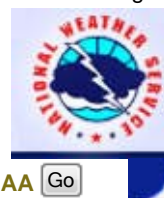




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Local forecast by "City, St"

City, St

XML 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...



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

Here are the results for the letter **h**

H-Alpha

In solar-terrestrial terms, this absorption line of neutral hydrogen falls in the red part of the visible spectrum and is convenient for solar observations. The H-alpha line is universally used for patrol observations of solar flares.

H-component of the Geomagnetic Field

(Geomagnetic Elements) In solar-terrestrial terms, the components of the geomagnetic field at the surface of the earth. In SESC use, the northward and eastward components are often called the H and D components, where the D component is expressed in gammas and is derived from D (the declination angle) using the small angle approximation.

H0

On a buoy report, Significant Wave Height is the average height (meters) of the highest one-third of the waves during a 20 minute sampling period.

H5

500 millibar level height (in a standard atmosphere this is near 5,500 meters (18,000 ft)

H7

height of the 700 millibar level. In a standard atmosphere this is near 3,000 meters (10,000 ft)

H8

height of the 850 millibar level.

Hague Line

The North Atlantic boundary between the U.S. and Canada fishing waters as determined by the World Court in The Hague, Netherlands.

Hail

Showery precipitation in the form of irregular pellets or balls of ice more than 5 mm in diameter, falling from a cumulonimbus cloud.

Hail Contamination

A limitation in NEXRAD rainfall estimates whereby abnormally high reflectivities associated with hail are converted to rainfall rates and rainfall accumulations. These high reflectivity values are mistaken by the radar for extremely heavy rain, thus "contaminating" (inflating) its estimation of how much rain has fallen over the affected area.

Hail Index

An indication of whether the thunderstorm structure of each storm identified is conducive to the production of hail.

Hail Size

Typically refers to the diameter of the hailstones. Warnings and reports may report hail size through comparisons with real-world objects that correspond to certain diameters:

Description	Diameter (inches)
Pea	0.25
Marble or Mothball	0.50
Penny or Dime	0.75
Nickel	0.88
Quarter	1.00
Half Dollar	1.25
Walnut or Ping Pong Ball	1.50
Golfball	1.75
Hen's Egg	2.00
Tennis Ball	2.50
Baseball	2.75

Tea Cup	3.00
Grapefruit	4.00
Softball	4.50

Hail Spike

An area of reflectivity extending away from the radar immediately behind a thunderstorm with extremely large hail. In an area of large hail, radiation from the radar can bounce from hailstone to hailstone before being reflected back to the radar. The time delay between the backscattered radiation from the storm and the bounced and scattered radiation from the large hail causes the reflectivity from the hail to appear to come from a farther range than the actual storm.

Haines Index

This is also called the Lower Atmosphere Stability Index. It is computed from the morning (12Z) soundings from RAOB stations across North America. The index is composed of a stability term and a moisture term. The stability term is derived from the temperature difference at two atmosphere levels. The moisture term is derived from the dew point depression at a single atmosphere level. This index has been shown to be correlated with large fire growth on initiating and existing fires where surface winds do not dominate fire behavior. The Haines Indices range from 2 to 6 for indicating potential for large fire growth

Halo

Any of a variety of bright circles or arcs centered on the sun or moon, caused by the refraction or reflection of light by ice crystals suspended in the earth's atmosphere and exhibiting prismatic coloration ranging from red inside to blue outside.

Hanging (ice) dam

In hydrologic terms, a mass of ice composed mainly of frazil or broken ice deposited underneath an ice cover in a region of low flow velocity.

Hazardous Seas Warning

A warning for wave heights and/or wave steepness values meeting or exceeding locally defined warning criteria.

Hazardous Seas Watch

A watch for an increased risk of a hazardous seas warning event to meet Hazardous Seas Warning criteria but its occurrence, location, and/or timing is still uncertain.

Hazardous Weather Outlook

A narrative statement produced by the National Weather Service, frequently issued on a routine basis, to provide information regarding the potential of significant weather expected during the next 1 to 5 days.

Hazards Assessment

CPC's Hazards Assessment provides emergency managers, planners, forecasters and the public advance notice of potential hazards related to climate, weather and hydrological events.

Haze

(abbrev. HZ)- An aggregation in the atmosphere of very fine, widely dispersed, solid or liquid particles, or both, giving the air an opalescent appearance that subdues colors.

