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Arbeitsbericht

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**208 Aeronautical Climatological
Information Grenchen LSZG**

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Nummer: 208

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Introduction

This report „Aeronautical Climatological Information Grenchen LSZG“ may only be used by:

- Civil aviation airlines operating flights to or from Grenchen aerodrome including their administrative services as well as their crews
- Private pilots and crews operating flights from or to the aerodrome
- Operative and administrative services of the aerodrome
- Aeronautical administration

This report is not intended for any other commercial use than aviation. The above defined users shall receive the right to apply the service solely for own use and for aeronautical purposes. The users shall ensure that no unauthorised use of the services takes place. The “General Terms and Conditions for Standard Range of Services” of MeteoSwiss apply.

The report provides all climatological information required for the long term planning of flight operations in Grenchen. In part A the reader gets introduced to the geographical setting of the aerodrome, the important meteorological patterns of the region with notes and basic interpretation of the data. Information about the main weather patterns bases on the “Klimaatlas der Schweiz” (MeteoSwiss 1984, 1991, 1995) and the tables of this report. In part B the data is presented mainly in form of tables and graphics, allowing a direct view of the information.

The statistics were established following the ICAO recommendations on aeronautical climatological information (Convention on International Civil Aviation, Annex 3), but is more detailed and enriched with additional information.

The data is based on half-hourly (XX20 and XX50) METAR (Aviation Routine Weather Report) collected on a span of 10 years between

January 1993 and December 2002.

The METAR from 18 to 05 UTC are usually missing due to the regular night break of the observer. This report contains only information about the period from 05 to 18 UTC. Each table or graphic contains the NA (not available) values of missing METAR. Depending on the operational opening hours of the aerodrome, the amount of NA values between 18 and 08 local time is quite considerable. The amount of NA reflects also the fact that not all half-hourly METAR are issued on a regular basis. Thus, the statistics are somehow influenced by the reporting practices at Grenchen aerodrome.

All time information is given in UTC.

An index with the used abbreviations can be found on page 73.

No climatological conclusions in a scientific sense should be drawn of the tables and graphics contained in this report, since the raw METAR data might not satisfy climatological requirements.

We would like to thank the following persons and institutions for their help and contributions:

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Institute of Cartography
ETH Hoenggerberg

A Climatology

1. GEOGRAPHICAL SETTING

1.1. Overview Switzerland

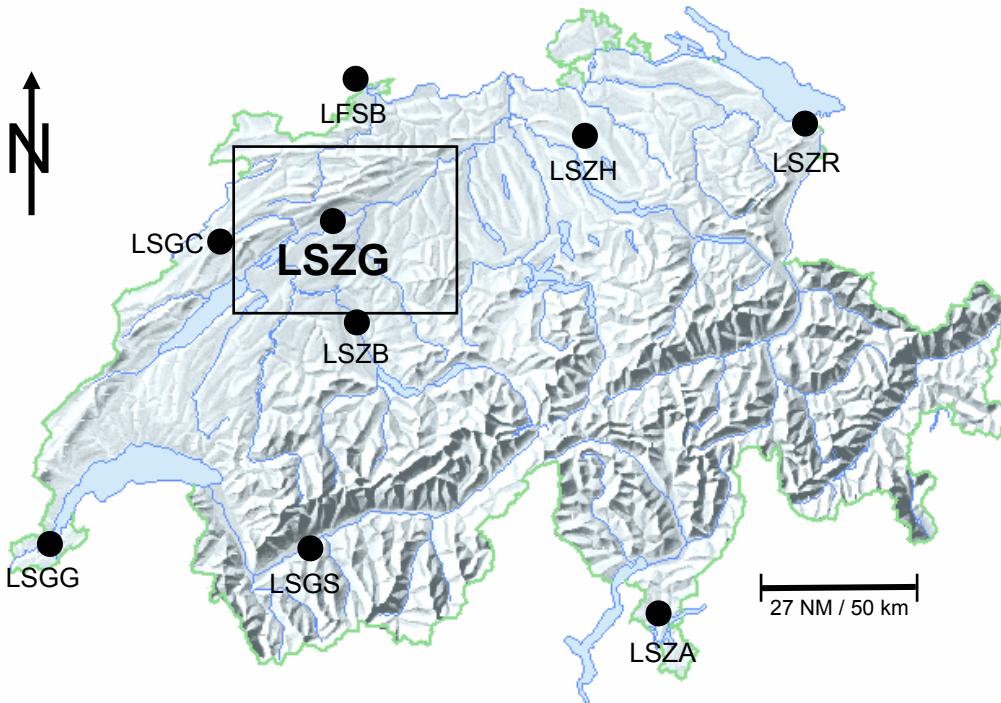
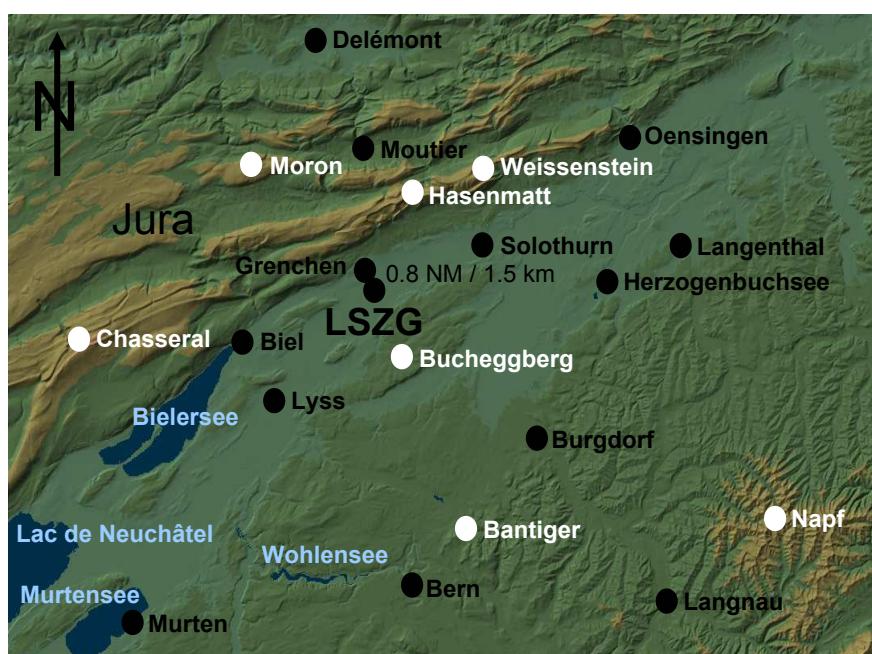


Figure 1: Most important airports of Switzerland

1.2. Overview Region Grenchen

Grenchen aerodrome (official elevation 1411 ft / 430 m) is located 0.8 NM / 1.5 km south-east of Grenchen (see figures 1 and 2). It is situated in the north-westerly part of the Swiss Plateau, a large basin with low hills between the Alps and the Jura. In direction north-east to south-west of the aerodrome the hills of the Jura rise. Grenchen aerodrome is situated in the valley of the river Aare which flows from Biel towards Solothurn. The wind gets canalized in two preferred directions between the Jura and the Bucheggberg: North-east and south-west.



Important Mountains in the Region:

Chasseral	5272 ft / 1607 m
Hasenmatt	4741 ft / 1445 m
Napf	4613 ft / 1406 m
Weissenstein	4580 ft / 1396 m
Moron	4383 ft / 1336 m
Bantiger	3107 ft / 947 m
Bucheggberg	2208 ft / 673 m

Figure 2: 3 D map of the Grenchen region
© Atlas of Switzerland – interactive 2000

2. METEOROLOGICAL PATTERNS

2.1. Westerly Flow

2.1.1. Synoptic Overview and Associated Weather

Westerly flow is the dominant one among the four flow or advection patterns described here. This is true in respect of frequency and wind speed. The westerly flow pattern is typically associated with the frequent changes from warm to cold air masses and vice versa, which is connected to the passages of frontal zones. The activity depends on the wind speed, the humidity of the air mass and its stability, as well as the altitude and the structure of the mountain range, the air mass is flowing across. The eastern part of the northern alpine ridge is especially exposed to the changeability of this flow pattern. The south side of the Alps enjoys a certain protection during the whole year, the south-western part of Switzerland and the Valais only in the summer.

2.1.2. Season of Encounter

This pattern may appear at any time of the year, but is more frequent during the winter season than in summer. The reason for this is the more frequent development of heavy depressions in the colder seasons due to an increase of the temperature difference between warm and cold air masses at the Polar Front.

The weather is usually unsettled and windy (even sometimes with gales from October to March), due to the succession of warm and cold fronts with dry intervals in between. In March and April westerly flow brings characteristically unstable weather. In eastern Switzerland westerly winds are more frequent than in western Switzerland because of the flow split of the northerly wind (Alps act as barrier).

2.1.3. Local Weather Phenomena

Front Passes over Cold Air Pool of the Swiss Plateau

In winter, after a period of high pressure, a shallow layer of cold air forms over the Swiss Plateau, frequently topped by a layer of stratus (inversion with low clouds). The westerly flow regime starts then with the arrival of a low pressure system and its first front (usually a warm front), preceded by westerly winds. It first passes over the pool of cold air, entrenched in the Swiss Plateau, and starts to entrain the cold air by turbulent mixing from the top downwards. When the frontal precipitation falls into the old humid and cold air mass, the visibility may drop from 2000 - 3000 m to 1000 m or even below. After the passage of the warm front the visibility increases only slightly. After the following cold front the visibility is usually very good.

Freezing Rain

The rather rare occurrence of freezing rain is associated with two situations: 1) The one just described in the paragraph above: Temperatures below the freezing point in the thin cold air layer near the ground and very high freezing level in the warm air above. 2) Warm fronts: Freezing rain can occur when the temperature difference between the lower cold air and the upper warm air masses is high enough.

In Grenchen freezing rain is observed from December to February.

Snow

In situations of a warm front with a low freezing level (2500 – 4000 ft / msl), precipitation often starts as snow, passes through the cold air mass below and reaches the ground in this form. With the approaching warm front the freezing level rises and after 2 – 3 hours snow turns into rain.

In Grenchen snowfall occurs usually from November to April with two maxima in December and February.

Thunderstorm

In summer the near Jura hills reinforce the thunderstorm activity along a cold front coming in from the west and therefore affect also the area of the aerodrome.

Joran Wind behind a Cold Front

Of particular regional interest is the phenomenon of the north-westerly wind after a cold front pass. The Jura chain acts as a barrier to the arriving cold air, which accumulates in the surface layer windward of the mountain. A pressure-surplus is caused, until the cold air is deep enough to surge over the barrier. It is often accompanied by a band of pileus-like clouds covering the top of the Jura. The resulting Joran wind on the leeside reaches the runway of Grenchen as a gusty crosswind. These gusts vary between 320 and 010 degrees and may reach 30 kt, but usually range between 15 to 25 kt. The Joran wind usually lasts only for a few hours.

2.1.4. Aviation Hazards

- Low ceiling and poor visibility within the frontal zones with onset of precipitation
- Turbulence and icing conditions in clouds
- Wind shear in frontal zones
- Gusts in passing cold fronts
- Snowfall (when temperatures are low enough)
- Rare cases of freezing rain, depending on the vertical temperature structure
- Post frontal weather conditions are very unsteady with gusts and rapid changes between good and bad conditions
- Possibility of embedded CB's in cold fronts (rarely in warm fronts)
- Alps and Jura obscured by clouds
- Crosswinds behind the cold fronts at airports near the Jura (Joran wind)

2.2. Northerly Flow

2.2.1. Synoptic Overview and Associated Weather

The northerly flow pattern combines air mass advection from the north-west and north. Typical for this situation is the marked difference in the type of weather between the western and eastern parts as well as between the northern and southern parts of Switzerland. On the continental and the regional scale the northern and the eastern areas of Europe are influenced by more cloudy and rainy weather (cyclonic character). The western and southern parts benefit from the influence of the following anticyclone, because these parts are further away from the dominating depression. In addition to that, the southern regions are favourably influenced by the leeward down draught (Foehn) from the mountain range. Below 2000 m a flow split into north-east (Bise) in the west and into north-west in the east of the Swiss Plateau is observed.

2.2.2. Season of Encounter

This pattern is more frequent in winter and spring, often occurs after a westerly flow and usually leads to a north-easterly flow regime (Bise). It normally lasts between 5 and 7 days, especially in summer and autumn periods of only 3 days are possible.

2.2.3. Local Weather Phenomena

Barrier Clouds and Precipitation

Due to the barrier effect of the Alps the northerly flow gets blocked over the Swiss Plateau, the pressure increases and the air mass rises over the Alps. A closed cloud layer occurs above the Swiss Plateau with the lowest ceiling close to the Alps, accompanied by precipitation along the northern mountain range and in eastern Switzerland. The region of the aerodrome Grenchen is situated on the leeward side of the Jura, which positively affects the visibility and height of the ceiling during these situations. However, the gusty wind remains prominent.

2.2.4. Aviation Hazards

- North of the Alps: - Poor visibility, low ceiling (400 – 800 ft / grd) and precipitation
 - Icing conditions in clouds
 - Mountains obscured by clouds
 - Heavy snowfall for several hours between November and April
- South of the Alps: - Severe turbulence over and south of the mountains
 - Low-level wind gusts

2.3. Easterly Flow

2.3.1. Synoptic Overview and Associated Weather

The easterly flow pattern develops after a significant pressure gradient from north-east to south-west across the Alps has been built up. In Switzerland the type of weather connected with this situation has usually an anticyclonic influence. However, in cases of a northern position of an active Mediterranean depression, cyclonic influence is dominating. The plains on either side of the Alps may be under a cover of low stratus combined with a persistent inversion and dry, subsiding air above the low clouds (elevated fog or stratus). The continental easterly wind called Bise accelerates over the Swiss Plateau between the Jura and the Alps and achieves its maximum speed at the "bottleneck" of Geneva. However, Bise is not exclusively associated to an easterly flow weather type.

2.3.2. Season of Encounter

This pattern is very frequent in winter and spring, rarely occurs in summer and can last for several days. It is less frequent than westerly, northerly or southerly flow.

Because of the flow split the Bise is more frequent in the western part of Switzerland including the region of Grenchen. A strong Bise flow leads to a clear north-eastern wind component between 050 and 090 degrees at the aerodrome.

2.3.3. Local Weather Phenomena

Elevated Fog

In late autumn and winter the typical situation with elevated fog or stratus up to 2000 m / msl occurs in the cold air pool of the Swiss Plateau. The Bise gets canalized between the Jura and the Alps. The elevated fog situation can last for several days and mainly occurs in autumn and winter with the highest probability from November to February. Above the fog or stratus layer the atmosphere is clear due to anticyclonic influence.

In spring and summer the easterly flow usually is associated with fair weather due to the dry and frequently warm continental air mass.

Turbulence

Attention must be paid to Bise turbulence in the region of Grenchen. A strong Bise wind may achieve its maximum wind speed in the air layer near the ground, resulting in vertical wind shear.

2.3.4. Aviation Hazards

- Strong winds and turbulence near the ground especially in western Switzerland
- Elevated fog:
 - Poor visibility below the stratus layer
 - Often closed cloud layer over the Swiss Plateau
 - Gaps in the cloud layer may close again quite rapidly

2.4. Southerly Flow

2.4.1. Synoptic Overview and Associated Weather

Southerly flow patterns are considerably rarer than the northerly ones that also belong to the meridional flow types. The activity of the southerly flow pattern is sustained by a surface depression over the eastern Northatlantic and western Europe. The west to east direction of the Alps causes the development of Foehn winds on the leeward side combined with a strong pressure gradient from south to north. Foehn situations are often associated with the southerly flow. The usually dry and rather often sunny "Foehn weather" to the north of the alpine ridge is in striking contrast to the humid weather along the southerly slopes of the Alps. There is also a subtype of the Foehn situation which is restricted to the typical Foehn valleys within the Alps when the pressure gradient is not too accentuated.

2.4.2. Season of Encounter

The southerly flow pattern is very frequent in autumn, less frequent in winter and spring, but sometimes occurs even in summer. Since Foehn winds may also develop in other synoptic situations like south-easterly and westerly flow patterns or in a low pressure system, southerly Foehn winds are more frequent than just the southerly flow patterns.

2.4.3. Local Weather Phenomena

Southerly Foehn

With southerly flow the alpine ridge acts like a barrier. This results in clouds and precipitation on the windward side and a so called Foehn wall forms in the region of the mountain crest. In the Foehn valleys it is mostly warm, windy and dry with high visibility.

When the pressure gradient is big enough, the warm and dry Foehn influences the central and eastern part of Switzerland. Approaching fronts from the west usually are slowed down and the sky keeps relatively clear.

In the region of Grenchen the Foehn wind can not be observed at ground level. However, at higher levels the southerly wind component is observed.

Turbulence

North of the Alps turbulence and lee waves occur, but the immediate region of the aerodrome of Grenchen is not affected.

High Temperatures

The warm and dry Foehn wind increases the temperatures north of the Alps. This might affect the performance of the engines.

2.4.4. Aviation Hazards

- South of the Alps:
 - Very low ceiling, poor visibility, persistent precipitation, icing conditions in clouds
 - Thunderstorms with associated heavy turbulence in summer
 - Mountains obscured by clouds
- North of the Alps:
 - Lee waves, turbulence
 - Wind shear when the dry warm Foehn wind flows over the cold air pool of the Swiss Plateau or when the Foehn gets weak by the approaching front in the west
 - High temperatures reduce engine performance

2.5. Flat Pressure Pattern

2.5.1. Synoptic Overview and Associated Weather

Flat Pressure Pattern with Thermal Thunderstorms

Flat pressure leads to a weak or nonexistent synoptic flow. In contrary to the anticyclonic regime there is only little or no subsidence, which leads to a high chance of convection. In the indifferent situation of this pattern the weather shows a distinct diurnal variation: after sunshine during the first half of the day, deep convection clouds are building up, but not exclusively in mountainous terrain. Thermal thunderstorms are induced. Winds aloft carry the upper sections of convective clouds away from the place of formation. Thunderstorms induced by these thermal and orographic conditions show an irregular pattern in the distribution of the total amount of precipitation. Great differences may be observed within a distance of only a few kilometres!

Flat Pressure Pattern with Frontal Thunderstorms

The continuous warming of the land mass in flat pressure situations increases the temperature difference between the continent and the adjacent sea surface. This creates a pressure gradient between the continent and the ocean. In summer this repeatedly leads to outbreaks of cool and moist maritime air masses towards the Alps. With reference to the similar but more pronounced situation in southern Asia, the above development has been named 'European Summer Monsoon'. Thunderstorms which develop in the immediate vicinity of such an outbreak of cold air are called frontal thunderstorms. If the passage of the cold front happens to coincide with the time of greatest diurnal warming or just after, the activity of the frontal thunderstorms is again increased.

2.5.2. Season of Encounter

Synoptic situation with a small horizontal surface pressure gradient over large parts of a continent are most frequent during the summer, since temperature differences between polar and tropical region are smallest in this particular season. This pattern usually lasts for several days.

2.5.3. Local Weather Phenomena

Convection

During hot days a lot of warm air bubbles are lifted and rise up to the condensation base, where they turn into cumulus clouds. Below the convection clouds moderate to severe turbulence with strong vertical winds occur. Cumulus congestus may rise quickly up to the tropopause. Typically cumulonimbus capillatus (CB) with anvil produce thunderstorms. As a rule-of-thumb, the difference between dew-point and temperature multiplied by 400 equals the cloud base height in feet.

Thunderstorm

Thermal thunderstorms occur due to convection at the end of the day while frontal thunderstorms happen at any time of the day. Very active thunderstorms are the result of a line of frontal thunderstorms which reach a convecting air mass during the late afternoon in summer. The close Jura leads to an increased thunderstorm activity in the north-west of the aerodrome.

Thunderstorms are accompanied with different aviation hazard, such as heavy rain and fog with reduced visibility. Occasionally precipitation also falls in the form of hail which can damage the structure of an airplane. Wind shear, strong gusts and strong up and down draughts occur near the thunderstorm. In Grenchen thunderstorms are usually observed from May to September.

Downslope Wind During Convection Events

In summer during the late afternoon a down slope wind from the Jura may start to blow with increasing speed in the evening. It reaches the runway of Grenchen with gusty crosswinds. These winds are usually caused by the outflow of old convection cells in the Jura mountains. A mesoscale high pressure area on ground level is built up in the Jura while relative low pressure is found in the region of the lakes (Biel, Neuchâtel and Murten).

High Temperatures

This weather pattern is normally accompanied by very high temperatures in summer. The density of hot air decreases and this leads to a dangerous decrease of the engine performance.

2.5.4. Aviation Hazards

- Thunderstorm:
 - Heavy rain with reduced visibility and rapid cooling
 - Severe wind shear and gusts in proximity of thunderstorms
 - Sudden gusts up to 60 kt
 - Lightning
 - Hail in strong thunderstorms
 - Outflow of cold air associated with sudden change of the wind regime at distant places from the active thunderstorm
 - Microbursts (very strong and small scaled outflow of cold air usually associated with CB's)
- Visibility frequently reduced due to haze
- High temperatures reduce engine performance
- Gusty crosswinds during convection events near the Jura

2.6. High Pressure Pattern

2.6.1. Synoptic Overview and Associated Weather

This pattern normally produces favourable conditions for the aviation because of the influence of an anticyclone with strong subsidence. That sinking process increases the temperature of the air masses due to compression. The relative humidity decreases and clouds dissolve. Warm anticyclones are accompanied by distinct flow patterns aloft. On continental scale this prevents cyclones and frontal zones to enter regions with anticyclones.

High Pressure Pattern in Summer

The atmospheric pressure is higher than the average values and only few convective clouds are produced. The convective clouds are mostly limited to mountainous regions. Over the Alps of Switzerland a thermal low can be observed. It is caused by the excessive heating of alpine air during the day in comparison with air over the plain at the same height. The daytime heating is clearly stronger on the valley bottom than at higher levels.

In this season the Azores high can also expand up to central Europe and guarantees high temperatures and clear sky for several days or even weeks.

High Pressure Pattern in the Colder Seasons

From November to March maintained anticyclonic conditions repeatedly occur over the continent. After several days of subsidence a very strong temperature inversion is formed, which is a few hundred meters thick. The negative radiation balance of the surface during the winter half year prevents the subsidence from reaching the lowest atmospheric layer.

2.6.2. Season of Encounter

The high pressure pattern is observed at any time of the year and can last between one day and several weeks. It usually lasts longer in summer and winter, because approaching deep Atlantic cyclones in spring and autumn degrade the ridge of the high pressure. In summer this pattern often degenerates to a flat pressure pattern with air mass thunderstorms.

2.6.3. Local Weather Phenomena

Radiation Fog

In the colder season during clear and calm nights a radiation deficit occurs over the ground due to the negative long wave radiation budget. Temperature over the ground decreases as a consequence. The visibility in areas with radiation fog can drop from 800 – 1000 m to 100 – 200 m quite rapidly. The important conditions for radiation fog are clear sky (increased radiation with the development of an inversion layer), low wind speed and high relative humidity. Grenchen aerodrome is situated in a small basin between the Jura and the Bucheggberg. The area used to be marshland and is close to the river Aare and the lake of Biel. Therefore, the conditions are quite favourable for radiation fog.

Radiation fog is an often observed phenomenon in the region of the aerodrome Grenchen and occurs usually between November and March. There is a chance for no dissolution during the whole day from November to March.

Also in summer formation of radiation fog can not be excluded during the night, especially in the early morning.

High Temperatures

This weather pattern is normally accompanied by very high temperatures in summer. The density of hot air decreases and this leads to a dangerous decrease of the engine performance.

2.6.4. Aviation Hazards

- High temperatures reduce engine performance
- Haze reduces visibility in summer
- Isolated thunderstorms in summer when the anticyclone weakens by surface heating
- Radiation fog and fog patches decrease visibility in autumn and winter
- Radiation fog can occur quite quickly and decrease visibility to 100 – 1000 m

B Tables and Graphics

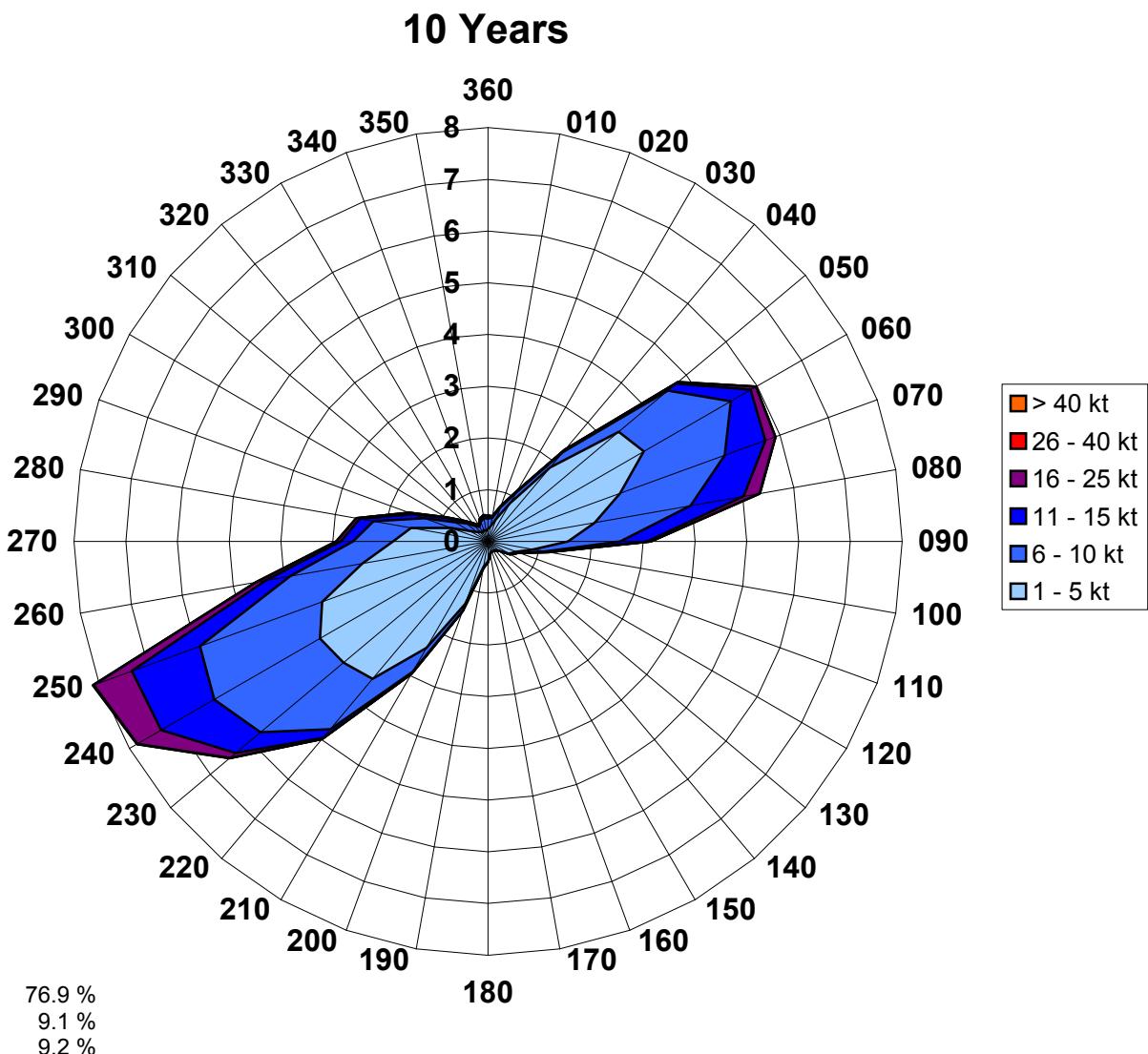
1. WIND

1.1. Wind Polygon

1.1.1. Wind Polygon 10 Years

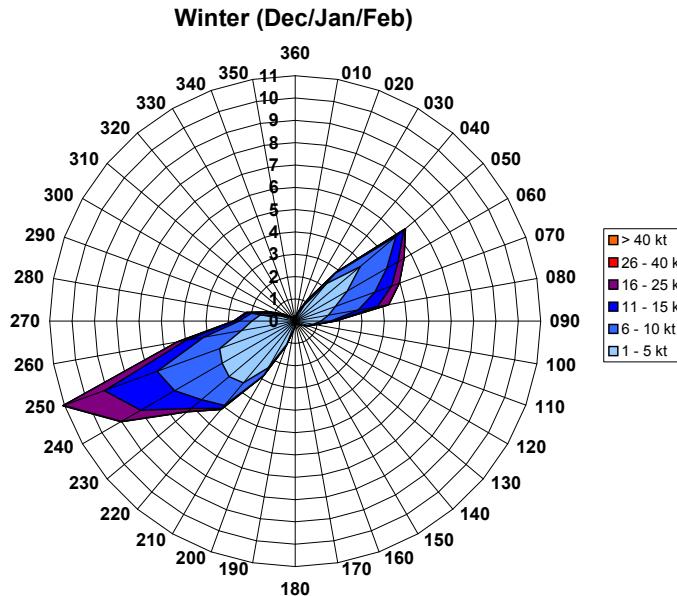
Frequencies in percent of occurrence of concurrent wind direction every 10° and wind speed within specified ranges (legend). Frequencies are calculated relative to all potentially possible minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA. Calm is for the wind speed with 0 kt. Variable is for the wind speed between 1 and 3 kt and no wind direction.

