Here are the results for the letter **v**

V Notch
A radar reflectivity signature seen as a V-shaped notch in the downwind part of a thunderstorm echo. The V-notch often is seen on supercells, and is thought to be a sign of diverging flow around the main storm updraft (and hence a very strong updraft). This term should not be confused with inflow notch or with enhanced V, although the latter is believed to form by a similar process.

VAAC
Volcanic Ash Advisory Centers

VAD
Velocity Azimuth Display

VAD Wind Profile
A radar plot of horizontal winds, derived from VAD data, as a function of height above a Doppler Radar. The display is plotted with height as the vertical axis and time as the horizontal axis (a so-called time-height display), which then depicts the change in wind with time at various heights. This display is useful for observing local changes in vertical wind shear, such as backing of low-level winds, increases in speed shear, and development or evolution of nearby jet streams (including low-level jets). This product often is referred to erroneously as a VAD.

Vadose Zone
The locus of points just above the water table where soil pores may either contain air or water. This is also called the zone of aeration

VALDRIFT
An air pollution transport and diffusion model developed to determine pesticide drift from aerial spraying operations in valleys.

Valid Time
The period of time during which a forecast or warning, until it is updated or superseded by a new forecast issuance, is in effect.

Valid Time Event Code
(VTEC) - The Valid Time Event Code (VTEC) always is used in conjunction with, and provides supplementary information to, the Universal Geographic Code (UGC), to further aid in the automated delivery of National Weather Service text products to users. The VTEC is included in many event driven or non-routine products and in some routine Marine forecasts. The VTEC provides information on the event, while the UGC describes the affected geographic area.

Valley Exit Jet
A strong elevated down-valley air current issuing from a valley above its intersection with the adjacent plain.

Valley Volume Effect
The reduction in volume of a valley (or basin) as compared to an equal depth volume with a horizontal floor. Because the valley volume is smaller, equivalent heat fluxes will cause larger changes in temperature in the valley volume than in the flat-floor volume.

Valve
In hydrologic terms, a device fitted to a pipeline or orifice in which the closure member is either rotated or moved in some way as to control or stop flow.

Vapor Pressure
The partial pressure of water vapor in an air-water system.

Variable Wind
Same as **Variable Wind Direction**; a condition when
(1) the wind direction fluctuates by 60° or more during the 2-minute evaluation period and the wind speed is greater than 6 knots; or
(2) the direction is variable and the wind speed is less than 6 knots.

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(1) the wind direction fluctuates by 60° or more during the 2-minute evaluation period and the wind speed is greater than 6 knots; or
(2) the direction is variable and the wind speed is less than 6 knots.

Variance
A measure of variability.

VCNTY
Vicinity

VCP
Volume Coverage Pattern - A volumetric sampling procedure designed for the surveillance of one or more particular meteorological phenomena. Clear Air Mode uses VCP 31 and 32. Each has a Volume Scan consisting of 5 elevation angles (0.5 to 4.5 degrees) in ten minutes. VCP 31 has a long pulse length and provides a better signal-to-noise ratio permitting lower reflectivity returns to be detected. VCP 32 has a short pulse length which provides for larger unambiguous velocity values. Precipitation Mode uses VCP 11 and 21. VCP 11 provides better vertical sampling of weather echoes near the antenna and is usually preferred in situations where convective precipitation is within 60 nmi of the antenna. VCP 11 Volume Scan consists of 14 elevation angles (0.5 to 19.5 degrees) in 5 minutes. VCP 21 has a slower antenna rotation rate and provides better velocity and spectrum width estimates beyond 60 nmi. VCP 21 Volume Scan consists of 9 elevation angles (0.5 to 19.5 degrees) in 6 minutes.

Veering
A clockwise shift in wind direction (for example, south winds shifting to the west).

Veering Winds
Winds which shift in a clockwise direction with time at a given location (e.g., from southerly to westerly), or which change direction in a clockwise sense with height (e.g., southeasterly at the surface turning to southwesterly aloft). The latter example is a form of directional shear which is important for tornado formation. Compare with backing winds.

Velocity Azimuth Display
A WSR 88-D product which shows the radar derived wind speeds at various heights. This radar product shows the wind speeds from 2,000 to 55,000 feet above the ground. VAD and EVAD (Extended VAD) are methods of guessing the large scale two-dimensional winds from one-dimensional radial velocity data. They are essentially multivariate regressions which fit a simple, large scale wind model to the observed winds. EVAD also estimates the large scale horizontal divergence and particle fall speed. See VWP.

Velocity Cross Section
This WSR-88D radar product displays a vertical cross section of velocity on a grid with heights up to 70,000 feet on the vertical axis and distance up to 124 nm on the horizontal axis. The two end points to create cross section are radar operator selected along a radial or from one AZRAN to another AZRAN within 124 nm of the radar that are less than 124 nm apart.
It is used to:
1) Examine storm structure features such as location of updrafts/downdrafts, strength of storm top divergence, and the depth of mesocyclones;
2) Locate areas of convergence/divergence (when generated along a radial; and
3) Analyze areas of rotation (when generated from one AZRAN to another).

Velocity Zones
In hydrologic terms, areas within the floodplain subject to potential high damage from waves. These sometimes appear on flood insurance rate maps

Ventilation Index
Product of the mixing depth and transport wind speed, a measure of the potential of the atmosphere to disperse airborne pollutants from a stationary source. Sometimes referred to as a Clearing Index.

Venturi Effect
The speedup of air through a constriction due to the pressure rise on the upwind side of the constriction and the pressure drop on the downwind side as the air diverges to leave the constriction.

