Stratos

A family that rethinks concepts of weight and width, spanning multiple hierarchies within a single style.

Stratos is a geometric grotesque whose peculiar utility is derived from unusual ideas about proportion. It eschews conventional notions of typographic relationships — not just for novel effect, but to empower the user to do more interesting things with type.

The first and most obvious of these surprises can be seen in the difference between its upper- and lowercase. The caps are condensed, inspired by gothic wood type of the 20th century, while the minuscules are akin to certain classic geometric sans serifs, with circular rounds (o, d, b, p, q) and horizontal terminals (a, c, e, g, s). This contradiction presents intriguing possibilities. Used separately, the two designs exude individual personalities: the compact caps fill a page with the impact of a Victorian-era poster; the lowercase conveys an austere modernity. When employed together, the look is unexpected but surprisingly functional, thanks to carefully balanced spacing and weight.

The other uncommon concept has to do with the widths between weights. In Stratos, a line set in Black occupies no more space than one set in Thin. Each of the family's ten weights share a common width — a technique known as multiplexing. This is useful for experimenting with font choice in magazine layouts, where content can remain constant while weight is adjusted. It also presents interesting opportunities for expressive and responsive typography. A website with dynamic backgrounds, for example, can serve the appropriate weight for optimal legibility without effecting the width of the text or the wrapping of lines. The upper- and lowercase letters are multiplexed as well, offering even more design flexibility.

20 styles
10 weights
Roman & Italic

Stratos Thin
Stratos ExtraLight
Stratos Light
Stratos SemiLight
Stratos Regular
Stratos Medium
Stratos SemiBold
Stratos Bold
Stratos ExtraBold
Stratos Black

Stratos Thin Italic
Stratos ExtraLight Italic
Stratos Light Italic
Stratos SemiLight Italic
Stratos Italic
Stratos Medium Italic
Stratos SemiBold Italic
Stratos Bold Italic
Stratos ExtraBold Italic
Stratos Black Italic

Frontogenesis

Thin

Stüve Diagram

ExtraLight

Percy Jackson

Light

Windscale Fire

SemiLight

Younger Dryas

Regular

Condensation

Medium

Dark Lightning

Bold

Scintillometer

SemiBold

Air Stagnation

ExtraBold

Cirrus Floccus

Black

Arctic Cyclone

Thin Italic

Keraunic Level

ExtraLight Italic

Ceiling Balloon

Light Italic

Cloud Seeding

SemiLight Italic

Condensation

Italic

Weather Front

Medium Italic

Freezing Level

Bold Italic

Aureole Effect

SemiBold Italic

Orbital Tuning

ExtraBold Italic

Aeroacoustics

Black Italic

Stratos Thin

Bond Event

Hyetograph

Supralateral Arc

High-Pressure Area

Anti-Greenhouse Effect

Seasonal Affective Disorder

Monsoon Sun Dog (Sundog) (Parhelion)

Integrated Forecast System

Agrometeorology Hurricane

Secondary Organic Aerosols

Anticyclone (In Meteorology)

Convective Storm Detection

Katabatic Wind Temperature

Convective Temperature Crometeo

Laser-Assisted Water Condensation

Denver Convergence Vorticity Zone

Aeronomy Of Ice In The Mesosphere

Warm Period Inversion Temperature

(Heat Budget: See) Radiation Budget

Stratos Thin

CONVECTION

ANTICYCLONE

BREATHING GASES

HARDENING (BOTANY)

OUTSIDE AIR TEMPERATURE

ANNULAR HURRICANE AIR MASS

SYNCHRONOUS METEOROLOGICAL SATELLITE

ATMOSPHERIC RESEARCH WINDS

FORENSIC METEOROLOGY CLOUD

GLOBAL TEMPERATURE TORNADO

COASTAL ZONE COLOR SCANNER PORTAL

INTERNATIONAL STANDARD ATMOSPHERE

UNITED STATES TEMPERATURE EXTREMES

MESOSCALE CONVECTIVE SYSTEM

BARON TORNADO INDEX EXOBASE

OZONE MONITORING INSTRUMENT

JOURNAL OF THE ATMOSPHERIC SCIENCES

MAXIMUM-VALUE COMPOSITE PROCEDURE

EUROPEAN SEVERE STORMS LABORATORY

Stratos Thin

Genera cirrocumulus (high-étage), altocum ulus (middle-étage), and stratocumulus (lo w-étage) Clouds of this structure have both cumuliform and stratiform characteristics i n the form of rolls or ripples. They generally f orm as a result of limited convection in an o therwise mostly stable airmass topped by a n inversion layer. Layered altocumulus and ci rrocumulus are physically more closely relat ed to stratocumulus than to cumulus heaps. However, some semantic ambiguity regardin

Clouds initially form in clear air or become clouds when fog rises a bove surface level. The genus of a newly formed cloud is determin ed mainly by air mass characteristics such as stability and moistur e content. If these characteristics change over time, the genus te nds to change accordingly. When this happens, the original genus i s called a mother cloud. If the mother cloud retains much of its ori ginal form after the appearance of the new genus, it is termed a g enitus cloud. One example of this is stratocumulus cumulogenitus, a stratocumulus cloud formed by the partial spreading of a cumul

These clouds have low to middle-étage bases that form anywhere from near surface to about 2,400 m (8,000 ft). Some classifications limit the term vertical to upward-growing fr ee-convective cumuliform and cumulonimbiform genera. Downward-growing nimbostra tus can be as thick as most upward-growing vertical cumulus, but its horizontal extent t ends to be even greater. This sometimes leads to the exclusion of this genus type from t he group of vertical clouds. Classifications that follow this approach usually show nimbos tratus either as low-étage to denote its normal base height range, or as middle, based on the altitude range at which it normally forms. Sometimes the terms multi-level or multi-ét age are used for all very thick or tall cloud types including nimbostratus to avoid the ass ociation of 'vertical' with free-convective cumuliform only. Alternatively, some classificatio

Stratos Thin Italic

Sea Breeze

Island Wake

Richard P. Turco

Stephen Schneider

Mediterranean Climate

Kelvin Wave Weather Radar

Severe Weather Terminology (Canada)

Dansgaard–Oeschger Event

Trajectory (Fluid Mechanics)

Secondary Organic Aerosols

Mesonet Subsidence (Atmosphere)

Aeronomy Of Ice In The Mesosphere

Water Vapor In Earth's Atmosphere

Pseudo-Warm Front Tornado

Convective Temperature Sky

Waterspout Siberian Express

European Severe Storms Laboratory

Convective Condensation Level (Ccl)

Chemical Thermodynamics Drought

Stratos Thin Italic

CONVECTION

AEROBIOLOGY

MERIDIONAL FLOW

HARDENING (BOTANY)

AUTUMN IN NEW ENGLAND

GREENLAND ICE CORE PROJECT

SYNCHRONOUS METEOROLOGICAL SATELLITE

WET-BULB GLOBE TEMPERATURE *MESOSCALE CONVECTIVE VORTEX*

METEOSAT SECOND GENERATION *OZONE MONITORING INSTRUMENT*

COASTAL ZONE COLOR SCANNER *GREAT ARCTIC CYCLONE OF 2012*

SPERRY–PILTZ ICE ACCUMULATION INDEX *TELLURIC CONTAMINATION MESOCYCLONE*

CORONA (METEOROLOGY) POLAR CIRCLE *(GAS WARFARE: SEE) CHEMICAL WARFARE*

IONOSPHERIC OCCULTATION EXPERIMENT *UNITED STATES TEMPERATURE EXTREMES*

Stratos Thin Italic

In 1896, the first cloud atlas sanctioned by the IMO was produced by Teisserenc de Borte based on collaborations with Hugo H. Hildebrandsson. The latter had become the first researcher to use photography for the study and classification of clouds in 1879. Alternatives to Howard's classification system were proposed throughout the 19th. centurey. Heinrich Dove of Germany and Elias Loomis of the United States came up with other schemes in 1828 and 1841 respectively, but

Howard's original system established three general cloud forms based on physical appearance and process of formation: cirriform (mainly detached and wispy), cumuliform or convective (mostly detached and heaped, rolled, or rippled), and non-convective stratiform (mainly continuous layers in sheets). These were cross-classified into lower and upper étages. Cumuliform clouds forming in the lower level were given the genus name cumulus from the Latin word for heap, and low stratiform clouds the genus name stratus from the Latin word for sheet or layer. Physically similar clouds

One physical form appears as non-convective stratiform sheets in stable air. If the airmass is slightly or partly unstable, limited-convective stratocumuliform rolls or ripples may appear. Both these layered forms have low, middle, and high-étage variants. Cloud types in the two upper étages are identified respectively by the prefixes alto- and cirro-. Thin or occasionally dense cirriform filaments are found only at high altitudes of the troposphere and may form in stable or partly unstable air. More generally unstable air tends to favor the formation of free-convective low or multi-level cumuliform heaps. Strong airmass instability or cyclonic lift can produce storm clouds with significant vertical extent through more than one étage. Prefixes are then used whenever necessary to express variations or complexities in their physical structures. These include cumulo- for com

