

Name

Met Office Global and Regional Ensemble Prediction System - UK (MOGREPS-UK)

Description

THIS DATASET IS CHANGING

As the Met Office is upgrading its operational modelling systems, files uploaded from late January 2026 onward will contain the following changes:

- **17 new parameters.**
- **Addition of “status flag” for parameters available on pressure levels, denoting whether or not the grid point is above the model surface.**
 - **Addition of status flag to all parameters on pressure levels.**
 - **Compression alongside the main data.**
- **Renaming/replacement of height_ASL_on_pressure_levels to geopotential_height_on_pressure_levels.**
- **Increased number of timesteps available for selected parameters.**
- **Increased number of pressure levels available for some parameters.**
- **Reduction in precision to offset data volume increases.**
- **NetCDF (HDF5) files are written with "superblock version 2" rather than the previous "superblock version 0". The superblock is a small piece of metadata at the very beginning of the file that defines the internal layout and capabilities of the file format. This is only expected to affect people using significantly older tools and decoders e.g. built against HDF5 ≤ 1.8.x.**
- **Change to calendar metadata type. In the new version of Iris, the calendar metadata type is now "standard" instead of "gregorian". In NetCDF files, "standard" behaves identically to "gregorian", so the underlying values and data remain the**

same. This means that users will see "standard" as the calendar metadata going forward, but there is no impact on the actual data or its interpretation.

Please check your systems are prepared for these changes.

A numerical weather prediction model that produces forecasts for the UK for the next 5 days. Parameters including temperature, pressure, wind, humidity, etc. are forecast at grid points separated by about 2.2 km, and the model has multiple vertical levels. The data is available as [NetCDF files](#). It's offered on a free, unsupported basis, so we don't recommend using it for any critical business purposes.

Met Office Global and Regional Ensemble Prediction System - UK (MOGREPS-UK) is a UK configuration of the Unified Model, which is the Met Office's flagship Numerical Weather Prediction model. The Unified Model uses a technique called hybrid 4D-Var data assimilation, which blends observations with the model to stay close to real-world conditions.

Archive length and latency

The archive contains 30 days of data. The data is typically available approximately 10-11 hours after the model run time.

Timesteps

Timesteps for most parameters are provided every hour from 0 to 126 hours. Check the parameter table for full details.

Update frequency

The MOGREPS-UK model runs 24 times per day.

Parameters

<i>Parameter name</i>	<i>Description</i>	<i>Unit</i>	<i>Levels until January 2026</i>	<i>Levels from January 2026</i>	<i>Timesteps until January 2026</i>	<i>Timesteps from January 2026</i>
CAPE_mixed_layer_lowest_500m	CAPE (Convective Available Potential Energy) calculated for a mixed layer parcel where a mixed layer parcel is defined as a parcel with thermodynamic properties of the density-weighted mean of the lowest 500 m above ground level.	J kg-1	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
CAPE_most_unstable_below_500hPa	CAPE (Convective Available Potential Energy) calculated for the most unstable parcel where the most unstable parcel is defined as the parcel with the highest fixed level CAPE launched from any level (including screen-level=1.5m) within 500hPa of the surface pressure.	J kg-1	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

CAPE_surface	Value of CAPE (Convective Available Potential Energy) calculated for a surface based parcel where a surface based parcel is defined as a parcel initiated with thermodynamic properties at screen level height (1.5m) i.e. the parcel is launched from screen level.	J kg-1	None	None	Hourly T+1 to T+126	15-minutely T+0h15m to T+11h45m
CIN_mixed_layer_lowest_500m	Convective Inhibition calculated as the additional energy required to lift a mixed-layer parcel to its level of free convection. Where a mixed layer parcel is defined as a parcel with thermodynamic properties of the density weighted mean of the lowest 500 m above ground level (AGL).	J kg-1	None	None	Hourly T+12 to T+126	
CIN_most_unstable_below_500hPa	Convective Inhibition calculated as the additional energy required to lift the most unstable parcel to its level of free convection. Where most unstable parcel is defined as the parcel with the highest fixed-level CAPE launched from any level (including screen-level) within 500 hPa of the surface pressure.	J kg-1	None	None		