Ver High Frequency (VHF)
That portion of the radio frequency spectrum from 30 to 300 MHz

Vertical Velocity
The component of velocity (motion) in the vertical. The evaluation of areas of upward vertical velocity is key to forecasting areas of active weather.

Vertical Wind Shear
the change in the wind's direction and speed with height. This is a critical factor in determining whether severe thunderstorms will develop.

Vertically Stacked System
A low-pressure system, usually a closed low or cutoff low, which is not tilted with height, i.e., located similarly at all levels of the atmosphere. Such systems typically are weakening and are slow-moving, and are less likely to produce severe weather than tilted systems. However, cold pools aloft associated with vertically-stacked systems may enhance instability enough to produce severe weather.

Very Low Frequency (VLF)

That portion of the radio frequency spectrum from 3 to 30 kHz

Very Windy

30 to 40 mph winds.

VFR

Visual Flight Rules

VIL

Vertically-Integrated Liquid water. A property computed by RADAP II and WSR-88D units that takes into account the three-dimensional reflectivity of an echo. The maximum VIL of a storm is useful in determining its potential severity, especially in terms of maximum hail size.

VIP

Video Integrator and Processor, which contours radar reflectivity (in dBZ) into six VIP levels:

- VIP 1 (Level 1, 18-30 dBZ) - Light precipitation.
- VIP 2 (Level 2, 30-38 dBZ) - Light to moderate rain.
- VIP 3 (Level 3, 38-44 dBZ) - Moderate to heavy rain.
- VIP 4 (Level 4, 44-50 dBZ) - Heavy rain.
- VIP 5 (Level 5, 50-57 dBZ) - Very heavy rain; hail possible.
- VIP 6 (Level 6, >57 dBZ) - Very heavy rain and hail; large hail possible.

Virga

Streaks or wisps of precipitation falling from a cloud but evaporating before reaching the ground. In certain cases, shafts of virga may precede a microburst.

Virtual Potential Temperature

The virtual potential temperature is the temperature a parcel at a specific pressure level and virtual temperature would have if it were lowered or raised to 1000 mb. This is defined by Poisson's equation.

Virtual Temperature

The virtual temperature is the temperature a parcel which contains no moisture would have to equal the density of a parcel at a specific temperature and humidity.

VIS

1. Visible satellite imagery

2. Visibile or Visibility

Visibility

The distance at which a given standard object can be seen and identified with the unaided eye

Visibility Protection Program

The program specified by the Clean Air Act to achieve a national goal of remedying existing impairments to visibility and preventing future visibility impairment throughout the United States.

Visible Satellite Imagery

This type of satellite imagery uses reflected sunlight (this is actually reflected solar radiation) to see things in the atmosphere and on the Earth's surface. Clouds and fresh snow are excellent reflectors, so they appear white on the imagery. Clouds can be distinguished from snow, because clouds move and snow does not move. Meanwhile, the ground reflects less sunlight, so it appears black on the imagery. The satellite uses its 0.55 to 0.75 micrometer (um) channel to detect this reflected sunlight. Since this imagery relies on reflected imagery, it cannot be used during night.

Visual Spectrum

The portion of the electromagnetic spectrum to which the eye is sensitive, i.e., light with wavelengths between 0.4 and 0.7 micrometers. Compare shortwave radiation and longwave radiation.

VLCTY

Velocity

VLY

Valley

VMD

Volume median diameter. A statistical measure of the average droplet size in a spray cloud, such that fifty percent of the volume of sprayed material is composed of droplets smaller in diameter than the VMD.

Volcanic Ash

Fine particles of mineral matter from a volcanic eruption which can be dispersed long distances by winds aloft. The chemical composition and abrasiveness of the particles can seriously affect aircraft and also machinery on the ground. If it is blown into the stratosphere and it is thick enough, it can decrease the global temperature.

Volume Scan

A radar scanning strategy in which sweeps are made at successive antenna elevations (i.e., a tilt sequence), and then combined to obtain the three-dimensional structure of the echoes.

Volume Velocity Processing
A way to guess the large-scale 2-dimensional winds, divergence and fall speeds from one-dimensional radial velocity data. Essentially a multivariate regression which fits a simple wind model to the observed radial velocities. Very similar to VAD and EVAD, except it uses different functions for the fit.

Voluntary Observing Ship Program
(VOS) - An international voluntary marine observation program under the auspices of the World Meteorological Organization (WMO). Observations are coded in a special format known as the ships synoptic code, or "BBXX" format. They are then distributed for use by meteorologists in weather forecasting, by oceanographers, ship routing services, fishermen, and many others.

Vort Max
Common slang reference to **Vorticity Maximum**; a center, or maximum, in the vorticity field of a fluid.

Vortex
A whirling mass of air in the form of a column or spiral. It need not be oriented vertically but, for example, could be rotating around a horizontal axis.

Vorticity
A measure of the rotation of air in a horizontal plane. Positive (counter-clockwise or cyclonic) vorticity can be correlated with surface low development and upward vertical motion (in areas of positive vorticity advection).

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VOT
Vorticity

VR
Veer

VRT MOTN
Vertical motion

VSB
Visible Satellite Imagery

VSBY
Visibility

VTEC
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VVP
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VVSTORM
Model-based convection algorithm.

VWP
VAD Wind Profile - a radar plot of horizontal winds, derived from VAD data, as a function of height above a Doppler Radar. The display is plotted with height as the vertical axis and time as the horizontal axis (a so-called time-height display), which then depicts the change in wind with time at various heights. This display is useful for observing local changes in vertical wind shear, such as backing of low-level winds, increases in speed shear, and development or evolution of nearby jet streams (including low-level jets). This product often is referred to erroneously as a VAD.

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