Stratos ExtraLight

Pluvial Lake

Turbopause

Lightning Safety

Stephen Schneider

Anti-Greenhouse Effect

Synoptic Scale Meteorology

Aeronomy Clausius–Clapeyron Relation

Convective Storm Detection

Geocorona Monsoon Trough

Radiosonde Compressed Air

Denver Convergence Vorticity Zone

Midnight Homologous Temperature

Laser-Assisted Water Condensation

Solar Greenhouse (Technical)

China Meteorological Agency

Freezing Rain Weather Radar

Laser-Assisted Water Condensation

(Heat Equator: See) Thermal Equator

Meteosat Aerography (Meteorology)

Stratos ExtraLight

ULTRAVIOLET

HAIL CANNON

PAN EVAPORATION

EVAPORATIVE COOLER

OUTFLOW (METEOROLOGY)

TORNADO OUTBREAK SEQUENCE

SYNCHRONOUS METEOROLOGICAL SATELLITE

ANTARCTIC CIRCUMPOLAR WAVE

METEOSAT SECOND GENERATION

STORM TIDE THERMOCHEMISTRY

AEROGRAPHY (METEOROLOGY) BLIZZARD

INTERNATIONAL STANDARD ATMOSPHERE

ISLAND WAKE AIR-MASS THUNDERSTORM

SKIPPING TORNADO WATERSPOUT

SURFACE WEATHER OBSERVATION

FEBRUARY 13, 1979 WINDSTORM

EXTREME WEATHER SECOND ATMOSPHERE

SODAR (SONIC DETECTION AND RANGING)

EUROPEAN SEVERE STORMS LABORATORY

Stratos ExtraLight

A second group describes the occasional arrangements of cloud structures into particular patterns that are discernible by a surface-based observer (cloud fields usually being visible only from a significant altitude above the formations). These varieties are not always present with the genera and species with which they are otherwise associated, but only appear when atmospheric conditions favor their formation. Intortus and vertebratus varieties occur on occasion with cirrus

In meteorology, a cloud is an aerosol comprising a visible mass of liquid droplets or frozen crystals made of water or various chemicals. The droplets or particles are suspended in the atmosphere above the surface of a planetary body. Terrestrial cloud formation is the result of air in any of the lower three principal layers of Earth's atmosphere (collectively known as the homosphere) becoming saturated due to either or both of two processes: cooling of the air and adding water vapor. Cloud types in the troposphere, the atmospheric layer closest to Earth's surface, have Latin names due to the

Weather forecasting is the application of science and technology to predict the state of the atmosphere for a future time and a given location. Human beings have attempted to predict the weather informally for millennia, and formally since at least the 19th century. Weather forecasts are made by collecting quantitative data about the current state of the atmosphere and using scientific understanding of atmospheric processes to project how the atmosphere will evolve. Once an all-human endeavor based mainly upon changes in barometric pressure, current weather conditions, and sky condition, forecast models are now used to determine future conditions. Human input is still required to pick the best possible forecast model to base the forecast upon, which involves pattern recognition skills, teleconnections, knowledge of model performance, and knowledge of model b

Stratos ExtraLight Italic

Convective

Waterspout

Psychrometrics

Incoherent Scatter

Temperature Extremes

Magnetopause Ice Nucleus

Mercury-In-Glass Thermometer Hirlam

Dansgaard–Oeschger Event

Synoptic Scale Meteorology

Arden Buck Equation Mmr06

Uah Satellite Temperature Dataset

(Lake Surge: See) Storm Surge Wind

Convective Storm Detection Hirlam

Anticyclone (In Meteorology)

Metarea Isothermal Process

China Meteorological Agency

Mesoscale Convective System (Mcs)

International Standard Atmosphere

Air Mass Geometrothermodynamics

Stratos ExtraLight Italic

HEMIBOREAL

SILVER IODIDE

DART (ROCKETRY)

WIND CHILL WARNING

EQUIVALENT TEMPERATURE

IONOSPHERIC SOUNDING SNOW

SYNCHRONOUS METEOROLOGICAL SATELLITE

WET-BULB TEMPERATURE FRONT

TORRO K-INDEX (METEOROLOGY)

GLORY (OPTICAL PHENOMENON)

INTERNATIONAL STANDARD ATMOSPHERE

SHIRANUI (OPTICAL PHENOMENON) DAM

SPERRY–PILTZ ICE ACCUMULATION INDEX

CLAUSIUS–CLAPEYRON RELATION

EXTRATROPICAL CYCLONE FLOOD

TRAJECTORY (FLUID MECHANICS)

ATMOSPHERIC TEMPERATURE RANGE FOG

SOUTH PACIFIC CONVERGENCE ZONE FOG

EUROPEAN SEVERE STORMS LABORATORY

Stratos ExtraLight Italic

Synoptic scale meteorology is generally lar ge area dynamics referred to in horizonta l coordinates and with respect to time. The phenomena typically described by synopti c meteorology include events like extratrop ical cyclones, baroclinic troughs and ridge s, frontal zones, and to some extent jet stre ams. All of these are typically given on wea ther maps for a specific time. The minimum horizontal scale of synoptic phenomena is l imited to the spacing between surface obs

Meteorologists are scientists who study meteorology. The Americ an Meteorological Society published and continually updates an authoritative electronic Meteorology Glossary. Meteorologists wo rk in government agencies, private consulting and research servi ces, industrial enterprises, utilities, radio and television stations, a nd in education. In the United States, meteorologists held about 9, 400 jobs in 2009. Meteorologists are best known by the public for weather forecasting. Some radio and television weather forecas ters are professional meteorologists, while others are reporters (

The beginnings of meteorology can be traced back to ancient India, as the Upanishads contain serious discussion about the processes of cloud formation and rain and the s easonal cycles caused by the movement of earth around the sun. Varāhamihira's clas sical work Brihatsamhita, written about 500 AD, provides clear evidence that a deep kn owledge of atmospheric processes existed even in those times. In 350 BC, Aristotle wrot e Meteorology. Aristotle is considered the founder of meteorology. One of the most impr essive achievements described in the Meteorology is the description of what is now kn own as the hydrologic cycle. The book De Mundo (composed before 250 BC or between 350 and 200 BC) noted If the flashing body is set on fire and rushes violently to the eart h it is called a thunderbolt; if it be only half of fire, but violent also and massive, it is call

Stratos Light

Wind Shear

Storm Track

Richard Lindzen

Incidental Radiator

Margaret Anne Lemone

Coastal Zone Color Scanner

Summer Sunset High Desert, California

Marine Weather Forecasting
Convective Storm Detection
Integrated Forecast System
Aeronomy Of Ice In The Mesosphere
Aerography (Meteorology) Exobase
Mesoscale Convective Vortex (Mcv)

Tropical Cyclone Observation
Magnetism And Temperature
Pneumonia Front Temperate
Isobar Quasi-Geostrophic Equations
European Severe Storms Laboratory
Laser-Assisted Water Condensation

Stratos Light

IONOSPHERE

HAIL CANNON

CROW INSTABILITY

CLIMATE OF ECUADOR

AIR-MASS THUNDERSTORM

HEMISPHERICAL PHOTOGRAPHY

REGIONAL ATMOSPHERIC MODELING SYSTEM

GLORY (OPTICAL PHENOMENON)

METEOROLOGISCHE ZEITSCHRIFT

WET-BULB GLOBE TEMPERATURE

ANACOUSTIC ZONE SUNSHINE RECORDER

INTERNATIONAL STANDARD ATMOSPHERE

AIRCRAFT METEOROLOGICAL DATA RELAY

TRAJECTORY (FLUID MECHANICS)

CLAUSIUS–CLAPEYRON RELATION

MESOSCALE CONVECTIVE VORTEX

SNOWBOARD (METEOROLOGY) ICE CLOUD

CONVECTIVE CONDENSATION LEVEL (CCL)

INTERNATIONAL STANDARD ATMOSPHERE

Stratos Light

Climate models use quantitative methods t o simulate the interactions of the atmosphe re, oceans, land surface, and ice. They are us ed for a variety of purposes from study of t he dynamics of the weather and climate sys tem to projections of future climate. All clim ate models balance, or very nearly balance, i ncoming energy as short wave (including vi sible) electromagnetic radiation to the eart h with outgoing energy as long wave (infrar ed) electromagnetic radiation from the eart

A more complicated way of making a forecast, the analog techniq ue requires remembering a previous weather event which is expe cted to be mimicked by an upcoming event. What makes it a diffic ult technique to use is that there is rarely a perfect analog for an event in the future. Some call this type of forecasting pattern rec ognition, which remains a useful method of observing rainfall over data voids such as oceans with knowledge of how satellite imager y relates to precipitation rates over land, as well as the forecastin g of precipitation amounts and distribution in the future. A variatio

Meteorology is the interdisciplinary scientific study of the atmosphere. Studies in the fie ld stretch back millennia, though significant progress in meteorology did not occur until the 18th century. The 19th century saw modest progress in the field after observing net works formed across several countries. It wasn't until after the development of the com puter in the latter half of the 20th century that significant breakthroughs in weather for ecasting were achieved. Meteorological phenomena are observable weather events tha t illuminate, and are explained by the science of meteorology. Those events are bound b y the variables of Earth's atmosphere: temperature, air pressure, water vapor, and the gr adients and interactions of each variable, and how they change over time. Different spati al scales are studied to determine how systems on local, regional, and global levels impa

