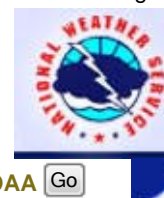




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Here are the results for the letter **c**

C

1. Degrees Celsius (°C)
2. Central

C AMS

Continental Air Mass

CA

Cloud-to-Air lightning.

CAA

Cold Air Advection

CAD

Cold Air Damming. The phenomenon in which a low-level cold air mass is trapped topographically. Often, this cold air is entrenched on the east side of mountainous terrain. Cold Air Damming often implies that the trapped cold air mass is influencing the dynamics of the overlying air mass, e.g. in an overrunning scenario. Effects on the weather may include cold temperatures, freezing precipitation, and extensive cloud cover

CADAS

Centralized Automated Data Acquisition System - a system of two minicomputers in NWSH.

Calibration

In hydrologic terms, the process of using historical data to estimate parameters in a hydrologic forecast technique such as SACSMA, routings, and unit hydrographs.

Calm

A weather condition when no air motion (wind) is detected.

Canyon Wind

A foehn wind that is channeled through a canyon as it descends the lee side of a mountain barrier.

Cap

(also called "Lid") A layer of relatively warm air aloft, usually several thousand feet above the ground, which suppresses or delays the development of thunderstorms. Air parcels rising into this layer become cooler than the surrounding air, which inhibits their ability to rise further and produce thunderstorms. As such, the cap often prevents or delays thunderstorm development even in the presence of extreme instability. However, if the cap is removed or weakened, then explosive thunderstorm development can occur.

The cap is an important ingredient in most severe thunderstorm episodes, as it serves to separate warm, moist air below and cooler, drier air above. With the cap in place, air below it can continue to warm and/or moisten, thus increasing the amount of potential instability. Or, air above it can cool, which also increases potential instability. But without a cap, either process (warming/moistening at low levels or cooling aloft) results in a faster release of available instability - often before instability levels become large enough to support severe weather development.

Cap Cloud

A stationary cloud directly above an isolated mountain peak, with cloud base below the elevation of the peak.

CAPE

Convective Available Potential Energy. A measure of the amount of energy available for convection. CAPE is directly related to the maximum potential vertical speed within an updraft; thus, higher values indicate greater potential for severe weather. Observed values in thunderstorm environments often may exceed 1000 joules per kilogram (J/kg), and in extreme cases may exceed 5000 J/kg.

However, as with other indices or indicators, there are no threshold values above which severe weather becomes imminent. CAPE is represented on an upper air sounding by the area enclosed between the environmental temperature profile and the path of a

rising air parcel, over the layer within which the latter is warmer than the former. (This area often is called positive area.) See also CIN.

Capillarity

In hydrologic terms,

1. The degree to which a material or object containing minute openings or passages, when immersed in a liquid, will draw the surface of the liquid above the hydrostatic level. Unless otherwise defined, the liquid is generally assumed to be water.

2. The phenomenon by which water is held in interstices above the normal hydrostatic level, due to attraction between water molecules.

Capillary Fringe

In hydrologic terms, the soil area just above the water table where water can rise up slightly through the cohesive force of capillary action. This layer ranges in depth from a couple of inches, to a few feet, and it depends on the pore sizes of the materials. The capillary fringe is also called the capillary zone.

Capillary Waves

Waves caused by the initial wind stress on the water surface causes what are known as capillary waves. These have a wavelength of less than 1.73 cm, and the force that tries to restore them to equilibrium is the cohesion of the individual molecules. Capillary waves are important in starting the process of energy transfer from the air to the water.

Capillary Zone

Used interchangeably with **Capillary Fringe**; the soil area just above the water table where water can rise up slightly through the cohesive force of capillary action. This layer ranges in depth from a couple of inches, to a few feet, and it depends on the pore sizes of the materials.

Capping

A region of negative buoyancy below an existing level of free convection (LFC) where energy must be supplied to the parcel to maintain its ascent. This tends to inhibit the development of convection until some physical mechanism can lift a parcel to its LFC. The intensity of the cap is measured by its convective inhibition. The term capping inversion is sometimes used, but an inversion is not necessary for the conditions producing convective inhibition to exist.

Capping Inversion

Alternate term for **Cap**; a layer of relatively warm air aloft, usually several thousand feet above the ground, which suppresses or delays the development of thunderstorms. Air parcels rising into this layer become cooler than the surrounding air, which inhibits their ability to rise further and produce thunderstorms. As such, the cap often prevents or delays thunderstorm development even in the presence of extreme instability. However, if the cap is removed or weakened, then explosive thunderstorm development can occur.

The cap is an important ingredient in most severe thunderstorm episodes, as it serves to separate warm, moist air below and cooler, drier air above. With the cap in place, air below it can continue to warm and/or moisten, thus increasing the amount of potential instability. Or, air above it can cool, which also increases potential instability. But without a cap, either process (warming/moistening at low levels or cooling aloft) results in a faster release of available instability - often before instability levels become large enough to support severe weather development.

CAPS

Center for Analysis and Prediction of Storms

Carbon Dioxide

CO₂; a colorless and odorless gas which is the fourth most abundant constituent of dry air.

Carrington Longitude

A system of fixed longitudes rotating with the sun

Catalina Eddy

A Catalina Eddy (coastal eddy) forms when upper level large-scale flow off Point Conception interacts with the complex topography of the Southern California coastline. As a result, a counter clockwise circulating low pressure area forms with its center in the vicinity of Catalina Island. This formation is accompanied by a southerly shift in coastal winds, a rapid increase in the depth of the marine layer, and a thickening of the coastal stratus. Predominately these eddies occur between April and September with a peak in June. A typical Catalina eddy will allow coastal low clouds and fog to persist into the afternoon. A strong Catalina eddy may extend to 6000 feet and these clouds will move through the inland valleys and reach as far as Palmdale.