CIN_surface	Convective Inhibition calculated as the additional energy required to lift a surface based parcel (i.e. a parcel launched from screen-level (1.5m)) to its level of free convection.	J kg-1	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
boundary_layer_depth	The planetary boundary layer (PBL), or atmospheric boundary layer (ABL), or simply the boundary layer (BL), is the lowest part of the atmosphere which is directly influenced by its contact with the surface. In this layer physical quantities such as flow velocity, temperature, and moisture display rapid fluctuations (turbulence) and vertical mixing is strong. The depth of the boundary layer can vary very markedly, particularly between day and night. The boundary layer depth is simply the current thickness of this layer.	m	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
cloud_amount_below_1000ft_AS_L	Fraction of horizontal grid square occupied by cloud below 1000 feet above sea level.	1	None	None	Hourly T+1 to T+126	15-minutely T+0h15m to T+11h45m

cloud_amount_of_high_cloud	Fraction of horizontal grid square occupied by cloud in the high-level cloud height range (from the lowest model layer containing the 5574m height level up to but excluding the lowest model layer containing 13608m height level).	1	None	None	Hourly T+12 to T+126	
cloud_amount_of_low_cloud	Fraction of horizontal grid square occupied by cloud in the low-level cloud height range (from the lowest model layer containing the 111m height level up to but excluding the lowest model layer containing 1949m height level).	1	None	None		
cloud_amount_of_medium_cloud	Fraction of horizontal grid square occupied by cloud in the mid-level cloud height range (from the lowest model layer containing the 1949m height level up to but excluding the lowest model layer containing 5574m height level).	1	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
cloud_amount_of_total_cloud	Fraction of horizontal grid square occupied by cloud as diagnosed by the model cloud scheme. This is for the whole atmosphere column as seen from the surface or the top of the atmosphere.	1	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

cloud_amount_on_height_levels	Fraction of horizontal grid square occupied by cloud in layers centred on height levels. The levels are height above ground.	1	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	Hourly T+1 to T+126	Hourly T+1 to T+126
cloud_amount_on_pressure_levels	Fraction of horizontal grid square occupied by cloud in layers centred on pressure levels.	1	n/a	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500	Hourly T+1 to T+126	Hourly T+1 to T+126

				20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000		
evaporation_flux_at_surface	Rate of loss of water from the surface expressed as a mass flux.	kg m ⁻² s ⁻¹	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
fog_fraction_at_screen_level	Here fog means a visibility of 1000 m or lower. The reduction in visibility is caused by water droplets or minute ice crystals forming close to the surface. This quantity represents the fraction of horizontal grid square occupied by fog. An alternative interpretation is that this represents the fractional probability of fog being present at any location in the grid square.		1 height (metres): 1.5 m	height (metres): 1.5 m	Hourly T+0 to T+126	Hourly T+0 to T+126
geopotential_height_at_freezing_level	Geopotential height of the 0oC isotherm (freezing level)	m	n/a	None	Hourly T+1 to T+126	Hourly T+1 to T+126

geopotential_height_on_pressure_levels	Geopotential height on pressure levels.	m	n/a	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500 20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000	n/a	Hourly T+1 to T+126
hail_fall_accumulation-PT01H	Implied depth of the layer of liquid water equivalent (LWE) hail produced by the model precipitation scheme and deposited on the surface in the previous hour.	m	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