Stratos Light Italic

Sea Breeze

Lifted Index

Climate Pattern

High Pressure Area

Atmospheric Research

Ocean Surface Topography

Severe Weather Terminology (Canada)

Richard Lindzen Euroclydon *Marine Weather Forecasting*

Seasonal Affective Disorder *Monthly Weather Review Hail*

Glossary Of Climate Change *Convective Temperature (Tc)*

Mountain Breeze And Valley Breeze *Ionospheric Occultation Experiment*

Japan Meteorological Agency Jma *Thermodynamic Temperature Mars*

Hydrometeorology Biometeorology *Andrew Crosse Measurement Tower*

Stratos Light Italic

FOEHN WIND

BOWEN RATIO

DART (ROCKETRY)

INCOHERENT SCATTER

PLAN POSITION INDICATOR

GREENLAND ICE CORE PROJECT

SYNCHRONOUS METEOROLOGICAL SATELLITE

POLAR FRONT KYOTO PROTOCOL

WET-BULB GLOBE TEMPERATURE

MARINE WEATHER FORECASTING

INTERNATIONAL STANDARD ATMOSPHERE

CRICKETSONDE ISOGON (METEOROLOGY)

CLIMOGRAPH TELLURIC CONTAMINATION

MESOSCALE CONVECTIVE VORTEX

VIRTUAL TEMPERATURE NAVAREA

MESOSCALE CONVECTIVE VORTEX

(GAS WARFARE: SEE) CHEMICAL WARFARE

FUNNEL CLOUD (RELATED TO A TORNADO)

TROPOSPHERE COALESCENCE (PHYSICS)

Stratos Light Italic

Easterly winds, on average, dominate the fl ow pattern across the poles, westerly wind s blow across the mid-latitudes of the ear th, polewards of the subtropical ridge, whil e easterlies again dominate the tropics. Dir ectly under the subtropical ridge are the d oldrums, or horse latitudes, where winds ar e lighter. Many of the Earth's deserts lie nea r the average latitude of the subtropical ri dge, where descent reduces the relative hu midity of the air mass. The strongest winds

The Madden–Julian Oscillation (MJO) is an equatorial traveling pa ttern of anomalous rainfall that is planetary in scale. It is charac terized by an eastward progression of large regions of both enh anced and suppressed tropical rainfall, observed mainly over th e Indian and Pacific Oceans. The anomalous rainfall is usually firs t evident over the western Indian Ocean, and remains evident as i t propagates over the very warm ocean waters of the western a nd central tropical Pacific. This pattern of tropical rainfall then g enerally becomes very nondescript as it moves over the cooler o

Scientists use climate indices based on several climate patterns (known as modes of v ariability) in their attempt to characterize and understand the various climate mecha nisms that culminate in our daily weather. Much in the way the Dow Jones Industrial Av erage, which is based on the stock prices of 30 companies, is used to represent the flu ctuations in the stock market as a whole, climate indices are used to represent the es sential elements of climate. Climate indices are generally devised with the twin objecti ves of simplicity and completeness, and each index typically represents the status an d timing of the climate factor it represents. By their very nature, indices are simple, an d combine many details into a generalized, overall description of the atmosphere or o cean which can be used to characterize the factors which impact the global climate s

Stratos SemiLight

Eady Model

Stormwater

Severe Weather

Sunshine Recorder

Line Echo Wave Pattern

Maximum Parcel Level (Mpl)

Emagram Meteorological Monographs

Meteorologische Zeitschrift

Integrated Forecast System

Convective Storm Detection

Laser-Assisted Water Condensation

Aeronomy Of Ice In The Mesosphere

Ozone Monitoring Instrument Jules

Anticyclone (In Meteorology)

Equilibrium Thermodynamics

Geomagnetic Storms Suetes

Laser-Assisted Water Condensation

Veerabhadran Ramanathan Ice2Sea

European Severe Storms Laboratory

Stratos SemiLight

DEPTH HOAR

EVACUATIONS

ATHERMALIZATION

CIRRUS VERTEBRATUS

ATMOSPHERIC CHEMISTRY

HEMISPHERICAL PHOTOGRAPHY

SYNCHRONOUS METEOROLOGICAL SATELLITE

ADIABATIC FLAME TEMPERATURE

MARINE WEATHER FORECASTING

SYNOPTIC SCALE METEOROLOGY

INTERNATIONAL STANDARD ATMOSPHERE

AIRCRAFT METEOROLOGICAL DATA RELAY

UNITED STATES TEMPERATURE EXTREMES

MESOSCALE CONVECTIVE VORTEX

SURFACE WEATHER OBSERVATION

STEPPE SEA ICE CONCENTRATION

EUROPEAN SEVERE STORMS LABORATORY

SATELLITE TEMPERATURE MEASUREMENTS

SODAR (SONIC DETECTION AND RANGING)

Stratos SemiLight

Rather than air, the solar wind is a stream o f charged particles—a plasma—ejected fro m the upper atmosphere of the sun at a ra te of 400 kilometers per second (890,000 m ph). It consists mostly of electrons and pro tons with energies of about 1 keV. The strea m of particles varies in temperature and sp eed with the passage of time. These particle s are able to escape the sun's gravity, in par t because of the high temperature of the c orona, but also because of high kinetic ene

Climatology or climate science is the study of climate, scientificall y defined as weather conditions averaged over a period of time. T his modern field of study is regarded as a branch of the atmosph eric sciences and a subfield of physical geography, which is one o f the Earth sciences. Climatology now includes aspects of oceano graphy and biogeochemistry. Basic knowledge of climate can be used within shorter term weather forecasting using analog techn iques such as the El Niño – Southern Oscillation (ENSO), the Madde n-Julian Oscillation (MJO), the North Atlantic Oscillation (NAO), the N

Historically, the Beaufort wind force scale provides an empirical description of wind spe ed based on observed sea conditions. Originally it was a 13-level scale, but during the 1 940s, the scale was expanded to 17 levels. There are general terms that differentiate wi nds of different average speeds such as a breeze, a gale, a storm, tornado, or a hurrican e. Within the Beaufort scale, gale-force winds lie between 28 knots (52 km/h) and 55 kno ts (102 km/h) with preceding adjectives such as moderate, fresh, strong, and whole use d to differentiate the wind's strength within the gale category. A storm has winds of 56 k nots (104 km/h) to 63 knots (117 km/h). The terminology for tropical cyclones differs fro m one region to another globally. Most ocean basins use the average wind speed to det ermine the tropical cyclone's category. Below is a summary of the classifications used b

Stratos SemiLight Italic

Lapse Rate

Garua Torro

Held-Hou Model

Basic Precipitation

Temperature Extremes

Ocean Surface Topography

Severe Weather Terminology

(Canada)

Bounded Weak Echo Region

Coastal Zone Color Scanner Suetes

Penman–Monteith Equation

Trajectory (Fluid Mechanics)

Convective Storm Detection

Clausius–Clapeyron Relation

Low-Rate Picture Transmission Fog

Meteorological Monographs

Earth System Modeling Framework

(Heat Equator: See) Thermal Equator

Stratos SemiLight Italic

WIND SHEAR
TRADE WINDS
BREATHING GASES
HIGH PRESSURE AREA
PLAN POSITION INDICATOR
GREENLAND ICE CORE PROJECT
GLOBAL HORIZONTAL SOUNDING TECHNIQUE

SYNOPTIC SCALE METEOROLOGY

GLORY (OPTICAL PHENOMENON)

COASTAL ZONE COLOR SCANNER

MESOSCALE CONVECTIVE VORTEX (MCV)

INTERNATIONAL STANDARD ATMOSPHERE

COASTAL-MARINE AUTOMATED NETWORK

TROPICAL CYCLONE RADIOSONDE

TERRESTRIAL GAMMA-RAY FLASH

MESOSCALE CONVECTIVE VORTEX

WORLD METEOROLOGICAL ORGANIZATION

GLOSSARY OF TROPICAL CYCLONE TERMS

INFRALATERAL ARC COUNTERCLOCKWISE

Stratos SemiLight Italic

There are local names for winds associate d with sand and dust storms. The Calima c arries dust on southeast winds into the Ca nary islands. The Harmattan carries dust d uring the winter into the Gulf of Guinea. The Sirocco brings dust from north Africa into s outhern Europe because of the movement of extratropical cyclones through the Medi terranean Sea. Spring storm systems movin g across the eastern Mediterranean Sea c ause dust to carry across Egypt and the Ar

Erosion can be the result of material movement by the wind. Ther e are two main effects. First, wind causes small particles to be lif ted and therefore moved to another region. This is called deflatio n. Second, these suspended particles may impact on solid object s causing erosion by abrasion (ecological succession). Wind eros ion generally occurs in areas with little or no vegetation, often in areas where there is insufficient rainfall to support vegetation. A n example is the formation of sand dunes, on a beach or in a des ert. Loess is a homogeneous, typically nonstratified, porous, friab

Wind is caused by differences in the atmospheric pressure. When a difference in atmo spheric pressure exists, air moves from the higher to the lower pressure area, resultin g in winds of various speeds. On a rotating planet, air will also be deflected by the Cori olis effect, except exactly on the equator. Globally, the two major driving factors of lar ge-scale wind patterns (the atmospheric circulation) are the differential heating betw een the equator and the poles (difference in absorption of solar energy leading to buo yancy forces) and the rotation of the planet. Outside the tropics and aloft from frictio nal effects of the surface, the large-scale winds tend to approach geostrophic balanc e. Near the Earth's surface, friction causes the wind to be slower than it would be othe rwise. Surface friction also causes winds to blow more inward into low pressure areas