HDD

Heating Degree Days- A form of degree day used to estimate energy requirements for heating. Typically, heating degree days are calculated as how much colder the mean temperature at a location is than 65°F on a given day. For example, if a location experiences a mean temperature of 55°F on a certain day, there were 10 HDD (Heating Degree Days) that day because $65 - 55 = 10$.

HDRAIN

An Hourly Digital Rainfall Product of the WSR-88D.

Head

In hydrologic terms, the difference between the pool height and tailwater height. Usually expressed in feet of head, or in lbs./sq. inch

Head Loss

In hydrologic terms, the decrease in total head caused by friction

Head Race

In hydrologic terms, a channel which directs water to a water wheel; a forebay.

Headward Erosion

In hydrologic terms, erosion which occurs in the upstream end of the valley of a stream, causing it to lengthen its course in such a direction.

Headwater Basin

In hydrologic terms, a basin at the headwaters of a river. All discharge of the river at this point is developed within the basin.

Headwaters

In hydrologic terms, streams at the source of a river.

Heat Advisory

Issued within 12 hours of the onset of the following conditions: heat index of at least

105°F but less than 115°F for less than 3 hours per day, or nighttime lows above 80°F for 2 consecutive days.

Heat Exhaustion

A mild form of heat stroke, characterized by faintness, dizziness, and heavy sweating.

Heat Index

The Heat Index (HI) or the "Apparent Temperature" is an accurate measure of how hot it really feels when the Relative Humidity (RH) is added to the actual air temperature.

Heat Lightning

Lightning that occurs at a distance such that thunder is no longer audible.

Heat Stroke

A condition resulting from excessive exposure to intense heat, characterized by high fever, collapse, and sometimes convulsions or coma.

Heat Wave

A period of abnormally and uncomfortably hot and unusually humid weather. Typically a heat wave lasts two or more days.

Heating Degree Days

(abbrev. HDD) A form of degree day used to estimate energy requirements for heating. Typically, heating degree days are calculated as how much colder the mean temperature at a location is than 65°F on a given day. For example, if a location experiences a mean temperature of 55°F on a certain day, there were 10 HDD (Heating Degree Days) that day because $65 - 55 = 10$.

Heavy Freezing Spray

An accumulation of freezing water droplets on a vessel at a rate of 2 cm per hour or greater caused by some appropriate combination of cold water, wind, cold air temperature, and vessel movement.

Heavy Freezing Spray Warning

A warning for an accumulation of freezing water droplets on a vessel at a rate of 2 cm per hour or greater caused by some appropriate combination of cold water, wind, cold air temperature, and vessel movement.

Heavy Freezing Spray Watch

A watch for an increased risk of a heavy freezing spray event to meet Heavy Freezing Spray Warning criteria but its occurrence, location, and/or timing is still uncertain.

Heavy Snow

This generally means...

- snowfall accumulating to 4" or more in depth in 12 hours or less; or
- snowfall accumulating to 6" or more in depth in 24 hours or less

In forecasts, snowfall amounts are expressed as a range of values, e.g., "8 to 12 inches." However, in heavy snow situations where there is considerable uncertainty concerning the range of values, more appropriate phrases are used, such as "...up to 12 inches..." or alternatively "...8 inches or more..."

Heavy Snow Warning

Issued by the National Weather Service when snowfall of 6 inches (15 cm) or more in 12 hours or 8 inches (20 cm) or more in 24 hours is imminent or occurring. These criteria are specific for the Midwest and may vary regionally.

Heavy Surf Advisory

An advisory issued by the National Weather Service for fast moving deep water waves which can result in big breaking waves in shallow water (the surf zone).

Hectopascal

A unit of pressure equal to a millibar (1 hPa = 1 mb). Abbreviated hPa.

Height

In meteorology, usually a reference to **Geopotential Height**; roughly the height above sea level of a pressure level. For example, if a station reports that the 500 mb height at its location is 5600 m, it means that the level of the atmosphere over that station at which the atmospheric pressure is 500 mb is 5600 meters above sea level. This is an estimated height based on temperature and pressure data.