hail_fall_accumulation-PT15M	Implied depth of the layer of liquid water equivalent (LWE) hail produced by the model precipitation scheme and deposited on the surface in the previous 15 minutes.	m	None	None	Hourly T+0 to T+126	Hourly T+0 to T+126
hail_fall_rate	Instantaneous rate at which liquid water equivalent (LWE) hail (as a depth) has been produced by the model precipitation scheme and deposited on the surface.	m s-1	None	None	n/a	Hourly T+0 to T+126
hail_fall_rate_max-PT01H	Maximum instantaneous rate at which liquid water equivalent (LWE) hail (as a depth) has been produced by the model precipitation scheme and deposited on the surface in the previous hour.	m s-1	None	None	n/a	Hourly T+1 to T+126
height_ASL_at_base_of_convective_inflow	The height of the first level which during the most unstable parcel ascent satisfies the condition that CAPE > 100 J kg-1 and CIN > -250 J kg-1.	m	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

height_ASL_at_cloud_base_where_cloud_cover_2p5_oktas	Height of the base of the lowest cloud above sea level where there is at least 2.5 oktas (eighths) of cloud cover. This is also referred to as the altitude of the cloud base or (geometric) height above the geoid which is the reference geopotential surface. This to corresponds to scattered cloud.	m	None	None	15-minutely T+0h15m to T+126h	15-minutely T+0h15m to T+126h
height_ASL_at_cloud_base_where_cloud_cover_4p5_oktas	Height of the base of the lowest cloud above sea level where there is at least 4.5 oktas (eighths) of cloud cover. This is also referred to as the altitude of the cloud base or (geometric) height above the geoid which is the reference geopotential surface. This to corresponds to broken cloud.	m	None	None	Hourly T+1 to T+126	15-minutely T+0h15m to T+126h
height_ASL_at_freezing_level	Height of the 0oC isotherm (freezing level) above sea level	m	None	n/a	Hourly T+1 to T+126	Hourly T+1 to T+126
height_ASL_at_mixed_layer_CAPE_equilibrium_level	The height above mean sea level where the mixed layer parcel temperature equals the environment temperature above its level of free convection.	m	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

height_ASL_at_most_unstable_CAPE_equilibrium_level	The height above mean sea level where the most unstable parcel temperature equals the environment temperature above its level of free convection.	m	None	None	Hourly T+0 to T+126	Hourly T+0 to T+126
height_ASL_at_most_unstable_CAPE_initiation_level	The height above mean sea level where the most unstable parcel temperature equals the environment temperature above its level of free convection.	m	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
height_ASL_at_top_of_convective_inflow	The height of the first level which during the most unstable parcel ascent no longer satisfies the condition that CAPE > 100 J kg ⁻¹ and CIN > -250 J kg ⁻¹ .	m	None	None	Hourly T+0 to T+126	n/a
height_ASL_at_wet_bulb_freezing_level	Height of the wet bulb freezing level (i.e. where the wet bulb temperature is 0oC) above sea level. This is also referred to as the altitude of the wet bulb freezing level or (geometric) height above the geoid, which is the reference geopotential surface. Wet bulb temperature is defined as the temperature of a parcel of air cooled to saturation (100% relative humidity) by the evaporation of	m	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

	water into it with the latent heat supplied by the parcel.					
height_of_oroography	Altitude or (geometric) height above the geoid of the surface (ground). It is worth remembering that orographic height can be negative, particularly in some of the inland sea areas (e.g. Caspian Sea at -27m and Dead Sea at -430m)	m	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
landsea_mask	Binary indicator of whether at point is considered land (value = 1) or sea (value = 0). This is useful to identify the coastline and for correct interpretation of forecast data by users.	1	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
latent_heat_flux_at_surface	Exchange of heat of between the surface and the air on account of evaporation (including sublimation).	W m-2	n/a	None	Hourly T+1 to T+126	Hourly T+1 to T+126

