

Meteorological Glossary

<http://glossary-of-terms.ru/?do=g&v=19>

Английский

<p>air density 1. The mass density of a parcel of air expressed in units of mass per volume. 2. Плотность воздуха</p>	<p>плотность воздуха ad 1. The two-character iso 3166 country code for andorra. 2. Air-dried 3. Access door 4. Active duty 5. Actuator drive 6. Adapter 7. Administrative department 8. Advanced development 9. Aerodynamic damping 10. Aerodynamic decelerator 11. Aircraft direction 12. Air defense 13. Air density 14. Air distance 15. Air division 16. Airframe design (division) 17. Airworthiness directive 18. Altitude differential 19. Apollo development 20. Area defense 21. Attitude director 22. Automatic detection 23. Average deviation 24. Administrative division (usgs); aeronautical data</p>
<p>allard's law A basic equation in night visual range theory, relating the illuminance of a point source of light to distance and the transmissivity of the atmosphere.</p>	
<p>alter shield A type of wind shield used around the mouth of a precipitation gage to reduce the effect of wind on catch.</p>	
<p>analog 1. Pertaining to measurements or devices in which the output varies continuously (e.g., voltage or rotation signals); compare to digital. 2. Аналоговый 3. Аналог; аналоговый 4. Information represented by a continuous electromagnetic wave encoded so that its power varies continuously with the power of a signal received from a sound or light source. 5. A signal that varies continuously (e.g., sound wavers). analog signals have frequency and bandwidth measured in hertz.</p>	<p>аналоговый 1. Изменяющийся непрерывно в некоторых пределах подобно плавному регулятору напряжения. 2. ~ communicationаналоговая связь anl 1. Aircraft nose left 2. Analog 3. Anneal 4. Automatic noise limiter</p>
<p>anemometer 1. A general term for instruments designed to measure the speed or force of the wind. 2. Instrument for measuring velocity of airflow. 3. An instrument for measuring the velocity of airflow.</p>	<p>анемометр 1. Прибор для измерения скорости ветра или скорости и направления ветра. 2. (от анемо ... и ...метр), прибор для измерения скорости ветра и газовых потоков (иногда и направления ветра - анеморумбометр) по числу оборотов вращающейся вертушки.</p>
<p>asos Automated surface observing system. a network of instrumented weather stations deployed primarily by the u.s. national weather service to make weather observations without observer</p>	<p>automatic surface observation system</p>

involvement.	
awos 1. Automated weather observing system. a federal aviation administration specification describing an automatic weather station capable of making aviation weather observations without operator involvement. 2. Antisubmarine warfare operators school	automated weather observation system antisubmarine warfare operators school Школа подготовки операторов плo
barometric pressure The atmospheric pressure at a given point due to the gravitational force on the column of air above it.	bp 1. Blood pressure 2. Barometric pressure 3. Back pressure 4. By-pass 5. Boundary marker (usdma) 6. Blood pressure. барометрическое барометрическое давление Barometric pressure барометрическая высота Показания барометрического высотомера, не имеющего инструментальных и аэродинамических погрешностей и отградуированного в соответствии со стандартной атмосферой. atmospheric pressure. baroque a european style of architecture and decoration which developed in the 17th cent. in italy from late renaissance and mannerist forms, and culminated in the churches, monasteries,
bimetallic thermometer A thermometer, the sensitive element of which consists of two metal strips which have different coefficients of expansion and are brazed together. the distortions of the system in response to temperature variations are used as a measure of temperature.	
ceilometer Instrument used to measure cloud base height.	
celsius 1. A temperature scale having the freezing point of pure water at 0° and the boiling point at 100° under standard sea level pressure. 2. Цельсий; по шкале цельсия 3. A metric scale of temperature on which 0° is the point at which water freezes and 100° is the point at which water boils under average atmospheric conditions. also called centigrade. ┐ fahrenheit (note: it is usually written as a c after the degree sign: 52°c (say: 'fifty-two degrees celsius').) [described 1742. after anders celsius (1701–44), swedish astronomer and scientist.] comment: to convert celsius temperatures to fahrenheit, multiply by 1.8 and add 32. so 20°c is equal to 68°f. celsius is used in many countries, though not in the us, where the fahrenheit system is still preferred.	cel 1. Cryogenic engineering laboratory 2. Celestial 3. Celsius 4. Combat evaluation launch 5. Crew evaluation launcher 6. Cryogenics engineering laboratory
centigrade temperature scale The older name for the celsius temperature scale. the use of this name was officially abandoned by international agreement in 1948.	
cloud height The height of the cloud base above the local terrain.	
compass points The cardinal points of the compass: n, nne, ne, etc.	

