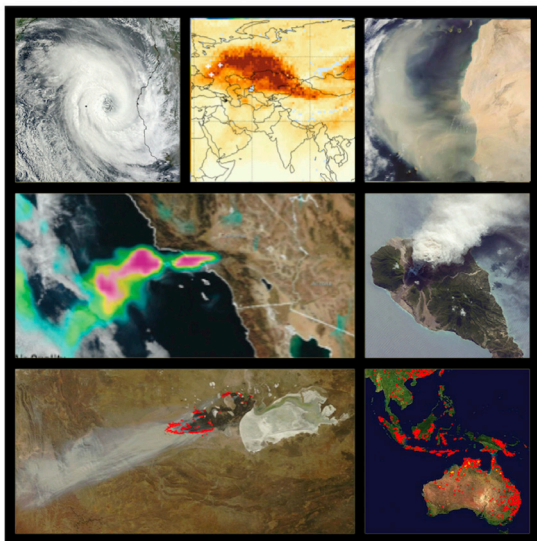


## DATA & APPLICATIONS ONLINE

# LANCE - Land, Atmosphere Near real-time Capability for EOS

### Overview

NASA's Land, Atmosphere Near real-time Capability for EOS (LANCE) is a virtual system that provides near real-time data and imagery from 12 instruments (see table). Near real-time (with a latency of 1-3 hours) and expedited data (with a latency of 1-4 days) are available through LANCE to meet the timely needs of scientists and application users interested in monitoring a wide variety of natural and man-made phenomena. LANCE products are used for monitoring fires, dust storms, hurricanes, air quality, sea ice, vegetation and crop development and volcanic eruptions.



### Key Features

- Data products distributed through LANCE, with the exception of Level 3 products and ICESat-2 data, are available within 3 hours of satellite observation.
- Imagery products are available through NASA's GIBS (Global Imagery Browse Services) and Worldview
- Active fire / hotspot information is made available through LANCE's FIRMS (Fire Information for Resource Management System)

Instrument	Platform	Product Categories
Atmospheric Infrared Sounder (AIRS)	Terra	Radiances, Temperature, Moisture Profiles, Precipitation, Dust, Clouds and Trace Gases
Advanced Microwave Scanning Radiometer 2 (AMSR2)	JAXA GCOM-W1	Precipitation, Ocean Wind Speed (OWS), Columnar Cloud Liquid Water/Vapor, Snow Water Equivalent, Sea Ice Concentration, Brightness Temperature, Soil Moisture
Lightning Imaging Sensor (LIS)	ISS	Lightning, Atmospheric Electricity, Weather Events
Advanced Topographic Laser Altimeter System (ATLAS)	ICESat-2	Sea Ice Height, Land and Vegetation Height, Sea Ice Freeboard, Inland Surface Water Height, Atmosphere Cloud Layer Characteristics
Multi-angle Imaging SpectroRadiometer (MISR)	Terra	Cloud motion vectors (Winds), Radiances
Microwave Limb Sounder (MLS)	Aura	Ozone, Temperature, Carbon Monoxide (CO), Water Vapor, Nitric Acid, Nitrous Oxide (N <sub>2</sub> O), Sulfur Dioxide (SO <sub>2</sub> )
Moderate Resolution Imaging Spectroradiometer (MODIS)	Terra / Aqua	Radiances, Clouds/Aerosols, Water Vapor, 1km Active Fire, Snow Cover, Sea Ice, Land Surface Reflectance, Land Surface Temperature, Flood
Measurements of Pollution in the Troposphere (MOPITT)	Terra	Total column carbon monoxide (CO) retrieved from thermal infra-red radiances
Ozone Mapping and Profiler Suite (OMPS)	Suomi-NPP	Total Column Ozone and Aerosol Index, Sulfur Dioxide, Ozone Profile
Ozone Monitoring Instrument (OMI)	Aura	Ozone, Sulfur Dioxide, Aerosols, Cloud Top Pressure
Soil Moisture Active Passive (SMAP)	SMAP	Coming soon: Brightness Temperature, Soil moisture
Visible Infrared Imaging Radiometer Suite (VIIRS)	Suomi-NPP / NOAA-20	375 m Active Fire, Corrected Reflectance Imagery, Land Surface Reflectance, Snow, Land Surface Temperature, Sea Ice, Ice Surface Temperature, BRDF, Albedo, Cloud Mask, Deep Blue and Dark Target Aerosol, Nighttime Lights

For more information and links to data: <https://earthdata.nasa.gov/lance>



LANCE is a component of the NASA Earth Observing System Data and Information System (EOSDIS).



NASA's Earth Observing System Data and Information System (EOSDIS) provides end-to-end capabilities for managing NASA's Earth science data as part of NASA's Earth Science Data Systems Program.