Catchment Area

In hydrologic terms, an area having a common outlet for its surface runoff (also see Drainage Area or Basin, Watershed).

Categorical

- A National Weather Service precipitation descriptor for a 80, 90, or 100 percent chance of measurable precipitation (0.01 inch). See Precipitation Probability (PoP)
- Caution Stage**
The stage which, when reached by a rising stream, represents the level where appropriate officials (e.g., county sheriff, civil defense officials, or bypass gate operators) are notified of the threat of possible flooding. Alert stage or caution stage are used instead of caution stage in some parts of the country.
- CAVU**
Clear or Scattered Clouds (visibility greater than 10 mi.)
- Cb**
Cumulonimbus cloud, characterized by strong vertical development in the form of mountains or huge towers topped at least partially by a smooth, flat, often fibrous anvil. Also known colloquially as a "thunderhead."
- CBMAM**
Cumulonimbus Mamma
- CC**
Cloud-to-Cloud Lightning
- CCITT**
Consultative Committee for International Telephone and Telegraph
- CCL**
Convective Condensation Level- The level in the atmosphere to which an air parcel, if heated from below, will rise dry adiabatically, without becoming colder than its environment just before the parcel becomes saturated. See Lifted Condensation Level (LCL).
- CD**
cold
- CDB**
Computing Development Branch (NCEP)
- CDC**
Climate Diagnostic Center, the mission of the Climate Diagnostics Center (CDC) is to advance national capabilities to interpret the causes of observed climate variations, and to apply this knowledge to improve climate models and forecasts and develop new climate products that better serve the needs of the public and decision-makers.
- CDD**
Cooling Degree Days- A form of degree day used to estimate energy requirements for air conditioning or refrigeration. Typically, cooling degree days are calculated as how much warmer the mean temperature at a location is than 65°F on a given day. For example, if a location experiences a mean temperature of 75°F on a certain day, there were 10 CDD (Cooling Degree Days) that day because 75 - 65 = 10.
- CDFNT**
Cold Front
- CDT**
Central Daylight Time
- Ceiling**
(Abbrev. CIG) - The height of the cloud base for the lowest broken or overcast cloud layer.
- Ceilometer**
A device using a laser or other light source to determine the height of a cloud base. An optical ceilometer uses triangulation to determine the height of a spot of light projected onto the base of the cloud; a laser ceilometer determines the height by measuring the time required for a pulse of light to be scattered back from the cloud base.
- Cell**
Convection in the form of a single updraft, downdraft, or updraft/downdraft couplet, typically seen as a vertical dome or tower as in a towering cumulus cloud. A typical thunderstorm consists of several cells.
- The term "cell" also is used to describe the radar echo returned by an individual shower or thunderstorm. Such usage, although common, is technically incorrect.
- Celsius**
The standard scale used to measure temperature in most areas outside the United States. On this scale, the freezing point of water is 0°F and the boiling point is 100°F. To convert a Fahrenheit temperature to Celsius, subtract 32 from it and then multiply by 5/9:
- $$^{\circ}\text{C} = (^{\circ}\text{F} - 32) * 5/9$$
- CEM**
Civil Emergency Message. A message issued by the National Weather Service in coordination with Federal, state or local government to warn the general public of a non-weather related time-critical emergency which threatens life or property, e.g. nuclear accident, toxic chemical spill, etc

Center

Generally speaking, the vertical axis of a tropical cyclone, usually defined by the location of minimum wind or minimum pressure. The cyclone center position can vary with altitude. In advisory products, refers to the center position at the surface.

Centimeter Burst

A solar radio burst in the centimeter wavelength range.

Central Meridian Passage (CMP)

In solar-terrestrial terms, the passage of an Active Region or other feature across the longitude meridian that passes through the apparent center of the solar disk.

CENTROID

The center of mass of a storm.

CFC

Chlorofluorocarbon

CFP

Cold Front Passage

CFS

In hydrologic terms, Cubic Feet per Second - the flow rate or discharge equal to one cubic foot (of water, usually) per second. This rate is equivalent to approximately 7.48 gallons per second. This is also referred to as a second-foot.

Cfs-Day

In hydrologic terms, the volume of water discharged in twenty four hours, with a flow of one cubic foot per second is widely used; 1 cfs-day is $24 \times 60 \times 60 = 86,000$ cubic feet, 1.983471 acre-feet, or 646,317 gallons. The average flow in cubic feet per second for any time period is the volume of flow in cfs-days.

CG

Cloud-to-Ground Lightning

Chance

A National Weather Service precipitation descriptor for 30, 40, or 50 percent chance of measurable precipitation (0.01 inch). When the precipitation is convective in nature, the term scattered is used. See Precipitation Probability (PoP).

Channel

In hydrologic terms, also known as **Watercourse**; an open conduit either naturally or artificially created which periodically, or continuously contains moving water, or forms a connecting link between two bodies of water. River, creek, run, branch, anabranch, and tributary are some of the terms used to describe natural channels. Natural channels may be single or braided. Canal and floodway are some of the terms used to describe artificial channels.

Channel Inflow

In hydrologic terms, water, which at any instant, is flowing into the channel system from surface flow, subsurface flow, base flow, and rainfall that has directly fallen onto the channel.

