

weather.gov



National Oceanic and Atmospheric Administration's National Weather Service


[Site Map](#) [News](#) [Organization](#)

 Search NWS All NOAA

 Local forecast by
"City, St"

 [RSS Feeds](#)

Warnings

[Current](#)
[By State/County...](#)
[UV Alerts](#)

Observations

[Radar](#)
[Satellite](#)
[Snow Cover](#)
[Surface Weather...](#)
[Observed Precip](#)

Forecasts

[Local](#)
[Graphical](#)
[Aviation](#)
[Marine](#)
[Hurricanes](#)
[Severe Weather](#)
[Fire Weather](#)

Text Messages

[By State](#)
[By Message Type](#)
[National](#)

Forecast Models

[Numerical Models](#)
[Statistical Models...](#)
[MOS Prod](#)
[GFS-LAMP Prod](#)

Climate

[Past Weather](#)
[Predictions](#)

Weather Safety

[Weather Radio](#)
[Hazard Assmt...](#)
[StormReady /](#)
[TsunamiReady](#)
[Skywarn™](#)

Education/Outreach

Information Center

[Tsunamis](#)
[Publications...](#)

Contact Us

[FAQ](#)
[Comments...](#)


NWS on Facebook

[Home](#) > [Glossary](#)

 Here are the results for the letter **a**

A

1. Abbreviation for hail in weather observations.
2. Symbol used on long-term climate outlooks issued by CPC to indicate areas that are likely to be above normal for the specified parameter (temperature, precipitation, etc.).

A AMS

Arctic Air Mass

A Index

A daily index of geomagnetic activity derived as the average of the eight 3-hourly a indices.

AAAS

American Association for the Advancement of Science

AAWU

Alaskan Aviation Weather Unit

Ablation

Depletion of snow and ice by melting and evaporation.

ABNDT

Abundant

Absolutely Stable Air

An atmospheric condition that exists when the environmental lapse rate is less than the moist adiabatic lapse rate.

Absolutely Unstable Air

An atmospheric condition that exists when the environmental lapse rate is greater than the dry adiabatic lapse rate.

Absorption

The process in which incident radiant energy is retained by a substance by conversion to some other form of energy.

ABT

About

Abutment

The part of a valley or canyon wall against which a dam is constructed. Right and left abutments are those on respective sides of an observer looking downstream.

Abutment Seeping

Reservoir water that moves through seams or pores in the natural abutment material and exits as seepage.

ABV

Above

AC

1. Abbreviation for **Alto**cumulus - a cloud of a class characterized by globular masses or rolls in layers or patches, the individual elements being larger and darker than those of cirrocumulus and smaller than those of stratocumulus. These clouds are of medium altitude, about 8000-20,000 ft (2400-6100 m).

2. Convective outlook issued by the Storm Prediction Center. Abbreviation for Anticipated Convection; the term originates from the header coding [ACUS1] of the transmitted product.

ACCAS

 (usually pronounced ACK-kis) - **Alto**Cumulus **CA**Stellanus; mid-level clouds (bases generally 8 to 15 thousand feet), of which at least a fraction of their upper parts show cumulus-type development. These clouds often are taller than they are wide, giving them a turret-shaped appearance. ACCAS clouds are a sign of instability aloft, and may precede the rapid development of thunderstorms.

Accessory Cloud

A cloud which is dependent on a larger cloud system for development and continuance. Roll clouds, shelf clouds, and wall clouds are examples of accessory clouds.

Accretion

The growth of a precipitation particle by the collision of a frozen particle with a supercooled liquid water droplet which freezes upon impact.

ACCUMS

accumulation

Accuracy

Degree of conformity of a measure to a standard or true value; in other words, how close a predicted or measured value is to the true value.

Acid Precipitation

Precipitation, such as rain, snow or sleet, containing relatively high concentrations of acid-forming chemicals that have been released into the atmosphere and combined with water vapor; harmful to the environment.

Acid Rain

Rain containing relatively high concentrations of acid-forming chemicals that have been released into the atmosphere and combined with water vapor; harmful to the environment.

ACLD

Above Cloud Level

ACPY

Accompany

Acre-foot

The amount of water required to cover one acre to a depth of one foot. An acre-foot equals 326,851 gallons, or 43,560 cubic feet.

ACRS

Across

Action Stage

The stage which, when reached by a rising stream, represents the level where the NWS or a partner/user needs to take some type of mitigation action in preparation for possible significant hydrologic activity. The appropriate action is usually defined in a weather forecast office (WFO) hydrologic services manual. Action stage can be the same as forecast issuance stage (see / forecast issuance stage/).

