



The JPSS Program

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JPSS
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NOAA
National Environmental Satellite,
Data, and Information Service

SNPP, NOAA20, NOAA21: Final Operational Configuration



Launched into Low Earth Orbit—512 miles

14x

Orbits Earth 14 times pole-to-pole with SNPP

2x

Images entire globe twice a day



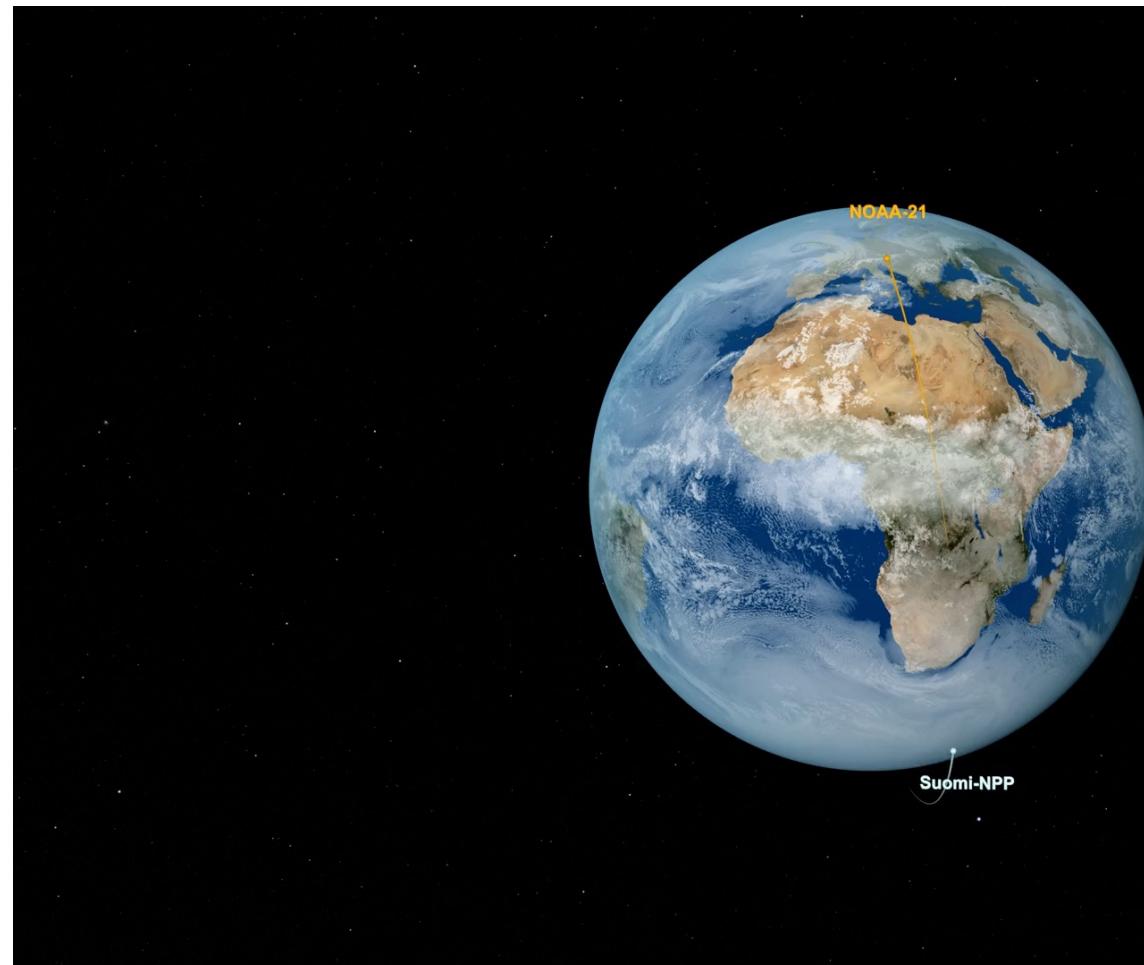
State of the art instrumentation to collect data on Earth's atmosphere, lands, and oceans



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



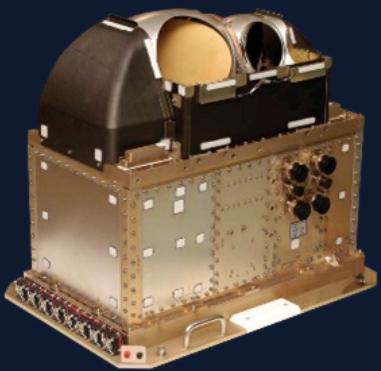
NOAA-20 (previously JPSS-1) flies in the same orbit as Suomi NPP, 50 minutes apart