lightning_flash_accumulation-PT01H	This represents the total (cloud-to-cloud and cloud-to-ground) lightning flashes per square metre within the previous hour. The method used to generate this is based on the paper Forecasting Lightning Threat Using Cloud-Resolving Model Simulations, in which the observations were made using lightning sensors which did not discriminate between the two types of lightning. However, there are plans to try to split the two components in the model.	m-2	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
precipitation_accumulation-PT01H	Implied depth of the layer of liquid water which has been deposited on the surface in the previous hour. This includes rain, snow and hail, with the ice phase precipitation being considered as a liquid water equivalent (lwe) value. It includes the contribution from the model convection scheme if this is invoked.	m	n/a	None	T+0 only	T+0 only

precipitation_accumulation-PT15M	Implied depth of the layer of liquid water which has been deposited on the surface in the previous 15 minutes. This includes rain, snow and hail, with the ice phase precipitation being considered as a liquid water equivalent (lwe) value. It includes the contribution from the model convection scheme if this is invoked.	m	n/a	None	T+0 only	T+0 only
precipitation_rate	Instantaneous rate at which liquid water (as a depth) was being deposited on the surface. This includes rain, snow and hail with the ice phase precipitation being considered as a liquid water equivalent (lwe) value. It includes the contribution from the model convection scheme if this is invoked.	m s-1	n/a	None	n/a	Hourly T+1 to T+126
pressure_at_mean_sea_level	Air pressure at mean sea level which is close to the geoid in sea areas. Air pressure at sea level is the quantity often abbreviated as MSLP or PMSL.	Pa	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
pressure_at_surface	Air pressure at the surface (lower boundary of the atmosphere).	Pa	None	None	n/a	Hourly T+1 to T+126

pressure_on_height_levels	Pressure at the height levels. The levels are height above ground.	Pa	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	n/a	15-minutely T+0h15m to T+126h
radiation_flux_in_longwave_downward_at_surface	Longwave radiation at the surface from above directed at the ground. Longwave or terrestrial radiation is radiation emitted by the earth, either the surface or clouds or air. This has a standard wavelength distribution based on the temperature of the radiating 'surface' (i.e. much cooler than shortwave radiation, typically <300K).	W m-2	None	None	n/a	15-minutely T+0h15m to T+126h

radiation_flux_in_shortwave_diffuse_downward_at_surface	Shortwave radiation at the surface from above directed at the ground. Diffuse means that the radiation has been scattered by particles in the atmosphere such as cloud droplets and aerosols.	W m-2	None	None	Hourly T+0 to T+126	15-minutely T+0 to T+126
radiation_flux_in_shortwave_direct_downward_at_surface	Shortwave radiation at the surface from above directed at the ground. Direct means that the radiation has followed a direct path from the sun and is alternatively known as direct insolation.	W m-2	None	None	Hourly T+1 to T+126	Hourly T+0 to T+126
radiation_flux_in_shortwave_net_at_surface	The net downward shortwave radiation at the surface from above directed at the ground.	W m-2	n/a	None	Hourly T+0 to T+126	Hourly T+0 to T+126
radiation_flux_in_shortwave_total_downward_at_surface	Shortwave radiation at the surface from above directed at the ground. Total means the sum of direct and diffuse solar radiation incident on the surface and is sometimes called global radiation.	W m-2	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
radiation_flux_in_uv_downward_at_surface	Ultraviolet radiation at the surface from above directed at the ground.	W m-2	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
radiation_flux_in_uv_upward_at_surface	Ultraviolet radiation at the surface directed away from the ground.	W m-2	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

rainfall_accumulation-PT01H	Implied depth of the rain produced by the model precipitation scheme which has been deposited on the surface in the previous hour. This excludes the rain produced by the the model convection scheme.	m	None	None	n/a	Hourly T+1 to T+126
rainfall_accumulation-PT15M	Implied depth of the rain produced by the model precipitation scheme which has been deposited on the surface in the previous 15 minutes. This excludes the rain produced by the the model convection scheme.	m	None	None	Hourly T+1 to T+125	Hourly T+1 to T+126
rainfall_rate	Instantaneous rate at which rain (as a depth) was being produced by the model precipitation scheme and deposited on the surface. This excludes the rain produced by the the model convection scheme.	m s-1	None	None	Hourly T+1 to T+125	Hourly T+1 to T+125
rainfall_rate_max-PT01H	Maximum instantaneous rate at which rain (as a depth) has been produced by the model precipitation scheme and deposited on the surface in the previous hour. This excludes the rain produced by the the model convection scheme.	m s-1	None	None	Hourly T+1 to T+125	Hourly T+1 to T+125

