

June 13, 2024 | 12:00 - 1:15pm EDT | [Register HERE](#)



NOAA LOW EARTH ORBIT (LEO) JPSS SATELLITE DATA NODD OFFICE HOURS

Hosted by NOAA National Environmental Satellite, Data, and Information Service (NESDIS), NOAA Open Data Dissemination (NODD), and NODD's cloud partner Amazon Web Services (AWS). Please join to learn more about NOAA's LEO Joint Polar Satellite System (JPSS) data (SNPP, NOAA 20 & 21), connect with NOAA and cloud subject matter experts, and share your use case.



Adrienne Simonson
*NOAA Open Data
Dissemination (NODD)*



Satya Kalluri
*NOAA LEO Joint Polar
Satellite System (JPSS)*



Lihang Zhou
*NOAA LEO Joint Polar
Satellite System (JPSS)*



Chris Stoner
*AWS Open Environmental
Data Lead*



Mya Sears
*NC Institute for Climate
Studies (NCICS)*

GoogleMeet Webinar - Recorded

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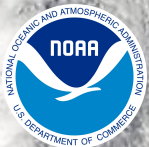
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- Thank you for your registration and interest.
- Webinar is recorded. Anyone with video display has to provide consent. Only hosts and presenters are asked to turn their video on.
- If do not wish to be part of the recording, please feel free to drop off.
- Meeting summary and presentation slides will be available on the NODD website
 - [NOAA.GOV/NODD](https://www.noaa.gov/nodd)





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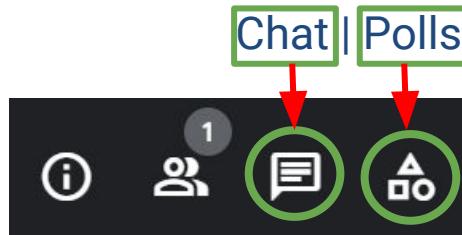
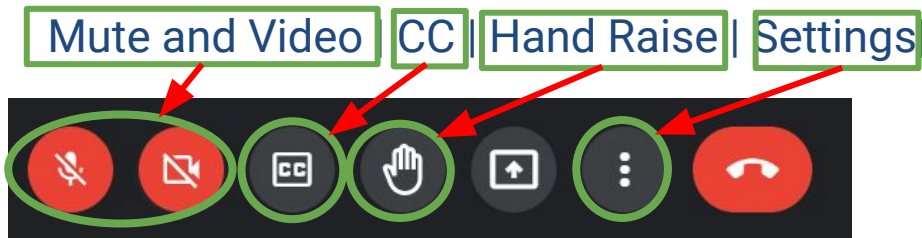


Mya Sears
*NC Institute for Climate
Studies (NCICS)*

GoogleMeet Webinar Logistics

How to join the discussion!

- Keep yourself muted throughout (for call-in participants: to mute and unmute use *6) and videos off
- Raise your hand if you have a question and we'll respond in the order of the queue
- The following features of Google Meet:



- This webinar will be recorded.
- You can also join by phone line only if you are having connectivity issues.

Guidelines for Discussion

- Keep it brief
- Keep it respectful
- Use the chat function for links, references and/or resources
- Submit questions through the chat function or raise your hand
- Identify who the question is directed to where possible



Quick Google Poll

POLL1

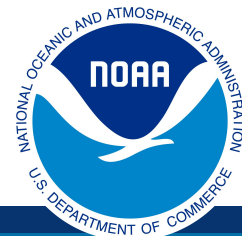
- How do you access JPSS satellite data today?
 - On-prem via NOAA
 - Cloud
 - Both/Either
 - 3rd party/Web-based Viewer
 - None/Other

POLL2

- My primary goal for attending today is:
 - Technical use and access of JPSS data
 - To learn about cloud access to data (e.g. NODD Program)
 - Meet and engage with NOAA staff scientists
 - Learn about AWS access and tools



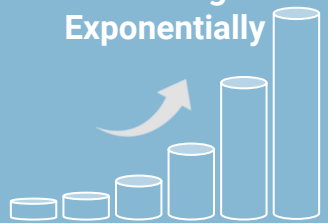
NODD Disseminates NOAA Line Office Data



Open and Free, with Value to the Public:

- From NOAA Line Offices via NODD to public cloud buckets of three CSPs =
 - An exponential number of users can access
- Harnesses the scalability of the cloud to improve data access
 - No egress costs for users or the agency
- No use restrictions or user registration
- Appropriate Metadata included

NOAA Data is Growing Exponentially



TECHNOLOGY MODERNIZATION

Reduces stress on NOAA's on-premise dissemination systems

Improves services for users



FULL & OPEN PUBLIC ACCESS

Supports Federal Data Strategy & Evidence Act Requirements

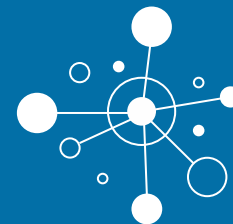
No egress costs



ENABLES & ENGAGES USERS

Catalyzes innovation in environmental services

Enables interoperability



Low Earth Orbit (LEO) Satellites

SNPP, NOAA20, NOAA21: Operational Constellation



Launched into Low Earth Orbit—512 miles

14x

Orbits Earth 14 times pole-to-pole with SNPP

2x

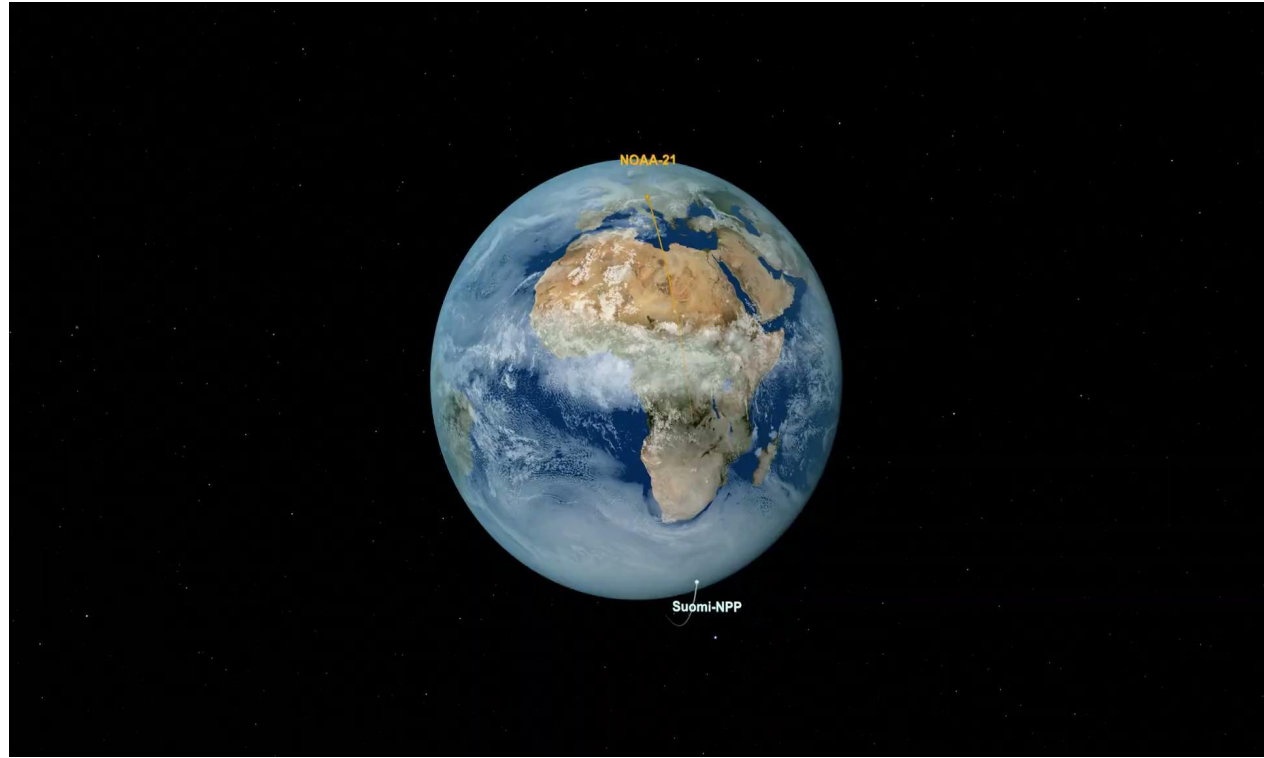
Images entire globe twice a day



State of the art instrumentation to collect data on Earth's atmosphere, lands, and oceans



Sends more than 2,000 gigabytes of data to Earth every day



The Joint Polar Satellite System (JPSS) is a Series of Five Satellites



JPSS-4



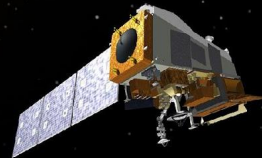
JPSS-3



NOAA-21



NOAA-20

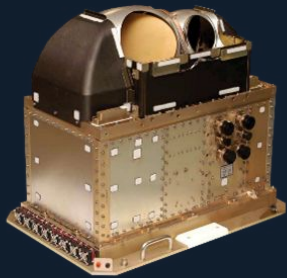


SUOMI-NPP

JPSS Instruments

ATMS

Advanced Technology
Microwave Sounder



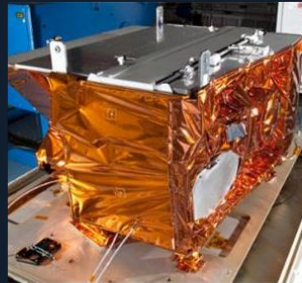
CrIS

Cross-track
Infrared Sounder



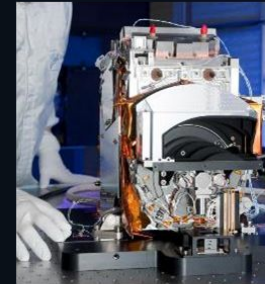
VIIRS

Visible Infrared Imaging
Radiometer Suite



OMPS

Ozone Mapping and
Profiler Suite



CERES

Clouds and the Earth's
Radiant Energy System



ATMS and CrIS together provide high vertical resolution temperature and water vapor information needed to maintain and improve forecast skill out to 5 to 7 days in advance for extreme weather events, including hurricanes and severe weather outbreaks.

VIIRS provides many critical imagery products including snow/ice cover, clouds, fog, aerosols, fire, smoke plumes, vegetation health, phytoplankton and chlorophyll abundance.

Ozone spectrometers for monitoring ozone hole and recovery of stratospheric ozone and for UV index forecasts.

Scanning radiometer which supports studies of the Earth Radiation Budget (ERB).

**Discontinued after JPSS-1 (NOAA-20)*

NORTHROP GRUMMAN

HARRIS

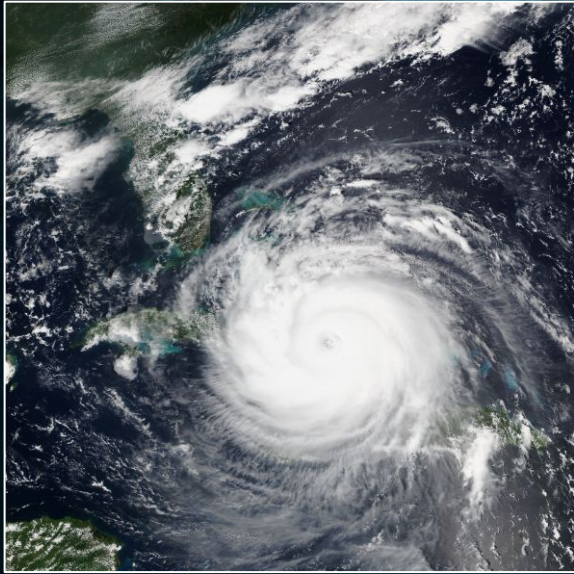
Raytheon



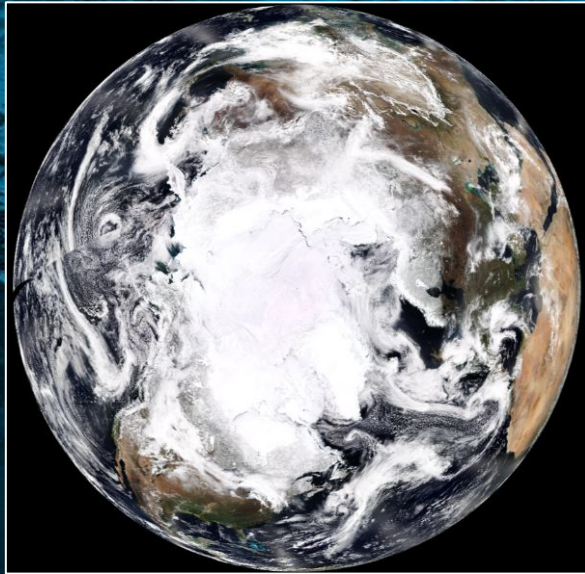
NORTHROP GRUMMAN



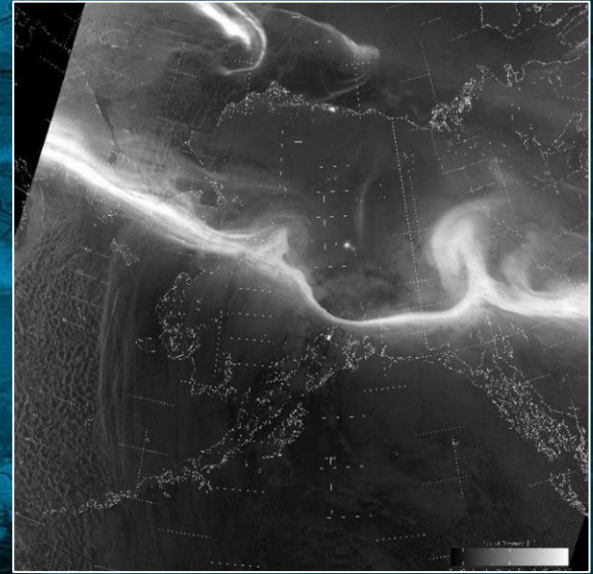
JPSS Satellites Improve Medium- and Long-Term Forecasts



Critical data for numerical weather prediction to enable accurate 3–7 day forecasts.



