# DANISH METEOROLOGICAL INSTITUTE

MINISTRY OF TRANSPORT


## TECHNICAL REPORT 99-13

# Observed Wind Speed and Direction in Denmark - with Climatological Standard Normals, 1961-90

# Observeret vindhastighed og -retning i Danmark - med klimanormaler 1961-90


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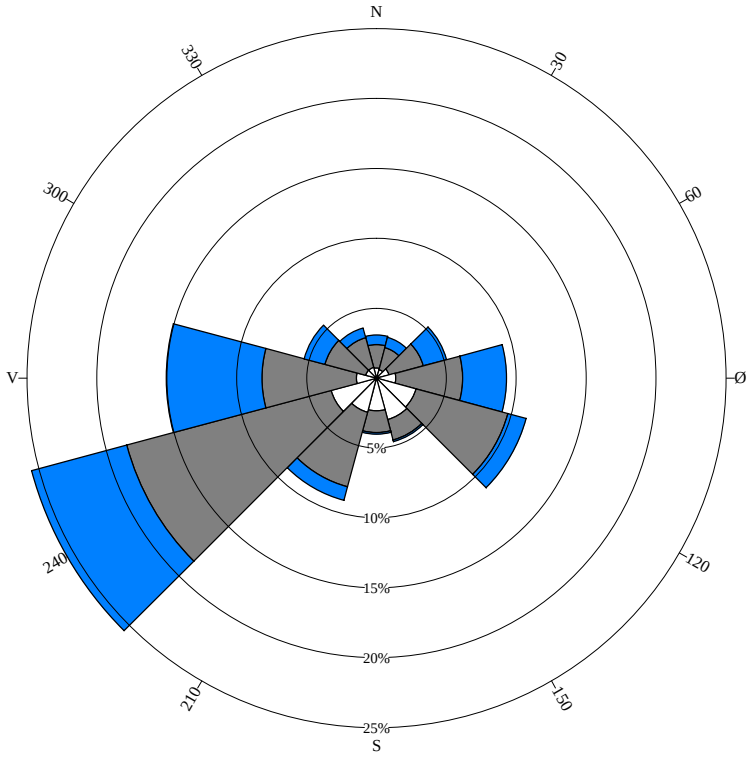



**Copenhagen 1999**

Jens Juncher Jensen, DMI, har været behjælpelig ved udarbejdelse af kortene på siderne 22-268:


Jens Juncher Jensen, DMI, has been helpfull in preparing the maps, pp 22-268:


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Forsidebillede/Front cover:

Frekvensfordeling af vindhastighed og -retning i perioden 1989-98 fra station 06193 Hammer Odde Fyr repræsenteret ved en vindrose.
Frequency of wind speed and direction in the period 1989-98 from station 06193 Hammer Odde Fyr represented as a wind rose.

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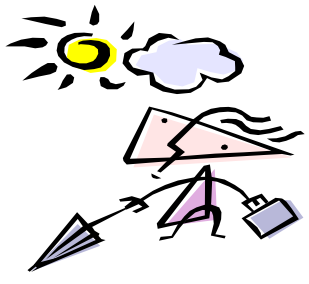

# Introduktion

Når det danske vejr skal beskrives, er vindretningen og årstiden nogle af de helt afgørende faktorer - vejret veksler simpelthen afhængigt af den dominerende vindretning. Det blæser tilmed tit i Danmark og det er sjældent vindstille. Vindkraftindustrien og sejlere er glade for det, mens badegæster og cyklister nok er mere forbeholdne. I hvert tilfælde er vinden nok en af de vigtigste vejrfaktorer i dagligdagen i Danmark.

Nærværende rapport præsenterer observeret vindhastighed og -retning i Danmark fra 63 observationssteder. Observationerne dækker perioden 1961-98. For 62 stationers vedkommende er vinden i perioden 1989-98 beskrevet i form af vindroser. 16 stationer har målt kontinuerligt siden 1961 og de er i rapporten inkluderet på digital form som tidsserier af månedsværdier og samtidig er standardnormaler for perioden 1961-90 beregnet for disse stationer. Endelig er der udført en geostrofisk vindanalyse på 3-timers basis dækkende perioden 1961-98. I analysen har lufttryk og -temperatur fra 3 målesteder i Danmark været de basale parametre.

Standardnormalperioder er defineret i et teknisk regulativ fra World Meteorological Organisation (WMO) som ”gennemsnit af klimadata beregnet for følgende sammenhængende perioder af 30 år: 1. januar 1901 til 31. december 1930, 1. januar 1931 - 31. december 1960, osv.”. Standard normal værdier er baseret på komplette og homogene serier af klimaparametre målt et bestemt sted og de benyttes til en beskrivelse af det gennemsnitlige (normale) klima på observationsstedet. Standardmetoden muliggør en sammenligning fra sted til sted, selv over landegrænser. Serier der er kortere end 30 år og serier der ikke er homogene kaldes for provisoriske. Denne rapport præsenterer provisoriske normaler for parameteren vindstød i tiårsperioden 1989-1998.

I afsnit 2 gives en generel beskrivelse af, hvordan de forskellige vindretninger påvirker det danske

# Introduction

When describing the Danish weather, the wind direction and the season are fundamental - the weather simply changes according to the prevailing wind direction. What is more, it is often windy in Denmark and calm situations are rare. The wind power industry and sailors enjoy this state of affairs while sunbathers and cyclists feel somewhat more dubious. At all events, the wind is a key factor of daily life in Denmark.

This report presents the wind speed and direction observed in Denmark from up to 63 Danish stations. The observations cover the period 1961-98. The wind in the period 1989-98 from 62 stations is described in the form of wind roses. 16 stations have been operating regularly since 1961. They are included as monthly values of various parameters in digital form, and climatological standard normals for the period 1961-90 have been calculated for these stations. Finally, a geostrophic wind analysis using air pressure and air temperature from 3 stations has been performed at 3-hour intervals covering the period 1961-98.

Climatological standard normal periods are defined by the World Meteorological Organisation (WMO)’s Technical Regulations as ”averages of climatological data computed for the following consecutive periods of 30 years: 1 January 1901 to 31 December 1930, 1 January 1931 to 31 December 1960, etc.”. Standard normal values are based on complete and homogeneous series of climatic variables. They are used to describe the average climate of a particular site. Standard normal values can thus be compared from site to site and across national borders. Series shorter than 30 years and series not satisfactorily homogeneous are referred to as *provisory* normal values. This report presents provisory normals for the period 1989-98 for the climate element wind gust.

Section 2 provides a general description of how the different dominant wind directions affect Danish

vejr. Teksten er næsten identisk med afsnittet siderne 61-66 i bogen "Vejr for enhver - Vejr, klima og miljø"[1)], der i 1997 blev udgivet i forbindelse med DMI's 125 års jubilæum.

Afsnit 3 drejer sig om observationerne og metoder bag de forskellige statistikker, der er præsenteret i denne rapport. Stationstyper, måle- og interpolationsmetoder beskrives bl.a. her.

I afsnit 4 vises på et kort over Danmark de benyttede målesteder, og de præsenteres i tabelform.

I afsnit 5 findes en kort forklaring til vindroser og tilhørende statistik.

Afsnit 6 og 7 viser fordelingen af vindens retning og -hastighed præsenteret som vindroser med tilhørende statistik for perioden 1989-98 og for 62 stationer. Der vises en vindrose for hele 10-års perioden og for hver af årets 12 måneder. For hvert observationssted er desuden anført geografisk position, højde over havet, m.v., samt et detailkort (1:15.000) med observationsstedets placering.

I afsnit 8 præsenteres standardnormaler 1961-90 for så mange lokaliteter i Danmark som muligt, 16 stationer. Antallet er bestemt af stationsoprettelser/-nedlæggelser, ligesom ændringer i observationspraksis og instrumenter i perioden 1961-90 har haft betydning. Afsnittet indeholder også provisoriske normaler for vindstød i perioden 1989-98.

I afsnit 9 er redegjort for beregningen af geostrofisk vind - ud fra 3-timers værdier af lufttryk og temperatur fra 3 stationer - for perioden 1961-98. Formålet er at få et overblik over ændringer i vinden samt stormhyppigheden i Danmark 1961-98 baseret på et uafhængigt datasæt, i dette tilfælde lufttryk. Direkte observationer af vinden er nemlig meget afhængig af den nøjagtige placering af anemometret og af det omgivende terræn. Ydermere er tilgængelige metadata (data om data fx instrumenttype, målehøjde osv.) mht. vindmåling meget begrænset, hvis man går mere end 10 år tilbage i tiden.

Alle normalværdier, og de månedsværdier der ligger til grund for disse normalværdier, samt informationer om stationer og de enkelte klimaelementer er tilgængelige i datafiler på den medfølweather. The text closely resembles pp 61-66 of 'Vejr for enhver - Vejr, klima og miljø'[1)] - a book published in 1997 by DMI to celebrate its 125 years jubilee.

Section 3 concerns the observations and methods behind the different presentations and thus provides lists of station types, measuring methods and interpolation methods.

Section 4 contains a map of the observation sites used in this report and presents them in table form.

Section 5 briefly explains how to interpret the wind roses and statistics.

Sections 6 and 7 present frequencies of wind speed and direction as wind roses and statistics for the period 1989-98 for 62 stations. Wind roses are presented for the entire period and for the 12 calendar months. Each observation site is additionally described by a map (1:15,000) indicating the location and other information concerning the wind observations.

Section 8 contains climatological standard normals 1961-90 for the largest possible number of locations in Denmark, 16 stations. The number is limited by the establishing/closing of DMI measuring stations and differences/changes in observation schemes and instruments during 1961-90. The section also contains provisory normals for wind gusts in the period 1989-98.

Section 9 covers the calculation of geostrophic winds in the period 1961-98, based on observations of air pressure and temperature taken at 3-hour intervals from 3 stations in Denmark. The aim was to obtain an overview of wind changes and storminess in Denmark in the period 1961-98, using an independent set of data - in this instance air pressure. Direct observations of wind are extremely sensitive to the exact location of the anemometer and to changes in the surrounding terrain. Furthermore, metadata (data about data, such as instruments, observation heights, etc.) concerning wind measurements is very limited any more than ten years back.

All the normal values, the monthly values underlying the normal values, and the information on

gende CD-ROM (se appendix for beskrivelse af indhold og format). Ydermere indeholder CD-ROM'en de beregnede 3 timers værdier af geostrofisk vind for perioden 1961-98 samt vind-roser.

stations and climate elements are contained in data files on the CD-ROM included (please refer to Appendix for description of contents and format). The geostrophic wind series at 3-hour intervals 1961-98 and wind roses are also included on the CD-ROM.

1) Cappelen et al, 1997. Vejr for enhver - Vejr, klima og miljø, Danmarks Meteorologiske Institut, København.

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# Vinden og det danske vejr

## Danmark mellem hav og kontinent

Det danske vejr varierer meget. Danmark ligger i vestenvindsbæltet, som er karakteriseret af fronter og lavtryk og omskifteligt vejr. Samtidig bor vi på kanten af det europæiske kontinent, hvor der er kolde vintre og varme somre. Sammenlignet med andre geografiske områder, der ligger på samme breddegrad som Danmark, har vi et relativ varmt klima. Det skyldes den varme Golfstrøm, der har sin oprindelse i det tropiske hav ud for USA's østkyst. Til sammenligning ligger vi på samme breddegrad som Hudsonbugten i Canada og Sibirien i Rusland, områder der på grund af de korte somre og meget kolde vintre er næsten ubeboelige.

## Vejret veksler afhængigt af den dominerende vindretning

Danmark har et udpræget kystklima med mildt og fugtigt vejr om vinteren og køligt og ustadigt vejr om sommeren, og de gennemsnitlige temperaturer varierer ikke særlig meget fra sommer til vinter. Vejret i Danmark er dog stærkt påvirket af nærheden til såvel havet som kontinentet. Det betyder, at vejret veksler afhængigt af den dominerende vindretning. Vestenvinden fra havet er præget af et relativt ensartet vejr sommer og vinter: Mildt om vinteren, køligt om sommeren, altid med skyer, og ofte med regn eller byger. Kommer vinden fra syd eller øst, vil vejret i Danmark mere ligne det vejr, der findes over kontinentet: Varmt og solrigt om sommeren og koldt om vinteren. Når det danske vejr skal beskrives, er vindretningen og årstiden altså nogle af de helt afgørende faktorer.

# The wind and the Danish weather

## Between ocean and continent

Danish weather is extremely changeable. Denmark lies in the path of the westerlies, an area characterised by fronts, extratropical cyclones and unsettled weather. At the same time, the country is situated on the edge of the European Continent, where winters are cold and summers hot. Compared to other geographical areas on the same latitude, Denmark enjoys a relatively warm climate. This is due to the warm Gulf Stream that originates in the tropical ocean off the eastern coast of the USA. By way of comparison, Denmark is situated on the same latitude as Hudson Bay in Canada and Siberia in Russia, areas almost uninhabitable due to their short summers and harsh winters.

## The weather changes according to the prevailing wind direction

Denmark has a typical coastal climate with mild, humid weather in winter and cool, changeable weather in summer, and mean temperatures do not vary greatly between the two seasons. However, the weather in Denmark is strongly influenced by the country's proximity to both the sea and the European Continent. This means that the weather changes according to the prevailing wind direction. The westerly wind from the sea typically brings relatively homogeneous weather both summer and winter: mild in winter, cool during summer, always accompanied by clouds, often with rain or showers. If the wind comes from the east or south, the weather in Denmark tends to resemble the weather currently prevailing on the Continent: hot and sunny during summer, cold during winter. Thus, the wind direction and the season are key factors in describing Danish Weather.

## Vestenvinden

Da Danmark oftest har vestenvind, betyder det, at lavtrykkene med deres blæst og regnvejr normalt bevæger sig fra vest ad forskellige baner i en retning nord om Danmark. Et sådant vejr vil sommer og vinter bringe lavtrykkene med de tilhørende frontsystemer tæt forbi Danmark - ét efter ét. Det giver passage af fronter med vedvarende regn efterfulgt af områder med byger i den kolde luft "bag på" fronten. Om vinteren vil nedbøren på fronten ofte begynde som sne, hvis der inden har været koldt vejr med frost. Da lavtrykkene ofte ligger efter hinanden som perler på en snor eller i "familier", vil vejret i disse situationer gentage sig selv med 1 eller 2 dages mellemrum, og selve vejrtypen kan vare fra nogle få dage til flere uger.

I forbindelse med lavtrykspassagerne blæser det - ofte kraftigt - på sydsiden af lavtrykket og normalt kraftigst, efter at fronten er passeret, og vi er kommet ind i den kolde luft. De fleste storme optræder om efteråret og tidligt på vinteren, hvor temperaturforskellen mellem det stadig varme Sydeuropa og det hurtigt afkølende Skandinavien er størst.

Skifter vejret til vestenvind, vil det om sommeren normalt betyde faldende temperaturer i forbindelse med passagen af koldfronten, og der følger normalt ret fugtigt vejr med regn eller byger. Om vinteren vil det inden et omslag til vestenvind ofte være koldt og måske frost. Når koldfronten passerer, vil luften fra havet faktisk være varmere, da den er opvarmet af havet, end luften over land. Hermed stiger temperaturen, selv om der er tale om en passage af en koldfront! Kun når luften bag fronten er rigtig kold, hvis den kommer fra nord eller nordøst, vil en koldfront betyde koldere vejr om vinteren.

## Det stille højtryksvejr

Hvis lavtrykkene fra vest i perioder bevæger sig langt uden om Danmark, vil vejret blive præget af relativt stille højtryksvejr. Om sommeren vil det betyde en fortsat opvarmning af jordoverfladen med det resultat, at vejret bliver varmere og varmere. Men er der blot en svag vind fra havet, dannes der ofte ret tynde skyer i lav højde - de

## The westerly wind

As the wind in Denmark is predominantly westerly, depressions, with their windy and rainy weather, generally move along different tracks from the west in a direction north of Denmark. Summer and winter, such weather brings the depressions and their associated frontal systems close by Denmark - one after the other. This brings about the passage of fronts with continued rain, followed by areas with showers in the cold air behind the front. During winter, precipitation from the fronts will often commence as snow if the previous weather was cold with frost. As the depressions often succeed each other like pearls on a string or in 'clusters', the weather in these situations will often repeat itself at intervals of one or two days, and the weather type itself may last from a few days up to several weeks.

The passage of extratropical cyclones is accompanied by a wind - often a strong wind - on the south side of the low. This is normally strongest after the front passes, when the cold air has arrived. Most gales occur in autumn and early winter when the temperature difference between the still warm Southern Europe and rapidly cooling Scandinavia is greatest.

During summer, a change in the weather to a westerly wind will usually mean a drop in temperature during passage of the cold front, often followed by quite humid weather with rain or showers. During winter, a change to a westerly wind will often be preceded by cold weather, perhaps, frost. When the cold front passes, air from the ocean will, in fact, be warmer (being heated by the ocean) than the air over land. The temperature thus rises, even though a cold front is passing! Only if the air behind the front is really cold, such as when it comes from the north or north east, will the passage of a cold front during winter mean colder weather.

## The calm anticyclones (highs)

If the extratropical cyclones from the west steer well clear of Denmark, periods of relatively settled anticyclone weather will ensue. During summer this means the ground will continue to be heated,

såkaldte stratocumulus skyer - der skærmer af for Solen og kan ødelægge en ellers oplagt stranddag. Skal vi i Danmark have rigtig varmt og tørt sommervejr, skal luften helst kommer fra kontinentet, hvor der om sommeren normalt er varmt og tørt.

Et højtryksvejr om vinteren vil normalt betyde koldt, klart og stille vejr. Dog kan der på grund af den store udstråling især om natten let dannes tåge, der har svært ved at opløses (lette) i løbet af dagen. Solen står meget lavt på himlen om vinteren, og den vil derfor ikke opvarme jordoverfladen tilstrækkeligt i løbet af den korte dag til at få temperaturen til at stige. Faktisk vil der i klart vejr i december og januar måned være strålingsunderskud hele døgnet, også midt på dagen. Det betyder, at temperaturen i klart vejr vil falde hele tiden og kan i ekstreme situationer nå helt ned under 25 graders frost inde i landet væk fra kysterne. Det er dog ret ualmindeligt og kræver samtidig, at luften ikke får tilført nogen form for varme andre steder fra. Her er et snedække af stor betydning, da det øger albedoen (reflektions-evnen) og samtidig virker isolerende. Uden sne på jorden vil temperaturen kun sjældent nå under 10 graders frost på grund af varmetilførslen fra jordoverfladen. Endelig skal det være helt stille, før man får de ekstremt lave temperaturer, da selv en svag vind vil bringe lunere og fugtigere luft ind fra det allestedsnærværende hav omkring Danmark. Kommer der skyer ind over landet, virker de som en dyne, og det meget kolde vejr vil være forbi.

## Østenvinden

Østenvinden i Danmark er ikke så hyppig som vestenvinden, idet den er et udtryk for det omvendte af den normale fordeling af lav- og højtryk, nemlig lavtryk mod syd og højtryk mod nord. Sker det, vil vejret blive meget kontinentalt præget, da luften kommer fra det store kontinent mod øst. Det giver koldt vejr om vinteren og varmt vejr om sommeren. Østenvinden er især hyppig sidst på vinteren eller om foråret, hvor det kolde kontinentale vinterhøjtryk over Europa ofte er blevet nedbrudt, mens det tilsvarende højtryk over Skandinavien eller Rusland stadig er intakt. Denne vejrsituation er ret stabil og kan give koldt og blæsende vejr i dage- eller ugevis og dermed fortresulting in increasingly hot temperatures. But with just a light breeze from the sea, a cover of very thin cloud - called stratocumulus - often forms at low altitude, blocking the sun and perhaps ruining an otherwise perfect day for the beach. For Denmark to experience hot and dry summer weather, the air must preferably come from the continent, where it is usually hot and dry during the summer.

Highs during winter normally mean cold, clear and calm weather. However, because of the substantial radiation, especially at night, fog may easily form which is not readily dispersed during the day. Being very low during winter, the sun fails to heat the ground sufficiently during the short day to make the temperature rise. In fact, in clear weather during the months of December and January there will be a radiative deficit day and night, also at midday. This means that the temperature in clear weather will continually drop, in extreme situations falling to below -25 °C inland away from coastal areas. This is rather unusual though and also requires that the air is deprived of any kind of heat from elsewhere. The presence of snow cover is of great importance in this connection, as this increases the albedo while also acting as insulation. Without snow cover the temperature will only rarely fall below -10 °C, because of the heat supplied from the earth's surface. Finally, the weather must be totally calm to reach extremely low temperatures, as even a light breeze will bring in milder, more humid air from the sea surrounding Denmark. Should any clouds move in over land, they will act as a blanket, thus ending the cold spell/weather.

## The easterly wind

In Denmark, the easterly wind is not as frequent as the westerly, as it is a sign of the inverse of the normal distribution of lows and highs, namely lows to the south and highs to the north. In this situation, the weather is subject to considerable continental influence, since the air originates from the great continental land mass to the east. This means cold weather during winter and warm weather during summer. The easterly wind is especially common during late winter or spring, at which time the cold continental winter-high over Europe has often been

sætte vinterkulden langt ind i forårsperioden. Denne ret ubehagelige vejrtype kaldes også ”påskeøsten”, da den er meget hyppig ved påsketid.

Den kolde østenvind bliver dog især tidligt på vinteren delvis opvarmet af den relativt varme Østersø, hvilket kan give anledning til forstærket nedbør og snebyger ved Østersøen på især Bornholm og Lolland/Falster.

## Søndenvinden

Når luften over Danmark kommer fra syd, vil den som østenvinden være af kontinental oprindelse. Det giver kulde om vinteren og varme om sommeren. Men da den kommer fra syd, vil den ofte være fugtig og bringe dis eller tåge med sig. Om sommeren vil den tilførte fugtighed kunne give anledning til kraftige byger måske med tordenvejr - den såkaldte varmetorden. Det er dog forholdsvis sjældent, idet torden oftest vil være knyttet til fronter - og især koldfronter. Hvis der inden en koldfrontpassage har været tilførsel af fugtig luft fra de sydlige egne, vil der være gode betingelser for tordenvejr. Ofte vil en længerevarende varmebølge blive afsluttet af en sådan tordenkoldfront med omslag til mere køligt vejr.

## Nordenvinden

Nord er den mindst hyppige vindretning i Danmark. Mens luft fra polaregnene i almindelighed er kold og tør, er der stor forskel på, om luften kommer fra nordvest eller nordøst. Da nordvestenvinden kommer fra havet, vil den kunne karakteriseres som en koldere og mere tør udgave af vestenvinden. Ofte vil nordvestenvinden kun give få byger og lidt nedbør, og den vil på grund af virkningen af de norske fjelde give tørt og solrigt vejr til især Nordjylland, men virkningen kan nå så langt som til København. I disse situationer vil der ofte være byger i Syd- og Vestjylland.

Luft fra nord og nordøst er derimod nærmest en kold og tør udgave af den typiske østenvind. Dermed bliver nordøstenvinden den koldeste vindretning i Danmark, og kommer der meget kold luft ud over fx Kattegat fra Sverige kan der let dannes

dissolved while the similar high over Scandinavia or Russia remains intact. This weather situation is quite stable and may produce cold and windy weather for days or weeks, thus prolonging the cold of winter far into the spring.

Especially in early winter, however, the relatively warm waters of Baltic partly heat the cold easterly wind which may intensify precipitation and cause snow showers in the Baltic Sea, particularly on Bornholm and Lolland/Falster.

## The southerly wind

As with air arriving from the east, air reaching Denmark from the south is of continental origin. This causes cold during winter and heat during summer. But air coming from the south will often be moist and accompanied by haze or fog. During summer, the moisture input may cause heavy showers, possibly with thunder. However, this is fairly rare, as thunder will most frequently be associated with fronts - especially cold ones. Moist air from the south preceding the passage of a cold front makes good conditions for thunderstorms. A prolonged heat wave is often terminated by just such a thunder cold front and followed by a change to cooler weather.

## The northerly wind

North is the least frequent wind direction in Denmark. While air from the polar regions is generally cold and dry, it makes a great difference whether the air comes from the north west or from the north east. Since the north-westerly wind comes from the sea, it may be regarded as a colder and drier version of the westerly wind. The north-westerly wind will often only give rise to a few showers and little precipitation, and because of the effect of the Norwegian Mountains it brings dry and sunny weather, particularly to northern Jutland, although this effect may extend as far as Copenhagen. In these situations there will often be showers in south and west Jutland.

By comparison, air from the north and north east more closely resembles a cold and dry version of

endog meget kraftige byger, der i lang tid kan give sne helt lokalt. Bygerne - der ofte kaldes Kattegat-byger - bliver kraftigst der, hvor luften har bevæget sig længst over det relativt varme vand.

the typical easterly wind. North-easterly is thus the coldest wind direction in Denmark, and if very cold air from Sweden moves out over, say, the Kattegat, exceptionally heavy showers may form which can lead to prolonged local snowfall. These showers - often called ”Kattegat showers” - become heavier the further the air moves over the comparatively warm water.

# Observationer og metoder

## Meteorologisk døgn og måned

Et ”meteorologisk døgn” begynder kl. 06 UTC (GMT) om morgenen og slutter kl. 06 UTC den følgende morgen. 06 UTC er det samme som kl. 07 dansk vintertid (eller dansk normaltid) og kl. 08 dansk sommertid.

En ”meteorologisk måned” begynder derfor kl. 06 UTC den 1. i måneden og slutter kl. 06 UTC den 1. i den efterfølgende måned. I denne rapport vil datoen for en hændelse, der registreres i løbet af et meteorologisk døgn, altid være anført den dag, hvor det meteorologiske døgn slutter. Eksempelvis kan datoen for maximum 10 - minutters vindhastighed for marts derfor være anført som 1. april, selv om maximum indtraf den 31. marts.

## Stationerne

Rapporten præsenterer månedsværdier for to forskellige stationstyper:

**Synoptiske stationer**
Hel- eller halvautomatiske observationer af vindhastighed og -retning samt vindstød kl. 00, 03, 06, 09, 12, 15, 18 og 21 UTC eller hver time døgnet rundt. Verden over følger synoptiske stationer altid det samme måleprogram med målinger mindst hver 3. time og de følger de samme retningslinier for målingerne. De danske synoptiske stationer har i tid og rum opereret med en forskellig grad af automation og det har selvfølgelig haft en indflydelse på, hvordan vinden nøjagtigt er observeret. Stationsnummeret for synoptiske stationer i Danmark består af 5 cifre, altid begyndende med cifrene 06.

**Automatiske klimastationer**
Helautomatisk registrerede målinger af vindhastighed og -retning samt vindstød hver time døgnet rundt.

# Observations and methods

## The meteorological day and month

The ’meteorological day’ starts at 06 hours UTC (GMT) in the morning and ends at 06 hours UTC the following day. 06 hours UTC is 07 hours Danish Winter Time (or Danish Standard Time) and 08 hours Danish Summer Time.

The ’meteorological month’ thus starts at 06 hours UTC on the first of the month and ends at 06 UTC on the first of the following month. In this report, an event occurring during a meteorological day is always assigned to the date on which the meteorological day ends. The date of the maximum (10-minutes average) wind speed for March could thus be listed as 1 April although the maximum was reached during 31 March.

## The stations

This report presents the monthly values of observations from two different types of observation stations:

**Synoptical station**
Automatic or semi-automatic observations of wind speed, wind direction and wind gust at 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00 and 21:00 hours UTC or every hour. Synoptical stations all over the world follow at least the 3-hour interval around the clock, and they always follow the same guidelines. Danish synoptical stations have operated with different automatisation both in time and space, which has of course affected how the wind is observed. Danish synoptical stations consist of 5 digits, always starting with the number 06.

**Automatic climatological station**
Automatically registered measurements of wind speed, wind direction and wind gust every hour.

Uanset stationstypen er vindhastigheden og vindretningen målt hhv. med et anemometer og en vindfløj placeret i mast. Instrumenterne er placeret 10 meter over terræn *på samtlige* automatiske klimastationer og på hovedparten af de synoptiske stationer.
I specifikationerne for hver enkelt station (se afsnit 6 og 7) er denne højdeplacering betegnet som "Vindmålehøjde". Hvis denne lægges til højden for "Vindmastbasis (m.o.h.)", fås et tal for, hvor mange meter over havet målingen er foregået.
Bemærk at "Stationsbasis (m.o.h.)" ikke nødvendigvis er identisk med "Vindmastbasis (m.o.h.). Det skyldes at stationsbasis er regnet ud fra den position, hvor termometrene til måling af 2 meters temperatur er placeret og det er ikke nødvendigvis det sted, hvor vindmasten står.

## Månedsværdierne

I Appendix kan man se en liste over de forskellige klimaelementer der er behandlet i rapporten og man kan samtidig se, hvordan månedsværdierne er beregnet ud fra de daglige værdier (fx er månedsværdien for "10 minutters middelvindhastigheden" beregnet som et middel af 8 eller 24 observationer af 10 minutters middelvind pr. dag).

## Fejlagtige og manglende data

Alle observationer der ligger til grund for denne rapport er omhyggeligt blevet undersøgt og samtlige fejlagtige og manglende data er blevet erstattet eller fjernet, før der er beregnet vindstatistik og månedsværdier. Hvor det har været muligt er dette gjort ved hjælp af sammenhørende værdier fra nabostationer. Hvor det ikke var muligt at finde nabostationer er fejlagtige og manglende data erstattet med beregnede værdier baseret på serien selv. Alle månedsserier i rapporten begynder med januar det første år og slutter med december måned.

DMI har arkiveret information om samtlige nødvendige manipulationer på vejen fra originaldata til komplette serier af månedsværdier.

For all types of stations, the wind speed and direction are measured using an anemometer and a vane fixed in a mast. The instruments are placed 10 metres above ground *for all* the automatic climatological stations and for the majority of synoptical stations.
In the specifications for each station (contained in section 6 and 7), this is described as the 'Level of measurement'. By adding this height to the 'Base of wind mast (metres above sea level)', one can determine how many metres above sea level the instruments are placed.
Please note that the 'Elevation' of the station is not necessarily the same as the 'Base of wind mast', because the 'Elevation' is derived from the position where the thermometres (2 metres above ground) are placed, which may diverge from the position of the wind mast.