Active

(abbrev. ACTV). In solar-terrestrial terms, solar activity levels with at least one geophysical event or several larger radio events (10cm) per day (Class M Flares)

Active Conservation Storage

In hydrologic terms, the portion of water stored in a reservoir that can be released for all useful purposes such as municipal water supply, power, irrigation, recreation, fish, wildlife, etc. Conservation storage is the volume of water stored between the inactive pool elevation and flood control stage.

Active Dark Filament (ADF)

In solar-terrestrial terms, an Active Prominence seen on the Disk.

Active Longitude

In solar-terrestrial terms, the approximate center of a range of heliographic longitudes in which Active Regions are more numerous and more flare-active than the average.

Active Prominence

In solar-terrestrial terms, a prominence displaying material motion and changes in appearance over a few minutes of time.

Active Prominence Region (APR)

In solar-terrestrial terms, a portion of the solar limb displaying active prominences.

Active Region (AR)

In solar-terrestrial terms, a localized, transient volume of the solar atmosphere in which plages, sunspots, faculae, flares, etc. may be observed.

Active Storage Capacity

In hydrologic terms, the total amount of reservoir capacity normally available for release from a reservoir below the maximum storage level. It is total or reservoir capacity minus inactive storage capacity. More specifically, it is the volume of water between the outlet works and the spillway crest.

Active Surge Region (ASR)

In solar-terrestrial terms, an Active Region that exhibits a group or series of spike-like surges that rise above the limb.

ACTV

Active. In solar-terrestrial terms, solar activity levels with at least one geophysical event or several larger radio events (10cm) per day (Class M Flares)

ACYC

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

ADAPTATION (ADAPTABLE) PARAMETER

Generally, data related to a specific WSR-88D unit. These data may consist of meteorological or hydrological parameters or of geographic boundaries, political boundaries, system configuration, telephone numbers (auto dial), or other like data.

- Such data may be generated at either a centralized location or locally at the WSR-88D unit.
- ADAS**
Automated Data Acquisition System
- Additive Data**
A group of coded remarks that includes pressure tendency, amount of precipitation, and maximum/minimum temperature during specified periods of time
- ADDS**
Aviation Digital Data Service
- Adiabat**
A line on a thermodynamic chart relating the pressure and temperature of a substance (such as air) that is undergoing a transformation in which no heat is exchanged with its environment.
- Adiabatic**
Changes in temperature caused by the expansion (cooling) or compression (warming) of a body of air as it rises or descends in the atmosphere, with no exchange of heat with the surrounding air.
- Adiabatic Lapse Rate**
The rate of decrease of temperature experienced by a parcel of air when it is lifted in the atmosphere under the restriction that it cannot exchange heat with its environment. For parcels that remain unsaturated during lifting, the (dry adiabatic) lapse rate is 9.8°C per kilometer.
- Adiabatic Process**
A process which occurs with no exchange of heat between a system and its environment.
- Adirondack Type Snow Sampling Set**
In hydrologic terms, a snow sampler consisting of a 5-foot fiberglass tube, 3 inches in diameter, with a serrated-edge steel cutter at one end and a twisting handle at the other. This sampler has a 60-inch snow depth capacity.
- ADJ**
Adjacent
- ADPC**
Acoustic Doppler Current Profiler
- ADVCTN**
Advection- Transport of an atmospheric property by the wind.
- Advection**
(Abbrev. ADVCTN)- Transport of an atmospheric property by the wind.
- Advection Fog**
A fog that forms when warm air flows over a cold surface and cools from below until saturation is reached.
- ADVIS**
In hydrologic terms, a program which combines the Antecedent Precipitation Index (API) method of estimating runoff with unit hydrograph theory to estimate streamflow for a headwater basin.
- Advisory**
(Abbrev. ADVY)- Highlights special weather conditions that are less serious than a warning. They are for events that may cause significant inconvenience, and if caution is not exercised, it could lead to situations that may threaten life and/or property.
- ADVN**
Advance
- ADVY**
Advisory - Highlights special weather conditions that are less serious than a warning. They are for events that may cause significant inconvenience, and if caution is not exercised, it could lead to situations that may threaten life and/or property.
- Aeration Zone**
A portion of the lithosphere in which the functional interstices of permeable rock or earth are not filled with water under hydrostatic pressure. The interstices either are not filled with water or are filled with water that is not held by capillarity.
- Aeroallergens**
Any of a variety of allergens such as pollens, grasses, or dust carried by winds.
- Aerosol**
A system of colloidal particles dispersed in a gas, such as smoke or fog.
- AFB**
Air Force Base
- AFCT**
Affect
- AFD**
Area Forecast Discussion - This National Weather Service product is intended to provide a well-reasoned discussion of the meteorological thinking which went into the preparation of the Zone Forecast Product. The forecaster will try to focus on the most