Example: In the 10 years period 8.2% of all observations showed a wind speed between 1 and 25 knots with a concurrent wind direction of 250 degrees.

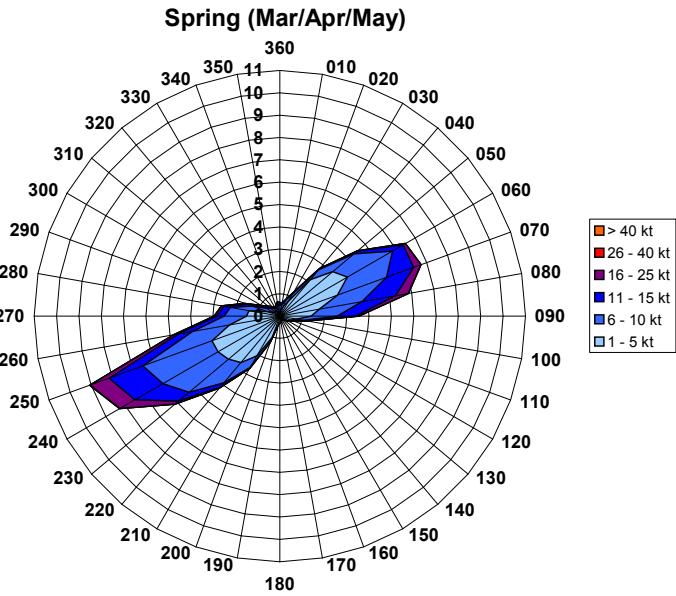


1.1.2. Wind Polygon per Season

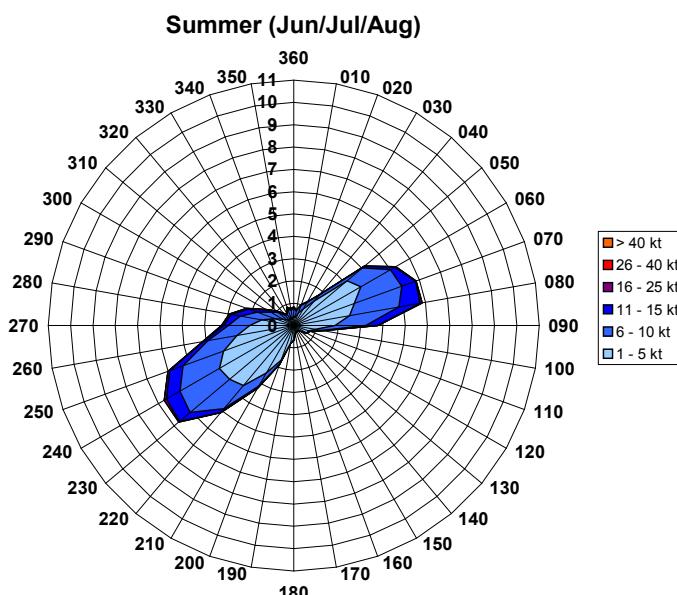
Example: In the 10 years period in winter 11.2% of all observations showed a wind speed between 1 and 25 knots with a concurrent wind direction of 250 degrees.



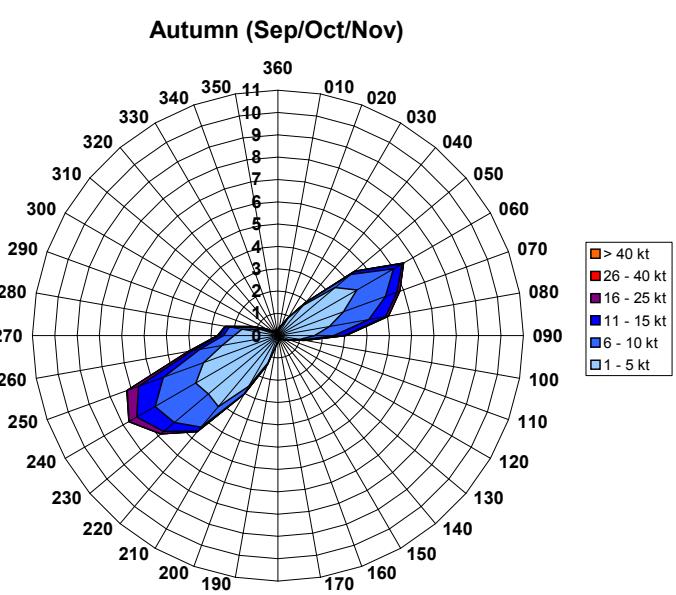
NA: 81.8 %
Calm: 12.1 %
Variable: 8.0 %



NA: 74.9 %
Calm: 6.6 %
Variable: 8.4 %



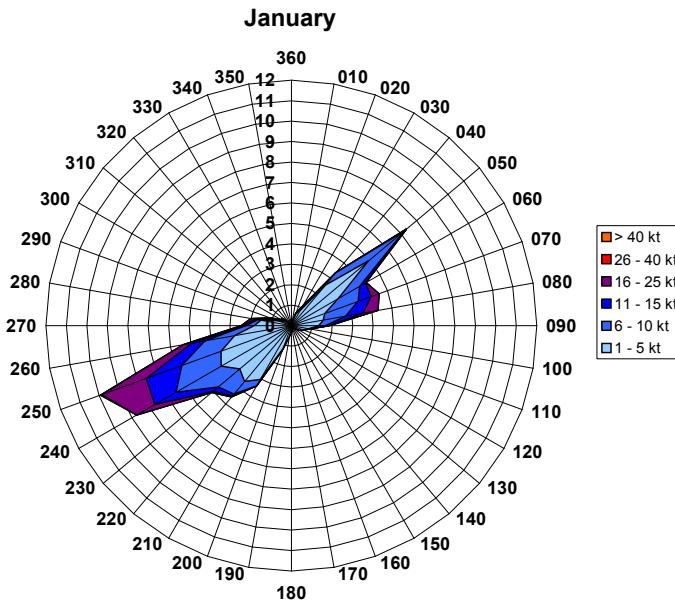
NA: 73.9 %
Calm: 7.1 %
Variable: 9.0 %



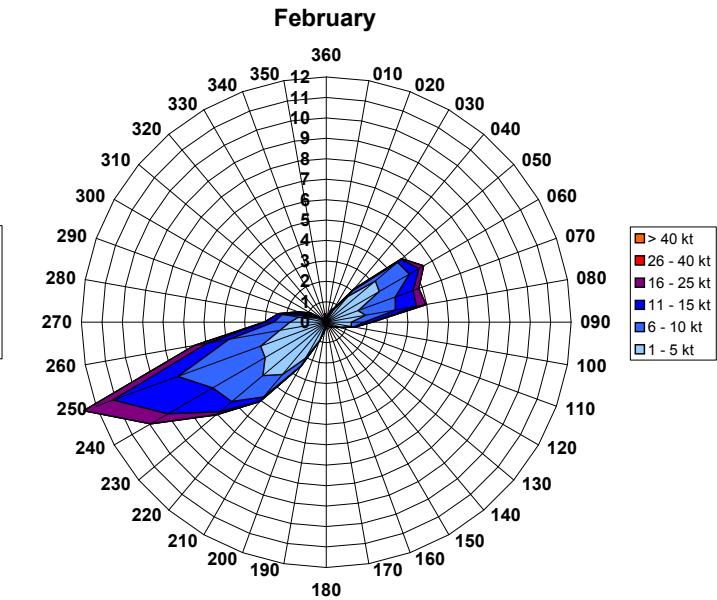
NA: 77.2 %
Calm: 11.8 %
Variable: 11.2 %

1.1.3. Wind Polygon per Month

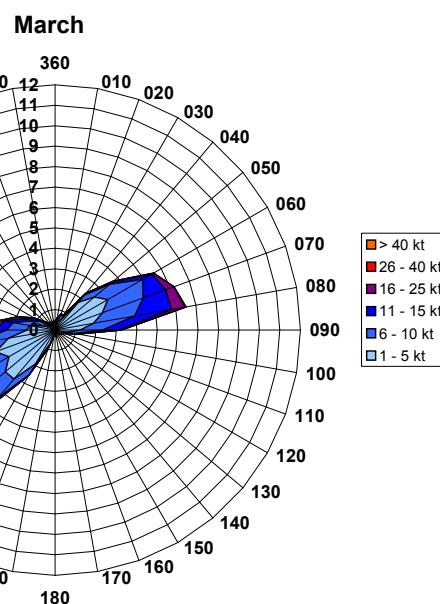
Example: In the 10 years period in January 10% of all observations showed a wind speed between 1 and 25 knots with a concurrent wind direction of 250 degrees.



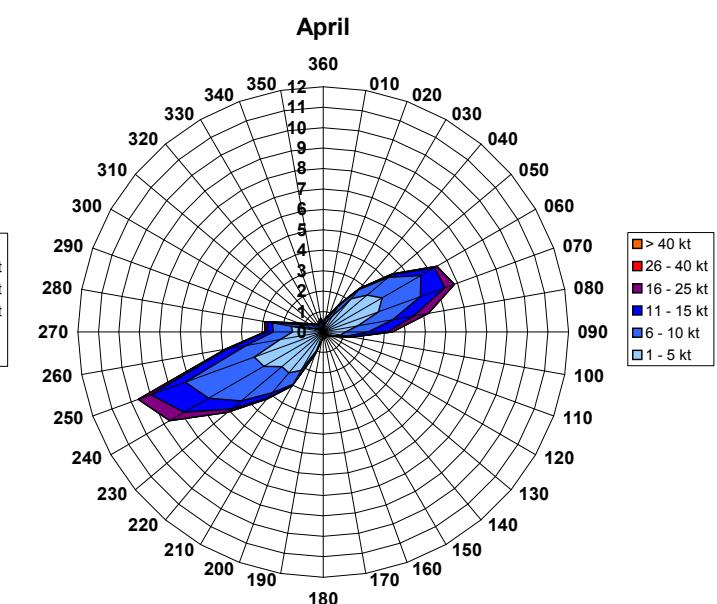
NA: 81.8 %
Calm: 15.5 %
Variable: 8.0 %



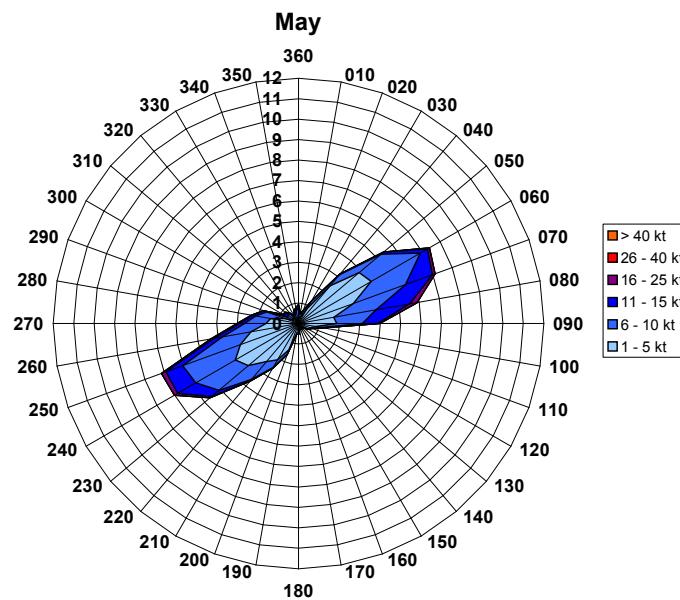
NA: 82.5 %
Calm: 7.5 %
Variable: 8.1 %



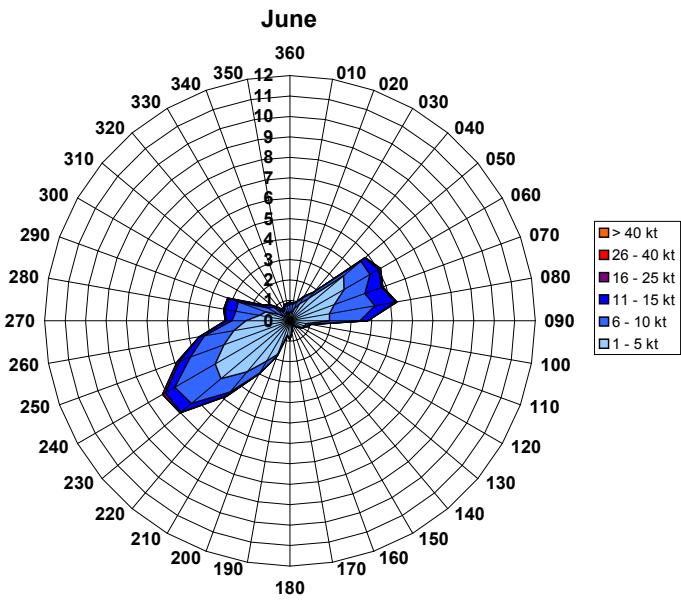
NA: 76.5 %
Calm: 7.9 %
Variable: 7.3 %



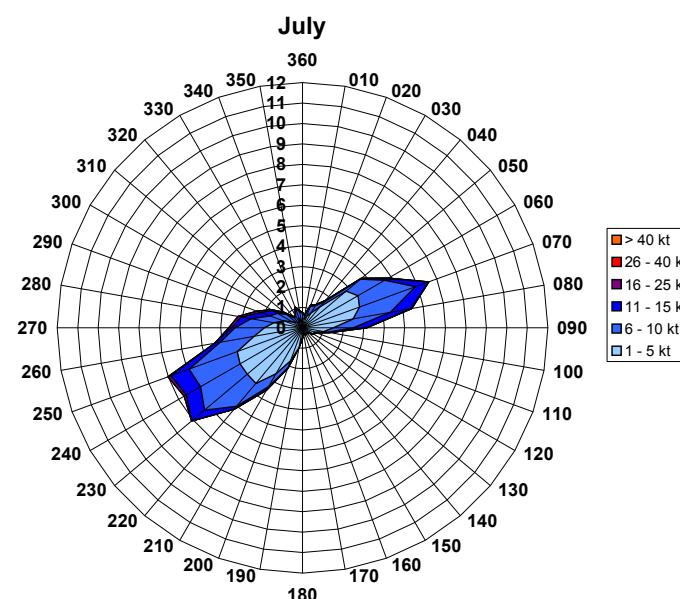
NA: 74.5 %
Calm: 5.5 %
Variable: 8.9 %



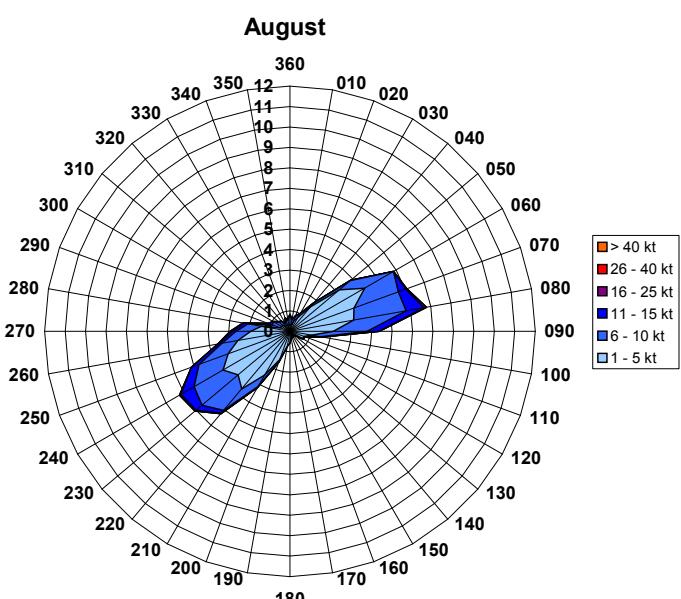
NA: 73.8 %
Calm: 6.5 %
Variable: 8.9 %



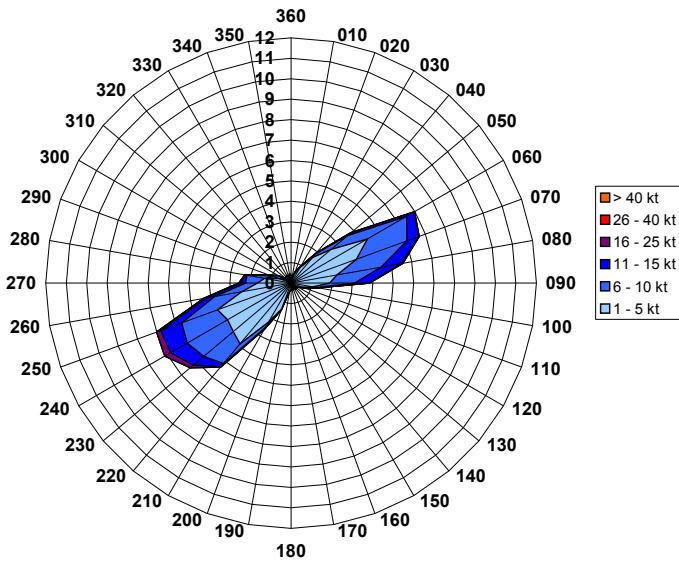
NA: 73.8 %
Calm: 6.3 %
Variable: 7.9 %



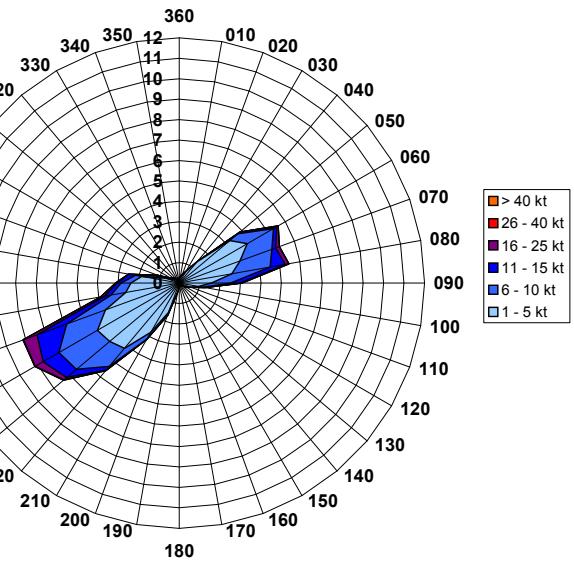
NA: 73.7 %
Calm: 6.2 %
Variable: 7.2 %



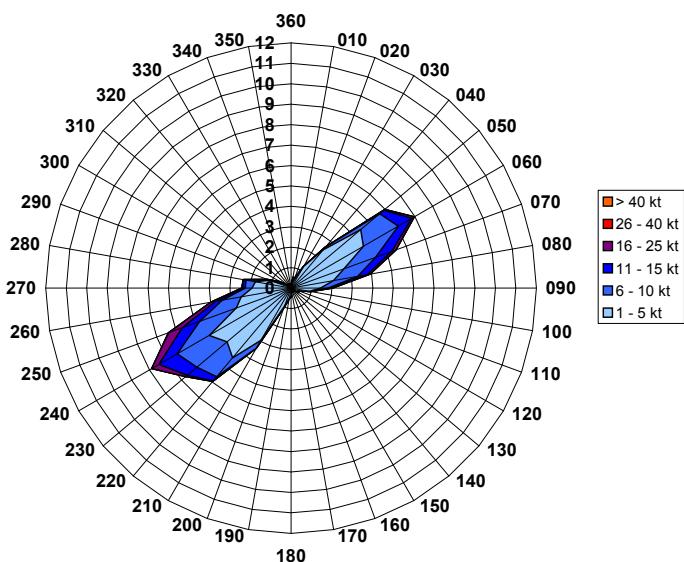
NA: 74.0 %
Calm: 8.7 %
Variable: 12.0 %

September

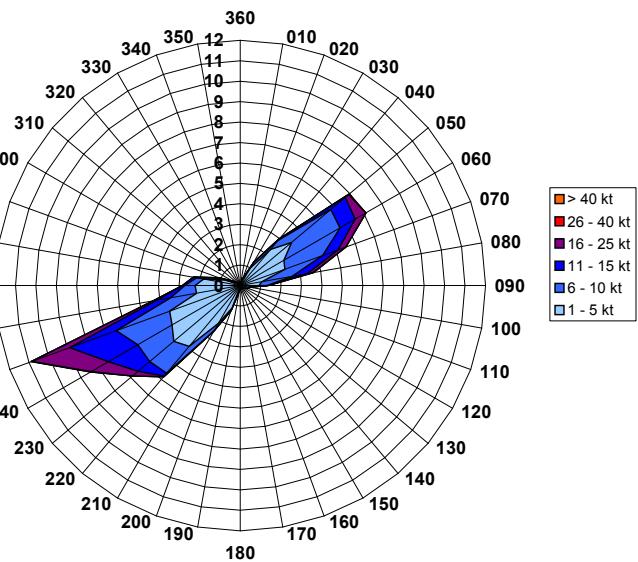
NA: 75.0 %
Calm: 10.0 %
Variable: 11.8%

October

NA: 77.3 %
Calm: 11.9 %
Variable: 11.7 %

November

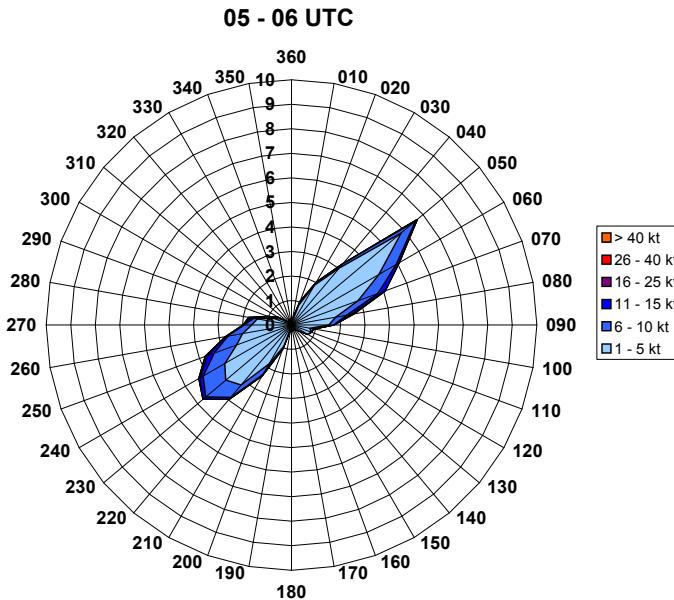
NA: 79.3 %
Calm: 13.8 %
Variable: 9.9 %

December

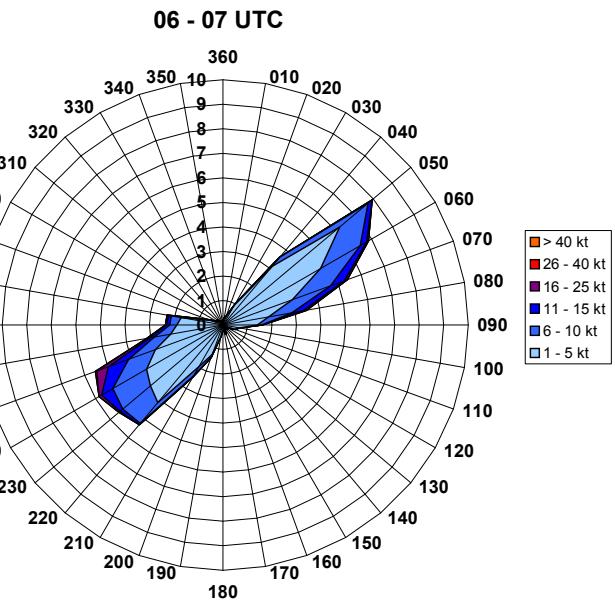
NA: 81.2 %
Calm: 12.7 %
Variable: 7.9 %

1.1.4. Wind Polygon per Hour

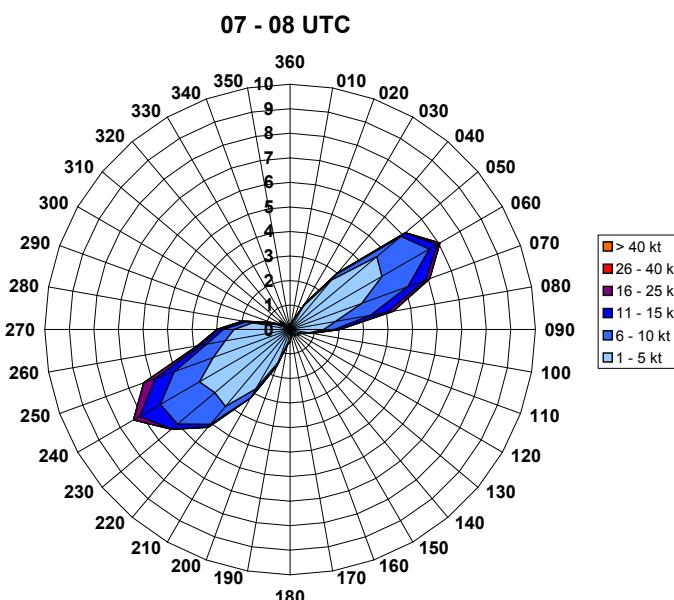
Example: In the 10 years period between 05 and 06 UTC 4.7% of all observations showed a wind speed between 1 and 10 knots with a concurrent wind direction of 230 degrees.