relative_humidity_at_screen_level	Fractional relative humidity (ratio of the partial pressure of water vapour to the equilibrium vapour pressure of water) at screen level (1.5m above the surface).	1	height (metres): 1.5 m	height (metres): 1.5 m	Hourly T+1 to T+126	Hourly T+1 to T+126
relative_humidity_on_height_levels	Fractional relative humidity (ratio of the partial pressure of water vapour to the equilibrium vapour pressure of water) on height above ground levels.	1	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	15-minutely T+0h15m to T+126h	15-minutely T+0h15m to T+126h

relative_humidity_on_pressure_levels	Fractional relative humidity (ratio of the partial pressure of water vapour to the equilibrium vapour pressure of water) on pressure levels.	1	n/a	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500 20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000	15-minutely T+0h15m to T+126h	15-minutely T+0h15m to T+126h
sensible_heat_flux_at_surface	Exchange of heat between the surface and the air by motion of air, also called turbulent heat flux.	W m-2	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
snow_depth_water_equivalent	Liquid water equivalent (lwe) depth of the snow lying on the surface (ground). Typically water is 10 times as dense as snow, so multiplying by 10 gives an approximate depth of the snow,	m	None	None	Hourly T+0 to T+126	Hourly T+0 to T+126

	although wet snow can be significantly denser and powder snow much less dense.					
snowfall_accumulation-PT01H	Implied depth of the (LWE) snow (as a depth) produced by the model precipitation scheme and deposited on the surface in the previous hour. This excludes the snow produced by the the model convection scheme.	m	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
snowfall_accumulation-PT15M	Implied depth of the (LWE) snow (as a depth) produced by the model precipitation scheme and deposited on the surface in the previous 15 minutes. This excludes the snow produced by the model convection scheme.	m	None	None	n/a	Hourly T+1 to T+126
snowfall_rate	Instantaneous rate at which liquid water equivalent (LWE) snow (as a depth) was produced by the model precipitation scheme and deposited on the surface. This excludes the snow produced by the model convection scheme.	m s-1	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

snowfall_rate_max-PT01H	Maximum instantaneous rate at which liquid water equivalent (LWE) snow (as a depth) has been produced by the model precipitation scheme and deposited on the surface in the previous hour. This excludes the snow produced by the model convection scheme.	m s-1	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126
soil_mass_concentration_of_water_on_soil_levels	Mass per unit volume of water in all phases contained in the layer surrounding a soil depth level.	kg m-3	n/a	depth (metres): 0.05 0.225 0.675 2.0	Hourly T+1 to T+126	Hourly T+1 to T+126
soil_temperature_on_soil_levels	Temperature of the soil at a soil depth level.	K	depth (metres): 0.05 0.225 0.675 2.0	depth (metres): 0.05 0.225 0.675 2.0	15-minutely T+0h15m to T+126h	15-minutely T+0h15m to T+126h
specific_humidity_at_screen_level	The ratio of the mass of water vapor to the total mass of the air (including both dry air and water vapor). A measure of how much actual water (vapour) is in the air, independent of temperature & pressure changes. Output at screen level (1.5 metres.)	kg kg-1	n/a	height (metres): 1.5 m	15-minutely T+0h15m to T+126h	15-minutely T+0h15m to T+126h

specific_humidity_on_height_levels	The ratio of the mass of water vapor to the total mass of the air (including both dry air and water vapor). A measure of how much actual water (vapour) is in the air, independent of temperature & pressure changes. Output on heights above orography.	kg kg-1	n/a	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	Hourly T+1 to T+126	Hourly T+1 to T+126
specific_humidity_on_pressure_levels	The ratio of the mass of water vapor to the total mass of the air (including both dry air and water vapor). A measure of how much actual water (vapour) is in the air, independent of temperature & pressure changes. Output on pressure levels.	kg kg-1	n/a	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500	n/a	Hourly T+1 to T+126