particular challenges of the forecast. The text will be written in plain language or in proper contractions. At the end of the discussion, there will be a list of all advisories, non-convective watches, and non-convective warnings. The term non-convective refers to weather that is not caused by thunderstorms. An intermediate Area Forecast Discussion will be issued when either significant forecast updates are being made or if interesting weather is expected to occur.

- AFOS**
Automation of Field Operations and Services. Computer system linking NWS offices for the transmission of weather data. This system was installed in the early to mid 1980s and it is being replaced by Advanced Weather Interactive Processing System (AWIPS).
- AFRED**
Abbreviation for the A Index for Fredericksburg.
- AFSS**
Automated Flight Service Station
- AFT**
After
- Afterbay**
In hydrologic terms, the tail race of a hydroelectric power plant at the outlet of the turbines. The term may be applied to a short stretch of stream or conduit, or to a pond or reservoir.
- AFTN**
Afternoon
- AFTR**
after
- AFWA**
Air Force Weather Agency
- AGC**
Automatic Gain Control
- AGDISP**
A particular atmospheric dispersion model used for treating the transport and diffusion of aerially sprayed pest control agents in agricultural applications.
- AGFS**
Aviation Gridded Forecast System
- Agglomerate**
An ice cover of floe formed by the freezing together of various forms of ice.
- AGL**
Above Ground Level
- AGL**
Above Ground Level
- AGN**
Again
- AHD**
Ahead
- AHOS**
Automatic Hydrologic Observing System
- AHOS-S**
Automatic Hydrologic Observing System - Satellite
- AHOS-T**
Automatic Hydrologic Observing System - Telephone
- Air**
The mixture of gases comprising the earth's atmosphere.
- Air Mass**
A body of air covering a relatively wide area and exhibiting horizontally uniform properties.
- Air Mass Thunderstorm**
Generally, a thunderstorm not associated with a front or other type of synoptic-scale forcing mechanism. Air mass thunderstorms typically are associated with warm, humid air in the summer months; they develop during the afternoon in response to insolation, and dissipate rather quickly after sunset. They generally are less likely to be severe than other types of thunderstorms, but they still are capable of producing downbursts, brief heavy rain, and (in extreme cases) hail over 3/4 inch in diameter.
- Since all thunderstorms are associated with some type of forcing mechanism, synoptic-scale or otherwise, the existence of true air-mass thunderstorms is debatable.
- Air Pollutant**
Harmful substance or product introduced into the atmosphere.
- Air Pollution Potential**
The meteorological potential for air pollution problems, considered without regard to the presence or absence of actual pollution sources.
- Air Quality Model**