JPSS-1 and JPSS-2 Instruments

ATMS

Advanced Technology
Microwave Sounder



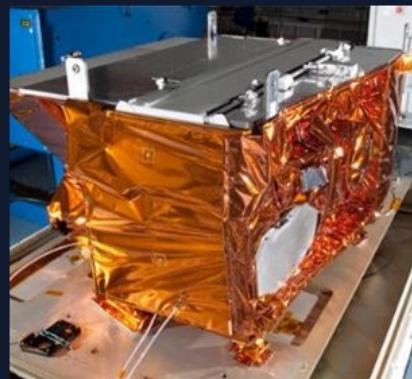
CrIS

Cross-track
Infrared Sounder



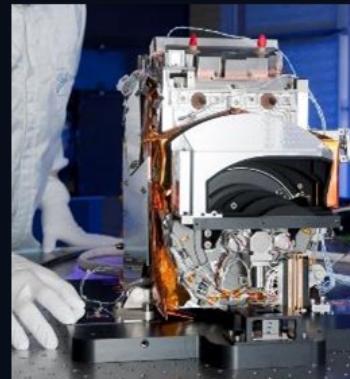
VIIRS

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



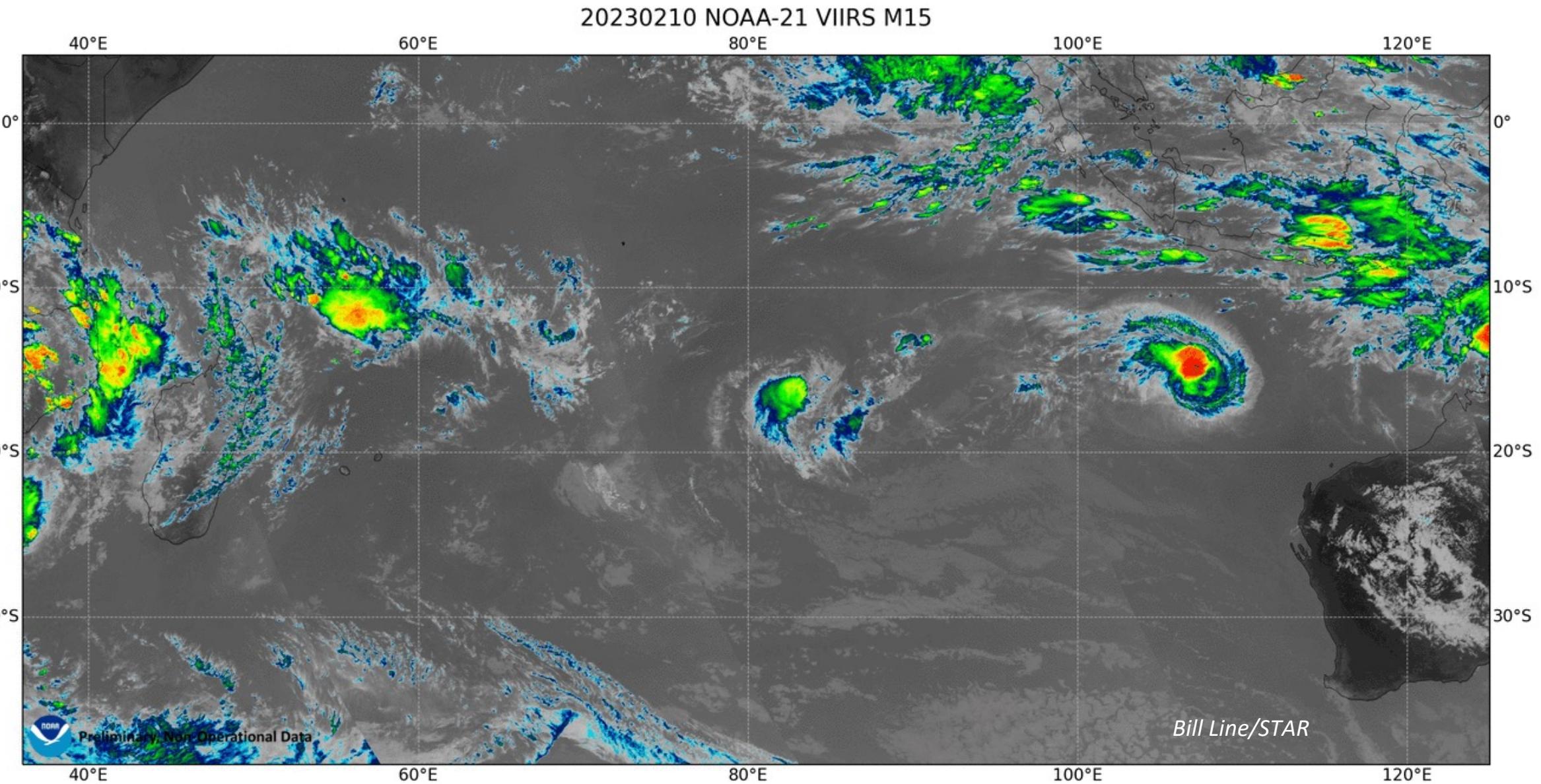
NORTHROP GRUMMAN



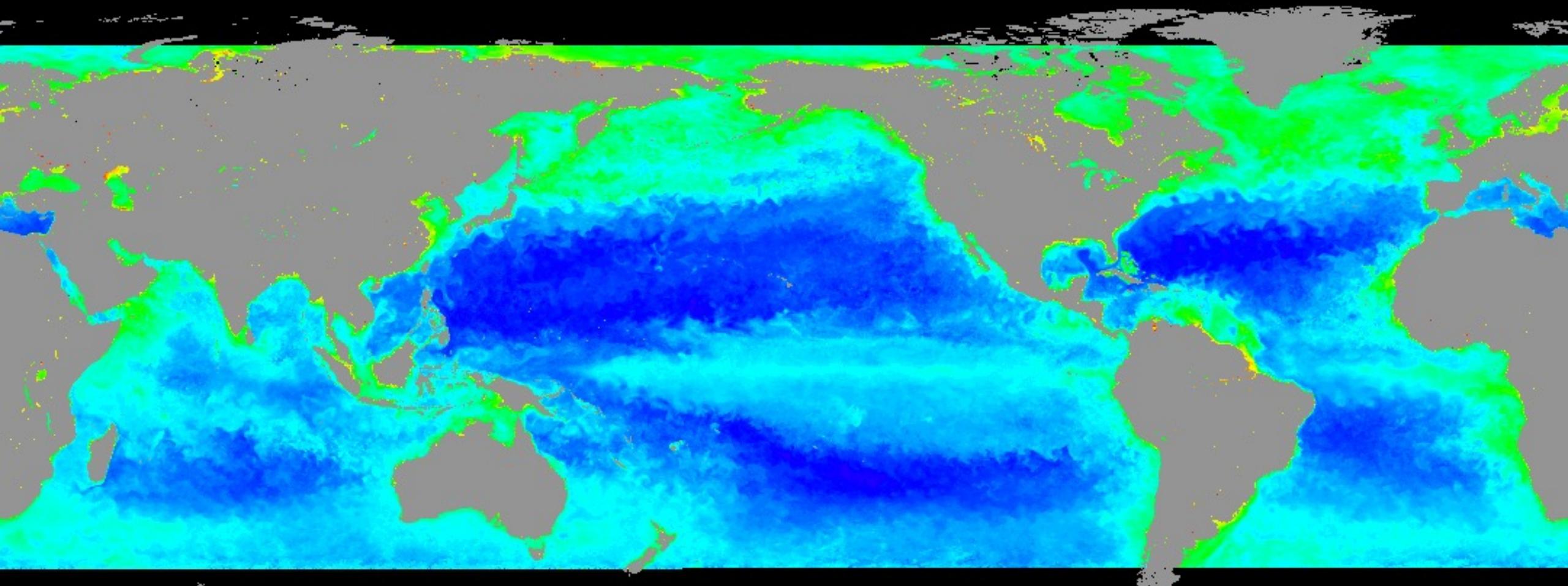
JPSS-2



NOAA21 Captures Over 9000km, 17 Day Journey of Freddy



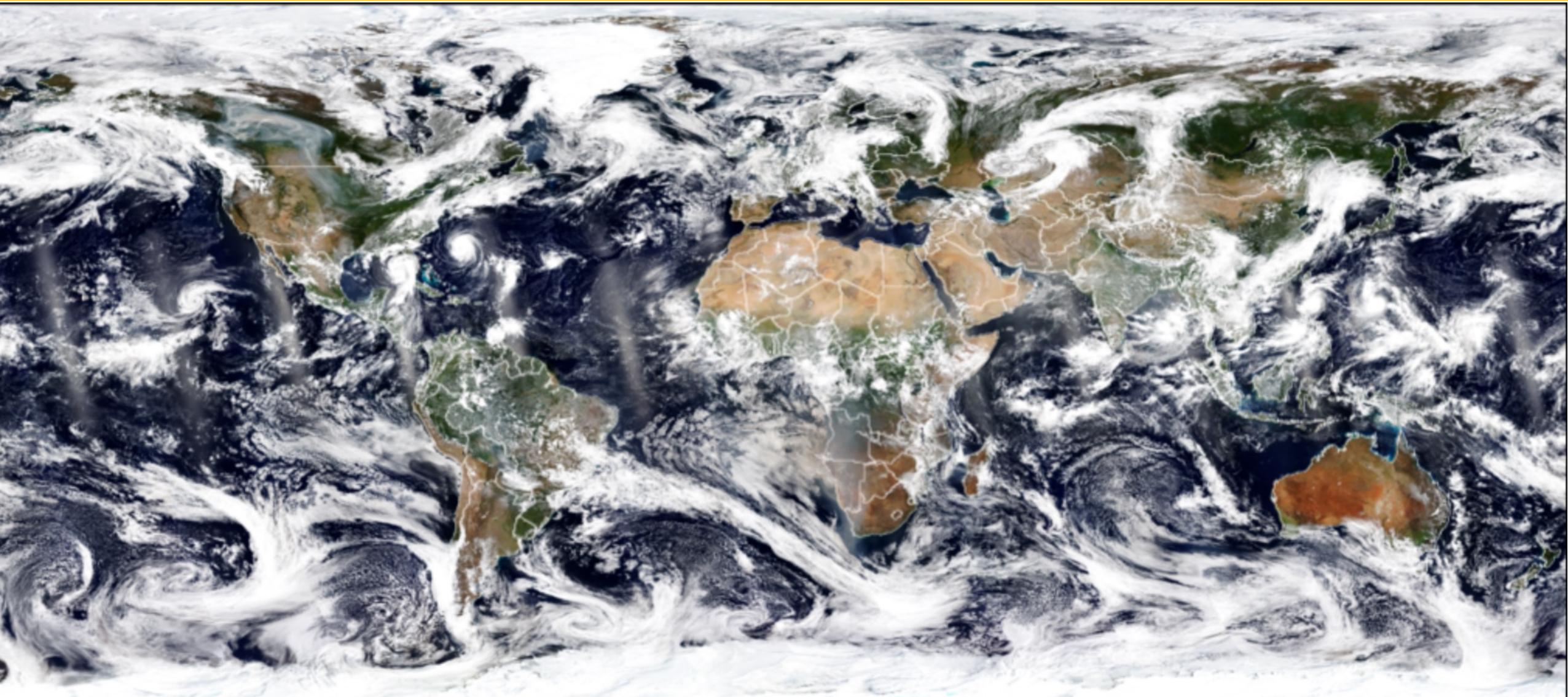
Ocean Color Capabilities on SNPP - First on a NOAA Mission