<p>conformal coating A protective coating applied to circuits usually by spray deposition.</p>	
<p>crosswind A wind blowing perpendicular to the course of a moving object. often used when referring to winds affecting ballistics.</p>	<p>боковой ветер вертолет-кран</p>
<p>cup anemometer Anemometer which measures wind speed by the speed of rotation of 3 or 4 hemispherical or conical cups, each fixed to the end of a horizontal arm projecting from a vertical axis.</p>	
<p>damping ratio 1. A parameter used to describe the response of a wind vane to a sudden change in wind direction. it is defined as the ratio of the actual damping to the critical damping, where critical damping is that value of damping which gives the fastest transient resp 2. Декремент затухания</p>	<p>dr</p> <ol style="list-style-type: none"> 1. Delivery room 2. Dynamic range 3. Distribution robustness 4. Diversity reception 1. прием 5. Damping ratio 6. Data recorder 7. Demolition rocket 8. Design review 9. Detection radar 10. Differential relay 11. Directional recrystallization 12. Discrepancy report 13. Discrimination radar 14. Door 15. Doppler radar 16. Double-riveted 17. Dowty rotol 18. Draft release 19. Drain 20. Drill 21. Drive 22. Drum 23. Data record(s); direct reflex (trimble) 24. Dynamic range. expresses the luminance range of a scene, a captured image or the maximum range of luminance that a camera can successfully capture at one setting. it is often used imprecisely, but can sometimes be quantified as a ratio. the term contrast ratio may be preferred for the luminance range in a scene. 25. Double resonance <p>коэффициент демпфирования</p>
<p>dead band 1. The range through which the input may be varied without initiating a response; usually expressed as a percentage of full-scale range. 2. Зона нечувствительности</p>	<p>db</p> <ol style="list-style-type: none"> 1. Десятая часть бела. единица измерения, выражающая логарифмическое отношение двух величин (мощностей, токов и т.д.). названа в честь американского изобретателя телефона белла. 2. Decibel -децибел 3. Stands for decibels. a unit measuring the intensity of noise. 4. Basically, a measure of the power ratio of two signals. in system use, a measure of the voltage ratio of two signals, provided they are measured across a common impedance. 5. Decibel. a logarithmic ratio of two signals or values, usually refers to power, but also voltage 6. Day bomber 7. Dead band 8. Decibel 9. Depth bomb 10. Development batch 11. Director bomber 12. Distribution box 13. Dive bomber 14. Double-base 15. Double braid 16. Dry bulb 17. Data base; dissemination block (canada)