- Mathematical or conceptual model used to estimate present or future air quality.
- Air Stagnation**
A meteorological situation in which there is a major buildup of air pollution in the atmosphere. This usually occurs when the same air mass is parked over the same area for several days. During this time, the light winds cannot "cleanse" the buildup of smoke, dust, gases, and other industrial air pollution.
- Air Stagnation Advisory**
This National Weather Service product is issued when major buildups of air pollution, smoke, dust, or industrial gases are expected near the ground for a period of time. This usually results from a stagnant high pressure system with weak winds being unable to bring in fresh air.
- Air Toxin**
Toxic air pollutant.
- Air Transportable Mobile Unit**
A modularized transportable unit containing communications and observational equipment necessary to support a meteorologist preparing on-site forecasts at a wildfire or other incident.
- Airborne Snow Survey Program**
In hydrologic terms, Center (NOHRSC) program that makes airborne snow water equivalent and soil moisture measurements over large areas of the country that are subject to severe and chronic snowmelt flooding.
- AIRMET**
Airman's Meteorological advisory (WA)
- AIV**
Aviation Impact Variables
- Alaska Current**
A North Pacific Ocean current flowing counterclockwise in the Gulf of Alaska. It is the northward flowing (warm) division of the Aleutian Current
- Albedo**
Reflectivity; the fraction of radiation striking a surface that is reflected by that surface.
- Alberta Clipper**
A fast moving low pressure system that moves southeast out of Canadian Province of Alberta (southwest Canada) through the Plains, Midwest, and Great Lakes region usually during the winter. This low pressure area is usually accompanied by light snow, strong winds, and colder temperatures. Another variation of the same system is called a "Saskatchewan Screamer".
- ALERT**
Automated Local Event Reporting in Real Time. Network of automatic raingauges that transmit via VHF radio link when precipitation occurs. Some sites are also equipped with other sensors such as temperature, wind, pressure, river stage or tide level.
- Alert 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. (Used if different from action stage, and at the discretion of the WFO or river forecast center [RFC].) The term "alert stage" is to be used instead of warning stage. Monitor stage or caution stage may be used instead of alert stage in some parts of the country.
- Aleutian Current**
An eastward flowing North Pacific Ocean current which lies north of the North Pacific Current.
- Aleutian Low**
A semi-permanent, subpolar area of low pressure located in the Gulf of Alaska near the Aleutian Islands. It is a generating area for storms and migratory lows often reach maximum intensity in this area. It is most active during the late fall to late spring. During the summer, it is weaker, retreating towards the North Pole and becoming almost nonexistent. During this time, the North Pacific High pressure system dominates.
- ALF**
Aloft
- ALG**
Along
- Algorithm**
A computer program (or set of programs) which is designed to systematically solve a certain kind of problem. WSR-88D radars (NEXRAD) employ algorithms to analyze radar data and automatically determine storm motion, probability of hail, VIL, accumulated rainfall, and several other parameters.
- ALIASING**
The process by which frequencies too high to be analyzed with the given sampling interval appear at a frequency less than the Nyquist frequency.
- Alluvium**
Sediments deposited by erosional processes, usually by streams.

Along-slope Wind System

A closed, thermally driven diurnal mountain wind circulation whose lower branch blows up or down the sloping sidewalls of a valley or mountain. The upper branch blows in the opposite direction, thereby closing the circulation.

ALQDS

All Quadrants

ALTHO

although

Altimeter

An instrument that indicates the altitude of an object above a fixed level. Pressure altimeters use an aneroid barometer with a scale graduated in altitude instead of pressure.

Altimeter Setting

A correction of the station pressure to sea level used by aviation. This correction takes into account the standard variation of pressure with height and the influence of temperature variation with height on the pressure. The temperatures used correspond to the standard atmosphere temperatures between the surface and sea level.

Alto cumulus

A cloud of a class characterized by globular masses or rolls in layers or patches, the individual elements being larger and darker than those of cirrocumulus and smaller than those of stratocumulus. These clouds are of medium altitude, about 8000-20,000 ft (2400-6100 m).

Altostratus

A cloud of a class characterized by a generally uniform gray sheet or layer, lighter in color than nimbostratus and darker than cirrostratus. These clouds are of medium altitude, about 8000 to 20,000 ft (2400-6100 m).

Ambient

Of the surrounding area or environment.

AMD

Amend

AMOS

Automatic Meteorological Observing System

Amplifier

A device used to increase the strength of an analog signal

Amplitude

The maximum magnitude of a quantity. Often used to refer to the maximum height of a wave.

AMS

1. Air Mass - a body of air covering a relatively wide area and exhibiting horizontally uniform properties.

2. American Meteorological Society

AMT

Amount

AMVER

Automated Mutual Assistance Vessel Rescue System. A system operated by the U.S. Coast Guard which computes the nearest available rescue vessels for vessels in distress using vessel track and position reports supplied by participating vessels.

AMVER/SEAS

A software program created by the National Weather Service intended to efficiently generate AMVER and VOS reports as part of a cooperative effort.

Anabranch

A diverging branch of a river which re-enters the main stream.

Analog

1. Class of measuring devices in which the output varies continuously as a function of the input (non-digital).

2. A historical instance of a given meteorological scenario or feature that is used for comparison with another scenario or feature. For example, a long-range forecaster predicting conditions for the upcoming winter may make comparisons to **analog** seasons in which meteorological factors were similar to those of the upcoming season.

Analog Signal

A signal, such as voice, that varies in a continuous manner.

ANBURS

Alphanumeric Backup Replacement System

Anchor Ice

In hydrologic terms, submerged frazil ice attached or anchored to the river bottom, irrespective of its formation.

Anchor Ice Dam

An accumulation of anchor ice which acts as a dam and raises the water level.