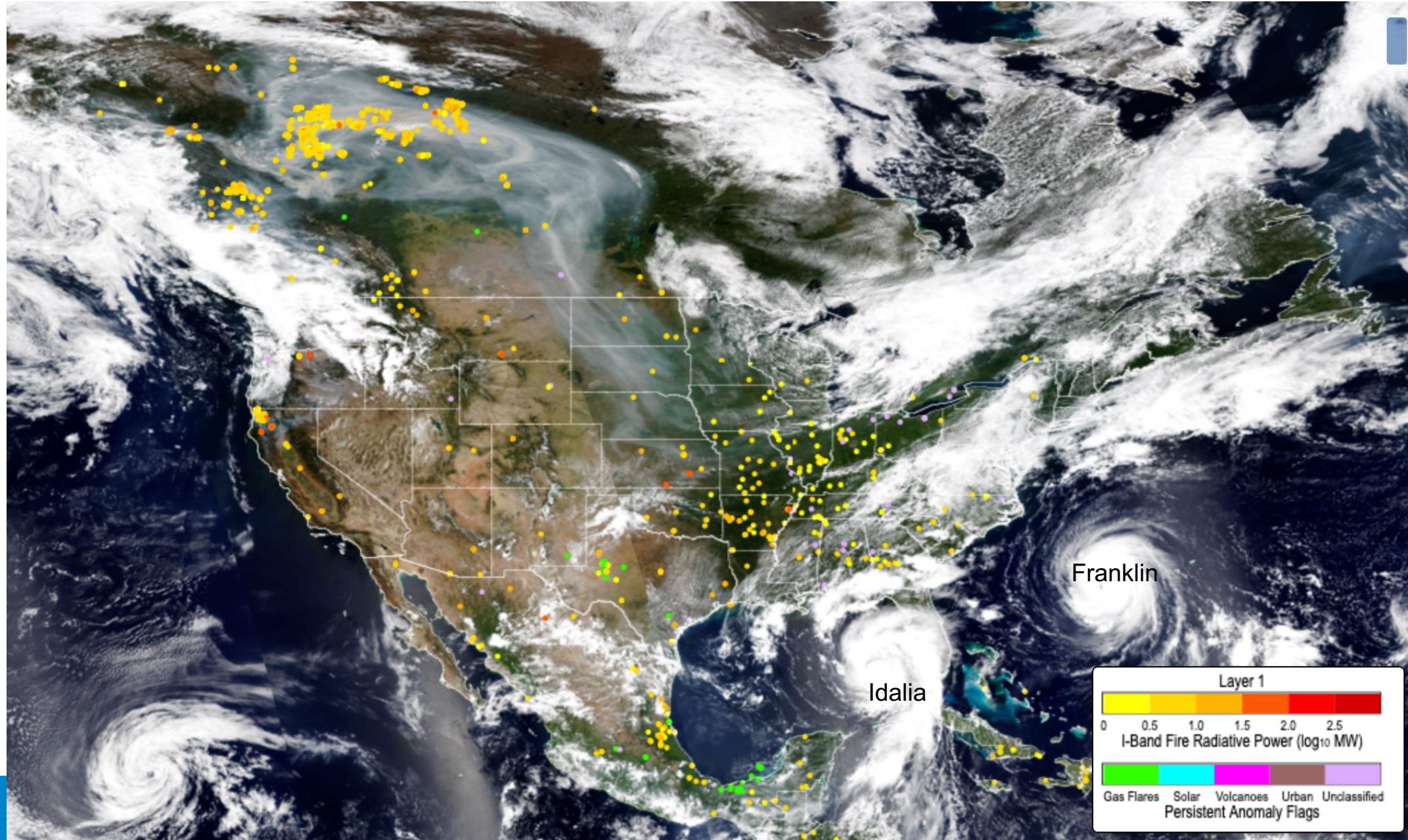
STAR
Ocean Color

2021-07-17

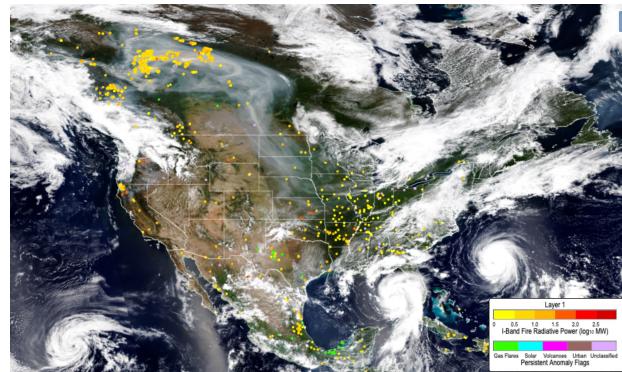
NOAA 21 VIIRS August 29, 2023



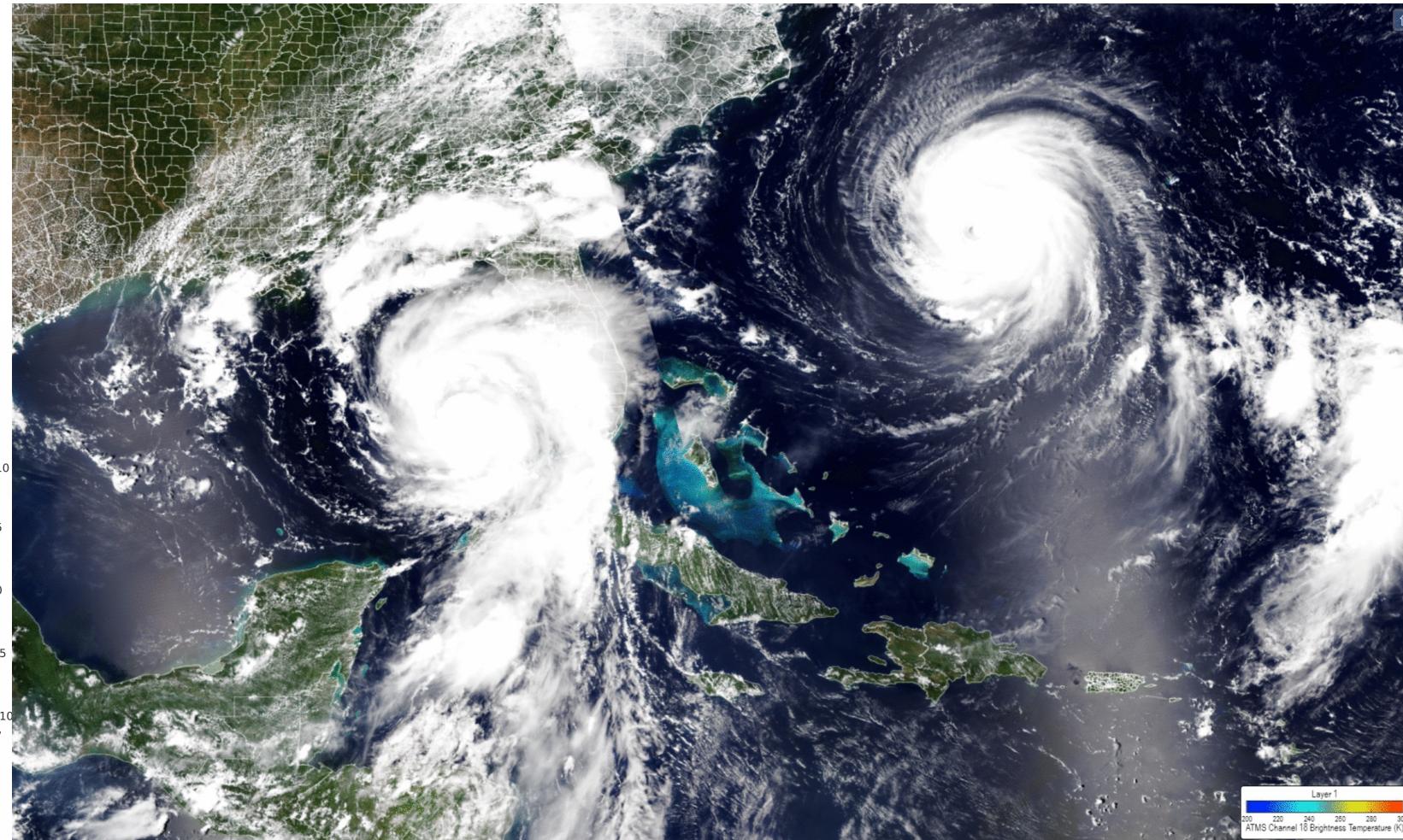