Stratos Regular

Storm Data
Island Wake
Carbon Fixation
Radio Atmospheric
Air-Mass Thunderstorm
Penman–Monteith Equation
Japan Meteorological Agency Jma Fog

Synoptic Scale Meteorology

Secondary Organic Aerosols

Convective Storm Detection

Tornado Hydrological Phenomenon

Laser-Assisted Water Condensation

Denver Convergence Vorticity Zone

Ecmwf Re-Analysis Hurricane

Boundary-Layer Meteorology

Trajectory (Fluid Mechanics)

Laser-Assisted Water Condensation

Accumulated Thermal Unit Radiance

Thermodynamic Temperature Ninjo

Stratos Regular

IONOSPHERE

KÁRMÁN LINE

BREATHING GASES

MOUSTERIAN PLUVIAL

ICE ACCRETION INDICATOR

GREENHOUSE GAS MONITORING

SYNCHRONOUS METEOROLOGICAL SATELLITE

HUMIDITY SOUNDER FOR BRAZIL

SYNOPTIC SCALE METEOROLOGY

WET-BULB GLOBE TEMPERATURE

NATIONAL SEVERE STORMS LABORATORY

INTERNATIONAL STANDARD ATMOSPHERE

MESOSCALE CONVECTIVE SYSTEM (MCS)

MESOSCALE CONVECTIVE VORTEX

SUBSUN MET ÉIREANN (IRELAND)

ANTICREPUSCULAR RAYS FLOODS

EUROPEAN SEVERE STORMS LABORATORY

CONVECTIVE CONDENSATION LEVEL (CCL)

KEETCH–BYRAM DROUGHT INDEX SEASON

Stratos Regular

In human civilization, wind has inspired myt hology, influenced the events of history, ex panded the range of transport and warfare, and provided a power source for mechanic al work, electricity and recreation. Wind po wers the voyages of sailing ships across Ear th's oceans. Hot air balloons use the wind to take short trips, and powered flight uses it t o increase lift and reduce fuel consumptio n. Areas of wind shear caused by various we ather phenomena can lead to dangerous sit

Wind is the flow of gases on a large scale. On the surface of the Ea rth, wind consists of the bulk movement of air. In outer space, sola r wind is the movement of gases or charged particles from the Su n through space, while planetary wind is the outgassing of light c hemical elements from a planet's atmosphere into space. Winds a re commonly classified by their spatial scale, their speed, the typ es of forces that cause them, the regions in which they occur, and their effect. The strongest observed winds on a planet in our sola r system occur on Neptune and Saturn. Winds have various aspect

In meteorology, winds are often referred to according to their strength, and the directi on from which the wind is blowing. Short bursts of high speed wind are termed gusts. S trong winds of intermediate duration (around one minute) are termed squalls. Long-dur ation winds have various names associated with their average strength, such as breeze, gale, storm, and hurricane. Wind occurs on a range of scales, from thunderstorm flows l asting tens of minutes, to local breezes generated by heating of land surfaces and lasti ng a few hours, to global winds resulting from the difference in absorption of solar ener gy between the climate zones on Earth. The two main causes of large-scale atmospheri c circulation are the differential heating between the equator and the poles, and the ro tation of the planet (Coriolis effect). Within the tropics, thermal low circulations over ter

Stratos Italic

Sea Breeze

Lifted Index

Richard B. Rood

Evaporative Cooler

Temperature Extremes

Cape Verde-Type Hurricane

Atmospheric Radiation Measurement

Synoptic Scale Meteorology
Coastal Zone Color Scanner
Penman–Monteith Equation
National Severe Storms Laboratory
World Meteorological Organization
Mountain Breeze And Valley Breeze

Post-Glacial Rebound Isobar
Climatological Normal Dawn
Richard M. Goody Landspout
Gregale Secondary Organic Aerosols
Laser-Assisted Water Condensation
Mud Season Apparent Temperature

Stratos Italic

WALL CLOUD

OCCULTATION

CLIMATE PATTERN

TEMPEST (EXEMPLAR)

ANTI-GREENHOUSE EFFECT

GREENHOUSE GAS MONITORING

GLOBAL HORIZONTAL SOUNDING TECHNIQUE

GLORY (OPTICAL PHENOMENON)

MARINE WEATHER FORECASTING

JAMES H. COON MESOVORTICES

GLOSSARY OF ENVIRONMENTAL SCIENCE

DENVER CONVERGENCE VORTICITY ZONE

VOLUNTARY OBSERVING SHIP PROGRAM

ADIABATIC FLAME TEMPERATURE

TERRESTRIAL GAMMA-RAY FLASH

CLAUSIUS–CLAPEYRON RELATION

ATMOSPHERIC RADIATION MEASUREMENT

CLIVAR MULTICELLULAR THUNDERSTORM

INTERNATIONAL ARCTIC BUOY PROGRAM

Stratos Italic

The polar see-saw (also: Bipolar seesaw) is the phenomenon that temperature chang es in the northern and southern hemispher es may be out of phase. The theory (or hyp othesis) states that large changes, f.e. whe n the glaciers are intensely growing or dep leting, in the formation of ocean bottom w ater in both poles take a long time to exert their effect in the other hemisphere. Estim ates of the period of delay vary, one typica l estimate is 1500 years. This is usually stud

In the context of passive solar building design the aim of the des igner is normally to maximise solar gain within the building in th e winter (to reduce space heating demand), and to control it in s ummer (to minimise cooling requirements). Thermal mass may b e used to even out the fluctuations during the day, and to some extent between days. In direct solar gain systems, the composit ion and coating of the building glazing can also be manipulated to optimise the greenhouse effect, while its size, position and sh ading can be used to optimise solar gain. Solar gain can also be

Solar gain (also known as solar heat gain or passive solar gain) refers to the increase in temperature in a space, object or structure that results from solar radiation. The a mount of solar gain increases with the strength of the sunlight, and with the ability of any intervening material to transmit or resist the radiation. Objects struck by sunlight absorb the short-wave radiation from the light and reradiate the heat at longer infrar ed wavelengths. Certain materials and substances, such as glass, are more transpare nt to the shorter wavelengths than the longer; when the sun shines through such mat erials, the net result is an increase in temperature — solar gain. This effect, the green house effect, so called due to the solar gain that is experienced behind the glass of a greenhouse, has since become well known in the context of global warming.

Stratos Medium

Rain Gauge
Storm Scale
Haze Westerlies
Boyle Temperature
Ionospheric Reflection
Coastal Zone Color Scanner
Maximum-Value Composite Procedure

Marine Weather Forecasting
False Sunset Puelche (Wind)
Secondary Organic Aerosols
Monsoon Frost Creep (Frost Heave)
Thunderstorm Sunshine Recorders
World Meteorological Organization

Magnetism And Temperature
Anticyclone (In Meteorology)
Clausius–Clapeyron Relation
International Standard Atmosphere
(Heat Equator: See) Thermal Equator
Laser-Assisted Water Condensation

Stratos Medium

IONOSPHERE

OCCULTATION

RICHARD LINDZEN

EVAPORATIVE COOLER

VIEHLAND-MASON THEORY

CONVECTIVE STORM DETECTION

TROPICAL CYCLONE RAINFALL CLIMATOLOGY

CONVECTIVE TEMPERATURE (TC)

COASTAL ZONE COLOR SCANNER

MARINE WEATHER FORECASTING

GLOSSARY OF ENVIRONMENTAL SCIENCE

ADIABATIC FLAME TEMPERATURE SUETES

DENVER CONVERGENCE VORTICITY ZONE

LIST OF GEOENGINEERING TOPICS

SEA SURFACE TEMPERATURE CC9

CLAUSIUS–CLAPEYRON RELATION

SODAR (SONIC DETECTION AND RANGING)

SPERRY–PILTZ ICE ACCUMULATION INDEX

SEVERE WEATHER TERMINOLOGY (JAPAN)

Stratos Medium

Insolation onto a surface is largest when th e surface directly faces (is normal to) the s un. As the angle between the surface and th e Sun moves from normal, the insolation is r educed in proportion to the angle's Cosine; see Effect of sun angle on climate. In the fig ure, the angle shown is between the groun d and the sunbeam rather than between th e vertical direction and the sunbeam; henc e the sine rather than the cosine is appropr iate. A sunbeam one mile (1.6 km) wide arriv

Solar irradiance is the power per unit area produced by the Sun i n the form of electromagnetic radiation. Irradiance may be meas ured in space or at the Earth's surface after atmospheric absorpt ion and scattering. Total solar irradiance (TSI), is a measure of the solar radiative power per unit area normal to the rays, incident o n the Earth's upper atmosphere. The solar constant is a conventio nal measure of mean TSI at a distance of one Astronomical Unit (A U). Irradiance is a function of distance from the Sun, the solar cycl e, and cross-cycle changes. Irradiance on Earth is most intense at