## The monthly values

The appendix contains a table listing the various climate elements referred to in this report, including the methods by which the monthly values are computed from the daily values (e.g. the monthly value for 'mean wind speed (10 minutes average)' is computed as the *mean* of the 8- or 24-hour 10 minutes average wind speed per day).

## Erroneous or missing values

All the series of original observations have been examined carefully and all erroneous or missing data have been replaced or removed before calculating wind statistics for the wind roses and before calculating the monthly values. Wherever possible this has been done using values from neighbouring stations. When no adequate neighbouring values were available, the gaps were simply filled with a calculated monthly value for the series.
All the monthly series of this report start their first year with January and end their last year with December and are consecutive in between.

DMI maintains information on the origin of the monthly values in every series.

## Homogenitet

Homogenitet - både i tid og rum- af observationerne er kritisk for enhver type analyse. For at en serie kan regnes for homogen må målingerne af den pågældende klimaparameter være udført med samme type instrument og på samme måde gennem tiden. Hvad angår den rumlige homogenitet må de enkelte instrumenter på de forskellige målesteder også være kalibreret ens.

Inhomogeniteter opstår når en eller flere faktorer ændrer sig over observationsperioden. Ændringer i instrumentering, fx introduktionen af automatisk udstyr, vil ikke nødvendigvis lede til en "pludselig" inhomogenitet, men mange ændringer af denne type gør. Stationsflytninger kan også have en effekt og det samme gælder observatorskift, selvfølgelig specielt når vi har med visuelle observationer at gøre. Dette gælder for de tidligere viseraflæsninger af vindmålinger. Faktorerne kan også ændre sig gradvist, fx vegetation der vokser, og i disse tilfælde vil observationerne udvise en ikke naturlig trend.

Siden 1961 er både pludselige og gradvise ændringer indtruffet på de forskellige danske målesteder, men det er ikke sikkert at det har påvirket homogeniteten af de enkelte serier væsentligt.

For at sikre at alle serier i denne rapport er så homogene som muligt, har de, udover en nøje gennemgang af de enkelte til grund liggende observationer, også undergået et grundigt visuelt check, hvor de er blevet sammenlignet med serier af det samme element fra omkringliggende stationer.

## Homogeneity of the series

Temporal and spatial homogeneity of observations is critical to any kind of analysis. The homogeneity of a series requires the local measurement to have been carried out with the same type of instrument and according to instructions unchanged over time. For spatial homogeneity the individual instruments must also be calibrated in the same way as their neighbours.

Inhomogeneity occurs when one or more factors change during the observation period. Changes in the instrumentation set-up, e.g. the introduction of automatic equipment, do not necessarily lead to abrupt inhomogeneity, but many changes do. The relocation of a station can also have an effect. The same applies to changes in observers, especially with regard to visual (subjective) observations like the earlier wind readings from needle instruments. When one or more factors change gradually, for example growing vegetation, the series will show a non-natural trend in observations.

Since 1961, both abrupt and gradual changes have occurred at the Danish observation sites, but whether these changes have significantly affected the homogeneity of the series is uncertain.

To ensure an acceptable level of homogeneity, all the series - in addition to a careful examination of the original observations - have been subjected to close visual scrutiny, under which they have been compared with the time series for the same climate elements from other stations.

# Målesteder

Det danske net af vejrstationer der måler vind bestod ved årsskiftet 1998/99 af ca. 65 observationssteder. De 63 stationer der er repræsenteret i denne rapport er vist på nedenstående kort og anført i tabellen på modstående side.

Positionsangivelsen er det sted, hvor termometrene til måling af 2 meters temperatur er placeret. Positionerne på kortet og i tabellen er stationernes seneste placeringer, da enkelte kan være flyttet undervejs.

Efter samme retningslinier er stationerne/vindmasterne markeret med en cirkel på kortene siderne 22-268. Hvis der markeres 2 cirkler, afviger vindmastens placering mere end ca. 100 m fra stationsplaceringen.

En del stationer er nedlagt efter 31. december 1998.

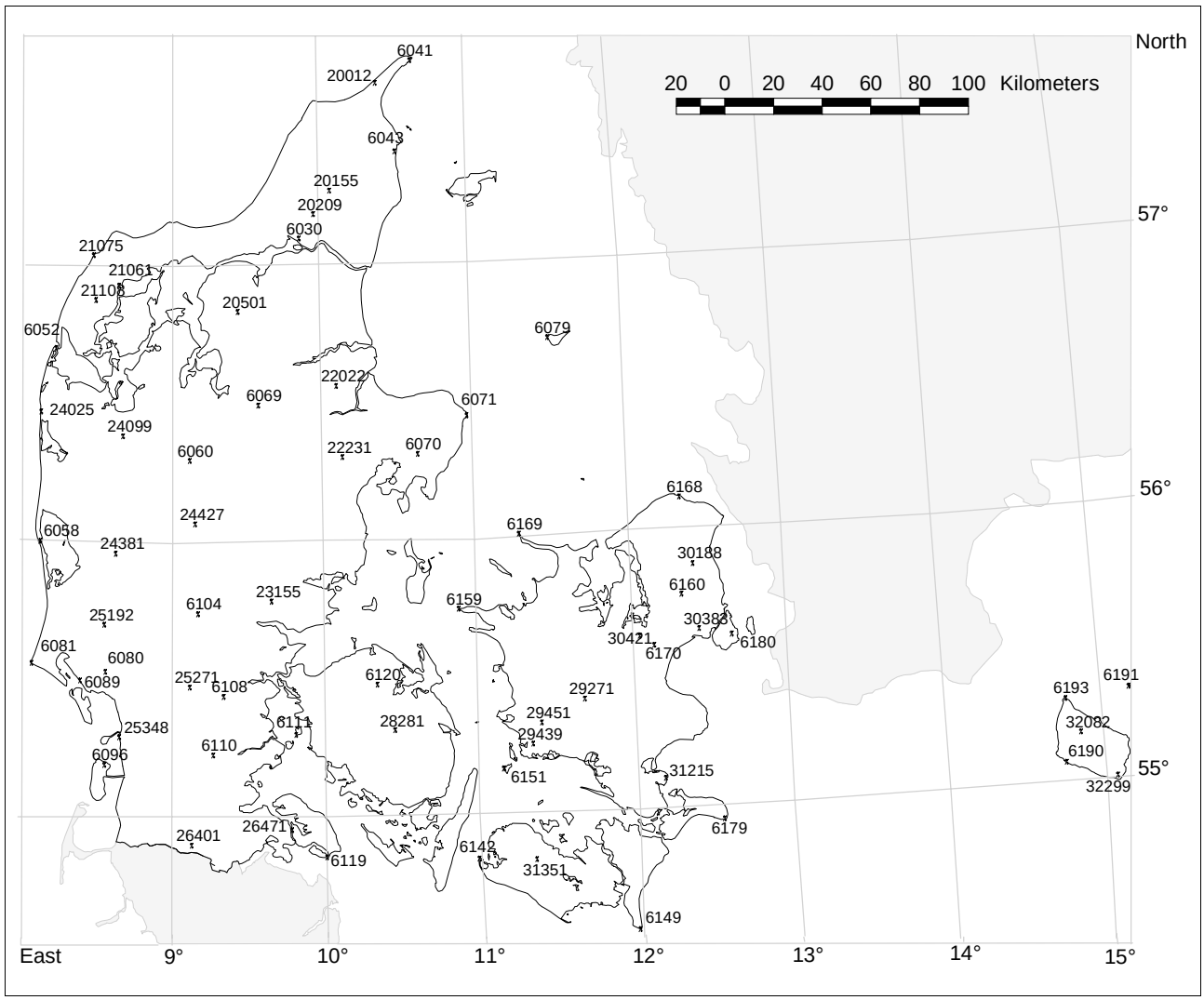
# Observation sites

The Danish network of stations measuring wind now constitutes around 65 observation sites. The network of 63 stations used in this report is shown in the map below and the adjoining table on the facing page.

The position is defined as the place where the thermometres (2 metres above ground) are placed. The positions on the map and in the table represent the latest positions, since a few of them may have been relocated in the period.

According to the same principles the stations/wind masts are marked with a circle on the maps, pp. 22-268. If 2 circles are indicated, the distance between the wind mast and the rest of the weather station exceeds 100 metres.

Please note that some of the stations have been closed since 31 December 1998.



| Station number | Station name | Latitude (degrees) | Latitude (minutes) | N_S | Longitude (degrees) | Longitude (minutes) | E_W | Elevation (m.a.s) |
|---|---|---|---|---|---|---|---|---|
| 06030 | FSN ÅLBORG | 57 | 6 | N | 9 | 51 | E | 3 |
| 06041 | SKAGEN FYR | 57 | 44 | N | 10 | 38 | E | 3 |
| 06043 | FREDERIKSHAVN | 57 | 24 | N | 10 | 31 | E | 83 |
| 06052 | THYBORØN | 56 | 42 | N | 8 | 13 | E | 2 |
| 06058 | HVIDE SANDE | 56 | 0 | N | 8 | 8 | E | 3 |
| 06060 | FSN KARUP | 56 | 18 | N | 9 | 7 | E | 52 |
| 06069 | FOULUM | 56 | 30 | N | 9 | 34 | E | 54 |
| 06070 | TIRSTRUP | 56 | 19 | N | 10 | 38 | E | 25 |
| 06071 | FORNÆS FYR | 56 | 27 | N | 10 | 58 | E | 8 |
| 06079 | ANHOLT | 56 | 43 | N | 11 | 31 | E | 2 |
| 06080 | ESBJERG LUFTHAVN | 55 | 32 | N | 8 | 34 | E | 24 |
| 06081 | BLÅVANDSHUK FYR | 55 | 33 | N | 8 | 5 | E | 13 |
| 06089 | SÆDENSTRAND FYR | 55 | 30 | N | 8 | 24 | E | 11 |
| 06096 | RØMØ/JUVRE | 55 | 11 | N | 8 | 34 | E | 4 |
| 06104 | BILLUND LUFTHAVN | 55 | 44 | N | 9 | 10 | E | 75 |
| 06108 | KOLDINGSEGNENS LUFTHAVN | 55 | 26 | N | 9 | 20 | E | 44 |
| 06110 | FSN SKRYDSTRUP | 55 | 14 | N | 9 | 16 | E | 41 |
| 06111 | BÅGØ FYR | 55 | 18 | N | 9 | 48 | E | 2 |
| 06119 | KEGNÆS FYR | 54 | 51 | N | 9 | 59 | E | 16 |
| 06120 | ODENSE LUFTHAVN | 55 | 29 | N | 10 | 20 | E | 15 |
| 06142 | ALBUEN | 54 | 50 | N | 10 | 58 | E | 2 |
| 06149 | GEDSER ODDE | 54 | 34 | N | 11 | 58 | E | 8 |
| 06151 | OMØ FYR | 55 | 10 | N | 11 | 8 | E | 1 |
| 06159 | RØSNÆS FYR | 55 | 45 | N | 10 | 52 | E | 12 |
| 06160 | FSN VÆRLØSE | 55 | 46 | N | 12 | 20 | E | 17 |
| 06168 | NAKKEHOVED FYR | 56 | 7 | N | 12 | 21 | E | 37 |
| 06169 | GNIBEN | 56 | 1 | N | 11 | 17 | E | 13 |
| 06170 | ROSKILDE LUFTHAVN | 55 | 35 | N | 12 | 8 | E | 42 |
| 06179 | MØNS FYR | 54 | 57 | N | 12 | 32 | E | 14 |
| 06180 | KØBENHAVNS LUFTHAVN | 55 | 37 | N | 12 | 39 | E | 5 |
| 06190 | BORNHOLMS LUFTHAVN | 55 | 4 | N | 14 | 45 | E | 15 |
| 06191 | CHRISTIANSØ FYR | 55 | 19 | N | 15 | 11 | E | 13 |
| 06193 | HAMMER ODDE FYR | 55 | 18 | N | 14 | 47 | E | 11 |
| 20012 | KANDESTEDERNE | 57 | 39 | N | 10 | 23 | E | 13 |
| 20155 | ÅHOLM | 57 | 16 | N | 10 | 4 | E | 29 |
| 20209 | TYLSTRUP | 57 | 11 | N | 9 | 57 | E | 13 |
| 20501 | HORNUM | 56 | 50 | N | 9 | 26 | E | 30 |
| 21061 | SILSTRUP | 56 | 56 | N | 8 | 39 | E | 41 |
| 21075 | KLITMØLLER HUSE | 57 | 2 | N | 8 | 28 | E | 5 |
| 21108 | HØRSTED | 56 | 53 | N | 8 | 29 | E | 18 |
| 22022 | HALD V | 56 | 34 | N | 10 | 6 | E | 86 |
| 22231 | ØDUM | 56 | 18 | N | 10 | 8 | E | 61 |
| 23155 | BÅSTRUP | 55 | 47 | N | 9 | 39 | E | 64 |
| 24025 | FJALTRING | 56 | 28 | N | 8 | 8 | E | 8 |
| 24099 | MEJRUP | 56 | 23 | N | 8 | 40 | E | 53 |
| 24381 | BORRIS | 55 | 57 | N | 8 | 38 | E | 25 |
| 24427 | KØLKÆR | 56 | 4 | N | 9 | 9 | E | 58 |
| 25192 | FIRHØJE | 55 | 42 | N | 8 | 33 | E | 23 |
| 25271 | ASKOV | 55 | 28 | N | 9 | 7 | E | 62 |
| 25348 | VESTER VEDSTED | 55 | 18 | N | 8 | 40 | E | 3 |
| 26401 | STORE JYNDEVAD | 54 | 54 | N | 9 | 7 | E | 15 |
| 26471 | RØNHAVE | 54 | 57 | N | 9 | 46 | E | 18 |
| 28281 | ÅRSLEV | 55 | 19 | N | 10 | 26 | E | 49 |
| 29271 | ALSTEDGÅRD | 55 | 24 | N | 11 | 40 | E | 45 |
| 29439 | TYSTOFTE | 55 | 15 | N | 11 | 20 | E | 12 |
| 29451 | FLAKKEBJERG | 55 | 19 | N | 11 | 23 | E | 32 |
| 30188 | SJÆLSMARK | 55 | 53 | N | 12 | 25 | E | 38 |
| 30383 | AVEDØRE | 55 | 38 | N | 12 | 26 | E | 8 |
| 30421 | LEDREBORG ALLE | 55 | 37 | N | 12 | 3 | E | 46 |
| 31215 | BØNSVIG STRAND | 55 | 6 | N | 12 | 11 | E | 0 |
| 31351 | ABED | 54 | 50 | N | 11 | 20 | E | 7 |
| 32082 | KLEMENSKER Ø | 55 | 10 | N | 14 | 52 | E | 103 |
| 32299 | DUEODDE | 55 | 0 | N | 15 | 4 | E | 14 |

# Forklaring til vindroser

Vindroserne præsenteret i kapitlerne 6 og 7 viser fordelingen af vindens retning og hastighed. Vindens retning er inddelt i 12 sektorer på hver 30 grader og der er ligeledes inddelt i hastighedsklasser. Den procentvise fordeling er tillige anført i en frekvenstabel under selve vindrosen.

Vær opmærksom på at i denne frekvenstabel er vindstille defineret som vindhastigheder mindre end eller lig med 0,2 m/s og disse tilfælde *indgår ikke* i statistikken! Det betyder bl.a. at beregningen af den totale middelvindhastighed godt kan være højere end den middelhastighed man traditionelt beregner, idet denne indeholder samtlige tilfælde af vindstille.

Alle vindroserne i rapporten er på dansk. Af den grund er en engelsksproget version vist på modstående side.

# Wind roses, explanation

The wind roses presented in sections 6 and 7 show the distribution of wind direction and speed. The wind direction is divided into 12 sectors, each 30 degrees. Furthermore, the speed is divided into sub groups. The distribution in percent can also be seen in the frequency table just below the wind roses.

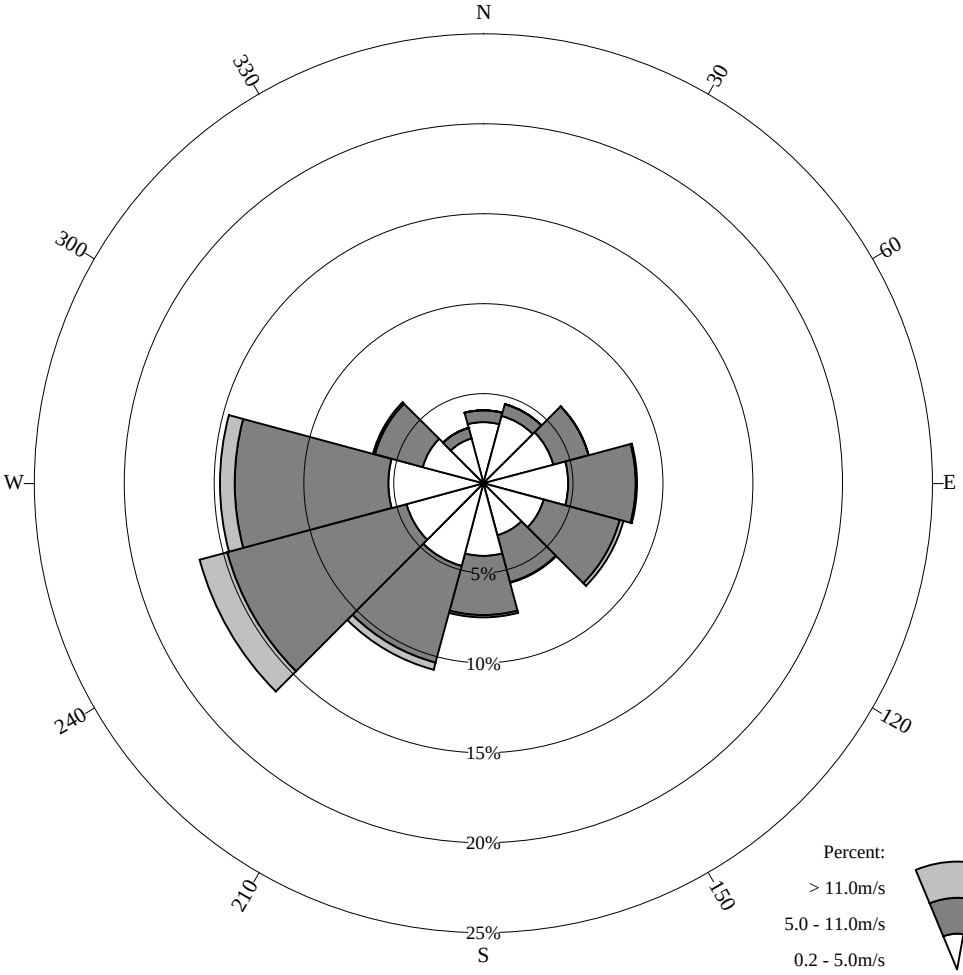
Please note that calm situations are defined as wind speed below or equal to 0,2 m/s, and that these situations are *not included* in the calculations. This means that the calculation of the total mean wind speed in the frequency table could be higher than a mean wind speed calculated in the conventional manner, as this takes all wind speeds (also calm) into account.

All the diagrams in this report are in Danish. For this reason, an English version is presented on the facing page.

# Station 06030
# FSN ÅLBORG

01-01-89 - 31-12-98

The whole period

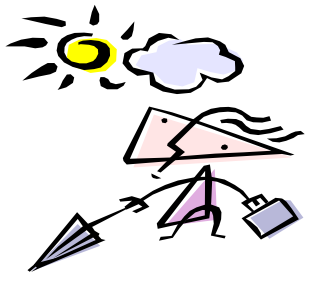



| | N | 30 | 60 | E | 120 | 150 | S | 210 | 240 | W | 300 | 330 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.1 | 4.6 | 6.1 | 8.6 | 8.1 | 5.7 | 7.5 | 10.7 | 16.4 | 14.7 | 6.4 | 3.2 | 95.9 |
| % 0.2-5.0m/s | 3.4 | 3.9 | 4.0 | 4.7 | 3.5 | 3.0 | 4.1 | 4.8 | 4.4 | 5.3 | 3.5 | 2.6 | 47.2 |
| % 5.0-11.0m/s | 0.7 | 0.7 | 2.0 | 3.8 | 4.4 | 2.7 | 3.3 | 5.6 | 10.3 | 8.6 | 2.8 | 0.6 | 45.3 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.4 | 1.6 | 0.8 | 0.1 | 0.0 | 3.4 |
| Mean wind speed | 3.2 | 3.2 | 4.1 | 4.8 | 5.6 | 4.9 | 5.0 | 5.6 | 6.9 | 6.3 | 4.9 | 3.4 | 5.3 |
| Max wind speed | 10.3 | 10.3 | 11.8 | 14.5 | 16.5 | 14.4 | 15.9 | 18.0 | 21.1 | 20.1 | 15.4 | 11.8 | 21.1 |

Number of observations = 29202 Source: DMI

Calm defined as wind speed <= 0.2m/s

Number of observations with calm/varying wind direction: 1204 = 4.1%



# Vindroser og statistikker for perioden 1989-98

## SYNOPSTATIONER

# Wind roses and statistics for the period 1989-98

## SYNOPTICAL STATIONS

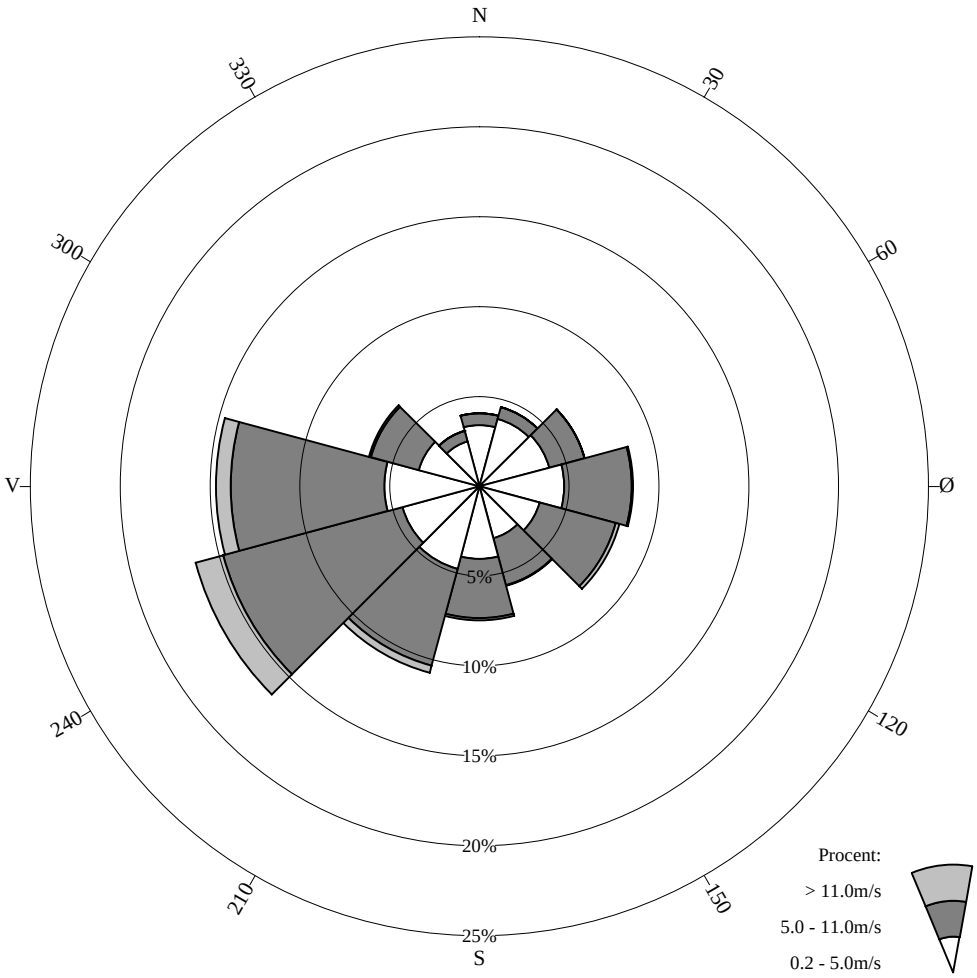
# 06030 FSN Ålborg

| | |
|---|---|
| **Position:** 57° 06’ N, 09° 51’ E<br>**UTM-koordinater:**<br>**Stationsbasis** (m.o.h.)**:** 3<br>**Vindmastbasis** (m.o.h.)**:** 3<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Stationen hører (delvist) under Forsvaret og er derfor ikke markeret på kortet. | **Position:** lat 57° 06’ N, long 09° 51’ E<br>**UTM-positions:**<br>**Elevation** (m.a.s.l.)**:** 3<br>**Base of wind mast** (m.a.s.l.)**:** 3<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>The station belongs to the Ministry of Defence and for that reason not marked on the map. |

# Station 06030
# FSN ÅLBORG

01-01-89 - 31-12-98

Hele perioden



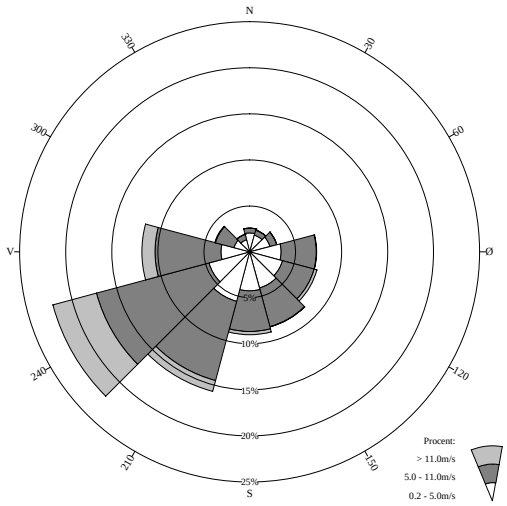

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.1 | 4.6 | 6.1 | 8.6 | 8.1 | 5.7 | 7.5 | 10.7 | 16.4 | 14.7 | 6.4 | 3.2 | 95.9 |
| % 0.2-5.0m/s | 3.4 | 3.9 | 4.0 | 4.7 | 3.5 | 3.0 | 4.1 | 4.8 | 4.4 | 5.3 | 3.5 | 2.6 | 47.2 |
| % 5.0-11.0m/s | 0.7 | 0.7 | 2.0 | 3.8 | 4.4 | 2.7 | 3.3 | 5.6 | 10.3 | 8.6 | 2.8 | 0.6 | 45.3 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.0 | 0.1 | 0.4 | 1.6 | 0.8 | 0.1 | 0.0 | 3.4 |
| Middel hastighed | 3.2 | 3.2 | 4.1 | 4.8 | 5.6 | 4.9 | 5.0 | 5.6 | 6.9 | 6.3 | 4.9 | 3.4 | 5.3 |
| Største hastighed | 10.3 | 10.3 | 11.8 | 14.5 | 16.5 | 14.4 | 15.9 | 18.0 | 21.1 | 20.1 | 15.4 | 11.8 | 21.1 |

Totalt antal observationer = 29202 Kilde: DMI

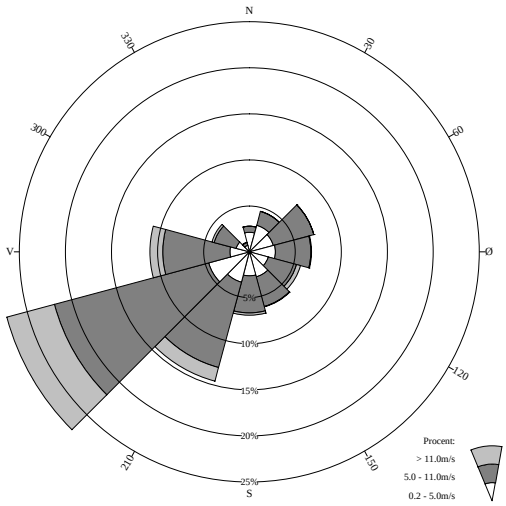
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1204 = 4.1%