Helicity

A property of a moving fluid which represents the potential for helical flow (i.e. flow which follows the pattern of a corkscrew) to evolve. Helicity is proportional to the strength of the flow, the amount of vertical wind shear, and the amount of turning in the flow (i.e. vorticity). Atmospheric helicity is computed from the vertical wind profile in the lower part of the atmosphere (usually from the surface up to 3 km), and is measured relative to storm motion. Higher values of helicity (generally, around $150 \text{ m}^2/\text{s}^2$ or more) favor the development of mid-level rotation (i.e. mesocyclones). Extreme values can exceed $600 \text{ m}^2/\text{s}^2$.

Hertz

(abbrev. Hz)- An international unit of frequency equal to one cycle per second, and named after a German physicist.

HI

High- In meteorology, a region of high pressure; also known as anticyclone.

- HIC**
Hydrologist In Charge
- High**
(abbrev. HI)- In meteorology, a region of high pressure; also known as anticyclone.
- High Clouds**
These clouds have bases between 16,500 and 45,000 feet in the mid latitudes. At this level they are composed of primarily of ice crystals. Some clouds at this level are cirrus, cirrocumulus, and cirrostratus
- High Energy Event**
In solar-terrestrial terms, flares (class two or more) with outstanding Centimetric Bursts and SID. High Energy Protons are reported at the Earth in case of most of these events occurring on the western part of solar disk. (Class X flares)
- High Frequency (HF)**
The portion of the radio frequency spectrum between between 3 and 30 MHz
- High Latitudes**
With specific reference to zones of geomagnetic activity, "high latitudes" refers to 50° to 80° geomagnetic.
- High Risk (of severe thunderstorms)**
Severe weather is expected to affect more than 10 percent of the area. A high risk is rare, and implies an unusually dangerous situation and usually the possibility of a major severe weather outbreak.
- High Seas Forecast**
(HSF) - Marine forecasts for the major oceans of the world. In this context, major gulfs or seas (e.g., the Gulf of Mexico or the Bering Sea) are included within these forecast areas. Areas of responsibility for the U.S. are determined by international agreements under the auspices of the World Meteorological Organization (WMO).
- High Surf**
Large waves breaking on or near the shore resulting from swells spawned by a distant storm.
- High Surf Advisory**
A High Surf Advisory is issued when breaking wave action poses a threat to life and property within the surf zone. High surf criteria vary by region. High Surf Advisories are issued using the Coastal and Lakeshore Hazard Message (CFW) product.
- High Surf Warning**
A High Surf Warning is issued when breaking wave action results in an especially heightened threat to life and property within the surf zone. High surf criteria vary by region. High Surf Warnings are issued using the Coastal and Lakeshore Hazard Message (CFW) product.
- High Wind**
Sustained wind speeds of 40 mph or greater lasting for 1 hour or longer, or winds of 58 mph or greater for any duration.
- High Wind Advisory**
This product is issued by the National Weather Service when high wind speeds may pose a hazard. The criteria for this advisory varies from state to state. In Michigan, the criteria is sustained non-convective (not related to thunderstorms) winds greater than or equal to 30 mph lasting for one hour or longer, or winds greater than or equal to 45 mph for any duration.
- High Wind Warning**
This product is issued by the National Weather Service when high wind speeds may pose a hazard or is life threatening. The criteria for this warning varies from state to state. In Michigan, the criteria is sustained non-convective (not related to thunderstorms) winds greater than or equal to 40 mph lasting for one hour or longer, or winds greater than or equal to 58 mph for any duration.
- High Wind Watch**
This product is issued by the National Weather Service when there is the potential of high wind speeds developing that may pose a hazard or is life threatening. The criteria for this watch varies from state to state. In Michigan, the criteria is the potential for sustained non-convective (not related to thunderstorms) winds greater than or equal to 40 mph and/or gusts greater than or equal to 58 mph.
- High-Speed Stream**
In solar-terrestrial terms, a feature of the solar wind having velocities that are about double average solar wind values.
- Hinge Crack**
In hydrologic terms, a crack caused by significant changes in water level.
- HLS**
Hurricane Local Statement
- HMD**
(Hemispheric Map Discussion)- This discussion is issued once a day around 1 PM EST (2 PM EDT) and is primarily intended to provide insight into the hemispheric circulation patterns over the next 5 days. This includes a discussion of the 5-day mean circulation

pattern. Comparisons, differences, and continuity among the numerical models are highlighted, and preferred solutions are proposed with an explanation of why a solution is preferred. This includes any reasons why the preferred solution differs from any model. In cases where certain models are not universally available, an attempt will be made to describe that model's solution to an extent that a reader can understand its important aspects.