Channel Lead

In hydrologic terms, an elongated opening in the ice cover caused by a water current.

Channel Routing

In hydrologic terms, the process of determining progressively timing and shape of the flood wave at successive points along a river.

Channeled High Winds

In mountainous areas or in cities with tall buildings, air may be channeled through constricted passages producing high winds. Santa Ana winds and winds through passes from the cold Alaskan interior to the sea are examples of these winds. Channeled high winds are local in nature but can be extremely strong. These winds generally occur in well-defined areas.

Channelization

In hydrologic terms, the modification of a natural river channel; may include deepening, widening, or straightening.

CHC

Chance

Chemistry Model

A computer model used in air pollution investigations that simulates chemical and photochemical reactions of the pollutants during their transport and diffusion.

CHG

Change

CHGS

changes

Chinook

This is a region-specific term used for **Foehn Winds** in the lee of the Rocky Mountains in the United States; Foehn Winds are warm, dry winds that occur in the lee of high mountain ranges. It is a fairly common wintertime phenomena in the mountainous west and in parts of Alaska. These winds develop in well-defined areas and can be quite strong.

Chinook Arch

A foehn cloud formation appearing as a bank of altostratus clouds east of the Rocky Mountains, heralding the approach of a chinook. It forms in the rising portion of standing waves on the lee side of the mountains. An observer underneath or east of the cloud sees an arch of clear air between the cloud's leading edge and the mountains below. The cloud appears to converge with the mountains to the north and south due to a perspective effect.

Chlorofluorocarbons

(CFCs) - Manufactured substances used as coolants and computer-chip cleaners. When these products break down they destroy stratospheric ozone, creating the Antarctic Ozone Hole in the Southern Hemisphere spring (Northern Hemisphere autumn). While no longer in use, their long lifetime will lead to a very slow removal from the atmosphere.

Chromosphere

In solar-terrestrial terms, the layer of the solar atmosphere above the photosphere and beneath the transition region and the corona.

Chromospheric Events

In solar-terrestrial terms, flares that are just Chromospheric Events without Centimetric Bursts or Ionospheric Effects. (SID) (Class C flare)

CI

Cirrus clouds- High-level clouds (16,000 feet or higher), composed of ice crystals and appearing in the form of white, delicate filaments or white or mostly white patches or narrow bands. Cirrus clouds typically have a fibrous or hairlike appearance, and often are semi-transparent. Thunderstorm anvils are a form of cirrus cloud, but most cirrus clouds are not associated with thunderstorms.

CIG

Ceiling- The height of the lowest layer of clouds, when the sky is broken or overcast.

CIN

Convective **IN**hibition. A measure of the amount of energy needed in order to initiate convection. Values of CIN typically reflect the strength of the cap. They are obtained on a sounding by computing the area enclosed between the environmental temperature profile and the path of a rising air parcel, over the layer within which the latter is cooler than the former. (This area sometimes is called negative area.) See CAPE.

CIO

Chief Information Officer

Circulation

The flow, or movement, of a fluid (e.g., water or air) in or through a given area or volume.

Cirriform

High altitude ice clouds with a very thin wispy appearance.

Cirrocumulus

A cirriform cloud characterized by thin, white patches, each of which is composed of very small granules or ripples. These clouds are of high altitude (20,000-40,000 ft or 6000 - 12,000 m).

Cirrostratus

A cloud of a class characterized by a composition of ice crystals and often by the production of halo phenomena and appearing as a whitish and usually somewhat fibrous veil, often covering the whole sky and sometimes so thin as to be hardly discernible. These clouds are of high altitude (20,000-40,000 ft or 6000 -12,000 m).

Cirrus

(abbrev. CI) High-level clouds (16,000 feet or higher), composed of ice crystals and appearing in the form of white, delicate filaments or white or mostly white patches or narrow bands. Cirrus clouds typically have a fibrous or hairlike appearance, and often are semi-transparent. Thunderstorm anvils are a form of cirrus cloud, but most cirrus clouds are not associated with thunderstorms.

Civil Dawn

The time of morning at which the sun is 6 degrees below the horizon. At this time, there is enough light for objects to be distinguishable and that outdoor activities can commence.

Civil Dusk

The time at which the sun is 6 degrees below the horizon in the evening. At this time objects are distinguishable but there is no longer enough light to perform any outdoor activities.

Civil Emergency Message

(Abbrev. CEM) - A message issued by the National Weather Service in coordination with Federal, state or local government to warn the general public of a non-weather related time-critical emergency which threatens life or property, e.g. nuclear accident, toxic chemical spill, etc.

CL

An abbreviation used on climate outlook maps issued by CPC to indicate areas where equal chances of experiencing below-normal, normal, and above-normal conditions are possible.

Class I Areas

Geographic areas designated by the Clean Air Act where only a small amount or increment of air quality deterioration is permissible.

CLD

Cloud- A visible aggregate of minute water droplets or ice particles in the atmosphere above the Earth's surface.

Clear Air Turbulence

(CAT) - In aviation, sudden severe turbulence occurring in cloudless regions that causes violent buffeting of aircraft.

Clear Ice

A thin coating of ice on terrestrial objects, caused by rain that freezes on impact. The ice is relatively transparent, as opposed to rime ice, because of large drop size, rapid accretion of liquid water, or slow dissipation of latent heat of fusion.

Clear Slot

With respect to severe thunderstorms, a local region of clearing skies or reduced cloud cover, indicating an intrusion of drier air; often seen as a bright area with higher cloud bases on the west or southwest side of a wall cloud. A clear slot is believed to be a visual indication of a rear flank downdraft.

