National Aeronautics and Space Administration

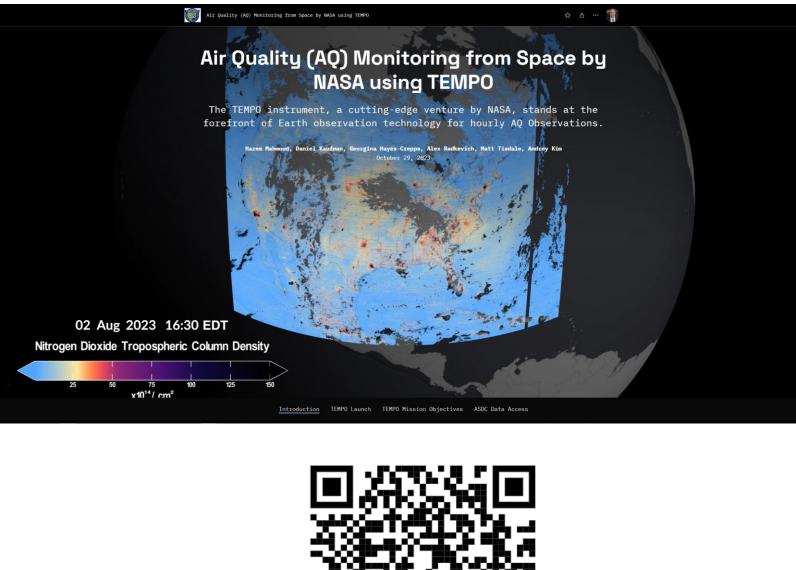
#### ATMOSPHERIC DATA CENTER

#### **ASDC Overview**

The Atmospheric Science Data Center (ASDC) is in the Science Directorate located at the NASA Langley Research Center (LaRC), in Hampton, Virginia. The Science Directorate's Climate Science Branch, Atmospheric Composition Branch, and Chemistry and Dynamics Branch work with ASDC to study changes in the Earth and its atmosphere. Data products translate those findings into meaningful knowledge that inspires action by scientists, educators, decision makers, and the public. The ASDC supports over 60 projects and provides access to more than 1,000 archived collections. These datasets were created from satellite measurements, field experiments, and modeled data products. The ASDC projects focus on the Earth science disciplines Radiation Budget, Clouds, Aerosols, and Tropospheric Composition.

### **TEMPO Storymap**

Tropospheric Emissions: Monitoring of Pollution (TEMPO) : Will be the first space-based instrument to monitor major air pollutants across the North American continent every daylight hour at high spatial resolution.