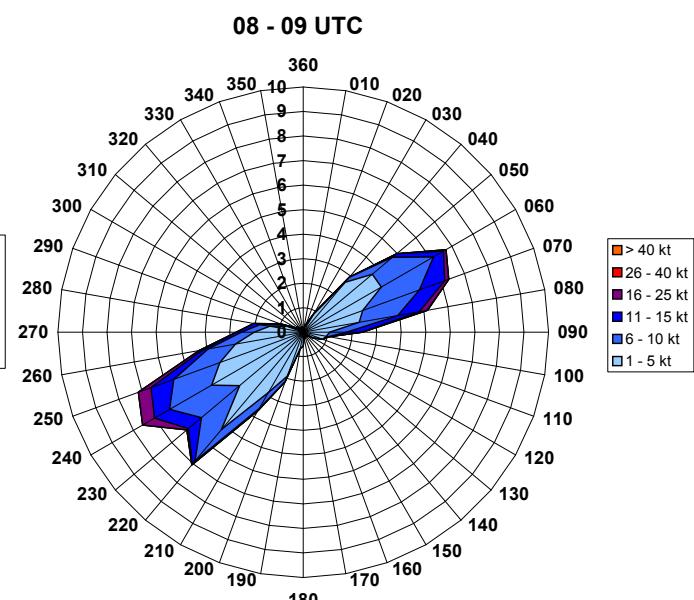
NA: 73.0 %
Calm: 30.5 %
Variable: 9.3 %



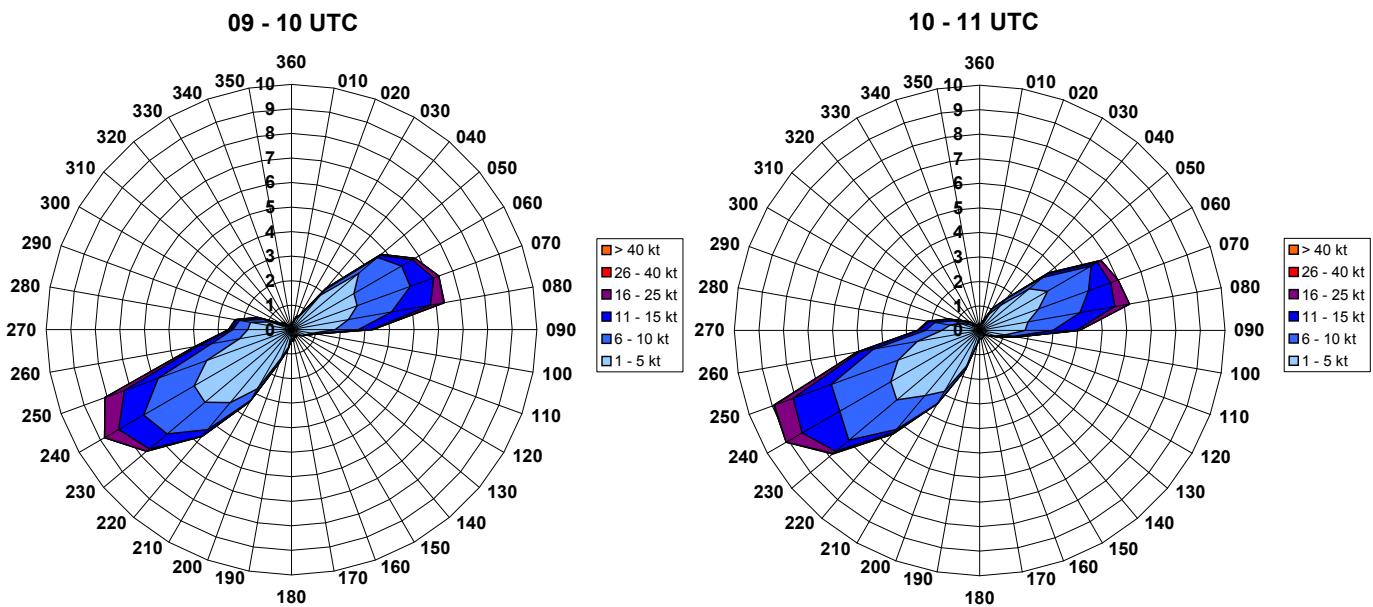
NA: 53.2 %
Calm: 21.0 %
Variable: 9.3 %



NA: 53.2 %
Calm: 14.7 %
Variable: 9.5 %

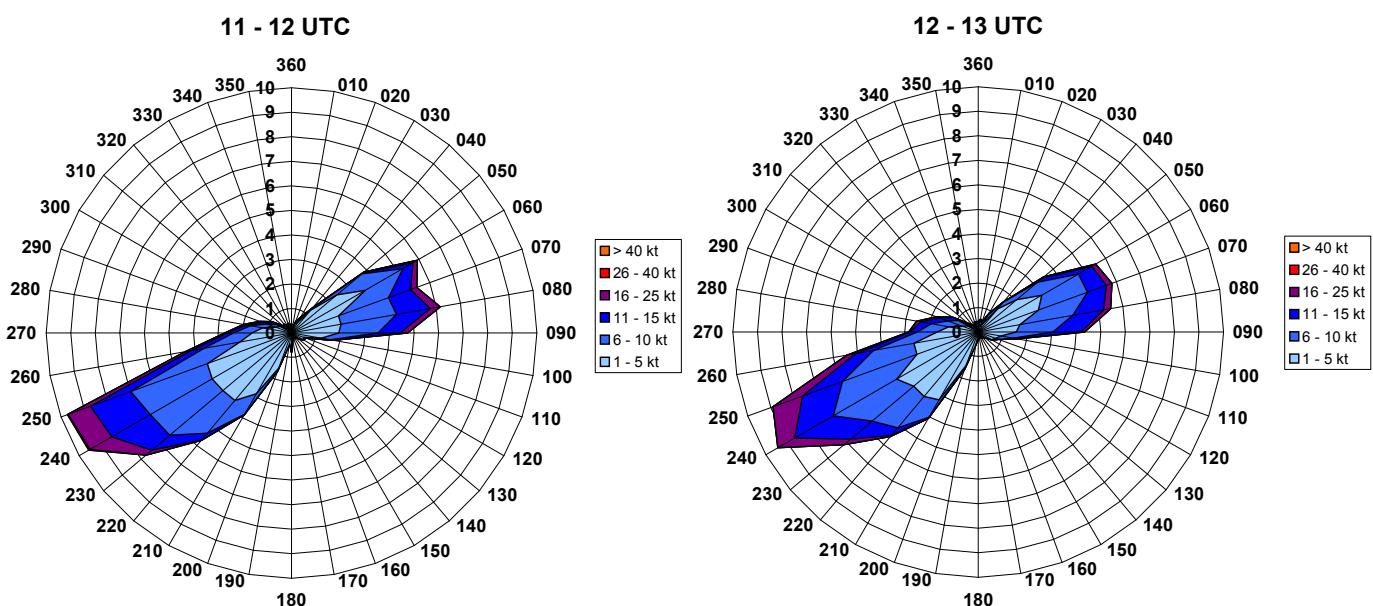


NA: 52.7 %
Calm: 10.6 %
Variable: 9.7 %



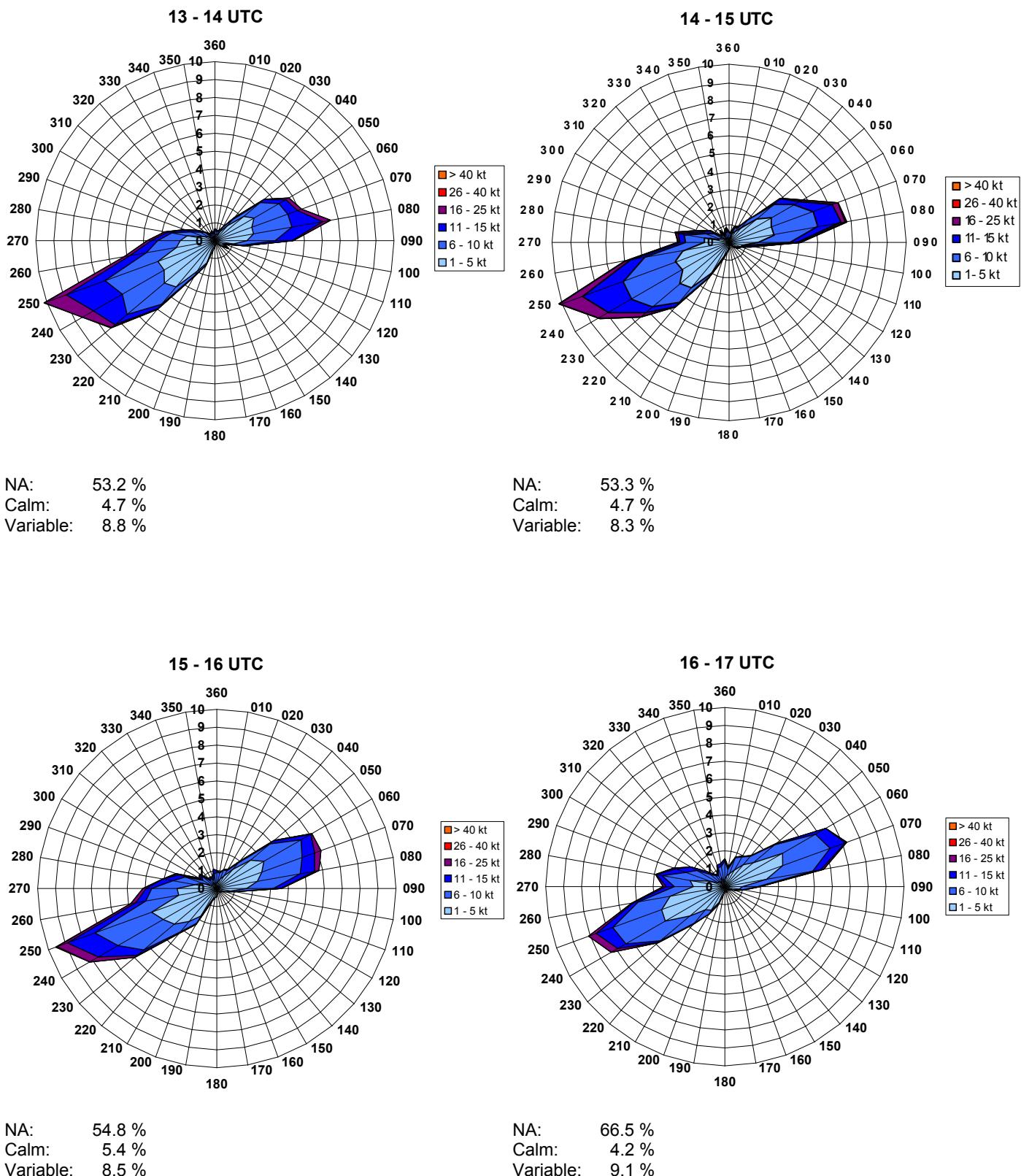
NA: 52.4 %
Calm: 7.4 %
Variable: 10.0 %

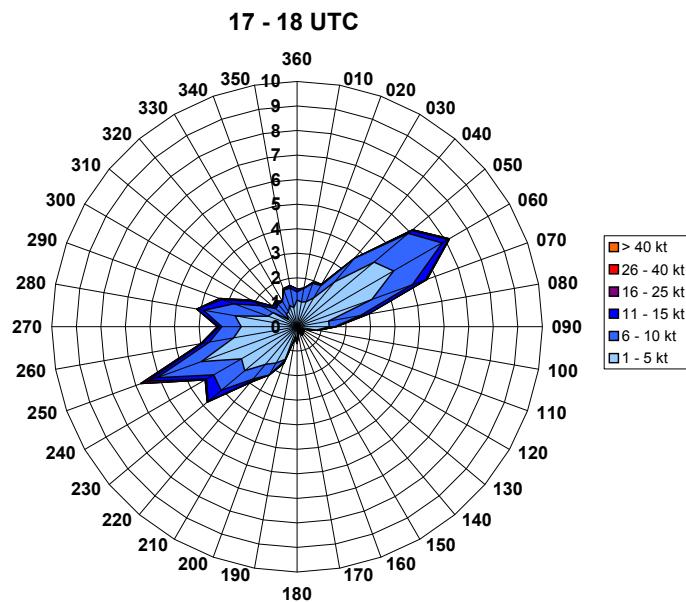
NA: 52.8 %
Calm: 6.2 %
Variable: 9.5 %



NA: 53.1 %
Calm: 4.8 %
Variable: 8.9 %

NA: 53.3 %
Calm: 4.4 %
Variable: 9.1 %





NA: 75.9 %
Calm: 5.2 %
Variable: 9.8 %

1.2. Wind Speed and Direction

1.2.1. Wind Speed and Direction 10 Years

Frequencies in percent of concurrent wind direction (in 30° sectors) and wind speed within specified ranges. Calm is for the wind speed with 0 kt. Variable is for the wind speed between 1 and 3 kt. Frequencies are calculated relative to all potentially possible minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomena were observed.

Example (dark shading): In the 10 years period 0.7% of all observations showed a wind speed between 1 and 5 knots with a concurrent wind direction between 350 and 010 degrees.

Wind Direction	Wind Speed (kt) 10 Years												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41- 45	46 - 50	> 50	
Calm	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Variable	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
350-360-010	0.0	0.7	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
020-030-040	0.0	3.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
050-060-070	0.0	9.5	5.3	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
080-090-100	0.0	4.5	3.1	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
110-120-130	0.0	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
140-150-160	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
170-180-190	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
200-210-220	0.0	7.1	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
230-240-250	0.0	10.8	7.0	3.2	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
260-270-280	0.0	5.8	2.9	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
290-300-310	0.0	1.4	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
320-330-340	0.0	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

76.9

1.2.2. Wind Speed and Direction per Season

Example (dark shading): In the 10 years period in winter 0.5% of all observations showed a wind speed between 1 and 5 knots with a concurrent wind direction between 350 and 010 degrees.

Wind Direction	Wind Speed (kt) Winter (Dec/Jan/Feb)												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.5	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	8.4	6.0	1.8	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	3.5	1.9	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.1	1.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.2	7.1	4.9	2.3	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.0	2.7	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.3	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

81.8

Wind Direction	Wind Speed (kt) Spring (Mar/Apr/May)												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.3	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	9.3	5.9	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.0	3.4	2.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	5.8	2.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	9.4	8.4	3.7	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.2	3.5	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.2	1.4	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

74.9

Wind Direction	Wind Speed (kt) Summer (Jun/Jul/Aug)												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	1.1	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.9	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	9.5	4.7	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	5.4	3.9	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.6	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.9	6.3	2.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.0	3.3	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.9	2.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	1.0	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

73.9

Wind Direction	Wind Speed (kt) Autumn (Sep/Oct/Nov)												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	10.6	4.8	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	5.0	2.8	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	8.1	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.8	6.0	2.8	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.1	2.1	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.3	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

77.2

1.2.3. Wind Speed and Direction per Month

Example (dark shading): In the 10 years period in January 0.5% of all observations showed a wind speed between 1 and 5 knots with a concurrent wind direction between 350 and 010 degrees.

Wind Direction	Wind Speed (kt) January												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	15.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	4.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	9.3	5.2	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	3.8	1.5	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.8	1.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.9	6.0	3.4	2.4	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.1	2.0	0.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.6	0.3	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

81.8

Wind Direction	Wind Speed (kt) February												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.6	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	7.8	5.1	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.4	2.2	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	6.3	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.0	9.3	6.7	2.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.5	4.1	1.6	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.1	0.5	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

82.5

Wind Direction	Wind Speed (kt) March												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.8	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	8.0	5.0	1.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	3.7	3.5	2.8	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	5.7	1.9	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	8.9	9.0	5.0	2.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.0	3.8	1.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.2	1.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

76.5

Wind Direction	Wind Speed (kt) April												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.6	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	9.0	5.7	2.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	3.7	3.2	2.2	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	5.8	2.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	9.6	9.3	3.8	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.2	3.6	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	0.9	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

74.5

Wind Direction	Wind Speed (kt) May												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.8	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.6	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	10.8	6.9	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.5	3.6	2.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	5.8	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	9.8	7.1	2.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.3	3.2	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.4	1.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.7	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

73.8

Wind Direction	Wind Speed (kt) June												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	1.1	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	8.8	4.2	1.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.7	4.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	2.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.3	2.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	12.1	5.9	1.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.5	3.3	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	2.2	2.7	0.9	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	1.1	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

73.8

Wind Direction	Wind Speed (kt) July												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	1.2	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.8	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	8.9	5.3	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	5.1	3.0	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.9	2.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.5	7.5	2.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.7	4.2	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	2.0	2.2	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	1.1	1.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

73.7

Wind Direction	Wind Speed (kt) August												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.9	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.9	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	10.7	4.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	6.4	4.7	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.6	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.3	5.5	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.9	2.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.4	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	1.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

74.0

Wind Direction		Wind Speed (kt) September												NA
		0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	10.3	5.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	5.3	3.6	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.4	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.1	6.0	2.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.4	2.8	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.1	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Wind Direction		Wind Speed (kt) October												NA
		0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	10.2	3.7	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	5.1	3.1	1.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	8.5	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	12.9	6.3	3.0	1.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.9	1.5	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Wind Direction		Wind Speed (kt) November												NA
		0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	13.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	4.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	11.3	4.8	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.5	1.6	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	8.3	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.6	5.7	2.5	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.2	1.7	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.7	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Wind Direction		Wind Speed (kt) December												NA
		0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.6	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	8.1	7.6	2.6	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	2.4	1.9	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.2	2.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.8	6.2	4.9	2.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.2	2.1	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1.2.4. Wind Speed and Direction per Hour

Example (dark shading): In the 10 years period between 05 and 06 UTC 0.5% of all observations showed a wind speed between 1 and 5 knots with a concurrent wind direction between 350 and 010 degrees.

Wind Direction	Wind Speed (kt) 05 - 06 UTC												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	5.8	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	12.8	2.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.1	0.8	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	5.9	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	9.0	3.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.1	1.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Wind Direction	Wind Speed (kt) 06 - 07 UTC												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	21.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	4.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	13.8	5.0	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.0	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.4	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.4	4.2	1.6	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.8	1.4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Wind Direction	Wind Speed (kt) 07 - 08 UTC												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	14.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	4.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	12.0	5.5	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.0	2.0	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	8.3	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.6	5.5	2.1	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.5	1.5	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Wind Direction	Wind Speed (kt) 08 - 09 UTC												
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	NA
Calm	10.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	9.9	6.0	1.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.3	2.4	1.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	9.9	2.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.3	6.0	2.4	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.2	2.1	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Wind Direction	Wind Speed (kt) 09 - 10 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	9.3	5.6	1.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	5.0	2.8	2.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.9	2.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	12.9	6.5	3.6	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.6	2.2	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.6	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

52.4

Wind Direction	Wind Speed (kt) 10 - 11 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	8.4	5.0	1.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.9	3.6	2.6	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	7.9	2.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	12.1	7.9	4.1	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.4	3.1	1.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.6	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

52.8

Wind Direction	Wind Speed (kt) 11 - 12 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	7.9	5.3	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	5.2	4.3	2.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	8.0	2.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	11.0	9.1	4.5	1.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	4.9	2.7	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.4	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

53.1

Wind Direction	Wind Speed (kt) 12 - 13 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	7.6	5.0	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.2	4.2	2.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	8.1	2.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	9.9	8.4	4.7	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.6	3.2	1.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.4	1.3	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

53.3

Wind Direction	Wind Speed (kt) 13 - 14 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.8	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	6.8	4.9	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	5.0	4.2	2.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	6.6	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.4	8.5	5.1	2.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.7	3.8	1.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.3	1.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.6	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

53.2

Wind Direction	Wind Speed (kt) 14 - 15 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.6	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	7.7	5.5	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.8	4.3	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	6.1	1.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.2	8.2	4.2	1.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.6	4.6	1.4	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.4	1.7	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.7	1.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

53.3

Wind Direction	Wind Speed (kt) 15 - 16 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	1.0	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	2.8	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	8.1	6.2	1.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.8	4.1	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	4.8	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.4	8.5	3.4	1.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	5.6	4.5	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.5	2.3	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	0.8	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

54.8

Wind Direction	Wind Speed (kt) 16 - 17 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 - 45	46 - 50	> 50	
Calm	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	1.2	2.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	3.4	2.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	9.2	6.5	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	4.2	3.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	4.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	10.1	7.6	1.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	6.8	4.5	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	1.8	3.4	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	1.1	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

66.5

Wind Direction	Wind Speed (kt) 17 - 18 UTC												NA
	0	1 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41- 45	46 - 50	> 50	
Calm	5.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	2.9	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
020-030-040	0.0	4.8	2.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
050-060-070	0.0	11.9	5.9	1.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
080-090-100	0.0	3.4	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110-120-130	0.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140-150-160	0.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170-180-190	0.0	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
200-210-220	0.0	5.1	1.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
230-240-250	0.0	9.6	4.5	1.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
260-270-280	0.0	7.5	3.1	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
290-300-310	0.0	2.8	2.7	1.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
320-330-340	0.0	2.3	1.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

75.9

1.3. Cumulative Wind Speed and Direction

1.3.1. Cumulative Wind Speed and Direction 10 Years

Cumulative frequencies in percent of concurrent wind direction (in 30° sectors) and wind speed within specified ranges. Calm is for the wind speed with 0 kt. Variable is for the wind speed between 1 and 3 kt. Frequencies are calculated relative to all potentially possible minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA. Light grey shading denotes values where cumulative frequencies differ from each other.

Example (dark shading): In the 10 years period 1.4% of all observations showed a wind speed between 1 and 10 knots with a concurrent wind direction between 350 and 010 degrees.

Wind Direction	Wind Speed (kt) 10 Years												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1-99	NA
Calm	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
020-030-040	0.0	3.2	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
050-060-070	0.0	9.5	14.8	16.3	16.6	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
080-090-100	0.0	4.5	7.6	9.3	9.6	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
110-120-130	0.0	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
140-150-160	0.0	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
170-180-190	0.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
200-210-220	0.0	7.1	9.1	9.3	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
230-240-250	0.0	10.8	17.8	21.0	22.1	22.4	22.5	22.5	22.5	22.5	22.5	22.5	22.5
260-270-280	0.0	5.8	8.7	9.7	10.0	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
290-300-310	0.0	1.4	2.6	3.0	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
320-330-340	0.0	0.7	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3

76.9

1.3.2. Cumulative Wind Speed and Direction per Season

Example (dark shading): In the 10 years period in winter 0.6% of all observations showed a wind speed between 1 and 10 knots with a concurrent wind direction between 350 and 010 degrees.

Wind Direction	Wind Speed (kt) Winter (Dec/Jan/Feb)												NA
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	
Calm	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
020-030-040	0.0	3.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
050-060-070	0.0	8.4	14.4	16.3	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
080-090-100	0.0	3.5	5.4	6.4	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.0	7.0
110-120-130	0.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
140-150-160	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
170-180-190	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
200-210-220	0.0	7.1	8.9	9.1	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
230-240-250	0.0	11.2	18.3	23.2	25.5	26.3	26.4	26.4	26.4	26.4	26.4	26.4	26.4
260-270-280	0.0	6.0	8.7	9.8	10.2	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
290-300-310	0.0	1.3	1.7	1.9	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
320-330-340	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

Wind Direction	Wind Speed (kt) Spring (Mar/Apr/May)												NA
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	
Calm	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
020-030-040	0.0	3.3	4.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
050-060-070	0.0	9.3	15.2	17.3	17.7	17.8	17.8	17.8	17.8	17.8	17.8	17.8	17.8
080-090-100	0.0	4.0	7.4	9.9	10.5	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
110-120-130	0.0	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
140-150-160	0.0	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
170-180-190	0.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
200-210-220	0.0	5.8	7.8	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
230-240-250	0.0	9.4	17.9	21.6	23.1	23.4	23.5	23.5	23.5	23.5	23.5	23.5	23.5
260-270-280	0.0	5.2	8.7	10.0	10.3	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
290-300-310	0.0	1.2	2.6	3.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
320-330-340	0.0	0.7	1.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Wind Direction	Wind Speed (kt) Summer (Jun/Jul/Aug)												NA
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	
Calm	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	1.1	2.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
020-030-040	0.0	2.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
050-060-070	0.0	9.5	14.2	15.2	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
080-090-100	0.0	5.4	9.3	10.8	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
110-120-130	0.0	1.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
140-150-160	0.0	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170-180-190	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
200-210-220	0.0	7.6	9.8	10.1	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
230-240-250	0.0	10.9	17.2	19.2	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
260-270-280	0.0	6.0	9.3	10.1	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
290-300-310	0.0	1.9	3.9	4.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
320-330-340	0.0	1.0	1.9	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2

Wind Direction	Wind Speed (kt) Autumn (Sep/Oct/Nov)												NA
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	
Calm	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
020-030-040	0.0	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
050-060-070	0.0	10.6	15.4	16.6	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
080-090-100	0.0	5.0	7.8	9.1	9.2	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
110-120-130	0.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
140-150-160	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
170-180-190	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
200-210-220	0.0	8.1	9.7	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
230-240-250	0.0	11.8	17.9	20.6	21.6	21.7	21.8	21.8	21.8	21.8	21.8	21.8	21.8
260-270-280	0.0	6.1	8.2	8.9	9.1	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
290-300-310	0.0	1.3	1.8	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
320-330-340	0.0	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

1.3.3. Cumulative Wind Speed and Direction per Month

Example (dark shading): In the 10 years period in January 0.6% of all observations showed a wind speed between 1 and 10 knots with a concurrent wind direction between 350 and 010 degrees.