Air masses can be modified in a variety of ways. Surface flux from underlying vegetatio n, such as forest, acts to moisten the overlying air mass. Heat from underlying warmer waters can significantly modify an air mass over distances as short as 35 kilometres (22 mi) to 40 kilometres (25 mi). For example, southwest of extratropical cyclones, curved c yclonic flow bringing cold air across the relatively warm water bodies can lead to narro w lake-effect snow bands. Those bands bring strong localized precipitation since large water bodies such as lakes efficiently store heat that results in significant temperature differences (larger than 13 °C or 23 °F) between the water surface and the air above. Be cause of this temperature difference, warmth and moisture are transported upward, co ndensing into vertically oriented clouds (see satellite picture) which produce snow sho

Stratos Medium Italic

Jet Stream

Climograph

Polar Easterlies

Witch Of November

Temperature Extremes

Multicellular Thunderstorm

Historical Impacts Of Climate Change

Dansgaard-Oeschger Event *Bloodstorm (Marvel Comics)*

Antenna Noise Temperature *Monsoon Subnivean Climate*

Dansgaard-Oeschger Event *Stormwater Joseph B. Klemp*

Road Weather Information System *Temperature Inversion Storm-Scale*

Mountain Breeze And Valley Breeze *Thermal Loop Cumulonimbus Velum*

Vorticity Tornado Intercept Vehicle *Earth System Modeling Framework*

Stratos Medium Italic

DOLE EFFECT

LITHOSPHERE

INSAT-3A LOWERN

KIRILL Y. KONDRATYEV

CLIMATOLOGICAL NORMAL

CIRROCUMULUS STRATIFORMIS

FRONTOGENESIS TRAINING (METEOROLOGY)

TROPICAL ATLANTIC VARIABILITY

K-INDEX (METEOROLOGY)

EARTH

WET-BULB GLOBE TEMPERATURE

RADIUS OF OUTERMOST CLOSED ISOBAR

NATIONAL SEVERE STORMS LABORATORY

INTERNATIONAL ARCTIC BUOY PROGRAM

SOLAR PROTON EVENT SEA LEVEL

ADIABATIC FLAME TEMPERATURE

SQUALL FREE CONVECTIVE LAYER

IONOSPHERIC OCCULTATION EXPERIMENT

EUROPEAN SEVERE STORMS LABORATORY

Stratos Medium Italic

A weather front is a boundary separating t wo masses of air of different densities, an d is the principal cause of meteorological phenomena. In surface weather analyses, f ronts are depicted using various colored li nes and symbols, depending on the type o f front. The air masses separated by a fron t usually differ in temperature and humidit y. Cold fronts may feature narrow bands of thunderstorms and severe weather, and m ay on occasion be preceded by squall lines

Arctic, Antarctic, and polar air masses are cold. The qualities of arctic air are developed over ice and snow-covered ground. Arct ic air is deeply cold, colder than polar air masses. Arctic air can be shallow in the summer, and rapidly modify as it moves equat orward. Polar air masses develop over higher latitudes over the l and or ocean, are very stable, and generally shallower than arcti c air. Polar air over the ocean (maritime) loses its stability as it g ains moisture over warmer ocean waters. Tropical and equatori al air masses are hot as they develop over lower latitudes. Those

The Bergeron classification is the most widely accepted form of air mass classificatio n, though others have produced more refined versions of this scheme over different r egions of the globe. Air mass classification involves three letters. The first letter descri bes its moisture properties, with c used for continental air masses (dry) and m for ma ritime air masses (moist). The second letter describes the thermal characteristic of its source region: T for Tropical, P for Polar, A for arctic or Antarctic, M for monsoon, E for E quatorial, and S for superior air (an adiabatically drying and warming air formed by s ignificant downward motion in the atmosphere). For instance, an air mass originating over the desert southwest of the United States in summer may be designated "cT". An air mass originating over northern Siberia in winter may be indicated as "cA". The stabi

Stratos SemiBold

Föhn Cloud

Hyetograph

Held-Hou Model

Radio Atmospheric

Ice Accretion Indicator

Climate Research (Journal)

Severe Weather Terminology (Canada)

Seasonal Affective Disorder

Meteorological Intelligence

Secondary Organic Aerosols

Solar Cell Surface Weather Analysis

Washington Atmospheric Sciences

Anemometer Forensic Meteorology

Temperature Inversion Aatsr

Wet-Bulb Globe Temperature

Tornado Outbreak Sequence

Intertropical Convergence Zone Fog

(Gas Warfare: See) Chemical Warfare

Aeronomy Of Ice In The Mesosphere

Stratos SemiBold

IRRADIATION
BAROTROPITY
RAINING ANIMALS
INCOHERENT SCATTER
CUMULUS HUMILIS CLOUD
TORNADO OUTBREAK SEQUENCE
SYNCHRONOUS METEOROLOGICAL SATELLITE

COASTAL ZONE COLOR SCANNER
WET-BULB GLOBE TEMPERATURE
KELVIN-HELMHOLTZ INSTABILITY
AUTOMATED AIRPORT WEATHER STATION
CERTIFIED CONSULTING METEOROLOGIST
INTERNATIONAL ARCTIC BUOY PROGRAM

LIST OF GEOENGINEERING TOPICS
CANWARN ISENTROPIC ANALYSIS
MESOSCALE CONVECTIVE VORTEX
SOLAR AND HELIOSPHERIC OBSERVATORY
EUROPEAN SEVERE STORMS LABORATORY
WIND-INDUCED SURFACE HEAT EXCHANGE

Stratos SemiBold

In meteorology, an air mass is a volume of a ir defined by its temperature and water va por content. Air masses cover many hundre ds or thousands of square miles, and adapt to the characteristics of the surface below them. They are classified according to latitu de and their continental or maritime sourc e regions. Colder air masses are termed pol ar or arctic, while warmer air masses are de emed tropical. Continental and superior air masses are dry while maritime and monsoo

A mesoscale convective vortex (MCV) is a low-pressure center wit hin an mesoscale convective system (MCS) that pulls winds into a circling pattern, or vortex. With a core only 30 to 60 miles (97 km) wide and 1 to 3 miles (4.8 km) deep, an MCV is often overlooked in standard weather analysis. But an MCV can take on a life of its ow n, persisting for up to 12 hours after its parent MCS has dissipate d. This orphaned MCV will sometimes then become the seed of th e next thunderstorm outbreak. An MCV that moves into tropical w aters, such as the Gulf of Mexico, can serve as the nucleus for a tr

A supercell is a thunderstorm that is characterized by the presence of a mesocyclone: a deep, persistently rotating updraft. For this reason, these storms are sometimes refer red to as rotating thunderstorms. Of the four classifications of thunderstorms (superce ll, squall line, multi-cell, and single-cell), supercells are the overall least common and ha ve the potential to be the most severe. Supercells are often isolated from other thunder storms, and can dominate the local weather up to 32 kilometres (20 mi) away. Supercell s are often put into three classification types: Classic, Low-precipitation (LP), and High-p recipitation (HP). LP supercells are usually found in climates that are more arid, such as the high plains of the United States, and HP supercells are most often found in moist cli mates. Supercells can occur anywhere in the world under the right pre-existing weathe

Stratos SemiBold Italic

Foo Fighter

Mesovortex

Hough Function

Sunshine Recorder

Apparent Temperature

Greenland Ice Core Project

Atmospheric Thermodynamics Fronts

Bounded Weak Echo Region

Dansgaard–Oeschger Event

Solenoid (Meteorology) Fog

Denver Convergence Vorticity Zone

Road Weather Information System

List Of Severe Weather Phenomena

Marine Weather Forecasting

Trajectory (Fluid Mechanics)

Convective Temperature (Tc)

International Standard Atmosphere

Aeronomy Of Ice In The Mesosphere

Stratos SemiBold Italic

IONOSPHERE

LEIDEN SCALE

SPLITTING STORM

INCOHERENT SCATTER

VIEHLAND-MASON THEORY

GLOSSARY OF CLIMATE CHANGE

GLOBAL HORIZONTAL SOUNDING TECHNIQUE

METEOSAT SECOND GENERATION
ANTICYCLOGENESIS IONOSPHERE

SYNOPTIC SCALE METEOROLOGY
METEOROLOGISCHE ZEITSCHRIFT

WET-BULB GLOBE TEMPERATURE
CLAUSIUS–CLAPEYRON RELATION

TROPICAL CYCLONE PREDICTION MODEL
(HEAT EQUATOR: SEE) THERMAL EQUATOR

ATMOSPHERIC PHYSICS ALPINE CLIMATE
MALAYSIAN CENTRE OF REMOTE SENSING

INTERNATIONAL ARCTIC BUOY PROGRAM
INTERNATIONAL STANDARD ATMOSPHERE

Stratos SemiBold Italic

Showers and thunderstorms along thunder storm trains usually develop in one area of stationary instability, and are advanced al ong a single path by prevailing winds. Addi tional showers and storms can also develo p when the gust front from a storm collide s with warmer air outside of the storm. The same process repeats in the new storms, u ntil overall conditions in the surrounding a tmosphere become too stable for support of thunderstorm activity. Showers and stor

Optical phenomena are any observable events that result from t he interaction of light and matter. See also list of optical topics and optics. A mirage is an example of an optical phenomenon. C ommon optical phenomena are often due to the interaction of li ght from the sun or moon with the atmosphere, clouds, water, d ust, and other particulates. One common example is the rainbo w, when light from the sun is reflected and refracted by water d roplets. Some, such as the green ray, are so rare they are somet imes thought to be mythical. Others, such as Fata Morganas, are

Atmosphere sea ice/ocean interaction. Interaction between the atmosphere, ice and ocean is confined to the atmospheric boundary layer, which is mainly influenced by su rface characteristics. In polar regions, these are sea ice roughness and sea ice conce ntration, which greatly influence surface temperature distribution. Wind speed and di rection, the temperature of the air, and the location of the wind contact are other fac tors. Both sea ice and wind have great impact on the atmospheric boundary layer, wh ich is often used to measure conditions in polar areas.The atmospheric portion of the hydrological cycle in polar regions plays an important role in that: the balance of pol ar ice masses is inseparably linked to precipitation, clouds modify the radiation trans fer, the release of latent heat modifies the temperature of the air, hence circulations.