Client Agency

As used in connection with reimbursable National Weather Service (NWS) fire weather services, a public fire service or wildlands management agency, Federal or non-Federal, which requires and uses NWS fire and forestry meteorological services

Climate

The composite or generally prevailing weather conditions of a region, throughout the year, averaged over a series of years.

Climate Change

A non-random change in climate that is measured over several decades or longer. The change may be due to natural or human-induced causes.

Climate Diagnostics Bulletin

(CDB) - The monthly CPC Bulletin reports on the previous months' status of the ocean-atmosphere climate system and provides various seasonal ENSO-related outlooks. It is issued by the fifteenth of the month.

Climate Diagnostics Center

(CDC) - The mission of NOAA's Climate Diagnostics Center is to identify the nature and causes for climate variations on time scales ranging from a month to centuries.

Climate Model

Mathematical model for quantitatively describing, simulating, and analyzing the interactions between the atmosphere and underlying surface (e.g., ocean, land, and ice).

Climate Outlook

A climate outlook issued by the CPC gives probabilities that conditions, averaged over a specified period, will be below-normal, normal, or above-normal.

Climate Prediction Center

This Center is one of several centers under the National Centers for Environmental Prediction (NCEP) part of the National Weather Service (NWS) in the National Oceanic and Atmospheric Administration (NOAA). The Center serves the public by assessing and forecasting the impacts of short-term climate variability, emphasizing enhanced risks of weather-related extreme events, for use in mitigating losses and maximizing economic gains.

Climate System

The system consisting of the atmosphere (gases), hydrosphere (water), lithosphere (solid rocky part of the Earth), and biosphere (living) that determine the Earth's climate.

Climatological Outlook

An outlook based upon climatological statistics for a region, abbreviated as CL on seasonal outlook maps. CL indicates that the climate outlook has an equal chance of being above normal, normal, or below normal.

Climatology

The science that deals with the phenomena of climates or climatic conditions.

CLIMO

Climatology/Climatological

Climometer

An instrument that measures angles of inclination; used to measure cloud ceiling heights.

Closed Basin

A basin draining to some depression or pond within its area, from which water is lost only by evaporation or percolation. A basin without a surface outlet for precipitation falling precipitation.

Closed Basin Lake Flooding

Flooding that occurs on lakes with either no outlet or a relatively small one. Seasonal increases in rainfall cause the lake level to rise faster than it can drain. The water may stay at flood stage for weeks, months, or years.

Closed Low

A low pressure area with a distinct center of cyclonic circulation which can be completely encircled by one or more isobars or height contour lines. The term usually is used to distinguish a low pressure area aloft from a low-pressure trough. Closed lows aloft typically are partially or completely detached from the main westerly current, and thus move relatively slowly (see Cutoff Low).

Cloud

(abbrev. CLD) A visible aggregate of minute water droplets or ice particles in the atmosphere above the Earth's surface.

Cloud Ceiling

Same as **Ceiling**; the height of the cloud base for the lowest broken or overcast cloud layer.

Cloud Condensation Nuclei

Small particles in the air on which water vapor condenses and forms cloud droplets.

Cloud Layer

An array of clouds whose bases are at approximately the same level.

Cloud Movement

The direction toward which a cloud is moving

Cloud Streets

Rows of cumulus or cumulus-type clouds aligned parallel to the low-level flow. Cloud streets sometimes can be seen from the ground, but are seen best on satellite photographs.

Cloud Tags

Ragged, detached cloud fragments; fractus or scud.

Cloudy

When 7/8ths or more of the sky is covered by clouds.

CLR

Clear

CLRG

Clearing

Clutter

Radar echoes that interfere with observation of desired signals on the radar display.

cm

Centimeter

CM

Combined Moment

CMPLT

Complete

CMPLX

Complex

CNIF

In hydrologic terms, Calibration Network Information Files.

CNTR

Center

CNTRL

Central

CNVG

Converge

CNVTV

Convective

Coalescence

The process by which water droplets in a cloud collide and come together to form raindrops.

Coastal Flooding

Flooding which occurs when water is driven onto land from an adjacent body of water. This generally occurs when there are significant storms, such as tropical and extratropical cyclones.

Coastal Waters

Includes the area from a line approximating the mean high water along the mainland or island as far out as 100 nautical miles including the bays, harbors and sounds.

Coastal Waters Forecast (CWF)

The marine forecast for areas, including bays, harbors, and sounds, from a line approximating the mean high water mark (average height of high water over a 19-year period) along the mainland or near shore islands extending out to as much as 100 NM.

Coastal/Lakeshore Flood Advisory

Minor flooding is possible (i.e., over and above normal high tide levels).

Coastal/Lakeshore Flood Advisories are issued using the Coastal/Lakeshore Hazard Message (CFW) product.