Wind Direction	Wind Speed (kt) January												NA
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	
Calm	15.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
020-030-040	0.0	4.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
050-060-070	0.0	9.3	14.5	15.7	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
080-090-100	0.0	3.8	5.3	6.3	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
110-120-130	0.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
140-150-160	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
170-180-190	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
200-210-220	0.0	7.8	9.0	9.1	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
230-240-250	0.0	10.9	16.9	20.3	22.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
260-270-280	0.0	6.1	8.2	9.1	9.7	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
290-300-310	0.0	1.6	1.9	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
320-330-340	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Wind Direction	Wind Speed (kt) February												NA
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	
Calm	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
020-030-040	0.0	2.6	3.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
050-060-070	0.0	7.8	12.9	14.6	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
080-090-100	0.0	4.4	6.6	8.1	8.5	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
110-120-130	0.0	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
140-150-160	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
170-180-190	0.0	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
200-210-220	0.0	6.3	8.2	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
230-240-250	0.0	11.0	20.2	26.9	29.0	29.6	29.7	29.7	29.7	29.7	29.7	29.7	29.7
260-270-280	0.0	5.5	9.6	11.3	11.8	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
290-300-310	0.0	1.1	1.6	2.1	2.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
320-330-340	0.0	0.2	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5

Wind Direction	Wind Speed (kt) March												NA
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	
Calm	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	1.2	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
020-030-040	0.0	2.8	3.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
050-060-070	0.0	8.0	13.0	14.9	15.4	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
080-090-100	0.0	3.7	7.2	10.0	10.7	10.8	10.9	10.9	10.9	10.9	10.9	10.9	10.9
110-120-130	0.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
140-150-160	0.0	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
170-180-190	0.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
200-210-220	0.0	5.7	7.7	8.1	8.1	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
230-240-250	0.0	8.9	17.9	22.9	25.7	26.5	26.6	26.6	26.6	26.6	26.6	26.6	26.6
260-270-280	0.0	5.0	8.7	10.4	10.9	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
290-300-310	0.0	1.2	2.6	3.4	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
320-330-340	0.0	0.7	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Wind Direction	Wind Speed (kt) April												NA
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	
Calm	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
020-030-040	0.0	3.6	4.9	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
050-060-070	0.0	9.0	14.7	17.0	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
080-090-100	0.0	3.7	6.9	9.1	9.9	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
110-120-130	0.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
140-150-160	0.0	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
170-180-190	0.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
200-210-220	0.0	5.8	8.0	8.4	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
230-240-250	0.0	9.6	18.9	22.7	24.2	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
260-270-280	0.0	5.2	8.8	10.3	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
290-300-310	0.0	0.9	2.2	2.5	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
320-330-340	0.0	0.7	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5

Wind Direction	Wind Speed (kt) May												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	NA
Calm	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.8	1.9	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
020-030-040	0.0	3.6	5.0	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
050-060-070	0.0	10.8	17.7	19.7	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
080-090-100	0.0	4.5	8.1	10.6	11.0	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
110-120-130	0.0	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
140-150-160	0.0	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
170-180-190	0.0	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
200-210-220	0.0	5.8	7.6	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
230-240-250	0.0	9.8	16.9	19.3	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
260-270-280	0.0	5.3	8.6	9.4	9.6	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
290-300-310	0.0	1.4	2.9	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
320-330-340	0.0	0.7	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7

Wind Direction	Wind Speed (kt) June												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	NA
Calm	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	1.1	2.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
020-030-040	0.0	3.0	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
050-060-070	0.0	8.8	13.0	14.6	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
080-090-100	0.0	4.7	8.7	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
110-120-130	0.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
140-150-160	0.0	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
170-180-190	0.0	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
200-210-220	0.0	7.3	9.3	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
230-240-250	0.0	12.1	18.0	19.7	20.0	20.1	20.1	20.1	20.1	20.1	20.1	20.1	20.1
260-270-280	0.0	6.5	9.8	10.8	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
290-300-310	0.0	2.2	5.0	5.9	5.9	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0
320-330-340	0.0	1.1	1.9	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3

Wind Direction	Wind Speed (kt) July												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	NA
Calm	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	1.2	2.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
020-030-040	0.0	2.8	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
050-060-070	0.0	8.9	14.2	15.1	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
080-090-100	0.0	5.1	8.1	9.8	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
110-120-130	0.0	1.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
140-150-160	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
170-180-190	0.0	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
200-210-220	0.0	7.9	10.4	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
230-240-250	0.0	10.5	17.9	20.5	20.7	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
260-270-280	0.0	5.7	9.9	10.9	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
290-300-310	0.0	2.0	4.1	5.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
320-330-340	0.0	1.1	2.3	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5

Wind Direction	Wind Speed (kt) August												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	NA
Calm	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
020-030-040	0.0	2.9	3.6	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
050-060-070	0.0	10.7	15.4	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
080-090-100	0.0	6.4	11.1	12.6	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
110-120-130	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
140-150-160	0.0	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
170-180-190	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
200-210-220	0.0	7.6	9.8	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
230-240-250	0.0	10.3	15.8	17.3	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4	17.4
260-270-280	0.0	5.9	8.1	8.7	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
290-300-310	0.0	1.4	2.5	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
320-330-340	0.0	1.0	1.6	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8

Wind Direction	Wind Speed (kt) September												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	NA
Calm	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
020-030-040	0.0	3.0	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
050-060-070	0.0	10.3	16.2	17.4	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
080-090-100	0.0	5.3	8.9	10.6	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
110-120-130	0.0	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
140-150-160	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
170-180-190	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
200-210-220	0.0	7.4	9.1	9.3	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
230-240-250	0.0	11.1	17.1	19.8	20.5	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6
260-270-280	0.0	5.4	8.2	8.9	9.1	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
290-300-310	0.0	1.1	2.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
320-330-340	0.0	0.7	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Wind Direction	Wind Speed (kt) October												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	NA
Calm	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
020-030-040	0.0	2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
050-060-070	0.0	10.2	13.9	14.4	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
080-090-100	0.0	5.1	8.2	9.5	9.7	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
110-120-130	0.0	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
140-150-160	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
170-180-190	0.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
200-210-220	0.0	8.5	10.1	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
230-240-250	0.0	12.9	19.2	22.3	23.5	23.6	23.7	23.7	23.7	23.7	23.7	23.7	23.7
260-270-280	0.0	6.9	8.4	9.2	9.4	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
290-300-310	0.0	1.3	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
320-330-340	0.0	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8

Wind Direction	Wind Speed (kt) November												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	NA
Calm	13.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
020-030-040	0.0	4.1	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
050-060-070	0.0	11.3	16.1	18.0	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
080-090-100	0.0	4.5	6.1	6.7	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
110-120-130	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
140-150-160	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
170-180-190	0.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
200-210-220	0.0	8.3	10.0	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
230-240-250	0.0	11.6	17.2	19.8	20.8	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
260-270-280	0.0	6.2	7.9	8.5	8.7	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
290-300-310	0.0	1.7	1.8	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
320-330-340	0.0	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

Wind Direction	Wind Speed (kt) December												
	0	1 - 5	1 - 10	1 - 15	1 - 20	1 - 25	1 - 30	1 - 35	1 - 40	1 - 45	1 - 50	1 - 99	NA
Calm	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Variable	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
350-360-010	0.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
020-030-040	0.0	3.6	4.5	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
050-060-070	0.0	8.1	15.7	18.3	19.3	19.5	19.6	19.6	19.6	19.6	19.6	19.6	19.6
080-090-100	0.0	2.4	4.4	5.1	5.3	5.4	5.5	5.5	5.5	5.5	5.5	5.5	5.5
110-120-130	0.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
140-150-160	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
170-180-190	0.0	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
200-210-220	0.0	7.2	9.4	9.6	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
230-240-250	0.0	11.8	18.0	22.9	25.3	26.2	26.2	26.2	26.2	26.2	26.2	26.2	26.2
260-270-280	0.0	6.2	8.3	9.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
290-300-310	0.0	1.3	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
320-330-340	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

1.4. Wind RWY 25 (07)

1.4.1. Wind RWY 25 (07) 10 Years

Frequencies in percent of the concurrent wind speed and wind direction relative to runway 25 (headwind, tailwind, left and right crosswind). Calm is for the wind speed with 0 kt. Variable is for the wind speed between 1 and 3 kt. Frequencies are calculated relative to all potentially possible minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomena were observed.

Example (dark shading): In the 10 years period 31.6% of all observations showed a headwind relative to runway 25 (tailwind relative to runway 07) with a wind speed between 0 and 5 knots ($0 < X \leq 5$).

Wind Direction	Wind Speed (kt) 10 Years												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.9
Variable	0.0	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	31.6	14.0	4.9	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	22.8	10.3	3.5	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	30.1	3.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	45.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

1.4.2. Wind RWY 25 (07) per Season

Example (dark shading): In the 10 years period in winter 29.5% of all observations showed a headwind relative to runway 25 (tailwind relative to runway 07) with a wind speed between 0 and 5 knots ($0 < X \leq 5$).

Wind Direction	Wind Speed (kt) Winter (Dec/Jan/Feb)												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.8
Variable	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	29.5	12.9	7.0	3.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	19.2	9.6	3.2	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	30.8	1.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	41.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) Spring (Mar/Apr/May)												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	6.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.9
Variable	0.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	27.6	16.5	5.8	2.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	22.2	11.7	5.0	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	30.5	4.5	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	45.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) Summer (Jun/Jul/Aug)												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.9
Variable	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	35.3	14.6	3.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	25.1	10.4	2.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	29.9	5.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	48.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) Autumn (Sep/Oct/Nov)												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.2
Variable	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	33.6	11.4	4.0	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	23.9	9.0	2.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	29.2	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	46.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

1.4.3. Wind RWY 25 (07) per Month

Example (dark shading): In the 10 years period in January 30.3% of all observations showed a headwind relative to runway 25 (tailwind relative to runway 07) with a wind speed between 0 and 5 knots ($0 < X \leq 5$).

Wind Direction	Wind Speed (kt) January												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	15.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.8
Variable	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	30.3	10.0	5.1	3.3	1.2	0.1	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	21.0	8.4	2.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	30.7	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	39.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) February												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	7.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.5
Variable	0.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	27.7	17.4	9.9	2.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	19.5	8.7	3.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	29.3	2.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	44.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) March												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.5
Variable	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	25.5	17.2	8.0	3.7	1.0	0.1	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	18.8	10.4	5.1	1.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	27.8	4.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	45.0	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) April												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.5
Variable	0.0	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	27.8	17.7	6.1	2.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	21.9	11.5	5.0	1.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	30.5	4.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	45.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) May												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.0
Variable	0.0	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	27.8	14.5	3.9	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	25.3	13.7	5.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	32.2	4.3	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	46.4	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) June												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.8
Variable	0.0	8.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	35.8	14.3	3.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	23.5	11.2	3.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	30.4	6.3	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	47.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) July												NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50	
Calm	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.7
Variable	0.0	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	34.7	17.3	4.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	23.5	10.1	2.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	29.5	6.3	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	47.7	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) August													NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50		
Calm	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.0
Variable	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	33.8	11.8	2.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	28.1	11.2	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	28.6	3.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	50.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) September													NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50		
Calm	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0
Variable	0.0	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	31.9	12.4	4.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	24.2	11.3	3.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	29.3	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	48.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) October													NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50		
Calm	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.3
Variable	0.0	11.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	35.9	11.2	4.5	1.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	22.5	7.8	2.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	26.7	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	47.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) November													NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50		
Calm	13.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.3
Variable	0.0	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	33.0	10.4	3.6	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	24.9	7.5	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	31.9	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	43.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Wind Direction	Wind Speed (kt) December													NA
	0	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	> 50		
Calm	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	81.2
Variable	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Headwind	0.0	30.2	11.9	6.4	2.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Tailwind	0.0	17.1	11.4	3.6	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Right Crosswind	0.0	32.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Left Crosswind	0.0	39.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

2.1. Wind Gusts

2.1.1. Wind Gusts 10 Years

Frequencies in per mil of concurrent wind direction (in 10° sectors) and wind gust speed within specified ranges. Frequencies are calculated relative to all potentially possible minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA (also in per mil). Light grey shading denotes values where the phenomena were observed.

Example (dark shading): In the 10 years period 0.96% of all observations showed a wind gust between 26 and 30 knots with a concurrent wind direction of 240 degrees.

Wind Direction	Wind Speed (kt) 10 Years							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.05	0.10	0.02	0.00	0.00	0.00	
010	0.00	0.02	0.02	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.02	0.02	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.02	0.02	0.00	0.00	0.00	0.00	
050	0.00	0.05	0.02	0.00	0.02	0.00	0.00	
060	0.00	0.00	0.10	0.12	0.02	0.00	0.00	
070	0.00	0.00	0.15	0.05	0.00	0.00	0.00	
080	0.00	0.00	0.07	0.05	0.05	0.00	0.00	
090	0.00	0.00	0.02	0.02	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.02	0.02	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.02	0.00	0.00	0.00	0.00	
220	0.00	0.02	0.00	0.07	0.00	0.00	0.00	
230	0.00	0.05	0.17	0.10	0.12	0.02	0.00	
240	0.02	0.22	0.59	0.96	0.62	0.00	0.00	
250	0.00	0.22	0.87	1.31	1.29	0.07	0.00	
260	0.00	0.27	0.45	0.35	0.27	0.02	0.00	
270	0.00	0.12	0.30	0.15	0.12	0.02	0.00	
280	0.00	0.05	0.30	0.22	0.05	0.00	0.00	
290	0.00	0.15	0.17	0.10	0.17	0.02	0.00	
300	0.00	0.02	0.20	0.12	0.07	0.05	0.00	
310	0.00	0.10	0.02	0.05	0.02	0.00	0.00	
320	0.02	0.05	0.02	0.00	0.00	0.00	0.00	
330	0.02	0.00	0.02	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.02	0.02	0.00	0.00	0.00	
350	0.02	0.10	0.02	0.05	0.00	0.00	0.00	

769

2.1.2. Maximum Wind Gust in 10 Years

On the 28th of January 1994 at 0650 UTC a wind gust of 50 kt was measured.

2.1.3. Wind Gusts per Season

Example (dark shading): In the 10 years period in winter 3.05% of all observations showed a wind gust between 31 and 40 knots with a concurrent wind direction of 250 degrees.

Wind Direction	Wind Speed (kt) Winter (Dec/Jan/Feb)							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.13	0.00	0.00	0.00	0.00	
010	0.00	0.13	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.13	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.13	0.00	0.00	
060	0.00	0.00	0.13	0.51	0.13	0.00	0.00	
070	0.00	0.00	0.00	0.13	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.13	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.25	0.00	0.00	0.00	
230	0.00	0.00	0.13	0.00	0.13	0.13	0.00	
240	0.00	0.13	0.51	1.78	1.53	0.00	0.00	
250	0.00	0.00	1.02	2.41	3.05	0.13	0.00	
260	0.00	0.38	0.64	0.76	0.25	0.00	0.00	
270	0.00	0.13	0.38	0.00	0.13	0.00	0.00	
280	0.00	0.13	0.38	0.38	0.00	0.00	0.00	
290	0.00	0.00	0.00	0.25	0.76	0.00	0.00	
300	0.00	0.00	0.13	0.25	0.38	0.13	0.00	
310	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

818

Wind Direction	Wind Speed (kt) Spring (Mar/Apr/May)							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.18	0.09	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.18	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.18	0.09	0.00	0.00	0.00	
070	0.00	0.00	0.18	0.09	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.09	0.09	0.00	
090	0.00	0.00	0.00	0.00	0.09	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.09	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.09	0.00	0.09	0.00	0.00	0.00	
230	0.00	0.18	0.00	0.18	0.09	0.00	0.00	
240	0.00	0.27	0.90	0.90	0.54	0.00	0.00	
250	0.00	0.18	0.99	0.99	1.63	0.09	0.00	
260	0.00	0.27	0.63	0.45	0.27	0.00	0.00	
270	0.00	0.09	0.36	0.27	0.18	0.09	0.00	
280	0.00	0.09	0.54	0.45	0.00	0.00	0.00	
290	0.00	0.27	0.18	0.09	0.09	0.00	0.00	
300	0.00	0.09	0.36	0.18	0.00	0.00	0.00	
310	0.00	0.09	0.00	0.09	0.00	0.00	0.00	
320	0.00	0.09	0.09	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.09	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.09	0.18	0.00	0.00	0.00	0.00	0.00	

749

Wind Direction	Wind Speed (kt) Summer (Jun/Jul/Aug)							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.17	0.09	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.09	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.09	0.09	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.09	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.09	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.09	0.00	0.00	0.00	
090	0.00	0.00	0.09	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.09	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.09	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.17	0.00	0.00	0.00	0.00	
240	0.09	0.43	0.26	0.17	0.00	0.00	0.00	
250	0.00	0.17	0.26	0.09	0.09	0.00	0.00	
260	0.00	0.35	0.09	0.00	0.00	0.00	0.00	
270	0.00	0.17	0.35	0.17	0.09	0.00	0.00	
280	0.00	0.00	0.17	0.09	0.00	0.00	0.00	
290	0.00	0.26	0.26	0.00	0.00	0.09	0.00	
300	0.00	0.00	0.17	0.09	0.00	0.09	0.00	
310	0.00	0.26	0.09	0.00	0.00	0.00	0.00	
320	0.09	0.09	0.00	0.00	0.00	0.00	0.00	
330	0.09	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.09	0.09	0.00	0.00	0.00	
350	0.00	0.00	0.09	0.17	0.00	0.00	0.00	

739

Wind Direction	Wind Speed (kt) Autumn (Sep/Oct/Nov)							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.10	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.10	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.30	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.30	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.40	0.20	0.30	0.00	0.00	
240	0.00	0.00	0.70	1.30	0.70	0.00	0.00	
250	0.00	0.50	1.30	2.21	0.90	0.10	0.00	
260	0.00	0.10	0.50	0.30	0.60	0.10	0.00	
270	0.00	0.10	0.10	0.10	0.10	0.00	0.00	
280	0.00	0.00	0.10	0.00	0.20	0.00	0.00	
290	0.00	0.00	0.20	0.10	0.00	0.00	0.00	
300	0.00	0.00	0.10	0.00	0.00	0.00	0.00	
310	0.00	0.00	0.00	0.10	0.10	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.20	0.00	0.00	0.00	0.00	0.00	

772

2.1.4. Wind Gusts per Month

Example (dark shading): In the 10 years period in January 4.81% of all observations showed a wind gust speed between 31 and 40 knots with a concurrent wind direction of 250 degrees.

Wind Direction	Wind Speed (kt) January							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
240	0.00	0.00	0.37	1.11	1.11	0.00	0.00	
250	0.00	0.00	0.74	2.59	4.81	0.00	0.00	
260	0.00	0.00	0.74	0.37	0.37	0.00	0.00	
270	0.00	0.00	0.00	0.00	0.37	0.00	0.00	
280	0.00	0.00	0.37	1.11	0.00	0.00	0.00	
290	0.00	0.00	0.00	0.37	0.74	0.00	0.00	
300	0.00	0.00	0.00	0.37	0.74	0.37	0.00	
310	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

818

Wind Direction	Wind Speed (kt) February							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.42	0.00	0.00	0.00	0.00	
010	0.00	0.42	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.42	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.42	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.42	0.00	0.00	0.00	
230	0.00	0.00	0.00	0.00	0.00	0.42	0.00	
240	0.00	0.42	0.85	1.27	0.85	0.00	0.00	
250	0.00	0.00	1.27	1.69	1.69	0.00	0.00	
260	0.00	0.42	0.00	1.27	0.42	0.00	0.00	
270	0.00	0.42	1.27	0.00	0.00	0.00	0.00	
280	0.00	0.00	0.42	0.00	0.00	0.00	0.00	
290	0.00	0.00	0.00	0.42	1.69	0.00	0.00	
300	0.00	0.00	0.42	0.42	0.42	0.00	0.00	
310	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

825

Wind Direction	Wind Speed (kt) March							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.29	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.29	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.29	0.00	0.00	0.00	0.00	0.00	
240	0.00	0.00	1.43	1.43	1.15	0.00	0.00	
250	0.00	0.29	1.15	1.43	5.16	0.29	0.00	
260	0.00	0.57	0.86	0.57	0.86	0.00	0.00	
270	0.00	0.00	0.57	0.29	0.29	0.29	0.00	
280	0.00	0.00	1.43	0.86	0.00	0.00	0.00	
290	0.00	0.29	0.00	0.29	0.29	0.00	0.00	
300	0.00	0.29	1.15	0.29	0.00	0.00	0.00	
310	0.00	0.00	0.00	0.29	0.00	0.00	0.00	
320	0.00	0.00	0.29	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.29	0.00	0.00	0.00	0.00	0.00	

765

Wind Direction	Wind Speed (kt) April							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.27	0.27	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.54	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.27	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.54	0.27	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.27	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.27	0.00	0.00	0.00	
230	0.00	0.27	0.00	0.00	0.00	0.00	0.00	
240	0.00	0.27	0.54	0.82	0.54	0.00	0.00	
250	0.00	0.27	1.36	1.63	0.00	0.00	0.00	
260	0.00	0.27	0.27	0.27	0.00	0.00	0.00	
270	0.00	0.00	0.00	0.54	0.00	0.00	0.00	
280	0.00	0.27	0.00	0.27	0.00	0.00	0.00	
290	0.00	0.00	0.54	0.00	0.00	0.00	0.00	
300	0.00	0.00	0.00	0.27	0.00	0.00	0.00	
310	0.00	0.27	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.27	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

745

Wind Direction	Wind Speed (kt) May							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.26	0.26	0.00	0.00	0.00	
070	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.26	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.26	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.00	0.51	0.26	0.00	0.00	
240	0.00	0.51	0.77	0.51	0.00	0.00	0.00	
250	0.00	0.00	0.51	0.00	0.00	0.00	0.00	
260	0.00	0.00	0.77	0.51	0.00	0.00	0.00	
270	0.00	0.26	0.51	0.00	0.26	0.00	0.00	
280	0.00	0.00	0.26	0.26	0.00	0.00	0.00	
290	0.00	0.51	0.00	0.00	0.00	0.00	0.00	
300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
310	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.26	0.26	0.00	0.00	0.00	0.00	0.00	

738

Wind Direction	Wind Speed (kt) June							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.27	0.27	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.27	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.27	0.00	0.00	0.00	0.00	
240	0.00	0.53	0.00	0.27	0.00	0.00	0.00	
250	0.00	0.27	0.80	0.00	0.00	0.00	0.00	
260	0.00	0.27	0.00	0.00	0.00	0.00	0.00	
270	0.00	0.00	0.53	0.00	0.00	0.00	0.00	
280	0.00	0.00	0.27	0.27	0.00	0.00	0.00	
290	0.00	0.00	0.53	0.00	0.00	0.27	0.00	
300	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00
310	0.00	0.27	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.27	0.00	0.00	0.00	0.00	0.00	
330	0.27	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.27	0.00	0.00	0.00	0.00	
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

738

Wind Direction	Wind Speed (kt) July							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.26	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.26	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
240	0.26	0.26	0.26	0.00	0.00	0.00	0.00	
250	0.00	0.26	0.00	0.26	0.26	0.00	0.00	
260	0.00	0.51	0.26	0.00	0.00	0.00	0.00	
270	0.00	0.26	0.26	0.26	0.00	0.00	0.00	
280	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
290	0.00	0.51	0.26	0.00	0.00	0.00	0.00	
300	0.00	0.00	0.51	0.26	0.00	0.00	0.00	
310	0.00	0.51	0.26	0.00	0.00	0.00	0.00	
320	0.26	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.00	0.26	0.26	0.00	0.00	0.00	

737

Wind Direction	Wind Speed (kt) August							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.26	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.26	0.00	
090	0.00	0.00	0.26	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
240	0.00	0.52	0.52	0.26	0.00	0.00	0.00	
250	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
260	0.00	0.26	0.00	0.00	0.00	0.00	0.00	
270	0.00	0.26	0.26	0.26	0.26	0.00	0.00	
280	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
290	0.00	0.26	0.00	0.00	0.00	0.00	0.00	
300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
310	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.26	0.00	
350	0.00	0.00	0.00	0.00	0.00	0.26	0.00	

740

Wind Direction	Wind Speed (kt) September							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.28	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.56	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.83	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.56	0.00	0.28	0.00	0.00	
240	0.00	0.00	1.39	0.56	0.00	0.00	0.00	
250	0.00	0.28	0.83	0.28	0.56	0.00	0.00	
260	0.00	0.00	0.56	0.00	0.28	0.00	0.00	
270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
280	0.00	0.00	0.00	0.00	0.28	0.00	0.00	
290	0.00	0.00	0.00	0.28	0.00	0.00	0.00	
300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
310	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.28	0.00	0.00	0.00	0.00	0.00	

750

Wind Direction	Wind Speed (kt) October							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.30	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.59	0.59	0.30	0.00	0.00	
240	0.00	0.00	0.59	1.77	1.18	0.00	0.00	
250	0.00	0.59	0.89	4.14	1.48	0.30	0.00	
260	0.00	0.00	0.59	0.59	1.18	0.00	0.00	
270	0.00	0.30	0.30	0.00	0.30	0.00	0.00	
280	0.00	0.00	0.30	0.00	0.30	0.00	0.00	
290	0.00	0.00	0.59	0.00	0.00	0.00	0.00	
300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
310	0.00	0.00	0.00	0.30	0.30	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

773

Wind Direction	Wind Speed (kt) November							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
060	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
070	0.00	0.00	0.33	0.00	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
230	0.00	0.00	0.00	0.00	0.33	0.00	0.00	
240	0.00	0.00	0.00	1.67	1.00	0.00	0.00	
250	0.00	0.67	2.34	2.34	0.67	0.00	0.00	
260	0.00	0.33	0.33	0.33	0.33	0.33	0.00	
270	0.00	0.00	0.00	0.33	0.00	0.00	0.00	
280	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
290	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300	0.00	0.00	0.33	0.00	0.00	0.00	0.00	
310	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.33	0.00	0.00	0.00	0.00	0.00	

793

Wind Direction	Wind Speed (kt) December							
	10-15	16-20	21-25	26-30	31-40	41-60	>60	NA
360	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
010	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
020	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
050	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00
060	0.00	0.00	0.00	1.43	0.36	0.00	0.00	
070	0.00	0.00	0.00	0.36	0.00	0.00	0.00	
080	0.00	0.00	0.00	0.00	0.36	0.00	0.00	
090	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
110	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
120	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
130	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
140	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
150	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
160	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
170	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
180	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
190	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
210	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
220	0.00	0.00	0.00	0.36	0.00	0.00	0.00	
230	0.00	0.00	0.36	0.00	0.00	0.36	0.00	
240	0.00	0.00	0.36	2.85	2.50	0.00	0.00	
250	0.00	0.00	1.07	2.85	2.50	0.36	0.00	
260	0.00	0.71	1.07	0.71	0.00	0.00	0.00	
270	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
280	0.00	0.36	0.36	0.00	0.00	0.00	0.00	
290	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
310	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
320	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
340	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
350	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

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3. VISIBILITY AND CEILING

3.1. Visibility

3.1.1. Hourly Visibility 10 Years

Cumulative frequencies in percent of visibility below specified values at specified times (months in 3.1.2.). Frequencies are calculated relative to all potentially possible observations each hour (month) minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomena were observed.

