



# Which Satellite is Right For Me?

## NASA Earth Observations

### Application Areas

Platform	Instruments	Water Resources	Health & Air Quality	Climate	Agriculture	Weather	Ecological Forecasting	Disasters	Oceans	Energy	Frequency & Resolution	Format	
ACRIM-SAT (1999 - 2013)	ACRIM3 (Active Cavity Radiometer Irradiance Monitor)	+ Total Solar Irradiance	+ Total Solar Irradiance	+ Total Solar Irradiance	+ Total Solar Irradiance	+ Total Solar Irradiance	+ Total Solar Irradiance	+ Total Solar Irradiance	+ Total Solar Irradiance	+ Total Solar Irradiance	ACRIM3: Daily	Raw	
Aqua (2002)	AIRS (Atmospheric Infrared Sounder)	+ Land Surface Temperature + Temperature Profile + Water Vapor Profile + Total Precipitable Water	+ Land Surface Temperature + Land Surface Emissivity + Land Surface Temperature + Outgoing LW Radiation	+ Sea Surface Temperature + Land Surface Temperature + Temperature Profile + Water Vapor Profile	+ Land Surface Temperature + Land Surface Emissivity + Total Precipitable Water	+ Sea Surface Temperature + Land Surface Temperature + Temperature Profile + Water Vapor Profile	+ Sea Surface Temperature + Land Surface Temperature + Land Surface Emissivity + Outgoing LW Radiation	+ Sea Surface Temperature + Land Surface Temperature + Water Vapor Profile	+ Sea Surface Temperature + Land Surface Temperature + Outgoing LW Radiation	+ Sea Surface Temperature + Land Surface Temperature + Outgoing LW Radiation	AIRS: Twice Daily	Asci GeoTIFF NetCDF HDF5	
	MODIS (Moderate-Resolution Imaging Spectroradiometer)	+ Land Surface Temperature + Temperature Profile + Water Vapor Profile + Water Mask	+ Sulfur Dioxide + Methane + Nitric Acid + IR Dust	+ Land Surface Temperature + Land Surface Emissivity + Land Surface Temperature + Outgoing LW Radiation	+ Total Precipitable Water + Atmospheric Profiles + Atmospheric Gridded Product + Land Surface Temp & Emissivity	+ Land Surface Temperature + Land Surface Emissivity + Land Surface Temperature + Land Surface Emissivity	+ Aerosol Product + Atmospheric Gridded Product + Atmosphere Gridded Product + Cloud Top Height + Cloud Top Temperature	+ Aerosol Product + Cloud Products + Vegetation Continuous Fields + Atmosphere Joint Product + Atmosphere Gridded Product + Land Cover Products + Bi-directional Reflectance Distribution Function (BRDF) / Albedo Parameter	+ Aerosol Product + Cloud Products + Land Cover Products + Vegetation Continuous Fields + Atmosphere Gridded Product + Land Cover Products + Thermal Anomalies - Active Fires	+ Aerosol Product + Cloud Products + Land Cover Products + Vegetation Continuous Fields + Atmosphere Joint Product + Atmosphere Gridded Product + Land Cover Products + Thermal Anomalies - Active Fires	+ Surface Reflectance + Bidirectional Reflectance Distribution Function (BRDF) / Albedo Parameter + Sea & Ice Surface Temperature + Sea & Ice Surface Temperature + Particulate Organic Carbon + Particulate Inorganic Carbon + Fluorescence Line Height (FLH) + Sub-surface Chlorophyll-a Concentration	MODIS: 1-2 Days	AMSR-E: Daily