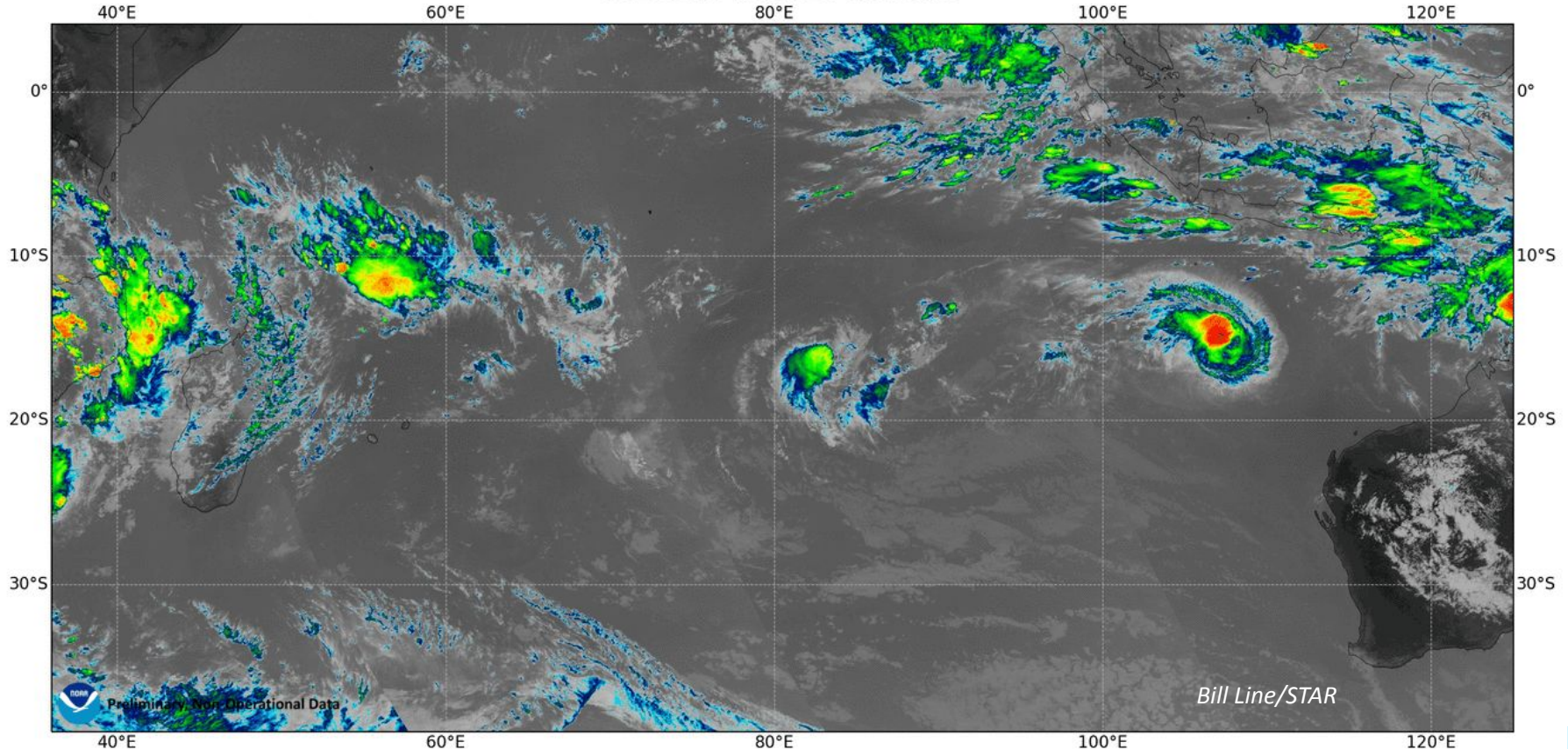
Operational weather and environment satellite observations for Alaska and the polar regions.



Global coverage and unique day and night imaging capabilities to support environmental monitoring and forecasting.

NOAA21 Captures Over 9000km, 17 Day Journey of Freddy

20230210 NOAA-21 VIIRS M15

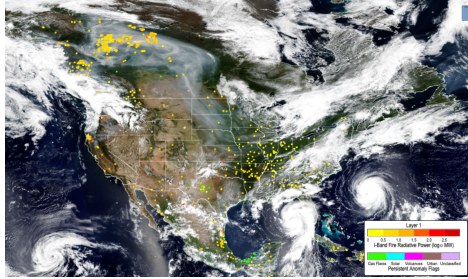


NOAA Preliminary, Non-Operational Data

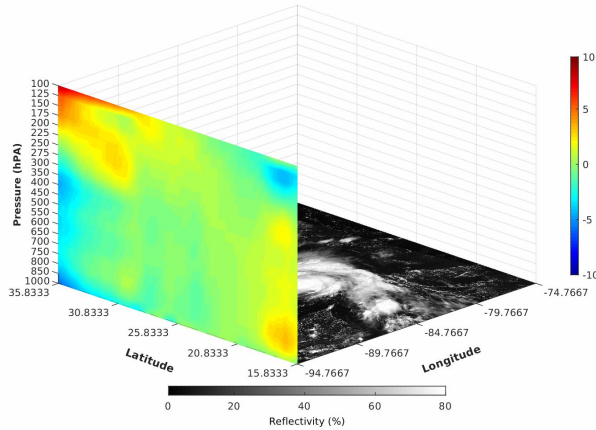
Bill Line/STAR



VIIRS and ATMS Views of Idalia

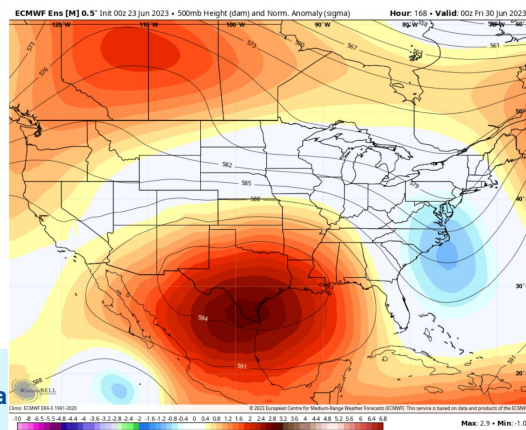
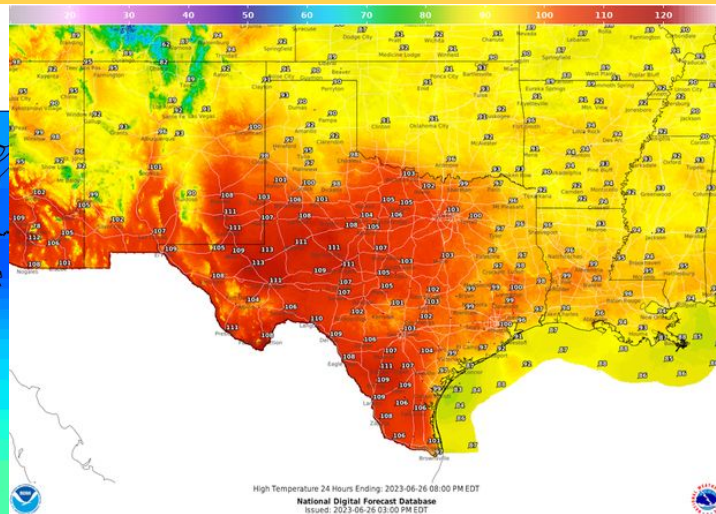
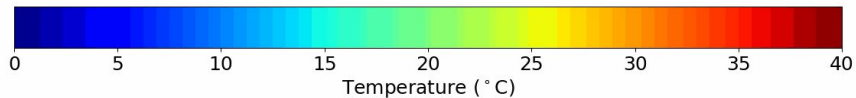
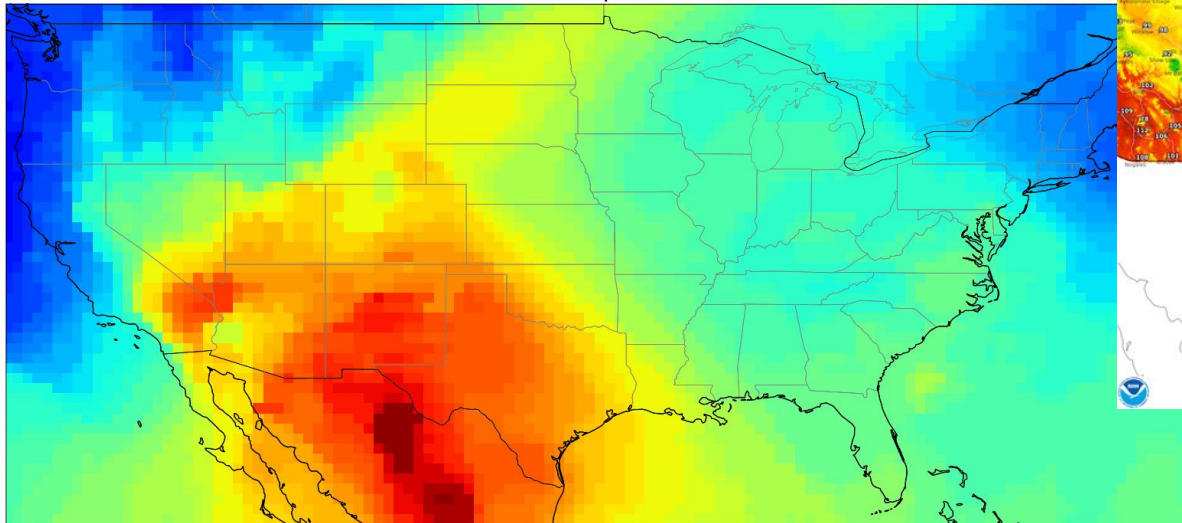


IDALIA 29 August 2023



NUCAPS (CrIS+ATMS) Retrievals of Heat Wave (NOAA20)