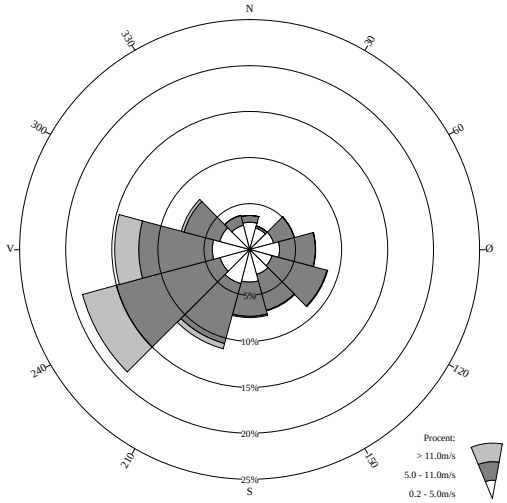
## JANUAR



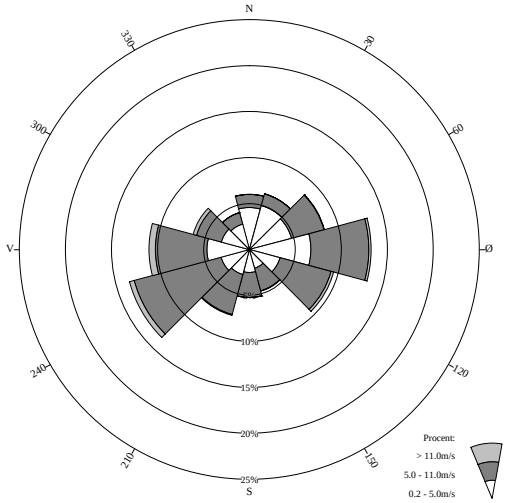

## FEBRUAR



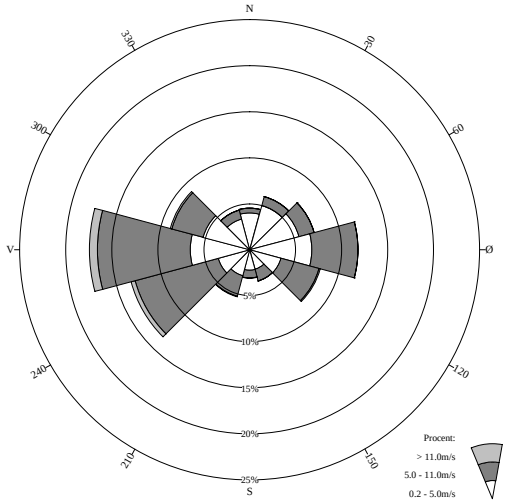

## MARTS



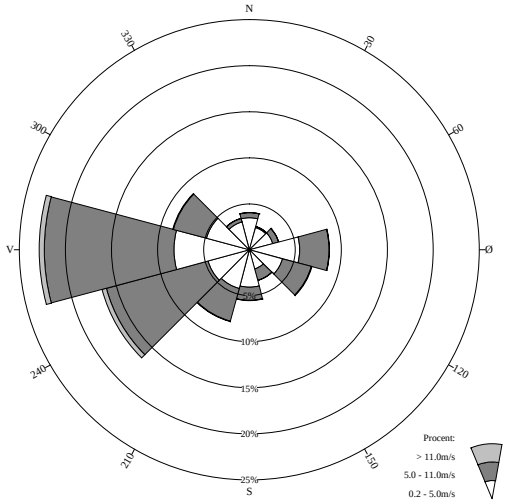

## APRIL



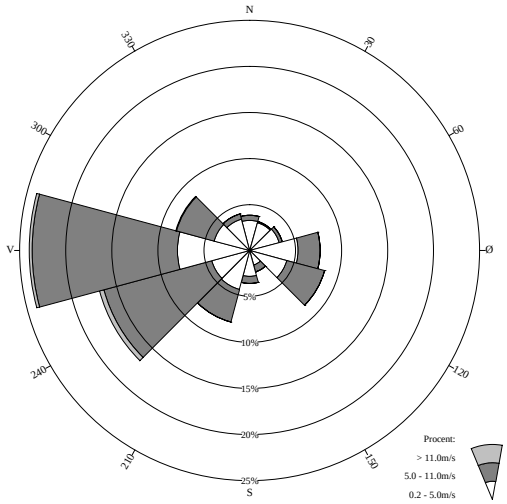

## MAJ



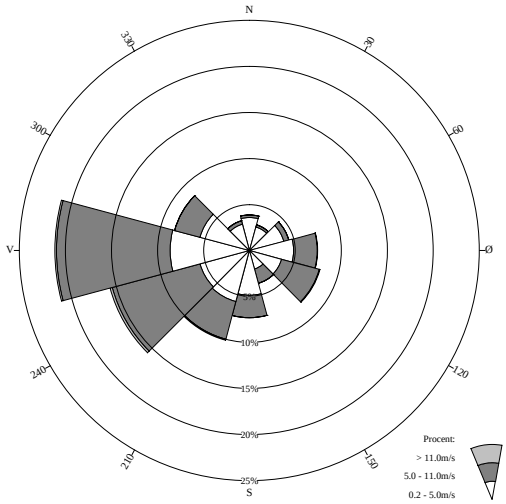

## JUNI



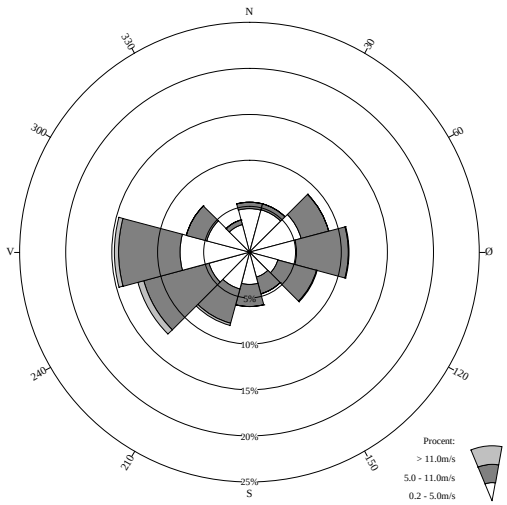
## JULI



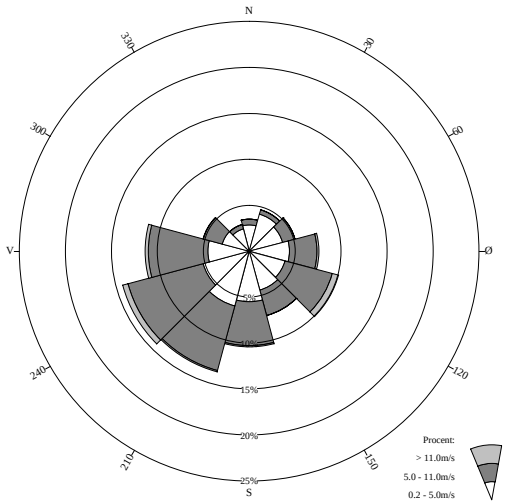

## AUGUST



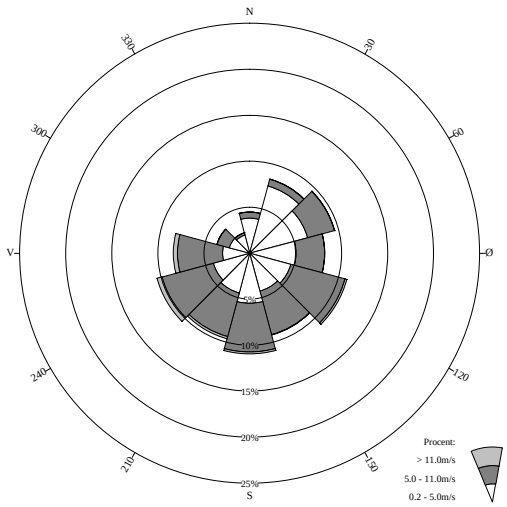

## SEPTEMBER



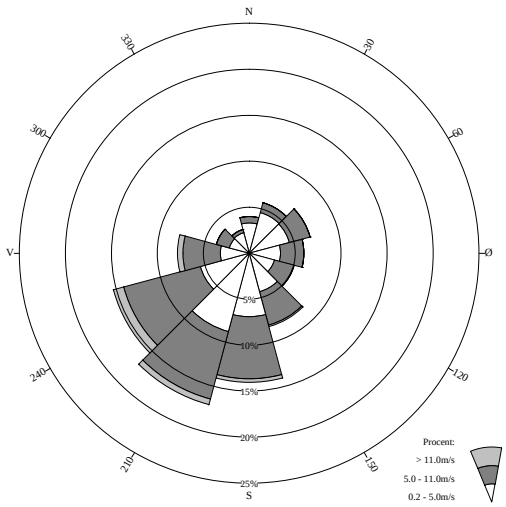

## OKTOBER




## NOVEMBER

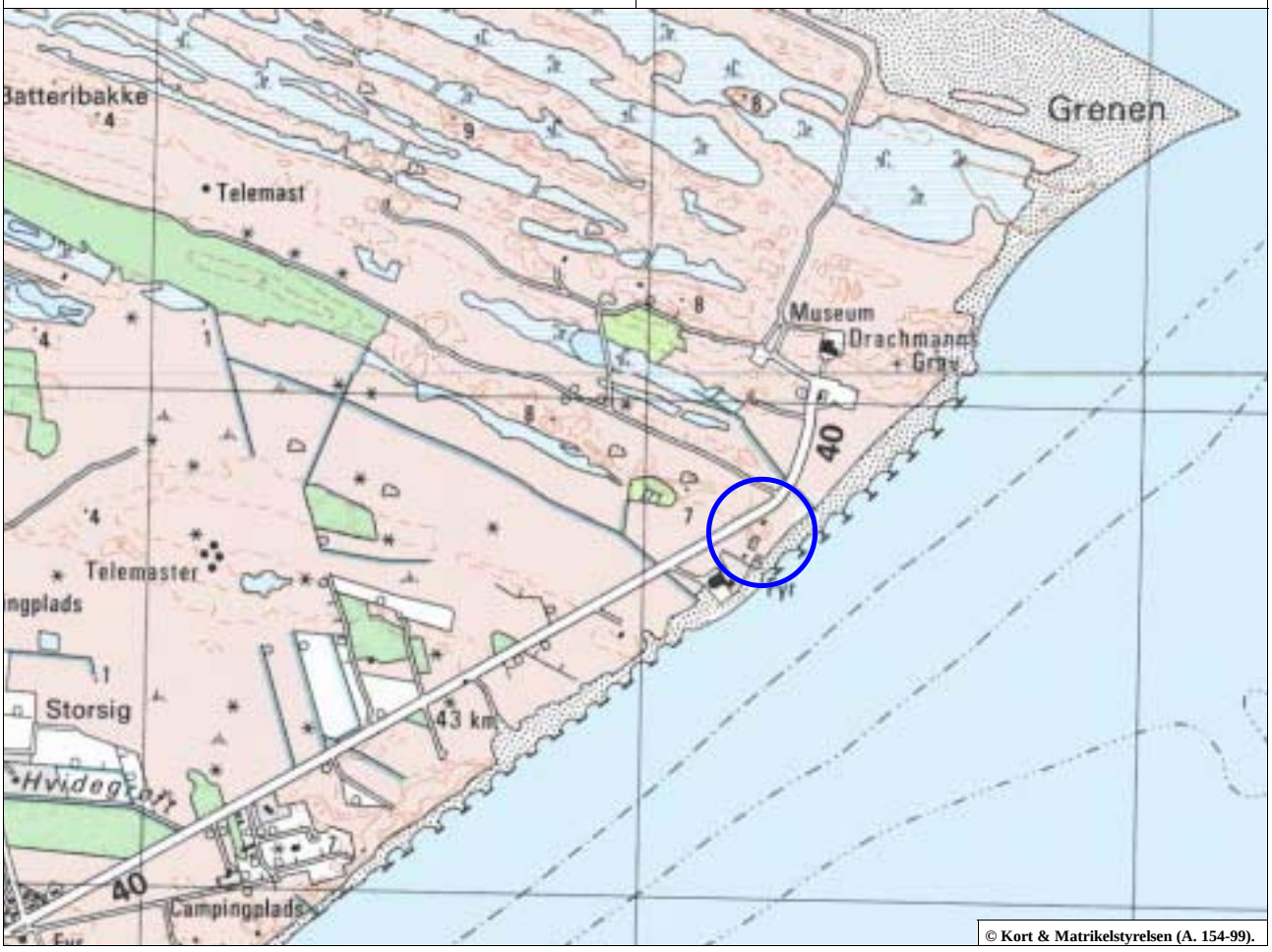



## DECEMBER



# 06041 Skagen Fyr

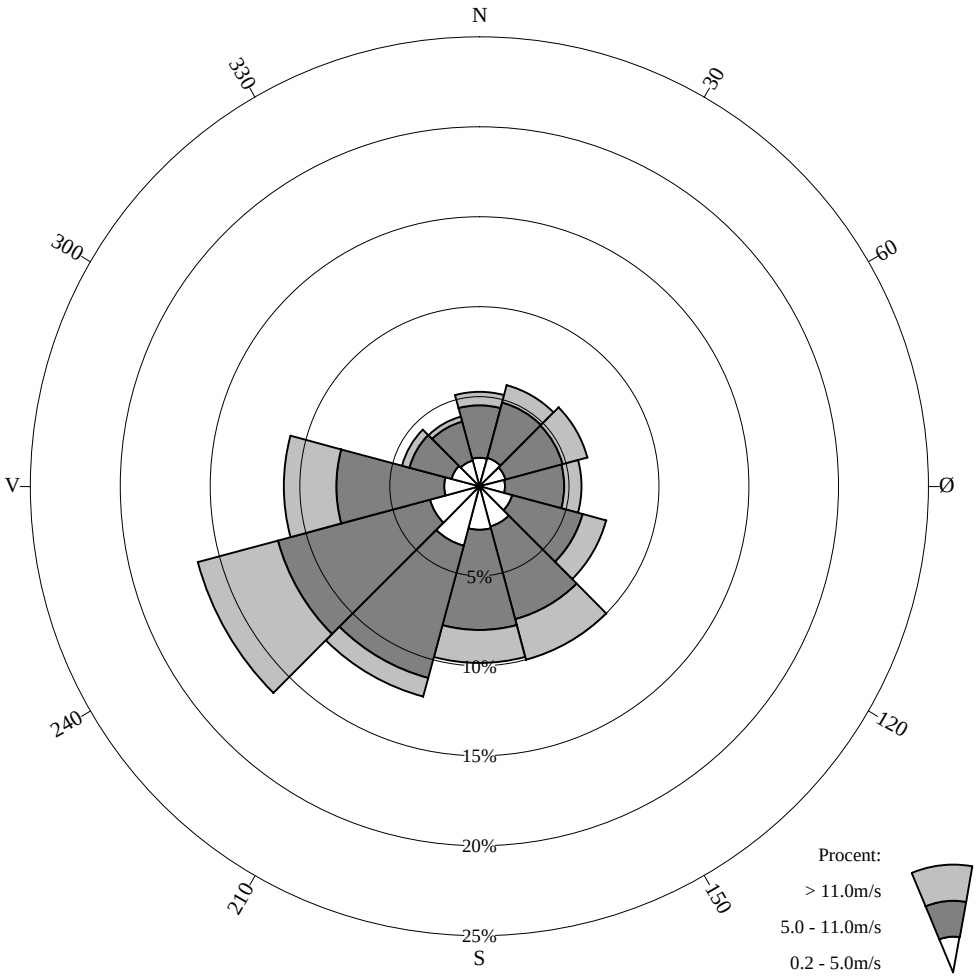
| | |
|---|---|
| **Position:** 57° 44’ N, 10° 38’ E<br>**UTM-koordinater:** 32V 6400.730N 597.240E<br>**Stationsbasis** (m.o.h.)**:** 3<br>**Vindmastbasis** (m.o.h.)**:** 8<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** nej<br><br>**Bemærkninger:** | **Position:** lat 57° 44’ N, long 10° 38’ E<br>**UTM-positions:** 32V 6400.730N 597.240E<br>**Elevation** (m.a.s.l.)**:** 3<br>**Base of wind mast** (m.a.s.l.)**:** 8<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** no<br><br>**Comments:** |



# Station 06041
# SKAGEN FYR

01-01-89 - 31-12-98

Hele perioden



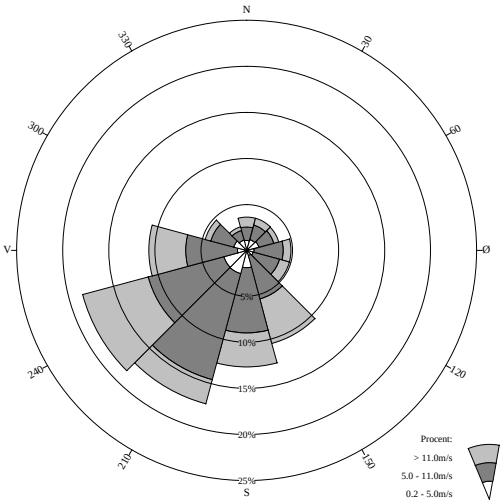

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 5.3 | 5.8 | 6.2 | 5.7 | 7.3 | 10.0 | 9.8 | 12.1 | 16.2 | 10.9 | 4.5 | 4.0 | 97.8 |
| % 0.2-5.0m/s | 1.6 | 1.6 | 1.5 | 1.4 | 1.9 | 2.3 | 2.4 | 3.4 | 2.9 | 2.0 | 1.6 | 1.5 | 24.2 |
| % 5.0-11.0m/s | 2.9 | 3.2 | 3.3 | 3.3 | 4.1 | 5.3 | 5.6 | 7.6 | 8.8 | 6.0 | 2.4 | 2.2 | 54.7 |
| % > 11.0m/s | 0.7 | 1.0 | 1.4 | 1.0 | 1.3 | 2.3 | 1.8 | 1.1 | 4.6 | 2.9 | 0.4 | 0.3 | 18.9 |
| Middel hastighed | 7.1 | 7.5 | 8.1 | 7.5 | 7.7 | 8.2 | 7.8 | 6.7 | 8.8 | 8.7 | 6.5 | 6.2 | 7.8 |
| Største hastighed | 21.2 | 23.2 | 21.6 | 21.6 | 22.1 | 24.7 | 23.7 | 20.6 | 26.8 | 23.2 | 24.1 | 21.6 | 26.8 |

Totalt antal observationer = 29197 Kilde: DMI

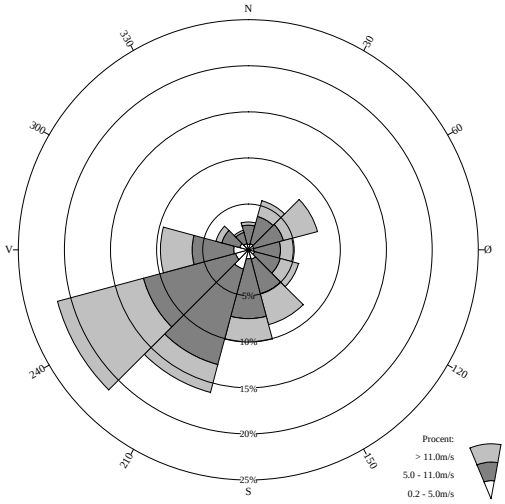
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 628 = 2.2%

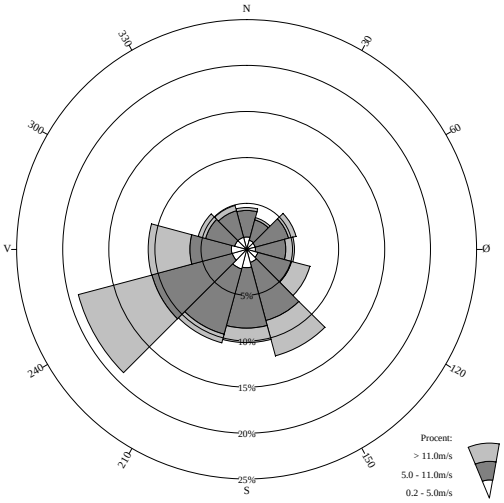
## JANUAR



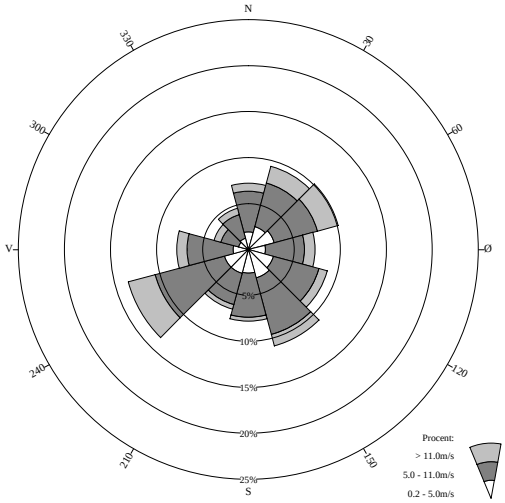

## FEBRUAR



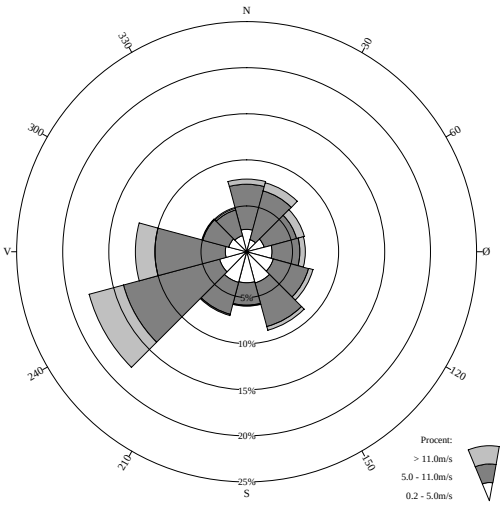

## MARTS



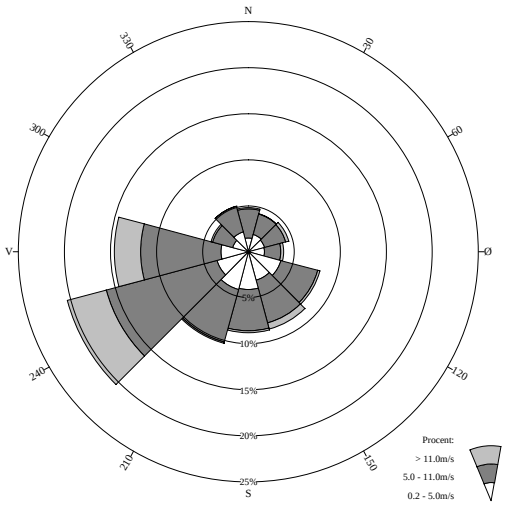

## APRIL



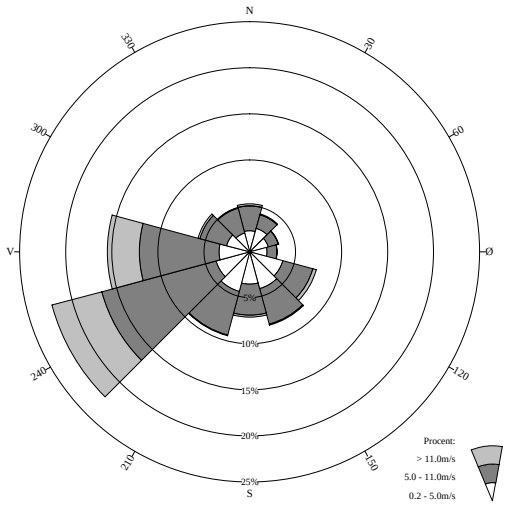

## MAJ



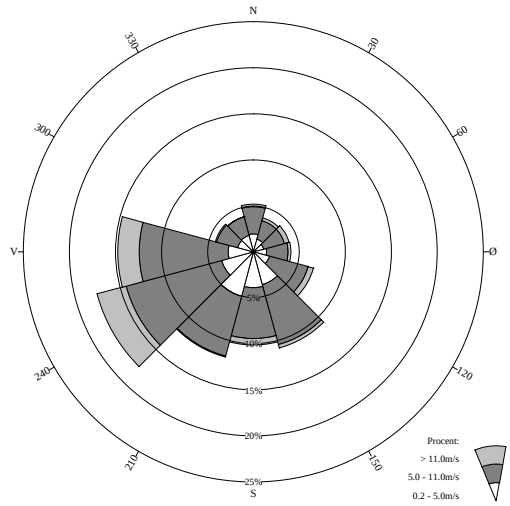

## JUNI



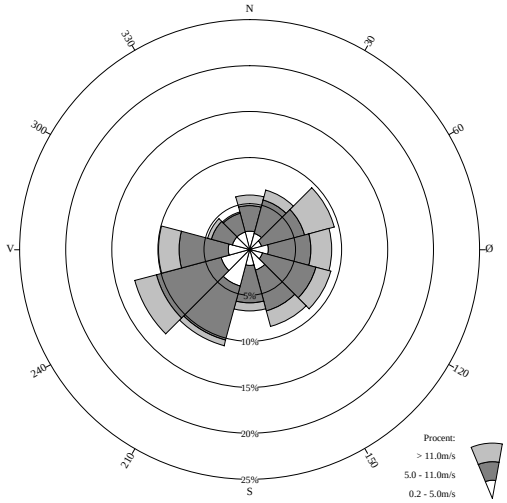
## JULI



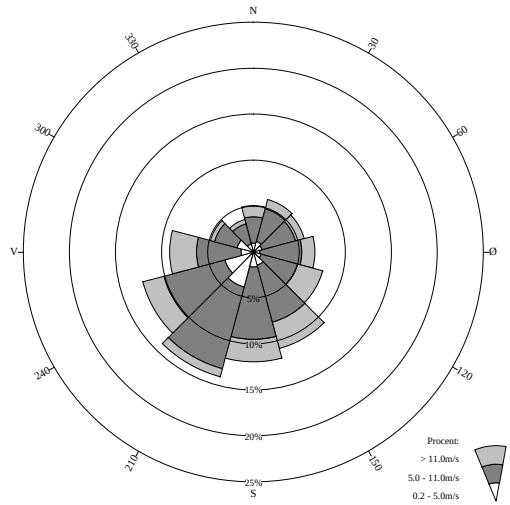

## AUGUST



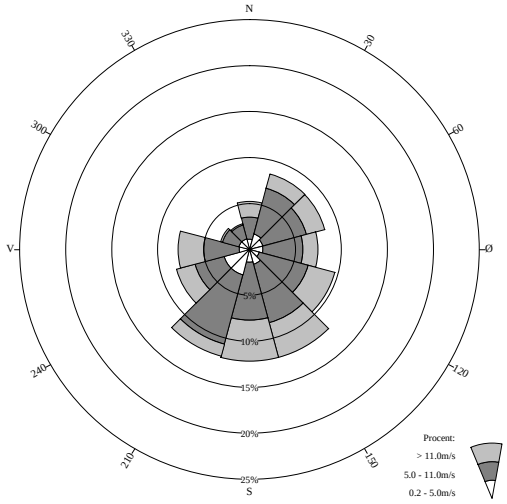

## SEPTEMBER



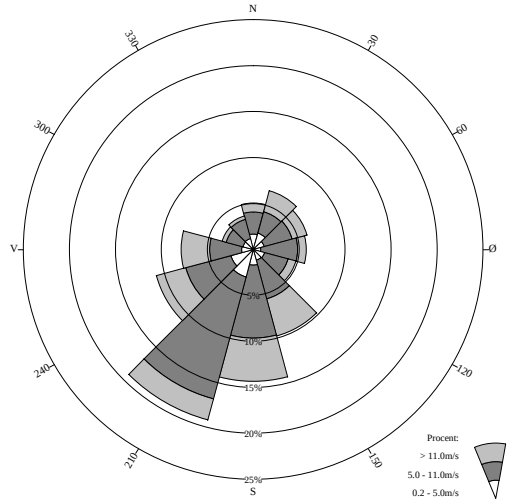

## OKTOBER




## NOVEMBER

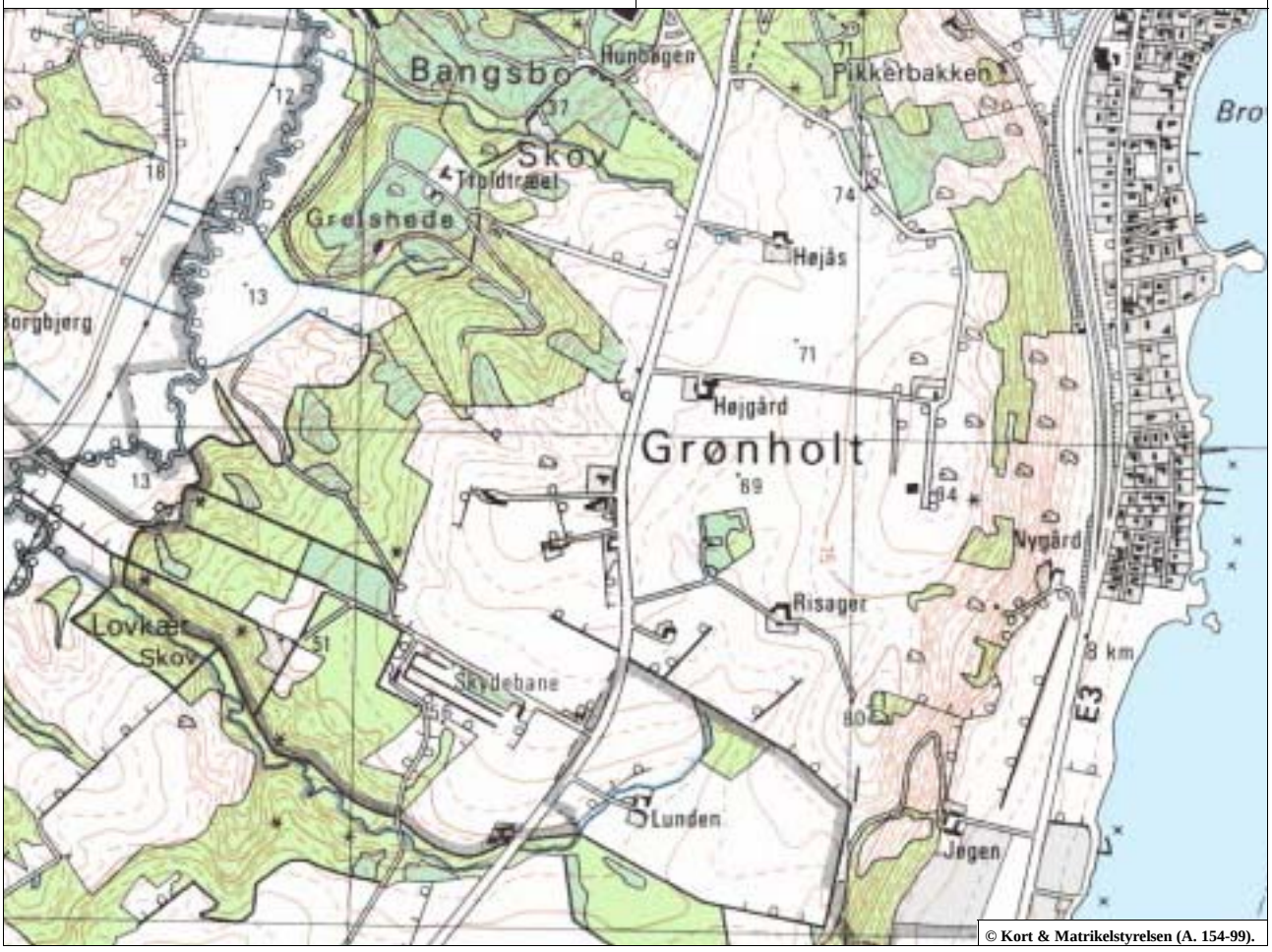



## DECEMBER



# 06043 Frederikshavn

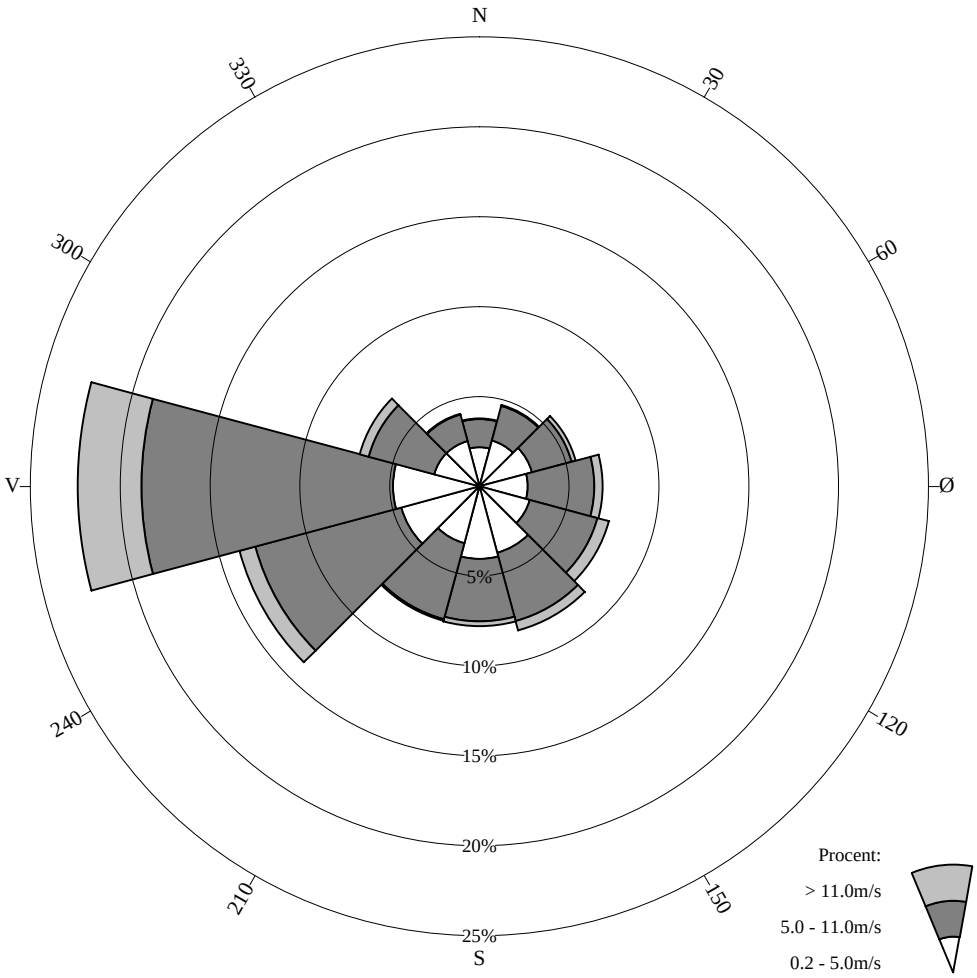
| | |
|---|---|
| **Position:** 57° 24’ N, 10° 31’ E<br>**UTM-koordinater:**<br>**Stationsbasis** (m.o.h.)**:** 83<br>**Vindmastbasis** (m.o.h.)**:** 83<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** nej<br><br>**Bemærkninger:**<br>Stationen hører under Forsvaret og er derfor ikke markeret på kortet. | **Position:** lat 57° 24’ N, long 10° 31’ E<br>**UTM-positions:**<br>**Elevation** (m.a.s.l.)**:** 83<br>**Base of wind mast** (m.a.s.l.)**:** 83<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** no<br><br>**Comments:**<br>The station belongs to the Ministry of Defence and for that reason not marked on the map. |