	AMSR-E (Advanced Microwave Scanning Radiometer for the Earth Observing System)	+ Total Precipitable Water + Land Surface Temp & Emissivity + Atmospheric Profiles + Atmospheric Gridded Product + Land Surface Temp & Emissivity	+ Aerosol Product + Atmospheric Profiles + Atmospheric Gridded Product + Land Surface Temp & Emissivity	+ Total Precipitable Water + Atmospheric Profiles + Atmospheric Gridded Product + Land Surface Temp & Emissivity	+ Total Precipitable Water + Land Surface Temp & Emissivity + Land Surface Temperature + Land Surface Emissivity	+ Total Precipitable Water + Land Surface Temp & Emissivity + Land Surface Temperature + Land Surface Emissivity	+ Aerosol Product + Cloud Products + Vegetation Continuous Fields + Atmosphere Joint Product + Atmosphere Gridded Product + Land Cover Products + Bi-directional Reflectance Distribution Function (BRDF) / Albedo Parameter	+ Aerosol Product + Cloud Products + Land Cover Products + Vegetation Continuous Fields + Atmosphere Joint Product + Atmosphere Gridded Product + Land Cover Products + Thermal Anomalies - Active Fires	+ Aerosol Product + Cloud Products + Land Cover Products + Vegetation Continuous Fields + Atmosphere Joint Product + Atmosphere Gridded Product + Land Cover Products + Thermal Anomalies - Active Fires	+ Surface Reflectance + Bidirectional Reflectance Distribution Function (BRDF) / Albedo Parameter + Sea & Ice Surface Temperature + Sea & Ice Surface Temperature + Particulate Organic Carbon + Particulate Inorganic Carbon + Fluorescence Line Height (FLH)	AMSR-E: 14km, 50km, 1°	MODIS: 200m, 500m, 1000m	AMSR-E: 5.4km, 12km, 21km, 38km
AQUARIUS (2011 - 2015)	L-band Radiometer	+ Precipitation Rate + Soil Moisture + Surface Wetness + Snow Water Equivalent	+ Wind Speed	+ Wind Speed	+ Precipitation Rate + Soil Moisture + Surface Wetness	+ Wind Speed	Radiometer & Scatterometer: Daily, Weekly, Monthly	HDF5					
	L-band Scatterometer	+ Wind Speed	+ Wind Speed	+ Wind Speed	+ Wind Speed	+ Wind Speed	+ Wind Speed	+ Wind Speed	+ Wind Speed	+ Wind Speed	Radiometer & Scatterometer: 96 km x 390 km, 1°		
Aura (2004)	MLS (Microwave Limb Sounder)	+ OH (Hydroxide) + HCN (Hydrogen Cyanide) + HCO (Hydrogen Carbonyl) + HOCl (Hydrochloric Acid) + CO (Carbon Monoxide) + CO2 (Carbon Dioxide) + CH4 (Methane) + N2O (Nitrous Oxide)	+ Water Vapor + Temperature + Geopotential Height + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Temperature + Geopotential Height	OMI: TES: MLS: HIRDLS: Daily	Asci NetCDF HDF5
	OMI (Ozone Monitoring Instrument)	+ HCHO (Formaldehyde) + BrO (Hypobromite) + ODO (Chlorine Dioxide)	+ OH (Hydroxide) + HCN (Hydrogen Cyanide) + HCO (Hydrogen Carbonyl) + HOCl (Hydrochloric Acid) + CO (Carbon Monoxide) + CO2 (Carbon Dioxide) + CH4 (Methane) + N2O (Nitrous Oxide)	+ Water Vapor + Temperature + Geopotential Height + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Water Vapor + Temperature + Cirrus + O3 (Ozone)	+ Temperature + Geopotential Height	OMI: 13 x 24 km	
	HIRDLS (High-Resolution Dynamics Limb Sounder)	+ HNO3 (Nitric Acid) + Atmospheric Temperature + Geopotential Height	+ O3 (Ozone) + Atmospheric Temperature + Geopotential Height	+ Atmospheric Temperature + Geopotential Height	+ HNO3 (Nitric Acid)	+ Atmospheric Temperature + Geopotential Height	+ HNO3 (Nitric Acid)	+ Atmospheric Temperature + Geopotential Height	+ Atmospheric Temperature + Geopotential Height	+ Atmospheric Temperature + Geopotential Height	TES: 5.3 x 5.3 km	MLS: 5 x 500 x 3 km vertical	HIRDLS: 10 x 300 x 1 km vertical
	TES (Tropospheric Emission Spectrometer)	+ HNO3 (Nitric Acid) + H2O + HDO (Semihydro Water) + CO (Carbon Monoxide) + CH4 (Methane) + HNO3 (Nitric Acid) + NH3 (Ammonia)	+ HNO3 (Nitric Acid) + H2O + HDO (Semihydro Water) + CO (Carbon Monoxide) + CH4 (Methane) + HNO3 (Nitric Acid) + NH3 (Ammonia)	+ HNO3 (Nitric Acid) + H2O + HDO (Semihydro Water) + CO (Carbon Monoxide) + CH4 (Methane) + HNO3 (Nitric Acid) + NH3 (Ammonia)	+ HNO3 (Nitric Acid)	OMI: 13 x 24 km							
