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data	A collection of facts, concepts or instructions in a formalized manner suitable for communication or processing by human beings or by computer.
data set	A logically meaningful grouping or collection of similar or related data. Data having mostly similar characteristics (source or class of source, processing level and algorithms, etc.)
deciduous	Shedding leaves at the end of the growing season.
declination	The angular distance from the equator to the satellite, measured as positive north and negative south.
decomposition	The breakdown of matter by bacteria and fungi. It changes the chemical makeup and physical appearance of materials.
Defense Meteorological Satellite Program (DMSP)	A U.S. Air Force meteorological satellite program with satellites circling in sun-synchronous orbit. Imagery is collected in the visible- to near-infrared band (0.4 to 1.1 micrometers) and in the thermal-infrared band (about 8 to 13 micrometers) at a resolution of about three kilometers. While some of the data is classified, most unclassified data is available to civilian users.
deforestation	Those practices or processes that result in the change of forested lands to non-forest uses. This is often cited as one of the major causes of the enhanced greenhouse effect for two reasons: 1) the burning or decomposition of the wood releases carbon dioxide; and 2) trees that once removed carbon dioxide from the atmosphere in the process of photosynthesis are no longer present and contributing to carbon storage.
degree	A unit of angular measure represented by the symbol °. The circumference of a circle contains 360 degrees. When applied to the roughly spherical shape of the Earth for geographic and cartographic purposes, degrees are each divided into 60 minutes.
delta	The fan-shaped area at the mouth or lower end of a river, formed by eroded material that has been carried downstream and dropped in quantities larger than can be carried off by tides or currents.
demodulation	The process of retrieving information (data) from a modulated carrier wave, the reverse of modulation.
deposition	Process by which water changes phase directly from vapor into a solid without first becoming a liquid.
descending node	The point in a satellite's orbit at which it crosses the equatorial plane from north to south.
desert	A land area so dry that little or no plant or animal life can survive.
desertification	The man-made or natural formation of desert from usable land.
detector	A device in a radiometer that senses the presence and intensity of radiation. The incoming radiation is usually modified by filters or other optical components that restrict the radiation to a specific spectral band. The information can either be transmitted immediately or recorded for transmittal at a later time.
detritus	Accumulated organic debris from dead organisms, often an important source of nutrients in a food web.
dew	Atmospheric moisture that condenses after a warm day and appears during the night on cool surfaces as small drops. The cool surfaces cause the water vapor in the air to cool to the point where the water vapor condenses.
dew point	The temperature to which air must be cooled for saturation to occur, exclusive of air pressure or moisture content change. At that temperature dew begins to form, and water vapor condenses into liquid.
diatom	A class of unicellular algae more formally known as <i>Bacillariophyceae</i> that live in cold waters of relatively low salinity.
digital	In signal processing this refers to the representation of quantities in discrete units. The information is contained and manipulated as a series of discrete numbers as opposed to an analog representation where the information is represented as a continuous signal. In practice, even analog signals are usually processed digitally in that the analog signal is sampled to create a digital signal that can be processed by inherently digital computers.
digital elevation model (DEM)	A representation of the topography of the Earth in digital format, that is, by coordinates and numerical descriptions of altitude.
Distributed Active Archive Center (DAAC)	There are eight DAACs located around the United States that are tasked with processing, storing, and distributing satellite remote sensing data for NASA and other agencies. See NASA DAACs web site
diurnal	Performed in twenty-four hours, such as the diurnal rotation of the Earth.
Dobson Unit	The standard way to express ozone amounts in the <i>atmosphere</i> . One DU is 2.7 x 10 ¹⁶ (10 to the 16th power) ozone molecules per square centimeter. One Dobson unit refers to a layer of ozone that would be 0.001 cm thick under conditions of standard temperature (0 degree C) and pressure (the average pressure at the surface of the Earth). For example, 300 Dobson units of ozone brought down to the surface of the Earth at 0 degree C would occupy a layer only 0.3 cm thick in a column. Dobson was a researcher at Oxford University who, in

	the 1920s, built the first instrument (now called the Dobson meter) to measure total ozone from the ground.
doldrums	Region near the equator characterized by low pressure and light shifting winds. See Wind.
doppler effect (aka Doppler shift)	The apparent change in frequency of sound or light waves, varying with the relative velocity of the source and the observer. If the source and observer draw closer together, the frequency is increased. Named for Christian Doppler, Austrian mathematician and physicist (1803-1853).
Doppler radar	The weather radar system that uses the Doppler shift of radio waves to detect air motion that can result in tornadoes and precipitation, as previously-developed weather radar systems do. It can also measure the speed and direction of rain and ice, as well as detect the formation of tornadoes sooner than older radars.
downwelling	The process of accumulation and sinking of warm surface waters along a coastline. A change of air flow of the atmosphere can result in the sinking or downwelling of warm surface water. The resulting reduced nutrient supply near the surface affects the ocean productivity and meteorological conditions of the coastal regions in the downwelling area.
dynamics	The study of the action of forces on bodies and the changes in motion they produce.
dynamo	A physical system that converts mechanical energy (energy of motion) into magnetic energy. In the Sun, the mechanical energy results from the movement of the plasma at the Sun's core.

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