Stratos Bold

Ceilometer

Stormwater

Carbon Fixation

Temperate Climate

Ionospheric Reflection

Albedo Paleotempestology

Maximum-Value Composite Procedure

Dewbow Noctilucent Clouds

Meteorological Intelligence

Convective Storm Detection

Corona (Optical Phenomenon) Dam

Sigma Heat Parallel Ocean Program

Foo Fighter Misoscale Meteorology

Lithosphere Standard Dry Air

Bloodstorm (Marvel Comics)

Marine Weather Forecasting

Noaa-15 Golden Hour (Photography)

Secondary Circulation Temperature

International Standard Atmosphere

Stratos Bold

WALL CLOUD

EVACUATIONS

TIERRA TEMPLADA

MOUSTERIAN PLUVIAL

ATMOSPHERIC CHEMISTRY

TORNADO OUTBREAK SEQUENCE

AUSTRALIAN INTEGRATED FORECAST SYSTEM

MARINE WEATHER FORECASTING

GLORY (OPTICAL PHENOMENON)

METEOSAT SECOND GENERATION

GLOSSARY OF ENVIRONMENTAL SCIENCE

DENVER CONVERGENCE VORTICITY ZONE

AUTOMATED AIRPORT WEATHER STATION

MESOSCALE CONVECTIVE VORTEX

TORNADO CANOPY INTERCEPTION

CLAUSIUS–CLAPEYRON RELATION

NEUTRON TEMPERATURE JAMES H. COON

AVIATION CIRROCUMULUS STRATIFORMIS

SPERRY–PILTZ ICE ACCUMULATION INDEX

Stratos Bold

Airglow (also called nightglow) is a faint emission of light by a planetary atmosphere. In the case of Earth's atmosphere, this optical phenomenon causes the night sky never to be completely dark, even after the effects of starlight and diffused sunlight from the far side are removed. The airglow phenomenon was first identified in 1868 by Swedish scientist Anders Ångström. Since then, it has been studied in the laboratory, and various chemical reactions have been observed to

SwissCube-1 is a Swiss satellite operated by Ecole Polytechnique Fédérale de Lausanne. The spacecraft is a single unit CubeSat, which was designed to conduct research into airglow within the Earth's atmosphere and to develop technology for future spacecraft. Though SwissCube-1 is rather small (10 × 10 × 10 cm) and weighs less than 1 kg, it carries a small telescope for obtaining images of the airglow. The first SwissCube-1 image came down on February 18, 2011 and was quite black with some thermal noise on it. The first airglow image came down on March 3, 2011. This image has bee

A weather front is a boundary separating two masses of air of different densities, and is the principal cause of meteorological phenomena. In surface weather analyses, fronts are depicted using various colored lines and symbols, depending on the type of front. The air masses separated by a front usually differ in temperature and humidity. Cold fronts may feature narrow bands of thunderstorms and severe weather, and may on occasion be preceded by squall lines or dry lines. Warm fronts are usually preceded by stratiform precipitation and fog. The weather usually clears quickly after a front's passage. Some fronts produce no precipitation and little cloudiness, although there is invariably a wind shift. Cold fronts and occluded fronts generally move from west to east, while warm fronts move poleward. Because of the greater density of air in their wake, cold fronts

Stratos Bold Italic

Lapse Rate
Rain Sensor
Density Altitude
Subnivean Climate
Atmospheric Sounding
Pacific Decadal Oscillation
Grasshopper (Robot Weather Station)

Dansgaard–Oeschger Event
Antenna Noise Temperature
Meteorological Intelligence
Frontolysis Line Echo Wave Pattern
Radius Of Outermost Closed Isobar
Water Vapor In Earth's Atmosphere

Trajectory (Fluid Mechanics)
Atmospheric Physics Metnet
Marine Weather Forecasting
International Standard Atmosphere
Mesoscale Convective Vortex (Mcv)
Agrometeorology Extreme Weather

Stratos Bold Italic

FOEHN WIND

FIRES VORTEX

CARBON FIXATION

ISENTROPIC ANALYSIS

ATMOSPHERIC CHEMISTRY

CONVECTIVE STORM DETECTION

GLOBAL HORIZONTAL SOUNDING TECHNIQUE

SYNOPTIC SCALE METEOROLOGY *CLAUSIUS–CLAPEYRON RELATION*

HORIZONTAL CONVECTIVE ROLLS *CONVECTIVE INHIBITION HUAYCO*

WET-BULB GLOBE TEMPERATURE *METEOROLOGISCHE ZEITSCHRIFT*

INTERNATIONAL ARCTIC BUOY PROGRAM *INTERNATIONAL STANDARD ATMOSPHERE*

AUTOMATED AIRPORT WEATHER STATION *EUROPEAN SEVERE STORMS LABORATORY*

GLOSSARY OF ENVIRONMENTAL SCIENCE *WORLD METEOROLOGICAL ORGANIZATION*

Stratos Bold Italic

High-pressure systems are frequently asso ciated with light winds at the surface and subsidence through the lower portion of th e troposphere. Subsidence will generally d ry out an air mass by adiabatic, or compre ssional, heating. Thus, high pressure typica lly brings clear skies. During the day, since no clouds are present to reflect sunlight, t here is more incoming shortwave solar rad iation and temperatures rise. At night, the absence of clouds means that outgoing lo

An extratropical cyclone is a synoptic scale low-pressure weath er system that has neither tropical nor polar characteristics, bei ng connected with fronts and horizontal gradients in temperatu re and dew point otherwise known as "baroclinic zones". The des criptor "extratropical" refers to the fact that this type of cyclon e generally occurs outside of the tropics, in the middle latitudes of the planet. These systems may also be described as "mid-latit ude cyclones" due to their area of formation, or "post-tropical c yclones" where extratropical transition has occurred, and are of

Surface weather analyses have special symbols which show frontal systems, cloud co ver, precipitation, or other important information. For example, an H represents high p ressure, implying good and fair weather. An L represents low pressure, which frequent ly accompanies precipitation. Various symbols are used not just for frontal zones and other surface boundaries on weather maps, but also to depict the present weather at various locations on the weather map. Areas of precipitation help determine the front al type and location. Mesoscale systems and boundaries such as tropical cyclones, o utflow boundaries and squall lines also are analyzed on surface weather analyses. Is obars are commonly used to place surface boundaries from the horse latitudes pole ward, while streamline analyses are used in the tropics.

Stratos ExtraBold

Ceilometer Portal Flood

Compressed Air

Stephen Schneider

Composite Reflectivity

Anticrepuscular Rays Leste

Maximum-Value Composite Procedure

Seasonal Affective Disorder

Convective Storm Detection

Kombayashi–Ingersoll Limit

Japan Meteorological Agency Jma

Equivalent Temperature Westerlies

Tornado Vortex Signature Monsoon

Wet-Bulb Globe Temperature

Bloodstorm (Marvel Comics)

Trajectory (Fluid Mechanics)

Laser-Assisted Water Condensation

Thermal Enhanced Vegetation Index

Surface Weather Observation Portal

Stratos ExtraBold

FOEHN WIND

POLAR FRONT

HURRICANE ALLEY

EVAPORATIVE COOLER

GLOBAL FORECAST SYSTEM

BREWER-DOBSON CIRCULATION

GLOBAL HORIZONTAL SOUNDING TECHNIQUE

MARINE WEATHER FORECASTING ADIABATIC FLAME TEMPERATURE

SYNOPTIC SCALE METEOROLOGY METEOROLOGISCHE ZEITSCHRIFT

METEOSAT SECOND GENERATION POTENTIAL EVAPORATION CLIVAR

GLOSSARY OF ENVIRONMENTAL SCIENCE EUROPEAN SEVERE STORMS LABORATORY

MEDITERRANEAN CLIMATE EVAPORATION (GAS WARFARE: SEE) CHEMICAL WARFARE

AUTOMATED AIRPORT WEATHER STATION WORLD METEOROLOGICAL ORGANIZATION

A surface weather analysis is a special type of weather map that provides a view of we ather elements over a geographical area at a specified time based on information from ground-based weather stations. Weather m aps are created by plotting or tracing the v alues of relevant quantities such as sea lev el pressure, temperature, and cloud cover onto a geographical map to help find synop tic scale features such as weather fronts. T he first weather maps in the 19th century w