CALIPSO (2006)	CALIOP (Cloud-Aerosol Lidar with Orthogonal Polarization)	+ Ice Water Phase + Ice Cloud Emissivity + Ice Particle Size	+ Aerosol Height + Aerosol Optical Depth + Aerosol Extinction + Cloud Height + Cloud Optical Depth + Cloud Backscatter + Cloud Opacity + Ice Water Phase + Ice Cloud Opacity + Ice Cloud Thickness + Ice Particle Size	+ Aerosol Height + Aerosol Optical Depth + Aerosol Extinction + Cloud Height + Cloud Opacity + Cloud Backscatter + Cloud Opacity + Ice Water Phase + Ice Cloud Opacity + Ice Cloud Thickness + Ice Particle Size	+ Ice Water Phase + Ice Cloud Emissivity + Ice Particle Size	+ Aerosol Height + Aerosol Thickness + Aerosol Optical Depth + Aerosol Extinction + Cloud Height + Cloud Opacity + Cloud Backscatter + Cloud Opacity + Ice Water Phase + Ice Cloud Opacity + Ice Cloud Thickness + Ice Particle Size	+ Aerosol Height + Aerosol Thickness + Aerosol Optical Depth + Aerosol Extinction + Cloud Height + Cloud Opacity + Cloud Backscatter + Cloud Opacity + Ice Water Phase + Ice Cloud Opacity + Ice Cloud Thickness + Ice Particle Size	+ Aerosol Height + Aerosol Thickness + Aerosol Optical Depth + Aerosol Extinction + Cloud Height + Cloud Opacity + Cloud Backscatter + Cloud Opacity + Ice Water Phase + Ice Cloud Opacity + Ice Cloud Thickness + Ice Particle Size	+ Aerosol Height + Aerosol Thickness + Aerosol Optical Depth + Aerosol Extinction + Cloud Height + Cloud Opacity + Cloud Backscatter + Cloud Opacity + Ice Water Phase + Ice Cloud Opacity + Ice Cloud Thickness + Ice Particle Size	+ Aerosol Height + Aerosol Thickness + Aerosol Optical Depth + Aerosol Extinction + Cloud Height + Cloud Opacity + Cloud Backscatter + Cloud Opacity + Ice Water Phase + Ice Cloud Opacity + Ice Cloud Thickness + Ice Particle Size	CALIOP: Daily, 16 Day Global	HDF5	
	IIR (Imaging Infrared Imager)	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	CALIOP: 1°, 1/3°, 5 km x 20, 30, 60, 120 km Vertical		
	WFC (Wide-Field Camera)	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	CALIOP: 1°, 1/3°, 5 km x 20, 30, 60, 120 km Vertical		
CATS (2015)	CATS (Cloud-Aerosol Transport System) (Lidar)	+ Depolarization Ratio + Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	+ Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	+ Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Aerosol Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	+ Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Aerosol Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	+ Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Aerosol Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	+ Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Aerosol Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	+ Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Aerosol Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	+ Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Aerosol Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	+ Cloud Backscatter + Aerosol Backscatter + Depolarization Ratio + Cloud Layer Height + Aerosol Layer Height + Cloud Layer Thickness + Aerosol Layer Thickness + Cloud Extinction + Cloud Detection + Depolarization-Based Discrimination of Particle Type	CATS: 3 Days	HDF5	
