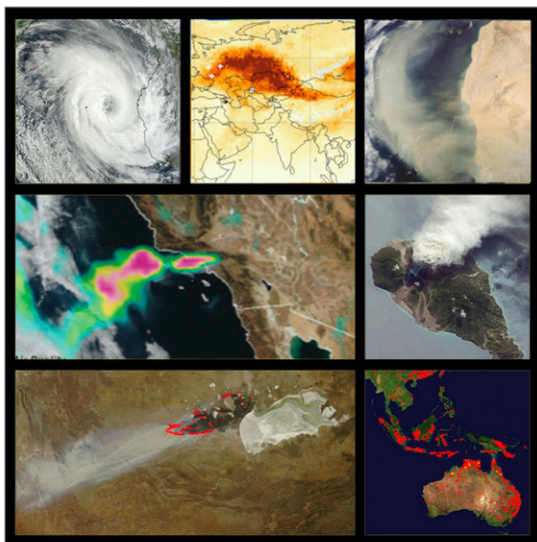# DATA & APPLICATIONS ONLINE

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

Overview

NASA's Land, Atmosphere Near real-time Capability for EOS (LANCE) provides near real-time EOS data and imagery from 10 instruments (see table). LANCE provides timely products to meet the 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

LANCE Near Real-Time (NRT) Data are made available through the Earthdata website within 3 hours* of satellite overpass.

NRT Imagery are available through GIBS (Global Imagery Browse Services), Worldview and Worldview Snapshots, 4-5 hours after satellite overpass

To expedite LANCE data, changes are made to the standard processing approach.

Excludes Level 3 products

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-W	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
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_2O), Sulfur Dioxide (SO_2)
Moderate Resolution Imaging Spectroradiometer (MODIS)	Terra / Aqua	Radiances, Clouds/Aerosols, Water Vapor, Fire, Snow Cover, Sea Ice, Land Surface Reflectance, Land Surface Temperature
Measurements of Pollution in the Troposphere (MOPITT)	Terra	Total column carbon monoxide (CO) retrieved from thermal infrared radiances
Ozone Mapping and Profiler Suite (OMPS)	Suomi-NPP	Total Column Ozone and Aerosol Index, SO_2, Ozone Profile
Ozone Monitoring Instrument (OMI)	Aura	Ozone, Sulfer Dioxide, Aerosols, Cloud Top Pressure
Visible Infrared Imaging Radiometer Suite (VIIRS)	Suomi-NPP	375 m Active Fire, Corrected Reflectance Imagery, Land Surface Reflectance Snow, Land Surface Temperature, Sea Ice, Ice Surface Temperature and BRDF-Albedo. Coming soon: Cloud Mask and Deep Blue Aerosol

LANCE is a component of the NASA Earth Observing System Data and Information System (EOSDIS).
Access Data: https://earthdata.nasa.gov/earth-observation-data/near-real-time

Access Imagery: https://earthdata.nasa.gov/earth-observation-data/imagery

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.

To learn more about NASA EOSDIS data, information, services, and tools, go to earthdata.nasa.gov.