https://asdc.larc.nasa.gov

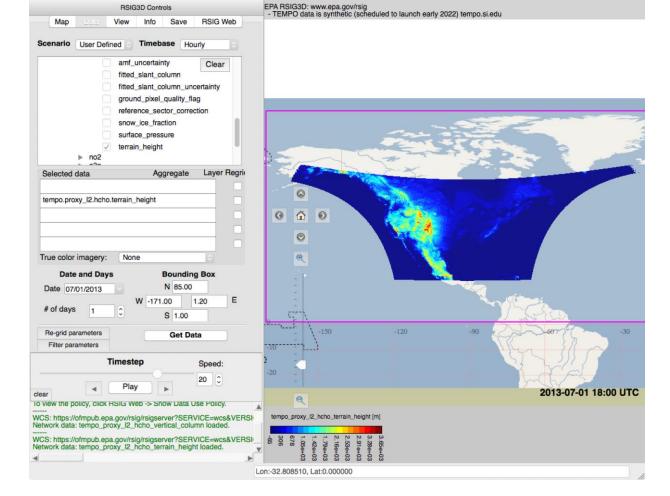
#### NASA Earthdata Search

Sarah for collections or trappo t  t  t  t  t  t  t  t  t  t  t  t  t	EARTHDATA SEARCH				
St     Standy Start 21153 matting parallel       Triffer Grandes     County Start 21153 matting parallel       Fritter Grandes     County Start 21153 matting parallel       Grandes Saudi     Start       Saudi     Start       Paralles     Start	Search for collections or topics	æ	Search Results (	3 Collections)	
Planning 2012 1133 metaling genuits         There can use in the second state in the seco		-	TEMPO NO2 tropospheric column		
THEre cannots     Clour Hunch       Canada Saarch     Start       Start     Start       Canada Saarch     Start       Canada Saarch <th colspan="2"></th> <th colspan="2">Showing 20 of 21,653 matching granules</th>			Showing 20 of 21,653 matching granules		
T Riber Canadeta     Data Sister, SS10010000       Cranules Scarto     SSRIT       Cranules Scarto     SSRIT       Cranules Scarto     SSRIT       Cranules Scarto     SSRIT       Status     SSRIT       SSRIT     SSRIT <th>FROM TEMPO X</th> <th></th> <th></th> <th></th>	FROM TEMPO X				
Barley Barley     Dis Convel 10(2)       Series Barley on Yuhiliges Convel 10(2)       Series Barley on Yuhiliges Convel 10(2)       Ymyr Mark Colo Henness       Series Barley on Yuhiliges Convel 10(2)       Ymyr Mark Colo Henness       Series Barley on Yuhiliges Convel 10(2)       Ymyr Mark Colo Henness       Series Barley on Yuhiliges Convel 10(2)       Ymyr Mark Colo Henness       Series Barley on Yuhiliges Convel 10(2)       Ymyr Mark Colo Henness       Series Barley on Yuhiliges Convel 10(2)       Ymyr Mark Colo Henness       Park Access       Tablelo N (0,2)-RODY (12, Vol. 2014)       Tablelo N (0,2)-RODY (12, Vol	▼ Filter Granules Clear Fil	ters			
Growie (bi) Sent Strajie or Multiple Growie (bulk Fergenziel Sart TWP-Mult-CD Internets Re TWP-Mult-CD Internets Regrandes	Granule Search		START		
Section 2019 as the Adapter Granue (balance)  Temporal  Section  Prover Add CD Information  Prover A	Granula ID(s)		END	2014-04-30 23:59:43	
Start     D3712131852_0513008.ac       Start     Start       YMMAAAD.0116temmos     D3712131952_0513008.ac       Reumony?     D3712131952_0513008.ac       Day/Mapit     Start       Poly granutes day during the day, right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Start     Start Add Add 202.3358       Poly down and should have the day. right     Start       Start     Start Add Add 202.3358       Poly down and should have an analyzing     Start Add 202.2356       Start     Start Add 202.2356       St			+ 🔺		
Start     D3712131852_0513008.ac       Start     Start       YMMAAAD.0116temmos     D3712131952_0513008.ac       Reumony?     D3712131952_0513008.ac       Day/Mapit     Start       Poly granutes day during the day, right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Poly down and should have the day. right     Start       Start     Start Add Add 202.3358       Poly down and should have the day. right     Start       Start     Start Add Add 202.3358       Poly down and should have an analyzing     Start Add 202.2356       Start     Start Add 202.2356       St					
Day Madu     Day Madu       Party Madu     Day Madu       Party Jones     Day Madu	Temporal				
Example       Image: The Part of the P	Start	Start		START 2014-04-30 23:41:58	
Provide Multicol Differences         Recurring?         Day/Mapt         Programics activation of any the day, right         Programics activation of the day, right         Programics activatity activatity activatity activation of the day, right </th <th></th> <th colspan="2">Y-MM-DO HHmmss END</th> <th>2014-04-30 23:47:54</th>		Y-MM-DO HHmmss END		2014-04-30 23:47:54	
Recurring?      Day Acces      Day Acces      Total on a control of the day, right      Total on a control of the day, right      Day Acces      Total on a control of the day, right      Total	End		+ 🔺		