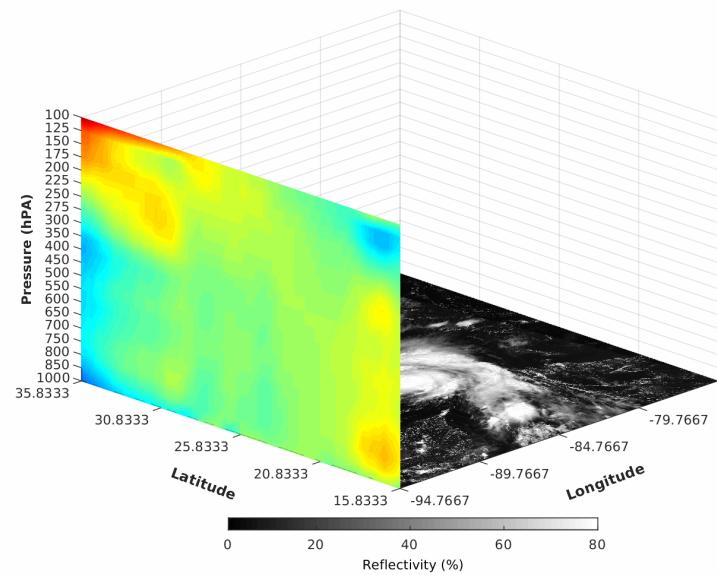
NESDIS/STAR



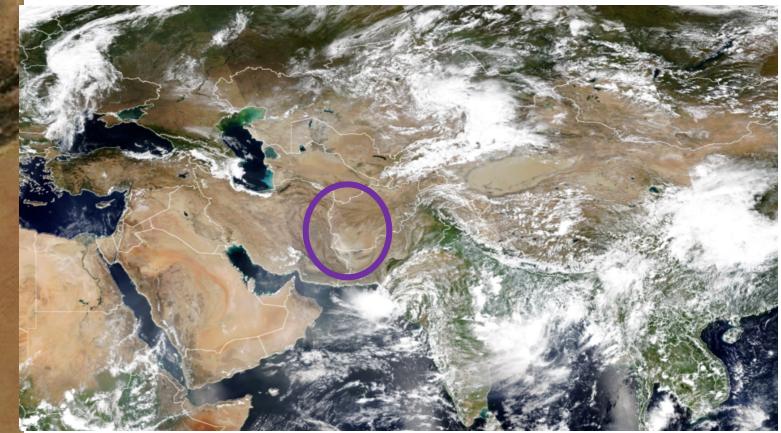
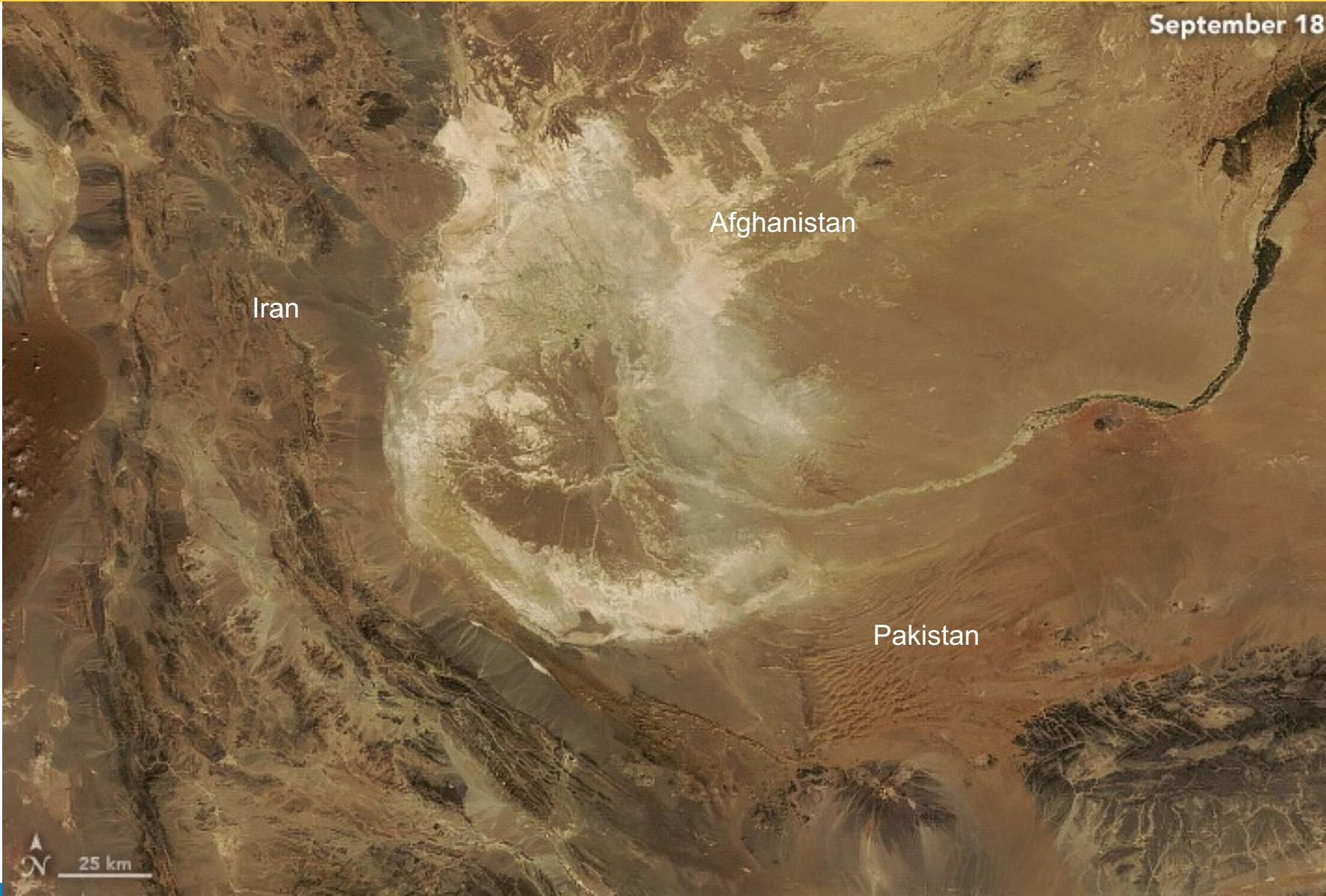
VIIRS and ATMS Views of Idalia