# Station 06043
# FREDERIKSHAVN

01-01-89 - 31-12-98

Hele perioden



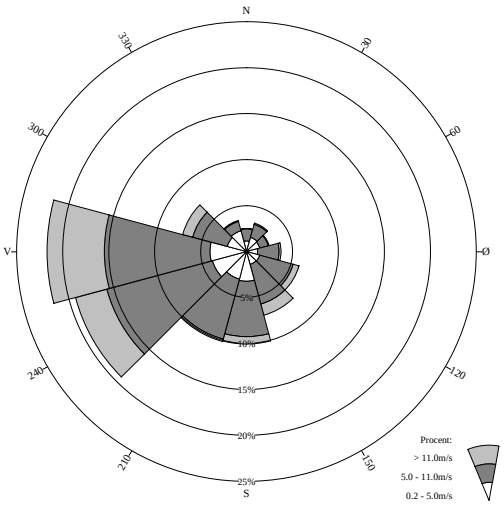

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.8 | 4.7 | 5.5 | 6.9 | 7.5 | 8.3 | 7.8 | 7.8 | 13.8 | 22.4 | 6.9 | 4.2 | 99.5 |
| % 0.2-5.0m/s | 2.2 | 2.6 | 3.0 | 2.7 | 2.9 | 3.8 | 4.0 | 3.3 | 4.5 | 4.8 | 2.6 | 2.6 | 39.2 |
| % 5.0-11.0m/s | 1.6 | 2.0 | 2.3 | 3.7 | 3.9 | 3.9 | 3.5 | 4.4 | 8.4 | 14.0 | 3.8 | 1.5 | 52.9 |
| % > 11.0m/s | 0.0 | 0.1 | 0.2 | 0.5 | 0.7 | 0.5 | 0.3 | 0.1 | 0.9 | 3.5 | 0.5 | 0.0 | 7.4 |
| Middel hastighed | 4.9 | 4.9 | 5.1 | 6.1 | 6.4 | 5.8 | 5.2 | 5.4 | 6.4 | 7.7 | 6.2 | 4.5 | 6.1 |
| Største hastighed | 13.9 | 16.0 | 18.5 | 19.0 | 20.1 | 21.1 | 21.1 | 14.9 | 25.0 | 22.6 | 19.5 | 15.5 | 25.0 |

Totalt antal observationer = 81882 Kilde: DMI

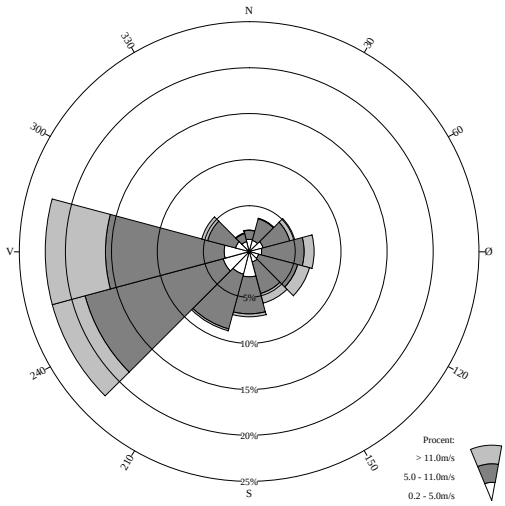
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 416 = 0.5%

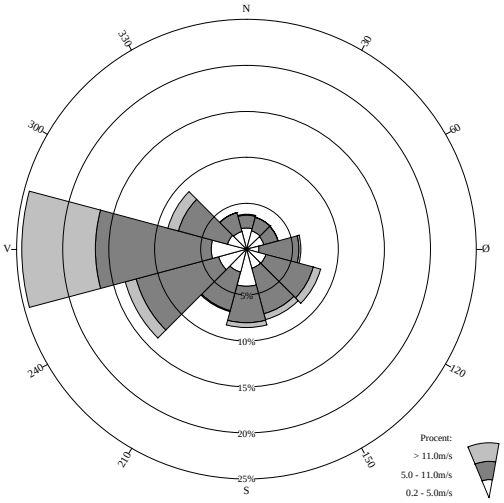
## JANUAR



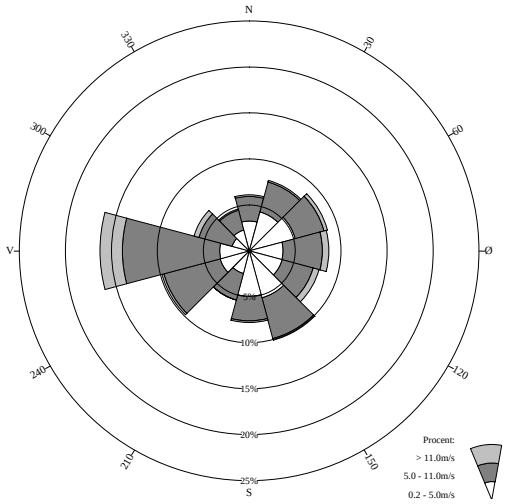

## FEBRUAR



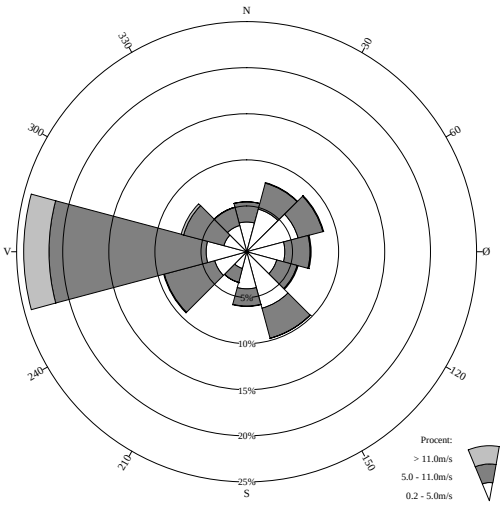

## MARTS



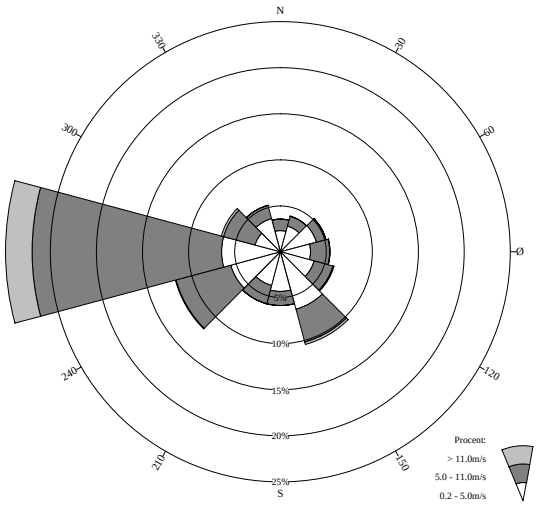

## APRIL



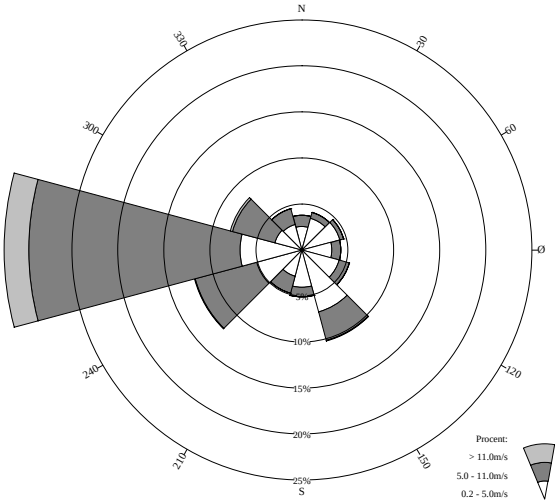

## MAJ



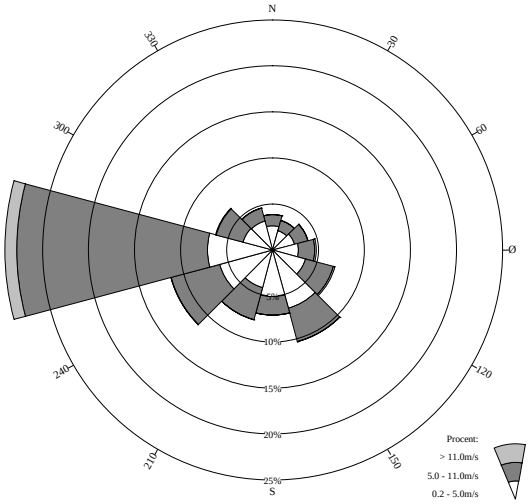

## JUNI



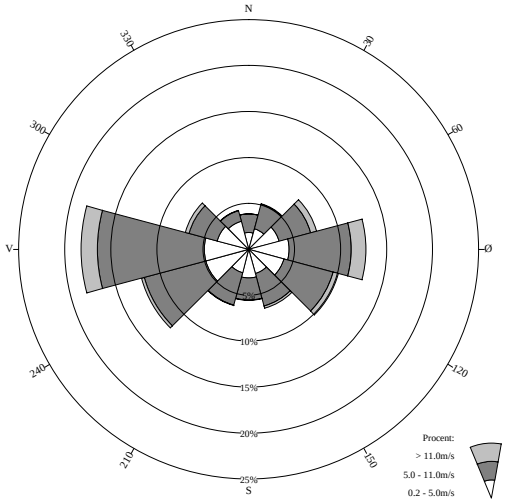
## JULI



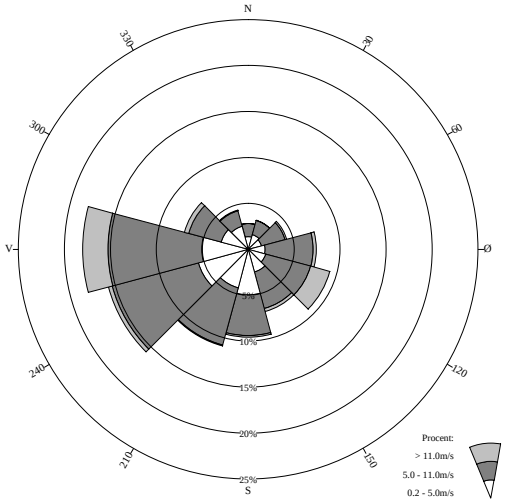

## AUGUST



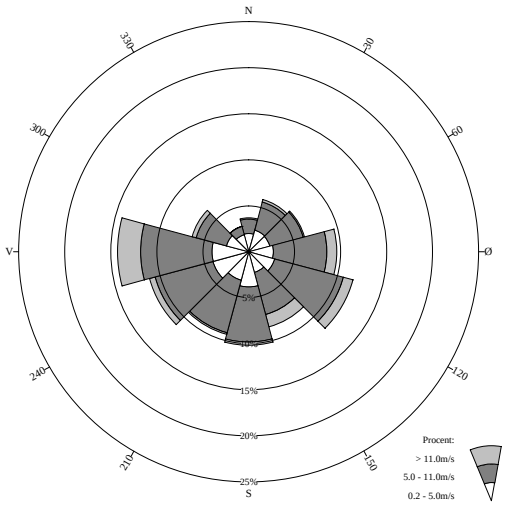

## SEPTEMBER



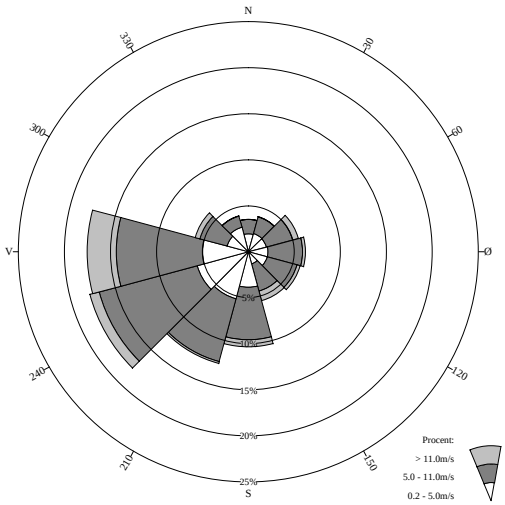

## OKTOBER




## NOVEMBER

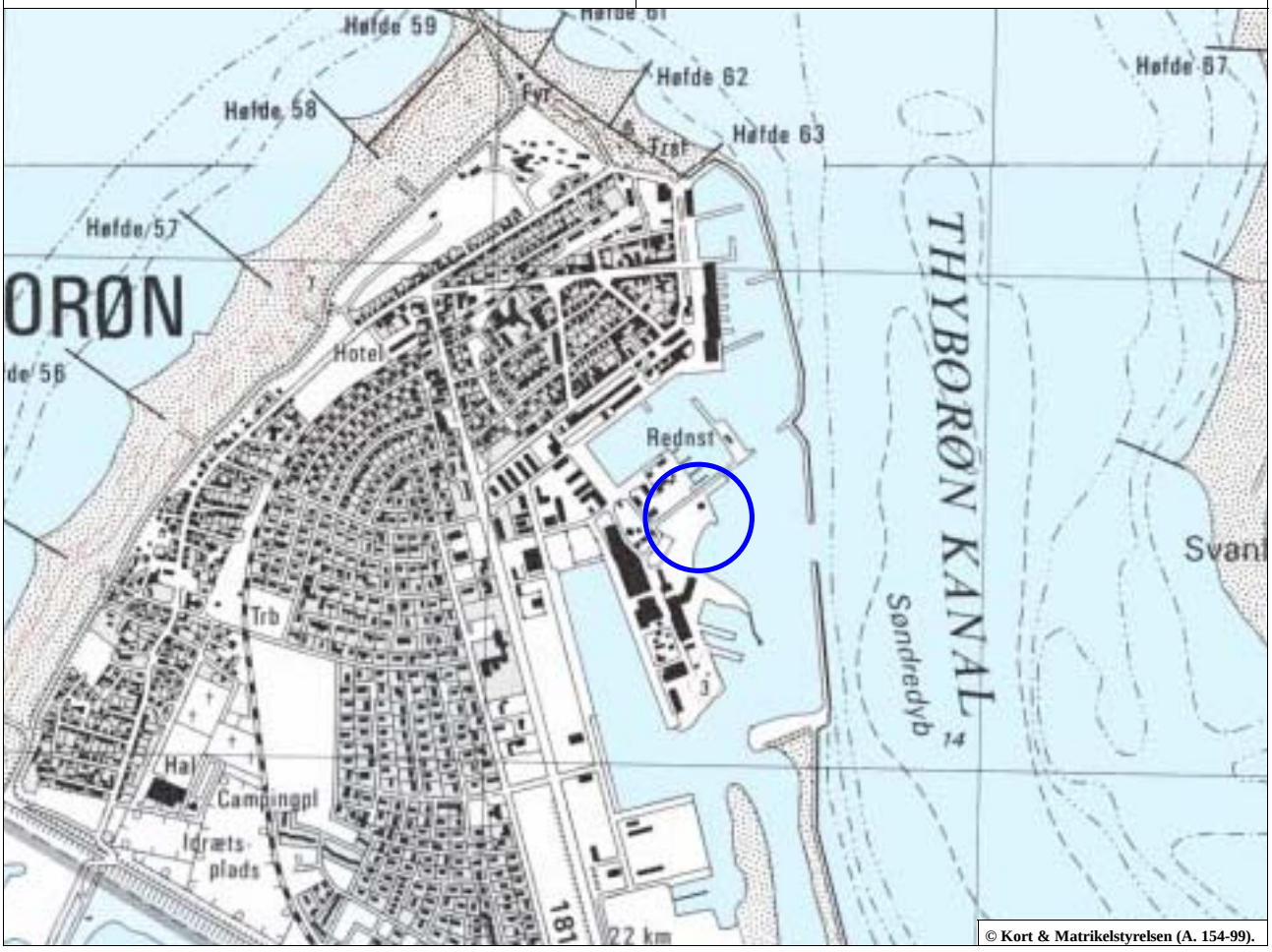



## DECEMBER



# 06052 Thyborøn

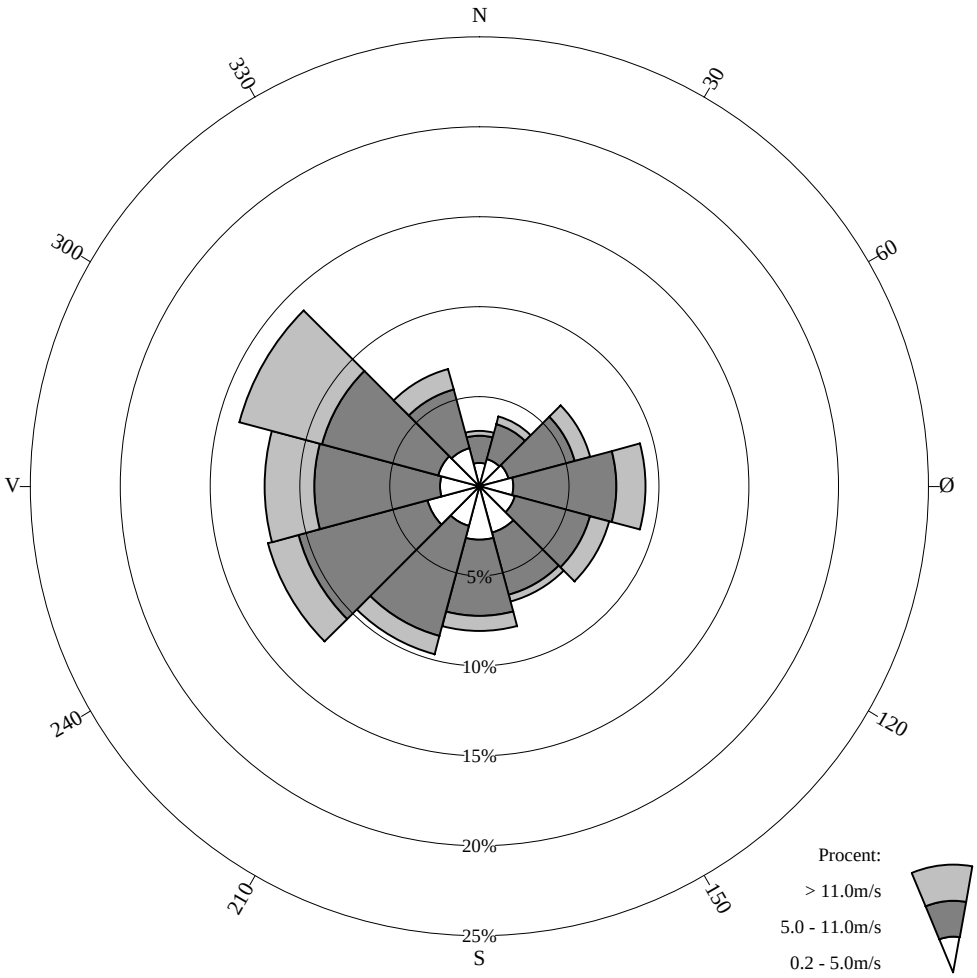
| | |
|---|---|
| **Position:** 56° 42’ N, 08° 13’ E<br>**UTM-koordinater:** 32V 6284.510N 452.410E<br>**Stationsbasis** (m.o.h.)**:** 2<br>**Vindmastbasis** (m.o.h.)**:** 2<br>**Vindmålehøjde:** 31 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** nej<br><br>**Bemærkninger:** | **Position:** lat 56° 42’ N, long 08° 13’ E<br>**UTM-positions:** 32V 6284.510N 452.410E<br>**Elevation** (m.a.s.l.)**:** 2<br>**Base of wind mast** (m.a.s.l.)**:** 2<br>**Level of measurement:** 31 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** no<br><br>**Comments:** |



# Station 06052
# THYBORØN

01-01-89 - 31-12-98

Hele perioden



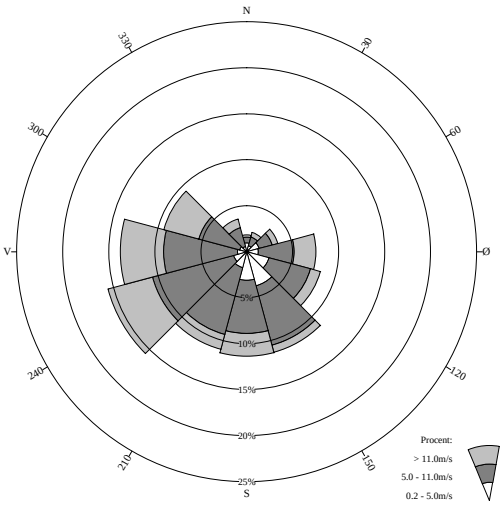

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.1 | 4.0 | 6.4 | 9.3 | 7.5 | 6.6 | 8.1 | 9.7 | 12.2 | 12.0 | 13.8 | 6.8 | 99.4 |
| % 0.2-5.0m/s | 1.3 | 1.6 | 1.7 | 1.9 | 2.1 | 2.7 | 3.0 | 2.3 | 3.0 | 2.2 | 2.4 | 2.2 | 26.3 |
| % 5.0-11.0m/s | 1.5 | 2.0 | 3.8 | 5.7 | 4.3 | 3.6 | 4.2 | 6.3 | 7.4 | 7.0 | 6.7 | 3.4 | 56.0 |
| % > 11.0m/s | 0.3 | 0.4 | 0.9 | 1.6 | 1.1 | 0.4 | 0.8 | 1.1 | 1.8 | 2.8 | 4.8 | 1.2 | 17.1 |
| Middel hastighed | 6.0 | 6.3 | 7.2 | 7.6 | 7.2 | 5.8 | 6.3 | 7.1 | 7.3 | 8.3 | 9.2 | 7.0 | 7.4 |
| Største hastighed | 18.5 | 22.1 | 19.0 | 20.6 | 20.6 | 16.5 | 21.6 | 20.6 | 23.7 | 32.9 | 30.9 | 21.6 | 32.9 |

Totalt antal observationer = 29201 Kilde: DMI

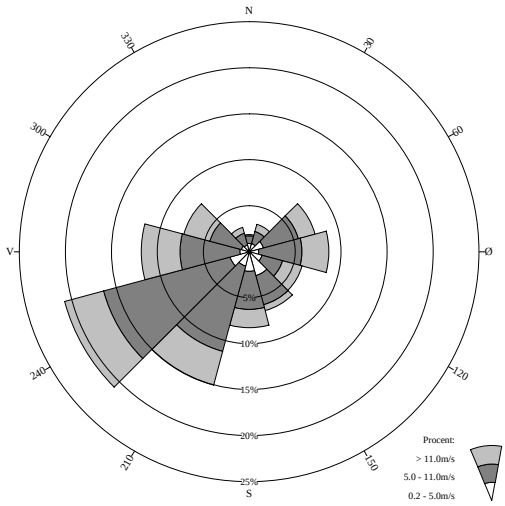
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 178 = 0.6%