DyyNapit     107233952_0101600.ac       Dray Andreak captured during the day, ingle     107233952_0101600.ac       Waydine     1000       Drak Access     1072313952_0101600.ac       Drak Dynamic Boat Intere analities     1074400.02.000.00       Drak Dynamic Boat Intere analities     1072313952_0101600.0c       Drak Dynamic Boat Intere analities     1074400.02.000.0c       Drak Dynamic Boat Intere analities     1074400.02.000.0c       Drak Dynamic Boat Intere analities     107440.02.000.0c       Drak Dynamic Boa					
Prod grundas captured during the day, night wygene Prod ovy grundas that have browns mge Prod ovy grundas that have browns mge or in a Prod ovy grundas that have browns mge or in a Prod ovy grundas that have browns mge Prod ovy grundas that have browns prod ovy grundas that have browns mge Prod ovy grundas that have browns prod	Recurring?				
or un yolne.  Augume  Data Acces  Find only granulus that have browne  Find only granulus that are analode  of un yolne  Find only granulus that are analode  F	Day/Night		START	2014-04-30 23:29:59	
Avgime         +         ▲           Dea Access         The Mon Query Lay Vois 201404 ±         ±           Prod only gravues that has brown mogin         The Mon Query Lay Vois 201404 ±         ±           Prod only gravues that has brown mogin         Status         201404 ± 201705 Mon Query Lay Vois 201404 ±         ±           Prod only gravues that has brown mogin         EVENDO NOL2-ROUTY Lay Vois 201404 ±         ±         201404 ± 201705 Mon Query Lay Vois 201404 ±         ±           Prod only gravues that has brown mogin         The Mon Query Lay Vois 201404 ±         ±			END	2014-04-30 23:35:55	
Das Acces Pod org genuals that have brown more Pod org genuals that have brown more ordre Pod org genuals that have brown more Pod org genuals that have brown more Pod org genuals that have brown more Stati Pod org genuals that have brown more Stati Pod org genuals that have brown more Stati Pod org genuals that have brown Pod org genuals that have brown more Stati Pod org genuals that have brown more Stati Pod org genuals that have brown Pod org genuals that hav	or anytime.		+ &		
Deak Acces Fold Grill granulas that have browne manage Fold Grill granulas that have browne manage Fold Grill granulas that are available Fold Granulas Fold G	Anytime	~			
Field only genulas that it was browned may be approximately a standard of 221055 and 221055 and 221055 and 221055 and 221040-3222555 and 2210555 and 22105555 and 2210555 and 2210555 and 22105555 and 22105555 and 221040-32105555 and 221040-32105555 and 22105555 and 221040-321055555 and 221040-321055555 and 221040-321055555 and 221055555555555555555555555555555555555					
Pick dorg granulas bat kina bione mingen mingen         Die dorg granulas bat kina bione mingen biologie         Die dorg granulas bat are sinalized biologie         Die dorg granulas bat are biologie         Die dorg granulas bat	Data Access				
Fou only granues that are analobe office					
otina TBN03,N02,#507V,12,V07,201484 [ TBN03,N02,#507V,12,V07,201484 [ TBN03,N02,#507V,12,V07,201484 [ TBN0 TBN0 TBN0 TBN0 TBN0 TBN0 TBN0 TBN0			+ +		
19772247982_5912000 Arc      1977249495224598     1977     19742495224598     197     19742495224598     19722349582_5912007Arc      1972249582_5912007Arc      1972249582_5912007Arc      1972249582_5912007Arc      197224958254 Arc      19722495825 Arc      19722495825 Arc      19722495825 Arc      19722495825 Arc      19722495825 Arc      19722495825 Arc      1972249 Arc      197224			• •••		
BND         2014-04-20-22-05-4           +         ▲           TEVERO-NOL-7-2-2-VOT_200-64-1           ST02235582_E010207x           SMD         2014-04-20-22-05-6           BND         2014-04-20-22-05-6           BND         2014-04-20-22-05-6           BND         2014-04-20-22-05-6           BND         2014-04-20-22-05-6           BND         2014-04-20-22-05-6					
			START	2014-04-30 22:47:58	
TEMPO_N02-#ROVY_12_V07_201404 ↓ TEMPO_N02-#ROVY_12_V07_201404 ↓ STWAT 2014-04-00 201459 RO 2014-04-00 201459 RO 2014-04-00 2014155 ▲ Subscriptions			END	2014-04-30 22:53:54	
307223592_5012007.nc 50M7 201424-5022159 1980 201424-50224155 & Subscriptions			+ A		
307223592_5012007.nc 50M7 201424-5022159 1980 201424-50224155 & Subscriptions					
810 2014-04-30 22.4155 Subscriptions					
Subscriptions					
			END	2014-04-30 22:41:55	
MONTH			Subscriptions		