Example (dark shading): In the 10 years period 15.6% of all observations between 12 and 13 UTC showed a visibility below 8000 m.

Time (UTC)	Visibility (m) 10 Years											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.5	6.0	7.5	8.2	9.5	14.1	19.0	30.7	69.3	73.5
06 - 07	0.0	0.0	0.4	5.9	8.0	8.8	11.4	17.5	25.9	38.1	61.9	53.8
07 - 08	0.0	0.0	0.3	4.2	6.2	7.1	9.4	15.4	22.7	34.6	65.4	53.9
08 - 09	0.0	0.0	0.1	2.3	4.0	4.7	7.0	12.5	19.1	29.7	70.3	53.1
09 - 10	0.0	0.0	0.0	1.0	1.9	2.8	4.5	9.1	15.8	24.9	75.1	52.9
10 - 11	0.0	0.0	0.0	0.5	0.9	1.3	2.3	6.8	12.1	20.7	79.3	53.3
11 - 12	0.0	0.0	0.0	0.1	0.4	0.7	1.5	4.9	10.2	18.4	81.6	53.5
12 - 13	0.0	0.0	0.0	0.1	0.2	0.4	1.2	3.4	7.9	15.6	84.4	53.8
13 - 14	0.0	0.0	0.0	0.1	0.4	0.5	0.9	3.1	6.8	14.6	85.4	53.8
14 - 15	0.0	0.0	0.0	0.4	0.5	0.5	1.0	3.1	7.0	13.7	86.3	53.6
15 - 16	0.0	0.0	0.0	0.3	0.5	0.6	1.1	3.1	6.7	14.2	85.8	55.0
16 - 17	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.7	2.4	7.3	92.7	66.8
17 - 18	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.7	2.4	5.6	94.4	76.2

3.1.2. Monthly Visibility 10 Years

Example (dark shading): In the 10 years period in March 8.2% of all observations showed a visibility below 5000 m.

Time (Months)	Visibility (m) 10 Years											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
January	0.0	0.0	0.1	4.4	6.9	8.5	12.4	23.7	39.5	54.7	45.3	82.0
February	0.0	0.0	0.3	1.7	3.0	3.6	5.4	11.8	19.7	31.1	68.9	82.7
March	0.0	0.0	0.1	1.3	1.7	1.9	2.8	4.9	8.2	17.2	82.8	76.9
April	0.0	0.0	0.0	0.3	0.4	0.6	0.8	2.4	3.9	10.0	90.0	74.8
May	0.0	0.0	0.0	0.2	0.3	0.4	0.6	1.4	2.9	7.8	92.2	74.1
June	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.7	1.4	4.2	95.8	74.2
July	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.7	1.3	3.6	96.4	74.0
August	0.0	0.0	0.0	0.5	0.8	0.9	1.2	2.1	3.4	8.9	91.1	74.3
September	0.0	0.0	0.1	2.3	3.2	3.7	4.6	7.1	10.9	18.9	81.1	75.3
October	0.0	0.0	0.1	3.6	5.2	5.8	7.9	13.2	20.8	34.9	65.1	77.6
November	0.0	0.0	0.3	3.4	5.1	5.9	8.7	17.1	29.2	45.7	54.3	79.3
December	0.0	0.0	0.2	2.7	3.9	4.8	7.1	15.1	27.8	42.9	57.1	81.2

3.1.3. Hourly Visibility per Season

Example (dark shading): In the 10 years period in winter 36.3 % of all observations between 12 and 13 UTC showed a visibility below 8000 m.

Time (UTC)	Visibility (m) Winter (Dec/Jan/Feb)											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	66.7	99.8
06 - 07	0.0	0.0	0.9	8.2	11.2	12.4	16.5	25.8	41.8	57.6	42.4	58.3
07 - 08	0.0	0.0	0.8	7.5	11.3	12.9	16.8	27.4	41.1	55.4	44.6	57.9
08 - 09	0.0	0.0	0.1	5.6	9.3	11.0	15.6	26.3	38.9	52.4	47.6	57.6
09 - 10	0.0	0.0	0.0	2.6	5.2	7.5	11.4	22.1	35.6	48.8	51.2	57.7
10 - 11	0.0	0.0	0.0	2.2	3.4	4.6	6.9	18.1	30.4	44.9	55.1	58.0
11 - 12	0.0	0.0	0.0	0.7	1.7	2.6	5.0	14.6	27.4	41.4	58.6	58.1
12 - 13	0.0	0.0	0.0	0.4	0.8	1.6	3.8	10.1	22.5	36.3	63.7	57.7
13 - 14	0.0	0.0	0.0	0.5	1.2	1.7	3.2	9.7	20.2	34.9	65.1	58.1
14 - 15	0.0	0.0	0.0	1.3	1.8	2.0	3.4	9.9	20.5	33.2	66.8	57.5
15 - 16	0.0	0.0	0.1	1.3	1.7	2.3	3.8	10.5	19.4	34.3	65.7	62.0
16 - 17	0.0	0.0	0.5	0.5	1.1	1.6	2.1	7.0	16.6	27.8	72.2	89.6
17 - 18	0.0	0.0	0.0	1.1	1.1	1.1	1.1	6.8	18.2	35.2	64.8	95.1

Time (UTC)	Visibility (m) Spring (Mar/Apr/May)											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.3	2.4	3.6	4.4	5.0	10.0	13.9	28.4	71.6	66.5
06 - 07	0.0	0.0	0.2	3.5	4.5	4.9	6.0	9.7	15.3	27.3	72.7	53.0
07 - 08	0.0	0.0	0.2	1.1	1.7	2.1	3.2	6.9	11.8	23.0	77.0	52.7
08 - 09	0.0	0.0	0.0	0.8	0.9	1.0	1.7	4.4	8.2	17.7	82.3	51.8
09 - 10	0.0	0.0	0.0	0.1	0.2	0.5	0.8	2.2	4.7	11.9	88.1	52.1
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.3	2.5	8.1	91.9	52.3
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	2.1	7.6	92.4	51.8
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	1.4	5.9	94.1	53.2
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	1.1	4.6	95.4	52.5
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.3	4.7	95.3	52.2
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.1	4.9	95.1	51.9
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	5.1	94.9	52.8
17 - 18	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	1.1	3.9	96.1	65.4

Time (UTC)	Visibility (m) Summer (Jun/Jul/Aug)											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	2.6	3.4	3.4	4.8	7.6	11.3	21.5	78.5	52.6
06 - 07	0.0	0.0	0.0	0.4	1.2	1.4	2.0	4.3	7.4	16.1	83.9	51.3
07 - 08	0.0	0.0	0.0	0.1	0.2	0.5	1.0	2.1	3.7	11.3	88.7	52.9
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	1.2	6.4	93.6	51.7
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	2.7	97.3	51.3
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	2.0	98.0	51.3
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	98.5	52.4
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	98.4	52.7
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	98.9	52.6
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.7	98.3	52.3
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6	98.4	53.4
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	2.2	97.8	52.0
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.2	97.8	54.6

Time (UTC)	Visibility (m) Autumn (Sep/Oct/Nov)											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	1.8	17.9	21.3	22.9	25.1	32.6	41.0	52.0	48.0	75.7
06 - 07	0.0	0.0	0.6	11.8	15.9	17.3	22.2	31.8	42.1	55.0	45.0	52.6
07 - 08	0.0	0.0	0.3	8.5	12.2	13.7	17.4	26.6	36.4	51.1	48.9	52.3
08 - 09	0.0	0.0	0.2	3.4	6.4	7.6	12.0	20.9	30.8	45.5	54.5	51.3
09 - 10	0.0	0.0	0.1	1.4	2.8	3.8	6.9	13.8	25.0	39.6	60.4	50.6
10 - 11	0.0	0.0	0.0	0.1	0.7	1.0	2.5	9.3	17.6	31.6	68.4	51.6
11 - 12	0.0	0.0	0.0	0.0	0.2	0.6	1.3	5.3	13.6	26.4	73.6	51.9
12 - 13	0.0	0.0	0.0	0.0	0.1	0.1	0.9	3.7	9.5	20.8	79.2	51.6
13 - 14	0.0	0.0	0.0	0.0	0.3	0.3	0.6	3.2	7.4	20.5	79.5	52.0
14 - 15	0.0	0.0	0.0	0.2	0.2	0.3	0.8	2.8	7.6	17.9	82.1	52.4
15 - 16	0.0	0.0	0.0	0.2	0.5	0.6	1.2	3.0	8.1	20.4	79.6	52.8
16 - 17	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.6	3.7	12.5	87.5	73.1
17 - 18	0.0	0.0	0.0	0.5	0.5	0.5	0.5	1.6	7.7	13.2	86.8	90.0

3.1.4. Hourly Visibility per Month

Example (dark shading): In the 10 years period in January 49.2 % of all observations between 12 and 13 UTC showed a visibility below 8000 m.

Time (UTC)	Visibility (m) January											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
06 - 07	0.0	0.0	0.8	11.7	14.8	15.2	21.4	33.5	51.0	66.9	33.1	58.5
07 - 08	0.0	0.0	0.8	10.9	15.1	17.4	21.7	34.9	50.4	62.8	37.2	58.4
08 - 09	0.0	0.0	0.0	7.3	13.0	16.5	21.5	34.1	49.4	61.7	38.3	57.9
09 - 10	0.0	0.0	0.0	4.2	9.1	11.7	18.1	29.4	46.4	57.4	42.6	57.3
10 - 11	0.0	0.0	0.0	3.5	5.4	8.1	11.6	25.5	41.3	54.4	45.6	58.2
11 - 12	0.0	0.0	0.0	1.2	2.7	4.2	8.5	21.5	37.3	53.5	46.5	58.1
12 - 13	0.0	0.0	0.0	1.1	1.5	2.3	6.0	15.4	33.5	49.2	50.8	57.1
13 - 14	0.0	0.0	0.0	1.2	2.3	3.5	5.8	14.4	30.0	49.0	51.0	58.5
14 - 15	0.0	0.0	0.0	2.2	3.4	3.7	5.6	15.4	30.7	46.8	53.2	56.9
15 - 16	0.0	0.0	0.0	1.5	2.7	3.8	6.2	16.2	28.8	48.5	51.5	58.1
16 - 17	0.0	0.0	0.0	0.0	2.4	4.8	4.8	14.3	26.2	45.2	54.8	93.2
17 - 18	0.0	0.0	0.0	3.2	3.2	3.2	3.2	16.1	29.0	48.4	51.6	95.0

Time (UTC)	Visibility (m) February											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
06 - 07	0.0	0.0	1.9	4.6	8.8	9.7	13.4	20.4	32.9	47.7	52.3	61.7
07 - 08	0.0	0.0	0.9	5.0	9.6	10.5	13.2	21.0	31.1	46.6	53.4	61.2
08 - 09	0.0	0.0	0.0	4.1	6.9	7.3	10.6	19.7	28.4	42.2	57.8	61.3
09 - 10	0.0	0.0	0.0	1.8	3.2	5.5	7.7	16.8	23.2	38.2	61.8	61.0
10 - 11	0.0	0.0	0.0	1.4	2.3	3.2	4.1	10.0	19.6	32.0	68.0	61.2
11 - 12	0.0	0.0	0.0	0.5	0.9	0.9	2.3	10.0	18.3	27.4	72.6	61.2
12 - 13	0.0	0.0	0.0	0.0	0.0	0.9	1.8	6.8	13.1	21.7	78.3	60.8
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	1.8	6.4	12.7	22.7	77.3	61.0
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	1.4	6.0	12.0	18.9	81.1	61.5
15 - 16	0.0	0.0	0.0	0.5	0.5	0.9	1.4	6.0	10.6	19.8	80.2	61.5
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.9	5.2	12.9	21.6	78.4	79.4
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	13.3	30.0	70.0	94.7

Time (UTC)	Visibility (m) March											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	2.7	2.7	5.4	8.1	10.8	13.5	21.6	24.3	75.7	94.0
06 - 07	0.0	0.0	0.7	8.6	11.7	11.7	13.1	17.6	23.8	34.5	65.5	53.2
07 - 08	0.0	0.0	0.7	3.1	4.4	5.1	7.5	13.2	21.4	32.2	67.8	52.4
08 - 09	0.0	0.0	0.0	2.3	2.7	3.0	4.7	9.0	15.9	28.9	71.1	51.5
09 - 10	0.0	0.0	0.0	0.3	0.7	1.3	2.0	5.0	9.7	24.2	75.8	51.9
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.4	5.4	14.9	85.1	52.4
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	4.3	13.3	86.7	51.5
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	2.6	10.3	89.7	51.3
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	2.7	9.9	90.1	52.9
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	2.4	9.1	90.9	52.1
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.6	8.8	91.2	50.6
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7	7.9	92.1	53.1
17 - 18	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.7	3.3	7.4	92.6	80.5

Time (UTC)	Visibility (m) April											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.4	2.8	3.9	4.6	5.3	11.3	14.5	30.9	69.1	53.0
06 - 07	0.0	0.0	0.0	1.1	1.1	1.4	3.2	7.2	12.6	27.0	73.0	53.7
07 - 08	0.0	0.0	0.0	0.4	0.7	1.1	1.4	5.4	9.4	21.7	78.3	53.8
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	5.6	13.9	86.1	52.0
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.8	6.3	93.7	52.5
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	5.7	94.3	53.3
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	5.9	94.1	52.2
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.6	97.4	55.3
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	2.1	97.9	51.7
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.5	97.5	52.8
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	97.5	53.5
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.9	96.1	53.2
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	4.1	95.9	59.2

Time (UTC)	Visibility (m) May											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	2.0	3.0	3.7	4.0	8.4	12.4	26.5	73.5	51.9
06 - 07	0.0	0.0	0.0	0.7	0.7	1.3	1.7	4.4	9.4	20.5	79.5	52.1
07 - 08	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.0	4.7	15.1	84.9	51.9
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	3.0	10.1	89.9	52.1
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.3	5.0	95.0	51.9
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.7	3.6	96.4	51.1
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.3	96.7	51.8
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	1.0	4.5	95.5	52.9
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7	98.3	52.9
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.3	97.7	51.6
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	97.0	51.6
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	3.4	96.6	52.3
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.2	97.8	56.5

Time (UTC)	Visibility (m) June											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	1.4	1.8	1.8	1.8	4.2	6.7	15.5	84.5	52.8
06 - 07	0.0	0.0	0.0	0.0	0.3	0.3	1.0	2.8	6.3	11.8	88.2	52.0
07 - 08	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.4	2.1	8.8	91.2	52.8
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.7	3.8	96.2	52.3
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	99.0	50.3
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	99.0	50.5
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	98.6	53.7
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	98.9	52.8
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	98.6	52.2
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	98.6
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.8	98.2
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	2.8	97.2
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.6	97.4	54.7

Time (UTC)	Visibility (m) July											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	1.3	2.0	2.0	3.6	5.9	8.9	16.8	83.2	51.0
06 - 07	0.0	0.0	0.0	0.0	0.3	0.3	0.7	2.9	4.9	9.5	90.5	50.6
07 - 08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	7.3	92.7	53.4
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.7	97.3	51.5
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.4	98.6	52.6
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	99.3	52.1
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	99.3	51.3
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	98.7	51.8
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	99.7	52.1
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	98.7	52.1
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	99.0	53.4
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	98.7	51.1
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.8	98.2	54.2

Time (UTC)	Visibility (m) August											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	5.2	6.6	6.6	9.1	12.6	18.5	32.5	67.5	53.9
06 - 07	0.0	0.0	0.0	1.3	3.0	3.6	4.3	7.3	10.9	26.7	73.3	51.1
07 - 08	0.0	0.0	0.0	0.3	0.7	1.4	2.4	4.7	7.8	17.6	82.4	52.4
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.3	12.6	87.4
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.0	5.6	94.4
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7	4.3	95.7
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	97.6	52.4
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	97.6	53.5
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7	98.3
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	2.4	97.6
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.1	97.9
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	97.6
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.2	97.8	55.0

Time (UTC)	Visibility (m) September											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	1.9	17.1	20.5	22.1	24.3	30.8	37.6	47.9	52.1	56.2
06 - 07	0.0	0.0	0.0	8.7	12.5	13.9	18.4	27.1	34.4	45.8	54.2	52.0
07 - 08	0.0	0.0	0.0	4.2	7.0	9.1	10.9	16.1	22.8	36.8	63.2	52.5
08 - 09	0.0	0.0	0.0	0.3	1.3	2.0	4.4	10.7	16.8	28.5	71.5	50.3
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.3	4.0	10.8	21.5	78.5	50.5
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.4	11.9	88.1	51.2
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	9.2	90.8	50.8
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	6.9	93.1	51.8
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	93.6	52.8
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	5.2	94.8	52.3
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	6.0	94.0	52.5
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	7.5	92.5	53.2
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	7.0	93.0	81.0
Time (UTC)	Visibility (m) October											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	1.7	19.2	22.6	24.3	26.6	35.6	45.8	58.2	41.8	71.5
06 - 07	0.0	0.0	0.7	15.1	19.7	20.8	26.4	34.9	45.1	58.5	41.5	54.2
07 - 08	0.0	0.0	0.0	11.6	15.3	17.0	21.8	31.3	42.2	56.1	43.9	52.6
08 - 09	0.0	0.0	0.0	3.1	8.1	9.8	13.9	22.7	34.9	51.5	48.5	52.4
09 - 10	0.0	0.0	0.0	0.3	2.3	3.3	8.5	14.8	25.6	42.3	57.7	50.8
10 - 11	0.0	0.0	0.0	0.0	0.0	0.3	3.3	11.0	19.3	36.2	63.8	51.5
11 - 12	0.0	0.0	0.0	0.0	0.0	0.3	0.3	5.8	13.7	28.0	72.0	52.7
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	8.6	19.5	80.5	51.3
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	5.6	19.4	80.6	51.0
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	5.4	17.0	83.0	52.6
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.7	5.8	19.0	81.0
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	16.9	83.1	74.2
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	13.8	86.2	95.3
Time (UTC)	Visibility (m) November											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	50.0	99.7
06 - 07	0.0	0.0	1.0	11.7	15.5	17.2	21.7	33.4	46.9	60.7	39.3	51.7
07 - 08	0.0	0.0	1.0	9.7	14.1	14.8	19.3	32.1	43.8	60.0	40.0	51.7
08 - 09	0.0	0.0	0.7	6.8	9.9	10.9	17.7	29.3	40.8	56.8	43.2	51.0
09 - 10	0.0	0.0	0.3	4.0	6.1	8.1	11.8	22.6	38.7	54.9	45.1	50.5
10 - 11	0.0	0.0	0.0	0.3	2.1	2.8	4.2	15.7	30.4	46.9	53.1	52.3
11 - 12	0.0	0.0	0.0	0.0	0.7	1.4	3.5	10.1	24.0	42.5	57.5	52.2
12 - 13	0.0	0.0	0.0	0.0	0.3	0.3	2.8	7.9	18.6	35.9	64.1	51.7
13 - 14	0.0	0.0	0.0	0.0	1.0	1.0	1.7	7.7	16.0	35.5	64.5	52.2
14 - 15	0.0	0.0	0.0	0.7	0.7	1.0	2.4	7.0	17.1	31.4	68.6	52.2
15 - 16	0.0	0.0	0.0	0.7	1.4	1.8	3.2	7.5	17.9	36.4	63.6	53.3
16 - 17	0.0	0.0	2.1	2.1	2.1	2.1	2.1	6.3	16.7	27.1	72.9	92.0
17 - 18	0.0	0.0	0.0	2.6	2.6	2.6	2.6	7.7	20.5	30.8	69.2	93.5
Time (UTC)	Visibility (m) December											
	< 50	< 100	< 150	< 350	< 600	< 800	< 1500	< 3000	< 5000	< 8000	≥ 8000	NA
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	66.7	99.5
06 - 07	0.0	0.0	0.4	7.9	9.7	11.8	14.3	22.9	40.1	56.6	43.4	55.0
07 - 08	0.0	0.0	0.7	6.4	9.2	10.6	15.2	25.4	40.3	55.5	44.5	54.4
08 - 09	0.0	0.0	0.4	5.3	7.7	8.8	14.0	24.2	37.2	51.6	48.4	54.0
09 - 10	0.0	0.0	0.0	1.8	3.2	5.0	7.9	19.4	35.3	48.9	51.1	55.2
10 - 11	0.0	0.0	0.0	1.8	2.5	2.5	4.7	17.6	28.7	46.2	53.8	55.0
11 - 12	0.0	0.0	0.0	0.4	1.4	2.5	4.0	11.6	25.3	41.2	58.8	55.3
12 - 13	0.0	0.0	0.0	0.0	0.7	1.4	3.3	7.6	19.6	35.5	64.5	55.5
13 - 14	0.0	0.0	0.0	0.4	1.1	1.4	1.8	7.9	17.2	31.5	68.5	55.0
14 - 15	0.0	0.0	0.0	1.4	1.8	1.8	2.8	7.8	17.4	31.2	68.8	54.5
15 - 16	0.0	0.0	0.5	1.9	1.9	1.9	3.3	8.1	16.7	31.6	68.4	66.3
16 - 17	0.0	0.0	3.4	3.4	3.4	3.4	3.4	3.4	17.2	27.6	72.4	95.3
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1	25.9	74.1	95.6

3.2. Ceiling

3.2.1. Hourly Ceiling 10 Years

Frequencies in percent of the base height of the lowest cloud layer of BKN or OVC extent below specified values at specified times (months in 3.3.2). Frequencies are calculated relative to all potentially possible observations each hour (month) minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomena were observed.

Example (dark shading): In the 10 years period 6.8% of all observations between 12 and 13 UTC showed a base height of the lowest cloud layer of BKN or OVC below 1500 ft.

Time (UTC)	Ceiling (ft) 10 Years								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.4	1.3	2.3	3.0	4.0	5.0	6.5	49.0	74.9
06 - 07	0.5	1.5	3.6	5.4	7.6	9.7	12.3	52.4	56.9
07 - 08	0.7	1.8	3.9	5.6	8.0	9.4	11.8	51.7	56.3
08 - 09	0.5	1.7	3.5	5.3	7.3	9.1	11.4	50.2	54.9
09 - 10	0.4	1.5	3.2	4.6	6.5	7.9	10.0	51.3	53.9
10 - 11	0.2	1.1	3.2	4.6	6.2	7.4	9.3	50.3	53.6
11 - 12	0.3	0.7	2.1	3.7	5.1	6.4	8.0	50.3	53.6
12 - 13	0.2	0.5	1.8	3.0	4.6	5.5	6.8	50.5	53.5
13 - 14	0.1	0.4	1.4	2.4	3.6	4.8	5.9	50.9	53.5
14 - 15	0.1	0.4	1.2	2.3	3.5	4.5	5.8	50.8	53.6
15 - 16	0.1	0.4	1.0	1.9	2.7	3.5	4.9	50.9	55.2
16 - 17	0.1	0.2	0.2	0.6	1.0	1.5	1.8	48.9	66.6
17 - 18	0.0	0.0	0.2	0.6	0.9	1.0	1.6	46.9	76.0

3.2.2. Monthly Ceiling 10 Years

Example (dark shading): In the 10 years period 11.1% of all observations in October showed a base height of the lowest cloud layer of BKN or OVC below 1200 ft.

Time (Month)	Ceiling (ft) 10 Years								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
January	0.8	3.1	8.2	12.8	18.0	21.3	26.3	51.7	83.3
February	0.7	1.2	3.1	5.4	7.6	9.3	11.1	59.1	83.2
March	0.2	0.4	0.7	1.2	1.6	2.2	2.9	49.6	77.2
April	0.0	0.2	0.4	0.7	1.1	1.9	2.9	52.0	74.5
May	0.0	0.1	0.4	0.5	0.7	1.1	1.5	49.4	74.0
June	0.1	0.1	0.3	0.4	0.7	0.8	1.0	45.2	73.9
July	0.0	0.2	0.4	0.6	0.7	0.9	1.1	40.8	73.8
August	0.1	0.3	0.5	0.8	1.1	1.5	2.3	41.0	74.3
September	0.4	0.9	1.6	2.0	2.4	3.2	4.1	53.5	75.8
October	0.6	1.9	4.9	6.5	9.0	11.1	13.8	52.3	78.6
November	0.5	2.5	5.7	8.6	13.3	16.2	20.5	60.3	80.5
December	0.6	1.7	4.7	9.1	12.8	16.2	20.5	61.9	81.9

3.2.3. Hourly Ceiling per Season

Example (dark shading): In the 10 years period in winter 18.6% of all observations between 12 and 13 UTC showed a base height of the lowest cloud layer of BKN or OVC below 1500 ft.