Coastal/Lakeshore Flood Warning

Flooding that will pose a serious threat to life and property is occurring, imminent or

- highly likely. Coastal/Lakeshore Flood Warnings are issued using the Coastal/Lakeshore Hazard Message (CFW) product.
- Coastal/Lakeshore Flood Watch**
Flooding with significant impacts is possible. Coastal/Lakeshore Flood Watches are issued using the Coastal/Lakeshore Hazard Message (CFW) product.
- Coastal/Lakeshore Flooding**
(i) (Oceanic) Coastal Flooding is the inundation of land areas caused by sea waters over and above normal tidal action. This flooding may impact the immediate oceanfront, gulfs, bays, back bays, sounds, and tidal portions of river mouths and inland tidal waterways.
(ii) Lakeshore Flooding is the inundation of land areas adjacent to one of the Great Lakes caused by lake water exceeding normal levels. Lakeshore flooding impacts the immediate lakefront, bays, and the interfaces of lakes and connecting waterways, such as rivers.
- COE**
In hydrologic terms, Corps of Engineers.
- Coherent Radar**
A radar that utilizes both signal phase and amplitude to determine target characteristics.
- Cold Advection**
Transport of cold air into a region by horizontal winds.
- Cold Air Avalanche**
Downslope flow pulsations that occur at more or less regular intervals as cold air builds up on a peak or plateau, reaches a critical mass, and then cascades down the slopes.
- Cold Air Dam**
A shallow cold air mass which is carried up the slope of a mountain barrier, but with insufficient strength to surmount the barrier. The cold air, trapped upwind of the barrier alters the effective terrain configuration of the barrier to larger-scale approaching flows.
- Cold Air Damming (CAD)**
The phenomenon in which a low-level cold air mass is trapped topographically. Often, this cold air is entrenched on the east side of mountainous terrain. Cold Air Damming often implies that the trapped cold air mass is influencing the dynamics of the overlying air mass, e.g. in an overrunning scenario. Effects on the weather may include cold temperatures, freezing precipitation, and extensive cloud cover
- Cold Air Funnel**
A funnel cloud or (rarely) a small, relatively weak tornado that can develop from a small shower or thunderstorm when the air aloft is unusually cold (hence the name). They are much less violent than other types of tornadoes.
- Cold Front**
A zone separating two air masses, of which the cooler, denser mass is advancing and replacing the warmer.
- Cold Occlusion**
A frontal zone formed when a cold front overtakes a warm front and, being colder than the air ahead of the warm front, slides under the warm front, lifting it aloft. Compare with warm occlusion.
- Cold Pool**
A region of relatively cold air, represented on a weather map analysis as a relative minimum in temperature surrounded by closed isotherms. Cold pools aloft represent regions of relatively low stability, while surface-based cold pools are regions of relatively stable air.
- Collar Cloud**
A generally circular ring of cloud that may be observed on rare occasions surrounding the upper part of a wall cloud. This term sometimes is used (incorrectly) as a synonym for wall cloud.
- Collection Efficiency**
The fraction of droplets approaching a surface that actually deposit on that surface.
- Colorado Low**
A low pressure storm system that forms in winter in southeastern Colorado or northeastern New Mexico and tracks northeastward across the central plains of the U.S. over a period of several days, producing blizzards and hazardous winter weather.
- Columnar Ice**
In hydrologic terms, ice consisting of columnar shaped grain. The ordinary black ice is usually columnar-grained.
- Combined Seas**
Generally referred to as SEAS. Used to describe the combination or interaction of wind waves and swells in which the separate components are not distinguished. This includes the case when swell is negligible or is not considered in describing sea state.
Specifically, $Seas^2 = S^2 + W^2$ where S is the height of all swell components and W is the height of the wind wave components. When used, SEAS should be considered as being the same as the significant wave height.
- Comma Cloud**
A synoptic scale cloud pattern with a characteristic comma-like shape, often seen on

- satellite photographs associated with large and intense low-pressure systems.
- Comma Echo**
A thunderstorm radar echo which has a comma-like shape. It often appears during latter stages in the life cycle of a bow echo
- Complex Gale/Storm**
In the high seas and offshore forecasts, an area for which gale/storm force winds are forecast or are occurring but for which no single center is the principal generator of these winds.
- Complex Terrain**
Typically used to refer to mountainous terrain. In general usage, it may also refer to coastal regions and heterogeneous landscapes.
- Composite**
An average that is calculated according to specific criteria. For example, one might want a composite for the rainfall at a given location for all years where the temperature was much above average.
- Composite Hydrograph**
A stream discharge hydrograph which includes base flow, or one which corresponds to a net rain storm of duration longer than one unit period.
- Comprehensive Flare Index (CFI)**
In solar-terrestrial terms, the indicative of solar flare importance.
- Concentric Rings**
These are common in the most intense hurricanes. They usually mark the end the period of intensification. These hurricanes then maintain quasi-constant intensity or weaken. When the inner eye is completely dissipated, more intensification may occur.
- COND**
Condition
- Condensation**
In general, the physical process by which a vapor becomes a liquid or solid; the opposite of evaporation, although on the molecular scale, both processes are always occurring.
- Condensation Funnel**
A funnel-shaped cloud associated with rotation and consisting of condensed water droplets (as opposed to smoke, dust, debris, etc.).
- Conditionally Unstable Air**
An atmospheric condition that exists when the environmental lapse rate is less than the dry adiabatic lapse rate but greater than the moist adiabatic lapse rate.
- Conduction**
Flow of heat in response to a temperature gradient within an object or between objects that are in physical contact.
- Cone of Depression**
In hydrologic terms, the depression, roughly conical in shape, produced in a water table, or other piezometric surface, by the extraction of water from a well at a given rate. The volume of the cone will vary with the rate of withdrawal of water. Also called the Cone of Influence.
- Cone of Influence**
Same as **Cone of Depression**; in hydrologic terms, the depression, roughly conical in shape, produced in a water table, or other piezometric surface, by the extraction of water from a well at a given rate. The volume of the cone will vary with the rate of withdrawal of water.
- Confined Ground Water**
In hydrologic terms, ground water held under an aquiclude or an aquifuge, called artesian if the pressure is positive.
- Confluence**
A pattern of wind flow in which air flows inward toward an axis oriented parallel to the general direction of flow. It is the opposite of diffluence. Confluence is not the same as convergence. Winds often accelerate as they enter a confluent zone, resulting in speed divergence which offsets the (apparent) converging effect of the confluent flow.
- Congestus**
(or Cumulus Congestus) - same as towering cumulus.
- Congressional Organic Act of 1890**
The act that assigned the responsibility of river and floor forecasting for the benefit of the general welfare of the Nation's people and economy to the Weather Bureau, and subsequently the National Weather Service.
- Coning**
With regards to wildfires, pattern of plume dispersion in a neutral atmosphere, in which the plume attains the form of a cone with its vertex at the top of the stack.
- Conjugate Points**
Two points on the earth's surface, at opposite ends of a geomagnetic field line
- Conservation Storage**
In hydrologic terms, storage of water for later release for usual purposes such as municipal water supply, power, or irrigation in contrast with storage capacity used for