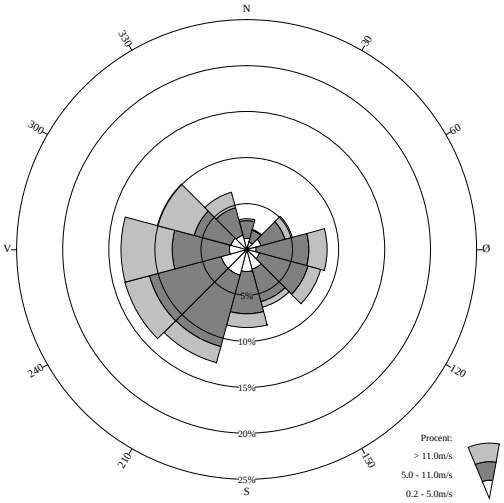
## JANUAR



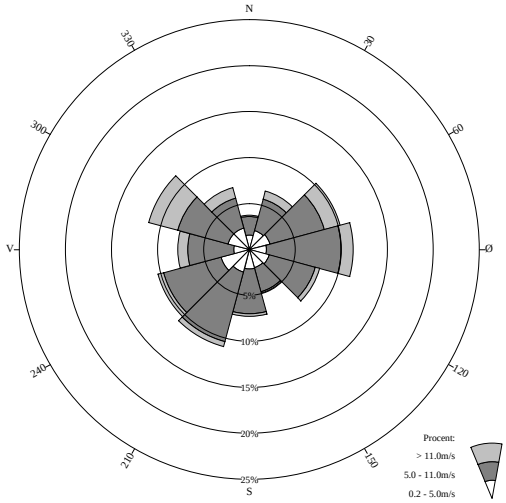

## FEBRUAR



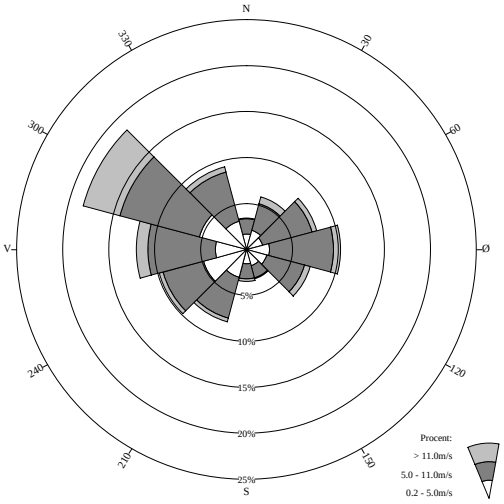

## MARTS



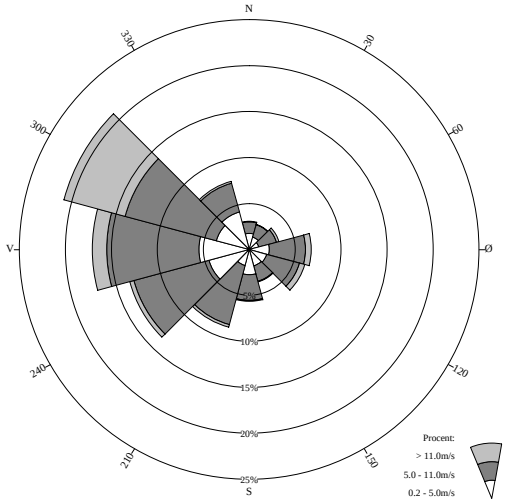

## APRIL



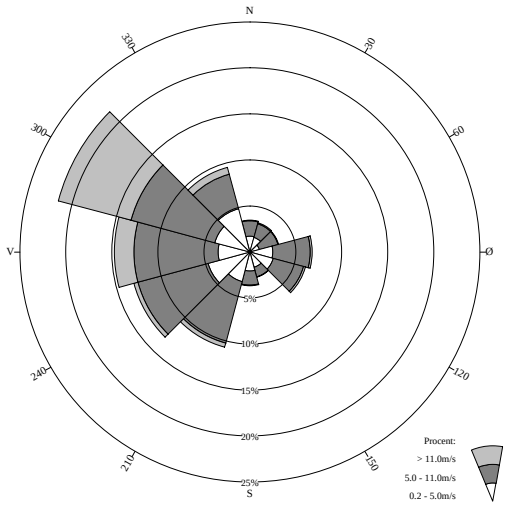

## MAJ



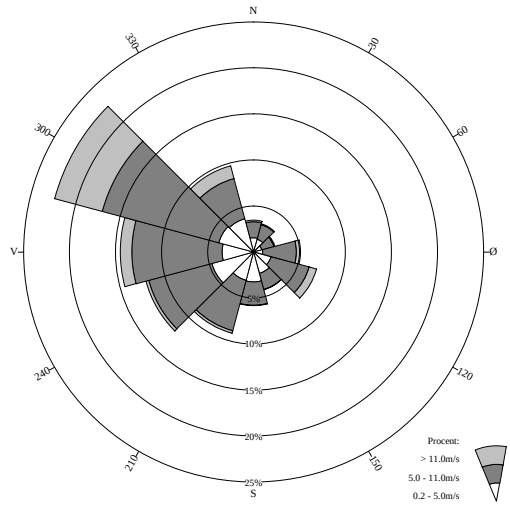

## JUNI



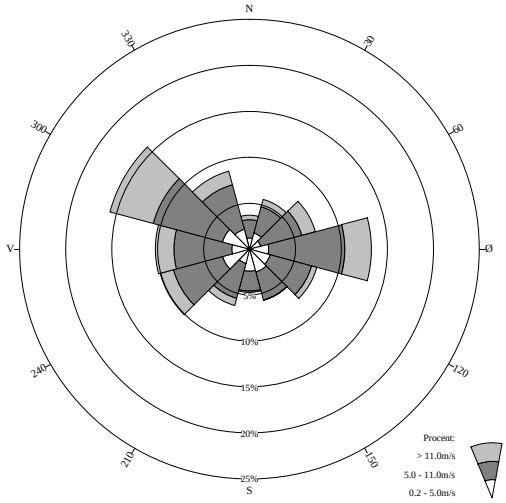
## JULI



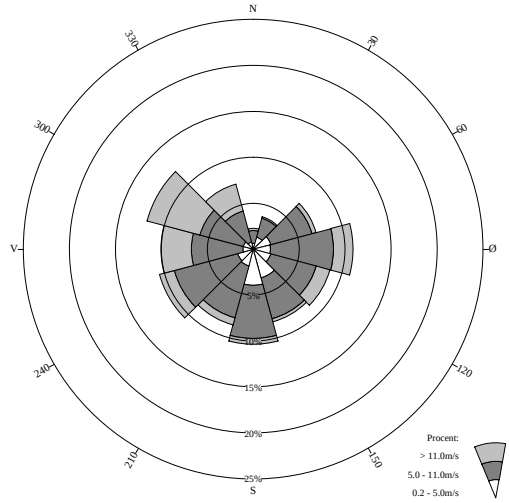

## AUGUST



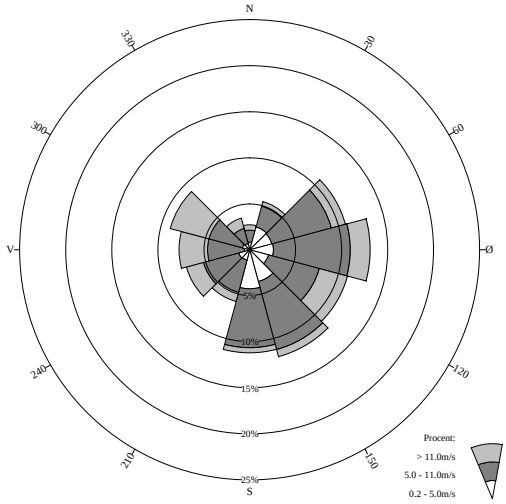

## SEPTEMBER



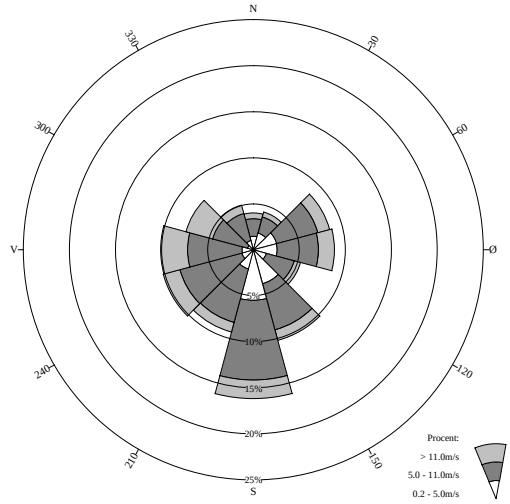

## OKTOBER




## NOVEMBER

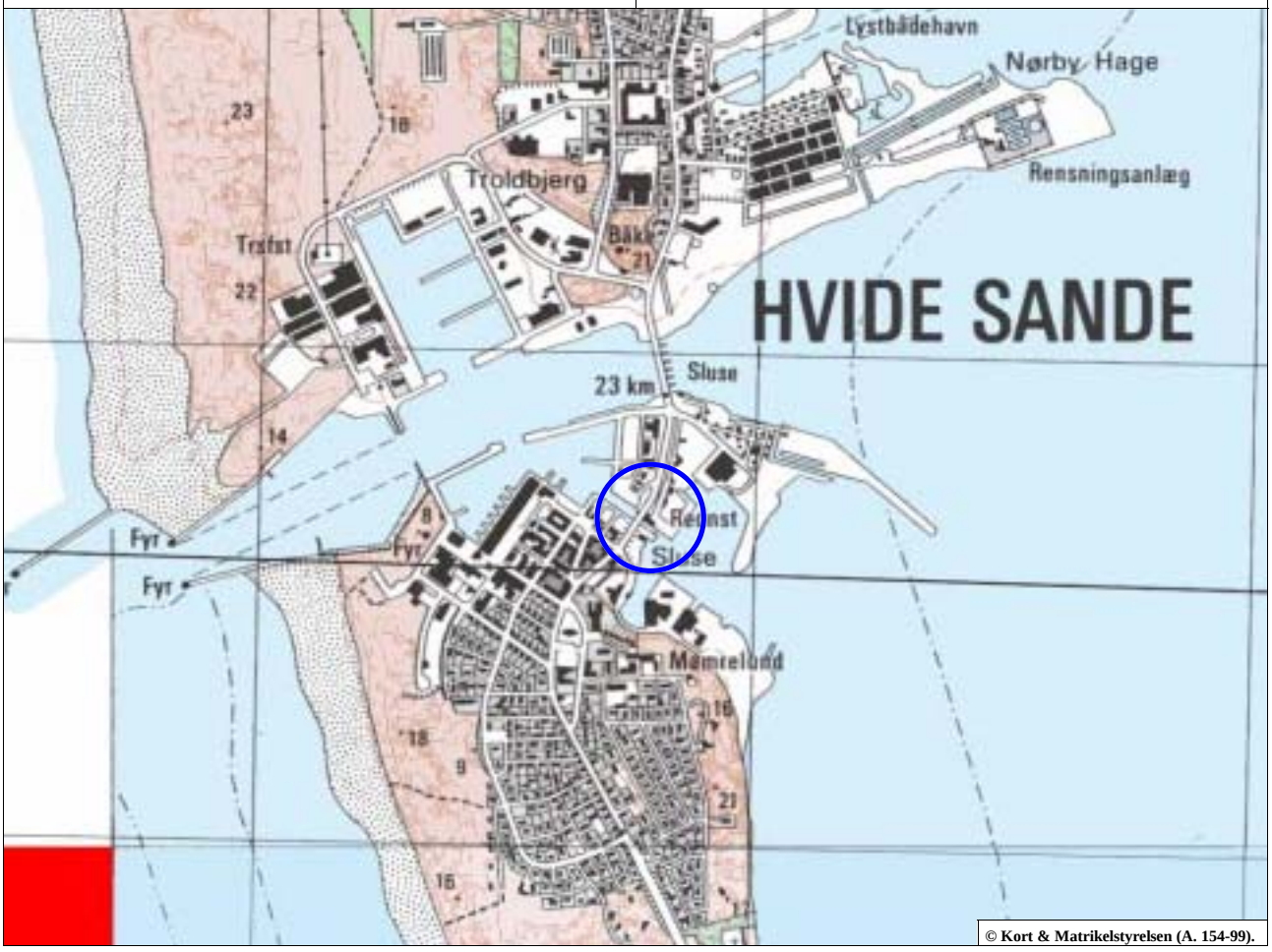



## DECEMBER



# 06058 Hvide Sande

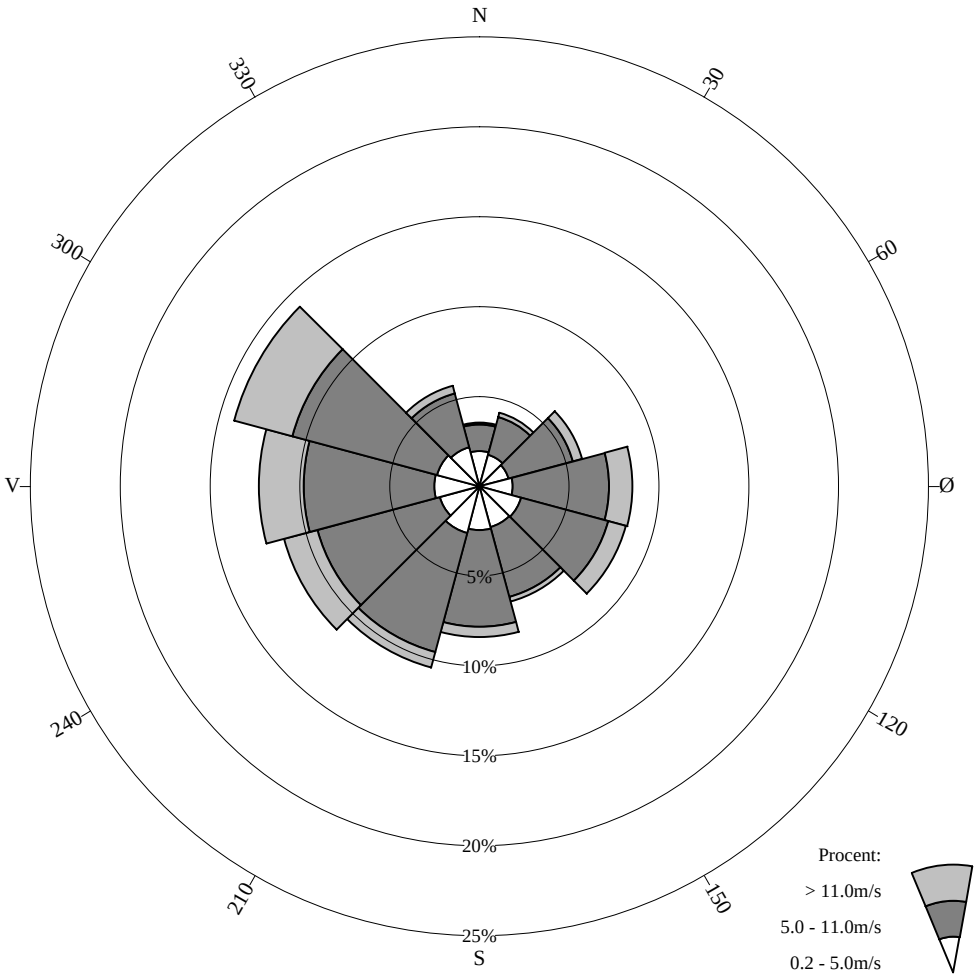
| | |
|---|---|
| **Position:** 56° 00’ N, 08° 08’ E<br>**UTM-koordinater:** 32V 6206.680N 445.780E<br>**Stationsbasis** (m.o.h.)**:** 3<br>**Vindmastbasis** (m.o.h.)**:** 3<br>**Vindmålehøjde:** 26 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Dataserien omfatter perioden 10.01.89-31.12.98. | **Position:** lat 56° 00’ N, long 08° 08’ E<br>**UTM-positions:** 32V 6206.680N 445.780E<br>**Elevation** (m.a.s.l.)**:** 3<br>**Base of wind mast** (m.a.s.l.)**:** 3<br>**Level of measurement:** 26 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>The data series covers the period 10.01.89-31.12.98. |



# Station 06058
# HVIDE SANDE

10-01-89 - 31-12-98

Hele perioden



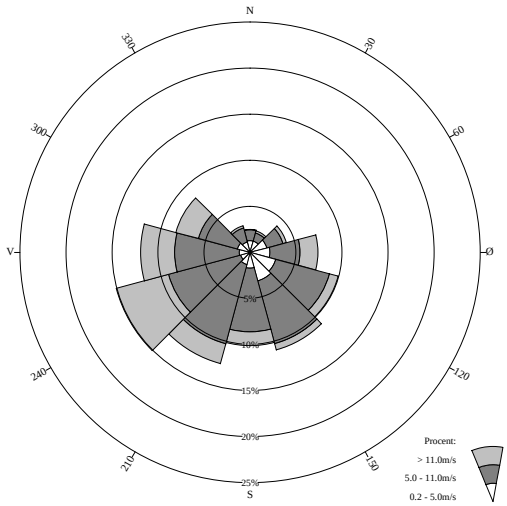

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.5 | 4.2 | 5.9 | 8.5 | 8.4 | 6.6 | 8.4 | 10.4 | 11.3 | 12.3 | 14.1 | 5.8 | 99.7 |
| % 0.2-5.0m/s | 2.0 | 1.8 | 1.7 | 1.9 | 2.4 | 2.4 | 2.4 | 2.7 | 2.3 | 2.5 | 2.5 | 2.3 | 26.8 |
| % 5.0-11.0m/s | 1.5 | 2.2 | 3.7 | 5.4 | 5.0 | 4.0 | 5.4 | 6.9 | 7.1 | 7.3 | 8.3 | 3.1 | 59.8 |
| % > 11.0m/s | 0.1 | 0.2 | 0.5 | 1.3 | 1.0 | 0.3 | 0.6 | 0.9 | 1.9 | 2.5 | 3.4 | 0.4 | 13.1 |
| Middel hastighed | 5.0 | 5.7 | 6.8 | 7.6 | 7.0 | 6.0 | 6.5 | 6.9 | 7.9 | 8.1 | 8.4 | 6.2 | 7.2 |
| Største hastighed | 16.0 | 17.6 | 25.8 | 19.6 | 18.5 | 18.1 | 17.0 | 22.6 | 26.2 | 26.8 | 26.2 | 22.7 | 26.8 |

Totalt antal observationer = 82663 Kilde: DMI

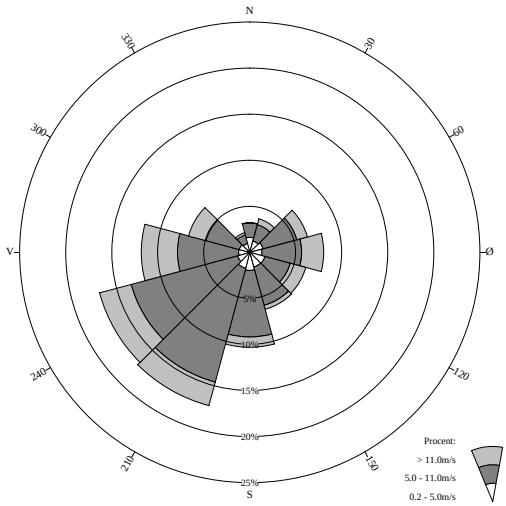
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 288 = 0.3%

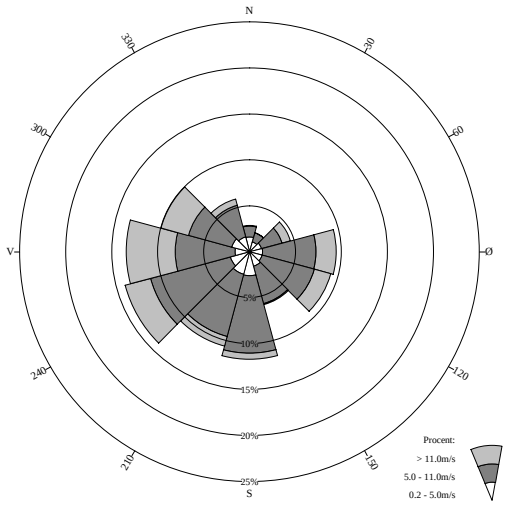
## JANUAR



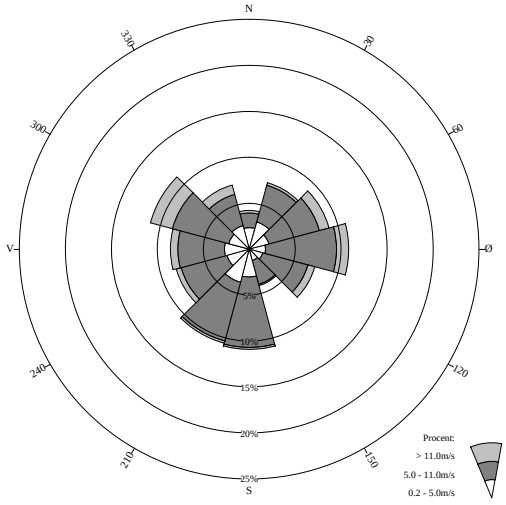

## FEBRUAR



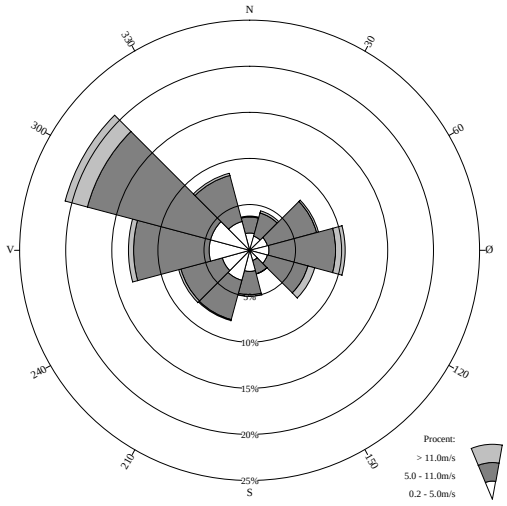

## MARTS



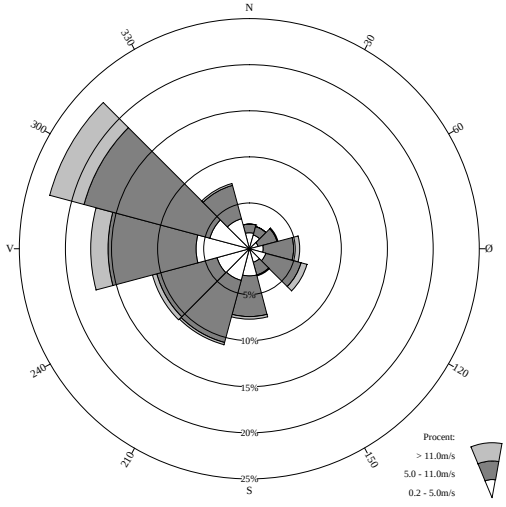

## APRIL



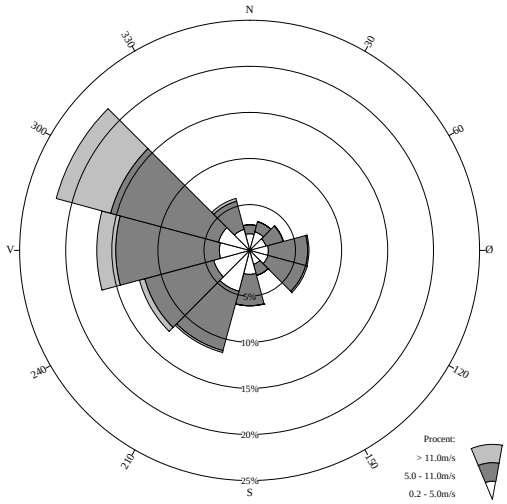

## MAJ



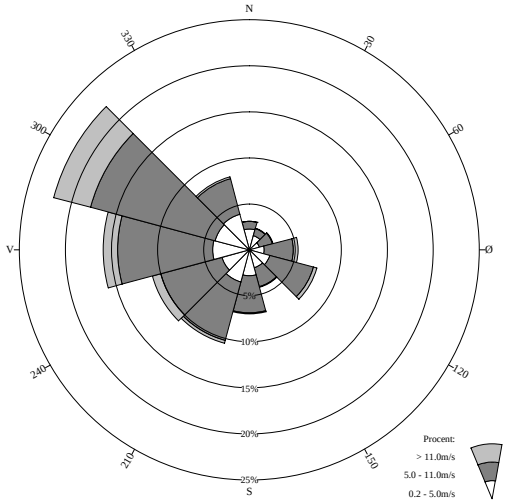

## JUNI



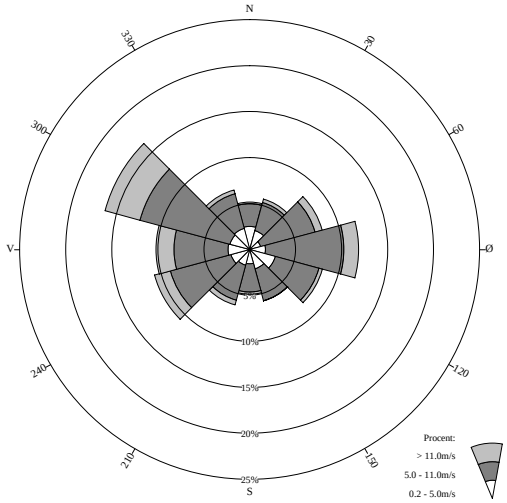
## JULI



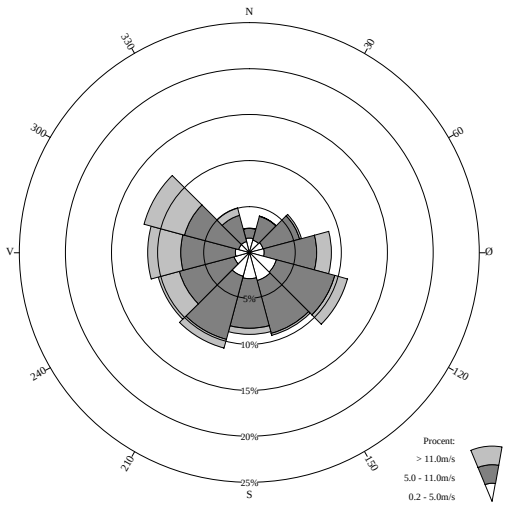

## AUGUST



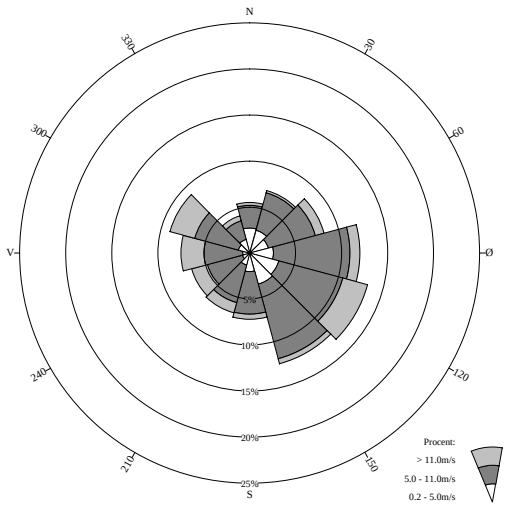

## SEPTEMBER



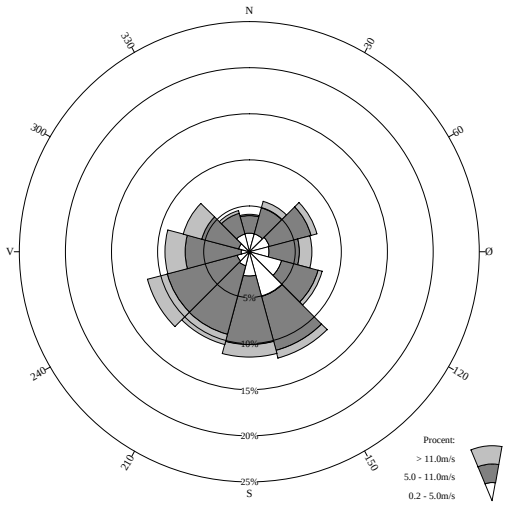

## OKTOBER




## NOVEMBER

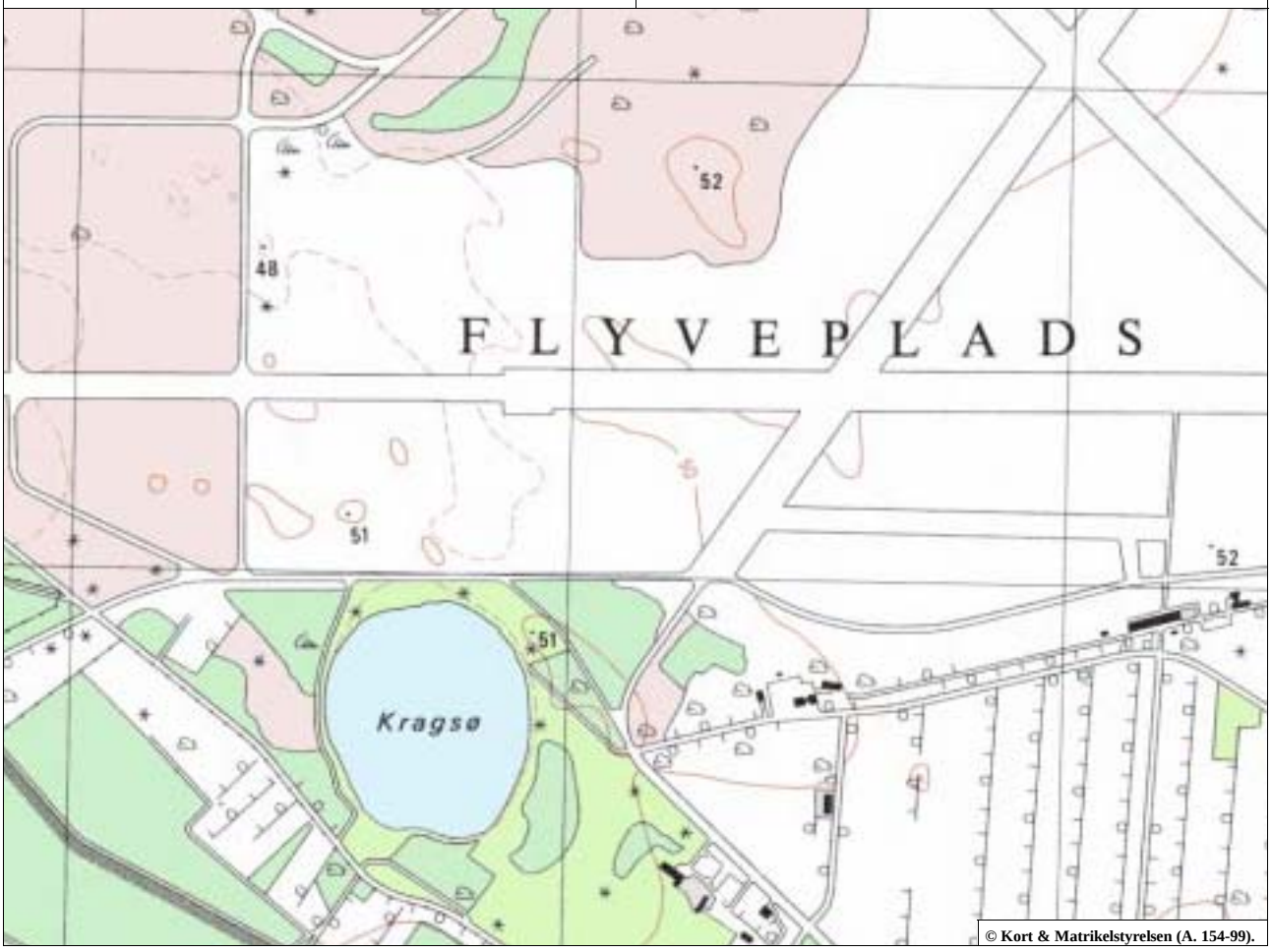



## DECEMBER



# 06060 FSN Karup

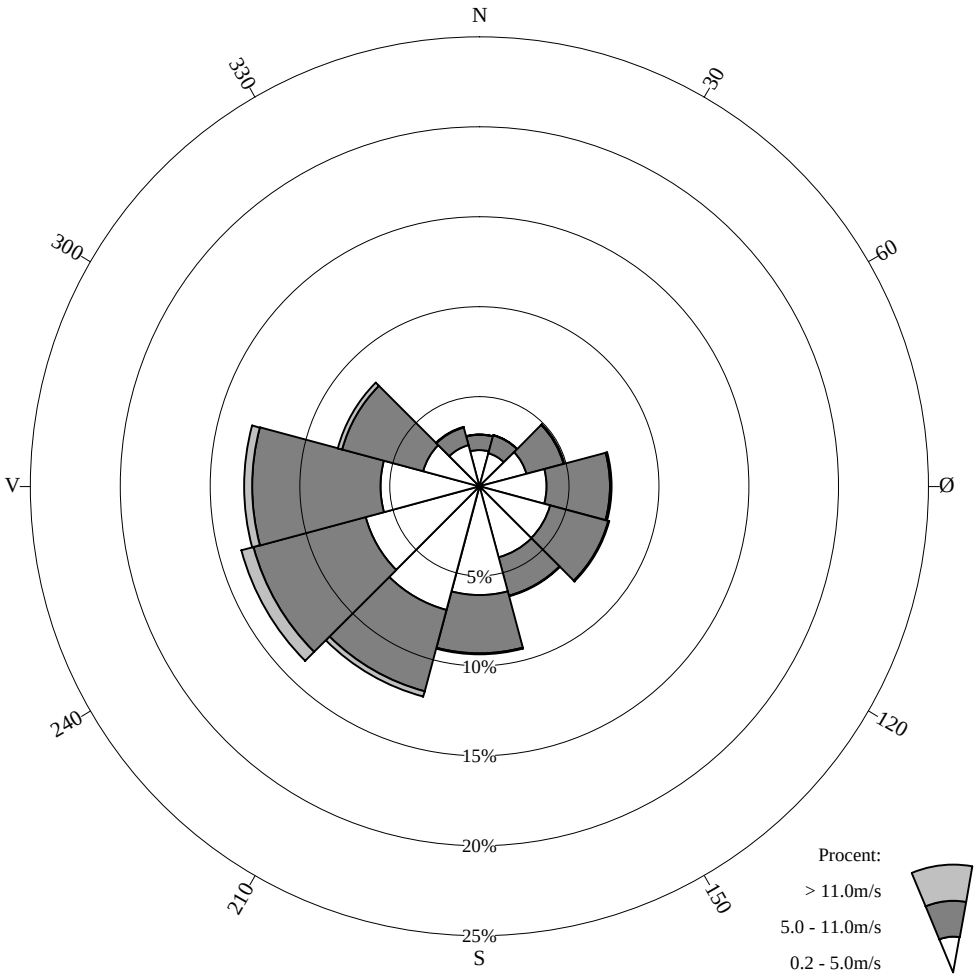
| | |
|---|---|
| **Position:** 56° 18’ N, 09° 07’ E<br>**UTM-koordinater:**<br>**Stationsbasis** (m.o.h.)**:** 52<br>**Vindmastbasis** (m.o.h.)**:** 52<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Stationen hører under Forsvaret og er derfor ikke markeret på kortet. | **Position:** lat 56° 18’ N, long 09° 07’ E<br>**UTM-positions:**<br>**Elevation** (m.a.s.l.)**:** 52<br>**Base of wind mast** (m.a.s.l.)**:** 52<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>The station belongs to the Ministry of Defence and for that reason not marked on the map. |