	<p>18. Decibel. a logarithmic ratio of two signals or values, usually refers to power, but also voltage and current. when power is calculated the logarithm is multiplied by 10, while for current and voltage by 20.</p> <p>19. A decibel, a logarithmic unit describing the ratio of two powers. used to measure loss (or attenuation) of quality, reflectance, and amplification of optical signals. the ratio of two power levels, p1 and p2, expressed by $-10 \log_{10}(p1/p2)$</p> <p>мертвая зона</p>
<p>delay distance The passage of air necessary over a wind vane to cause the vane to respond to 50% of a step function change in wind direction.</p>	
<p>delta temperature The difference between temperature measurements taken at two significant levels above the ground. temperatures at 10 and 40 meters are commonly used.</p>	
<p>dewpoint temperature The temperature to which a given parcel of air must be cooled at constant pressure and constant water vapor content in order for saturation to occur. any further cooling usually results in the formation of dew or frost.</p>	
<p>distance constant The passage of air necessary over a wind speed sensor to cause the sensor to respond to 63% of a step function change in wind speed.</p>	
<p>drybulb temperature The actual temperature of the air, used for comparison with wet bulb temperature.</p>	
<p>firmware</p> <ol style="list-style-type: none"> 1. Programs or instructions which are stored in read-only memory. 2. An often-used micro program or instruction set stored in rom. usually refers to the rom-based software that controls a unit. is found in all computer based products from cameras to digital peripherals. 3. Software programs or data that have been written to read-only memory (rom). firmware is a combination of software and hardware. in digital cameras, the firmware is the program that allows the user to activate and control the features of the camera. 4. A micro program often used and stored in rom. normally the rom based software is in all computer based products from pc's to digital cameras. you will often see firmware updates for electronic goods that deal with problem issues. 	
<p>freezing point</p> <ol style="list-style-type: none"> 1. Temperature of solidification of a liquid under given conditions. 2. Точка замерзания 	<p>fp</p> <ol style="list-style-type: none"> 1. Focal plane 2. Faceplate 3. Fail-passive 4. Feedback positive 5. Feedback potentiometer 6. Feed pump 7. Fireproof 8. Fixed price 9. Flameproof 10. Flashless propellant 11. Flash point 12. Flat point 13. Flight path 14. Flight pay 15. Flight plan 16. Flight position

	<p>17. Foot-pound 18. Free propeller 19. Freezing point 20. Friction horsepower 21. Fuel pressure 22. Focal plane. a shutter that opens and closes near to the film or image sensor, usually as a fast-moving slit, as contrasted with a bladed/leaf shutter located near a nodal point of a lens. 23. Free pratique. clearance by the health authorities 24. Abbreviation for fabry-perot. generally refers to any device, such as a type of laser diode, that uses mirrors in an internal cavity to produce multiple reflections.</p> <p>точка замерзания</p>
<p>headwind A wind blowing in a direction opposite to the course of a moving object. often used when referring to winds affecting ballistics.</p>	<p>встречный ветер указатель курса</p>
<p>hot film anemometer Anemometer which measures wind speed by measuring the degree of cooling of a metal film heated by an electric current.</p>	
<p>hygrothermograph Instrument resulting from the combination of a thermograph and a hygrograph and furnishing, on the same chart, simultaneous time recording of ambient temperature and humidity.</p>	<p>termohigrógrafo .</p>
<p>hysteresis 1. The difference noted in a sensor's output as a response to first an increasing, and then a decreasing, input signal of the same value. if y_i is the value of the output with an increasing input of value x, and y_d is the value of the output with decreasing 2. As applied to timber's moisture content, the tendency of dried wood to reach equilibrium with any specified temperature and relative humidity at a lower moisture content when absorbing moisture from a drier state than when losing moisture from a wetter st 3. Гистерезис</p>	<p>гистерезис (от греч . hysteresis - отставание), запаздывание изменения физической величины, характеризующей состояние вещества (намагниченности м ферромагнетика, поляризации р сегнетоэлектрика и т. п.), от изменения другой физической величины, определяющей внешние условия (напряженности магнитного h и электрического e полей). гистерезис наблюдается в тех случаях, когда состояние тела определяется внешними условиями не только в данный момент времени, но и в предшествующие моменты. наиболее важны: магнитный гистерезис, сегнетоэлектрический гистерезис и упругий гистерезис. неоднозначная зависимость m от h, p от e и др. при циклическом изменении h, e и др. изображается петлей гистерезиса.</p> <p>histéresis</p>
<p>iso-elastic spring A spring which is designed to achieve a fixed spring constant over a wide temperature range. usually, this involves the use of an alloy with high nickel content such as ni-span c. it is common for these springs to be stress relieved at elevated temperatur</p>	
<p>kelvin temperature scale An absolute temperature scale based upon the triple point of pure water defined as 273.16° k. the size of the degree is the same as on the celsius scale, and the zero point is absolute zero.</p>	
<p>koschmieder's law A basic equation in daytime visual range theory, relating the apparent luminance of a distant black object, the apparent luminance of the background-sky above the horizon, and the extinction coefficient of the atmosphere.</p>	
<p>langley 1. A unit of energy per unit area, equal to 1 gramcalorie/cm² and commonly employed in</p>	