Anemometer

An instrument used for measuring the speed of the wind.

Aneroid Barometer

An instrument for measuring atmospheric pressure in which a needle, attached to the top of an evacuated box, is deflected as changes in atmospheric pressure cause the top of the box to bend in or out.

Angels

Radar echoes caused by birds, insects, and localized refractive index discontinuities.

Angle of Reflection

The angle at which a reflected ray of energy leaves a reflecting surface. It is measured between the outgoing ray and a perpendicular to the surface at the point of incidence (i.e., where the ray strikes).

Angstrom

A unit of length equal to 10^{-8} cm.

Annual Flood

In hydrologic terms, the maximum discharge peak during a given water year (October 1 - September 30).

ANOMALOUS PROPAGATION (AP)

Non-standard atmospheric temperature or moisture gradients will cause all or part of the radar beam to propagate along a non-normal path. When non-standard index-of-refraction distributions prevail, "abnormal" or "anomalous" propagation occurs. When abnormal downward bending occurs, it is called "superrefraction." If the beam is refracted downward sufficiently, it will illuminate the ground and return signals to the radar from distances further than is normally associated with ground targets. The term "subrefraction" is applied when there is abnormal upward bending of the radar beam.

Anomaly

The deviation of a measurable unit (e.g., temperature or precipitation) over a period in a given region from the long-term average, often the thirty-year mean, for that region.

Antedecent Precipitation Index

(Abbrev. API) - an index of moisture stored within a drainage basin before a storm.

ANTENNA GAIN

The measure of effectiveness of a directional antenna as compared to an isotropic radiator, maximum value is called antenna gain by convention.

Anthelion

A luminous white spot that appears on the parhelic circle at the same altitude as the sun and 180 degrees from it in azimuth.

Anthropogenic Source

A pollutant source caused or produced by humans.

Anti-wind

The upper or return branch of an along-valley wind system, as confined within a valley, and blowing in a direction opposite to the winds in the lower altitudes of the valley.

Anticyclogenesis

The formation or intensification of an anticyclone or high pressure center.

Anticyclone

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

Anticyclonic Rotation

Rotation in the opposite sense as the Earth's rotation, i.e., clockwise in the Northern Hemisphere as would be seen from above. The opposite of cyclonic rotation.

Antilles Current

A current which originates in the vicinity of the Leeward Islands as part of the Atlantic North Equatorial Current.

Anvil

The flat, spreading top of a cumulonimbus cloud, often shaped like an anvil.

Thunderstorm anvils may spread hundreds of miles downwind from the thunderstorm itself, and sometimes may spread upwind.

Anvil Crawler

[Slang], a lightning discharge occurring within the anvil of a thunderstorm, characterized by one or more channels that appear to crawl along the underside of the anvil. They typically appear during the weakening or dissipating stage of the parent thunderstorm, or during an active MCS.

Anvil Dome

A large overshooting top or penetrating top.

Anvil Rollover

Slang for a circular or semicircular lip of clouds along the underside of the upwind part of a back-sheared anvil, indicating rapid expansion of the anvil.

Anvil Zits

Slang for frequent (often continuous or nearly continuous), localized lightning discharges occurring from within a thunderstorm anvil.

AO

Arctic Oscillation - the Arctic Oscillation is a pattern in which atmospheric pressure at polar and middle latitudes fluctuates between negative and positive phases. The negative phase brings higher-than-normal pressure over the polar region and lower-than-normal pressure at about 45 degrees north latitude. The negative phase allows cold air to plunge into the Midwestern United States and western Europe, and storms bring rain to the Mediterranean. The positive phase brings the opposite conditions, steering ocean storms farther north and bringing wetter weather to Alaska, Scotland and Scandinavia and drier conditions to areas such as California, Spain and the Middle East. In recent years research has shown, the Arctic Oscillation has been mostly in its positive phase. Some researchers argue that the North Atlantic Oscillation is in fact part of the AO.

AOA

At or above

AOB

At or below

AOPA

Aircraft Owners and Pilots Association

AP

Anomalous Propagation. Radar term for false (non-precipitation) echoes resulting from nonstandard propagation of the radar beam under certain atmospheric conditions.

AP Index

In solar-terrestrial terms, an averaged planetary A Index based on data from a set of specific stations.

APD

On a buoy report, the average wave period (seconds) of all waves during the 20-minute period.

Aphelion

The point on the annual orbit of a body (about the sun) that is farthest from the sun; at present, the earth reaches this point (152 million kilometer from the sun) on about 5 July. Opposite of perihelion.