CHAMP (2000 - 2010)	DIDM (Digital Ion Drift Meter) FGM (Fluxgate Magnetometer) OVM (Overhauser Magnetometer)	+ Magnetometer Data + Vertical Electron Density Profiles	+ Magnetometer Data + Vertical Electron Density Profiles	+ Magnetometer Data + Vertical Electron Density Profiles	+ Magnetometer Data + Vertical Electron Density Profiles	+ Magnetometer Data + Vertical Electron Density Profiles	+ Magnetometer Data + Vertical Electron Density Profiles	+ Magnetometer Data + Vertical Electron Density Profiles	+ Magnetometer Data + Vertical Electron Density Profiles	+ Magnetometer Data + Vertical Electron Density Profiles	DIDM, FGM & OVM: Daily, Monthly, Yearly	Asci	
	CPR (Cloud Profiling Radar)	+ Cloud Liquid Water Content + Cloud Ice Water Content + Radiative Fluxes and Heating Rates + Cloud Detection + Rain Profile + Snow Profile	+ Cloud Classification + Cloud Classification With Lidar + Cloud Mask + Cloud Mask With Lidar + Cloud Liquid Water Content + Radiative Fluxes and Heating Rates + Column Precipitation + Rain Profile + Snow Profile	+ Cloud Classification + Cloud Classification With Lidar + Cloud Mask + Cloud Mask With Lidar + Cloud Liquid Water Content + Radiative Fluxes and Heating Rates + Column Precipitation + Rain Profile + Snow Profile	+ Cloud Classification + Cloud Classification With Lidar + Cloud Mask + Cloud Mask With Lidar + Cloud Liquid Water Content + Radiative Fluxes and Heating Rates + Column Precipitation + Rain Profile + Snow Profile	+ Cloud Classification + Cloud Classification With Lidar + Cloud Mask + Cloud Mask With Lidar + Cloud Liquid Water Content + Radiative Fluxes and Heating Rates + Column Precipitation + Rain Profile + Snow Profile	+ Cloud Classification + Cloud Classification With Lidar + Cloud Mask + Cloud Mask With Lidar + Cloud Liquid Water Content + Radiative Fluxes and Heating Rates + Column Precipitation + Rain Profile + Snow Profile	+ Cloud Classification + Cloud Classification With Lidar + Cloud Mask + Cloud Mask With Lidar + Cloud Liquid Water Content + Radiative Fluxes and Heating Rates + Column Precipitation + Rain Profile + Snow Profile	+ Cloud Classification + Cloud Classification With Lidar + Cloud Mask + Cloud Mask With Lidar + Cloud Liquid Water Content + Radiative Fluxes and Heating Rates + Column Precipitation + Rain Profile + Snow Profile	CPR: 2 Days	HDF4		
		+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	CPR: 2 km x 500 m vertical		
DSCOVR (2015)	PlasMag (Plasma-Magnetometer) NISTAR (National Institute of Standards and Technology Advanced Radiometer) EPIC (Earth Polychromatic Imaging Camera)	+ Magnetometer Averages + Science Data Still Embargoed	+ More Products Expected to be Available Summer/Fall 2016	+ More Products Expected to be Available Summer/Fall 2016	+ More Products Expected to be Available Summer/Fall 2016	+ More Products Expected to be Available Summer/Fall 2016	+ More Products Expected to be Available Summer/Fall 2016	+ More Products Expected to be Available Summer/Fall 2016	+ More Products Expected to be Available Summer/Fall 2016	+ More Products Expected to be Available Summer/Fall 2016	Summer/Fall 2016		
		+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	+ Radiance + Reflectance	Summer/Fall 2016		
EO-1 (2000)	ALI (Advanced Land Imager)	+ Terrain Corrected Radiance	+ Terrain Corrected Radiance	+ Terrain Corrected Radiance	+ Terrain Corrected Radiance	+ Terrain Corrected Radiance	+ Terrain Corrected Radiance	+ Terrain Corrected Radiance	+ Terrain Corrected Radiance	+ Terrain Corrected Radiance	ALI & Hyperion: Intermittent & By Request (one scene per path)	GeoTIFF HDF5	