IDALIA 29 August 2023



Dusty Skies in Southern Asia (SNPP +NOAA20 VIIRS, Terra MODIS)

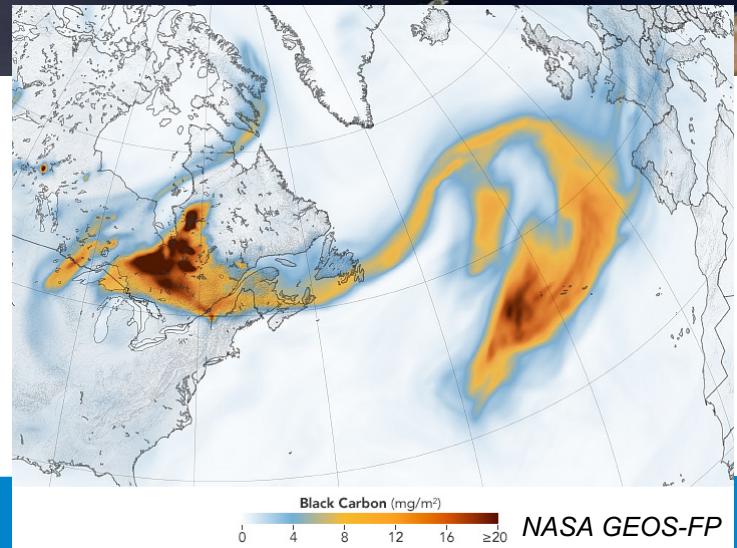
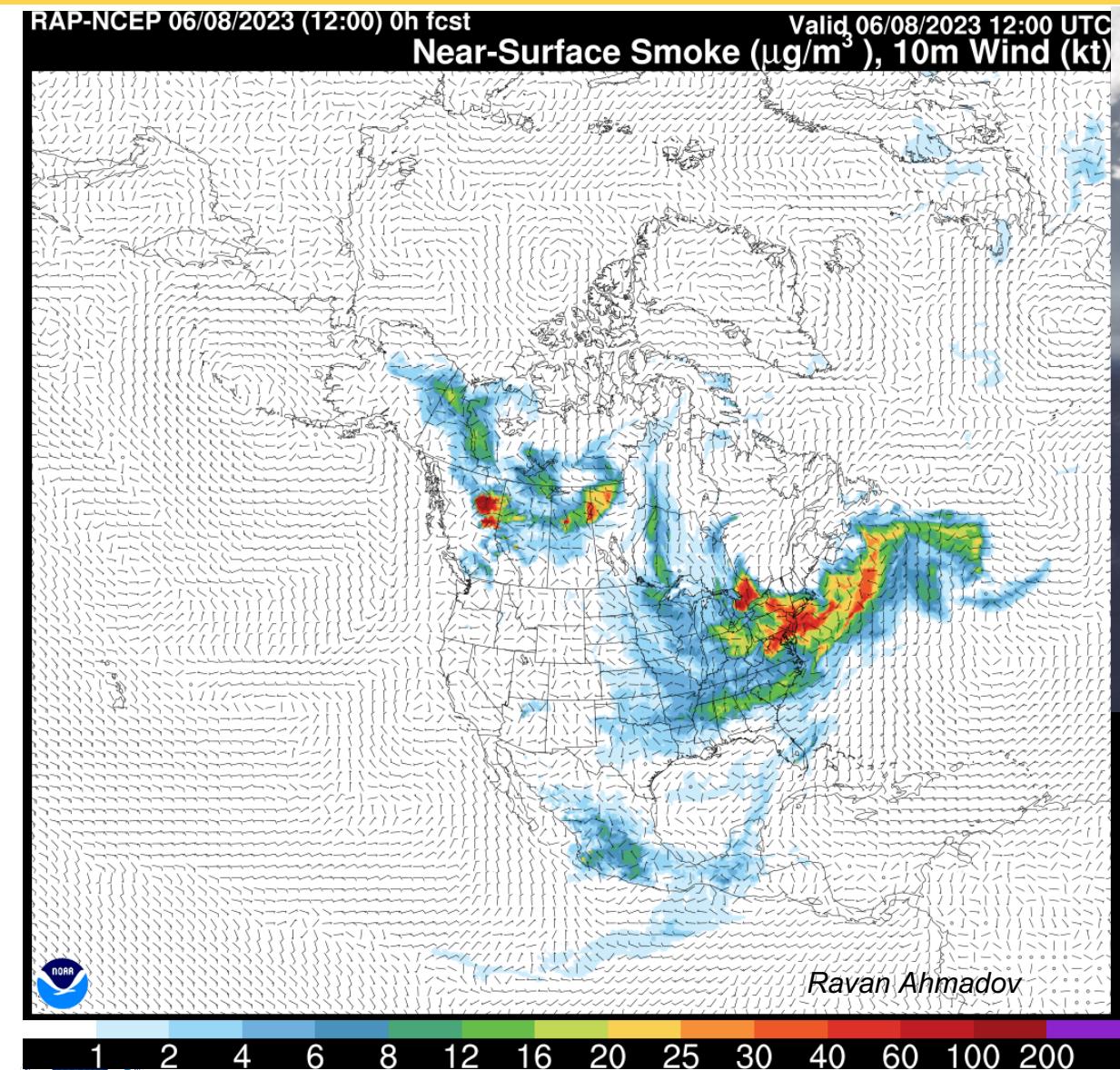


According to media, as of 25 September, three people died and 2,017 have been injured and 130 people are still hospitalised across five cities in Sistan and Baluchestan Province, close to the Afghanistan border.