radiation measurement. 2. The unit of solar energy relating to the amount which reaches a specific area of the earth's surface. in general, more "langleys" reach the surface of the earth at the equator than at the poles.	
lidar 1. Light detecting and ranging. a technique used to detect atmospheric constituents or related parameters such as atmospheric extinction coefficient. light is produced in a modulated source and the resulting backscattered or reflected light is analyzed to qu 2. Laser intensity direction and ranging	light direction and ranging лидар, устройство определения направления и расстояния при помощи луча света laser intensity direction and ranging Лазерный локатор «лидар»
linearity 1. The maximum departure of an instrument's actual response curve from the "best fit" straight line response. it applies only to instruments with more or less linear response, and is usually stated as a percentage of full scale range. 2. Линейность 3. The basic measurement of how well analog-to-digital and digital-to-analog conversions are performed. to test for linearity, a mathematically perfect diagonal line is converted and then compared to a copy of itself. the difference between the two lines is calculated to show linearity of the system and is given as a percentage or range of least significant bits.	линейность, коэффициент нелинейных искажений линейность lin 1. Linear 2. Linearity 3. Liquid nitrogen
liquid thermometer Thermometer in which the difference in the rates of expansion with temperature of a liquid and its receptacle is used as a measure of the temperature. the liquid used may be ethyl alcohol, toluene, petroleum, or mercury.	
local visual distance The meteorological visual range, which can be estimated from the average extinction coefficient using the koschmieder equation	
low level wind shear A local variation in the wind direction or speed. this condition can present danger to aircraft, especially at landing, when a sudden shift from headwind to tailwind can cause a rapid loss of airspeed and lift.	
maximum thermometer Thermometer used for measuring the highest temperature attained during a given interval of time; for example, a day.	
microbarograph An aneroid barograph designed to record atmospheric pressure changes of very small magnitude.	
minimum thermometer Thermometer used for measuring the lowest temperature attained during a given interval of time; for example, a day.	
mixing ratio In a system of moist air, the dimensionless ratio of the mass of water vapor to the mass of dry air.	
nephelometer An instrument used to measure the scattering coefficient of an air sample caused by suspended particles. the measurement can be used to determine the visual range through the medium.	нефелометр (от греч . nephele - облако и ...метр), оптический прибор для измерения степени мутности жидкостей и газов по интенсивности рассеяния ими света. действие нефелометра основано на сопоставлении интенсивности света, рассеянного средой, с интенсивностью рассеяния

	эталона (мутное стекло и др.). нефелометры бывают визуальные и фотоэлектрические. используются при исследовании дисперсных систем.
newtonian telescope A reflecting type telescope with a 45° mirror, so that the primary image is observed through a hole in the side of the tube.	
nws 1. The national weather service, administered by the u.s. department of commerce, and responsible for the collection of weather data, the routine production of weather forecasts, and the issuance of weather warnings within the u.s. 2. National weather service 3. National weather station 4. Naval weapons station 5. Nose-wheel steering 6. National weather service (noaa)	national weather service Национальная метеорологическая служба national weather station Национальный метеорологический центр naval weapons station Станция по испытанию вооружения вмс nose-wheel steering Управление носовым колесом national weather service (noaa)
operational weather limits The limiting values of ceiling, visibility and wind, or runway visual range, established as safety minima for aircraft landings and take-offs.	
osha 1. The occupational safety and health administration, a regulatory office of the u.s. department of labor. 2. Occupational safety and health administration	occupational safety and health administration управление по технике безопасности и гигиене труда (сша)
parallel output An output which has a separate communication path (or wire) for each bit of a digital character this form of transmission makes each bit available simultaneously, and thus results in very fast communications.	
photometer 1. Instrument that measures luminous intensity, luminous flux, light distribution or color. 2. An instrument which measures luminous intensity. 3. Any instrument that measures photometric quantities such as luminance, luminous intensity, luminous flux, and illumination.	фотометр (от фото ... и ...метр), прибор для измерения фотометрических (в т. ч. световых) величин: освещенности, силы света, светового потока, яркости, коэффициент пропускания и коэффициент отражения, а также величин, характеризующих ультрафиолетовые и инфракрасные излучения.
potentiometer 1. A variable resistor having three terminals and a movable wiper. precision potentiometers can be used to create a variable resistance proportional to angular or linear displacement. 2. Потенциометр	датчик потенциометрический то же: потенциометр. послегарантийное обслуживание потенциометр то же: датчик потенциометрический. потенциометр (от лат . potentia - сила и ...метр), 1) прибор для определения электродвижущей силы или напряжений компенсационным методом измерения. используя потенциометр в совокупности с мерами сопротивления или измерительными преобразователями, можно измерять электрический ток и мощность, температуру, давление и др. различают потенциометр постоянного и переменного тока. 2) переменный резистор, включенный по схеме делителя напряжения.
pressure tendency (barometric tendency) the change in barometric pressure within a specified period of time (typically 3 hours for meteorological observations).	
pyranometer Instrument which measures diffuse and direct solar radiation.	пиранометр (от греч . пур - огонь, апо - наверху и ...метр), прибор (обычно термоэлектрический) для измерения интенсивности солнечной радиации, суммарной или