flood control.

Consolidated Ice Cover

In hydrologic terms, ice cover formed by the packing and freezing together of floes, brash ice and other forms of floating ice.

Constant Pressure Chart

Alternate term for **Isobaric Chart**; a weather map representing conditions on a surface of equal atmospheric pressure. For example, a 500 mb chart will display conditions at the level of the atmosphere at which the atmospheric pressure is 500 mb. The height above sea level at which the pressure is that particular value may vary from one location to another at any given time, and also varies with time at any one location, so it does not represent a surface of constant altitude/height (i.e., the 500 mb level may be at a different height above sea level over Dallas than over New York at a given time, and may also be at a different height over Dallas from one day to the next).

CONT

Continue/Continuously

Contents

In hydrologic terms, the volume of water in a reservoir. Unless otherwise indicated reservoir content is computed on the basis of a level pool and does not include bank storage.

Continental Air Mass

A dry air mass originating over a large land area. Contrast with tropical air mass.

Continental Shelf

The zone bordering a continent and extending to a depth, usually around 100 FM, from which there is a steep descent toward greater depth.

Continuum Storm (CTM)

In solar-terrestrial terms, general term for solar noise lasting for hours and sometimes days.

Control Points

In hydrologic terms, small monuments securely embedded in the surface of the dam. Any movement of the monument indicates a movement in the dam itself. Movements in the dam are detected by comparing control points location to location of fixed monuments located off the dam using accurate survey techniques.

CONTS

continues

CONUS

Continental United States

Convection

Generally, transport of heat and moisture by the movement of a fluid.

In meteorology, the term is used specifically to describe vertical transport of heat and moisture in the atmosphere, especially by updrafts and downdrafts in an unstable atmosphere. The terms "convection" and "thunderstorms" often are used interchangeably, although thunderstorms are only one form of convection. Cbs, towering cumulus clouds, and ACCAS clouds all are visible forms of convection. However, convection is not always made visible by clouds. Convection which occurs without cloud formation is called dry convection, while the visible convection processes referred to above are forms of moist convection.

Convective Boundary Layer

The unstable boundary layer that forms at the surface and grows upward through the day as the ground is heated by the sun and convective currents transfer heat upwards into the atmosphere.

Convective Clouds

The vertically developed family of clouds are cumulus and cumulonimbus. The height of their bases range from as low as 1,000 feet to a bit more than 10,000 feet. Clouds with extensive vertical development are positive indications of unstable air. Strong upward currents in vertically developed clouds can carry high concentrations of supercooled water to high levels where temperatures are quite cold. Upper portions of these clouds may be composed of water and ice.

Convective Condensation Level

(abbrev. CCL)- The level in the atmosphere to which an air parcel, if heated from below, will rise dry adiabatically, without becoming colder than its environment just before the parcel becomes saturated. See Lifted Condensation Level (LCL).

Convective Inhibition

(CIN or B-) - A numerical measure of the strength of "capping," typically used to assess thunderstorm potential. Specifically, it represents the cumulative effect of atmospheric layers that are warmer than the parcel moving vertically along the adiabat. Low level parcel ascent is often inhibited by such stable layers near the surface. If natural processes fail to destabilize the lower levels, an input of energy from forced lift (a front, an upper level shortwave, etc.) will be required to move the negatively buoyant air parcels to the point where they will rise freely. Since CIN is proportional to the amount of

kinetic energy that a parcel loses to buoyancy while it is colder than the surrounding environment, it contributes to the downward momentum.

Convective Outlook

(sometimes called AC) - A forecast containing the area(s) of expected thunderstorm occurrence and expected severity over the contiguous United States, issued several times daily by the SPC. The terms approaching, slight risk, moderate risk, and high risk are used to describe severe thunderstorm potential. Local versions sometimes are prepared by local NWS offices.

Convective Overdevelopment

Convection that covers the sky with clouds, thereby cutting off the sunshine that produces convection.

Convective Temperature

The approximate temperature that the air near the ground must warm to in order for surface-based convection to develop, based on analysis of a sounding.

Calculation of the convective temperature involves many assumptions, such that thunderstorms sometimes develop well before or well after the convective temperature is reached (or may not develop at all). However, in some cases the convective temperature is a useful parameter for forecasting the onset of convection.

Convergence

A contraction of a vector field; the opposite of divergence. Convergence in a horizontal wind field indicates that more air is entering a given area than is leaving at that level. To compensate for the resulting "excess," vertical motion may result: upward forcing if convergence is at low levels, or downward forcing (subsidence) if convergence is at high levels. Upward forcing from low-level convergence increases the potential for thunderstorm development (when other factors, such as instability, are favorable). Compare with confluence.