	Hyperion (Hyperspectral Instrument)	+ Hyperspectral Imagery	+ Hyperspectral Imagery	+ Hyperspectral Imagery	+ Hyperspectral Imagery	+ Hyperspectral Imagery	+ Hyperspectral Imagery	+ Hyperspectral Imagery	+ Hyperspectral Imagery	+ Hyperspectral Imagery	ALI & Hyperion: 30 m		
GOES I-M (GOES-12) (1994)	GOES I-M Imager	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	+ Geostationary Imagery + Infrared Imagery + Surface Temperature	Imager & Sounder: 1, 4, 8, 10 km, 0.1°, 0.05° SXI: 0.002 x 0.001°	NetCDF RAW	
	GOES I-M Sounder	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Total Ozone + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	Imager, Sounder & SXI: 1 min, Hourly, Daily, Monthly		
GOES N-P (GOES-13) (2005)	GOES N-P Imager	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	+ Surface Air Temperature + Water Vapor + Cloud Detection	Imager & Sounder: 1, 4, 8, 10 km, 0.1°, 0.05° SXI: 0.002 x 0.001°	NetCDF RAW	
	SEM-2 (Space Environment Monitor)	+ Full Disk Solar Imagery	+ Full Disk Solar Imagery	+ Full Disk Solar Imagery	+ Full Disk Solar Imagery	+ Full Disk Solar Imagery	+ Full Disk Solar Imagery	+ Full Disk Solar Imagery	+ Full Disk Solar Imagery	+ Full Disk Solar Imagery	Imager, Sounder, SEM-2 & SXI: 1 min, Hourly, Daily, Monthly		
	SXI (Solar X-Ray Imager)	+											

## Application Areas

Platform	Instruments	Water Resources	Health & Air Quality	Climate	Agriculture	Weather	Ecological Forecasting	Disasters	Oceans	Energy	Frequency & Resolution	Format
NOAA-N (NOAA-19) (2009)	AMSU-A (Advanced Microwave Sounding Unit-A)	+ Total Precipitable Water + Sea Ice Concentration	+ Total Precipitable Water + Surface Emmissivity	+ Total Precipitable Water + Surface Temperature + Surface Emmissivity	+ Total Precipitable Water + Surface Temperature + Surface Emmissivity	+ Total Precipitable Water + Surface Temperature + Surface Emmissivity	+ Total Precipitable Water + Surface Temperature + Surface Emmissivity	+ Total Precipitable Water + Surface Temperature + Surface Emmissivity	+ Surface Temperature + Surface Emmissivity	+ Surface Temperature + Surface Emmissivity	AMSU-A SBUV/2 MHS AVHRR/3: Daily, Weekly	RAW NetCDF
	SBUV/2 (Solar Backscatter Ultraviolet Radiometer)	+ Sea Surface Temperature + Cloud & Surface Mapping + Land & Water Mask + Temperature Condition Index(TCI)	+ Sea Surface Temperature + Cloud & Surface Mapping + Land & Water Mask + Temperature Condition Index(TCI)	+ Sea Surface Temperature + Cloud & Surface Mapping + Land & Water Mask + Temperature Condition Index(TCI)	+ Land & Water Mask + Snow & Ice Concentration	+ Land & Water Mask + Snow & Ice Concentration	+ Land & Water Mask + Vegetation Condition Index (VCI)	+ Land & Water Mask + Vegetation Condition Index (VCI)	+ Land & Water Mask + Vegetation Condition Index (VHI)	+ Land & Water Mask + Vegetation Condition Index (VHI)	AMSU-A 48 km SBUV/2: 170 km MHS: 30, 50 km x 3, 7 km vertical AVHRR/3: 1 km	
	MHS (Microwave Humidity Sounder)	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	+ Rain Rate + Cloud Ice Water Content + Snow Amount + Snow Fall Rate	AMSU-A 48 km SBUV/2: 170 km MHS: 30, 50 km x 3, 7 km vertical AVHRR/3: 1 km	
	AVHRR/3 (Advanced Very High Resolution Radiometer)	+ Solar Spectral Irradiance + Total & Profile Ozone + Solar Spectral Irradiance	+ Solar Spectral Irradiance + Total & Profile Ozone + Solar Spectral Irradiance	+ Total & Profile Ozone + Solar Spectral Irradiance	+ Total & Profile Ozone + Solar Spectral Irradiance	+ Total & Profile Ozone + Solar Spectral Irradiance	+ Total & Profile Ozone + Solar Spectral Irradiance	+ Total & Profile Ozone + Solar Spectral Irradiance	+ Total & Profile Ozone + Solar Spectral Irradiance	+ Solar Spectral Irradiance	AMSU-A 48 km SBUV/2: 170 km MHS: 30, 50 km x 3, 7 km vertical AVHRR/3: 1 km	