API Method

In hydrologic terms, a statistical method to estimate the amount of surface runoff which will occur from a basin from a given rainstorm based on the antecedent precipitation index, physical characteristics of the basin, time of year, storm duration, rainfall amount, and rainfall intensity.

Apogee

The farthest distance between the moon and earth or the earth and sun.

Apparent Temperature

A measure of human discomfort due to combined heat and humidity (e.g., heat index).

Apparent Wind

The speed and true direction from which the wind appears to blow with reference to a moving point. Sometimes called RELATIVE WIND.

APRCH

Approach

APRCHG

approaching

APRNT

apparent

APST

Aviation Products and Services Team

Aquiclude

In hydrologic terms, a formation which contains water but cannot transmit it rapidly enough to furnish a significant supply to a well or spring.

Aquifer

In hydrologic terms, permeable layers of underground rock, or sand that hold or transmit groundwater below the water table that will yield water to a well in sufficient quantities to produce water for beneficial use.

Aquifuge

In hydrologic terms, a geologic formation which has no interconnected openings and cannot hold or transmit water.

ARAM

Aviation, Range, and Aerospace Meteorology

Arch Dam

A concrete arch dam is used in sites where the ratio of width between abutments to height is not great and where the foundation at the abutments is solid rock capable of resisting great forces. The arch provides resistance to movement. When combined with the weight of concrete (arch-gravity dam), both the weight and shape of the structure provide great resistance to the pressure of water.

Arch Filament System (AFS)

In solar-terrestrial terms, a bright, compact plage crossed by a system of small, arched

- filaments, which is often a sign of rapid or continued growth in an Active Region.
- Arctic**
The region within the Arctic Circle, or, loosely, northern regions in general, characterized by very low temperatures.
- Arctic front**
The boundary or front separating deep, cold arctic air from shallower, relatively less cold polar air.
- Arctic Oscillation**
(abbrev. AO)- The Arctic Oscillation is a pattern in which atmospheric pressure at polar and middle latitudes fluctuates between negative and positive phases. The negative phase brings higher-than-normal pressure over the polar region and lower-than-normal pressure at about 45 degrees north latitude. The negative phase allows cold air to plunge into the Midwestern United States and western Europe, and storms bring rain to the Mediterranean. The positive phase brings the opposite conditions, steering ocean storms farther north and bringing wetter weather to Alaska, Scotland and Scandinavia and drier conditions to areas such as California, Spain and the Middle East. In recent years research has shown, the Arctic Oscillation has been mostly in its positive phase. Some researchers argue that the North Atlantic Oscillation is in fact part of the AO.
- Arctic Sea Smoke**
Steam fog, but often specifically applied to steam fog rising from small open water within sea ice.
- Arcus**
A low, horizontal cloud formation associated with the leading edge of thunderstorm outflow (i.e., the gust front). Roll clouds and shelf clouds both are types of arcus clouds.
- Area Forecast Discussion**
This National Weather Service product is intended to provide a well-reasoned discussion of the meteorological thinking which went into the preparation of the Zone Forecast Product. The forecaster will try to focus on the most particular challenges of the forecast. The text will be written in plain language or in proper contractions. At the end of the discussion, there will be a list of all advisories, non-convective watches, and non-convective warnings. The term non-convective refers to weather that is not caused by thunderstorms. An intermediate Area Forecast Discussion will be issued when either significant forecast updates are being made or if interesting weather is expected to occur.
- Area of Influence**
In hydrologic terms, the area covered by the drawdown curves of a given pumping well or combination of wells at a particular time.
- Area Source**
An array of pollutant sources, so widely dispersed and uniform in strength that they can be treated in a dispersion model as an aggregate pollutant release from a defined area at a uniform rate. Compare line source and point source.
- Area Wide Hydrologic Prediction System**
(Abbrev. AWHPS) - A computer system which automatically ingests areal flash flood guidance values and WSR-88D products and displays this data and other hydrologic information on a map background.
- Area-Capacity Curve**
In hydrologic terms, a graph showing the relation between the surface area of the water in a reservoir, the corresponding volume, and elevation.
- Arid**
An adjunctive applied to regions where precipitation is so deficient in quantity, or occurs at such times, that agriculture is impracticable without irrigation.
- ARINC**
Aeronautical Radio, Incorporated
- ARND**
Around
- ARR**
Arrive/Arrival
- Arroyo**
In hydrologic terms, a water-carved channel or gully in arid country, usually rather small with steep banks, dry most of the time, due to infrequent rainfall and the shallowness of the cut which does not penetrate below the level of permanent ground water.
- ARSI**
Atmospheric Research System, Inc.
- ART**
The Automatic Radiotheodolite. A ground-based radio direction finder that automatically tracks a balloon-borne radiosonde.
- ARTCC**
Air Route Traffic Control Center
- Artesian Well**
In hydrologic terms, a well drilled into a confined aquifer with enough hydraulic pressure