The synoptic scale in meteorology (also known as large scale or c yclonic scale) is a horizontal length scale of the order of 1000 kil ometres (about 620 miles) or more. This corresponds to a horizon tal scale typical of mid-latitude depressions (e.g. extratropical cy clones). Most high and low-pressure areas seen on weather maps such as surface weather analyses are synoptic-scale systems, dri ven by the location of Rossby waves in their respective hemisphe re. Low-pressure areas and their related frontal zones occur on t he leading edge of a trough within the Rossby wave pattern, whil

The potential for convection in the atmosphere is often measured by an atmospheric t emperature/dewpoint profile with height. This is often displayed on a Skew-T chart or o ther similar thermodynamic diagram. These can be plotted by a measured sounding an alysis, which is the sending of a radiosonde attached to a balloon into the atmosphere to take the measurements with height. Forecast models can also create these diagram s, but are less accurate due to model uncertainties and biases, and have lower spatial r esolution. Although, the temporal resolution of forecast model soundings is greater tha n the direct measurements, where the former can have plots for intervals of up to ever y 3 hours, and the latter as having only 2 per day (although when a convective event is e xpected a special sounding might be taken outside of the normal schedule of 00Z and t

Stratos ExtraBold Italic

Lapse Rate Pulse Storm

Teleconnection

Severe Weather Uk

Telluric Contamination

Annular Hurricane Tornado

Atmospheric Radiation Measurement

Greenhouse Gas Monitoring

Meteorological Phenomena

Coastal Zone Color Scanner

Road Weather Information System

Radius Of Outermost Closed Isobar

Kenya Meteorological Department

Marine Weather Forecasting

Tornado Outbreak Sequence

Rocketsonde Stüve Diagram

International Standard Atmosphere

Laser-Assisted Water Condensation

Denver Convergence Vorticity Zone

Stratos ExtraBold Italic

WIND SHEAR
ICE CRYSTALS
RADIANT BARRIER
HUMIDITY BUFFERING
ATMOSPHERIC CHEMISTRY
GLOSSARY OF CLIMATE CHANGE
GLOBAL HORIZONTAL SOUNDING TECHNIQUE

METEOSAT SECOND GENERATION

MARINE WEATHER FORECASTING

HORIZONTAL CONVECTIVE ROLLS

CLIMATE SAVERS COMPUTING INITIATIVE

LASER-ASSISTED WATER CONDENSATION

AUTOMATED AIRPORT WEATHER STATION

ADIABATIC FLAME TEMPERATURE

CLAUSIUS–CLAPEYRON RELATION

TERRESTRIAL GAMMA-RAY FLASH

EUROPEAN SEVERE STORMS LABORATORY

MODEL FOR PREDICTION ACROSS SCALES

INTERNATIONAL STANDARD ATMOSPHERE

Stratos ExtraBold Italic

A downburst is created by a column of sin king air that, after hitting ground level, spr eads out in all directions and is capable of producing damaging straight-line winds of over 240 kilometres per hour (150 mph), oft en producing damage similar to, but distin guishable from, that caused by tornadoes. This is because the physical properties of a downburst are completely different from those of a tornado. Downburst damage wil l radiate from a central point as the desce

A tornado is a dangerous rotating column of air in contact with both the surface of the earth and the base of a cumulonimbus c loud (thundercloud) or a cumulus cloud, in rare cases. Tornado es come in many sizes but typically form a visible condensatio n funnel whose narrowest end reaches the earth and surrounde d by a cloud of debris and dust. Tornadoes wind speeds general ly average between 64 kilometres per hour (40 mph) and 180 kil ometres per hour (110 mph). They are approximately 75 metres (246 ft) across and travel a few kilometers before dissipating. So

Despite the fact that there might be a layer in the atmosphere that has positive valu es of CAPE, if the parcel does not reach or begin rising to that level, the most significa nt convection that occurs in the FCL will not be realized. This can occur for numerous reasons. Primarily, it is the result of a cap, or convective inhibition (CIN/CINH). Process es that can erode this inhibition are heating of the Earth's surface and forcing. Such f orcing mechanisms encourage upward vertical velocity, characterized by a speed th at is relatively low to what you find in a thunderstorm updraft. Because of this, it is n ot the actual air being pushed to its LFC that “breaks through” the inhibition, but rath er the forcing cools the inhibition adiabatically. This would counter, or "erode" the in crease of temperature with height that is present during a capping inversion. Forcing

Stratos Black

Cloudburst

Turbopause

Density Altitude

Incoherent Scatter

Atmospheric Research

Climate Research (Journal)

Maximum-Value Composite Procedure

Secondary Organic Aerosols Bloodstorm (Marvel Comics)

Hemispherical Photography Clausius–Clapeyron Relation

Kombayashi–Ingersoll Limit Marine Weather Forecasting

Tropical Cyclone Observation Flood Advanced Microwave Sounding Unit

World Meteorological Organization Climate Savers Computing Initiative

Mountain Breeze And Valley Breeze Aeronomy Of Ice In The Mesosphere

Stratos Black

HIMAWARI 8

BAROTROPITY

SPLITTING STORM

LIDAR LIST OF FLOODS

ANTI-GREENHOUSE EFFECT

CIRROCUMULUS STRATIFORMIS

GLOBAL HORIZONTAL SOUNDING TECHNIQUE

SYNOPTIC SCALE METEOROLOGY

COASTAL ZONE COLOR SCANNER

WET-BULB GLOBE TEMPERATURE

GLOSSARY OF ENVIRONMENTAL SCIENCE

AUTOMATED AIRPORT WEATHER STATION

DENVER CONVERGENCE VORTICITY ZONE

NOAA-4 DEGREE (TEMPERATURE)

CLAUSIUS–CLAPEYRON RELATION

TURBINE INLET AIR COOLING FOG

EUROPEAN SEVERE STORMS LABORATORY

WORLD METEOROLOGICAL ORGANIZATION

TROPICAL UPPER TROPOSPHERIC TROUGH

Stratos Black

A thermal column (or thermal) is a vertical s ection of rising air in the lower altitudes of the Earth's atmosphere. Thermals are creat ed by the uneven heating of the Earth's sur face from solar radiation. The Sun warms th e ground, which in turn warms the air direc tly above it. The warmer air expands, becom ing less dense than the surrounding air ma ss, and creating a thermal low. The mass of lighter air rises, and as it does, it cools due to its expansion at lower high-altitude pres

Warm air has a lower density than cool air, so warm air rises withi n cooler air, similar to hot air balloons. Clouds form as relatively w armer air carrying moisture rises within cooler air. As the moist a ir rises, it cools causing some of the water vapor in the rising pac ket of air to condense. When the moisture condenses, it releases energy known as latent heat of fusion which allows the rising pac ket of air to cool less than its surrounding air, continuing the clou d’s ascension. If enough instability is present in the atmosphere, this process will continue long enough for cumulonimbus clouds

All thunderstorms, regardless of type, go through three stages: the developing stage, t he mature stage, and the dissipation stage. The average thunderstorm has a 24 km (15 mi) diameter. Depending on the conditions present in the atmosphere, these three stag es take an average of 30 minutes to go through. There are four main types of thunderst orms: single-cell, multicell, squall line (also called multicell line) and supercell. Which t ype forms depends on the instability and relative wind conditions at different layers of the atmosphere (“wind shear”). Single-cell thunderstorms form in environments of low vertical wind shear and last only 20–30 minutes. Organized thunderstorms and thunder storm clusters/lines can have longer life cycles as they form in environments of signifi cant vertical wind shear, which aids the development of stronger updrafts as well as va

Stratos Black Italic

Fahrenheit

Waterspout

Thalpotentiginy

Boyle Temperature

Atmospheric Research

Ocean Surface Topography

Atmospheric Radiation Measurement

Inversion Temperature Mist
Seasonal Affective Disorder
Coastal Zone Color Scanner
Glossary Of Environmental Science
Road Weather Information System
Kenya Meteorological Department

Great Arctic Cyclone Of 2012
Trajectory (Fluid Mechanics)
Echam Ice-Albedo Feedback
Laser-Assisted Water Condensation
Skew-T Log-P Diagram Temperature
Kenya Meteorological Department

Stratos Black Italic

SOUTH WIND

ISLAND WAKE

CLIMATE PATTERN

EVAPORATIVE COOLER

VIEHLAND-MASON THEORY

CIRROCUMULUS STRATIFORMIS

MINUANO ANTICYCLONE (IN METEOROLOGY)

MARINE WEATHER FORECASTING

CLIMATE ENSEMBLE NEPHOLOGY

METEOSAT SECOND GENERATION

AUTOMATED AIRPORT WEATHER STATION

THERMODYNAMIC TEMPERATURE EARTH

METEOROLOGICAL INSTITUTE HAMBURG

ADIABATIC FLAME TEMPERATURE

METEOROLOGICAL INTELLIGENCE

CLAUSIUS–CLAPEYRON RELATION

WORLD METEOROLOGICAL ORGANIZATION

MODEL FOR PREDICTION ACROSS SCALES

DENVER CONVERGENCE VORTICITY ZONE

Stratos Black Italic

The rear-inflow jet is a component of bo w echoes in a mesoscale convective syste m that aids in creating a stronger cold po ol and downdraft. The jet forms as a respo nse to a convective circulation having ups hear tilt and horizontal pressure gradient s. The cold pool that comes from the outflo w of a storm forms an area of high pressur e at the surface. In response to the surfac e high and warmer temperatures aloft due to convection, a mid-level mesolow forms