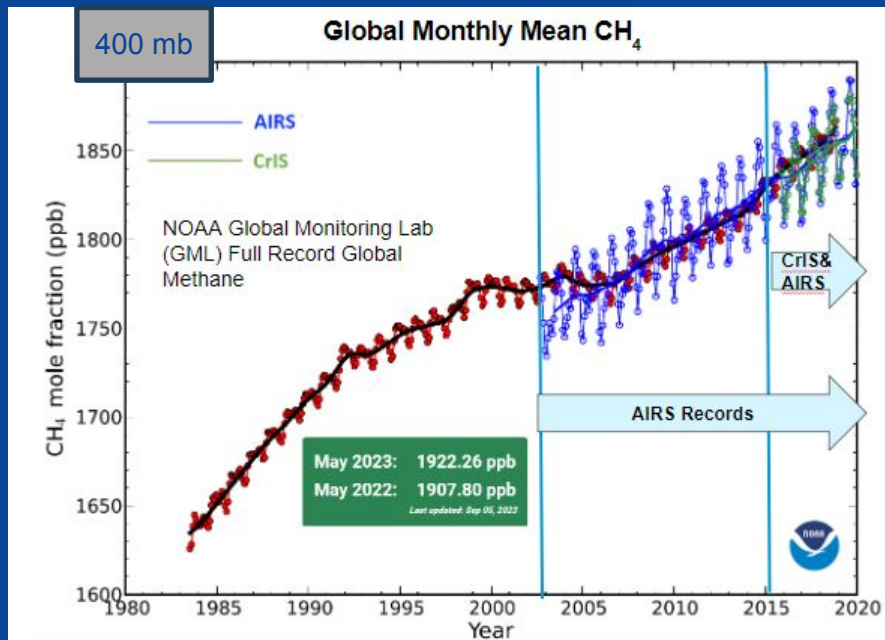
2023-06-20 PM Temperature at 850mb



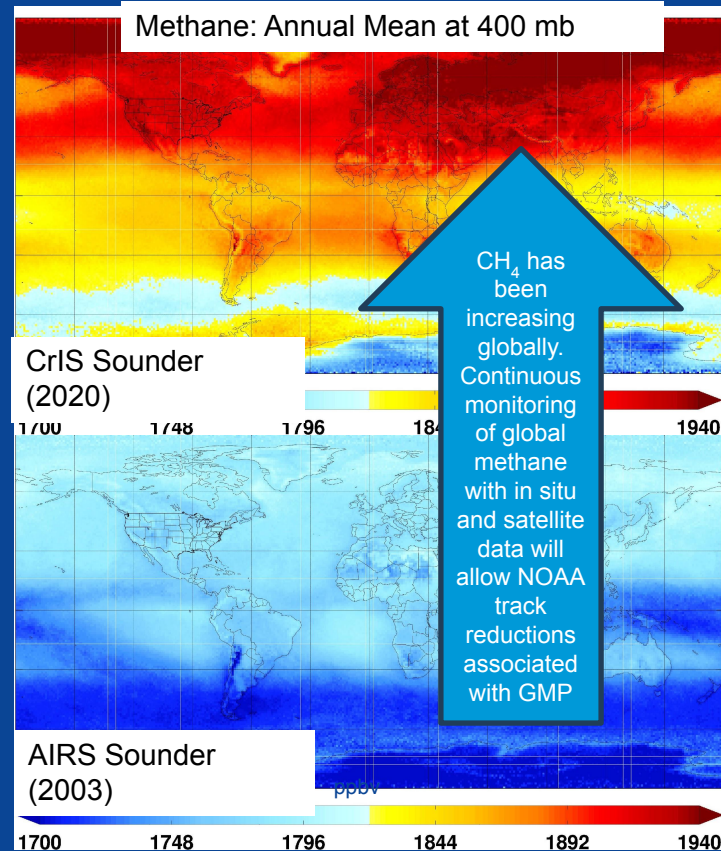
Rebekah Esmaili,



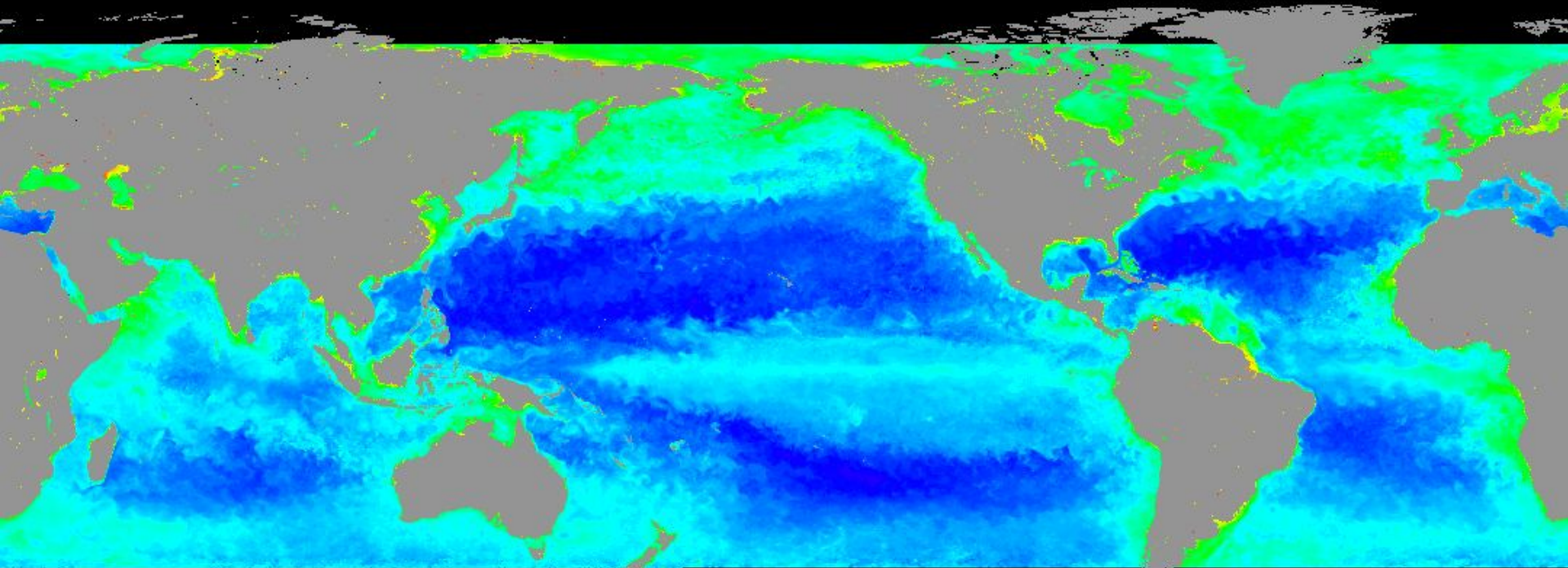
LEO Satellites' GHG Monitoring Capabilities - Methane



NASA Aqua AIRS: Atmospheric Infrared Sounder
NOAA-NASA Suomi NPP CrIS: Cross-track Infrared Sounder



Ocean Color Capabilities on SNPP - First on a NOAA Mission

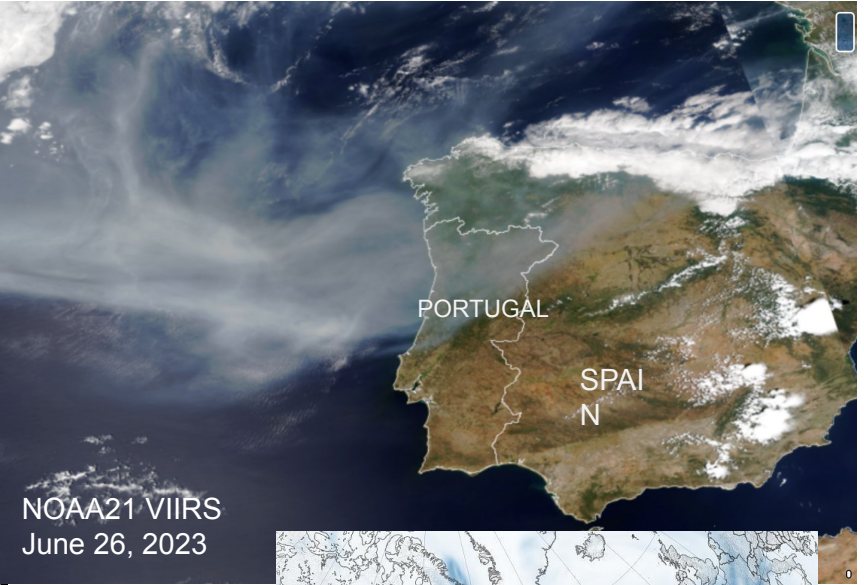
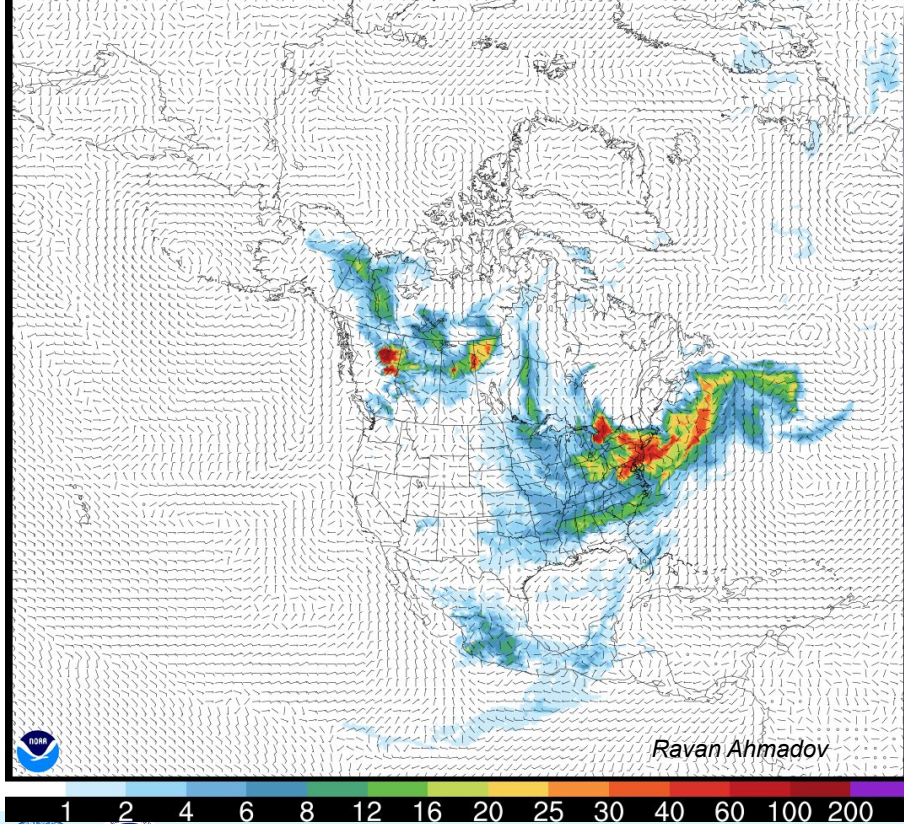


STAR
Ocean Color

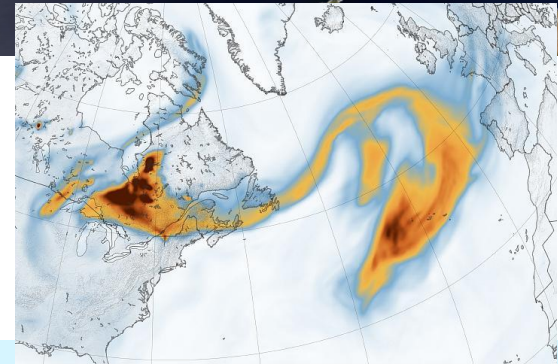
2021-07-17

Canadian Fires Monitored by VIIRS

RAP-NCEP 06/08/2023 (12:00) 0h fcst Valid 06/08/2023 12:00 UTC
Near-Surface Smoke ($\mu\text{g}/\text{m}^3$), 10m Wind (kt)