# Station 06060
# FSN KARUP

01-01-89 - 31-12-98

Hele perioden



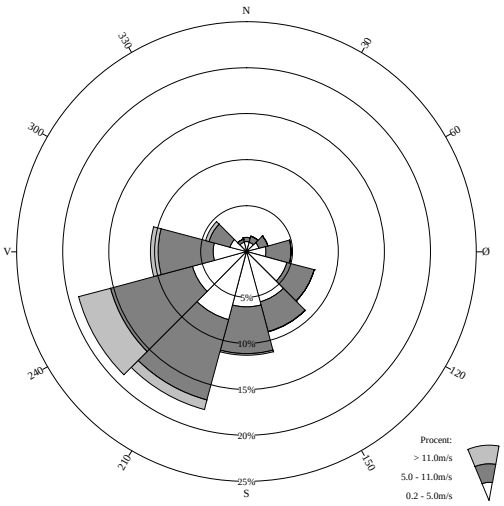

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 2.9 | 3.0 | 4.9 | 7.4 | 7.5 | 6.3 | 9.3 | 12.1 | 13.7 | 13.1 | 8.2 | 3.4 | 91.8 |
| % 0.2-5.0m/s | 2.0 | 1.9 | 2.7 | 3.8 | 4.1 | 4.1 | 6.1 | 7.1 | 6.6 | 5.5 | 3.3 | 2.4 | 49.5 |
| % 5.0-11.0m/s | 0.9 | 1.0 | 2.1 | 3.5 | 3.4 | 2.2 | 3.2 | 4.7 | 6.5 | 7.1 | 4.7 | 1.0 | 40.3 |
| % > 11.0m/s | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.3 | 0.7 | 0.5 | 0.3 | 0.0 | 2.0 |
| Middel hastighed | 4.0 | 4.4 | 4.8 | 5.1 | 4.9 | 4.4 | 4.5 | 4.9 | 5.6 | 5.7 | 5.7 | 4.1 | 5.1 |
| Største hastighed | 13.4 | 12.9 | 16.5 | 13.4 | 13.9 | 13.9 | 14.9 | 17.5 | 22.1 | 23.1 | 17.5 | 15.0 | 23.1 |

Totalt antal observationer = 29183 Kilde: DMI

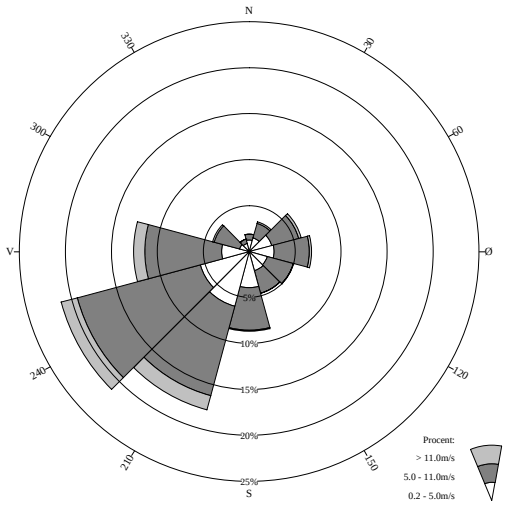
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 2380 = 8.2%

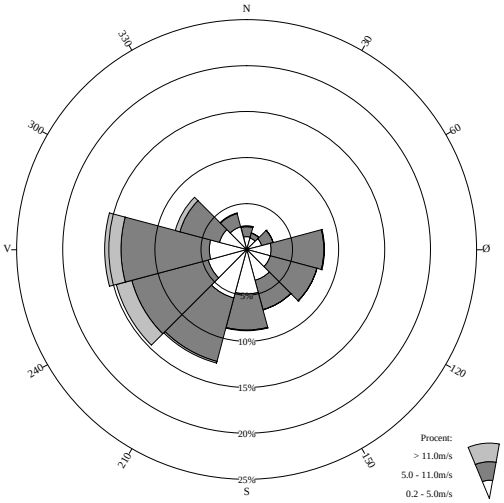
## JANUAR



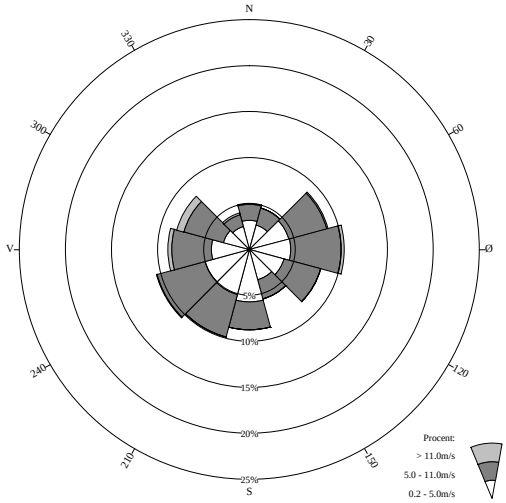

## FEBRUAR



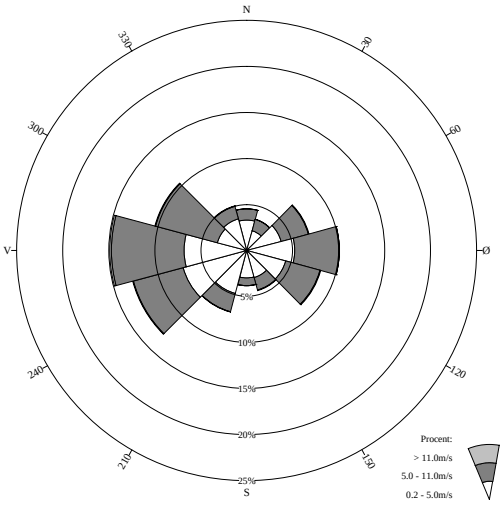

## MARTS



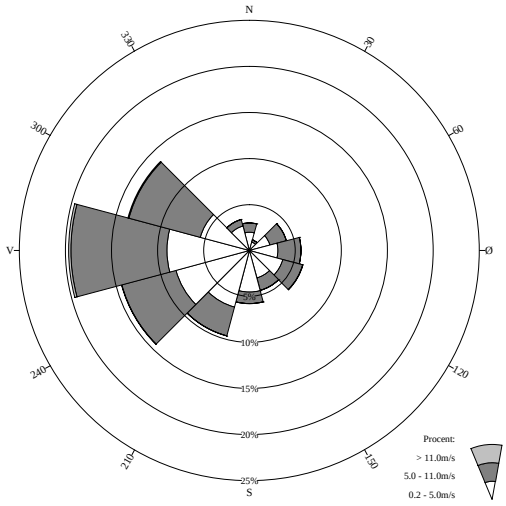

## APRIL



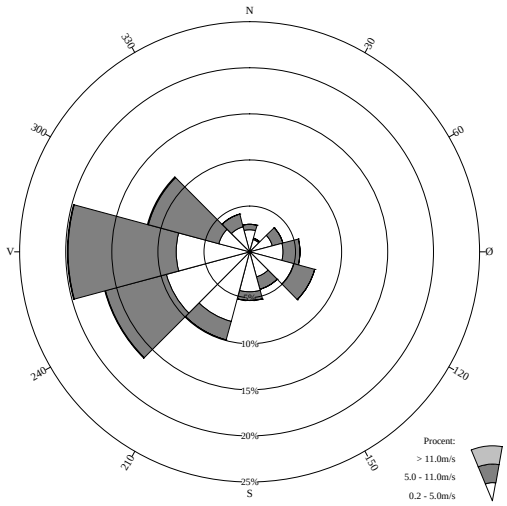

## MAJ



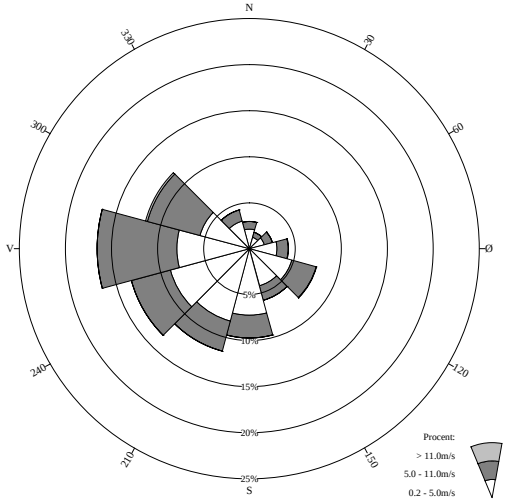

## JUNI



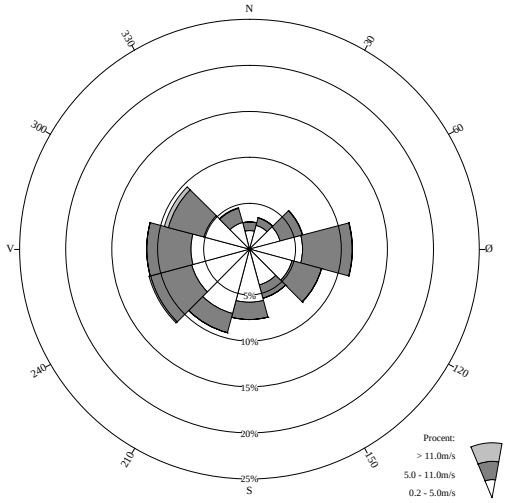
## JULI



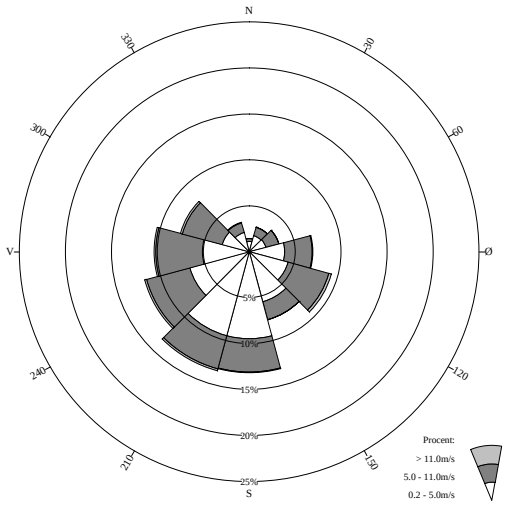

## AUGUST



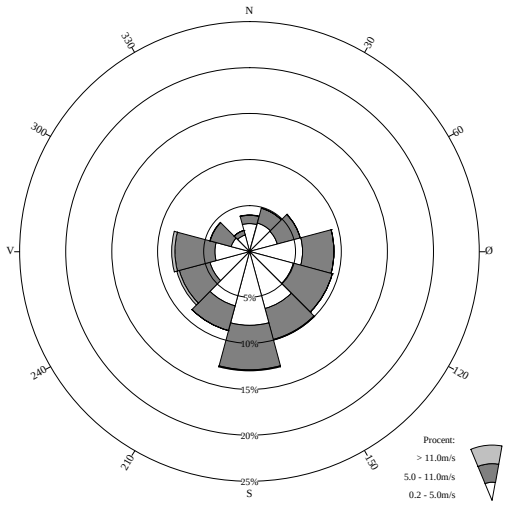

## SEPTEMBER



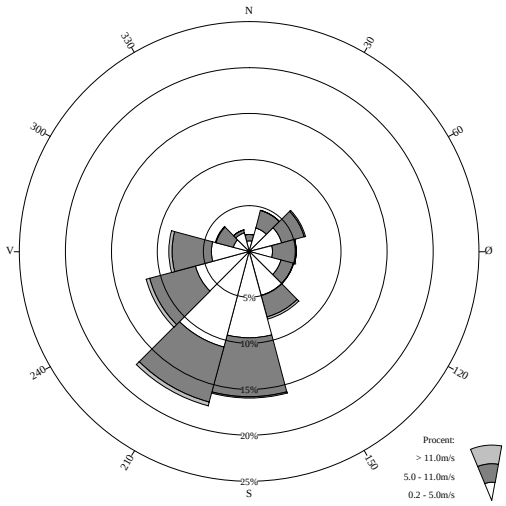

## OKTOBER




## NOVEMBER

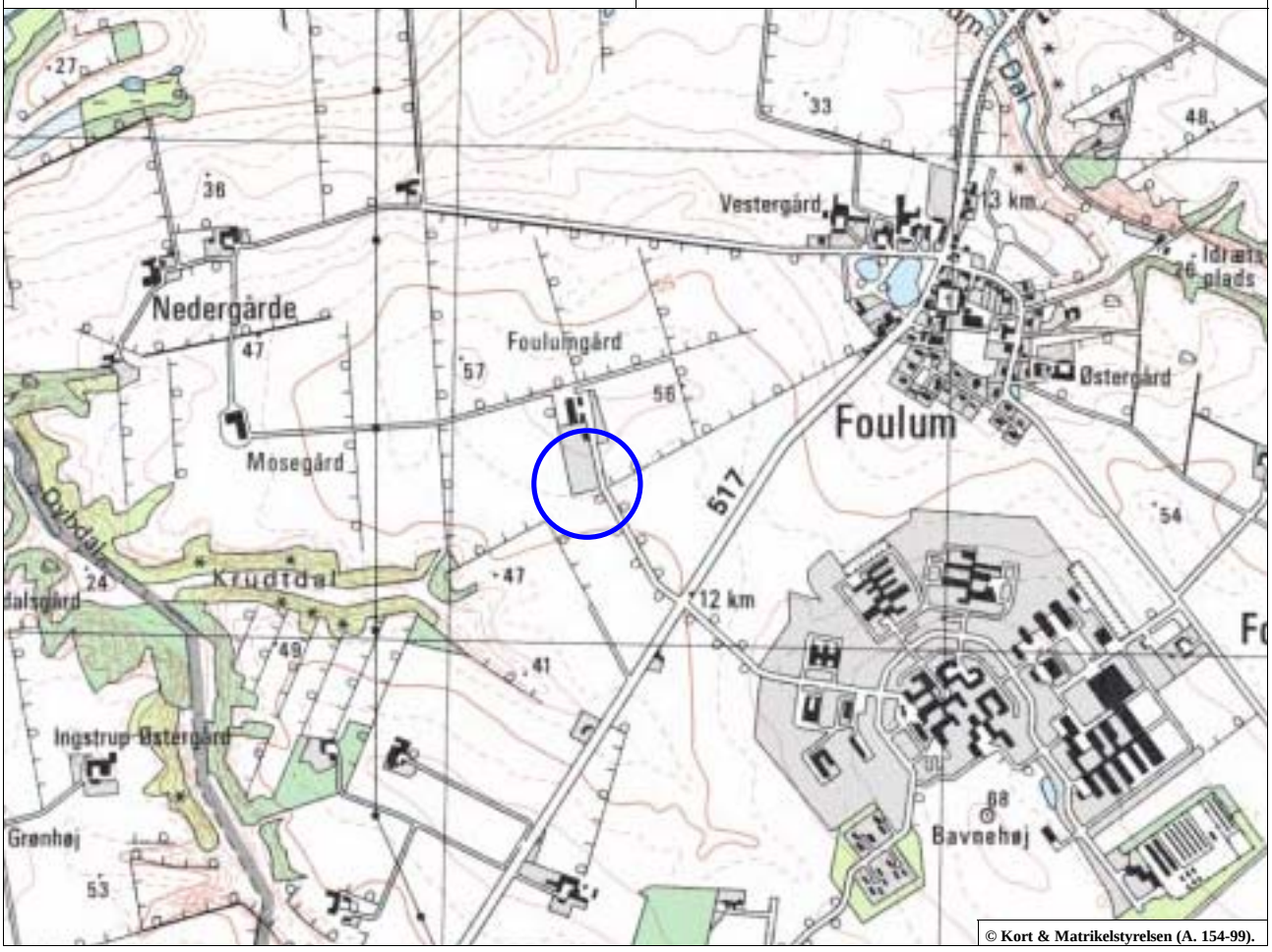



## DECEMBER



# 06069 Foulum

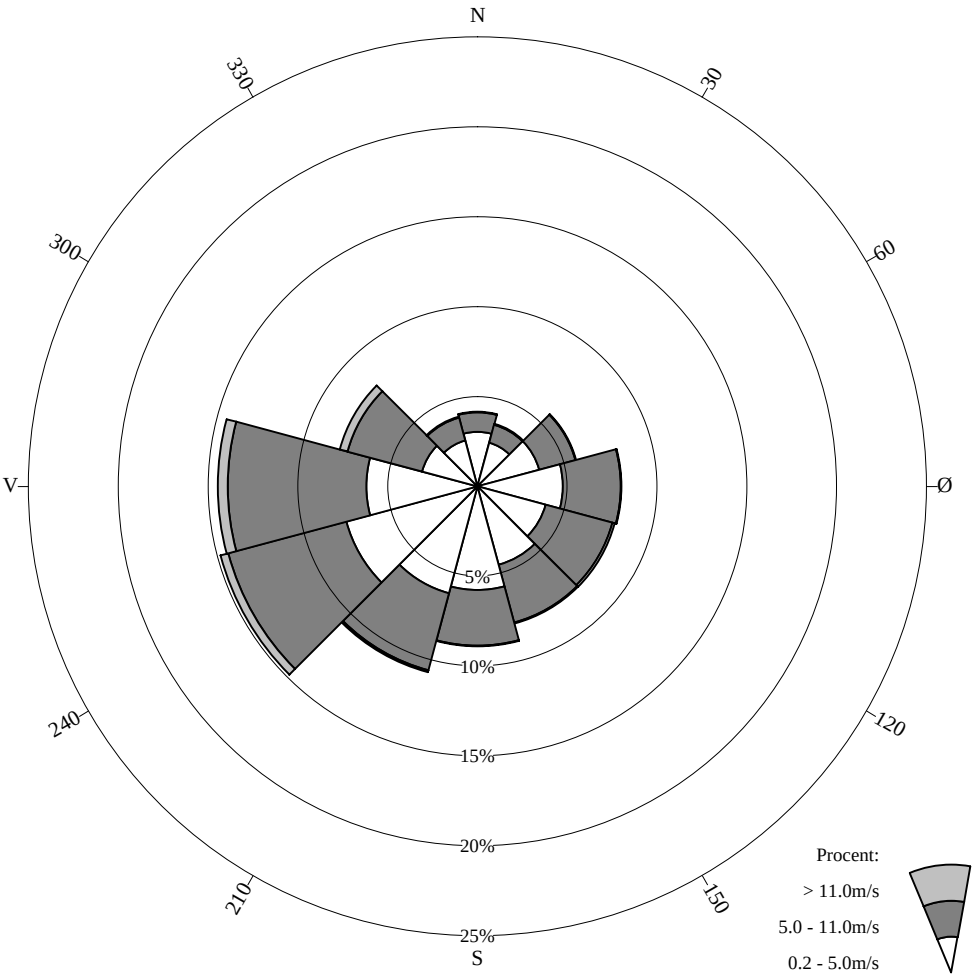
| | |
|---|---|
| **Position:** 56° 30’ N, 09° 34’ E<br>**UTM-koordinater:** 32V 6261.335N 535.275E<br>**Stationsbasis** (m.o.h.)**:** 54<br>**Vindmastbasis** (m.o.h.)**:** 54<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:** | **Position:** lat 56° 30’ N, long 09° 34’ E<br>**UTM-positions:** 32V 6261.335N 535.275E<br>**Elevation** (m.a.s.l.)**:** 54<br>**Base of wind mast** (m.a.s.l.)**:** 54<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:** |



# Station 06069
# FOULUM

01-01-89 - 31-12-98

Hele perioden



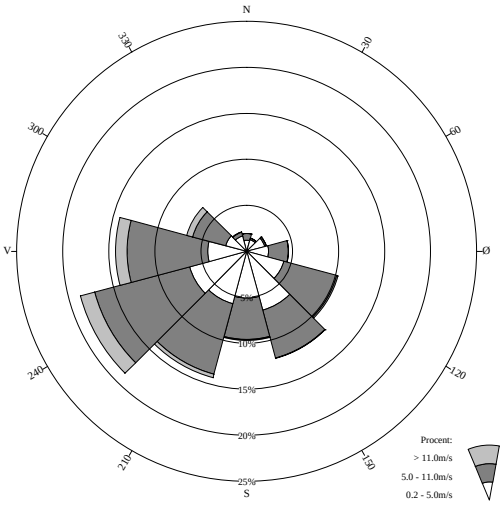

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.2 | 3.6 | 5.7 | 8.0 | 7.9 | 7.9 | 8.9 | 10.7 | 14.8 | 14.5 | 7.9 | 4.0 | 98.1 |
| % 0.2-5.0m/s | 3.0 | 2.5 | 3.6 | 4.8 | 3.9 | 4.5 | 5.8 | 6.2 | 7.6 | 6.2 | 3.2 | 2.6 | 53.9 |
| % 5.0-11.0m/s | 1.1 | 1.0 | 2.1 | 3.2 | 3.8 | 3.3 | 3.1 | 4.4 | 6.8 | 7.7 | 4.3 | 1.3 | 42.2 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.4 | 0.5 | 0.4 | 0.1 | 1.9 |
| Middel hastighed | 3.6 | 3.9 | 4.4 | 4.6 | 5.2 | 4.8 | 4.4 | 4.7 | 5.2 | 5.7 | 5.9 | 4.2 | 4.9 |
| Største hastighed | 15.5 | 14.4 | 16.0 | 14.9 | 14.4 | 12.4 | 13.4 | 14.9 | 20.6 | 18.5 | 19.6 | 15.0 | 20.6 |

Totalt antal observationer = 69600 Kilde: DMI

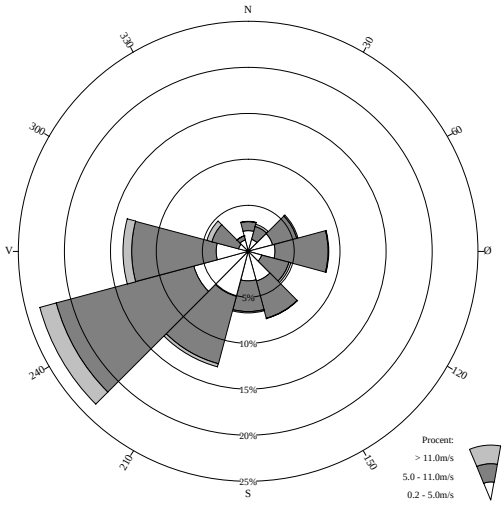
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1305 = 1.9%