HND

Hundred

Hoar Frost

A deposit of interlocking crystals formed by direct sublimation on objects, usually those of small diameter freely exposed to the air, such as tree branches, plants, wires, poles, etc. The deposition of hoar frost is similar to the process by which dew is formed, except that the temperature of the frosted object must be below freezing. It forms when air with a dew point below freezing is brought to saturation by cooling.

Hodograph

A polar coordinate graph which shows the vertical wind profile of the lowest 7000 meters of the atmosphere. These plots are used to determine the advection patterns aloft, whether a thunderstorm will rotate, and the type of thunderstorms that you will likely see that day.

Homologous Flares

In solar-terrestrial terms, solar flares that occur repetitively in the same active region, with essentially the same position and with a common pattern of development

Hook Echo

A radar reflectivity pattern characterized by a hook-shaped extension of a thunderstorm echo, usually in the right-rear part of the storm (relative to its direction of motion). A hook often is associated with a mesocyclone, and indicates favorable conditions for tornado development.

Horizon

The distant line along with the earth and sky appear to meet. Obstructions are not considered as part of the horizon.

Hourly Precipitation Data (HPD)

It contains data on nearly 3,000 hourly precipitation stations (National Weather Service, Federal Aviation Administration, and cooperative observer stations) in inches to tenths or inches to hundredths at local standard time. HPD includes maximum precipitation for nine (9) time periods from 15 minutes to 24 hours, for selected stations.

HP Storm

or HP Supercell - High-Precipitation storm (or High-Precipitation supercell). A supercell thunderstorm in which heavy precipitation (often including hail) falls on the trailing side of the mesocyclone.

Precipitation often totally envelops the region of rotation, making visual identification of any embedded tornadoes difficult and very dangerous. Unlike most classic supercells, the region of rotation in many HP storms develops in the front-flank region of the storm (i.e., usually in the eastern portion). HP storms often produce extreme and prolonged downburst events, serious flash flooding, and very large damaging hail events.

hPa

Hectopascal- A unit of pressure equal to a millibar (1 hPa = 1 mb).

HPC

Hydrometeorological Prediction Center

HR

Hour

HRS

hours

HSA (Hydrologic Service Area)

A geographical area assigned to Weather Service Forecast Office's/Weather Forecast Office's that embraces one or more rivers.

Humidity

Generally, a measure of the water vapor content of the air. Popularly, it is used synonymously with relative humidity.

Humidity Recovery

The change in relative humidity over a given period of time; generally between late evening and sunrise. The moisture change in the fine fuels during this period is directly related to the amount of humidity recovery.

Hummock

In hydrologic terms, a hillock of broken ice which has been forced upward by pressure

Hummocked Ice

In hydrologic terms, ice piled haphazardly one piece over another to form an uneven surface.

Hurricane

(abbrev. HURCN) A tropical cyclone in the Atlantic, Caribbean Sea, Gulf of Mexico, or

eastern Pacific, which the maximum 1-minute sustained surface wind is 64 knots (74 mph) or greater.

Hurricane Force Wind Warning

A warning for sustained winds, or frequent gusts, of 64 knots (74 mph) or greater, either predicted or occurring, and not directly associated with a tropical cyclone.

Hurricane Force Wind Watch

A watch for an increased risk of a hurricane force wind event for sustained surface winds, or frequent gusts, of 64 knots (74 mph) or greater, but its occurrence, location, and/or timing is still uncertain.

Hurricane Local Statement

A public release prepared by local National Weather Service offices in or near a threatened area giving specific details for its county/parish warning area on

- (1) weather conditions
- (2) evacuation decisions made by local officials
- (3) other precautions necessary to protect life and property.

Hurricane Season

The part of the year having a relatively high incidence of tropical cyclones. In the Atlantic, Caribbean, and Gulf of Mexico, and central North Pacific, the hurricane season is the period from June through November; in the eastern Pacific, May 15 through November 30. Tropical cyclones can occur year-round in any basin.

Hurricane Warning

A warning that sustained winds 64 kt (74 mph or 119 kph) or higher associated with a hurricane are expected in a specified coastal area in 24 hours or less. A hurricane warning can remain in effect when dangerously high water or a combination of dangerously high water and exceptionally high waves continue, even though winds may be less than hurricane force.