NOAA21 VIIRS
June 26, 2023

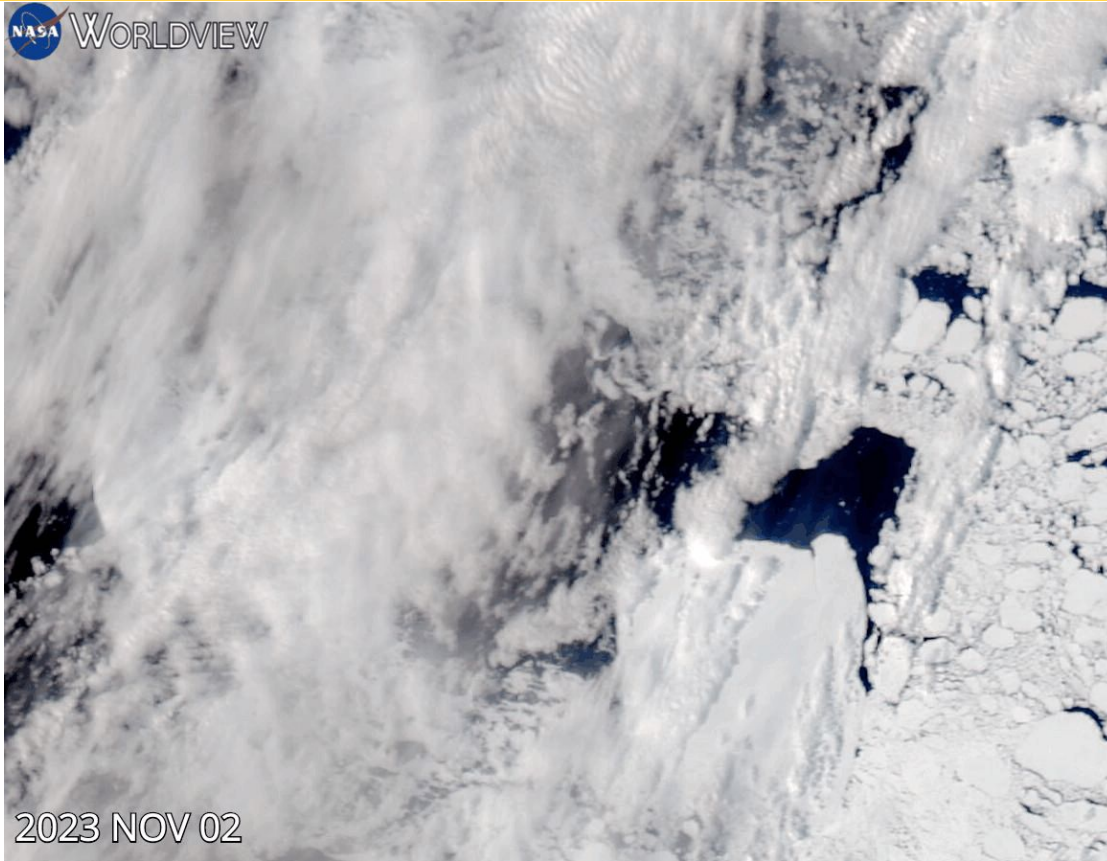


Black Carbon (mg/m^3)
0 4 8 12 16 ≥ 20
NASA
GEOS-FP

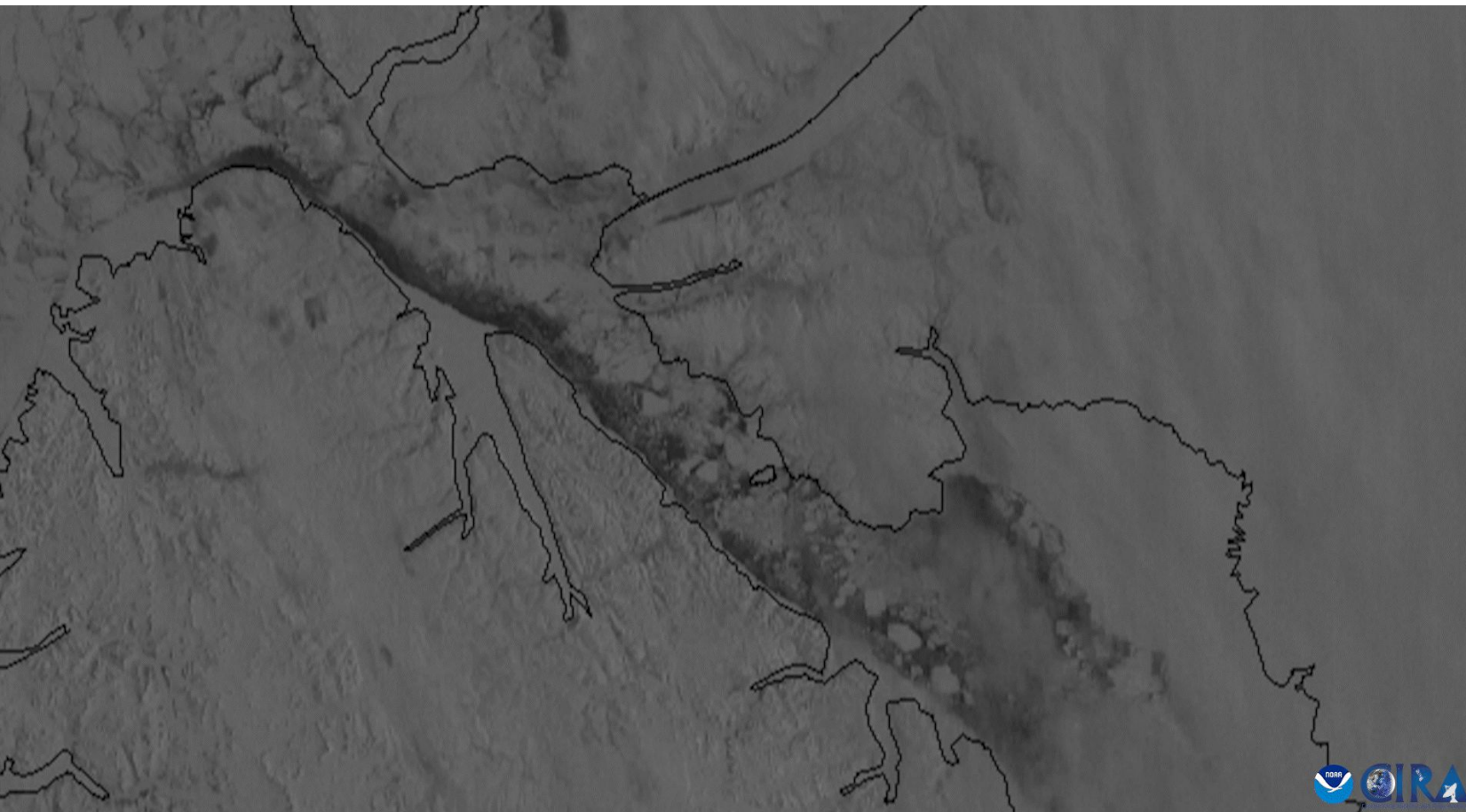


World Largest Iceberg (A23a) Breaks Loose From Antarctica

NASA WORLDVIEW



Arctic Ice Streaming Down Strait between Greenland and Ellesmere Island

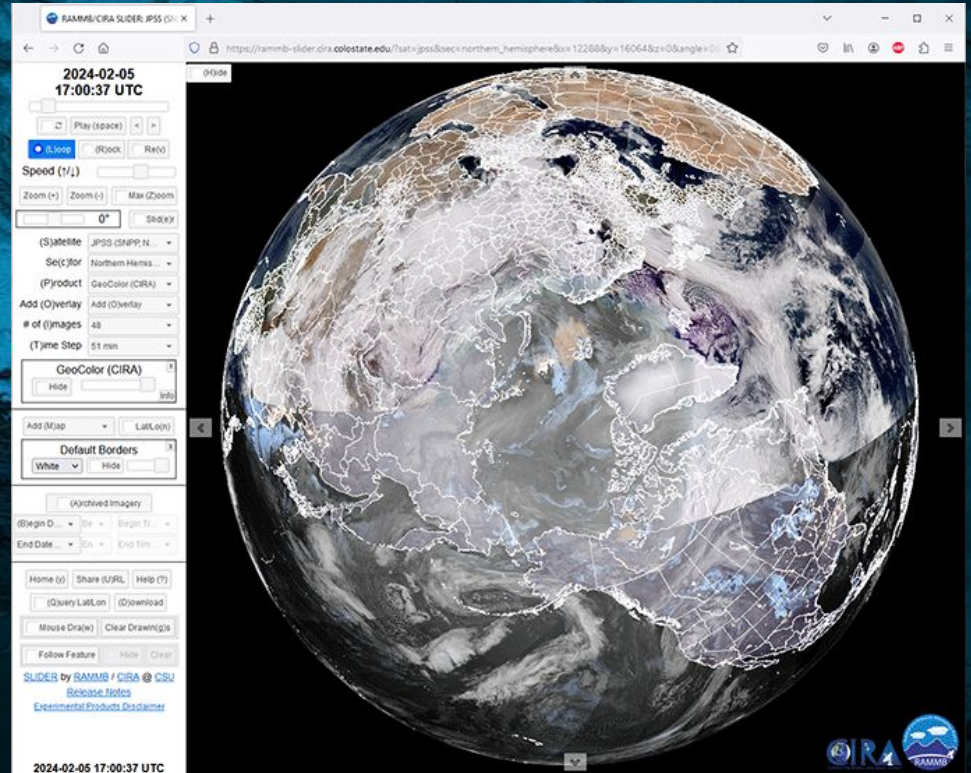
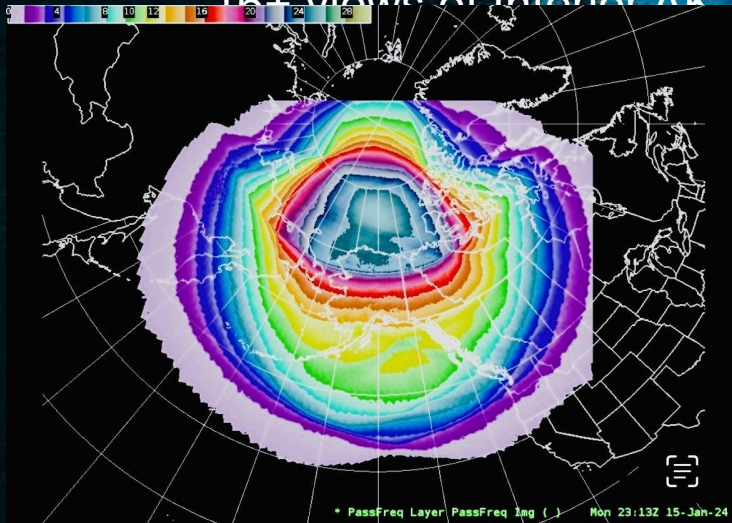




NOAA-21 is Primary - Working together with NOAA-20, SNPP

3 JPSS Satellites VIIRS Sensor Coverage

- 24+ views of the Arctic
- 16+ views of Interior AK



Jennifer Delamere (jsdelamere@alaska.edu) @ University of Alaska Fairbanks Geographic Information Network of Alaska (GINA)

<https://rammb-slider.cira.colostate.edu/?sat=jpss>



Where to Get the Data: Transparency and Accessibility

- **Transparency of the Science:** Detailed information on JPSS instruments, Science data products and documents (ATBDs, Cal Val Plans, Data Format, Product maturity status, README files, Requirements), Long term validation and science monitoring of SDR/EDR Products
<https://www.star.nesdis.noaa.gov/jpss/>



- **Open Data:** JPSS Data is available through CLASS (Comprehensive Large Array Stewardship System), PDA (Production Distribution and Access), and Direct Readout/GEONETCast. JPSS data is also now available in **NODD**, for free and easy public access.

Near Real-Time JPSS Data via NOAA Open Data Dissemination (NODD)

NODD is working with the JPSS team and the Public Datasets programs of three cloud service providers:

- AWS - [Registry of Open Data](#)
- Google Cloud - [Marketplace](#)
- Microsoft - [Planetary Computer](#)

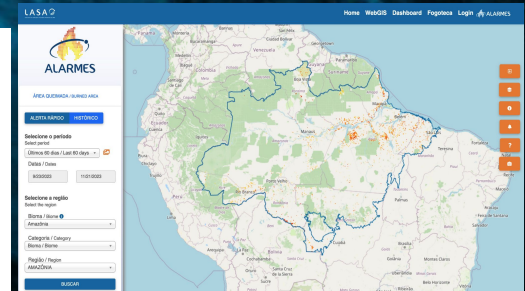
NODD leverages the ODPs' expertise, platforms, and tools in order to improve public access to NOAA data



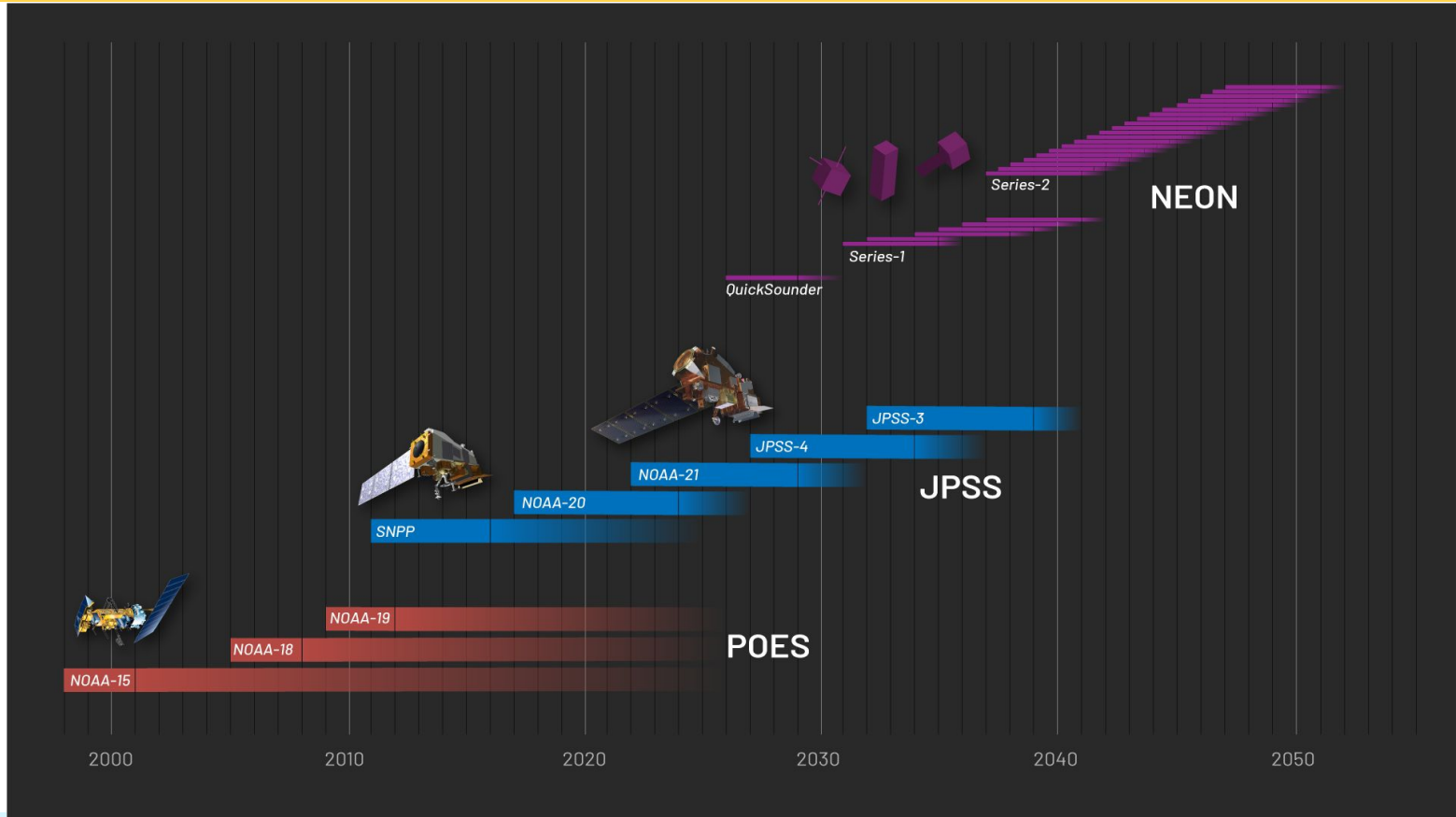
- No egress costs for users
- No use restrictions
- Appropriate metadata provided
- User interaction & feedback: NODD@NOAA.GOV

The VIIRS data on the NODD is currently supporting NRT fire-related applications in Brazil and Mexico.

<https://alarmes.lasa.ufjr.br/platfor m/webgis> (POC: Wilfrid Schroeder/NOAA NESDIS SAB)



LEO and the Near Earth Observation Network (NEON)



2023

FROM THE NOAA NESDIS OFFICE OF
LOW EARTH ORBIT (LEO) OBSERVATIONS

JPSS

ANNUAL SCIENCE DIGEST

EXPLORING THE IMPACT
AND APPLICATIONS OF
JPSS DATA



Download your copy today!

www.nesdis.noaa.gov/JPSS-digest





Chris Stoner
***AWS Open Environmental
Data Lead***



Registry of Open Data

← → ↻ 📄 registry.opendata.aws

Registry of Open Data on AWS

The Registry of Open Data on AWS is now available on AWS Data Exchange. All datasets on the Registry of Open Data are now discoverable on AWS Data Exchange alongside 3,000+ existing data products from category-leading data providers across industries. Explore the catalog to find open, free, and commercial data sets. [Learn more about AWS Data Exchange](#)

[Explore the catalog](#)

About

This registry exists to help people discover and share datasets that are available via AWS resources. See [recent additions](#) and [learn more about sharing data on AWS](#).

Get started using data quickly by viewing [all tutorials with associated SageMaker Studio Lab notebooks](#).