Time (UTC)	Ceiling (ft) Winter (Dec/Jan/Feb)									
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	99.8	
06 - 07	1.3	2.2	6.1	10.2	15.4	18.8	23.9	60.1	62.5	
07 - 08	1.0	2.4	6.3	9.9	15.4	17.9	21.9	60.8	61.5	
08 - 09	0.7	2.9	6.6	9.9	14.7	18.4	23.0	57.3	61.5	
09 - 10	0.7	2.9	6.7	10.8	14.8	17.5	22.2	57.5	60.3	
10 - 11	0.5	2.5	6.8	11.1	14.5	17.1	21.6	57.0	59.5	
11 - 12	0.9	2.3	6.2	10.9	13.6	17.1	19.8	55.9	58.9	
12 - 13	0.7	1.5	4.8	9.0	12.7	15.5	18.6	56.3	58.3	
13 - 14	0.4	1.5	4.0	7.7	10.3	13.7	16.1	58.5	58.8	
14 - 15	0.4	1.1	3.7	7.2	10.5	13.0	16.2	57.3	58.4	
15 - 16	0.5	1.4	3.6	6.6	9.5	11.1	15.0	57.0	63.1	
16 - 17	1.1	2.2	3.2	5.9	9.1	10.8	12.9	56.5	89.7	
17 - 18	0.0	0.0	3.4	7.9	10.1	11.2	15.7	53.9	95.1	

Time (UTC)	Ceiling (ft) Spring (Mar/Apr/May)									
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA	
05 - 06	0.0	0.3	1.0	1.6	2.8	3.9	4.8	50.2	66.9	
06 - 07	0.2	0.8	1.9	2.8	3.3	4.7	5.5	51.5	53.8	
07 - 08	0.3	0.6	1.3	2.0	2.3	2.9	4.4	49.5	53.3	
08 - 09	0.1	0.2	0.7	1.1	1.8	2.9	4.0	48.7	52.5	
09 - 10	0.1	0.5	0.7	0.8	1.4	1.6	2.9	50.6	52.3	
10 - 11	0.1	0.2	0.5	0.9	1.1	1.7	2.5	50.1	52.2	
11 - 12	0.0	0.0	0.2	0.6	0.8	1.1	2.4	48.1	51.5	
12 - 13	0.0	0.0	0.1	0.3	0.5	0.7	0.9	50.2	52.7	
13 - 14	0.0	0.0	0.0	0.2	0.5	0.8	0.8	50.1	51.7	
14 - 15	0.0	0.0	0.0	0.1	0.1	0.7	1.0	51.2	51.7	
15 - 16	0.0	0.0	0.0	0.1	0.1	0.6	0.9	51.1	51.6	
16 - 17	0.0	0.0	0.0	0.0	0.1	0.7	0.8	51.3	52.4	
17 - 18	0.0	0.0	0.0	0.0	0.2	0.3	0.8	52.0	65.3	

Time (UTC)	Ceiling (ft) Summer (Jun/Jul/Aug)									
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA	
05 - 06	0.5	1.4	2.0	2.5	3.3	4.0	5.0	42.4	53.6	
06 - 07	0.2	0.7	1.7	2.8	3.7	4.3	5.4	42.2	52.0	
07 - 08	0.1	0.6	1.1	1.8	2.8	3.6	4.7	41.5	52.7	
08 - 09	0.0	0.0	0.2	0.6	1.0	1.4	1.8	41.8	51.2	
09 - 10	0.0	0.0	0.1	0.2	0.3	0.7	0.7	43.2	50.7	
10 - 11	0.0	0.0	0.0	0.0	0.0	0.1	0.2	41.5	50.8	
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.2	43.1	52.0	
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.2	41.8	51.6	
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.2	42.3	51.9	
14 - 15	0.0	0.0	0.0	0.0	0.0	0.1	0.2	42.0	52.0	
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.2	42.5	53.0	
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.2	43.1	51.9	
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.1	41.9	54.2	

Time (UTC)	Ceiling (ft) Autumn (Sep/Oct/Nov)									
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA	
05 - 06	1.1	2.4	5.1	6.5	7.8	9.2	12.7	61.7	79.6	
06 - 07	0.4	2.7	5.7	7.0	10.2	13.6	17.9	58.8	59.5	
07 - 08	1.4	3.9	7.8	9.9	13.4	15.7	19.1	57.3	57.7	
08 - 09	1.4	4.1	7.2	10.7	13.6	16.3	19.8	55.0	54.5	
09 - 10	0.7	2.9	6.0	7.9	11.4	14.1	16.8	55.2	52.3	
10 - 11	0.3	2.2	6.1	7.5	10.6	12.6	15.2	53.9	51.9	
11 - 12	0.2	0.8	2.6	4.7	7.6	9.3	11.5	55.0	52.1	
12 - 13	0.1	0.8	2.6	3.4	6.2	7.2	9.3	54.7	51.6	
13 - 14	0.1	0.2	2.1	2.6	4.6	6.3	8.2	54.1	51.8	
14 - 15	0.2	0.5	1.5	2.8	4.4	5.5	7.5	53.7	52.3	
15 - 16	0.0	0.4	0.9	1.9	2.7	4.1	6.0	54.4	53.1	
16 - 17	0.0	0.0	0.0	0.6	1.2	2.0	2.5	52.4	73.1	
17 - 18	0.0	0.0	0.5	2.2	2.7	3.3	4.4	48.6	89.9	

3.2.4. Hourly Ceiling per Month

Example (dark shading): In the 10 years period in January 25.4% of all observations between 12 and 13 UTC showed a base height of the lowest cloud layer of BKN or OVC below 1500 ft.

Time (UTC)	Ceiling (ft) January								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
06 - 07	1.8	4.1	9.0	14.5	23.1	28.1	34.4	49.8	64.4
07 - 08	1.4	3.2	7.2	11.8	20.4	22.2	29.0	54.8	64.4
08 - 09	0.5	2.3	9.0	12.2	19.4	22.1	29.3	53.2	64.2
09 - 10	1.3	3.4	8.4	13.5	19.4	21.9	27.8	53.2	61.8
10 - 11	1.2	4.9	9.8	15.4	20.7	22.8	28.5	52.0	60.3
11 - 12	0.8	4.0	10.4	16.5	19.3	24.9	27.7	48.6	59.8
12 - 13	0.8	2.7	8.5	12.7	18.1	21.5	25.4	51.2	58.1
13 - 14	0.4	2.4	6.4	11.2	14.9	18.5	22.9	51.4	59.8
14 - 15	0.0	1.6	6.3	10.5	12.9	17.2	21.5	52.0	58.7
15 - 16	0.0	2.4	6.5	10.1	13.8	16.2	21.1	52.6	60.2
16 - 17	4.7	7.0	11.6	14.0	18.6	18.6	20.9	48.8	93.1
17 - 18	0.0	0.0	9.7	12.9	16.1	16.1	16.1	45.2	95.0

Time (UTC)	Ceiling (ft) February								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
06 - 07	1.5	1.5	4.5	6.0	8.5	10.5	12.0	68.0	64.5
07 - 08	1.0	1.9	4.3	5.3	8.2	9.2	10.1	65.2	63.3
08 - 09	0.5	2.0	2.4	3.9	7.8	9.8	11.7	60.0	63.7
09 - 10	0.9	1.9	3.3	6.1	7.5	9.0	10.8	63.2	62.4
10 - 11	0.5	0.9	3.8	6.1	7.5	8.9	11.3	60.1	62.2
11 - 12	0.9	1.8	5.0	6.8	9.1	10.0	11.8	58.2	61.0
12 - 13	0.5	0.5	2.7	5.9	7.2	9.5	11.3	55.7	60.8
13 - 14	0.5	0.9	3.2	5.9	7.3	10.0	11.4	55.7	61.2
14 - 15	0.5	0.5	1.8	5.0	7.8	8.7	11.0	53.7	61.3
15 - 16	0.5	0.5	1.9	4.2	6.5	7.9	10.3	54.2	62.1
16 - 17	0.0	0.9	0.9	3.5	6.1	8.7	8.7	57.4	79.6
17 - 18	0.0	0.0	0.0	6.5	6.5	6.5	16.1	54.8	94.5

Time (UTC)	Ceiling (ft) March								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.0	0.0	0.0	0.0	0.0	2.7	2.7	48.6	94.0
06 - 07	0.7	0.7	1.5	1.8	2.2	3.3	3.7	56.1	56.3
07 - 08	0.7	0.7	1.1	1.8	1.8	2.1	4.2	51.2	54.4
08 - 09	0.3	0.7	1.0	1.7	2.8	3.1	5.5	49.1	53.4
09 - 10	0.3	1.4	2.0	2.4	3.4	3.8	4.8	50.9	52.7
10 - 11	0.3	0.7	1.4	2.4	3.1	3.4	4.5	50.3	52.9
11 - 12	0.0	0.0	0.7	1.7	2.3	2.7	3.3	48.5	51.8
12 - 13	0.0	0.0	0.3	1.0	1.0	1.3	1.7	48.8	51.5
13 - 14	0.0	0.0	0.0	0.7	1.4	1.7	1.7	46.4	52.4
14 - 15	0.0	0.0	0.0	0.3	0.3	1.3	1.3	48.7	51.9
15 - 16	0.0	0.0	0.0	0.3	0.3	1.0	1.3	47.2	50.8
16 - 17	0.0	0.0	0.0	0.0	0.0	1.0	1.0	47.6	52.9
17 - 18	0.0	0.0	0.0	0.0	0.8	1.6	2.4	52.8	80.2

Time (UTC)	Ceiling (ft) April								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.0	0.4	1.1	1.8	3.6	5.5	5.8	51.1	54.3
06 - 07	0.0	1.4	2.1	3.6	4.3	6.1	7.9	49.3	53.3
07 - 08	0.0	0.4	1.1	2.2	2.5	3.6	5.8	48.0	53.8
08 - 09	0.0	0.0	1.0	1.4	2.4	4.2	5.2	48.1	51.8
09 - 10	0.0	0.0	0.0	0.0	0.3	0.7	2.8	51.7	52.3
10 - 11	0.0	0.0	0.0	0.4	0.4	1.4	1.8	53.7	52.5
11 - 12	0.0	0.0	0.0	0.0	0.0	0.3	2.4	50.0	51.3
12 - 13	0.0	0.0	0.0	0.0	0.0	0.4	0.7	53.6	54.0
13 - 14	0.0	0.0	0.0	0.0	0.0	0.7	0.7	54.8	51.0
14 - 15	0.0	0.0	0.0	0.0	0.0	0.7	1.4	54.3	51.8
15 - 16	0.0	0.0	0.0	0.0	0.0	0.4	0.7	53.0	52.8
16 - 17	0.0	0.0	0.0	0.0	0.3	0.7	1.0	54.4	52.2
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.8	53.4	58.8

Time (UTC)	Ceiling (ft) May								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.0	0.3	1.0	1.7	2.3	2.7	4.0	49.7	51.9
06 - 07	0.0	0.3	2.0	3.0	3.3	4.7	5.0	49.3	51.6
07 - 08	0.3	0.7	1.7	2.0	2.7	3.0	3.3	49.3	51.6
08 - 09	0.0	0.0	0.0	0.3	0.3	1.4	1.4	49.0	52.3
09 - 10	0.0	0.0	0.0	0.0	0.3	0.3	1.0	49.3	51.9
10 - 11	0.0	0.0	0.0	0.0	0.0	0.3	1.3	46.4	51.3
11 - 12	0.0	0.0	0.0	0.0	0.0	0.3	1.3	45.8	51.5
12 - 13	0.0	0.0	0.0	0.0	0.3	0.3	0.3	48.3	52.6
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.2	51.8
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.3	50.8	51.5
15 - 16	0.0	0.0	0.0	0.0	0.0	0.3	0.7	53.1	51.1
16 - 17	0.0	0.0	0.0	0.0	0.0	0.3	0.3	51.9	52.1
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.4	56.8

Time (UTC)	Ceiling (ft) June								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.7	1.1	1.8	2.9	3.2	3.6	4.3	43.6	53.3
06 - 07	0.4	0.4	1.1	1.8	3.2	3.9	4.9	43.2	52.5
07 - 08	0.0	0.4	0.7	1.1	2.1	2.8	3.5	42.8	52.5
08 - 09	0.0	0.0	0.0	0.0	0.7	0.7	0.7	45.0	51.8
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.2	49.5
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	43.9	49.8
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.9	53.2
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.3	51.8
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.3	51.8
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.6	52.2
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45.1	52.3
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.1	51.2
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.1	54.0

Time (UTC)	Ceiling (ft) July								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.3	1.3	2.3	2.3	2.7	3.3	4.0	40.8	51.8
06 - 07	0.0	0.7	2.3	3.3	3.9	4.2	4.6	41.4	50.5
07 - 08	0.0	0.0	0.3	1.0	1.7	2.0	3.4	42.3	52.7
08 - 09	0.0	0.0	0.0	0.7	1.0	1.3	1.3	40.8	50.6
09 - 10	0.0	0.0	0.0	0.0	0.3	0.3	0.3	42.4	52.1
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	41.7	51.6
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.3	44.5	51.5
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.3	43.6	50.8
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.6	51.1
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40.7	51.6
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.3	38.8	53.1
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.4	51.3
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.7	53.9

Time (UTC)	Ceiling (ft) August								
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA
05 - 06	0.4	1.8	1.8	2.2	4.0	5.1	6.9	43.1	55.8
06 - 07	0.3	1.0	1.7	3.4	4.1	4.8	6.8	42.1	52.9
07 - 08	0.3	1.4	2.4	3.4	4.5	5.8	7.2	39.4	52.9
08 - 09	0.0	0.0	0.7	1.0	1.3	2.3	3.3	39.6	51.1
09 - 10	0.0	0.0	0.3	0.7	0.7	1.6	1.6	41.0	50.5
10 - 11	0.0	0.0	0.0	0.0	0.0	0.3	0.7	39.0	50.8
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.3	39.2	51.5
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.3	37.5	52.3
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.7	41.0	52.7
14 - 15	0.0	0.0	0.0	0.0	0.0	0.3	0.7	39.7	52.1
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.3	43.6	53.7
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.7	44.8	53.2
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.4	43.2	54.8

Time (UTC)	Ceiling (ft) September									
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA	
05 - 06	1.3	2.2	3.1	4.5	4.9	5.8	8.1	60.5	62.8	
06 - 07	1.2	2.7	3.9	4.2	4.6	7.7	8.9	56.0	56.8	
07 - 08	1.9	3.4	6.0	6.4	7.5	8.2	10.5	54.3	55.5	
08 - 09	0.7	3.1	4.8	7.2	7.5	8.9	10.6	51.2	51.2	
09 - 10	0.0	0.3	2.0	2.3	3.4	4.4	5.0	55.7	50.3	
10 - 11	0.0	0.0	1.0	1.0	2.0	3.4	3.7	54.4	50.7	
11 - 12	0.0	0.0	0.0	0.3	0.3	1.7	2.3	54.8	50.2	
12 - 13	0.0	0.0	0.0	0.0	0.3	0.3	1.4	53.1	51.3	
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	1.0	50.7	52.3	
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.3	51.4	51.7	
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.8	52.7	
16 - 17	0.0	0.0	0.0	0.4	0.4	0.4	0.4	52.8	53.0	
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.9	47.0	80.8	

Time (UTC)	Ceiling (ft) October									
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA	
05 - 06	0.7	2.7	7.5	8.9	11.6	13.7	19.2	63.7	76.5	
06 - 07	0.0	2.6	6.5	7.4	11.3	13.9	19.0	58.9	62.7	
07 - 08	2.0	4.8	10.0	12.7	16.3	19.5	23.1	57.0	59.5	
08 - 09	2.9	5.1	9.4	14.5	17.4	20.7	24.6	54.7	55.5	
09 - 10	1.4	4.8	9.2	11.6	15.4	17.7	20.8	54.3	52.7	
10 - 11	0.3	2.7	8.3	10.3	13.7	16.7	19.0	50.0	51.6	
11 - 12	0.0	0.7	3.7	6.1	8.8	10.9	13.6	51.0	52.6	
12 - 13	0.0	0.0	2.6	2.9	5.9	6.9	8.5	51.6	50.6	
13 - 14	0.0	0.0	1.0	1.3	3.9	6.2	7.5	47.9	50.5	
14 - 15	0.0	0.0	1.0	1.4	2.7	3.4	5.7	47.3	52.3	
15 - 16	0.0	0.0	0.7	1.4	1.7	2.7	4.4	49.3	52.6	
16 - 17	0.0	0.0	0.0	0.0	0.0	2.5	2.5	49.1	74.4	
17 - 18	0.0	0.0	0.0	0.0	0.0	3.3	3.3	46.7	95.2	

Time (UTC)	Ceiling (ft) November									
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA	
05 - 06	0.0	0.0	50.0	50.0	50.0	50.0	50.0	50.0	99.7	
06 - 07	0.0	2.8	6.9	9.7	14.9	19.4	26.2	61.7	58.7	
07 - 08	0.4	3.6	7.6	10.8	16.7	19.9	24.3	61.0	58.2	
08 - 09	0.8	4.2	7.7	10.8	16.6	20.1	25.1	59.5	56.8	
09 - 10	0.7	3.6	6.9	10.1	15.9	20.6	25.3	55.6	53.8	
10 - 11	0.7	3.9	8.9	11.4	16.4	17.9	23.2	57.5	53.3	
11 - 12	0.7	1.8	4.3	7.9	14.0	15.8	19.1	59.4	53.7	
12 - 13	0.4	2.5	5.3	7.4	12.7	14.5	18.4	59.7	52.8	
13 - 14	0.4	0.7	5.3	6.7	9.8	12.6	16.1	64.2	52.5	
14 - 15	0.7	1.4	3.5	7.1	10.6	13.4	16.6	62.9	52.8	
15 - 16	0.0	1.1	2.2	4.3	6.5	9.8	13.8	62.7	54.0	
16 - 17	0.0	0.0	0.0	4.2	10.4	10.4	14.6	60.4	92.0	
17 - 18	0.0	0.0	2.6	10.5	13.2	13.2	15.8	55.3	93.7	

Time (UTC)	Ceiling (ft) December									
	< 200	< 300	< 500	< 700	< 1000	< 1200	< 1500	≥ 1500	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.7	99.5	
06 - 07	0.8	1.2	4.7	9.8	14.1	17.2	24.2	62.9	58.7	
07 - 08	0.8	2.3	7.1	12.0	16.9	21.1	25.2	62.4	57.1	
08 - 09	1.1	4.1	7.8	12.7	16.0	22.0	26.5	58.6	56.8	
09 - 10	0.0	3.4	7.9	12.0	16.5	20.2	26.2	56.9	56.9	
10 - 11	0.0	1.5	6.6	11.0	14.3	18.4	23.5	59.2	56.1	
11 - 12	1.1	1.1	3.3	9.2	12.1	15.8	19.0	60.8	56.0	
12 - 13	0.7	1.1	2.9	8.1	12.1	14.7	18.0	61.8	56.1	
13 - 14	0.4	1.1	2.5	5.8	8.7	12.3	13.8	67.0	55.5	
14 - 15	0.7	1.1	2.9	5.8	10.5	12.6	15.5	65.0	55.3	
15 - 16	1.0	1.0	2.0	4.9	7.4	8.3	12.7	65.2	67.1	
16 - 17	0.0	0.0	0.0	3.6	7.1	7.1	17.9	64.3	95.5	
17 - 18	0.0	0.0	0.0	3.7	7.4	11.1	14.8	63.0	95.6	

3.3. Visibility and Ceiling

3.3.1. Hourly Visibility and Ceiling 10 Years

Cumulative frequencies in percent of visibility or base height of the lowest cloud layer of BKN or OVC extent below specified values at specified times (months in 3.5.2.). Frequencies are calculated relative to all potentially possible observations each hour (month) minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomena were observed.

Example (dark shading): In the 10 years period 22.7% of all observations between 10 and 11 UTC showed a visibility below 8000 m or a base height of the lowest cloud layer of BKN or OVC below 2000 ft.

Time (UTC)	10 Years						
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000
05 - 06	8.1	10.5	15.0	20.5	31.9	79.6	73.0
06 - 07	8.9	13.4	20.0	28.4	39.9	73.9	53.2
07 - 08	7.2	11.5	17.9	25.2	36.7	76.6	53.2
08 - 09	4.9	9.0	15.1	21.8	32.1	79.8	52.6
09 - 10	2.8	6.4	11.7	17.9	26.8	83.5	52.3
10 - 11	1.4	4.5	9.1	14.6	22.7	86.1	52.6
11 - 12	0.9	3.1	7.1	12.2	20.2	87.9	53.0
12 - 13	0.5	2.5	5.8	9.9	17.2	89.7	53.1
13 - 14	0.6	2.1	5.0	8.6	15.7	90.9	53.1
14 - 15	0.6	1.9	4.8	8.8	15.1	91.3	53.1
15 - 16	0.7	1.8	4.2	8.2	15.1	91.7	54.6
16 - 17	0.2	0.3	1.3	3.3	7.7	96.8	66.4
17 - 18	0.2	0.4	1.1	3.2	6.0	97.3	75.9

3.3.2. Monthly Visibility and Ceiling 10 Years

Example (dark shading): In the 10 years period 49.8% of all observations in November showed a visibility below 8000 m or a base height of the lowest cloud layer of BKN or OVC below 2000 ft.

Time (Month)	10 Years						
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000
January	8.8	16.9	30.4	44.4	58.1	61.5	81.8
February	4.1	7.7	14.4	21.9	32.6	79.8	82.5
March	1.9	3.0	5.2	9.2	18.0	89.4	76.5
April	0.5	1.1	2.7	5.2	11.5	94.3	74.3
May	0.4	0.9	1.8	3.7	8.5	96.2	73.8
June	0.2	0.5	1.1	1.8	4.7	97.0	73.7
July	0.2	0.6	1.0	1.8	4.1	97.5	73.6
August	0.9	1.4	2.6	4.5	10.0	94.5	74.0
September	3.7	5.5	7.8	11.9	19.7	88.4	74.9
October	5.9	11.0	16.3	24.0	37.1	75.7	77.3
November	6.1	12.6	22.8	34.4	49.8	69.2	79.2
December	5.1	10.1	21.4	33.0	46.9	71.5	81.1

3.3.3. Hourly Visibility and Ceiling per Season

Example (dark shading): In the 10 years period in winter 48.8% of all observations between 10 and 11 UTC showed a visibility below 8000 m or a base height of the lowest cloud layer of BKN or OVC below 2000 ft.

Time (UTC)	Winter (Dec/Jan/Feb)							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	0.0	0.0	0.0	33.3	33.3	100.0	99.8	
06 - 07	13.3	19.8	31.6	45.6	60.5	61.0	58.2	
07 - 08	13.3	20.2	32.8	44.3	57.6	61.8	57.4	
08 - 09	11.2	18.8	31.7	42.9	55.7	62.7	57.3	
09 - 10	7.6	15.2	28.1	39.8	51.9	65.3	57.2	
10 - 11	4.7	11.1	23.5	35.7	48.8	69.4	57.5	
11 - 12	3.1	9.2	19.5	31.5	44.8	72.2	57.6	
12 - 13	2.1	7.1	16.6	27.1	40.1	75.1	57.3	
13 - 14	2.0	6.2	14.9	24.6	37.5	77.8	57.9	
14 - 15	2.1	6.1	14.7	25.0	36.4	78.0	57.3	
15 - 16	2.6	6.2	14.5	23.7	36.6	79.0	61.8	
16 - 17	1.6	3.7	11.1	19.0	29.6	83.1	89.5	
17 - 18	1.1	4.4	12.2	23.3	36.7	75.6	95.0	

Time (UTC)	Spring (Mar/Apr/May)							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	4.3	5.7	10.8	15.1	29.4	84.6	65.8	
06 - 07	4.7	7.2	10.4	16.6	28.2	82.4	51.6	
07 - 08	2.1	3.8	7.4	13.6	25.0	86.1	51.7	
08 - 09	1.0	2.1	4.9	10.4	20.0	89.5	51.4	
09 - 10	0.4	1.1	2.7	5.7	13.4	94.4	51.6	
10 - 11	0.1	0.7	1.6	3.7	9.2	95.2	51.7	
11 - 12	0.0	0.4	1.2	3.3	8.4	95.8	51.3	
12 - 13	0.0	0.3	0.9	1.8	6.6	96.7	52.3	
13 - 14	0.0	0.2	0.7	1.5	4.8	97.3	51.5	
14 - 15	0.0	0.1	0.6	1.7	5.2	97.5	51.5	
15 - 16	0.0	0.0	0.3	1.5	4.9	97.3	51.3	
16 - 17	0.0	0.0	0.2	1.6	5.3	98.0	52.2	
17 - 18	0.2	0.2	0.5	1.6	4.4	98.9	65.2	

Time (UTC)	Summer (Jun/Jul/Aug)							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	3.5	5.4	8.5	12.7	22.8	84.3	51.9	
06 - 07	1.4	3.1	6.5	9.5	17.7	88.3	50.8	
07 - 08	0.5	1.8	3.6	6.2	13.2	92.8	52.1	
08 - 09	0.0	0.3	1.2	2.3	7.7	96.3	51.0	
09 - 10	0.0	0.1	0.4	0.8	3.8	97.8	50.5	
10 - 11	0.0	0.0	0.1	0.7	2.6	99.0	50.5	
11 - 12	0.0	0.0	0.0	0.2	1.7	98.8	51.7	
12 - 13	0.0	0.0	0.0	0.2	1.9	98.5	51.6	
13 - 14	0.0	0.0	0.0	0.3	1.5	99.6	51.6	
14 - 15	0.0	0.0	0.1	0.3	1.8	99.2	51.8	
15 - 16	0.0	0.0	0.0	1.0	1.7	99.3	52.7	
16 - 17	0.0	0.0	0.1	0.4	2.2	99.4	51.5	
17 - 18	0.0	0.0	0.0	0.7	2.1	99.3	54.1	

Time (UTC)	Autumn (Sep/Oct/Nov)							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	22.3	27.0	33.8	43.4	53.1	63.3	75.2	
06 - 07	17.3	24.9	33.8	45.1	57.3	61.3	52.1	
07 - 08	13.6	21.3	29.8	39.3	53.9	63.5	51.6	
08 - 09	8.1	15.9	25.0	34.8	48.5	68.0	50.7	
09 - 10	4.0	10.3	18.0	28.6	41.7	74.1	50.1	
10 - 11	1.2	7.4	13.3	21.5	34.2	78.3	50.9	
11 - 12	0.7	3.5	9.6	16.6	29.4	82.6	51.4	
12 - 13	0.2	3.0	7.2	12.5	23.0	86.7	51.1	
13 - 14	0.5	2.5	5.8	10.4	22.3	87.2	51.5	
14 - 15	0.5	1.9	5.4	10.3	19.8	88.8	52.0	
15 - 16	0.6	1.9	4.3	10.0	22.0	88.4	52.5	
16 - 17	0.2	0.2	1.4	5.3	13.6	95.3	73.0	
17 - 18	0.5	1.1	3.3	10.3	14.7	93.5	89.9	

3.3.4. Hourly Visibility and Ceiling per Month

Example (dark shading): In the 10 years period in January 58.9 of all observations between 10 and 11 UTC showed a visibility below 8000 m or a base height of the lowest cloud layer of BKN or OVC below 2000 ft.