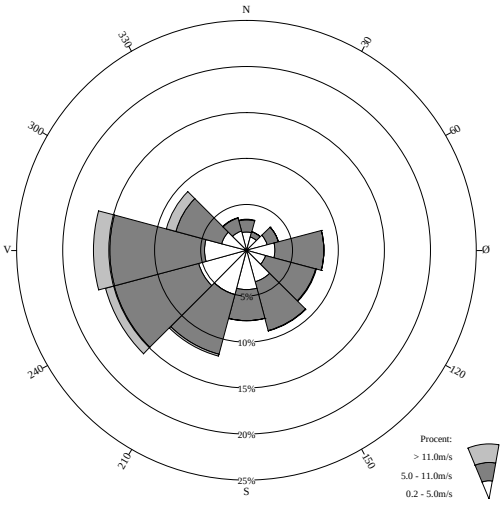
## JANUAR



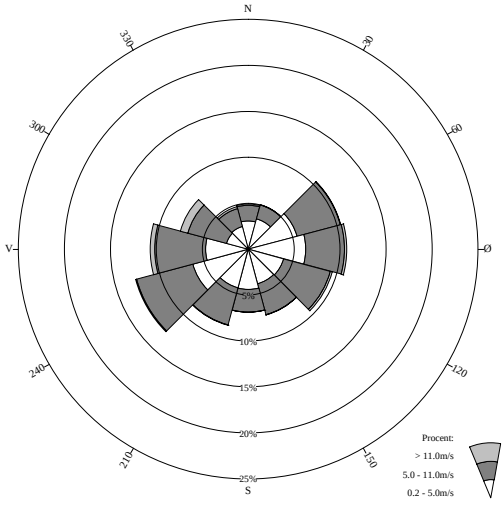

## FEBRUAR



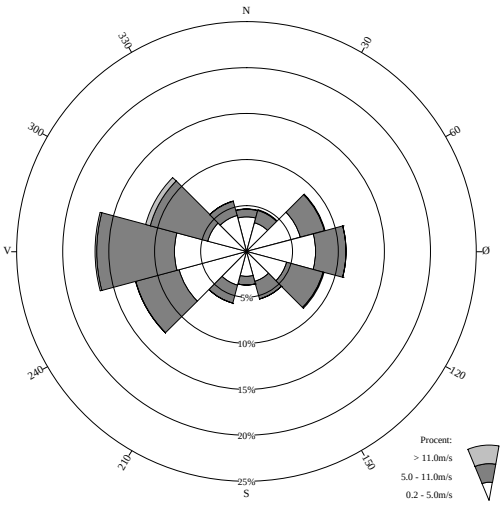

## MARTS



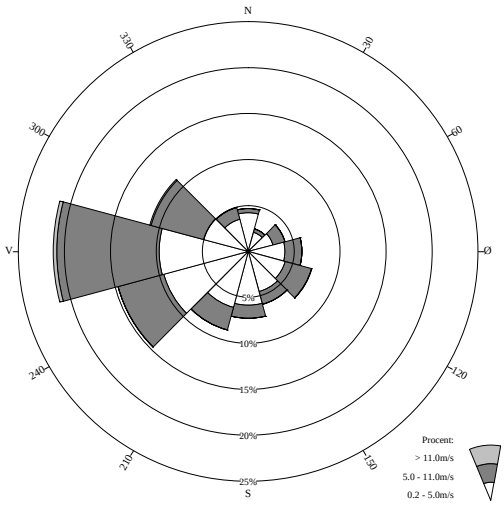

## APRIL



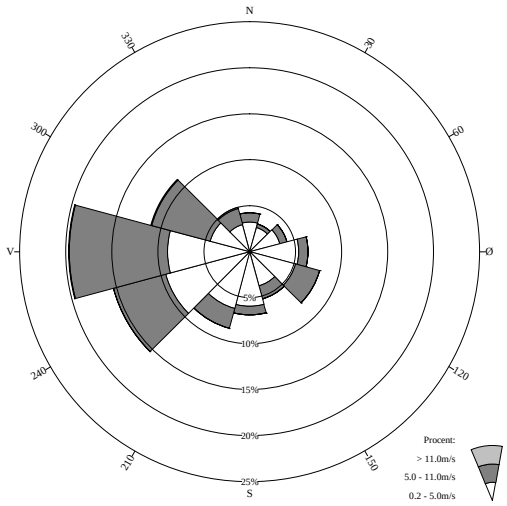

## MAJ



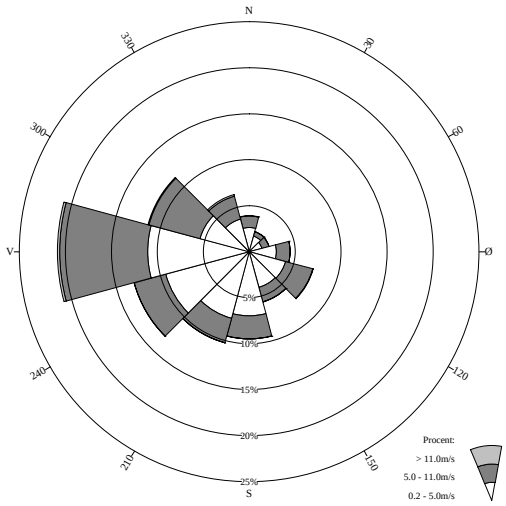

## JUNI



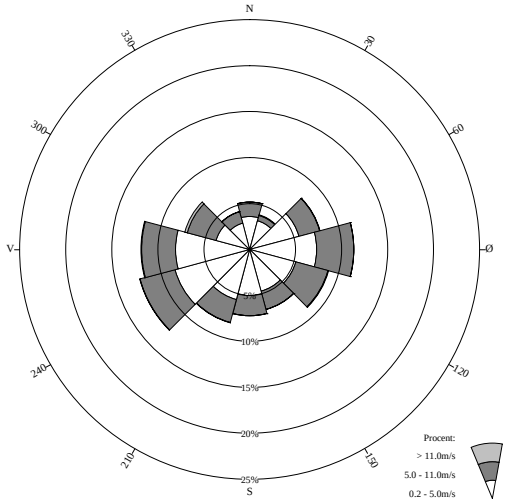
## JULI



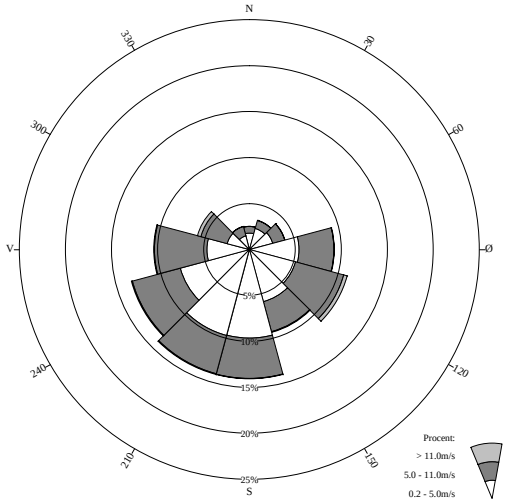

## AUGUST



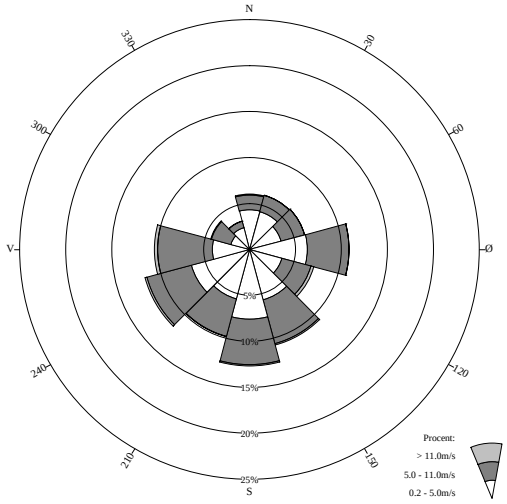

## SEPTEMBER



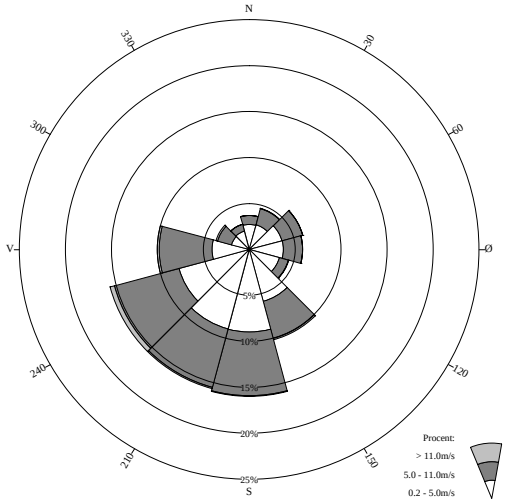

## OKTOBER




## NOVEMBER

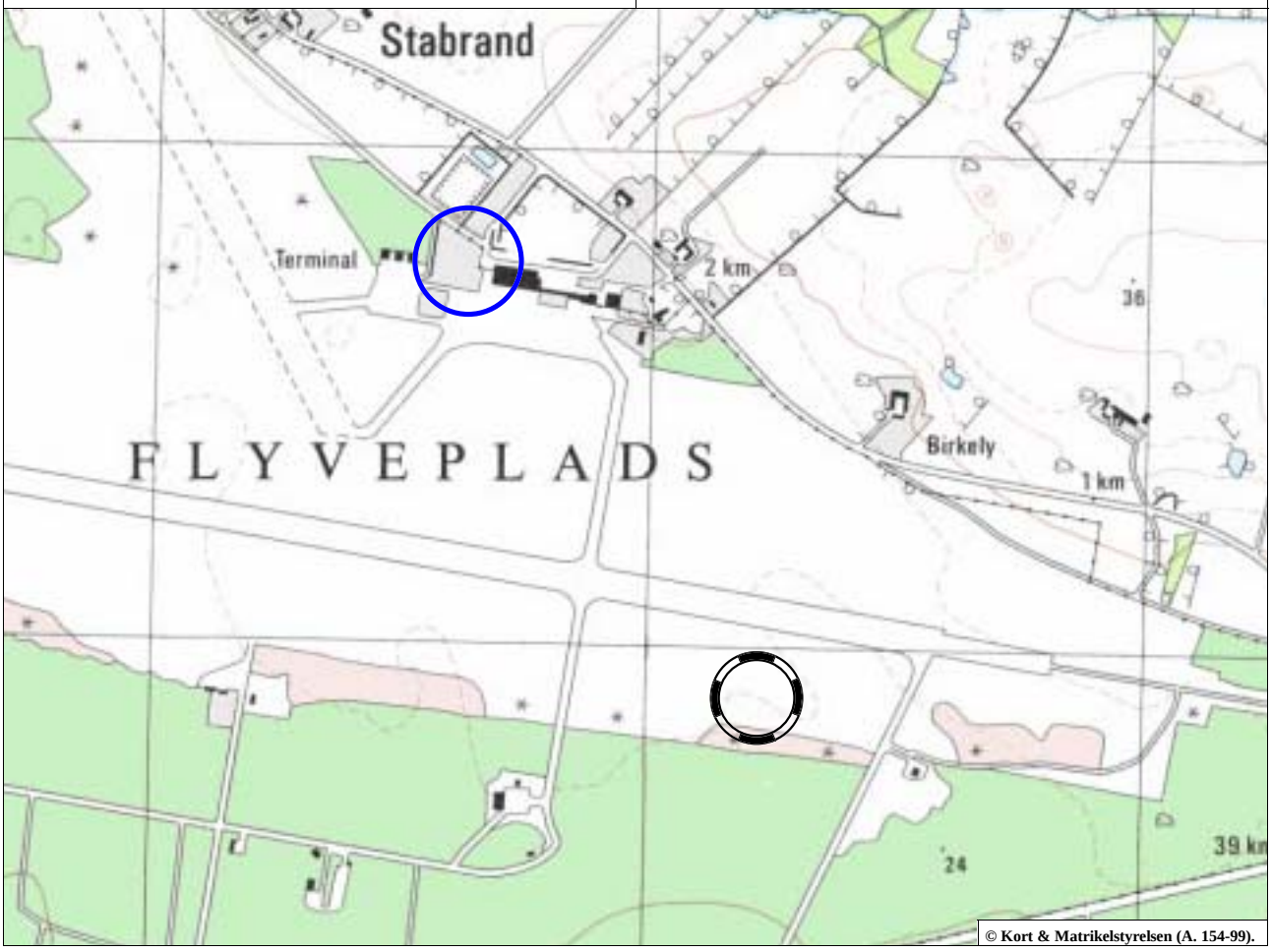



## DECEMBER



# 06070 Tirstrup

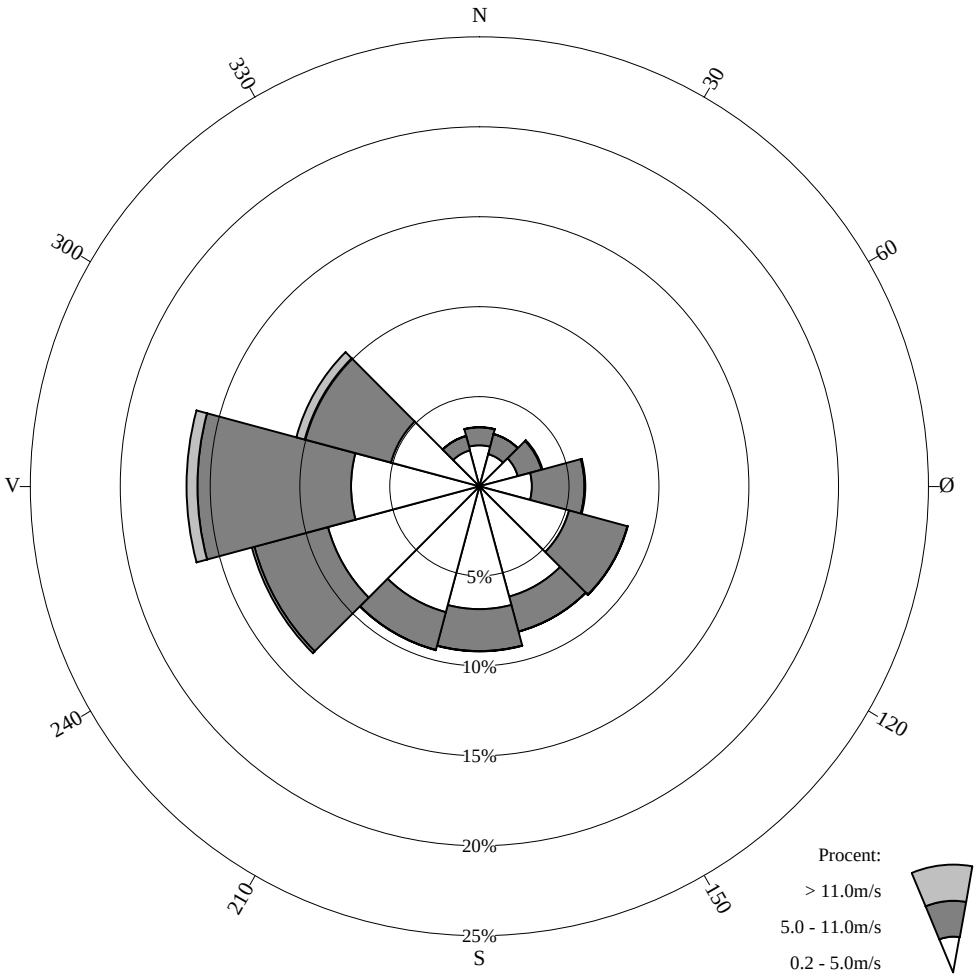
| | |
|---|---|
| **Position:** 56° 19’ N, 10° 38’ E<br>**UTM-koordinater:** 32V 6241.790N 600.645E<br>**Stationsbasis** (m.o.h.)**:** 25<br>**Vindmastbasis** (m.o.h.)**:** 25<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Vær opmærksom på, at vindmasten er placeret sydøst for det sted, hvor resten af vejrstationen er placeret. | **Position:** lat 56° 19’ N, long 10° 38’ E<br>**UTM-positions:** 32V 6241.790N 600.645E<br>**Elevation** (m.a.s.l.)**:** 25<br>**Base of wind mast** (m.a.s.l.)**:** 25<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>Please notice, that the wind mast is located to the southeast of the place where the rest of the weather station is located. |



# Station 06070
# TIRSTRUP

01-01-89 - 31-12-98

Hele perioden



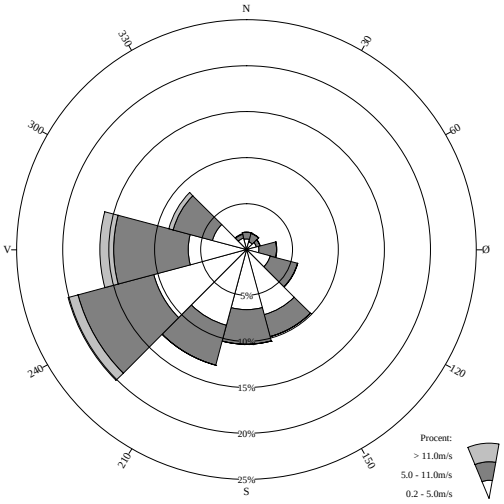

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.3 | 3.0 | 3.6 | 5.9 | 8.6 | 8.4 | 9.2 | 9.4 | 13.1 | 16.3 | 10.6 | 2.9 | 94.3 |
| % 0.2-5.0m/s | 2.3 | 1.9 | 2.2 | 2.9 | 5.2 | 6.4 | 6.8 | 7.3 | 8.7 | 7.2 | 5.1 | 2.1 | 58.0 |
| % 5.0-11.0m/s | 1.0 | 1.1 | 1.4 | 2.9 | 3.4 | 2.0 | 2.3 | 2.2 | 4.2 | 8.6 | 5.0 | 0.8 | 34.9 |
| % > 11.0m/s | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.6 | 0.5 | 0.0 | 1.4 |
| Middel hastighed | 4.1 | 4.4 | 4.5 | 5.1 | 4.5 | 3.7 | 3.8 | 3.7 | 4.4 | 5.6 | 5.4 | 3.8 | 4.6 |
| Største hastighed | 12.9 | 12.9 | 13.4 | 12.9 | 12.9 | 13.4 | 12.9 | 12.3 | 20.1 | 18.5 | 17.5 | 13.9 | 20.1 |

Totalt antal observationer = 29178 Kilde: DMI

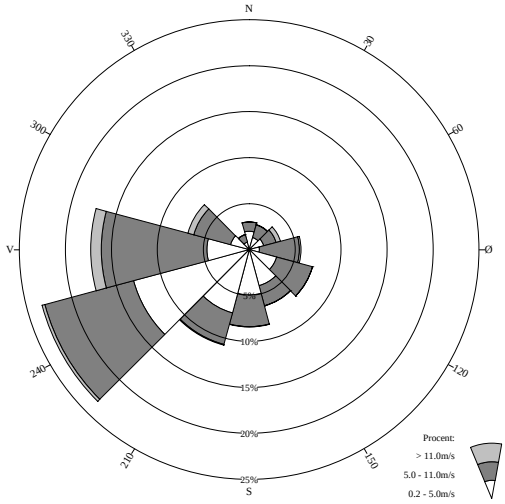
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1654 = 5.7%

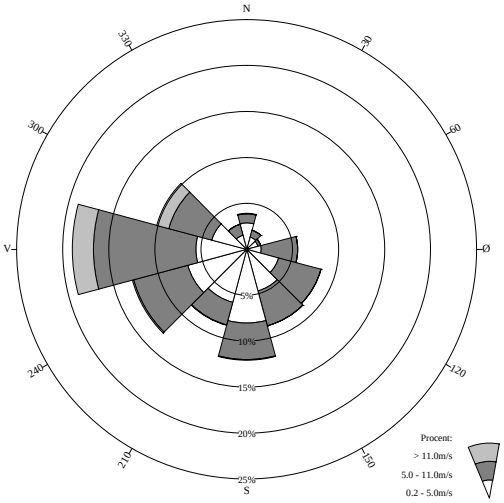
## JANUAR



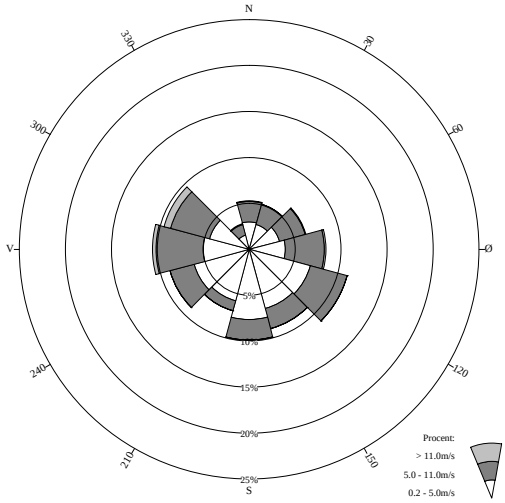

## FEBRUAR



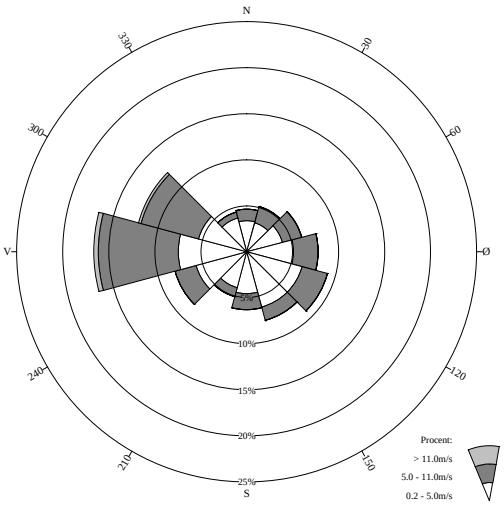

## MARTS



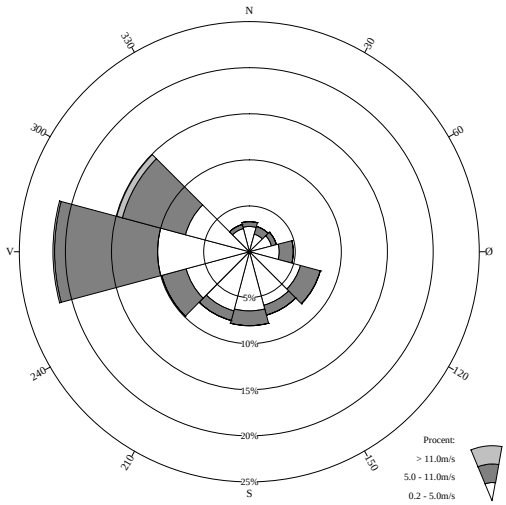

## APRIL



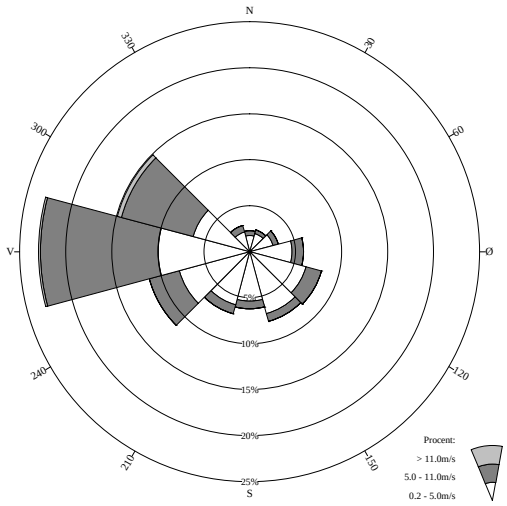

## MAJ



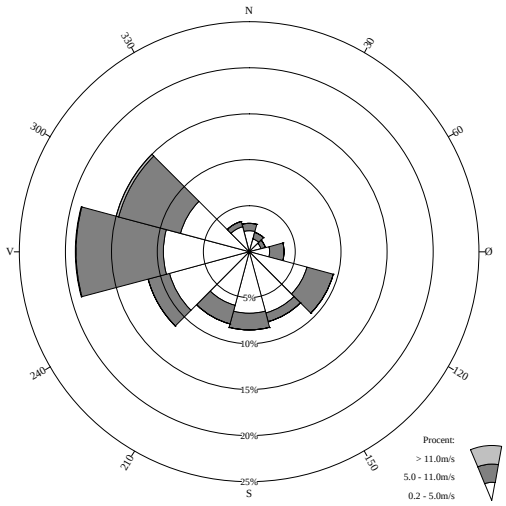

## JUNI



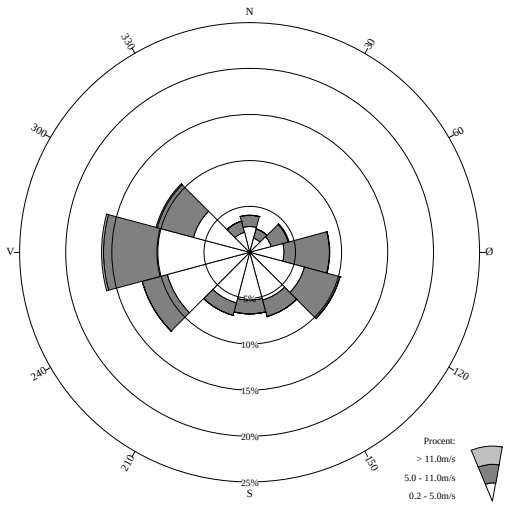
## JULI



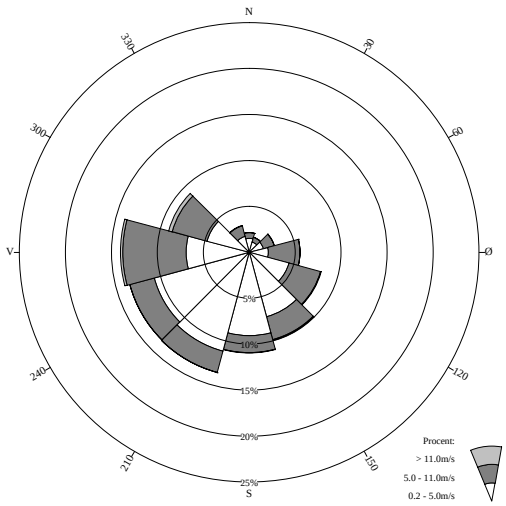

## AUGUST



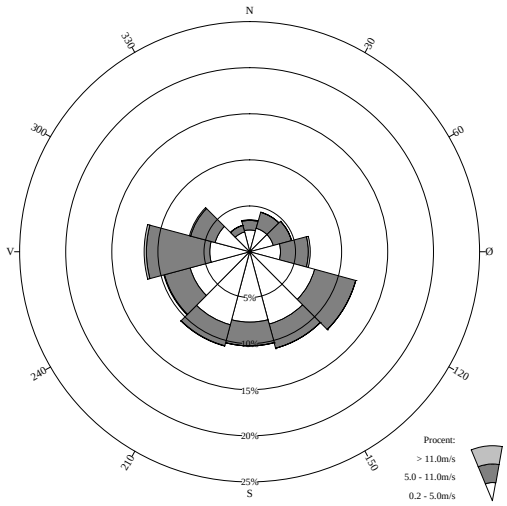

## SEPTEMBER



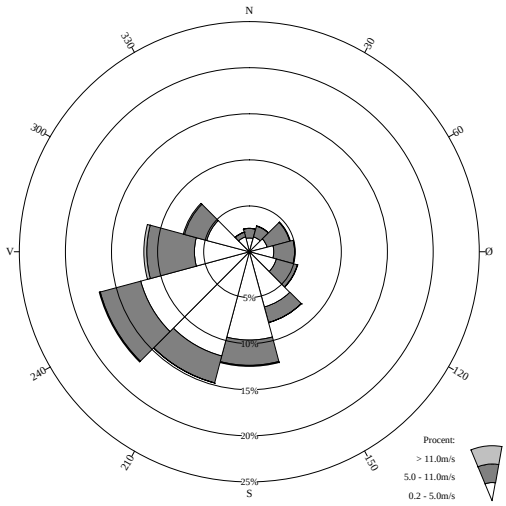

## OKTOBER




## NOVEMBER

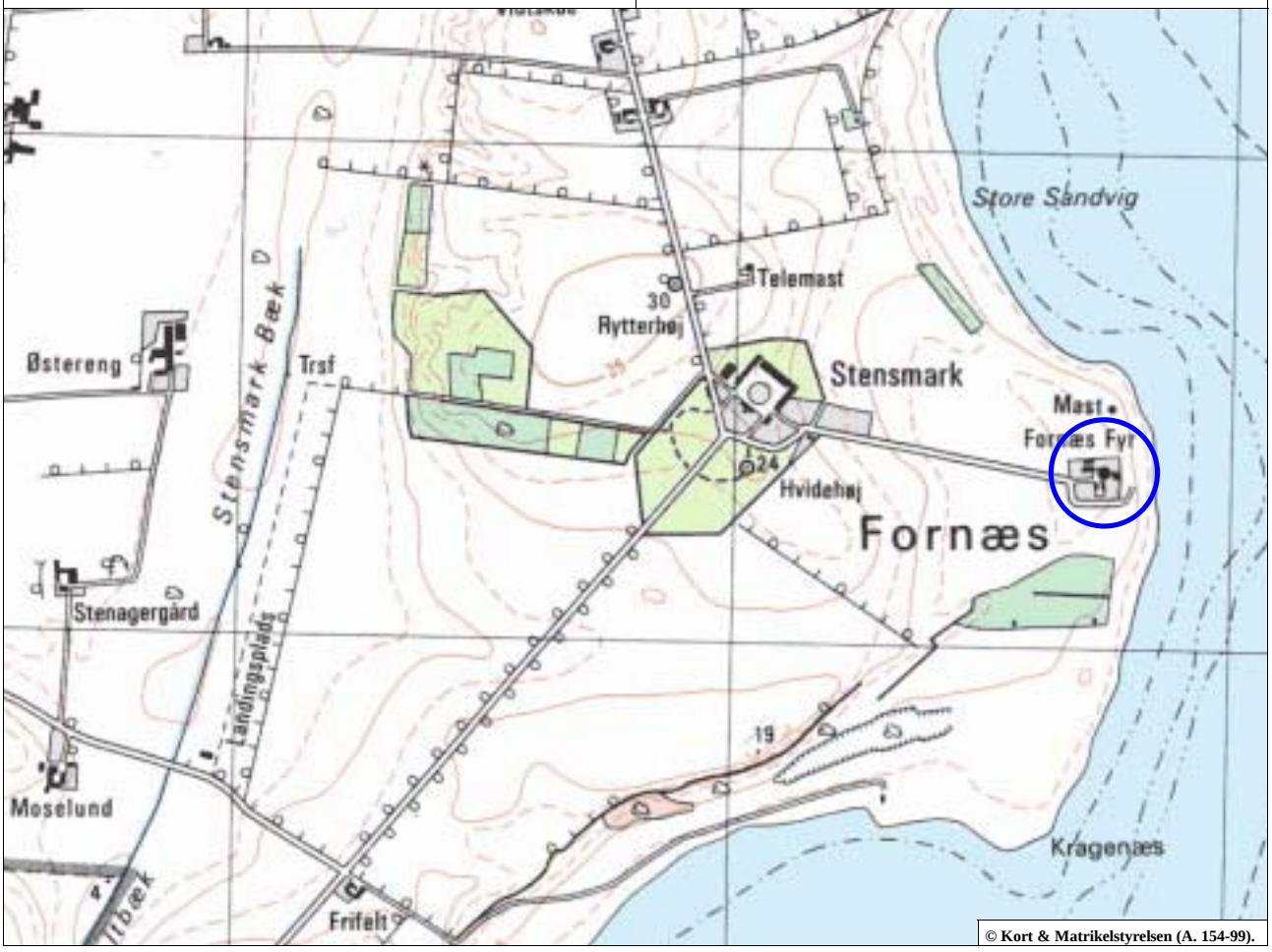



## DECEMBER



# 06071 Fornæs Fyr

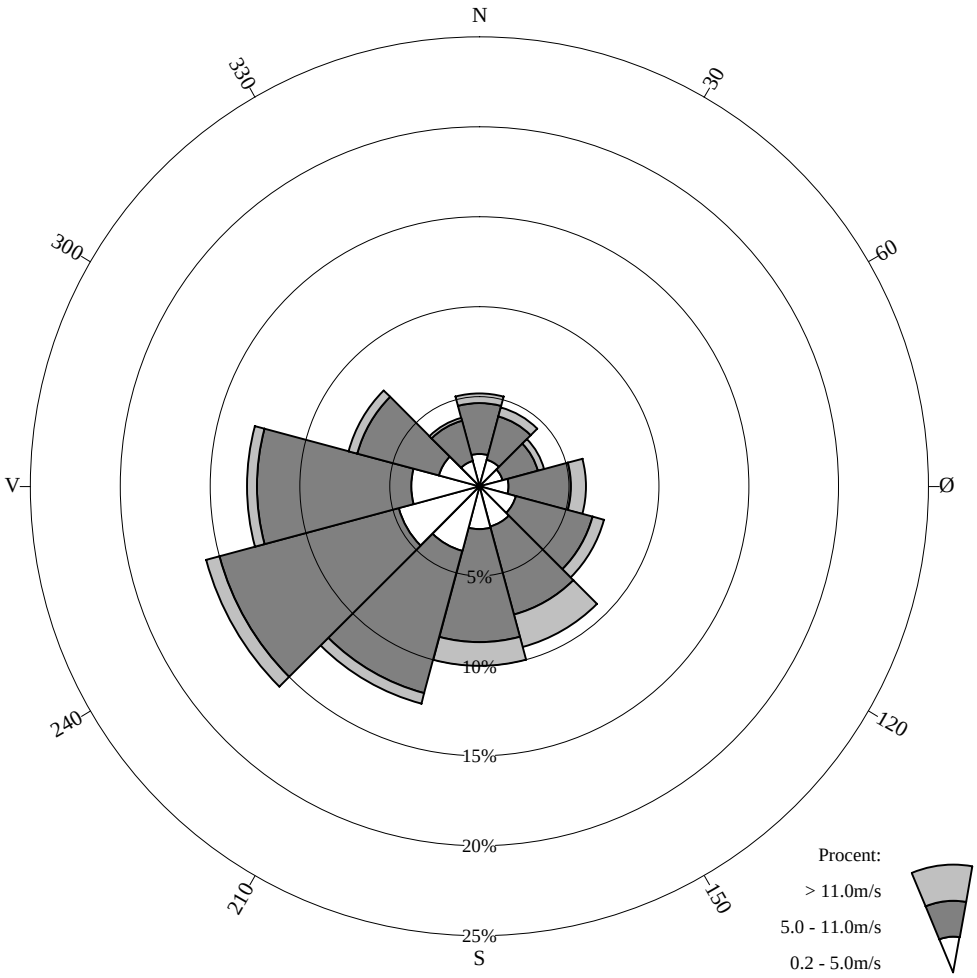
| | |
|---|---|
| **Position:** 56° 27’ N, 10° 58’ E<br>**UTM-koordinater:** 32V 6257.370N 620.750E<br>**Stationsbasis** (m.o.h.)**:** 8<br>**Vindmastbasis** (m.o.h.)**:** 8<br>**Vindmålehøjde:** 26 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** nej<br><br>**Bemærkninger:**<br>Vinddata er omregnet til vindmålehøjde 10 m. | **Position:** lat 56° 27’ N, long 10° 58’ E<br>**UTM-positions:** 32V 6257.370N 620.750E<br>**Elevation** (m.a.s.l.)**:** 8<br>**Base of wind mast** (m.a.s.l.)**:** 8<br>**Level of measurement:** 26 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** no<br><br>**Comments:**<br>The wind data are converted to the level of measurement 10 m. |



# Station 06071
# FORNÆS FYR

01-01-89 - 31-12-98

Hele perioden



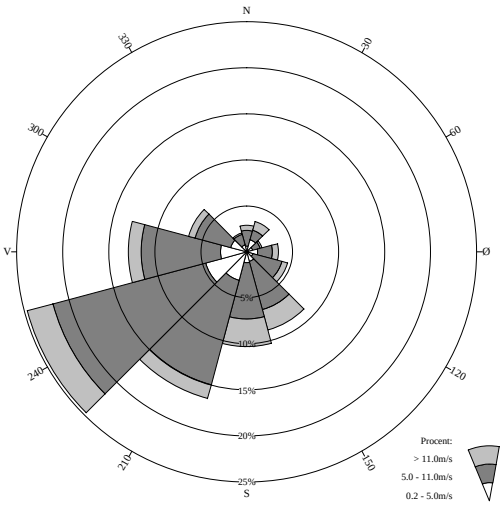

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 5.2 | 4.6 | 3.7 | 5.9 | 7.2 | 9.3 | 10.0 | 12.5 | 15.8 | 12.9 | 7.5 | 3.9 | 98.5 |
| % 0.2-5.0m/s | 1.8 | 1.5 | 1.3 | 1.6 | 2.1 | 2.3 | 2.4 | 3.7 | 4.7 | 3.8 | 2.3 | 1.5 | 29.1 |
| % 5.0-11.0m/s | 2.8 | 2.5 | 2.0 | 3.5 | 4.4 | 5.1 | 6.3 | 8.2 | 10.3 | 8.6 | 4.7 | 2.3 | 60.8 |
| % > 11.0m/s | 0.5 | 0.5 | 0.3 | 0.8 | 0.6 | 1.9 | 1.3 | 0.6 | 0.8 | 0.6 | 0.5 | 0.2 | 8.7 |
| Middel hastighed | 6.4 | 6.6 | 6.3 | 7.1 | 6.6 | 7.8 | 7.2 | 6.3 | 6.1 | 6.0 | 6.3 | 5.8 | 6.5 |
| Største hastighed | 24.7 | 20.1 | 21.6 | 19.6 | 19.5 | 20.6 | 21.6 | 20.6 | 23.2 | 22.6 | 20.6 | 19.6 | 24.7 |