See [all usage examples](#) for datasets listed in this registry.

See datasets from [Allen Institute for Artificial Intelligence \(AI2\)](#), [Digital Earth Africa](#), [Data for Good at Meta](#), [NASA Space Act Agreement](#), [NIH STRIDES](#), [NOAA Open Data Dissemination Program](#), [Space Telescope Science Institute](#), and [Amazon Sustainability Data Initiative](#).

Search datasets (currently 542 matching datasets)

Add to this registry

If you want to add a dataset or example of how to use a dataset to this registry, please follow the instructions on the [Registry of Open Data on AWS GitHub repository](#).

The Human Sleep Project

[bioinformatics](#) [deep learning](#) [life sciences](#) [machine learning](#) [medicine](#) [neurophysiology](#) [neuroscience](#)

The Human Sleep Project (HSP) sleep physiology dataset is a growing collection of clinical polysomnography (PSG) recordings. Beginning with PSG recordings from from ~15K patients evaluated at the Massachusetts General Hospital, the HSP will grow over the coming years to include data from >200K patients, as well as people evaluated outside of the clinical setting. This data is being used to develop CAISR (Complete AI Sleep Report), a collection of deep neural networks, rule-based algorithms, and signal processing approaches designed to provide better-than-human detection of conventional PSG...

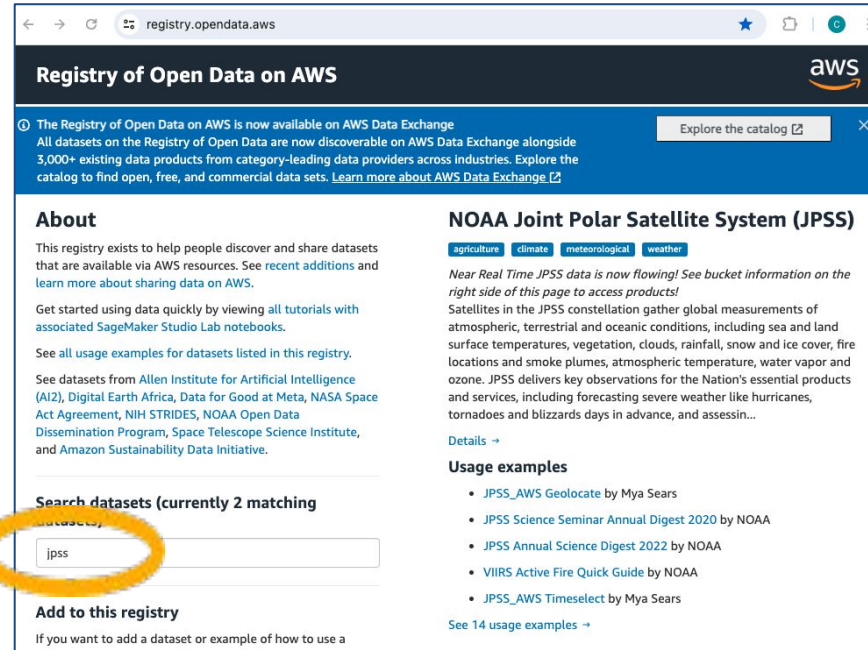
[Details](#) →

Usage examples

- [The Challenge of Undiagnosed Sleep Apnea in Low-Risk Populations: A Decision Analysis.](#) *Military Medicine* 2014 Aug;179(85):47-54. PMID: PMC6788752. by Bianchi MT, Hershman S, Bahadoran M, Ferguson M, Westover MB.
- [Dementia Detection from Brain Activity During Sleep.](#) *Sleep*. Nov 30;zsac286. doi: 10.1093/sleep/zsac286. Epub ahead of print. PMID: 36448766.* by Ye E*, Sun H*, Krishnamurthy PV, Adra N, Ganglberger W, Thomas RJ, et al.
- [Expert-level Sleep Scoring with Deep Neural Networks.](#) *Journal of the American Medical Informatics Association (JAMIA)*. 2018 Dec 1;25(12):1643-1650. PMID: PMC6289549. by Biswal S, Kulas J, Sun H, Goparaju B, Westover MB*, Bianchi MT*,

<https://registry.opendata.aws>

Registry of Open Data: JPSS



The screenshot shows the 'Registry of Open Data on AWS' website. The browser address bar displays 'registry.opendata.aws'. The page title is 'Registry of Open Data on AWS' with the AWS logo. A blue banner at the top contains the text: 'The Registry of Open Data on AWS is now available on AWS Data Exchange. All datasets on the Registry of Open Data are now discoverable on AWS Data Exchange alongside 3,000+ existing data products from category-leading data providers across industries. Explore the catalog to find open, free, and commercial data sets. [Learn more about AWS Data Exchange](#)'.

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Search datasets (currently 2 matching)

Search for:

Add to this registry

If you want to add a dataset or example of how to use a

NOAA Joint Polar Satellite System (JPSS)

[agriculture](#) [climate](#) [meteorological](#) [weather](#)

Near Real Time JPSS data is now flowing! See bucket information on the right side of this page to access products!

Satellites in the JPSS constellation gather global measurements of atmospheric, terrestrial and oceanic conditions, including sea and land surface temperatures, vegetation, clouds, rainfall, snow and ice cover, fire locations and smoke plumes, atmospheric temperature, water vapor and ozone. JPSS delivers key observations for the Nation's essential products and services, including forecasting severe weather like hurricanes, tornadoes and blizzards days in advance, and assessin...

[Details](#) →

Usage examples

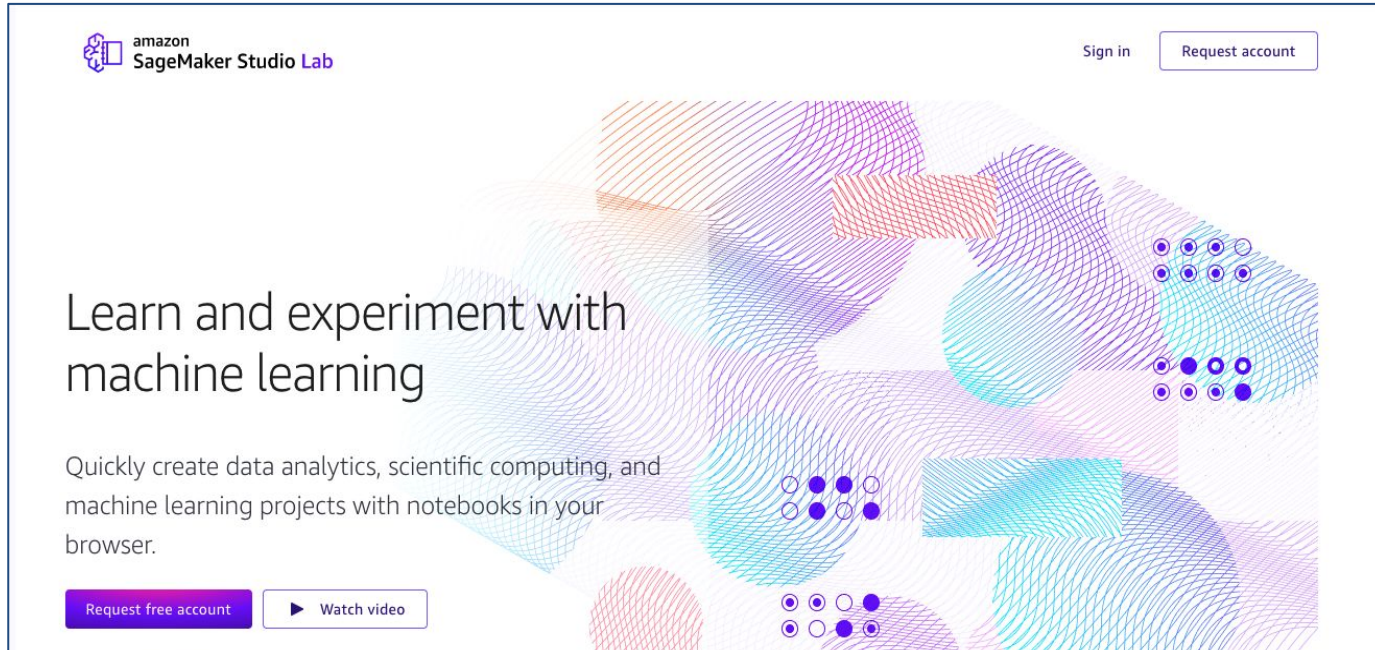
- JPSS_AWS Geolocate by Mya Sears
- JPSS Science Seminar Annual Digest 2020 by NOAA
- JPSS Annual Science Digest 2022 by NOAA
- VIIRS Active Fire Quick Guide by NOAA
- JPSS_AWS Timeselect by Mya Sears

[See 14 usage examples](#) →

<https://registry.opendata.aws>



Step 1: Create a SageMaker StudioLab account



The screenshot shows the Amazon SageMaker StudioLab website. At the top left is the Amazon SageMaker Studio Lab logo. At the top right are "Sign in" and "Request account" buttons. The main heading reads "Learn and experiment with machine learning". Below this is a sub-heading: "Quickly create data analytics, scientific computing, and machine learning projects with notebooks in your browser." At the bottom left are two buttons: "Request free account" and "Watch video". The background features a colorful, abstract pattern of overlapping lines and shapes.

<https://studiolab.sagemaker.aws/>

Step 1a: Request account

amazon SageMaker Studio Lab

Sign in **Request account**

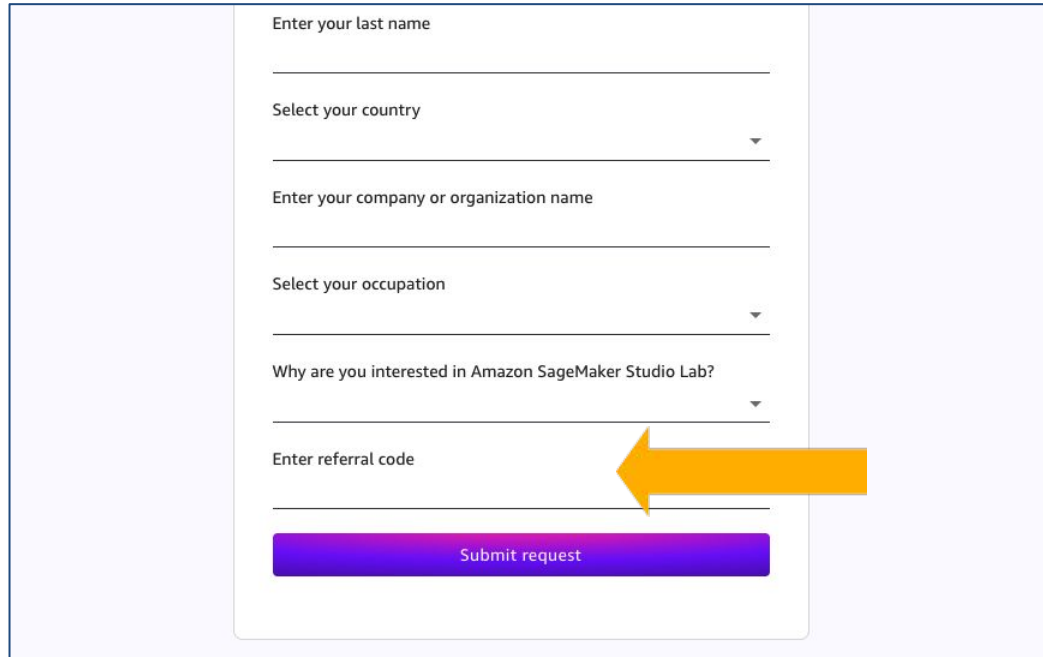
Learn and experiment with machine learning

Quickly create data analytics, scientific computing, and machine learning projects with notebooks in your browser.

Request free account [▶ Watch video](#)

<https://studiolab.sagemaker.aws/>

Step 1b: Use referral code



Enter your last name

Select your country

_____ ▼

Enter your company or organization name

Select your occupation

_____ ▼

Why are you interested in Amazon SageMaker Studio Lab?

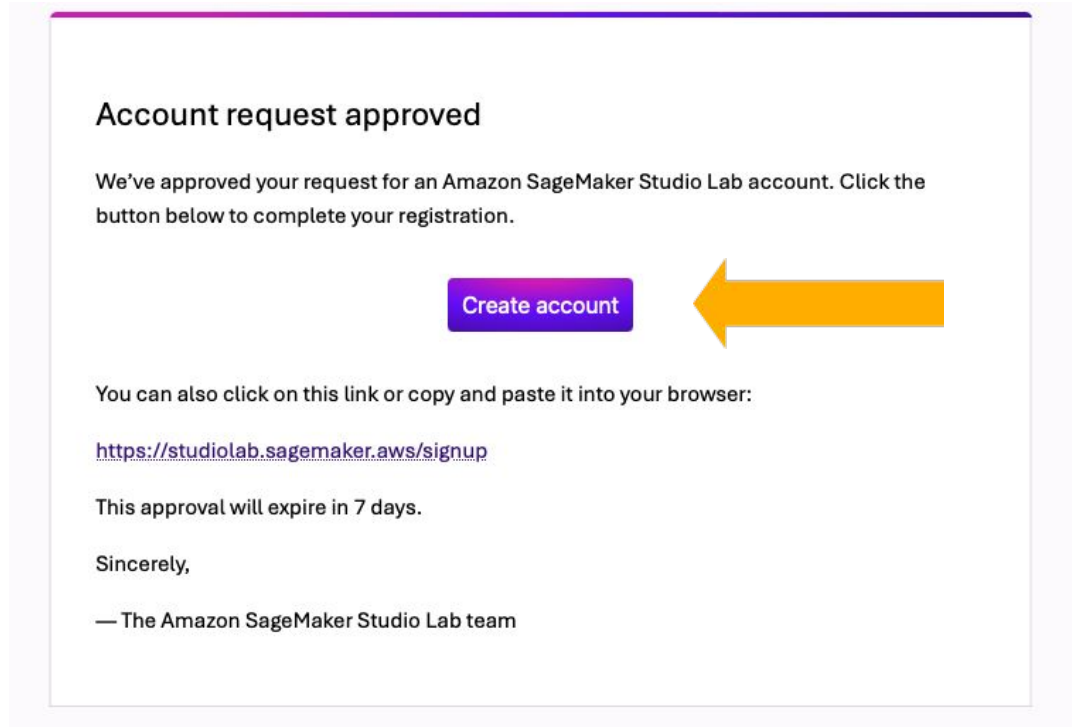
_____ ▼

Enter referral code

Submit request

nodd-jpss-E6C61

Step 2: “Account request Approved” Email



Step 3: Create new Account

Create account

Create a free account to edit and run projects.