OSTM/Jason-2 (2008)	AMR (Advanced Microwave Radiometer)	+ Water Vapor Profile + Temperature Profile Offset	+ Water Vapor Profile + Temperature Profile Offset	+ Water Vapor Profile + Temperature Profile Offset	+ Absolute Sea Level + Sea Surface Height + Significant Wave Height	+ Water Vapor Profile + Temperature Profile Offset	AMR, DORIS, LRA & Poseidon 3 Altimeter: 10 Days	Ascii NetCDF				
	DORIS (Doppler Orbitography & Radio-Positioning Integrated by Satellite)	+ Calibrated Spectral Radiance	+ Calibrated Spectral Radiance	+ Calibrated Spectral Radiance	+ Sea Surface Height	AMR, DORIS, LRA & Poseidon 3 Altimeter: 11 km x 5.1 km						
	LRA (Laser Retroreflector Array)	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height		
	Poseidon-3 Altimeter	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height	+ Significant Wave Height		
OCO-2 (2014)	Three High-Resolution Grating Spectrometers	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Solar Induced Fluorescence + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Solar Induced Fluorescence + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Solar Induced Fluorescence + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Solar Induced Fluorescence + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Solar Induced Fluorescence + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Solar Induced Fluorescence + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	+ Water Vapor Profile + Temperature Profile Offset + Aerosol & Cloud Profiles + Orbit Granules of Solar Induced Fluorescence + Orbit Granules of Geocoded XCO <sub>2</sub> + Daily Files of Geocoded XCO <sub>2</sub> + Global XCO <sub>2</sub> + Global CO <sub>2</sub> Sources & Sinks	HR SPEC: 16, 18, 30 Days	Ascii HDF5
	SeaWinds (Microwave Radar Instrument)	+ Scatterometer Derived Rain Flag + Radiometer Column Rain Rates + Radiometer Column Rain Rates	+ Surface Wind Speed + Surface Wind Direction + Scatterometer Derived Rain Flag + Radiometer Column Rain Rates	+ Scatterometer Derived Rain Flag + Radiometer Column Rain Rates	+ Surface Wind Speed + Surface Wind Direction + Scatterometer Derived Rain Flag + Radiometer Column Rain Rates	+ Scatterometer Derived Rain Flag + Radiometer Column Rain Rates	+ Surface Wind Speed + Surface Wind Direction + Scatterometer Derived Rain Flag + Radiometer Column Rain Rates	+ Scatterometer Derived Rain Flag + Radiometer Column Rain Rates	+ Surface Wind Speed + Surface Wind Direction	+ Surface Wind Speed + Surface Wind Direction	SeaWinds: 1, 3, 7, 30 Days	NetCDF
RADARSAT-1 (1995 - 2013)	SAR (Synthetic Aperture Radar- HH)	+ Fine Mode + Standard Mode + ScanSAR Mode	+ Fine Mode + Standard Mode + ScanSAR Mode	+ Fine Mode + Standard Mode + ScanSAR Mode	+ Fine Mode + Standard Mode + ScanSAR Mode	+ Fine Mode + Standard Mode + ScanSAR Mode	+ Fine Mode + Standard Mode + ScanSAR Mode	+ Fine Mode + Standard Mode + ScanSAR Mode	+ Fine Mode + Standard Mode + ScanSAR Mode	+ Fine Mode + Standard Mode + ScanSAR Mode	SAR: Intermittent Processing	GeoTIFF
	RapidScat (2014)	+ Ocean Surface Wind Vectors	+ Ocean Surface Wind Vectors	+ Ocean Surface Wind Vectors	+ Ocean Surface Wind Vectors	+ Ocean Surface Wind Vectors	+ Ocean Surface Wind Vectors	+ Ocean Surface Wind Vectors	+ Ocean Surface Wind Vectors	+ Ocean Surface Wind Vectors	Rapid Scatterometer: 12 hours	NetCDF