The Bergeron classification is the most widely accepted form of air mass classification, though others have produced more refin ed versions of this scheme over different regions of the globe. A ir mass classification involves three letters. The first letter desc ribes its moisture properties, with c used for continental air ma sses (dry) and m for maritime air masses (moist). The second let ter describes the thermal characteristic of its source region: T f or Tropical, P for Polar, A for arctic or Antarctic, M for monsoon, E for Equatorial, and S for superior air (an adiabatically drying an

There are a few general archetypes of atmospheric instability that correspond to con vection and lack thereof. Steeper and/or positive lapse rates (environmental air cools quickly with height) suggests atmospheric convection is more likely, while weaker an d/or negative environmental lapse rates suggest it is less likely. This is because any d isplaced air parcels will become more (less) buoyant, given their sign of adiabatic te mperature change, in the steep (weak) lapse rate environments. Convection begins at the level of free convection (LFC), where it begins its ascent through the free convecti ve layer (FCL), and then stops at the equilibrium level (EL). The rising parcel, if having e nough momentum, will continue to rise to the maximum parcel level (MPL) until negat ive buoyancy decelerates the parcel to a stop. Acceleration is of little relevance to co

Uppercase	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
Lowercase	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
Standard punctuation	! ¡ ? ¿ . , : ; … _ ‐ – — / \ | ¦ ( ) [ ] { } ‘ ’ “ ” ‚ „ ' " ‹ › « » • · * † ‡ @ & &
Case-sensitive forms	! ¡ ? ¿ ‐ – — ( ) [ ] { } ‹ › « » · @
Symbols	§ ¶ © ℗ ® ™ ℠ ª º №
Ligatures Discretionary ligatures Historical ligatures	fi fl fb ffb ff fh ffh ffi fj ffj fk ffk ffl ft fft
Figures (Lining proportional)	0 1 2 3 4 5 6 7 8 9 Ø € $ ¢ £ ƒ ¥ #
Figures (Oldstyle proportional)	0 1 2 3 4 5 6 7 8 9 Ø € $ ¢ £ ƒ ¥ #
Figures (Lining tabular)	0 1 2 3 4 5 6 7 8 9 Ø € $ ¢ £ ƒ ¥ #
Figures (Oldstyle tabular)	0 1 2 3 4 5 6 7 8 9 Ø € $ ¢ £ ƒ ¥ #
Mathematical symbols Fractions	+ − ± × ÷ = ≠ ~ ≈ ^ < > ≤ ≥ ¬ ¤ ∞ ◊ Δ Ω ∂ ∫ √ ∑ ∏ π µ ° ℓ ℮ ¼ ½ ¾ % ‰
Superiors / Inferiors	0 1 2 3 4 5 6 7 8 9 , . ( ) + − × ÷ = € $ ¢ ⁄ 0 1 2 3 4 5 6 7 8 9 , . ( ) + − × ÷ = € $ ¢
Numerators / Denominators	0 1 2 3 4 5 6 7 8 9 , . ( ) + − × ÷ = € $ ¢ ⁄ 0 1 2 3 4 5 6 7 8 9 , . ( ) + − × ÷ = € $ ¢
Superscript	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
Accented uppercase	À Á Â Ã Ä Ā Ă Å Ǻ Ą Æ Ǽ Ć Ĉ Č Ċ Ç Ď Đ È É Ê Ě Ë Ē Ĕ Ė Ę FI FL Ĝ Ğ Ġ Ģ Ĥ Ħ Ì Í Î Ĩ Ï Ī Ĭ İ Į IJ Ĵ Ķ Ĺ Ľ Ļ Ł Ŀ Ń Ň Ñ Ņ Ò Ó Ô Õ Ö Ō Ŏ Ő Ø Ǿ Œ Ŕ Ř Ŗ SS Ś Ŝ Š Ş Ș Ť Ţ Ŧ Ù Ú Û Ũ Ü Ū Ŭ Ů Ű Ų Ẁ Ẃ Ŵ Ẅ Ỳ Ý Ŷ Ÿ Ź Ž Ż Ə Ŋ Ð Þ
Accented lowercase	à á â ã ä ā ă å ǻ ą æ ǽ ć ĉ č ċ ç ď đ è é ê ě ë ē ĕ ė ę ĝ ğ ġ ģ ĥ ħ ì í î ĩ ï ī ĭ i į ı ĳ ĵ ȷ ķ ĺ ľ ļ ł ŀ ń ň ñ ņ ò ó ô õ ö ō ŏ ő ø ǿ œ ŕ ř ŗ ś ŝ š ş ș ß ť ţ ŧ ù ú û ũ ü ū ŭ ů ű ų ẁ ẃ ŵ ẅ ỳ ý ŷ ÿ ź ž ż ə ŋ ð þ
Circled numbers	⓪ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⓿ ❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾ ❿
Arrows	← → ↑ ↓ ↖ ↗ ↙ ↘ ↔
Ornaments	■ ◆ ● ▶ □ ◇ ○ ▷ ◀ ▶ ▲ ▼ ◁ ▷ △ ▽ ◂ ▸ ▴ ▾ ◃ ▹ ▵ ▿ 〈 〉 ∧ ∨ ♡ ♥
Alternate a (Stylistic set 1)	ɑ ɑ̀ ɑ́ ɑ̂ ɑ̃ ɑ̈ ɑ̄ ɑ̆ ɑ̊ ǻ ą œ ǽ
Alternate g (Stylistic set 2)	g ĝ ğ ġ ģ

Stratos

OpenType features

	OFF	ON
All caps [CPSP]	Lowercase	UPPERCASE
Case-sensitive forms [CASE]	[Case-sensitive] !¡?¿-–—()[]{}‹›«»·@	[CASE-SENSITIVE] !¡?¿-–—()[]{}‹›«»·@
Standard ligatures [LIGA]	fi fl fb ff fh fj fk ft ffb ffh ffi ffj ffk ffl fft	fi fl fb ff fh fj fk ft ffb ffh ffi ffj ffk ffl fft
Slashed zero [ZERO]	0123456789	Ø123456789
Tabular lining figures [TNUM + LNUM]	H0123456789	H0123456789
Tabular oldstyle figures [TNUM + ONUM]	H0123456789	H0123456789
Proportional lining figures [PNUM + LNUM]	H0123456789	H0123456789
Proportional oldstyle figures [PNUM + ONUM]	H0123456789	H0123456789
Superscript/Superior [SUPS]	Hsuperscript H0123456789 H,.()+−×÷=€$¢	Hsuperscript H0123456789 H,.()+−×÷=€$¢
Subscript/Inferior [SINF]	H0123456789 H,.()+−×÷=€$¢	H0123456789 H,.()+−×÷=€$¢
Numerator [NUMR]	H0123456789 H,.()+−×÷=€$¢	H0123456789 H,.()+−×÷=€$¢
Denominator [DNOM]	H0123456789 H,.()+−×÷=€$¢	H0123456789 H,.()+−×÷=€$¢

Stratos

OpenType features

	OFF	ON
Fractions [FRAC]	1/4 1/2 3/4 2/3 7/8 0/0 0/00	¼ ½ ¾ ⅔ ⅞ % ‰
Ordinals [ORDN]	2a 2o No N° no n°	2ª 2º № № № №
Stylistic set 1 Alternate a [SS01]	another animal	another animal
Stylistic set 2 Alternate g [SS02]	big guy, tough guy	big guy, tough guy
Stylistic set 3 & 4: circled numbers [SS03 & SS04]	012345678910 012345678910	⓪①②③④⑤⑥⑦⑧⑨⑩ ⓿❶❷❸❹❺❻❼❽❾❿
Stylistic set 5: arrows [SS05]	<>+−×÷=±	←→↑↓↖↗↙↘
Stylistic set 6: ornaments [SS06]	abcdef	■◆●▶❤♡

Information

Supported languages	Afrikaans, Albanian, Asu, Basque, Bemba, Bena, Bosnian, Catalan, Chiga, Congo Swahili, Cornish, Croatian, Czech, Danish, Dutch, Embu, English, Esperanto, Estonian, Faroese, Filipino, Finnish, French, Galician, Ganda, German, Gusii, Hungarian, Icelandic, Indonesian, Irish, Italian, Jola-Fonyi, Kabuverdianu, Kalenjin, Kamba, Kikuyu, Kinyarwanda, Latvian, Lithuanian, Luo, Luyia, Machame, Makhuwa-Meetto, Makonde, Malagasy, Malay, Maltese, Manx, Meru, Morisyen, North Ndebele, Norwegian Bokmål, Norwegian Nynorsk, Nyankole, Oromo, Polish, Portuguese, Romanian, Romansh, Rombo, Rundi, Rwa, Samburu, Sango, Sangu, Sena, Shambala, Shona, Slovak, Slovenian, Soga, Somali, Spanish, Swahili, Swedish, Swiss German, Taita, Teso, Turkish, Vunjo, Welsh, Zulu.
Designer	Yoann Minet. Original art direction with Emmanuel Labard.
Contact	Production Type 255, rue du Faubourg Saint-Antoine 75011 Paris, France +33 (0)7 68 72 24 00 www.productiontype.com
Copyright	© 2016 Production Type, all rights reserved. Production Type is a registered trademark of Production Systems SAS. Stratos is a registered trademark of Production Systems SAS.