- for the water to flow to the surface without pumping. Also called a flowing well.
- Artificial Control**
In hydrologic terms, a weir or other man-made structure which serves as the control for a stream-gaging station.
- AS**
(NOTE: if this appears in an Area Forecast Discussion or other text product in context as the word "as," disregard the technical definition below).

Abbreviation for Altostratus, a cloud of a class characterized by a generally uniform gray sheet or layer, lighter in color than nimbostratus and darker than cirrostratus. These clouds are of medium altitude, about 8000 to 20,000 ft (2400-6100 m).
- ASAP**
1. AHOS SHEF Automatic Processing System

2. As soon as possible (may be used in Area Forecast Discussions)
- ASAPTRAN**
The software component of ASAP.
- ASB**
Aviation Support Branch
- Ashfall Advisory**
An advisory issued for conditions associated with airborne ash plume resulting in ongoing deposition at the surface. Ashfall may originate directly from a volcanic eruption, or indirectly by wind suspending the ash.
- ASL**
Above Sea Level
- ASOS**
Automated Surface Observing System. A list of stations currently active and available through the NWS website can be found [here](#).
- ASOS IDs**
Each Automated Surface Observing System has a four character identifier assigned to it. A list of stations currently active and available through the NWS website can be found [here](#).
- ASR-9**
Airport Surveillance Radar (FAA)
- ASSOCIATED PRINCIPAL USER**
A Principal User with dedicated communications to a WSR-88D unit.
- Astronomical Dawn**
The time at which the sun is 18 degrees below the horizon in the morning. Astronomical dawn is that point in time at which the sun starts lightening the sky. Prior to this time during the morning, the sky is completely dark.
- Astronomical Dusk**
This is the time at which the sun is 18 degrees below the horizon in the evening. At this time the sun no longer illuminates the sky.
- Astronomical Unit**
(abbrev. AU)- The mean earth-sun distance, equal to 1.496×10^{13} cm, or 214.94 solar radii.
- ATC**
Air Traffic Control
- ATDTDCS**
Automated Tone Dial Telephone Data Collection System - Data collection system where cooperative observers collect precipitation, stage, and temperature data then transmit the data to the NWS ATDTDCS computer through the telephone lines. The ATDTDCS computer transmits the data to AFOS.
- Atmosphere**
The air surrounding and bound to the Earth.
- Atmospheric Boundary Layer**
Same as Boundary Layer - in general, a layer of air adjacent to a bounding surface. Specifically, the term most often refers to the planetary boundary layer, which is the layer within which the effects of friction are significant. For the earth, this layer is considered to be roughly the lowest one or two kilometers of the atmosphere. It is within this layer that temperatures are most strongly affected by daytime insolation and nighttime radiational cooling, and winds are affected by friction with the earth's surface. The effects of friction die out gradually with height, so the "top" of this layer cannot be defined exactly.
- Atmospheric Circulation Model**
A mathematical model for quantitatively describing, simulating, and analyzing the structure of the circulation in the atmosphere and the underlying causes. Sometimes referred to as Atmospheric General Circulation Models or AGCMs.
- Atmospheric Pressure**
The pressure exerted by the earth's atmosphere at any given point, determined by

taking the product of the gravitational acceleration at the point and the mass of the unit area column of air above the point.

Atmospheric Radiation

Infrared radiation (energy in the wavelength interval of 3- 80 micrometer) emitted by or being propagated through the atmosphere. It consists of both upwelling and downwelling components. Compare with terrestrial radiation.

ATMP

On a buoy report, the air temperature (Celsius).

Attenuation

It refers to the reduction of the radar beam power due to the reflection or absorption of energy when it strikes a target. The greatest attenuation occurs when the radar beam goes through very heavy rain.

ATTENUATION

Any process in which the flux density (power) of a beam of energy is dissipated.

ATTM

At this time

Augmented report

A meteorological report prepared by an automated surface weather observing system for transmission with certified observers signed on to the system to add information to the report.