SAGE III (Stratospheric Aerosol & Gas Experiment)	SAGE III (Stratospheric Aerosol & Gas Experiment)	+ O3 (Ozone) + N2O (Nitrogen Oxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Dust/Ash + Aerosol Extinction	+ O3 (Ozone) + O3O (Chlorine Dioxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Dust/Ash + Aerosol Extinction	+ O3 (Ozone) + O3O (Chlorine Dioxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Air Temperature + Dust/Ash + Aerosol Extinction	+ O3 (Ozone) + O3O (Chlorine Dioxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Air Temperature + Dust/Ash + Aerosol Extinction	+ O3 (Ozone) + O3O (Chlorine Dioxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Air Temperature + Dust/Ash + Aerosol Extinction	+ O3 (Ozone) + O3O (Chlorine Dioxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Air Temperature + Dust/Ash + Aerosol Extinction	+ O3 (Ozone) + O3O (Chlorine Dioxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Air Temperature + Dust/Ash + Aerosol Extinction	+ O3 (Ozone) + O3O (Chlorine Dioxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Air Temperature + Dust/Ash + Aerosol Extinction	+ O3 (Ozone) + O3O (Chlorine Dioxide) + NO2 (Nitrogen Dioxide) + Water Vapor + Air Temperature + Dust/Ash + Aerosol Extinction	SAGE III: Monthly	Raw HDF
	SeaWiFS (Sea-Viewing Wide Field-of-View Sensor)	+ Diffuse Attenuation Coefficient + Total Backscatter + Total Absorption + RGB Land Mask	+ Particulate Organic Carbon + Particulate Black Carbon + Particulate Subsidence + Total Backscatter + Total Absorption	+ Chlorophyll Concentrations + Particulate Organic Carbon + Particulate Subsidence + Total Backscatter + Total Absorption	+ Trace Gases + Water Vapor + Air Temperature + Dust/Ash + Aerosol Extinction	+ Reflectance + Total Backscatter + Total Absorption	SeaWiFS: 1, 8, 32 days	NetCDF				
SRTM (2000)	L-band Radar	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Freeze/Thaw State + High/Low Resolution Radar + Carbon & Net Ecosystem Exchange	+ Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Freeze/Thaw State + High/Low Resolution Radar + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Freeze/Thaw State + High/Low Resolution Radar + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Freeze/Thaw State + High/Low Resolution Radar + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Freeze/Thaw State + High/Low Resolution Radar + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ High/Low Resolution Radar + Carbon & Net Ecosystem Exchange	Radar & Radiometer: 12, 24, 50 hrs, 7, 14 days	GeoTIFF HDF5
	L-band Radiometer	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ Soil Moisture + Soil Moisture (Surface & Root Zone) + Carbon & Net Ecosystem Exchange	+ Carbon & Net Ecosystem Exchange	Radar: 1, 3, 9, 36 km Radiometer: 9, 36 km	GeoTIFF HDF5
SORCE (2003)	SOLSTICE (Solar Stellar Irradiance Comparison Experiment)	+ Total Solar Irradiance + Spectral Solar Irradiance	+ Total Solar Irradiance + Spectral Solar Irradiance	+ Total Solar Irradiance + Spectral Solar Irradiance	+ Total Solar Irradiance + Spectral Solar Irradiance	+ Total Solar Irradiance + Spectral Solar Irradiance	+ Total Solar Irradiance + Spectral Solar Irradiance	+ Total Solar Irradiance + Spectral Solar Irradiance	+ Total Solar Irradiance + Spectral Solar Irradiance	+ Total Solar Irradiance + Spectral Solar Irradiance	SOLTICE, SIM, TIM, XPS: 6 hrs, Daily	Ascii HDF5