Enter your email*

Create a password*

Confirm the password*

Enter a username*

Create account



Step 4: Verify Email

Verify your email

You're almost done with Amazon SageMaker Studio Lab account registration. Please verify your email within 24 hours by clicking the button below.

Verify your email



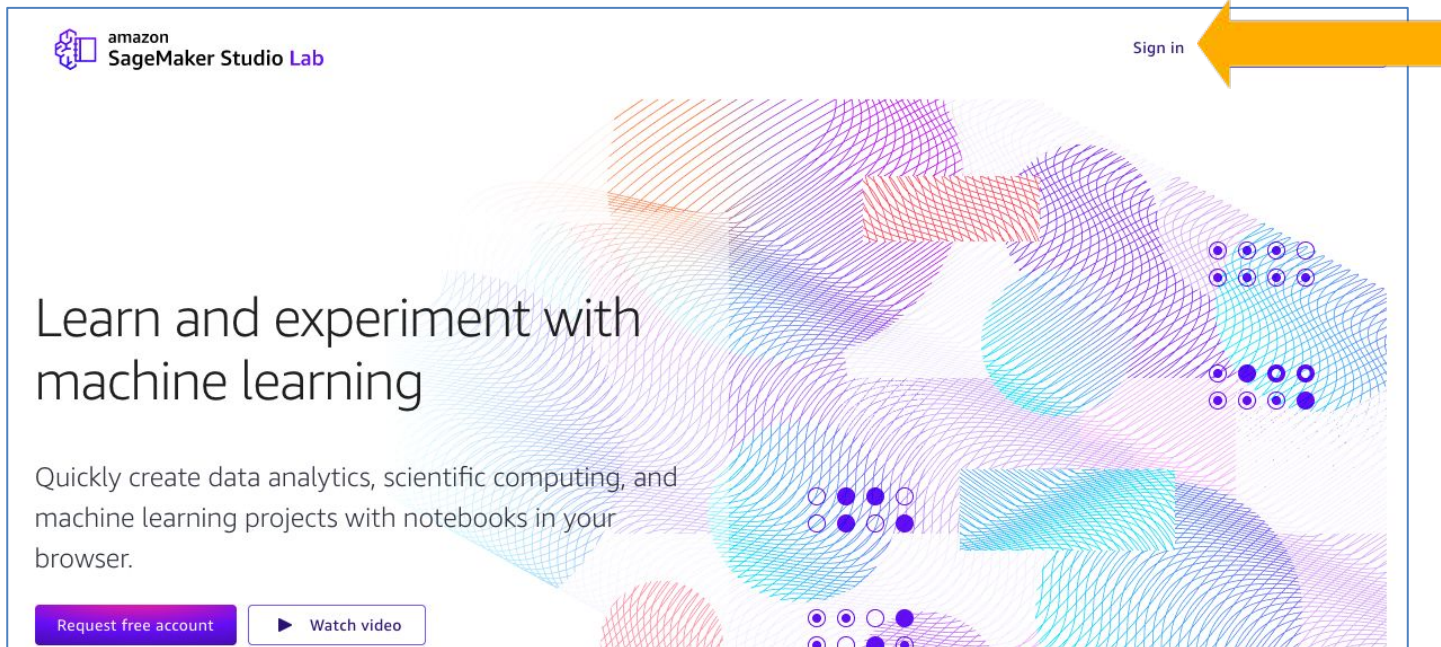
You can also click on this link or copy and paste it into your browser:

<https://studiolab.sagemaker.aws/signup/?confirmation-token=924310&user-id=b6fbfe15-3873-4cce-8d0a-2227b2e45770>

Sincerely,

— The Amazon SageMaker Studio Lab team

Step 5: Sign in



amazon SageMaker Studio Lab

Sign in

Learn and experiment with machine learning

Quickly create data analytics, scientific computing, and machine learning projects with notebooks in your browser.

[Request free account](#) [▶ Watch video](#)

<https://studiolab.sagemaker.aws/>

Step 6: Start CPU runtime

My project

CPU and GPU runtime limits have changed.

i You can use CPU for up to 4 hours at a time with a limit of 8 hours in a 24-hour period.
You can use GPU for up to 4 hours at a time with a limit of 4 hours in a 24-hour period. **x**

Runtime status

Idle

Runtime remaining **?**

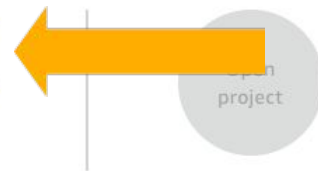
Session: —

Today: **8 h 0 m**

Compute type **?**

CPU GPU

▶ Start runtime

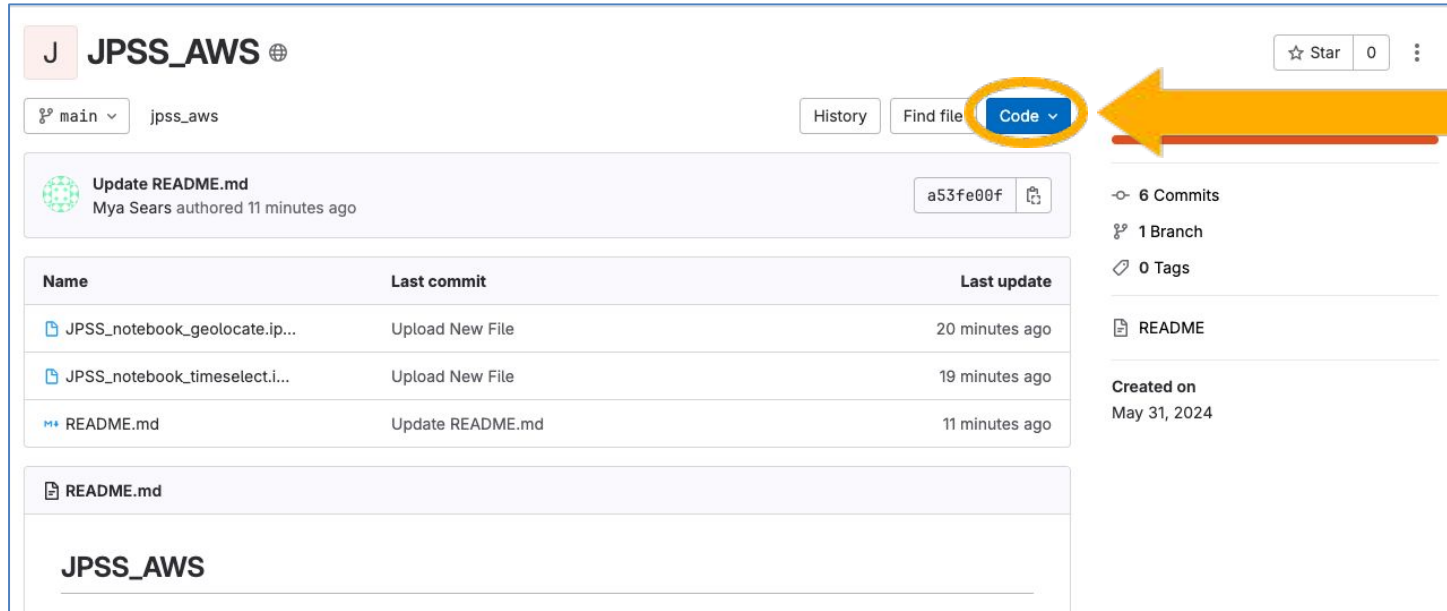


Step 7: Open Project

My project

Runtime status	Runtime remaining	Compute type		
Running	Session: 3 h 59 m Today: 7 h 59 m	<input checked="" type="radio"/> CPU <input type="radio"/> GPU		

Step 8a: Open Github Repo in browser



The screenshot shows the GitLab interface for a repository named 'JPSS_AWS'. At the top, there are navigation options for 'main' branch and 'jpss_aws' path. A yellow circle highlights the 'Code' button, with a large yellow arrow pointing to it from the right. Below the navigation, there is a commit history table and a sidebar with repository statistics.

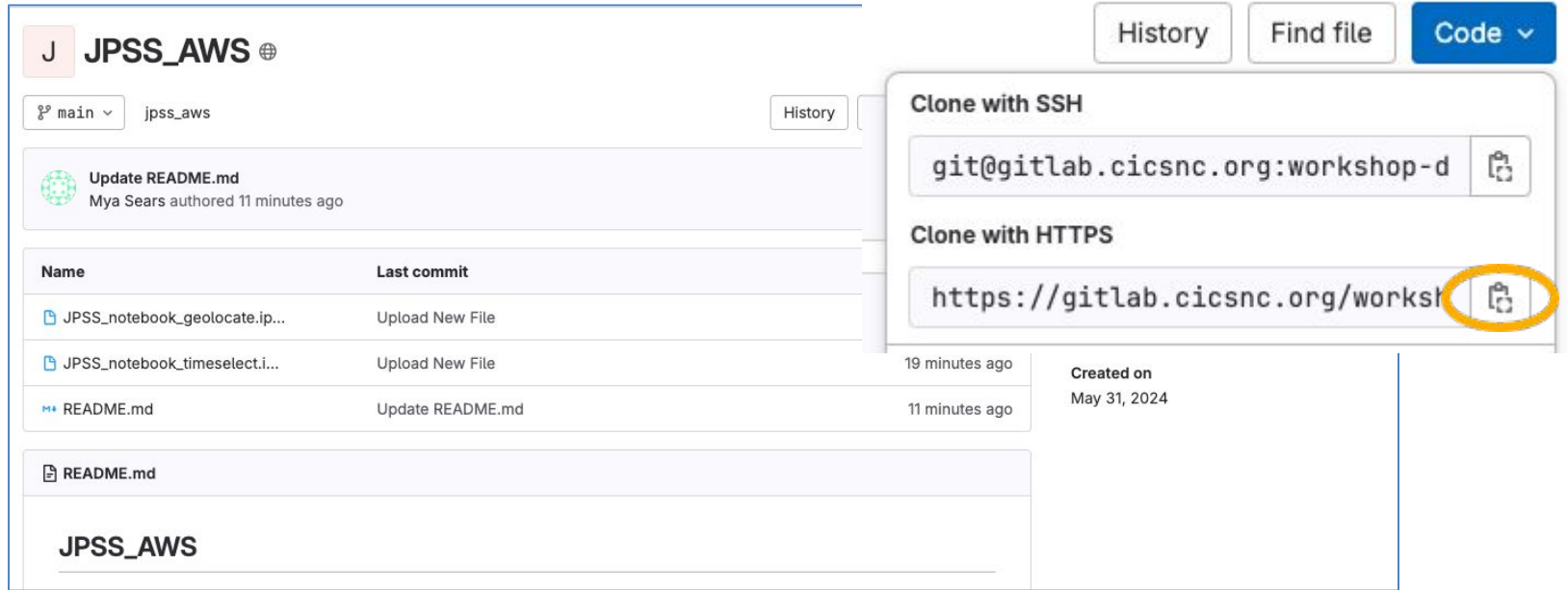
Name	Last commit	Last update
JPSS_notebook_geolocate.ip...	Upload New File	20 minutes ago
JPSS_notebook_timeselect.i...	Upload New File	19 minutes ago
README.md	Update README.md	11 minutes ago

Repository statistics on the right:

- 6 Commits
- 1 Branch
- 0 Tags
- README
- Created on May 31, 2024

https://gitlab.cicsnc.org/workshop-development/jpss_aws

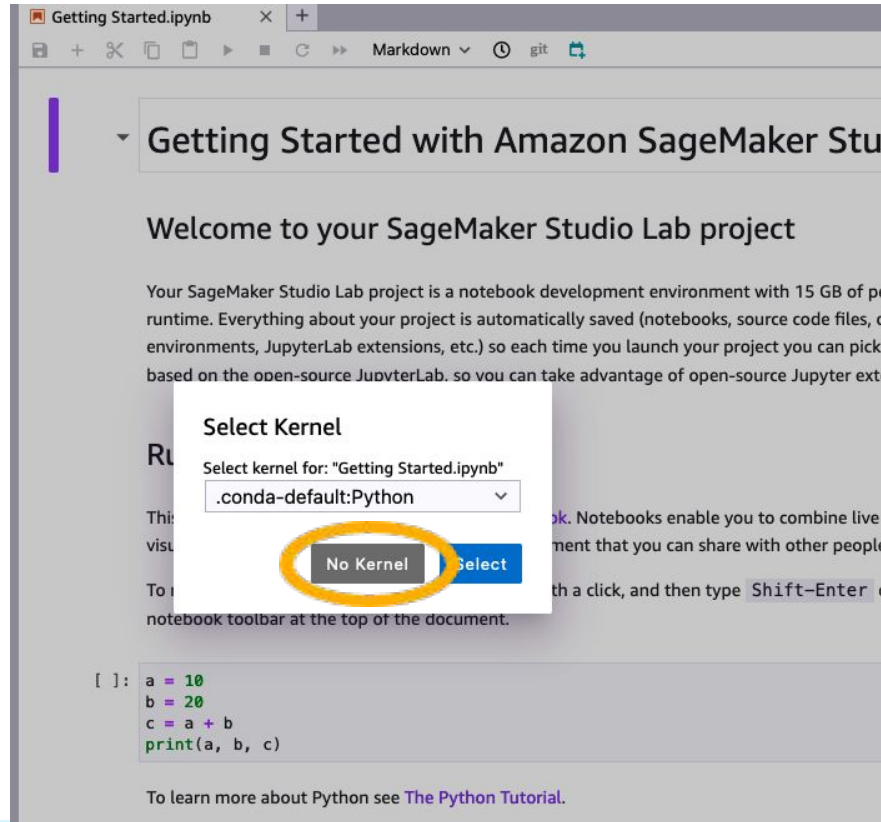
Step 8a: Open Github Repo in browser



The screenshot shows the GitLab interface for the repository 'JPSS_AWS'. At the top right, there are buttons for 'History', 'Find file', and a 'Code' dropdown menu. The 'Code' menu is open, displaying two options: 'Clone with SSH' and 'Clone with HTTPS'. The SSH option shows the URL 'git@gitlab.cicsnc.org:workshop-d' with a clone icon. The HTTPS option shows the URL 'https://gitlab.cicsnc.org/workshop-d' with a clone icon circled in yellow and a yellow arrow pointing to it from the right. Below the cloning options, the repository's commit history is visible, including a commit for 'Update README.md' by Mya Sears 11 minutes ago. A 'Created on' date of May 31, 2024 is also shown.

https://gitlab.cicsnc.org/workshop-development/jpss_aws

Step 8b: Close the Getting Started notebook



Getting Started.ipynb

Getting Started with Amazon SageMaker Studio

Welcome to your SageMaker Studio Lab project

Your SageMaker Studio Lab project is a notebook development environment with 15 GB of persistent storage and 15 GB of ephemeral storage. Everything about your project is automatically saved (notebooks, source code files, data, environments, JupyterLab extensions, etc.) so each time you launch your project you can pick up where you left off. You can also create and manage environments based on the open-source JupyterLab, so you can take advantage of open-source Jupyter extensions.

Select Kernel

Select kernel for: "Getting Started.ipynb"

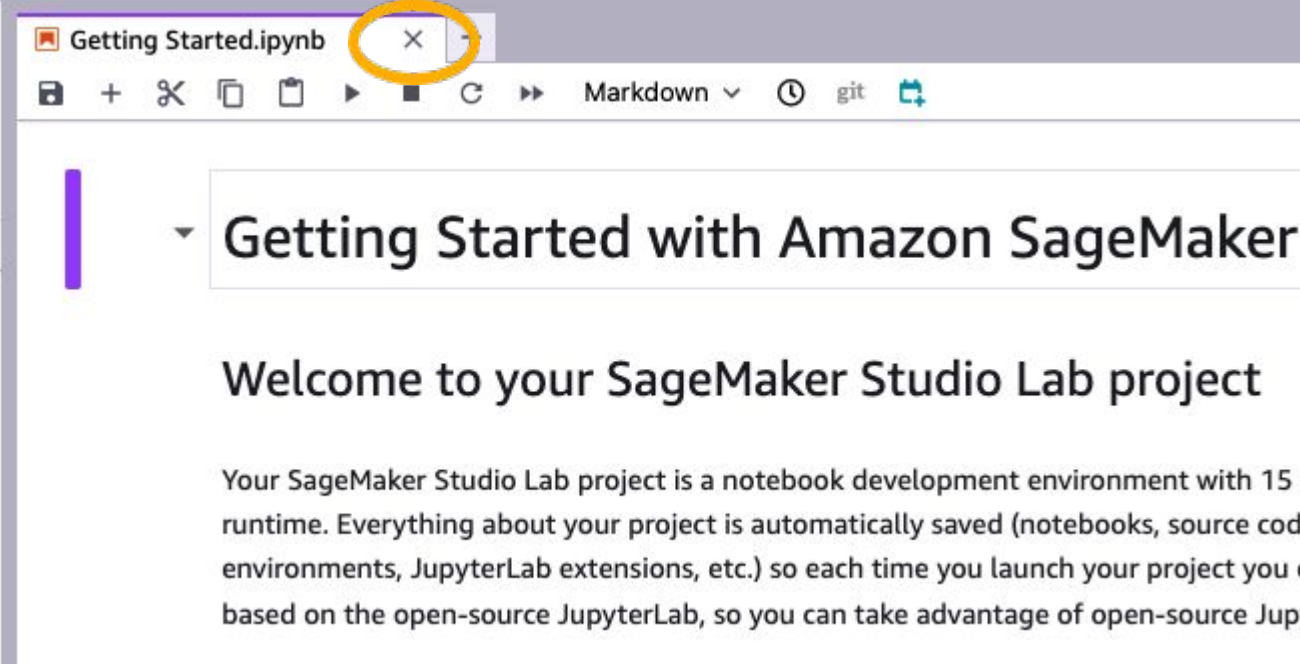
.conda-default:Python

No Kernel Select

```
[ ]: a = 10
      b = 20
      c = a + b
      print(a, b, c)
```

To learn more about Python see [The Python Tutorial](#).

Step 8b: Close the Getting Started notebook



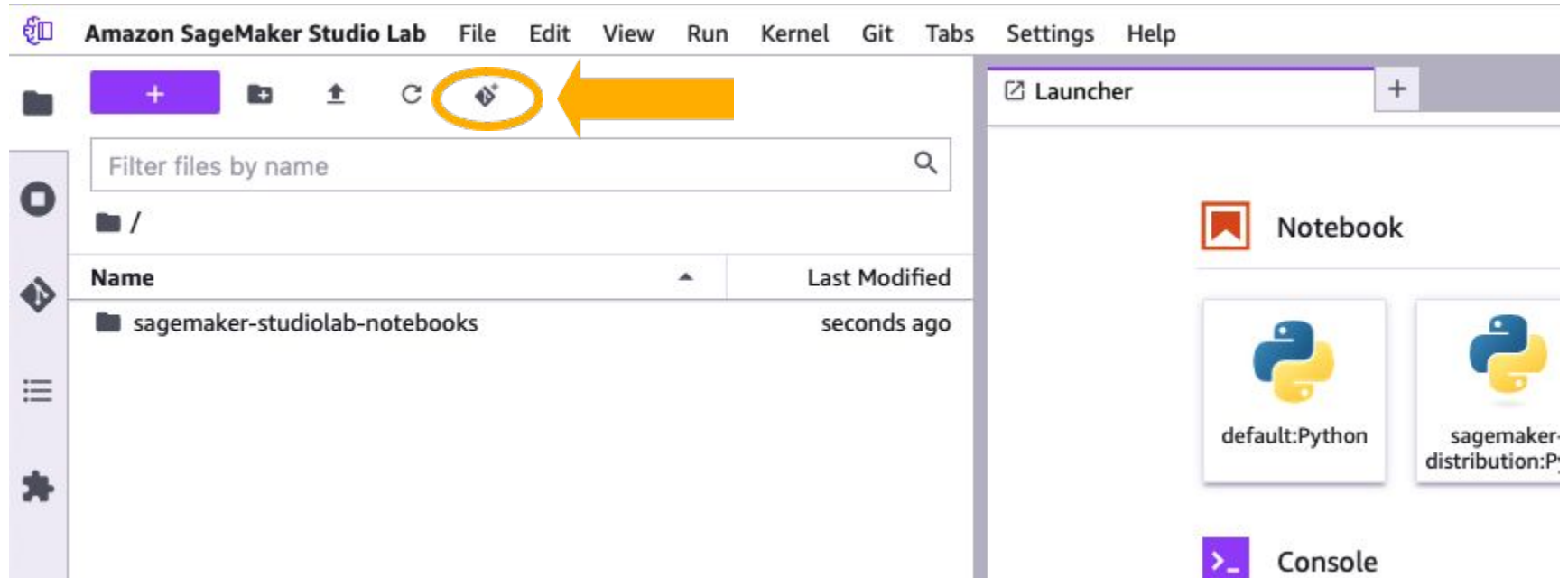
The screenshot shows a JupyterLab notebook window titled "Getting Started.ipynb". The close button (X) in the tab is circled in yellow. Below the tab, the notebook content is visible, featuring a purple vertical bar on the left and a heading "Getting Started with Amazon SageMaker".

Getting Started with Amazon SageMaker

Welcome to your SageMaker Studio Lab project

Your SageMaker Studio Lab project is a notebook development environment with 15 (runtime. Everything about your project is automatically saved (notebooks, source code, environments, JupyterLab extensions, etc.) so each time you launch your project you c based on the open-source JupyterLab, so you can take advantage of open-source Jupy

Step 8c: Clone Repo



https://gitlab.cicsnc.org/workshop-development/jpss_aws

Step 8c: Clone Repo

The screenshot shows the Amazon SageMaker console interface. On the left, a sidebar displays navigation icons and a file browser for a notebook instance named 'sagemaker-stu'. The main area is dominated by a 'Clone Git Repository' dialog box. This dialog has the following elements:

- Title:** Clone Git Repository
- Git repository URL (.git):** A text input field.
- Project directory to clone into:** A text input field containing the placeholder text: `/path/to/local/directory or empty for the root directory of JupyterLab`.
- After cloning:** A section with two checked checkboxes:
 - Open README files.
 - Search for environment.yml and build Conda environment.
- Buttons:** 'Cancel' (grey) and 'Clone' (blue).

Background elements include the SageMaker sidebar, a notebook toolbar with a '+' button, and a 'Notebook' section showing Python and sagemaker distribution options.

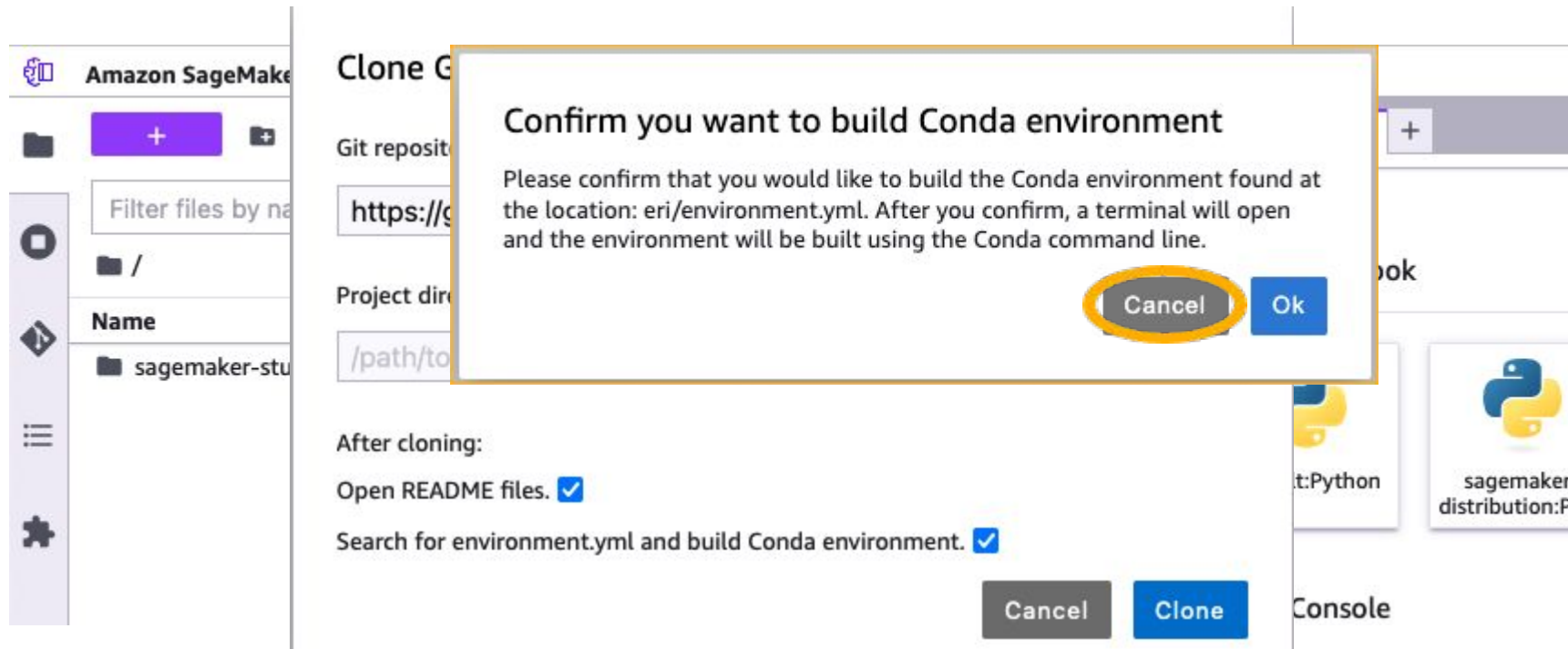
https://gitlab.cicsnc.org/workshop-development/jps_aws

Step 8c: Clone Repo

The screenshot shows the Amazon SageMaker console interface. On the left is a sidebar with navigation icons. The main area displays the 'Clone Git Repository' dialog box. The 'Git repository URL (.git):' field contains the URL `https://gitlab.cicsnc.org/workshop-development/jpss_aws.git`. The 'Project directory to clone into:' field contains the placeholder text `/path/to/local/directory or empty for the root directory of JupyterLab`. Below these fields, there are two checked checkboxes: 'Open README files.' and 'Search for environment.yml and build Conda environment.'. At the bottom right of the dialog are 'Cancel' and 'Clone' buttons. To the right of the dialog, a portion of the SageMaker notebook interface is visible, showing a 'Notebook' section with two Python environment options: 'Python' and 'sagemaker-distribution:P'.

https://gitlab.cicsnc.org/workshop-development/jpss_aws

Step 8c: **Cancel** creating Conda environment



The screenshot shows the Amazon SageMaker console interface. A modal dialog box is centered on the screen, titled "Confirm you want to build Conda environment". The dialog contains the following text: "Please confirm that you would like to build the Conda environment found at the location: eri/environment.yml. After you confirm, a terminal will open and the environment will be built using the Conda command line." At the bottom of the dialog, there are two buttons: "Cancel" (highlighted with a yellow circle) and "Ok".