Hurricane Watch

An announcement of specific coastal areas that a hurricane or an incipient hurricane condition poses a possible threat, generally within 36 hours

HV

have

HVY

Heavy

HWVR

However

Hyder Flare

In solar-terrestrial terms, a filament-associated two-ribbon flare, often occurring in spotless regions. The flare presumably results from the impact on the chromosphere of infalling filament material.

Hydraulic Fill Dam

In hydrologic terms, a dam constructed of materials, often dredged, that are conveyed and placed by suspension in flowing water

Hydraulic Flow

Atmospheric flow that is similar in character to the flow of water over an obstacle.

Hydraulic Grade Line

In hydrologic terms, a line whose plotted ordinate position represents the sum of pressure head plus elevation head for the various positions along a given fluid flow path, such as along a pipeline or a ground water streamline.

Hydraulic Head

In hydrologic terms,

- (1) The height of the free surface of a body of water above a given point beneath the surface.
- (2) The height of the water level at the headworks, or an upstream point, of a waterway, and the water surface at a given point downstream.
- (3) The height of a hydraulic grade line above the center line of a pressure pipe, at a given point.

Hydraulic Jump

A steady disturbance in the lee of a mountain, where the airflow passing over the mountain suddenly changes from a region of low depth and high velocity to a region of high depth and low velocity.

Hydraulic Permeability

In hydrologic terms, the flow of water through a unit cross-sectional area of soil normal to the direction of flow when the hydraulic gradient is unity.

Hydrograph

In hydrologic terms, a graph showing the water level (stage), discharge, or other property of a river volume with respect to time.

Hydrograph Separation

In hydrologic terms, the process where the storm hydrograph is separated into baseflow components and surface runoff components.

Hydrographic Survey

In hydrologic terms, an instrumental survey to measure and determine characteristics of streams and other bodies of water within an area, including such things as location, areal extent, and depth of water in lakes or the ocean; the width, depth, and course of streams; position and elevation of high water marks; location and depth of wells, etc.

Hydrologic Budget

In hydrologic terms, an accounting of the inflow to, outflow from, and storage in, a hydrologic unit, such as a drainage basin, aquifer, soil zone, lake, reservoir, or irrigation project.

Hydrologic Cycle

The description of the transport of water substance between the earth, the atmosphere, and the seas.

or

In hydrologic terms, the natural pathway water follows as it changes between liquid, solid, and gaseous states.

Hydrologic Equation

In hydrologic terms, the water inventory equation (Inflow = Outflow + Change in Storage) which expresses the basic principle that during a given time interval the total inflow to an area must equal the total outflow plus the net change in storage.

Hydrologic Model

In hydrologic terms, a conceptual or physically-based procedure for numerically simulating a process or processes which occur in a watershed.

Hydrologic Service Area

HSA. A geographical area assigned to Weather Service Forecast Office's/Weather Forecast Office's that embraces one or more rivers.

Hydrology

The scientific study of the waters of the earth, especially with relation to the effects of precipitation and evaporation upon the occurrence and character of water on or below the land surface.

Hydrometeor

A particle of condensed water (liquid, snow, ice, graupel, hail) in the atmosphere.

Hydrometeorologists

In hydrologic terms, individuals who have the combined knowledge in the fields of both meteorology and hydrology which enables them to study and solve hydrologic problems where meteorology is a factor.

Hydrometeorology

An interdisciplinary science involving the study and analysis of the interrelationships between the atmospheric and land phases of water as it moves through the hydrologic cycle.

Hydrostatic Head

In hydrologic terms, a measure of pressure at a given point in a liquid in terms of the vertical height of a column of the same liquid which would produce the same pressure

Hydrometeorology

An interdisciplinary science involving the study and analysis of the interrelationships between the atmospheric and land phases of water as it moves through the hydrologic cycle.

Hyetograph

A graphical representation of rainfall intensity with respect to time.

Hygrometer

An instrument which measures the humidity of the air.

Hygroscopic

Absorbing or attracting moisture from the air.

Hypothermia

A rapid, progressive mental and physical collapse that accompanies the lowering of body temperature.

HZ

1) Haze- An aggregation in the atmosphere of very fine, widely dispersed, solid or liquid particles, or both, giving the air an opalescent appearance that subdues colors.

(or)

2) Hertz- An international unit of frequency equal to one cycle per second, and named after a German physicist.

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