				20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000		
temperature_at_screen_level	Instantaneous air temperature at screen level (1.5m).	K	height (metres): 1.5 m	height (metres): 1.5 m	Hourly T+1 to T+126	Hourly T+1 to T+126
temperature_at_screen_level_max-PT01H	Maximum instantaneous air temperature at screen level (1.5m) in the previous hour.	K	height (metres): 1.5 m	height (metres): 1.5 m	n/a	Hourly T+0 to T+126
temperature_at_screen_level_min-PT01H	Maximum instantaneous air temperature at screen level (1.5m) in the previous hour.	K	height (metres): 1.5 m	height (metres): 1.5 m	n/a	Hourly T+1 to T+126
temperature_at_surface	Temperature at the surface interface between the air and the ground.	K	None	None	n/a	Hourly T+1 to T+126
temperature_of_dew_point_at_screen_level	Instantaneous dew point temperature (temperature at which a parcel of air reaches saturation upon being cooled at constant pressure and specific humidity) at screen level (1.5m).	K	height (metres): 1.5 m	height (metres): 1.5 m	Hourly T+0 to T+126	15-minutely T+0 to T+11h45m

temperature_on_height_levels	Air temperature on height levels. The levels are height above ground.	K	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	Hourly T+12 to T+126	
temperature_on_pressure_levels	Air temperature on pressure levels.	K	n/a	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500		

				20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000		
total_radar_reflectivity_max_in_column	Simulated 2-d field of the maximum reflectivity value in the vertical. "total" refers to the fact that it is a sum of a number of components: graupel radar reflectivity, ice aggregate radar reflectivity, ice crystal radar reflectivity, rain radar reflectivity and liquid cloud radar reflectivity.	dBZ	None	None	Hourly T+1 to T+126	Hourly T+1 to T+126

total_radar_reflectivity_on_pressure_levels	Simulated 3-d values of reflectivity on the standard set of pressure levels. "total" refers to the fact that it is a sum of a number of components: graupel radar reflectivity, ice aggregate radar reflectivity, ice crystal radar reflectivity, rain radar reflectivity and liquid cloud radar reflectivity.	dBZ	pressure (Pascals): 100000 95000 92500 90000 85000 80000 75000 70000 60000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500 20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500 20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000	Hourly T+1 to T+126	Hourly T+1 to T+126
visibility_at_screen_level	Horizontal distance at which something can be seen horizontally from screen level (1.5m).	m	height (metres): 1.5 m	height (metres): 1.5 m	Hourly T+1 to T+126	Hourly T+1 to T+126
visibility_at_screen_level_percentile	visibility centiles, including precipitation, in metres, for five centiles: 1, 10, 50, 90, 99	m	n/a	height (metres): 1.5 m	Hourly T+0 to T+126	15-minutely T+0 to T+11h45m

visibility_at_screen_level_probability	probability of exceeding a visibility threshold, including precipitation, in range [0,1] for thirteen thresholds: 50, 100, 200, 400, 600, 800, 1000, 1500, 2000, 5000, 10000, 20000, 40000 m	1	n/a	height (metres): 1.5 m	Hourly T+12 to T+126	
wet_bulb_potential_temperature_on_pressure_levels	Wet bulb potential temperature on pressure levels. Wet bulb potential temperature is defined as the temperature that a parcel of air would have if it were brought down to the standard pressure of 1000hPa following a saturated adiabatic lapse rate.	K	pressure (Pascals): 85000 70000 50000	pressure (Pascals): 85000 70000 50000		
wind_direction_at_10m	Wind at 10m above the surface is defined as a two-dimensional (horizontal) air velocity vector with no vertical component. In meteorological reports the direction of the wind vector is given as the direction from which it is blowing. Note: This with wind speed at 10m replaces x wind at 10m and y wind at 10m.	degrees	height (metres): 10 m	height (metres): 10 m	Hourly T+0 to T+126	Hourly T+0 to T+126
wind_direction_on_height_levels	Wind on height levels is defined as a two- dimensional (horizontal) air velocity vector with no vertical component. In meteorological	degrees	height (metres): 5 10 20 30 50 75 100 150 200	height (metres): 5 10 20 30 50 75 100 150 200	n/a	Hourly T+1 to T+126