Time (UTC)	January							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	100	
06 - 07	16.3	25.7	41.6	56.4	68.9	50.2	58.5	
07 - 08	18.0	24.9	41.8	55.2	66.3	53.6	57.9	
08 - 09	16.5	25.7	42.5	55.2	66.3	55.6	57.9	
09 - 10	12.0	21.8	38.0	51.9	62.0	58.6	57.1	
10 - 11	8.0	16.3	32.3	46.0	58.9	60.8	57.6	
11 - 12	4.2	14.4	27.8	42.2	58.9	62.0	57.6	
12 - 13	3.0	11.2	23.0	38.7	53.2	65.8	56.6	
13 - 14	3.8	10.0	20.4	34.6	50.8	67.7	58.1	
14 - 15	3.7	10.8	19.7	35.7	49.8	68.4	56.6	
15 - 16	3.8	10.3	20.7	33.7	50.6	68.6	57.9	
16 - 17	4.7	11.6	20.9	27.9	46.5	76.7	93.1	
17 - 18	3.1	12.5	21.9	28.1	46.9	65.6	94.8	

Time (UTC)	February							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100
06 - 07	11.0	16.5	23.4	34.4	50.0	71.6	61.3	
07 - 08	10.8	15.8	23.0	32.4	48.2	72.5	60.6	
08 - 09	7.7	12.2	22.2	30.8	44.3	72.9	60.8	
09 - 10	5.8	9.3	18.2	24.9	39.6	74.2	60.1	
10 - 11	3.6	6.7	13.0	22.0	35.0	79.4	60.5	
11 - 12	1.8	6.7	12.1	19.7	28.3	81.6	60.5	
12 - 13	1.3	4.0	9.9	15.7	23.3	84.3	60.5	
13 - 14	0.5	4.5	9.5	15.9	23.2	85.0	61.0	
14 - 15	0.5	2.7	9.1	14.1	20.0	85.9	61.0	
15 - 16	0.9	2.8	8.7	13.8	20.2	86.2	61.3	
16 - 17	0.0	0.9	7.7	14.5	23.1	87.2	79.3	
17 - 18	0.0	0.0	6.5	22.6	32.3	80.6	94.5	

Time (UTC)	March							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	7.9	10.5	13.2	21.1	23.7	86.8	93.9	
06 - 07	11.4	13.4	17.1	24.2	34.9	75.5	51.9	
07 - 08	5.0	7.3	12.9	23.1	32.7	78.5	51.1	
08 - 09	2.9	4.9	9.5	18.6	30.7	81.0	50.6	
09 - 10	1.3	3.0	5.9	10.5	26.0	88.2	51.0	
10 - 11	0.3	1.7	4.0	6.7	15.8	89.6	51.9	
11 - 12	0.0	1.3	2.6	5.0	13.5	92.7	51.1	
12 - 13	0.0	0.7	1.3	3.3	11.1	93.8	50.8	
13 - 14	0.0	0.7	2.0	3.0	10.1	94.3	51.9	
14 - 15	0.0	0.3	1.3	2.7	9.0	95.3	51.6	
15 - 16	0.0	0.0	0.6	1.9	9.1	95.5	50.3	
16 - 17	0.0	0.0	0.3	2.4	8.2	96.3	52.6	
17 - 18	0.8	0.8	1.6	4.9	8.9	96.7	80.2	

Time (UTC)	April							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	4.5	5.9	11.9	15.7	32.9	81.5	52.3	
06 - 07	1.4	4.5	8.4	15.3	28.9	83.3	52.2	
07 - 08	1.1	2.1	6.0	11.7	25.8	87.3	52.8	
08 - 09	0.0	1.0	3.8	7.9	17.6	92.1	51.7	
09 - 10	0.0	0.0	1.4	4.2	8.0	97.2	52.2	
10 - 11	0.0	0.0	0.4	2.5	7.0	97.5	52.5	
11 - 12	0.0	0.0	0.7	2.7	7.2	96.9	51.3	
12 - 13	0.0	0.0	0.4	0.7	2.9	97.8	54.0	
13 - 14	0.0	0.0	0.0	1.0	2.4	98.6	50.8	
14 - 15	0.0	0.0	0.3	1.4	3.8	98.6	51.7	
15 - 16	0.0	0.0	0.4	1.1	2.5	98.6	52.8	
16 - 17	0.0	0.0	0.3	1.4	4.5	98.3	52.0	
17 - 18	0.0	0.0	0.4	0.8	4.5	99.2	58.8	

Time (UTC)	May							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	3.6	4.9	9.5	13.8	26.9	87.2	50.8	
06 - 07	1.3	3.6	5.9	10.5	21.0	88.2	50.8	
07 - 08	0.3	2.0	3.3	5.9	16.5	92.4	51.1	
08 - 09	0.0	0.3	1.3	4.3	11.4	95.7	51.8	
09 - 10	0.0	0.3	0.7	2.3	5.7	98.0	51.8	
10 - 11	0.0	0.3	0.3	2.0	4.9	98.4	50.8	
11 - 12	0.0	0.0	0.3	2.3	4.3	97.7	51.3	
12 - 13	0.0	0.3	1.0	1.4	5.4	98.6	52.3	
13 - 14	0.0	0.0	0.0	0.3	2.0	99.0	51.8	
14 - 15	0.0	0.0	0.0	1.0	2.6	98.7	51.3	
15 - 16	0.0	0.0	0.0	1.3	3.0	98.0	50.8	
16 - 17	0.0	0.0	0.0	1.0	3.4	99.3	51.9	
17 - 18	0.0	0.0	0.0	0.7	2.2	99.6	56.3	

Time (UTC)	June							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	1.7	2.8	5.2	7.7	17.1	88.9	52.2	
06 - 07	0.3	1.7	5.5	8.5	14.3	90.8	51.2	
07 - 08	0.0	1.4	2.8	4.5	10.1	93.4	52.0	
08 - 09	0.0	0.3	1.0	1.0	4.1	97.2	51.7	
09 - 10	0.0	0.0	0.0	0.0	1.3	98.3	49.5	
10 - 11	0.0	0.0	0.0	0.0	0.0	1.0	99.3	49.7
11 - 12	0.0	0.0	0.0	0.0	0.0	1.4	98.6	52.8
12 - 13	0.0	0.0	0.0	0.0	0.0	1.4	97.9	51.8
13 - 14	0.0	0.0	0.0	0.0	0.0	1.4	99.7	51.5
14 - 15	0.0	0.0	0.0	0.0	0.0	1.4	99.3	51.8
15 - 16	0.0	0.0	0.0	0.0	1.0	1.7	99.0	52.0
16 - 17	0.0	0.0	0.3	0.7	2.7	99.3	50.8	
17 - 18	0.0	0.0	0.0	0.7	2.5	99.3	54.0	

Time (UTC)	July							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000</th				

Time (UTC)	September							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	21.4	25.1	31.4	39.5	48.7	66.4	54.8	
06 - 07	14.3	19.7	26.9	35.4	47.3	69.7	51.0	
07 - 08	9.3	13.8	17.6	24.6	38.4	75.4	51.8	
08 - 09	2.7	7.6	13.0	18.9	30.2	81.1	49.8	
09 - 10	0.0	2.3	5.6	11.6	22.6	89.0	49.8	
10 - 11	0.0	1.0	2.0	4.4	13.1	93.6	50.5	
11 - 12	0.0	0.0	0.3	4.3	9.0	94.0	50.2	
12 - 13	0.0	0.0	0.3	2.0	6.8	95.9	51.0	
13 - 14	0.0	0.0	0.0	1.7	6.6	97.2	52.2	
14 - 15	0.0	0.0	0.0	0.7	5.2	97.9	51.7	
15 - 16	0.0	0.0	0.0	1.0	5.9	97.2	52.2	
16 - 17	0.0	0.0	0.4	2.8	7.8	98.9	53.0	
17 - 18	0.0	0.0	0.0	4.3	7.8	97.4	80.8	

Time (UTC)	October							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	24.0	29.6	37.4	49.2	59.8	58.7	71.1	
06 - 07	20.6	29.4	36.7	47.6	59.8	59.1	53.9	
07 - 08	16.7	26.4	34.8	45.5	57.5	58.2	51.8	
08 - 09	10.6	18.6	28.9	38.9	54.5	63.5	51.5	
09 - 10	3.6	13.3	20.8	29.5	44.5	68.8	50.3	
10 - 11	0.7	9.5	15.8	24.7	38.8	72.7	51.0	
11 - 12	0.3	4.1	10.1	16.9	31.8	79.7	52.3	
12 - 13	0.0	2.6	5.9	10.5	22.2	87.6	50.6	
13 - 14	0.0	1.0	4.2	9.1	21.8	86.3	50.5	
14 - 15	0.0	1.0	2.7	8.1	19.2	89.9	52.1	
15 - 16	0.0	1.0	2.0	7.4	20.6	89.5	52.3	
16 - 17	0.0	0.0	0.0	4.4	17.5	93.1	74.2	
17 - 18	0.0	0.0	0.0	10.0	13.3	96.7	95.2	

Time (UTC)	November							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	0.0	50.0	50.0	50.0	50.0	50.0	99.7	
06 - 07	17.2	25.8	37.8	52.6	64.9	55.0	51.5	
07 - 08	14.7	23.3	36.6	47.6	65.4	57.2	51.3	
08 - 09	11.2	21.7	33.2	46.8	61.0	59.3	50.8	
09 - 10	8.3	15.3	27.7	44.7	58.0	64.7	50.0	
10 - 11	3.1	11.6	22.3	35.6	50.7	68.5	51.3	
11 - 12	1.7	6.6	18.7	29.1	48.1	73.7	51.8	
12 - 13	0.7	6.6	15.5	25.2	40.3	76.6	51.7	
13 - 14	1.4	6.6	13.1	20.4	38.4	78.2	51.8	
14 - 15	1.4	4.9	13.6	22.3	35.2	78.4	52.2	
15 - 16	1.8	4.6	11.0	21.7	39.9	78.3	53.2	
16 - 17	2.0	2.0	12.2	22.4	34.7	81.6	91.8	
17 - 18	2.6	5.1	15.4	28.2	35.9	79.5	93.5	

Time (UTC)	December							
	Vis. (m)	<800	<1500	<3000	<5000	<8000	≥8000	NA
	Ceil. (ft)	<200	<500	<1000	<1500	<2000	≥2000	
05 - 06	0.0	0.0	0.0	33.3	33.3	100.0	99.5	
06 - 07	12.2	16.8	28.7	44.4	60.9	62.7	55.0	
07 - 08	10.9	19.3	32.3	43.5	56.8	61.1	54.0	
08 - 09	9.0	17.7	29.2	41.0	54.9	61.5	53.5	
09 - 10	5.0	13.5	26.7	40.2	52.3	64.4	54.7	
10 - 11	2.5	9.6	23.5	37.0	50.2	69.4	54.7	
11 - 12	3.2	6.1	17.6	30.8	44.8	74.2	55.0	
12 - 13	1.8	5.7	15.8	25.1	40.9	76.7	55.0	
13 - 14	1.4	3.9	13.9	22.1	36.4	81.4	54.8	
14 - 15	1.8	4.3	14.2	23.4	36.5	80.9	54.5	
15 - 16	2.9	4.8	12.9	21.4	36.2	84.3	66.1	
16 - 17	3.4	3.4	10.3	24.1	31.0	75.9	95.3	
17 - 18	0.0	0.0	7.4	18.5	29.6	81.5	95.6	

4. TEMPERATURE

4.1. Temperature

4.1.1. Temperature 10 Years

Frequencies in percent of surface temperature in specified ranges of 5 degrees Celsius at specified times. Frequencies are calculated relative to all potentially possible observations each hour minus the not available (NA) observations. The value of NA is calculated relative to the potentially possible observations. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomena were observed.

Example (dark shading): In the 10 years period 17.7 of all observations between 14 and 15 UTC showed a temperature between 5 and 9° C.

Time (UTC)	Temperature (°C) 10 Years														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.1	1.7	8.4	23.2	42.2	23.9	0.5	0.0	0.0	0.0	73.2	
06 - 07	0.0	0.0	0.1	2.1	10.6	20.7	21.7	24.0	19.0	1.7	0.0	0.0	0.0	53.5	
07 - 08	0.0	0.0	0.1	1.6	10.3	19.2	20.6	22.0	19.9	6.0	0.1	0.0	0.0	53.4	
08 - 09	0.0	0.1	0.1	1.3	8.6	18.3	20.0	20.7	19.6	10.7	0.7	0.0	0.0	52.9	
09 - 10	0.0	0.0	0.0	1.1	7.0	17.0	19.2	19.5	20.2	13.5	2.5	0.0	0.0	52.7	
10 - 11	0.0	0.0	0.0	0.7	5.6	15.9	18.8	19.3	18.8	15.2	5.7	0.1	0.0	52.9	
11 - 12	0.0	0.0	0.0	0.6	4.9	14.5	18.4	19.2	18.4	15.8	7.7	0.5	0.0	53.2	
12 - 13	0.0	0.0	0.0	0.5	4.3	13.2	18.0	19.2	18.7	15.6	9.4	1.1	0.0	53.3	
13 - 14	0.0	0.0	0.0	0.4	3.8	12.9	17.7	18.3	19.3	16.1	9.7	1.9	0.0	53.4	
14 - 15	0.0	0.0	0.0	0.4	4.0	13.0	17.7	17.8	18.9	16.0	10.1	2.0	0.0	53.5	
15 - 16	0.0	0.0	0.0	0.4	4.0	12.6	17.5	19.1	19.2	16.2	9.3	1.7	0.0	54.9	
16 - 17	0.0	0.0	0.0	0.1	1.2	6.7	12.6	20.0	24.7	21.6	11.5	1.6	0.0	66.8	
17 - 18	0.0	0.0	0.0	0.2	1.1	5.3	11.1	17.2	26.7	25.8	11.5	1.0	0.0	76.1	

4.1.2. Temperature per Month

Example (dark shading): In the 10 years period in January 26.9% of all observations between 14 and 15 UTC showed a temperature between 5 and 9 ° C.

Time (UTC)	Temperature (° C) January														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
06 - 07	0.0	0.0	0.8	9.9	36.4	41.9	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.2
07 - 08	0.0	0.0	0.4	10.3	34.9	43.3	10.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	57.9
08 - 09	0.0	0.0	0.0	8.4	35.2	45.2	10.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	57.9
09 - 10	0.0	0.0	0.0	6.8	31.2	47.5	13.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0	57.6
10 - 11	0.0	0.0	0.0	5.0	26.3	49.6	18.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	57.7
11 - 12	0.0	0.0	0.0	3.8	25.8	48.9	19.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	57.4
12 - 13	0.0	0.0	0.0	3.0	24.9	45.7	23.4	3.0	0.0	0.0	0.0	0.0	0.0	0.0	56.6
13 - 14	0.0	0.0	0.0	2.7	22.3	45.4	24.6	5.0	0.0	0.0	0.0	0.0	0.0	0.0	58.1
14 - 15	0.0	0.0	0.0	2.6	22.4	44.0	26.9	4.1	0.0	0.0	0.0	0.0	0.0	0.0	56.8
15 - 16	0.0	0.0	0.0	2.4	25.5	42.0	25.9	4.3	0.0	0.0	0.0	0.0	0.0	0.0	58.9
16 - 17	0.0	0.0	0.0	4.8	23.8	47.6	23.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	93.2
17 - 18	0.0	0.0	0.0	6.5	25.8	51.6	16.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.0

Time (UTC)	Temperature (° C) February														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
06 - 07	0.0	0.0	0.5	8.0	32.5	42.5	16.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.4
07 - 08	0.0	0.0	1.4	4.5	34.7	42.3	17.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.6
08 - 09	0.0	0.0	0.5	5.0	26.8	47.7	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.0
09 - 10	0.0	0.0	0.0	3.6	21.2	49.5	24.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	60.6
10 - 11	0.0	0.0	0.0	0.9	17.5	46.6	30.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	60.5
11 - 12	0.0	0.0	0.0	0.4	13.5	42.2	36.8	7.2	0.0	0.0	0.0	0.0	0.0	0.0	60.5
12 - 13	0.0	0.0	0.0	0.0	11.7	36.5	40.1	11.3	0.5	0.0	0.0	0.0	0.0	0.0	60.6
13 - 14	0.0	0.0	0.0	0.0	8.7	37.4	38.8	14.6	0.5	0.0	0.0	0.0	0.0	0.0	61.2
14 - 15	0.0	0.0	0.0	0.0	9.1	37.7	37.7	15.0	0.5	0.0	0.0	0.0	0.0	0.0	61.0
15 - 16	0.0	0.0	0.0	0.5	8.3	39.9	38.5	12.4	0.5	0.0	0.0	0.0	0.0	0.0	61.3
16 - 17	0.0	0.0	0.0	0.0	10.3	44.8	37.1	7.8	0.0	0.0	0.0	0.0	0.0	0.0	79.4
17 - 18	0.0	0.0	0.0	0.0	16.1	58.1	25.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	94.5

Time (UTC)	Temperature (° C) March														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	2.8	22.2	41.7	27.8	5.6	0.0	0.0	0.0	0.0	0.0	0.0	94.2
06 - 07	0.0	0.0	0.0	3.5	19.4	42.9	30.1	4.2	0.0	0.0	0.0	0.0	0.0	0.0	53.4
07 - 08	0.0	0.0	0.0	0.7	13.8	41.3	38.3	6.0	0.0	0.0	0.0	0.0	0.0	0.0	51.9
08 - 09	0.0	0.0	0.0	0.0	6.4	37.5	44.1	11.7	0.3	0.0	0.0	0.0	0.0	0.0	51.8
09 - 10	0.0	0.0	0.0	0.0	1.7	29.5	47.0	20.8	1.0	0.0	0.0	0.0	0.0	0.0	51.9
10 - 11	0.0	0.0	0.0	0.0	1.0	23.2	45.1	28.0	2.7	0.0	0.0	0.0	0.0	0.0	52.7
11 - 12	0.0	0.0	0.0	0.0	0.7	13.8	43.3	34.6	7.4	0.3	0.0	0.0	0.0	0.0	51.9
12 - 13	0.0	0.0	0.0	0.0	0.0	11.3	40.0	36.3	11.7	0.7	0.0	0.0	0.0	0.0	51.6
13 - 14	0.0	0.0	0.0	0.0	0.0	10.9	35.5	35.2	16.4	2.0	0.0	0.0	0.0	0.0	52.7
14 - 15	0.0	0.0	0.0	0.0	0.0	10.6	35.3	35.6	16.8	1.7	0.0	0.0	0.0	0.0	52.9
15 - 16	0.0	0.0	0.0	0.0	0.3	13.5	31.7	37.6	15.2	1.7	0.0	0.0	0.0	0.0	51.1
16 - 17	0.0	0.0	0.0	0.0	0.3	16.1	34.6	35.0	13.3	0.7	0.0	0.0	0.0	0.0	53.9
17 - 18	0.0	0.0	0.0	0.0	0.0	18.2	43.0	28.9	9.1	0.8	0.0	0.0	0.0	0.0	80.5

Time (UTC)	Temperature (° C) April														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	7.8	39.6	44.5	8.1	0.0	0.0	0.0	0.0	0.0	0.0	52.8
06 - 07	0.0	0.0	0.0	0.0	1.8	34.3	46.3	17.7	0.0	0.0	0.0	0.0	0.0	0.0	52.8
07 - 08	0.0	0.0	0.0	0.0	0.0	21.7	50.5	27.0	0.7	0.0	0.0	0.0	0.0	0.0	53.2
08 - 09	0.0	0.0	0.0	0.0	0.0	12.5	47.9	31.9	7.6	0.0	0.0	0.0	0.0	0.0	52.0
09 - 10	0.0	0.0	0.0	0.0	0.0	8.5	36.6	39.8	15.1	0.0	0.0	0.0	0.0	0.0	52.7
10 - 11	0.0	0.0	0.0	0.0	0.0	5.6	33.8	37.7	20.8	2.1	0.0	0.0	0.0	0.0	52.7
11 - 12	0.0	0.0	0.0	0.0	0.0	4.1	28.4	35.6	27.1	4.8	0.0	0.0	0.0	0.0	51.3
12 - 13	0.0	0.0	0.0	0.0	0.0	2.2	25.7	35.9	27.9	8.3	0.0	0.0	0.0	0.0	54.0
13 - 14	0.0	0.0	0.0	0.0	0.0	2.7	24.8	31.0	31.0	10.2	0.3	0.0	0.0	0.0	51.0
14 - 15	0.0	0.0	0.0	0.0	0.0	2.4	25.2	30.0	32.8	9.3	0.3	0.0	0.0	0.0	51.7
15 - 16	0.0	0.0	0.0	0.0	0.0	2.5	24.4	33.6	31.4	7.8	0.4	0.0	0.0	0.0	52.8
16 - 17	0.0	0.0	0.0	0.0	0.0	4.6	27.0	35.2	26.7	6.4	0.0	0.0	0.0	0.0	53.2
17 - 18	0.0	0.0	0.0	0.0	0.0	4.5	30.7	36.9	25.0	2.9	0.0	0.0	0.0	0.0	59.3

Time (UTC)	Temperature (° C) May														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	1.6	33.1	61.0	4.3	0.0	0.0	0.0	0.0	50.8	
06 - 07	0.0	0.0	0.0	0.0	0.0	0.0	17.8	67.0	15.2	0.0	0.0	0.0	0.0	51.1	
07 - 08	0.0	0.0	0.0	0.0	0.0	0.3	9.4	57.9	29.8	2.7	0.0	0.0	0.0	51.8	
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	6.8	41.5	44.9	6.8	0.0	0.0	0.0	52.6	
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	5.4	31.8	49.2	13.4	0.3	0.0	0.0	51.8	
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	3.6	27.6	41.4	24.3	3.0	0.0	0.0	51.0	
11 - 12	0.0	0.0	0.0	0.0	0.0	0.3	3.3	21.7	39.0	30.3	5.3	0.0	0.0	51.6	
12 - 13	0.0	0.0	0.0	0.0	0.0	0.3	3.0	20.5	35.0	33.0	8.1	0.0	0.0	52.1	
13 - 14	0.0	0.0	0.0	0.0	0.0	0.3	2.3	18.7	32.8	34.8	11.0	0.0	0.0	51.8	
14 - 15	0.0	0.0	0.0	0.0	0.0	0.3	2.0	19.9	33.9	32.6	11.3	0.0	0.0	51.5	
15 - 16	0.0	0.0	0.0	0.0	0.0	0.3	2.3	21.9	36.8	29.1	9.6	0.0	0.0	51.3	
16 - 17	0.0	0.0	0.0	0.0	0.0	0.3	3.7	20.7	37.1	31.8	6.4	0.0	0.0	51.8	
17 - 18	0.0	0.0	0.0	0.0	0.0	4.4	26.9	40.6	24.4	3.7	0.0	0.0	0.0	56.3	
Time (UTC)	Temperature (° C) June														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	9.1	53.0	36.5	1.4	0.0	0.0	0.0	52.5	
06 - 07	0.0	0.0	0.0	0.0	0.0	0.0	5.5	42.6	45.7	6.2	0.0	0.0	0.0	51.5	
07 - 08	0.0	0.0	0.0	0.0	0.0	0.0	1.7	30.4	48.3	19.6	0.0	0.0	0.0	52.3	
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	1.4	24.6	43.3	28.4	2.4	0.0	0.0	51.8	
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.7	17.3	40.0	35.3	6.7	0.0	0.0	50.0	
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.7	13.3	33.7	38.0	14.3	0.0	0.0	50.0	
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.7	13.8	27.7	36.2	20.6	1.1	0.0	53.0	
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.3	9.7	27.3	36.0	24.6	2.1	0.0	51.8	
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.3	8.7	25.6	34.9	26.6	3.8	0.0	51.8	
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.3	8.4	25.9	34.3	27.3	3.8	0.0	52.3	
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	24.4	38.0	23.3	4.5	0.0	52.2	
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	27.6	36.9	21.8	3.1	0.0	51.2	
17 - 18	0.0	0.0	0.0	0.0	0.0	0.4	13.9	32.1	38.3	15.0	0.4	0.0	0.0	54.3	
Time (UTC)	Temperature (° C) July														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	2.0	39.1	57.2	1.6	0.0	0.0	0.0	51.0	
06 - 07	0.0	0.0	0.0	0.0	0.0	0.0	1.0	22.0	67.9	9.2	0.0	0.0	0.0	50.8	
07 - 08	0.0	0.0	0.0	0.0	0.0	0.0	0.3	13.9	55.1	29.7	1.0	0.0	0.0	52.3	
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	42.6	47.5	2.3	0.0	0.0	51.1	
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	32.2	50.0	12.8	0.0	0.0	51.9	
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	24.7	46.5	25.4	0.7	0.0	51.8	
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	19.9	41.9	32.2	3.0	0.0	51.5	
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	20.4	34.2	37.2	5.6	0.0	51.0	
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	18.2	37.7	31.8	9.3	0.0	51.3	
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	15.7	34.8	36.8	9.4	0.3	51.8	
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	18.5	34.9	34.9	7.2	0.3	52.9	
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	17.5	40.1	30.5	6.3	0.0	51.3	
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	20.5	44.9	26.9	3.2	0.0	54.4	
Time (UTC)	Temperature (° C) August														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	0.0	4.1	45.0	50.5	0.3	0.0	0.0	0.0	53.1	
06 - 07	0.0	0.0	0.0	0.0	0.0	0.0	2.6	24.5	68.6	4.2	0.0	0.0	0.0	50.6	
07 - 08	0.0	0.0	0.0	0.0	0.0	0.0	1.0	12.0	68.9	18.1	0.0	0.0	0.0	51.8	
08 - 09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2	48.7	39.1	3.0	0.0	0.0	51.0	
09 - 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	36.7	49.4	8.8	0.0	0.0	50.3	
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	26.8	47.1	21.9	0.3	0.0	50.6	
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	18.7	45.3	30.3	2.0	0.0	51.6	
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	17.2	38.9	34.5	5.4	0.0	52.3	
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	18.9	31.6	36.8	9.3	0.0	53.1	
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	15.2	37.7	34.3	9.4	0.0	52.1	
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	17.8	38.7	33.1	7.3	0.0	53.7	
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	22.0	37.5	33.3	3.4	0.0	53.1	
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	24.3	41.8	26.1	2.9	0.0	54.8	