Earthdata Search is a tool for discovering Earth science data in NASA's Earth Observing System Data and Information System (EOSDIS) collections, as well as from other U.S and international agencies across the Earth science disciplines. Users (including those without specific knowledge of the data) can search for and read about data collections, search for data files by date and spatial area, preview browse images, and download or submit requests for data files. https://search.earthdata.nasa.gov

## **EPA Remote Sensing**

### Information Gateway (RSIG)



The Remote Sensing Information Gateway (RSIG) allows for 2D/3D visualization and quick and easy access to subsets of multi-terabyte environmental datasets. These include satellite, modeled, and in-situ sensor data.

https://www.epa.gov/hesc/remote-sensing-

# **TEMPO Data Distribution at ASDC**

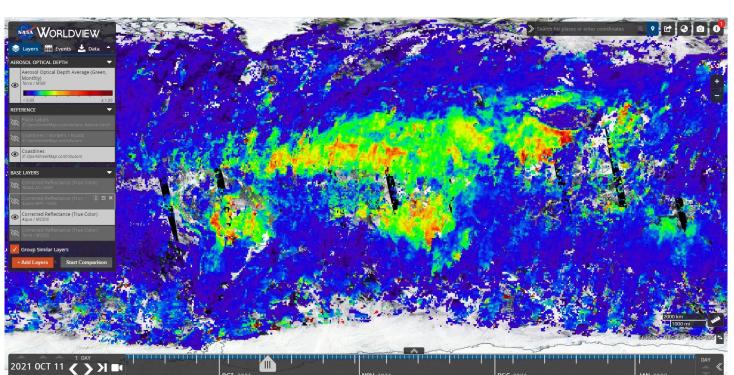
## Matt Tisdale<sup>1</sup>, Hazem Mahmoud<sup>2</sup>, Alexander Radkevich<sup>2</sup>, Walt Baskin<sup>2</sup>, Georgina Hayes-Crepps<sup>3</sup>, Daniel Kaufman<sup>4</sup>

(1) NASA Langley Research Center, Hampton, VA, (2) ADNET-SYS Hampton, VA (3) Analytical Mechanics Associates, Hampton, VA (4) Booz Allen Hamilton, Norfolk, VA