	reports the direction of the wind vector is given as the direction from which it is blowing. The levels are height above ground.		250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000		
wind_direction_on_pressure_levels	Wind on pressure levels is defined as a two- dimensional (horizontal) air velocity vector with no vertical component. In meteorological reports the direction of the wind vector is given as the direction from which it is blowing. Output on pressure levels.	degrees	n/a	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500 20000 17500 15000 12500 10000 7000 5000 4000	Hourly T+1 to T+126	Hourly T+1 to T+126

				3000 2000 1000		
wind_gust_at_10m	Diagnosed instantaneous wind gust at 10m. This can be considered as the extreme rather than steady wind speed that might be experienced at this specific time.	m s-1	height (metres): 10 m	height (metres): 10 m	Hourly T+1 to T+126	Hourly T+1 to T+126
wind_gust_at_10m_max-PT01H	Maximum diagnosed instantaneous wind gust at 10m in the previous hour. This can be considered as the extreme wind speed that might be experienced in this period.	m s-1	height (metres): 10 m	height (metres): 10 m	Hourly T+0 to T+126	15-minutely T+0 to T+11h45m
wind_speed_at_10m	Wind at 10m above the surface is defined as a two-dimensional (horizontal) air velocity vector with no vertical component. The speed is the magnitude of velocity.	m s-1	height (metres): 10 m	height (metres): 10 m	Hourly T+12 to T+126	

wind_speed_at_10m_max-PT01H	Maximum diagnosed instantaneous wind speed at 10m in the previous hour. This can be considered as the extreme wind speed that might be experienced in this period.	m s-1	height (metres): 10 m	height (metres): 10 m		
wind_speed_on_height_levels	Wind on a height levels is defined as a two- dimensional (horizontal) air velocity vector with no vertical component. The speed is the magnitude of velocity. The levels are height above ground.	m s-1	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	n/a	Hourly T+0 to T+126

wind_speed_on_pressure_levels	Wind on a height levels is defined as a two- dimensional (horizontal) air velocity vector with no vertical component. The speed is the magnitude of velocity. Output on pressure levels.	m s-1	n/a	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500 20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000	n/a	Hourly T+0 to T+126
wind_vertical_velocity_on_height_levels	Speed of the vertical component of the air motion at height levels. Upwards is positive and downwards is negative. The levels are height above ground.	m s-1	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000	height (metres): 5 10 20 30 50 75 100 150 200 250 300 400 500 600 700 800 1000 1250 1500 1750 2000 2250	Hourly T+1 to T+126	Hourly T+1 to T+126

			2250 2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000	2500 2750 3000 3250 3500 3750 4000 4500 5000 5500 6000		
wind_vertical_velocity_on_pressure_levels	Speed of the vertical component of the air motion at pressure levels. Upwards is positive and downwards is negative.	m s-1	pressure (Pascals): 100000 95000 92500 90000 85000 80000 75000 70000 60000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500 20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000	pressure (Pascals): 100000 97500 95000 92500 90000 85000 80000 75000 70000 65000 60000 55000 50000 45000 40000 37500 35000 32500 30000 27500 25000 22500 20000 17500 15000 12500 10000 7000 5000 4000 3000 2000 1000	Hourly T+0 to T+126	15-minutely T+0 to T+11h45m

