metrics:

- **608 Views, 44 Hours of Watch Time Since Published 5/8/23 (Metrics pulled 11/2 11:10 AM EDT**

NASA Earthdata YouTube Channel
www.youtube.com/NASAEarthdata

- 12,014 Subscribers (+225 in the last 28 days)
- 358 total videos to include data discovery and access webinars, short data tutorials, special feature videos, applications workshop videos and more housed within 26 unique playlists.

Social Media- Twitter (@NASAEarthdata)

Time period: 10/18/22 - 11/1/23

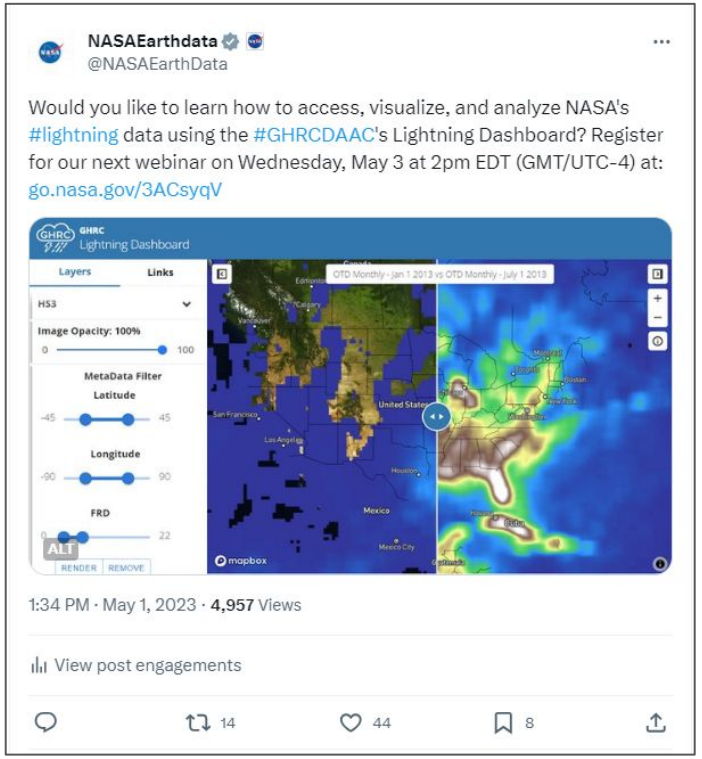
- 7 GHRC DAAC specific/related tweets announcing new data products, data tool or data service updates and webinars.
- Impressions 11,583
- Engagements 310

NASA Earthdata Twitter Account

- 39,048 Followers on 11/2/23 (pulled at 11:19 AM EDT)

- The most popular content on our Twitter account is data recipes, data scripts, Jupyter Notebooks, etc.

We welcome more of it! We need more GHRC DAAC related content.



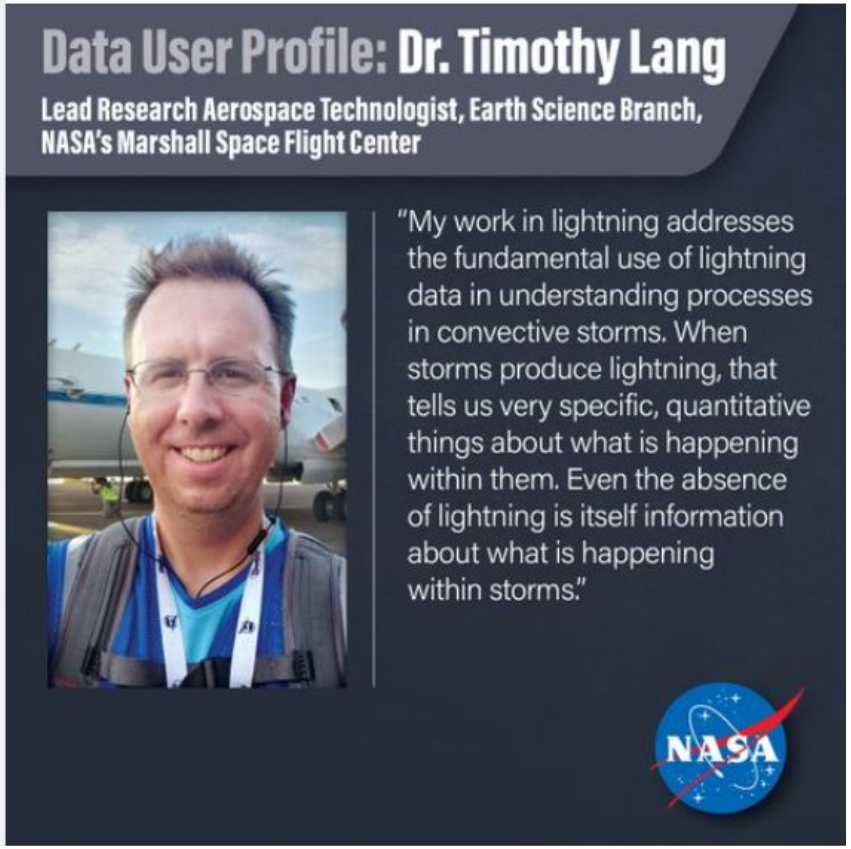
Highest Impressions
4,958 Impressions, 135 Engagements
2.7% Engagement Rate
https://twitter.com/NASAEarthData/status/1686132458637438976

Highest Engagement Rate
16 % Engagement Rate
50 Impressions, 8 Engagements
https://twitter.com/NASAEarthData/status/1584729440806121473

Social Media- Earthdata Facebook

Time period: 10/20/22 - 11/2/23

- 7 GHRC DAAC specific/related posts announcing new data products, data tool or data service updates and webinars.
- 9,524 Post Impressions, 643 Engagements from May 21, 2022 - September 29, 2023
- NASA Earthdata Facebook
  www.facebook.com/NASAEarthdata
  59,362 Followers on 11/2/23
  (Pulled at 11:25 AM EDT)



Most Engaging Post 3,097 impressions, and 14.9 % Engagement Rate
https://www.facebook.com/NASAEarthData/posts/438137421822763

Contact Us!

The ESDIS Communications Team is here to help! Have a data story idea? Would you like us to address a data product, service, or tool on social media? Would you like to hold a webinar? Have some new Jupyter Notebook tutorials or other data recipes you want to promote? We'd love to hear from you!

Please reach out to ESDIS Communications Lead Jennifer Brennan at:

Email: Jennifer.L.Brennan@nasa.gov

Connect with us on Social Media
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