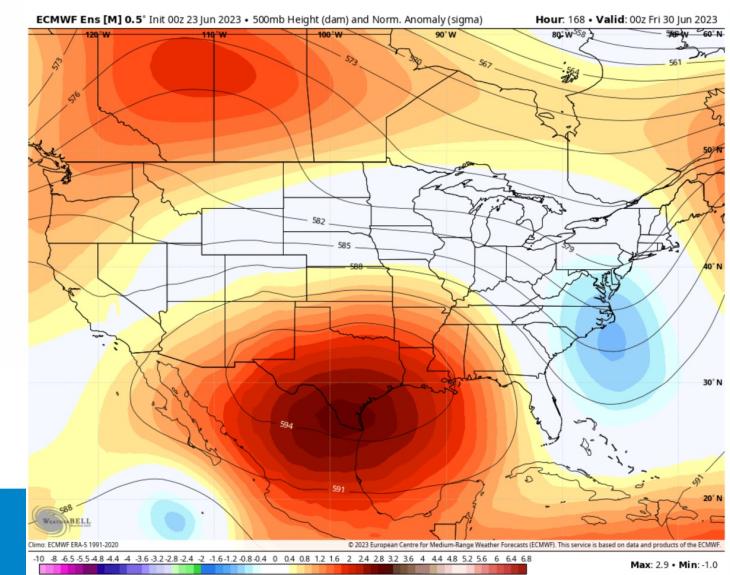
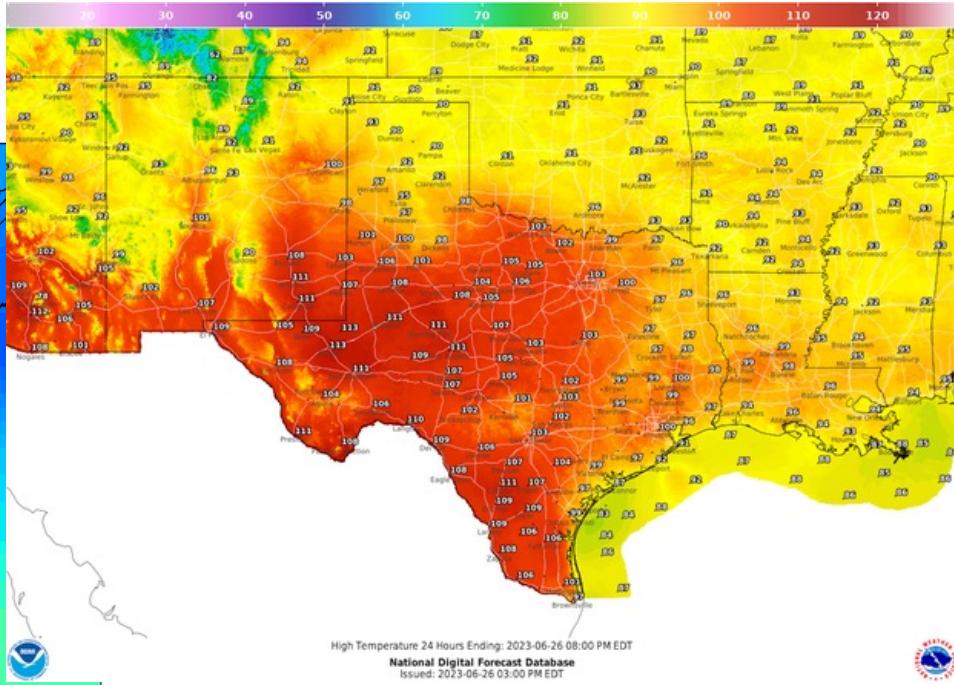
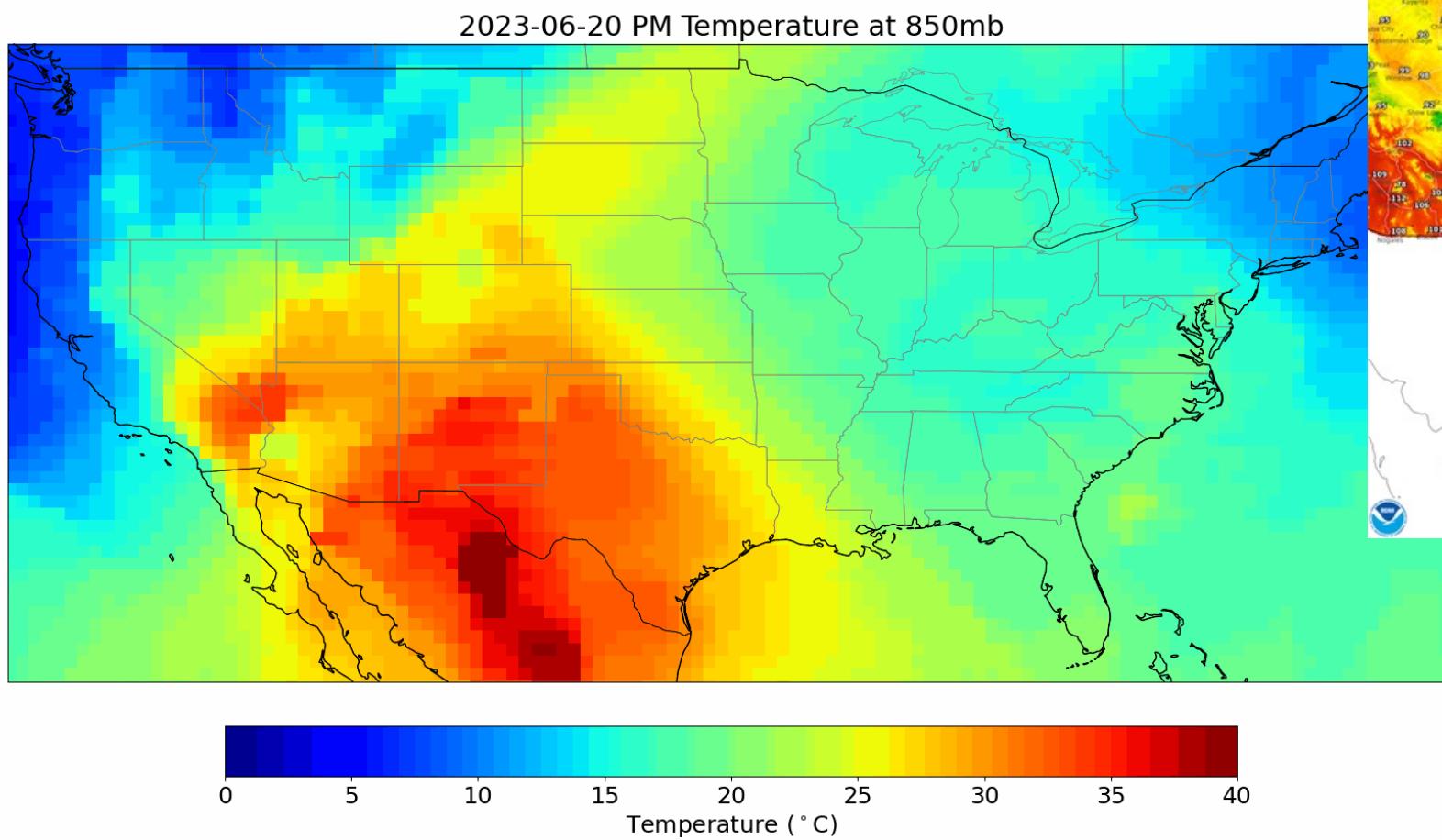
reliefweb

Dust from the ephemeral Hamun wetlands streamed over parts of Iran, Afghanistan, and Pakistan in September.
NASA Visible Earth