	SIM (Spectral Irradiance Monitor)	+ Total Irradiance Monitor	+ Total Irradiance Monitor	+ Total Irradiance Monitor	+ Total Irradiance Monitor	+ Total Irradiance Monitor	+ Total Irradiance Monitor	+ Total Irradiance Monitor	+ Total Irradiance Monitor	+ Total Irradiance Monitor	SOLTICE, SIM, TIM, XPS: Measures in nm	
SRTM (2000)	SRTM (Shuttle Radar Topography Mission)	+ Digital Elevation Model	+ Digital Elevation Model	+ Digital Elevation Model	+ Digital Elevation Model	+ Digital Elevation Model	+ Digital Elevation Model	+ Digital Elevation Model	+ Digital Elevation Model	+ Digital Elevation Model	SRTM: Global Continous, 1° Tiles	GeoTIFF
											SRTM: 30, 90 m	
Suomi NPP (2011)	VIIRS (Visible-Infrared Imager/Radiometer Suite)	+ Albedo + Land Surface Temperature + Surface Type + Vegetation Index + Sea Surface Temperature + Snow Cover/Depth	+ Cloud Base Height + Cloud Cover + Cloud Effective Particle Size + Cloud Fraction + Cloud Top Height + Cloud Top Pressure + Cloud Top Temperature + Cloud Top Transparency + Cloud Top Transparency + Aerosol Thickness + Aerosol Particle Size	+ Land Surface Temperature + Surface Type + Vegetation Index	+ Cloud Base Height + Cloud Cover + Cloud Effective Particle Size + Cloud Fraction + Cloud Top Height + Cloud Top Pressure + Cloud Top Transparency + Aerosol Thickness + Aerosol Particle Size	+ Cloud Base Height + Cloud Cover + Cloud Effective Particle Size + Cloud Fraction + Cloud Top Height + Cloud Top Pressure + Cloud Top Transparency + Aerosol Thickness + Aerosol Particle Size	+ Cloud Base Height + Cloud Cover + Cloud Effective Particle Size + Cloud Fraction + Cloud Top Height + Cloud Top Pressure + Cloud Top Transparency + Aerosol Thickness + Aerosol Particle Size	+ Cloud Base Height + Cloud Cover + Cloud Effective Particle Size + Cloud Fraction + Cloud Top Height + Cloud Top Pressure + Cloud Top Transparency + Aerosol Thickness + Aerosol Particle Size	+ Cloud Base Height + Cloud Cover + Cloud Effective Particle Size + Cloud Fraction + Cloud Top Height + Cloud Top Pressure + Cloud Top Transparency + Aerosol Thickness + Aerosol Particle Size	+ Cloud Base Height + Cloud Cover + Cloud Effective Particle Size + Cloud Fraction + Cloud Top Height + Cloud Top Pressure + Cloud Top Transparency + Aerosol Thickness + Aerosol Particle Size	VIRS CrIS/ATMS CERES OMPS: Daily	GeoTIFF HDF5
	CriS (Cross-Track Infrared Sounder)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	+ Atmospheric Vertical Moisture Profile + Atmospheric Vertical Temp Profile + Atmospheric Vertical Pressure Profile + Pressure (Surface/Profile)	VIRS: 375 m, 750 m	GeoTIFF HDF5
ATMS (Advanced Technology Microwave Sounder)	ATMS (Advanced Technology Microwave Sounder)	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	+ Incoming LW Radiation + Incoming SW Radiation + Net Solar Radiation + Outgoing LW Radiation	CriS/ATMS: 2200 km x 14 km vertical	
	CERES (Clouds and Earth's Radiant Energy System)	+ Total Column Ozone (O3) + Ozone Profile	+ Total Column Ozone (O3) + Ozone Profile	+ Total Column Ozone (O3) + Ozone Profile	+ Total Column Ozone (O3) + Ozone Profile	+ Total Column Ozone (O3) + Ozone Profile	+ Total Column Ozone (O3) + Ozone Profile	+ Total Column Ozone (O3) + Ozone Profile	+ Total Column Ozone (O3) + Ozone Profile	+ Total Column Ozone (O3) + Ozone Profile	CERES: 20 km	
OMPS (Ozone Mapping and Profiler Suite)	OMPS (Ozone Mapping and Profiler Suite)	+ Total Column Ozone (O3) + Ozone Profile	+ Surface Reflectance (VNIR & SWIR) + Surface Radiance									