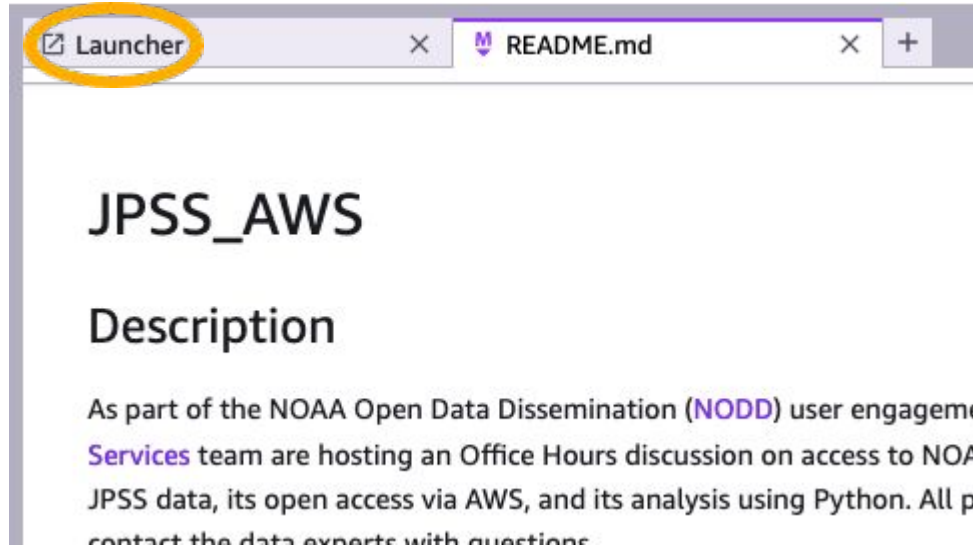
In the background, the SageMaker console shows the "Clone" section with the following details:

- Git repository: `https://g`
- Project directory: `/path/to`
- After cloning:
 - Open README files.
 - Search for environment.yml and build Conda environment.

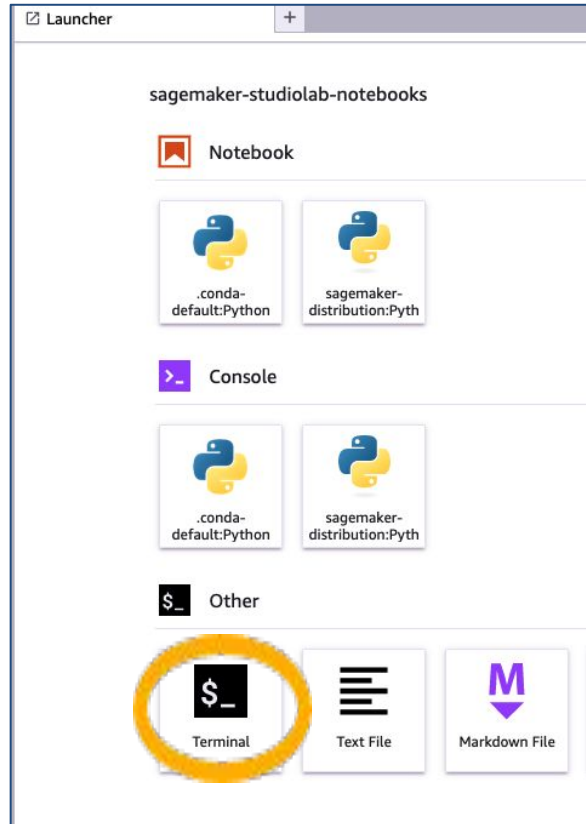
At the bottom of the console, there are "Cancel" and "Clone" buttons. The "Console" tab is visible at the bottom right.

https://gitlab.cicsnc.org/workshop-development/jps_aws

Step 8d: Click on Launcher



Step 8d: Launch Terminal



Step 9a: Get micromamba

```
Terminal 1 x README.md x +  
(studiolab) studio-lab-user@default:~/jpss_aws$ curl -Ls https://micro.mamba.pm/api/micromamba/linux-64/latest | tar -xvj bin/micromamba
```

curl -Ls

**https://micro.mamba.pm/api/micromamba/linux-64/latest |
tar -xvj bin/micromamba**



Step 9b: Create environment



```
Terminal 1  ×  README.md  ×  +  
  
(studiolab) studio-lab-user@default:~/jpss_aws$ curl -Ls https://micro.mamba.pm/api/micromamba/linux-64/latest | tar -xvj bin/micromamba  
bin/micromamba  
(studiolab) studio-lab-user@default:~/jpss_aws$ bin/micromamba env create -f environment.yml
```

bin/micromamba env create -f environment.yml

Step 9b: Say YES to install

```
+ bokeh 3.4.1 pyhd8ed1ab_0 conda-forge 5MB
+ branca 0.7.2 pyhd8ed1ab_0 conda-forge 29kB
+ botocore 1.34.106 pyge310_1234567_0 conda-forge 7MB
+ requests 2.32.3 pyhd8ed1ab_0 conda-forge 59kB
+ dask-expr 1.1.2 pyhd8ed1ab_0 conda-forge 158kB
+ distributed 2024.5.2 pyhd8ed1ab_0 conda-forge 796kB
+ ipykernel 6.29.4 pyh3099207_0 conda-forge 119kB
+ folium 0.16.0 pyhd8ed1ab_0 conda-forge 74kB
+ dask 2024.5.2 pyhd8ed1ab_0 conda-forge 8kB
+ geopandas 0.14.4 pyhd8ed1ab_0 conda-forge 8kB
+ aiohttp 3.9.5 py312h98912ed_0 conda-forge 804kB
+ aiobotocore 2.13.0 pyhd8ed1ab_0 conda-forge 66kB
+ s3fs 2024.6.0 pyhd8ed1ab_0 conda-forge 32kB
```

Summary:

Install: 273 packages

Total download: 283MB

Confirm changes [Y/n]

Say "Y"

Step 9c: Activate conda environment

```
Linking aiohttp-3.9.5-py312h98912ed_0
Linking aiobotocore-2.13.0-pyhd8ed1ab_0
Linking s3fs-2024.6.0-pyhd8ed1ab_0
```

Transaction finished

To activate this environment, use:

```
micromamba activate jpss_env
```

Or to execute a single command in this environment, use:

```
micromamba run -n jpss_env mycommand
```

```
(studiolab) studio-lab-user@default:~/jpss_aws$ conda activate jpss_env
```

conda activate jpss_env

Step 10: Launch Notebook

The screenshot displays the Amazon SageMaker Studio Lab interface. On the left, a file explorer shows the directory `/jpss_aws/` with files: `environment.yml`, `JPSS_notebook_geolocate.ipynb`, `JPSS_notebook_timeselect.ipynb` (highlighted), and `README.md`. The main workspace shows a terminal window and a notebook viewer. The notebook content includes a welcome message and instructions: **Audience:** Anybody with a computer and access to at least one AWS account. **Intent:** To build familiarity with JPSS data from AWS. **Outcome:** An interactive plot that allows the user to search for the McKinney Fire, which is the largest fire in the United States.

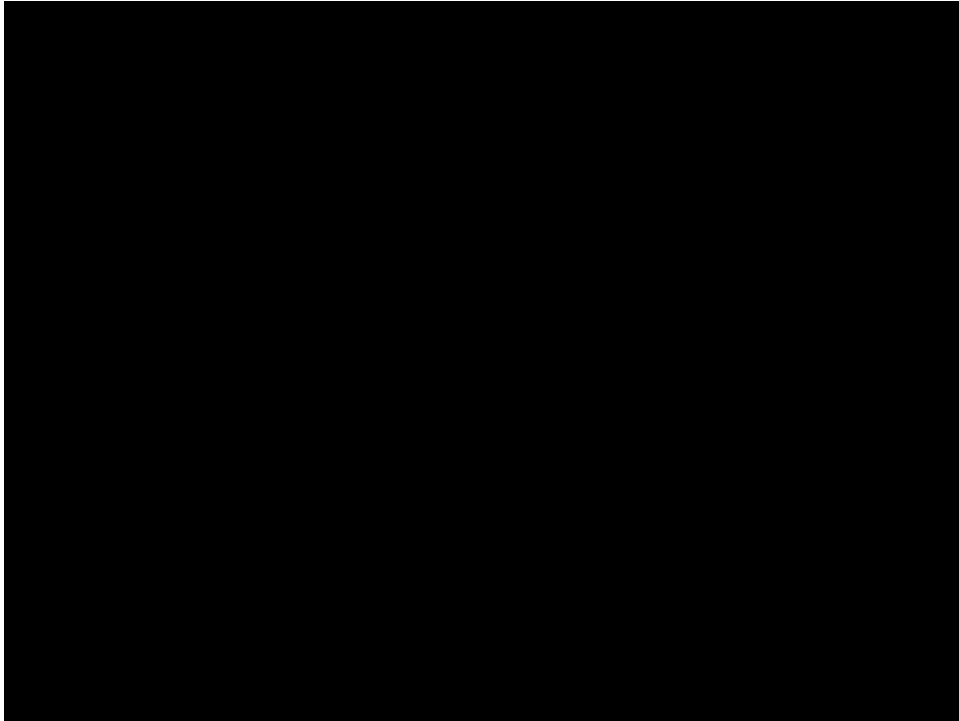
A "Select Kernel" dialog box is overlaid on the notebook, showing a dropdown menu with `jpss_env:Python` selected and circled in orange. The dialog also features "No Kernel" and "Select" buttons.

Run the notebooks!

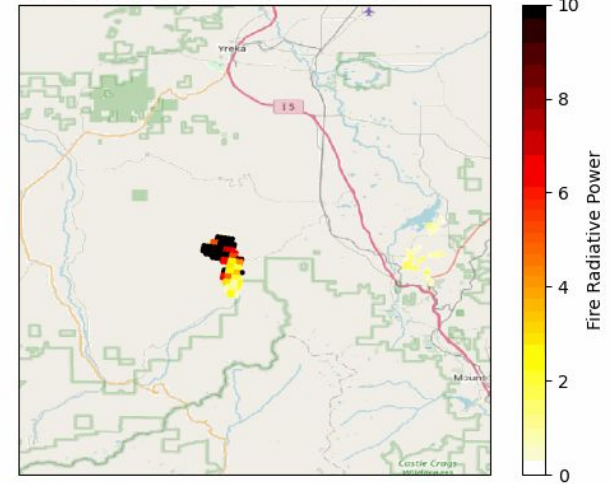
The screenshot displays the Amazon SageMaker Studio Lab interface. On the left, a file explorer shows the directory structure for 'jps_aws', including files like 'environment.yml', 'JPSS_notebook_geolocate.ipynb', 'JPSS_notebook_timeselect.ipynb', and 'README.md'. The main area is the 'Launcher' grid, which is organized into three sections: 'Notebook', 'Console', and 'Other'. The 'Notebook' section contains five Python environment icons: 'aws_nexrad_sms_LPython', 'default:Python', 'erl_env:Python', 'jps_env:Python', and 'sagemaker-distribution:Pyth'. The 'Console' section contains five similar Python environment icons. The 'Other' section includes icons for 'Terminal', 'Text File', 'Markdown File', 'Python File', 'Notebook Jobs', and 'Show Contextual Help'. The bottom status bar indicates 'Runtime remaining: 3 h 48 m'.



Output from Notebook



Fire Radiative Power
03 September 2022 at 10:01 UTC



Thank you Mya Sears, former NCICS engagement and data analyst

Questions and Discussion

- Please be brief in your questions / comments
- Use the chat or raise your hand for questions
- Identify who the question is directed to where possible
 - As questions are answered, we will go to the next in the chat queue and call on you to unmute yourself and ask your question.
 - We appreciate there may be questions that cannot be answered immediately and even those that we won't have an opportunity to get to: please be patient as we build our understanding and summary responses.



Resources

We invite you to stay engaged with NOAA!

- **NOAA JPSS:**
 - <https://www.nesdis.noaa.gov/our-satellites/currently-flying/joint-polar-satellite-system>
- **NOAA Open Data Dissemination:**
 - noaa.gov/nodd
 - Email: NODD@noaa.gov
- **AWS JPSS:**
 - <https://registry.opendata.aws/noaa-jpss/>