	рассеянной.
<p>rain gage Instrument for measuring the depth of water from precipitation that is assumed to be distributed over a horizontal, impervious surface and not subject to evaporation.</p>	
<p>rawinsonde A method of upper air observation consisting of an evaluation of the wind speed and direction, temperature, pressure, and humidity aloft by means of a balloon-borne radiosonde tracked by radar or a radio theodolite.</p>	
<p>response time 1. The time required for an instrument to register a designated percentage (frequently 90%) of a step change in the variable being measured. 2. Быстродействие; время срабатывания; время ожидания</p>	время отклика
<p>rs 232 A specification of the electronic industries association defining a standard serial data interface. a standard interface between a computer input/output port and a peripheral device.</p>	
<p>rs 422 A protocol similar to rs 232 which makes use of differential transmission to provide high speed data transmission over significantly longer distances.</p>	
<p>rs 485 A protocol similar to rs 232 which permits data interchange on multi-drop networks of up to 32 nodes using a single twisted pair cable. in order for this protocol to be used, each device on a network must have some level of intelligence in order to establ</p>	
<p>scattering coefficient A measure of the attenuation due to scattering of light as it traverses a medium containing scattering particles.</p>	
<p>serial output A digital data output in which the characters are sent one bit at a time over a single communication path.</p>	
<p>slip psychrometer 1. Psychrometer to which a small chain or rotary handle is attached so that the observer can rotate the instrument rapidly to properly ventilate the thermometer bulbs. 2. A psychrometer to which a handle is attached; the apparatus is whirled in the air until the reading of the wetbulb thermometer reaches a constant value. slip 1. a strip of wood or other material, esp. one inserted in a dovetailed groove. 2. a parting slip. 3. a ground, 1. 4. a long seat or narrow pew in a church. 5. a narrow passage between two buildings. 6. a thin layer of plaster or grout. 7. the movement which occurs between concrete and steel reinforcement in stressed reinforced concrete; an indication of anchorage breakdown. slip-critical joint a bolt joint requiring a connection having slip resistance.</p>	psicrómetro giratorio .
<p>snow bridging An effect noticed primarily in wet snow conditions when snow clings to the sides of a</p>	