Canadian Fires Monitored by VIIRS



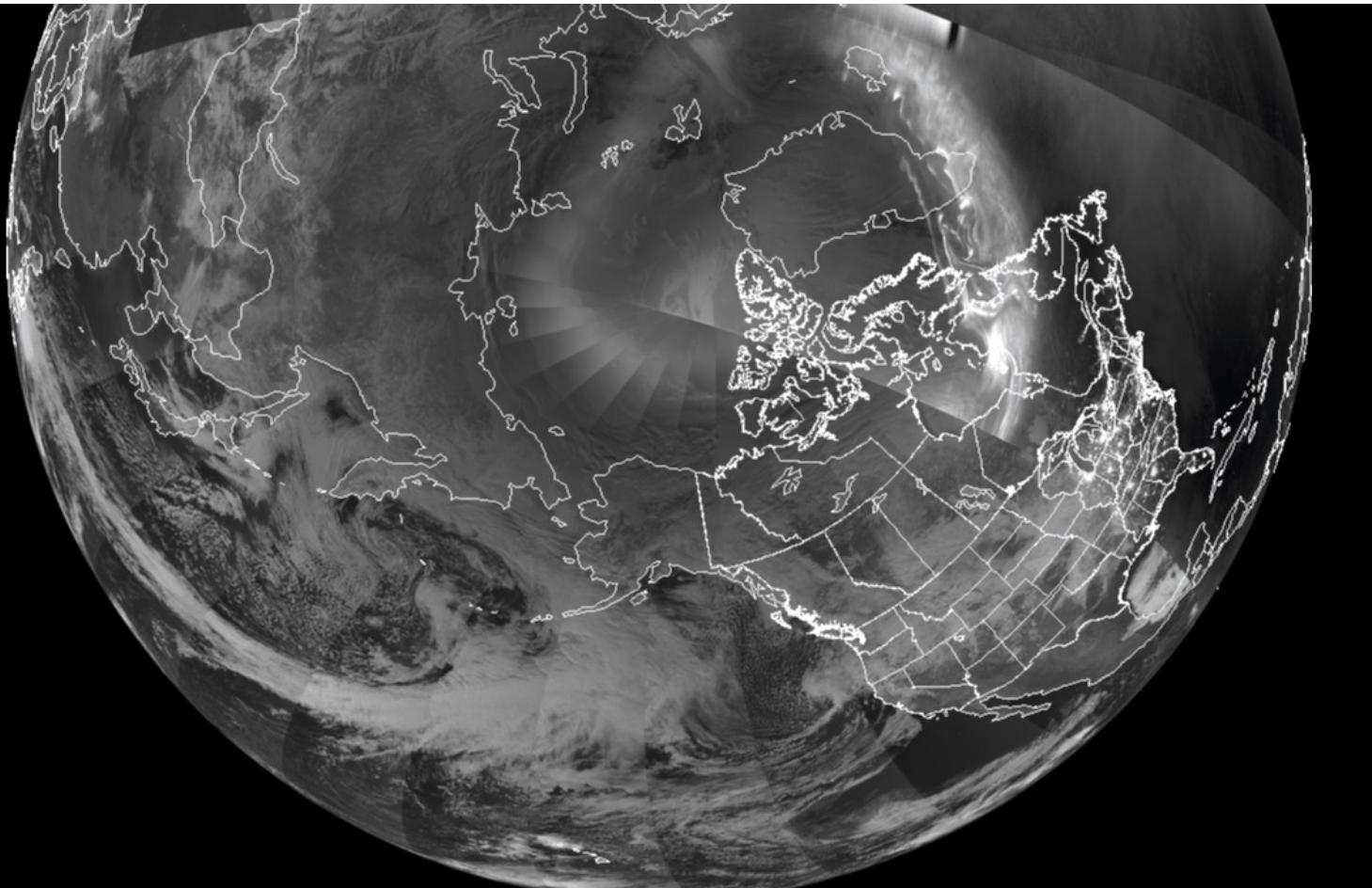
NUCAPS (CrIS+ATMS) Retrievals of Heat Wave (NOAA20)



Rebekah Esmaili, STC



VIIRS Day Night Band (DNB)

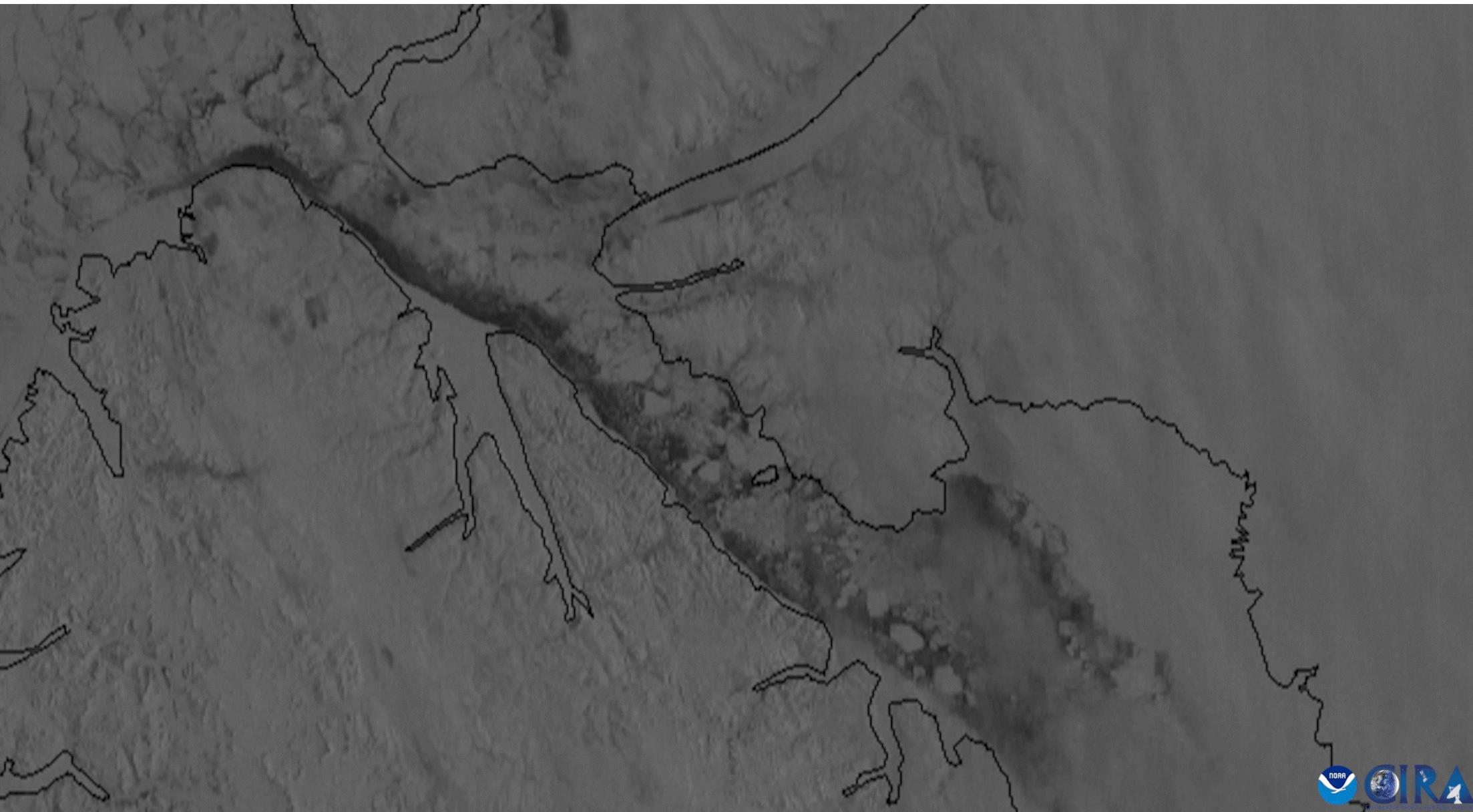


The Day night Band on VIIRS built upon 40 years of experience with Operational Linescan System (OLS) revolutionized what we can see at night.

First capability on a NOAA mission.