Conveyance Loss

In hydrologic terms, the loss of water from a conduit due to leakage, seepage, evaporation, or evapo-transpiration.

Cooling Degree Days

(Abbrev. CDD) - A form of **Degree Day** used to estimate energy requirements for air conditioning or refrigeration. Typically, cooling degree days are calculated as how much warmer the mean temperature at a location is than 65°F on a given day. For example, if a location experiences a mean temperature of 75°F on a certain day, there were 10 CDD (Cooling Degree Days) that day because $75 - 65 = 10$.

Cooperative Observer

An individual (or institution) who takes precipitation and temperature observations-and in some cases other observations such as river stage, soil temperature, and evaporation-at or near their home, or place of business. Many observers transmit their reports by touch-tone telephone to an NWS computer, and nearly all observers mail monthly reports to the National Climatic Data Center to be archived and published.

Coordinated Universal Time (UTC)

By international agreement, the local time at the prime meridian, which passes through Greenwich, England. Prior to 1972, this time was called Greenwich Mean Time (GMT) but is now referred to as Coordinated Universal Time or Universal Time Coordinated (UTC). It is a coordinated time scale, maintained by the Bureau International des Poids et Mesures (BIPM). It is also known a "Z time" or "Zulu Time".

More about UTC, and a table to convert UTC to your local time is posted at:

<http://www.srh.noaa.gov/jetstream/remoted/radarfaq.htm#utc>

COR

Correction

Core Punch

[Slang], a penetration by a vehicle into the heavy precipitation core of a thunderstorm. Core punching is not a recommended procedure for storm spotting.

Coriolis Force

A fictitious force used to account for the apparent deflection of a body in motion with respect to the earth, as seen by an observer on the earth. The deflection (to the right in the Northern Hemisphere) is caused by the rotation of the earth.

Corn Snow Ice

In hydrologic terms, rotten granular ice.

Corner Effects

A small-scale convergence effect that can be quite severe. It occurs around steep islands and headlands.

Corona

1. The outermost layer of the solar atmosphere, characterized by low densities ($< 1.0 \times 10^9 / \text{cc}$) and high temperatures ($> 1.0 \times 10^6 \text{ K}$).
2. In solar-terrestrial terms, a white or colored circle or set of concentric circles of light of

small radius seen around a luminous body, especially around the sun or moon. The color varies from blue inside to red outside and the phenomenon is attributed to diffraction of light by thin clouds or mist (distinguished from halo).

Coronal Hole

In solar-terrestrial terms, an extended region of the corona, exceptionally low in density and associated with unipolar photospheric regions.

Coronal Rain

(Abbrev. CRN) In solar-terrestrial terms, material condensing in the corona and appearing to rain down into the chromosphere as observed at the solar limb above strong sunspots.

Coronal Transients

In solar-terrestrial terms, a general term for short-time-scale changes in the corona, but principally used to describe outward-moving plasma clouds.

Correlated Shear

An output of the mesocyclone detection algorithm indicating a 3-dimensional shear region (i.e. vertically correlated) that is not symmetrical.

Correlation

A measure of similarity between variables of functions.

Cosmic Ray

An extremely energetic (relativistic) charged particle.

County Warning and Forecast Area

The group of counties for which a National Weather Service Forecast Office is responsible for issuing warnings and weather forecasts.

County Warning Area

The group of counties for which a National Weather Service Forecast Office is responsible for issuing warnings.

Coupled Atmosphere-Ocean Model

Same as Coupled Model; in the context of climate modeling this usually refers to a numerical model which simulates both atmospheric and oceanic motions and temperatures and which takes into account the effects of each component on the other.

Coupled Model

In the context of climate modeling this usually refers to a numerical model which simulates both atmospheric and oceanic motions and temperatures and which takes into account the effects of each component on the other.

Couplet

Adjacent maxima of radial velocities of opposite signs.

CPC

Climate Prediction Center

Creek

A small stream of water which serves as the natural drainage course for a drainage basin of nominal, or small size. The term is a relative one as to size, some creeks in the humid section would be called rivers if they occurred in the arid portion.

Crepuscular Rays

The alternating bands of light and dark (rays and shadows) seen at the earth's surface when the sun shines through clouds.

Crest

Highest point in a wave.

In hydrologic terms, (1) The highest stage or level of a flood wave as it passes a point. (2) The top of a dam, dike, spillway, or weir, to which water must rise before passing over the structure.

Crest Gage

A gage used to obtain a record of flood crests at sites where recording gages are installed.

Crest Width

In hydrologic terms, the thickness or width of a dam at the level of the crest (top) of the dam. The term "thickness" is used for gravity and arch dams and "width" for other types of dams.

Critical Depth

In hydrologic terms, The depth of water flowing in an open channel or conduit, partially filled, corresponding to one of the recognized critical velocities.

Critical Flow

In hydrologic terms, a condition of flow where the mean velocity is at one of the critical values; ordinarily at Belanger's critical depth and velocity. Another important usage is in reference to the Reynolds' critical velocities which define the point at which the flow changes from streamline or nonturbulent to turbulent flow.

Critical Rainfall Probability

(Abbrev. CRP) - In hydrologic terms, the Probability that the actual precipitation during a rainfall event has exceeded or will exceed the flash flood guidance value.