<p>precipitation gage and gradually accumulates until the gage orifice is capped with accumulated snow. this effect can be minimized by using large collectors, and wind scr</p>	
<p>solid state 1. A device which is able to control current without the use of moving parts or vacuum tubes. 2. In metamorphism, indicates the change of mineral identity without melting. all ion migration occurs while the rock (or pre-glacial ice) is still solid. 3. A class of electronic components utilizing the electronic or magnetic properties of semiconductors.</p>	
<p>splayed tail A type of wind vane having a split or v-shaped tail. the apex orients itself into the direction of the wind.</p>	
<p>switching power supply A power supply which achieves its output regulation by means of one or more active power handling devices which are alternately placed in the "off" or "on" states. it is more efficient than linear supplies which vary the conduction of</p>	
<p>synchro A motor like device containing a rotor and a stator and capable of converting an angular position into an electrical signal, or an electrical signal into an angular position. when several synchros are correctly connected, all of the rotors will align them</p>	
<p>temperature coefficient A factor relating the response characteristics of a device with changes in the ambient temperature.</p>	
<p>thermograph 1. Thermometer used to give a graphic record of the time variations of temperature. 2. A device that shows patterns of heat radiated from a body, used in diagnosis</p>	<p>термограф</p>
<p>thermostat 1. A device used to switch electrical current at a selectable set-point temperature. 2. A device which relegates the temperature of a room or building by switching heating or cooling equipment on or off. 3. A temperature control device, typically found on a wall inside that consists of a series of sensors and relays that monitor and control the functions of a heating and cooling system. 4. A temperature control device, typically found on an inside wall, that consists of a series of sensors and relays for monitoring and controlling a heating and c 5. In a gas or electric water heater, the thermostat constantly monitors water temperature in the bottom of the tank. when water temperature drops beneath the desired setting, the thermostat signals gas flow or electric heating element operation to begin, st 6. Safety device that generates a small electrical current used to energize a safety magnet inside the gas valve. 7. A temperature-measuring device used to control the operation of home comfort systems to maintain a comfortable temperature within the</p>	<p>thermo 1. Thermodynamics 2. Thermostat термостат термореле,</p>

<p>house. programmable thermostats allow you to program different temperatures for different times of the day.</p> <p>8. A device which automatically maintains a predetermined temperature in an electric water heater. most thermostats are equipped with a safety shut-off.</p> <p>9. Термостат</p> <p>10. An instrument which responds to changes in temperature, and directly or indirectly controls temperature.</p>	
<p>time constant The time required for an instrument to register 63.2% of an instantaneous change in the measured parameter.</p>	<p>постоянная времени , величина, характеризующая инерционность динамической системы; имеет размерность времени. напр., постоянная времени электрической цепи характеризует скорость изменения тока или напряжения в ней при переходном процессе.</p>
<p>totalizing anemometer Anemometer in which the sensor rotation is transmitted to a mechanical counter which directly integrates the air movement past the instrument.</p>	
<p>townsend support A common support used to fixture maximum and minimum thermometers. it is designed to hold the thermometers at the proper angles for measuring, and it also simplifies resetting of the thermometer markers.</p>	
<p>transmissivity 1. A measure of luminous flux remaining in a light beam after it has passed through a specified distance of the atmosphere. 2. The capacity of a material to transmit radiant energy.</p>	
<p>transmissometer An instrument which measures the transmissivity of the atmosphere between two points for the determination of visual range.</p>	<p>трансмиссометр</p>
<p>virtual temperature Temperature to which absolutely dry air would have to be brought in order for it to have the density as moist air considered at the same pressure.</p>	
<p>visibility sensor General term for an instrument used to make direct measurements of visual range or measurements of the physical characteristics of the atmosphere which determine the visual range.</p>	
<p>visual range The maximum distance, usually horizontally, at which a given object or light source is just visible under particular conditions of transmittance and background luminance.</p>	<p>alcance visual</p>
<p>wet bulb temperature The temperature of the wet bulb thermometer at equilibrium with a constant flow of ambient air at a rate of 2.5 to 10.0 meters per second.</p>	
<p>wet bulb thermometer A thermometer with a muslin-covered bulb which is moistened; used to measure wet-bulb temperature.</p>	
<p>wind gust The peak momentary wind velocity within a given interval of time.</p>	

<p>wind passage The distance or length of flow of the air past a point during a given interval of time.</p>	
<p>wind vane An instrument used to indicate wind direction.</p>	
<p>wind vector A component of the wind (often using cartesian coordinates; i.e. x and y wind vectors). the term can also apply to the resultant wind vector which is sometimes drawn as an arrow with length proportional to wind speed.</p>	
<p>wind velocity 1. A vector term which includes both wind speed and wind direction. 2. (направление и) скорость ветра</p>	<p>wv 1. Wave 2. Weather vane 3. Wind velocity 4. West virginia</p>

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