Aurora

A faint visual phenomenon associated with geomagnetic activity, which occurs mainly in the high-latitude night sky; typical auroras are 100 to 250 km above the ground

Aurora Australis

Same as Aurora Borealis, but in the Southern Hemisphere. Also known as the southern lights; the luminous, radiant emission from the upper atmosphere over middle and high latitudes, and centred around the earth's magnetic poles. These silent fireworks are often seen on clear winter nights in a variety of shapes and colors.

Aurora Borealis

Also known as the northern lights; the luminous, radiant emission from the upper atmosphere over middle and high latitudes, and centred around the earth's magnetic poles. These silent fireworks are often seen on clear winter nights in a variety of shapes and colors.

Auroral Oval

In solar-terrestrial terms, an oval band around each geomagnetic pole which is the locus of structured aurorae

Automated Event Reporting Gage

(also see Tipping Bucket Rain Gage); for river stage gages, IFLOWS pressure transducer type gages can be programmed to report if water surface rises or falls by a predetermined amount.

Automated Report

A meteorological report prepared by an automated surface weather observing system for transmission, and with no certified weather observers signed on to the system.

Automated Surface Observing System

The ASOS program is a joint effort of the National Weather Service (NWS), the Federal Aviation Administration (FAA), and the Department of Defense (DOD). Completed in the mid-1990s, the ASOS systems serve as the nation's primary surface weather observing network. ASOS is designed to support weather forecast activities and aviation operations and, at the same time, support the needs of the meteorological, hydrological, and climatological research communities.

AUTOMATIC GAIN CONTROL

Any method of automatically controlling the gain of a receiver, particularly one that holds the output level constant regardless of the input level.

Autumn

The season of the year that is the transition period from summer to winter, occurring as the sun approaches the winter solstice. Meteorological autumn (different from standard/astronomical autumn) begins September 1 and ends November 30.

Autumnal Equinox

The equinox at which the sun approaches the Southern Hemisphere, marking the start of astronomical autumn in the Northern Hemisphere. The time of this occurrence is approximately September 22. On that day, daylight is everywhere 12 hours. Compare with vernal equinox, offset by six months.

Avalanche

A mass of snow, rock, and/or ice falling down a mountain or incline. In practice, it usually refers to the snow avalanche. In the United States, the term snow slide is commonly used to mean a snow avalanche.

Avalanche Advisory

A preliminary notification that conditions may be favorable for the development of avalanches in mountain regions.

AVBL

	Available
AVG	Average
AVHRR	Advanced Very High Resolution Radiometer. Main sensor on U.S. polar orbiting satellites.
AVN	The Aviation model (120-hour numerical model of the atmosphere). The output from this model is now part of what is known as the GFS model.
AVP	On a buoy report, Average Wave Period is the average period (seconds) of the highest one-third of the wave observed during a 20 minute sampling period.
AWC	Aviation Weather Center
AWHPS	Area Wide Hydrologic Prediction System
AWIPS	Advanced Weather Interactive Processing System. This system replaced the Automation of Field Operations and Services (AFOS). This system allows the operator to overlay meteorological data from a variety of sources.
AWOS	Automated Weather Observation System
Azimuth	A direction in terms of a 360° compass. North is at 0°, east is at 90°, south is at 180°, and west is at 270°.
Azimuth Angle	The direction or bearing toward which a sloping surface faces (e.g., a north-facing slope has an azimuth angle of 360°; a northeast-facing slope, an azimuth angle of 45°).
Azores Current	One of the currents of the North Atlantic subtropical gyre.
Azores High	Alternate term for Bermuda High - a semi-permanent, subtropical area of high pressure in the North Atlantic Ocean off the East Coast of North America that migrates east and west with varying central pressure. Depending on the season, it has different names. When it is displaced westward, during the Northern Hemispheric summer and fall, the center is located in the western North Atlantic, near Bermuda. In the winter and early spring, it is primarily centered near the Azores in the eastern part of the North Atlantic. Also known as Azores High.

You can either type in the word you are looking for in the box below or browse by letter.

Search:

Browse by letter:

<#> [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

US Dept of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
1325 East West Highway
Silver Spring, MD 20910
Page Author: NWS Internet Services Team
Page last Modified: 25 June, 2009 1:01 PM

Disclaimer
Information Quality
Credits
Glossary

Privacy Policy
Freedom of Information Act (FOIA)
About Us
Career Opportunities