CRN

- Coronal Rain - In solar-terrestrial terms, material condensing in the corona and appearing to rain down into the chromosphere as observed at the solar limb above strong sunspots.
- Crochet**
In solar-terrestrial terms, a sudden deviation in the sunlit geomagnetic field (H component; see geomagnetic elements) associated with large solar flare X-ray emission
- Crop Moisture Index**
In 1968, Palmer developed the index to assess short-term crop water conditions and needs across major crop-producing regions. This index is a useful tool in forecasting short-term drought conditions.
- Cross-Valley Wind System**
A thermally driven wind that blows during daytime across the axis of a valley toward the heated sidewall.
- Crown Fire**
A fire where flames travel from tree to tree at the level of the tree's crown or top.
- Crowning**
Movement of a fire from the understory into the crown of a forest canopy.
- CRP**
Critical Rainfall Probability - in hydrologic terms, the probability that a given rainfall will cause a river, or stream to rise above flood stage.
- CRS**
Console Replacement System for NOAA Weather Radio
- Cryology**
The science of the physical aspects of snow, ice, hail, and sleet and other forms of water produced by temperatures below Zero degrees Celsius.
- CSDRBL**
Considerable
- CSI**
Conditional Symmetric Instability
- CST**
Central Standard Time
- CSTL**
coastal
- CTY**
city
- CU**
Cumulus clouds - Detached clouds, generally dense and with sharp outlines, showing vertical development in the form of domes, mounds, or towers. Tops normally are rounded while bases are more horizontal. See Cb, towering cumulus.
- Cubic Feet per Second**
(Abbrev. CFP) - In hydrologic terms, a unit expressing rates of discharge. One cubic foot per second is equal to the discharge through a rectangular cross section, 1 foot wide by 1 foot deep, flowing at an average velocity of 1 foot per second. It is also approximately 7.48 gallons per second.
- CUFRA**
Cumulus Fractus
- Cumuliform**
Descriptive of all clouds with vertical development in the form of rising mounds, domes, or towers
- Cumuliform Anvil**
A thunderstorm anvil with visual characteristics resembling cumulus-type clouds (rather than the more typical fibrous appearance associated with cirrus). A cumuliform anvil arises from rapid spreading of a thunderstorm updraft, and thus implies a very strong updraft. See anvil rollover, knuckles, mushroom.
- Cumulus**
(Abbrev. CU) - detached clouds, generally dense and with sharp outlines, showing vertical development in the form of domes, mounds, or towers. Tops normally are rounded while bases are more horizontal. See Cb, towering cumulus.
- Cumulus Buildups**
Clouds which develop vertically due to unstable air. Characterized by their cauliflower-like or tower-like appearance of moderately large size
- Cumulus Congestus**
A large, towering cumulus cloud with great vertical development, usually with a cauliflower-like appearance, but lacking the characteristic anvil of a cumulonimbus.
- Current**
A horizontal movement of water. Currents may be classified as tidal and nontidal. Tidal currents are caused by gravitational interactions between the sun, moon, and earth and are a part of the same general movement of the sea that is manifested in the vertical rise and fall, called TIDE. Tidal currents are periodic with a net velocity of zero over the tidal cycle. Nontidal currents include the permanent currents in the general circulatory

systems of the sea as well as temporary currents arising from more pronounced meteorological variability. The SET of a current is the direction toward which it flows; the DRIFT is its speed.

Current Meter

In hydrologic terms, device used to measure the water velocity or current in a river.

Curtain Drain

In hydrologic terms, a drain constructed at the upper end of the area to be drained, to intercept surface or ground water flowing toward the protected area from higher ground, and carry it away from the area. Also called an Intercepting Drain.

Cutoff

In hydrologic terms, from passing through a dam's foundation material. An impervious construction or material which reduces seepage or prevents it.

Cutoff Low

A closed upper-level low which has become completely displaced (cut off) from basic westerly current, and moves independently of that current. Cutoff lows may remain nearly stationary for days, or on occasion may move westward opposite to the prevailing flow aloft (i.e., retrogression).

"Cutoff low" and "closed low" often are used interchangeably to describe low pressure centers aloft. However, not all closed lows are completely removed from the influence of the basic westerlies. Therefore, the recommended usage of the terms is to reserve the use of "cutoff low" only to those closed lows which clearly are detached completely from the westerlies.

CVR

Cover

CWA

County Warning Area

CWFA

County Warning and Forecast Area

CYC

Cyclone- A large-scale circulation of winds around a central region of low atmospheric pressure, counterclockwise in the Northern Hemisphere, clockwise in the Southern Hemisphere.

CYCLGN

Cyclogenesis - The formation or intensification of a cyclone or low-pressure storm system.

Cyclic Storm

A thunderstorm that undergoes cycles of intensification and weakening (pulses) while maintaining its individuality. Cyclic supercells are capable of producing multiple tornadoes (i.e., a tornado family) and/or several bursts of severe weather.

Cyclogenesis

(Abbrev. CYCLGN) - The formation or intensification of a cyclone or low-pressure storm system.

Cyclone

(abbrev. CYC) - A large-scale circulation of winds around a central region of low atmospheric pressure, counterclockwise in the Northern Hemisphere, clockwise in the Southern Hemisphere.

Cyclonic Circulation

Circulation (or rotation) which is in the same sense as the Earth's rotation, i.e., counterclockwise (in the Northern Hemisphere) as would be seen from above. Nearly all mesocyclones and strong or violent tornadoes exhibit cyclonic rotation, but some smaller vortices, such as gustnadoes, occasionally rotate anticyclonically (clockwise). Compare with anticyclonic rotation.

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