Time (UTC)	Temperature (° C) September														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	3.7	31.7	53.9	10.7	0.0	0.0	0.0	0.0	0.0	54.8
06 - 07	0.0	0.0	0.0	0.0	0.0	1.4	28.2	55.1	15.3	0.0	0.0	0.0	0.0	0.0	51.0
07 - 08	0.0	0.0	0.0	0.0	0.0	0.7	18.7	55.4	25.3	0.0	0.0	0.0	0.0	0.0	51.8
08 - 09	0.0	0.0	0.0	0.0	0.0	0.3	8.6	55.1	34.9	1.0	0.0	0.0	0.0	0.0	49.8
09 - 10	0.0	0.0	0.0	0.0	0.0	4.7	41.1	47.2	7.0	0.0	0.0	0.0	0.0	0.0	50.2
10 - 11	0.0	0.0	0.0	0.0	0.0	0.0	3.0	32.3	50.8	13.8	0.0	0.0	0.0	0.0	50.5
11 - 12	0.0	0.0	0.0	0.0	0.0	0.0	1.7	26.8	49.8	20.7	1.0	0.0	0.0	0.0	50.2
12 - 13	0.0	0.0	0.0	0.0	0.0	0.0	1.4	22.0	48.5	24.7	3.4	0.0	0.0	0.0	51.5
13 - 14	0.0	0.0	0.0	0.0	0.0	0.0	2.1	17.9	47.0	27.4	5.6	0.0	0.0	0.0	52.5
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	2.4	18.5	43.7	28.3	7.0	0.0	0.0	0.0	52.3
15 - 16	0.0	0.0	0.0	0.0	0.0	0.0	2.4	21.3	44.1	28.3	3.8	0.0	0.0	0.0	52.3
16 - 17	0.0	0.0	0.0	0.0	0.0	0.0	2.5	25.5	46.4	23.4	2.2	0.0	0.0	0.0	53.7
17 - 18	0.0	0.0	0.0	0.0	0.0	0.9	22.8	51.8	23.7	0.9	0.0	0.0	0.0	0.0	81.0
Time (UTC)	Temperature (° C) October														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.6	11.1	48.9	38.9	0.6	0.0	0.0	0.0	0.0	0.0	71.0
06 - 07	0.0	0.0	0.0	0.3	2.4	11.3	47.1	37.5	1.4	0.0	0.0	0.0	0.0	0.0	52.7
07 - 08	0.0	0.0	0.0	0.0	2.3	6.0	43.2	46.5	2.0	0.0	0.0	0.0	0.0	0.0	51.5
08 - 09	0.0	0.0	0.0	0.0	1.7	4.0	37.7	52.0	4.3	0.3	0.0	0.0	0.0	0.0	51.3
09 - 10	0.0	0.0	0.0	0.0	0.3	2.9	33.1	52.6	11.0	0.0	0.0	0.0	0.0	0.0	50.3
10 - 11	0.0	0.0	0.0	0.0	0.0	2.0	22.7	58.6	15.5	1.3	0.0	0.0	0.0	0.0	51.0
11 - 12	0.0	0.0	0.0	0.0	0.0	1.7	18.9	53.7	22.3	3.4	0.0	0.0	0.0	0.0	52.3
12 - 13	0.0	0.0	0.0	0.0	0.0	1.0	14.4	51.6	28.4	4.6	0.0	0.0	0.0	0.0	50.6
13 - 14	0.0	0.0	0.0	0.0	0.0	0.3	13.1	46.6	33.1	6.9	0.0	0.0	0.0	0.0	50.8
14 - 15	0.0	0.0	0.0	0.0	0.0	0.0	0.3	11.8	45.9	35.1	6.8	0.0	0.0	0.0	52.3
15 - 16	0.0	0.0	0.0	0.0	0.0	0.7	14.9	50.7	28.4	5.4	0.0	0.0	0.0	0.0	52.3
16 - 17	0.0	0.0	0.0	0.0	0.0	0.6	13.8	50.9	30.8	3.8	0.0	0.0	0.0	0.0	74.4
17 - 18	0.0	0.0	0.0	0.0	0.0	0.0	40.0	23.3	36.7	0.0	0.0	0.0	0.0	0.0	95.2
Time (UTC)	Temperature (° C) November														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.7
06 - 07	0.0	0.0	0.0	2.1	16.3	42.9	35.6	3.1	0.0	0.0	0.0	0.0	0.0	0.0	51.8
07 - 08	0.0	0.0	0.0	1.0	16.8	40.9	37.1	4.1	0.0	0.0	0.0	0.0	0.0	0.0	51.5
08 - 09	0.0	0.0	0.0	0.7	15.0	37.9	42.3	4.1	0.0	0.0	0.0	0.0	0.0	0.0	51.2
09 - 10	0.0	0.0	0.0	0.3	12.8	36.9	42.3	7.7	0.0	0.0	0.0	0.0	0.0	0.0	50.3
10 - 11	0.0	0.0	0.0	0.0	8.7	34.3	45.0	12.1	0.0	0.0	0.0	0.0	0.0	0.0	51.8
11 - 12	0.0	0.0	0.0	0.0	7.0	31.1	43.0	18.5	0.3	0.0	0.0	0.0	0.0	0.0	52.3
12 - 13	0.0	0.0	0.0	0.0	6.6	30.1	40.1	23.2	0.0	0.0	0.0	0.0	0.0	0.0	51.8
13 - 14	0.0	0.0	0.0	0.0	5.2	29.9	39.9	24.7	0.3	0.0	0.0	0.0	0.0	0.0	52.0
14 - 15	0.0	0.0	0.0	0.0	6.3	29.7	39.9	23.4	0.7	0.0	0.0	0.0	0.0	0.0	52.3
15 - 16	0.0	0.0	0.0	0.0	6.5	28.5	46.2	18.8	0.0	0.0	0.0	0.0	0.0	0.0	53.8
16 - 17	0.0	0.0	0.0	2.1	2.1	25.0	60.4	10.4	0.0	0.0	0.0	0.0	0.0	0.0	92.0
17 - 18	0.0	0.0	0.0	2.6	2.6	30.8	53.8	10.3	0.0	0.0	0.0	0.0	0.0	0.0	93.5
Time (UTC)	Temperature (° C) December														
	< -20	-20 – -16	-15 – -11	-10 – -6	-5 – -1	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 35	≥35	NA	
05 - 06	0.0	0.0	0.0	0.0	66.7	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	99.5
06 - 07	0.0	0.4	0.4	4.7	30.0	45.5	18.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	55.3
07 - 08	0.0	0.4	0.4	4.9	30.6	43.7	18.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	54.2
08 - 09	0.0	0.7	0.3	3.8	26.6	46.5	20.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	53.9
09 - 10	0.0	0.4	0.0	3.9	24.4	43.7	24.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	55.0
10 - 11	0.0	0.0	0.4	2.9	19.9	45.1	28.9	2.9	0.0	0.0	0.0	0.0	0.0	0.0	55.3
11 - 12	0.0	0.0	0.0	2.9	17.2	44.4	30.8	4.7	0.0	0.0	0.0	0.0	0.0	0.0	55.0
12 - 13	0.0	0.0	0.0	2.9	13.1	42.7	35.4	5.8	0.0	0.0	0.0	0.0	0.0	0.0	55.8
13 - 14	0.0	0.0	0.0	2.2	13.0	39.9	38.4	6.5	0.0	0.0	0.0	0.0	0.0	0.0	55.5
14 - 15	0.0	0.0	0.0	2.9	13.3	41.2	38.7	3.9	0.0	0.0	0.0	0.0	0.0	0.0	55.0
15 - 16	0.0	0.0	0.0	3.3	14.3	43.3	36.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	66.1
16 - 17	0.0	0.0	0.0	0.0	13.3	60.0	26.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.2
17 - 18	0.0	0.0	0.0	0.0	22.2	51.9	25.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.6

4.2. Maximum Temperature

4.2.1. Maximum Temperature per Month

Maximum temperatures in degrees Celsius in specified time periods of 3 hours each month. Light grey shading denotes absolute maximum values for the respective period (day or year).

Example (dark shading): In the 10 years period in July the maximum temperature reported between 12 and 15 UTC was 35° C.

Time (Month)	Time Period (UTC)	Maximum Temperature (° C) 10 Years						NA
		03 - 06	06 - 09	09 - 12	12 - 15	15 - 18	Day	
January		NA	11	13	12	12	13	81.9
February		NA	9	12	16	15	16	82.6
March		11	15	20	22	21	22	77.0
April		12	17	23	25	25	25	74.5
May		17	23	28	29	29	29	73.9
June		24	26	32	33	34	34	73.9
July		21	27	33	35	35	35	73.8
August		20	26	32	34	34	34	74.1
September		18	20	26	28	27	28	75.0
October		16	20	22	24	23	24	77.3
November		4	13	15	15	14	15	79.3
December		2	13	13	13	12	13	81.3
Year		24	27	33	35	35	35	77.0

4.2.2. Maximum Temperature in 10 Years

On the 20th of July 1998 at 1450 UTC a temperature of 35° C was reported.

4.3. Average Maximum Temperature

Average maximum temperatures in degrees Celsius in specified time periods of 3 hours each month.

Example (dark shading): In the 10 years period in July the average maximum temperature reported between 12 and 15 UTC was 30.8° C.

Time (Months)	Time Period (UTC)	Average Maximum Temperature (° C) 10 Years						NA
		03 - 06	06 - 09	09 - 12	12 - 15	15 - 18	Day	
January		NA	5.4	7.0	8.3	7.8	81.9	
February		NA	6.1	8.8	10.7	10.1	82.6	
March		6.8	10.7	14.8	17.2	17.0	77.0	
April		9.1	13.0	17.7	19.8	19.3	74.5	
May		13.9	19.1	23.8	25.7	24.8	73.9	
June		18.0	23.1	27.4	29.3	29.2	73.9	
July		18.3	23.8	28.5	30.8	30.1	73.8	
August		17.5	22.9	28.1	30.3	29.8	74.1	
September		14.8	17.5	22.0	24.4	23.6	75.0	
October		11.8	14.2	17.4	19.3	18.3	77.3	
November		2.5	9.1	10.8	11.4	10.5	79.3	
December		-0.7	7.7	9.1	9.4	8.0	81.3	

4.4. Minimum Temperature

4.4.1. Minimum Temperature per Month

Minimum temperatures in degrees Celsius in specified time periods of 3 hours each month. Light grey shading denotes absolute minimum values for the respective period (day or year).

Example (dark shading): In the 10 years period in December the minimum temperature reported between 06 and 09 UTC was -18° C.

	Time Period (UTC)	Minimum Temperature (° C) 10 Years						
		03 - 06	06 - 09	09 - 12	12 - 15	15 - 18	Day	NA
	January	NA	-11	-10	-8	-10	-11	82
	February	NA	-14	-8	-5	-6	-14	83
	March	-6	-9	-4	0	-1	-9	77
	April	-3	-3	1	1	0	-3	74
	May	2	3	4	4	3	2	74
	June	5	7	8	9	9	5	74
	July	8	9	11	11	10	8	74
	August	5	7	11	11	12	5	74
	September	1	0	5	6	6	0	75
	October	-1	-7	-1	3	3	-7	77
	November	1	-10	-7	-4	-7	-10	79
	December	-3	-18	-17	-8	-10	-18	81
	Year	-6	-18	-17	-8	-10	-18	77

4.4.2. Minimum Temperature in 10 Years

On the 24th of December 2001 at 0750 UTC a temperature of -18° C was reported.

4.5. Average Minimum Temperature

Average minimum temperatures in degrees Celsius in specified time periods of 3 hours each month.

Example (dark shading): In the 10 years period in January the average minimum temperature reported between 06 and 09 UTC was -6.4° C.

	Time Period (UTC)	Average Minimum Temperature (° C) 10 Years					
		03 - 06	06 - 09	09 - 12	12 - 15	15 - 18	NA
	January	NA	-6.4	-5.3	-4.1	-4.1	81.9
	February	NA	-6.3	-3.7	-1.3	-1.3	82.6
	March	-0.4	-3.2	1.5	3.3	2.7	77.0
	April	-0.2	1.8	4.7	5.9	5.4	74.5
	May	6.5	7.8	9.6	10.7	10.5	73.9
	June	9.0	10.0	12.4	13.3	13.6	73.9
	July	11.2	12.3	14.9	15.5	15.1	73.8
	August	11.0	12.3	15.2	16.3	15.5	74.1
	September	5.4	6.8	10.3	11.6	11.0	75.0
	October	4.4	2.2	5.6	7.5	7.2	77.3
	November	2.5	-3.1	-1.2	1.0	0.9	79.3
	December	-0.7	-6.0	-5.1	-3.4	-3.1	81.3

5. PRESSURE

5.1. Average Pressure (QNH)

Average pressure in hPa in specified time periods of 3 hours each month. Light grey shading denotes average pressure values for the times indicated during the whole day or year, respectively.

Example (dark shading): In the 10 years period in January the average pressure reported between 09 and 12 UTC was 1021.0 hPa.

Time (Month)	Average QNH 10 Years						
	03 - 06	06 - 09	09 - 12	12 - 15	15 - 18	Day	NA
January	NA	1020.8	1021.0	1020.0	1020.3	1020.6	81.9
February	NA	1019.4	1019.7	1018.7	1017.8	1019.1	82.7
March	1015.1	1018.8	1018.7	1017.7	1017.4	1018.2	77.0
April	1013.9	1014.1	1013.8	1013.0	1012.5	1013.4	74.6
May	1015.8	1016.0	1015.6	1014.8	1014.4	1015.3	74.2
June	1018.6	1018.6	1018.3	1017.5	1017.2	1018.0	74.3
July	1017.6	1017.9	1017.4	1016.7	1016.3	1017.1	74.2
August	1018.2	1018.4	1018.0	1017.1	1016.8	1017.6	74.3
September	1016.3	1016.8	1016.5	1015.7	1015.8	1016.2	75.3
October	1017.5	1018.6	1018.5	1017.7	1017.5	1018.1	77.6
November	1011.5	1017.3	1017.5	1016.6	1016.2	1017.0	79.3
December	1013.3	1018.0	1018.2	1017.5	1018.0	1017.9	81.4
Year	1016.8	1017.8	1017.7	1016.9	1016.3	1017.2	77.2

5.2. Minimum Pressure (QNH)

5.2.1. Minimum QNH per Month

Minimum pressure in hPa in specified time periods of 3 hours each month. Light grey shading denotes minimum pressure values for the time indicated during the whole day or year, respectively.

Example (dark shading): In the 10 years period in December the minimum pressure reported between 06 and 09 UTC was 985 hPa.

Time (Month)	Minimum QNH 10 Years						
	03 - 06	06 - 09	09 - 12	12 - 15	15 - 18	Day	NA
January	NA	990	989	988	988	988	81.9
February	NA	991	992	992	991	991	82.7
March	997	987	990	992	992	987	77.0
April	990	990	991	990	989	989	74.6
May	992	993	994	993	992	992	74.2
June	997	997	998	999	998	997	74.3
July	1001	1001	1002	1002	1002	1001	74.2
August	1005	1005	1005	1004	1004	1004	74.3
September	996	995	999	999	998	995	75.3
October	991	991	992	993	994	991	77.6
November	1008	987	989	989	986	986	79.3
December	1003	985	991	991	991	985	81.4
Year	990	985	989	988	986	985	77.2

5.2.2. Minimum QNH in 10 Years

On the 28th of December 1999 at 0650 UTC a minimum pressure of 985 hPa was reported. This extreme value was caused by the gale Martin.

5.3. Maximum Pressure (QNH)

5.3.1. Maximum QNH per Month

Maximum pressure in hPa in specified time periods of 3 hours each month. Light grey shading denotes maximum pressure values for the time indicated during the whole day or year, respectively.

Example (dark shading): In the 10 years period in February the maximum pressure reported between 06 and 09 UTC was 1040 hPa.

Time (Month)	Time Period (UTC)	Maximum QNH 10 Years						NA
		03 - 06	06 - 09	09 - 12	12 - 15	15 - 18	Day	
January		NA	1038	1039	1039	1039	1039	81.9
February		NA	1040	1040	1039	1039	1040	82.7
March		1033	1037	1037	1037	1036	1037	77.0
April		1033	1034	1034	1033	1032	1034	74.6
May		1029	1030	1029	1027	1026	1030	74.2
June		1029	1029	1029	1027	1027	1029	74.3
July		1027	1029	1027	1028	1027	1029	74.2
August		1028	1029	1029	1028	1028	1029	74.3
September		1030	1030	1030	1030	1029	1030	75.3
October		1033	1034	1034	1033	1031	1034	77.6
November		1015	1038	1038	1036	1036	1038	79.3
December		1023	1037	1037	1036	1036	1037	81.4
Year		1033	1040	1040	1039	1039	1040	77.2

5.3.2. Maximum QNH in 10 Years

On the 2nd of February 1993 at 0850 UTC a maximum pressure of 1040 hPa was reported.

6. WEATHER PHENOMENA

6.1. Freezing Rain

Cases of freezing rain in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed

Example (dark shading): In the 10 years period in January between 06 and 09 UTC 3 observations reported freezing rain.

Time (UTC)	Cases of Freezing Rain During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	0	0	0	0	0	0	0	0	0	0	0	90.9
06 - 09	3	0	0	0	0	0	0	0	0	0	0	0	0	53.1
09 - 12	1	1	0	0	0	0	0	0	0	0	0	0	0	52.8
12 - 15	0	0	0	0	0	0	0	0	0	0	0	1	1	53.3
15 - 18	1	0	0	0	0	0	0	0	0	0	0	0	1	65.9
Day	5	1	0	0	0	0	0	0	0	0	0	1	7	77.0

6.2. Freezing Drizzle

Cases of freezing drizzle in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed

In the 10 years period no observation reported freezing drizzle.

Time (UTC)	Cases of Freezing Drizzle During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	0	0	0	0	0	0	0	0	0	0	0	90.9
06 - 09	0	0	0	0	0	0	0	0	0	0	0	0	0	53.1
09 - 12	0	0	0	0	0	0	0	0	0	0	0	0	0	52.8
12 - 15	0	0	0	0	0	0	0	0	0	0	0	0	0	53.3
15 - 18	0	0	0	0	0	0	0	0	0	0	0	0	0	65.9
Day	0	0	0	0	0	0	0	0	0	0	0	0	0	77.0

6.3. Snowfall

Frequencies in percent of snowfall in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed

Example (dark shading): In the 10 years period in February between 09 and 12 UTC 8.7% of all observations reported snowfall.

Time (UTC)	Frequencies of Snowfall During 10 Years													NA %	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year		
03 - 06	NA	NA	2.8	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	0.6	90.9
06 - 09	5.5	7.9	1.8	1.5	0.0	0.0	0.0	0.0	0.0	0.0	2.6	5.8	1.9	53.1	
09 - 12	2.6	8.7	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	2.0	5.3	1.5	52.8	
12 - 15	3.1	5.0	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	1.4	4.8	1.2	53.3	
15 - 18	2.1	4.9	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.0	0.8	65.9	
Day	3.6	6.8	1.5	1.1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	5.1	1.4	77.0	

6.4. Hail

Cases of hail in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed.

Example (dark shading): In the 10 years period in April between 09 and 12 UTC 1 observation reported hail.

Time (UTC)	Cases of Hail During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	0	0	0	0	0	0	0	0	0	0	0	90.9
06 - 09	0	0	0	0	0	0	0	0	0	0	1	0	1	53.1
09 - 12	0	0	0	1	0	0	0	0	0	0	0	0	1	52.8
12 - 15	0	0	0	0	0	0	0	0	0	0	0	0	0	53.3
15 - 18	0	0	0	0	0	0	0	0	0	0	0	0	0	65.9
Day	0	0	0	1	0	0	0	0	0	0	0	1	0	77.0

6.5. Snow Pellets

Cases of snow pellets in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed.

In the 10 years period no observation reported snow pellets.

Time (UTC)	Cases of Snow Pellets During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	0	0	0	0	0	0	0	0	0	0	0	90.9
06 - 09	0	0	0	0	0	0	0	0	0	0	0	0	0	53.1
09 - 12	0	0	0	0	0	0	0	0	0	0	0	0	0	52.8
12 - 15	0	0	0	0	0	0	0	0	0	0	0	0	0	53.3
15 - 18	0	0	0	0	0	0	0	0	0	0	0	0	0	65.9
Day	0	0	0	0	0	0	0	0	0	0	0	0	0	77.0

6.6. Thunderstorm

Frequencies in percent of thunderstorm in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed

Example (dark shading): In the 10 years period in June between 15 and 18 UTC 1.2% of all observations reported thunderstorm.

Time (UTC)	Frequencies of Thunderstorm During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	0.0	0.0	0.0	0.0	1.0	0.7	0.4	0.0	0.0	0.0	0.3	90.9
06 - 09	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.1	53.1
09 - 12	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.4	0.0	0.0	0.0	0.0	0.1	52.8
12 - 15	0.0	0.0	0.0	0.0	1.2	0.5	1.0	0.6	0.2	0.0	0.0	0.0	0.3	53.3
15 - 18	0.0	0.0	0.0	0.1	0.7	1.2	0.9	0.8	0.7	0.0	0.0	0.0	0.5	65.9
Day	0.0	0.0	0.0	0.1	0.4	0.5	0.7	0.5	0.2	0.0	0.0	0.0	0.2	77.0

6.7. Fog (Without Shallow and Vicinity Fog)

Frequencies in percent of fog in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed.

Example (dark shading): In the 10 years period in September between 03 and 06 UTC 31.3% of all observations reported fog.

Time (UTC)	Frequencies of Fog During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	8.3	6.9	6.5	3.1	4.9	14.3	31.3	30.2	0.0	0.0	12.6	90.9
06 - 09	19.5	12.5	9.6	1.9	0.6	0.5	0.4	2.9	14.5	20.5	17.6	13.6	9.3	53.1
09 - 12	11.0	3.7	1.0	0.0	0.0	0.0	0.0	0.0	0.2	2.9	5.8	5.6	2.4	52.8
12 - 15	4.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.3	0.8	53.3
15 - 18	5.8	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.6	0.5	65.9
Day	10.9	4.8	2.9	1.0	0.6	0.3	0.5	1.8	6.0	7.8	7.8	6.8	3.9	77.0

6.8. Shallow and Vicinity Fog

Frequencies in percent of shallow **or** vicinity fog in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed.

Example (dark shading): In the 10 years period in March between 03 and 06 UTC 5.6% of all observations reported shallow or vicinity fog.

Time (UTC)	Frequencies of Shallow and Vicinity Fog During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	5.6	3.1	1.0	0.3	0.7	1.0	1.5	2.7	0.0	0.0	1.5	90.9
06 - 09	1.0	0.8	1.0	0.2	0.1	0.0	0.0	0.0	0.5	1.2	0.6	0.8	0.5	53.1
09 - 12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	52.8
12 - 15	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	53.3
15 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	65.9
Day	0.3	0.2	0.3	0.3	0.1	0.0	0.1	0.1	0.2	0.5	0.2	0.3	0.2	77.0

6.9. Freezing Fog

Frequencies in percent of freezing fog in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed

Example (dark shading): In the 10 years period in January between 06 and 09 UTC 11.1% of all observations reported freezing fog.

Time (UTC)	Frequencies of Freezing Fog During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	2.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.0
06 - 09	11.1	4.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.4	4.6	3.7	1.9	53.3
09 - 12	5.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.6	52.9
12 - 15	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.2	53.4
15 - 18	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.1	65.9
Day	5.6	1.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.9	1.6	0.7	77.0

6.10. Rain

Frequencies in percent of rain in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed

Example (dark shading): In the 10 years period in December between 06 and 09 UTC 16.7% of all observations reported rain.

Time (UTC)	Frequencies of Rain During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	11.1	18.2	11.3	10.8	10.5	9.6	13.8	11.5	0.0	0.0	12.2	90.9
06 - 09	12.9	16.6	10.8	13.2	11.3	6.1	8.7	7.7	12.5	13.0	15.6	16.7	12.0	53.1
09 - 12	10.8	13.8	7.2	12.3	9.7	7.4	8.0	8.1	10.4	11.5	14.2	12.9	10.4	52.8
12 - 15	11.1	13.0	8.3	8.5	8.5	6.5	6.0	7.5	11.9	9.0	11.5	14.1	9.5	53.3
15 - 18	14.5	14.5	11.7	9.3	10.8	7.4	6.9	7.9	11.5	9.7	12.8	14.6	10.1	65.9
Day	11.9	14.5	9.5	11.4	10.2	7.1	7.6	7.9	11.7	11.0	13.7	14.5	10.6	77.0

6.11. Drizzle

Frequencies in percent of drizzle in specified time periods of 3 hours per month. The value of NA is calculated relative to the potentially possible observations and is given in percent. It indicates the reduction of the data base due to NA. Light grey shading denotes values where the phenomenon was observed

Example (dark shading): In the 10 years period in October between 06 and 09 UTC 1.6% of all observations reported drizzle.

Time (UTC)	Frequencies of Drizzle During 10 Years													NA %
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	
03 - 06	NA	NA	0.0	0.0	0.0	0.0	0.0	0.3	0.4	1.6	0.0	0.0	0.3	90.9
06 - 09	0.4	0.0	0.3	0.0	0.1	0.0	0.0	0.2	0.1	1.6	1.3	0.8	0.4	53.1
09 - 12	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.0	0.5	0.1	52.8
12 - 15	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	53.3
15 - 18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.3	0.4	0.1	65.9
Day	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.8	0.4	0.4	0.2	77.0

Abbreviations

Aeronautical Abbreviations

METAR	Aviation Routine Weather Report
ICAO	International Civil Aviation Organisation
RWY	Runway
GRD	Ground
msl	Mean sea level
UTC	Coordinated Universal Time

Meteorological Abbreviations

RVR	Runway Visual Range
QNH	Reduced pressure to sea level according to ISA (International Standard Atmosphere)
CB	Cumulonimbus
Cloud amount: FEW	Few (1–2 Octas)
SCT	Scattered (3–4 Octas)
BKN	Broken (5–7 Octas)
OVC	Overcast (8 Octas)

Airports

LSZH	Zurich Airport
LSGG	Geneva Airport
LSZB	Bern Airport
LSZA	Lugano Airport
LSZR	Altenrhein Airport
LSZG	Grenchen Airport
LSGS	Sion Airport
LSGC	Les Eplatures Airport
LFSB	Basel Airport

Units of Measurement

ft	Feet
m	Metre
km	Kilometre
NM	Nautical mile
kt	Knot (nautical mile / hour)
° C	Degrees Celsius
hPa	Hectopascal
hr	Hour

Months

Jan	January
Feb	February
Mar	March
Apr	April
May	May
Jun	June
Jul	July
Aug	August
Sep	September
Oct	October
Nov	November
Dec	December

Other

NA	Not available
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Arbeitsbericht



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