Arctic Ice Streaming Down Strait between Greenland and Ellesmere Island

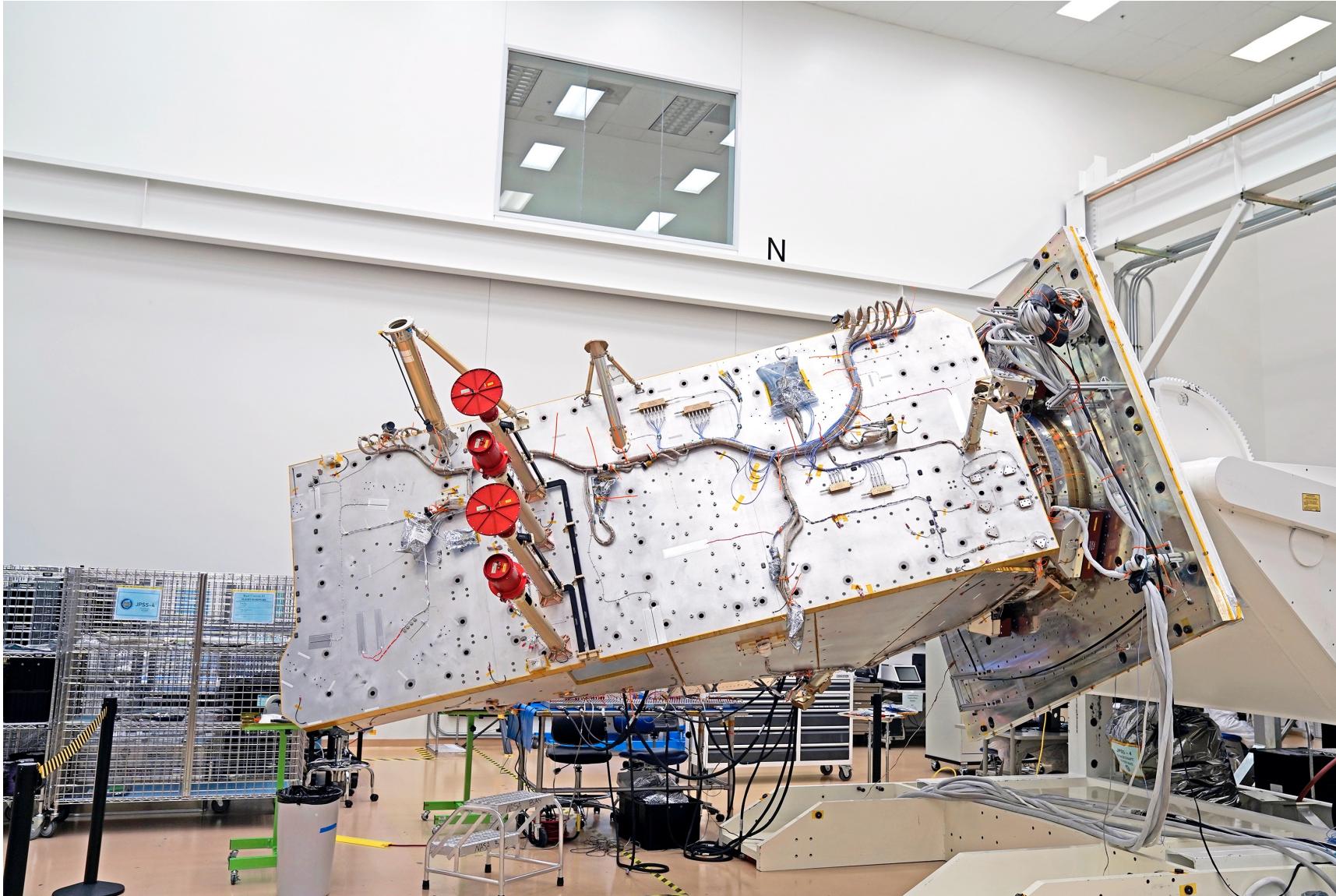






The zenith panel of JPSS-4, early on in assembly. The spacecraft is attached to a rollover fixture to orient the satellite for assembly.

JPSS4 Nadir View (Earth Facing)

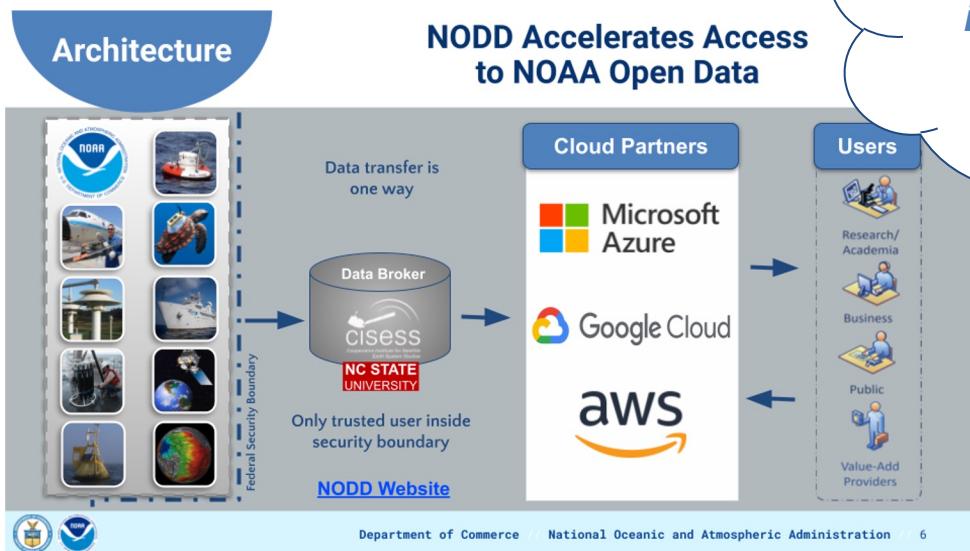


The nadir, or Earth-facing, deck of JPSS-4, early on in assembly. The instruments will be integrated on this panel of the spacecraft.

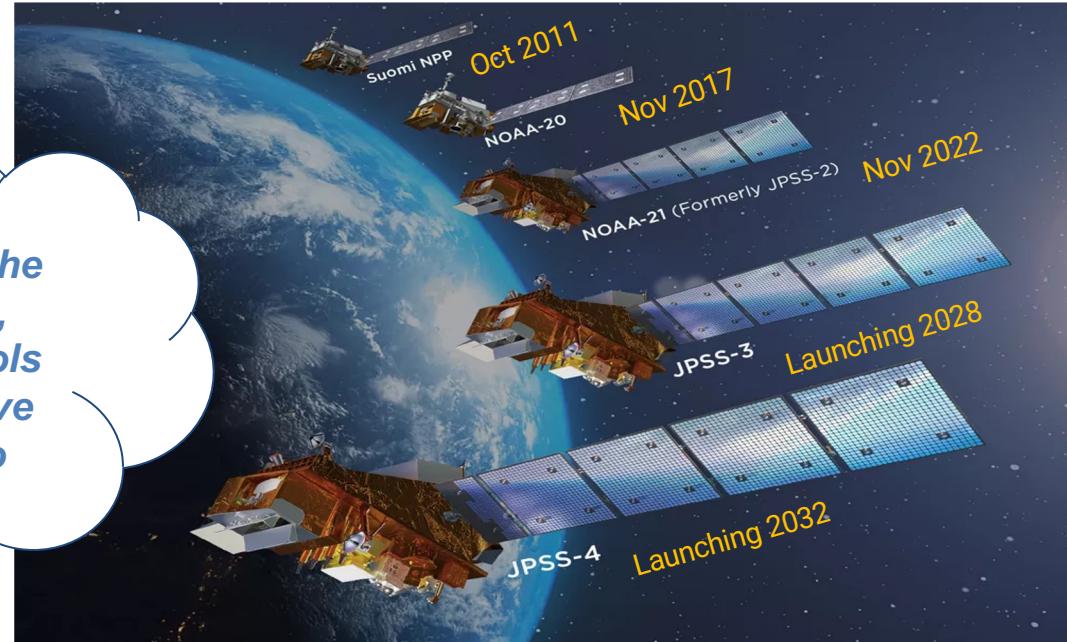
Near Real-Time JPSS Data via NOAA Open Data Dissemination (NODD)

In progress

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



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



NODD@NOAA.GOV

2023

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

JPSS

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EXPLORING THE IMPACT
AND APPLICATIONS OF
JPSS DATA



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JPSS will continue to provide critical environmental observations till the end of the next decade!

Thank you!