information-gateway

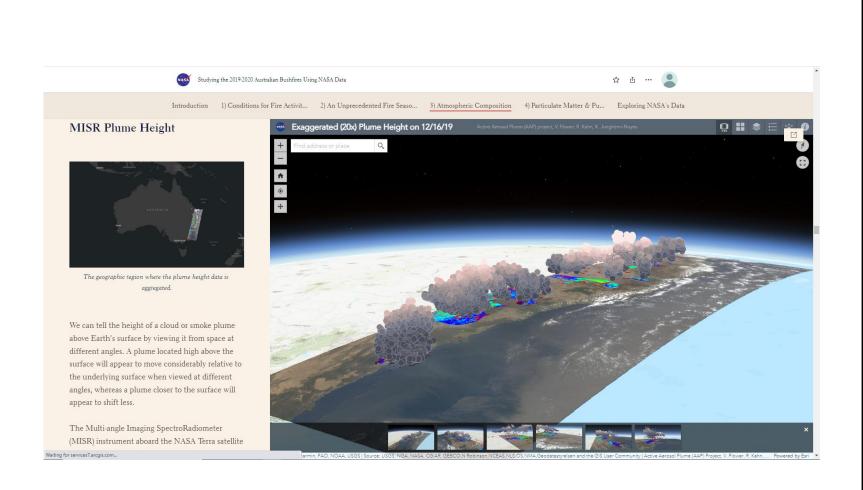
### NASA Worldview



The NASA Worldview data visualization application enables users to interactively browse more than 1,000 global, full-resolution satellite imagery layers and then download the underlying data. Many of the available imagery layers are updated within three hours of observation, which supports timecritical application areas such as wildfire management, air quality measurements, and flood monitoring.

#### https://worldview.earthdata.nasa.gov

## NASA Earth GIS (EGIS)



NASA Earth GIS Online provides access to geospatial web services, spatial analysis, maps, applications, and story maps using ASDC data products..

https://gis.earthdata.nasa.gov/portal/

#### SOOT

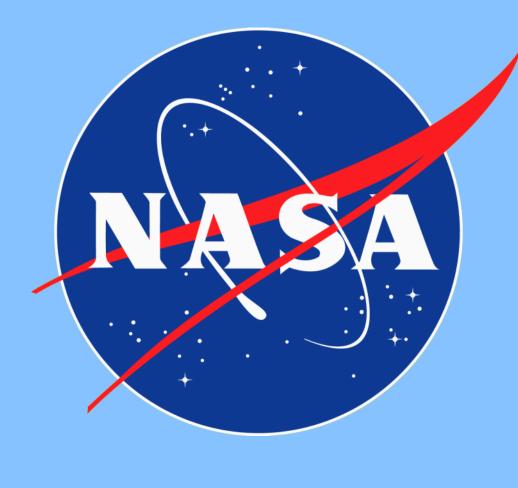


Power User Interface is intended for experienced airborne data currently being developed to support a broader audience in

#### **OPeNDAP** DPeNDAP Data Access Form OPeNDA toa\_net\_clr\_c\_mon[ time= 0 ...260] [ lat= 0 ...179] [ lon= 0 ...359] (Grid of Float OPeNDAP provides users access to The Sub-Orbital Order Tool (SOOT) data using an OPeNDAP URL of any supports the discovery and access database server that supports of airborne and field campaign OPeNDAP. This can be done via data archived at ASDC. The SOOT command-line, Internet browser, or software tools (e.g., Matlab, R, IDL, IDV, and Panoply). users and airborne science teams. A general user interface is https://opendap.earthdata.nasa.gov/ NASA Earthdata Forum accessing these data. https://asdc.larc.nasa.gov/soot/power-user wed Mar 16, 2022 9:26 am America/New\_York by ASDC - joseph.f.koch s Tue Mar 08, 2022 12:31 pm America/New\_York by ASDC - cheyenne.e.land Subsetting and Aggregation using Harmony Services The Earthdata Forum provides the scientific user community, subject Earthdata Harmony matter experts from NASA Harmony allows you to seamlessly analyze Distributed Active Archive Centers Earth observation data from different NASA (DAACs), and other contributors a data centers place to discuss research needs, data, and data applications. ccess Harmony outputs directly from STAC https://forum.earthdata.nasa.gov The ASDC Search and Subsetting ASDC GitHub Jupyter web applications enable a more sophisticated approach to selecting Notebooks and ordering project data from CALIPSO, CERES, MOPITT, and TES **GitHub** by date, time, and geolocation. https://github.com/nasa/ASDC\_Data\_and\_User

https://subset.larc.nasa.gov





\_Services/tree/main/TEMPO