Totalt antal observationer = 29176 Kilde: DMI

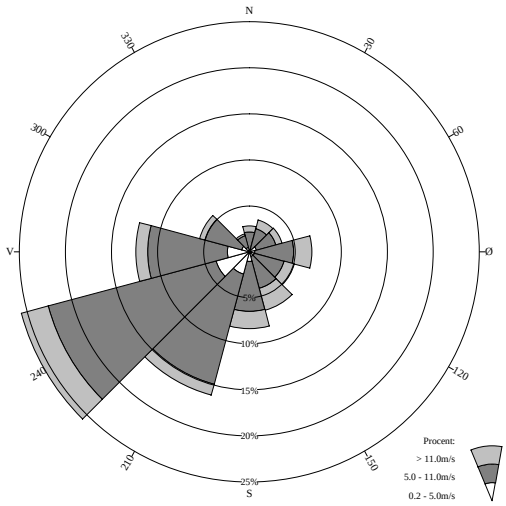
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 425 = 1.5%

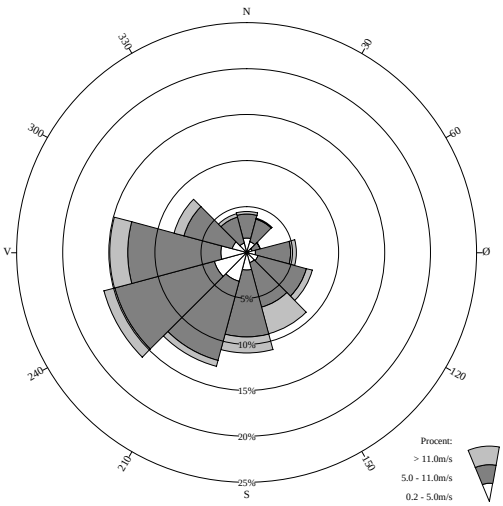
## JANUAR



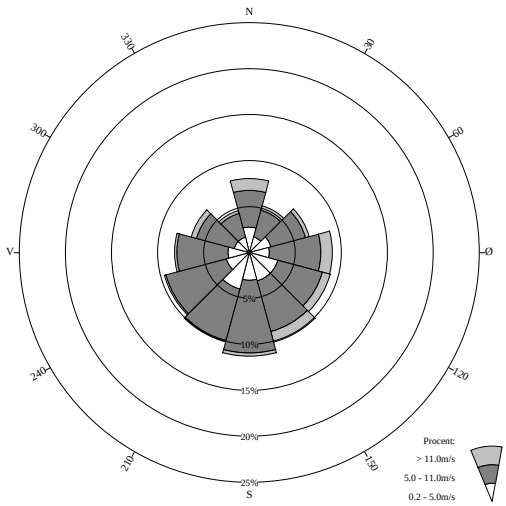

## FEBRUAR



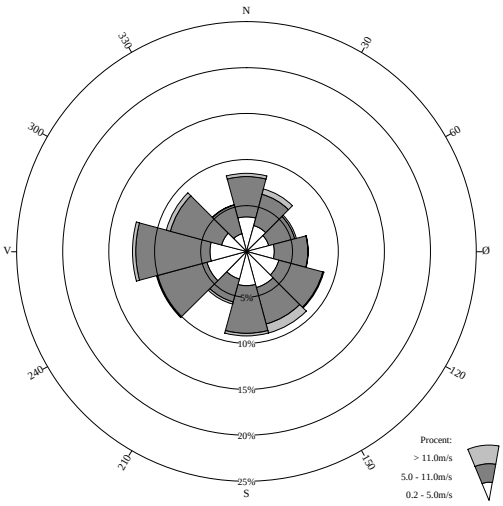

## MARTS



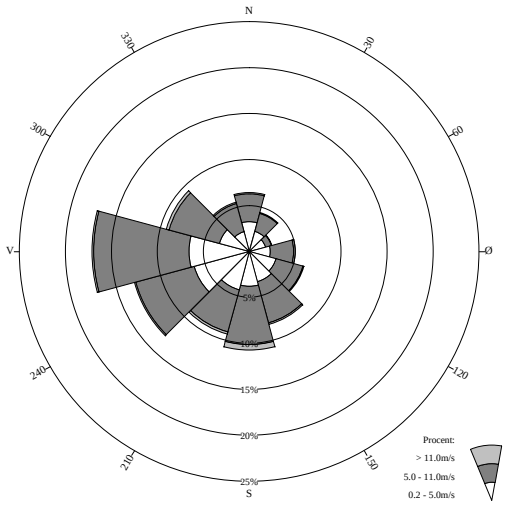

## APRIL



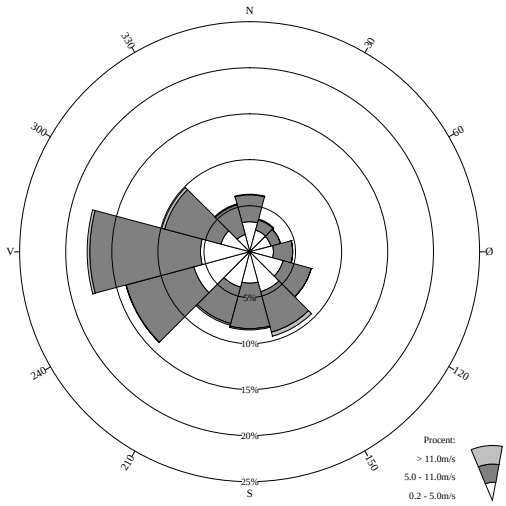

## MAJ



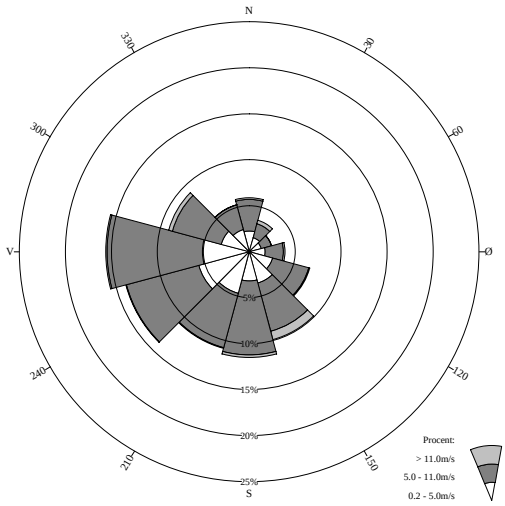

## JUNI



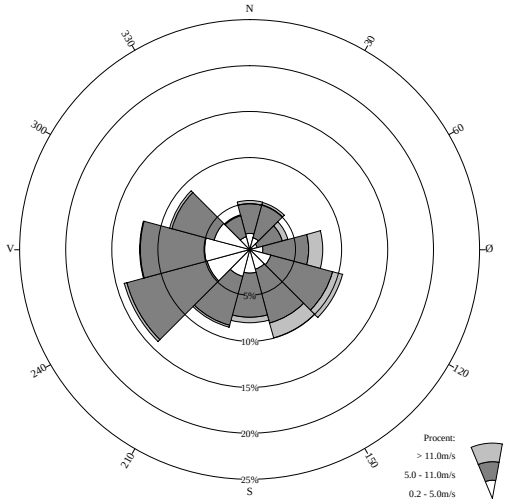
## JULI



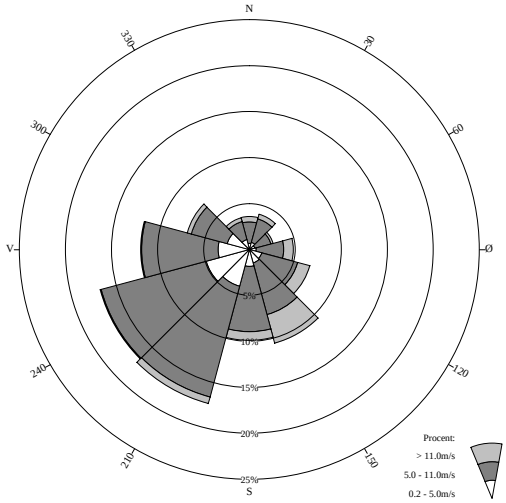

## AUGUST



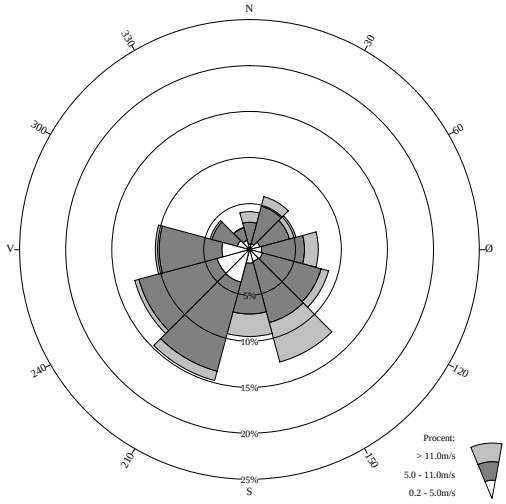

## SEPTEMBER



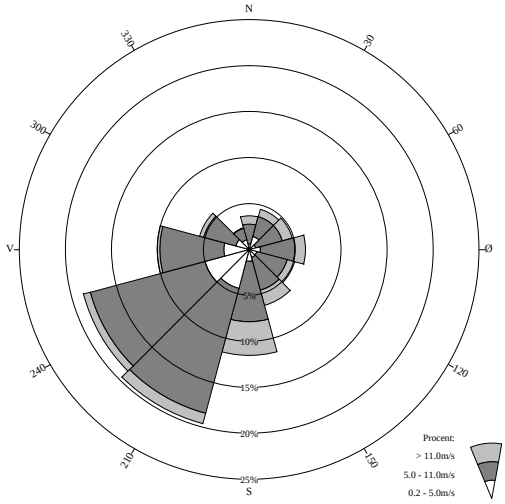

## OKTOBER




## NOVEMBER




## DECEMBER



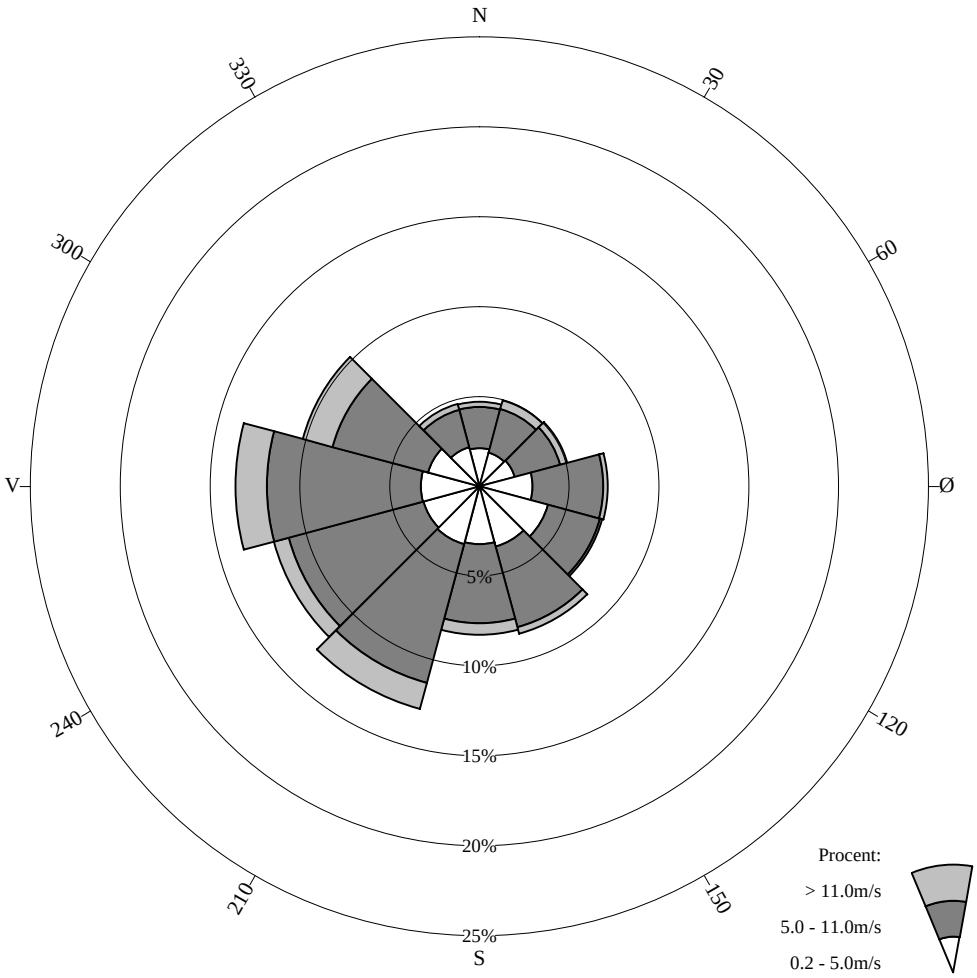
# 06079 Anholt

| | |
|---|---|
| **Position:** 56° 43’ N, 11° 31’ E<br>**UTM-koordinater:** 32V 6288.890N 653.680E<br>**Stationsbasis** (m.o.h.)**:** 2<br>**Vindmastbasis** (m.o.h.)**:** 2<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:** | **Position:** lat 56° 43’ N, long 11° 31’ E<br>**UTM-positions:** 32V 6288.890N 653.680E<br>**Elevation** (m.a.s.l.)**:** 2<br>**Base of wind mast** (m.a.s.l.)**:** 2<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:** |

# Station 06079
# ANHOLT

01-01-89 - 31-12-98

Hele perioden



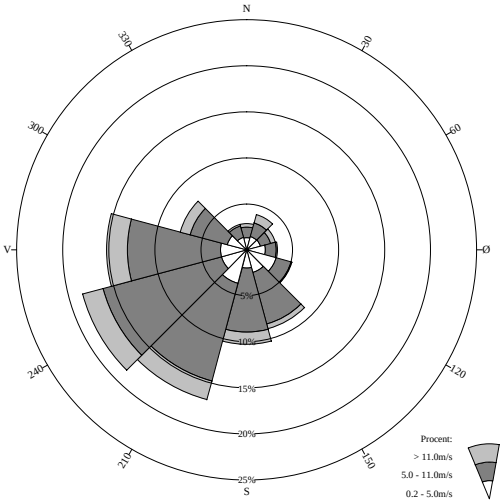

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.7 | 5.0 | 5.1 | 7.1 | 7.1 | 8.5 | 8.3 | 12.8 | 11.9 | 13.6 | 10.2 | 4.7 | 98.9 |
| % 0.2-5.0m/s | 2.1 | 2.0 | 2.0 | 3.0 | 4.0 | 3.5 | 3.2 | 3.3 | 3.2 | 3.3 | 3.0 | 2.3 | 34.8 |
| % 5.0-11.0m/s | 2.3 | 2.5 | 2.6 | 3.9 | 3.0 | 4.6 | 4.4 | 8.0 | 7.8 | 8.6 | 5.5 | 2.2 | 55.3 |
| % > 11.0m/s | 0.3 | 0.5 | 0.4 | 0.2 | 0.1 | 0.4 | 0.6 | 1.5 | 0.9 | 1.8 | 1.7 | 0.3 | 8.7 |
| Middel hastighed | 5.8 | 6.4 | 6.2 | 5.7 | 4.9 | 5.8 | 6.2 | 7.2 | 6.8 | 7.4 | 7.4 | 5.7 | 6.5 |
| Største hastighed | 18.5 | 24.2 | 19.6 | 16.5 | 16.5 | 18.5 | 18.1 | 21.1 | 20.1 | 20.6 | 21.1 | 18.6 | 24.2 |

Totalt antal observationer = 79896 Kilde: DMI

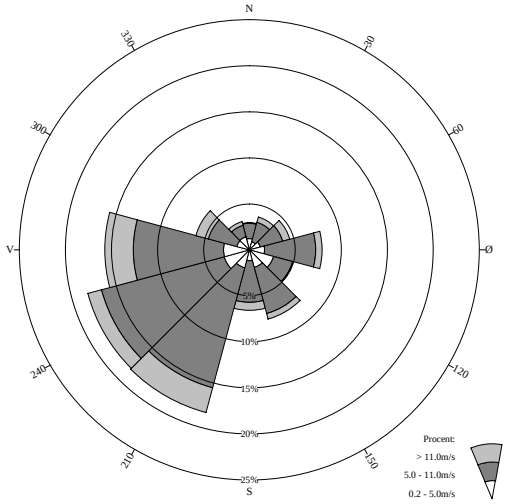
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 866 = 1.1%

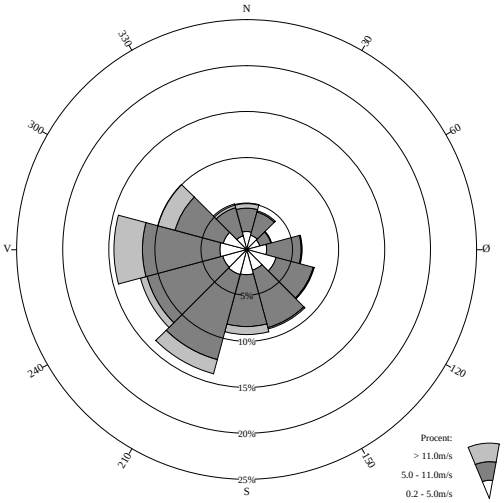
## JANUAR



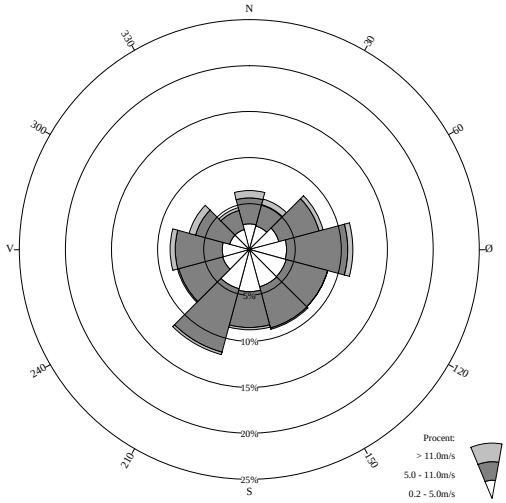

## FEBRUAR



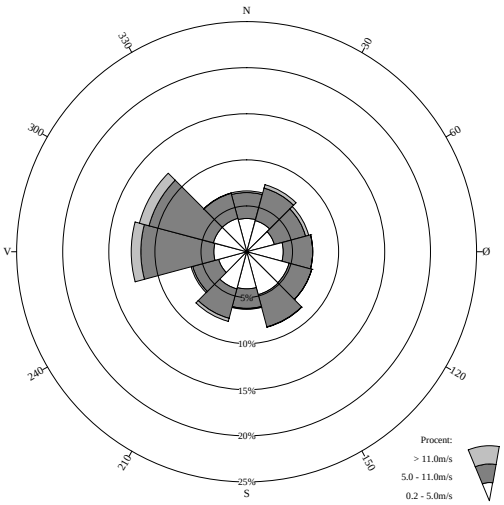

## MARTS



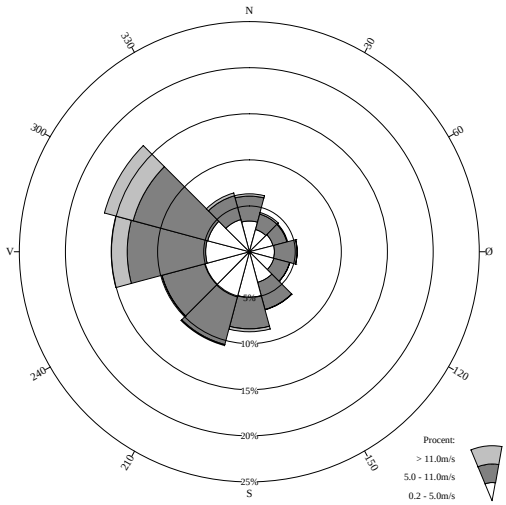

## APRIL



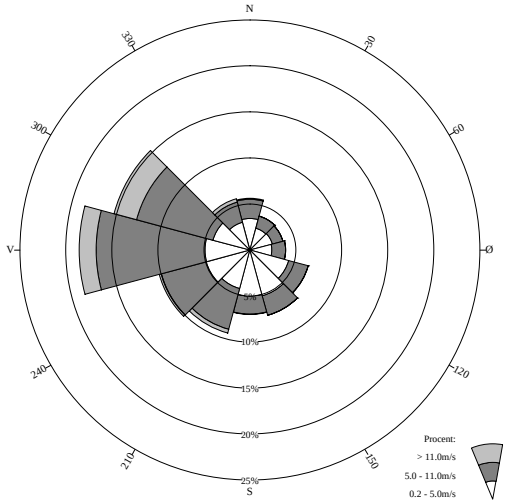

## MAJ



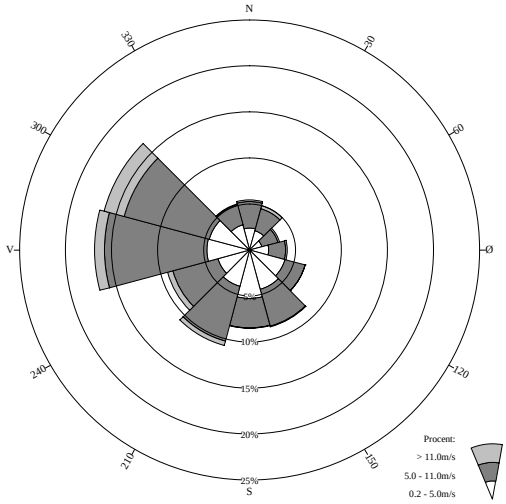

## JUNI



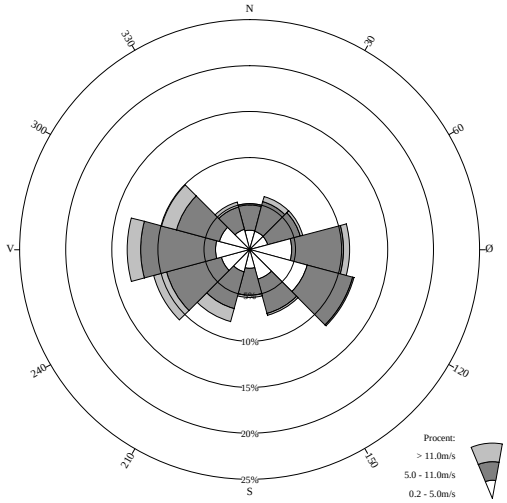
## JULI



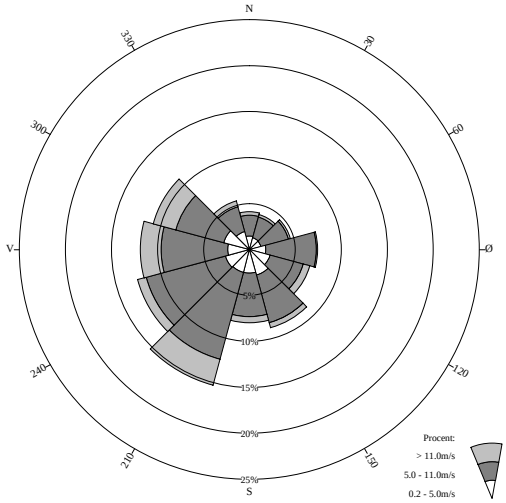

## AUGUST



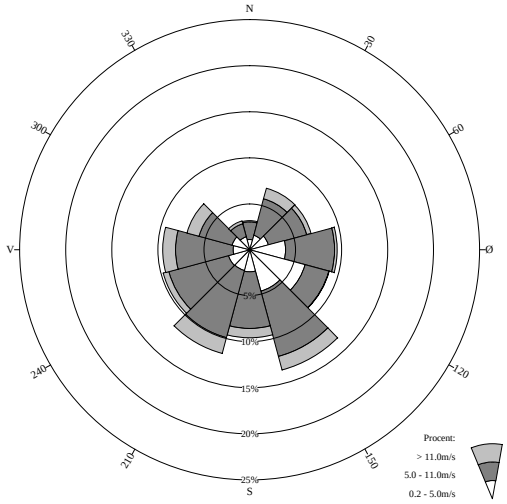

## SEPTEMBER



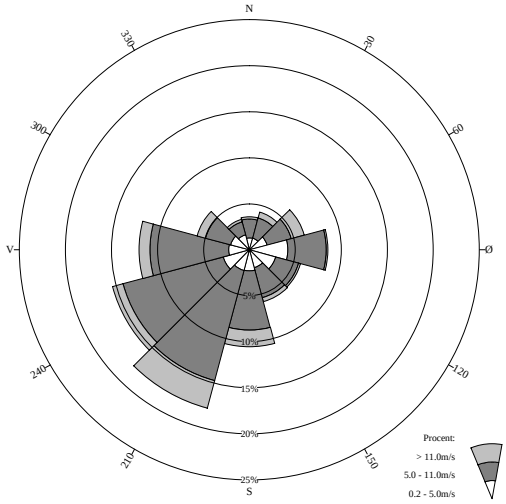

## OKTOBER




## NOVEMBER




## DECEMBER



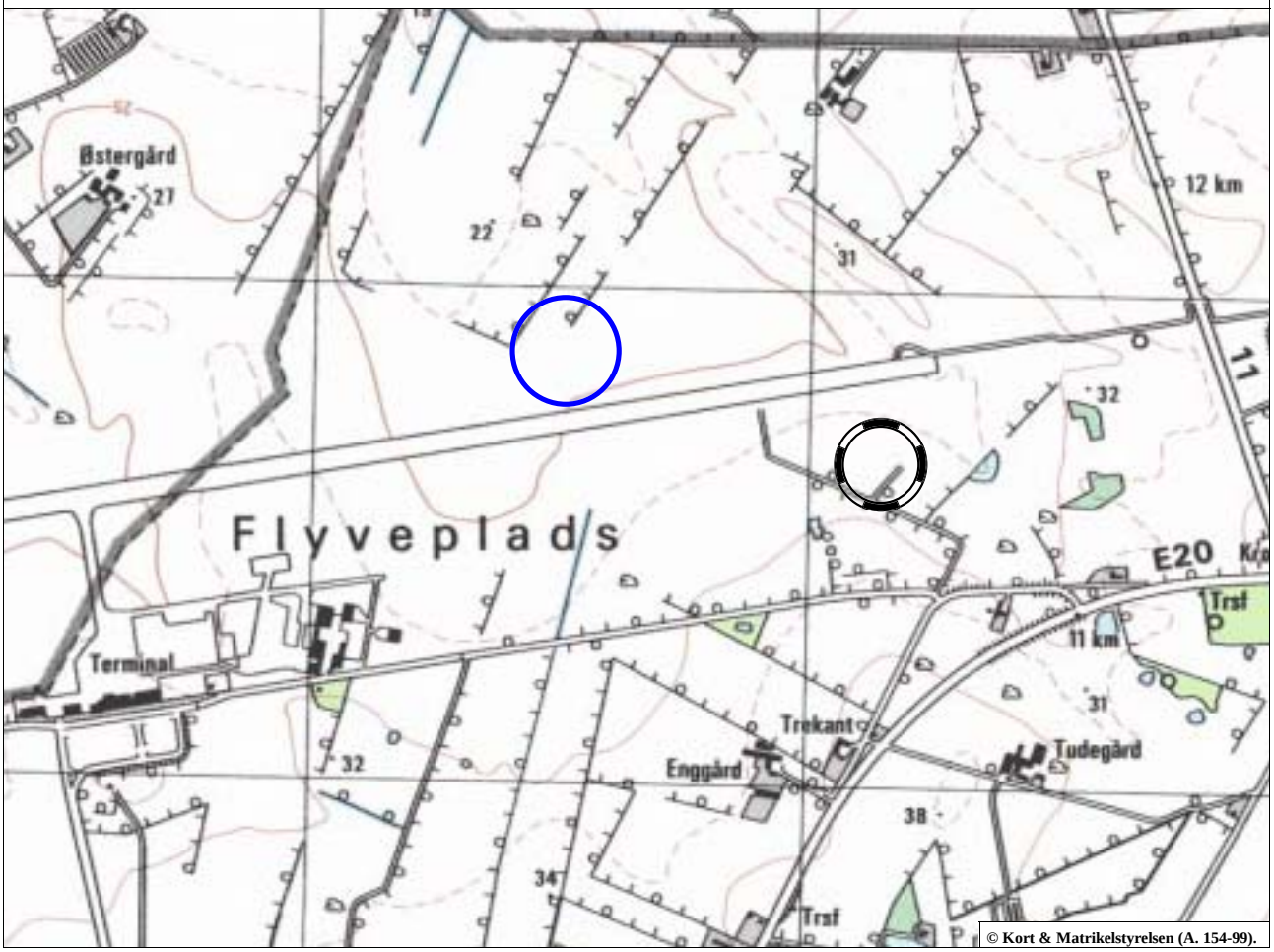
# 06080 Esbjerg Lufthavn

**Position:** 55° 32’ N, 08° 34’ E
**UTM-koordinater:** 32U 6153.850N 472.500E
**Stationsbasis** (m.o.h.)**:** 24
**Vindmastbasis** (m.o.h.)**:** 24
**Vindmålehøjde:** 8 m
**Registreringsfrekvens:** hver 3. time
**Vindstød:** ja

**Bemærkninger:**
Vær opmærksom på, at vindmasten er placeret østsydøst for det sted, hvor resten af vejrstationen er placeret.

**Position:** lat 55° 32’ N, long 08° 34’ E
**UTM-positions:** 32U 6153.850N 472.500E
**Elevation** (m.a.s.l.)**:** 24
**Base of wind mast** (m.a.s.l.)**:** 24
**Level of measurement:** 8 m
**Frequency of observations:** 3-hour intervals
**Gust:** yes

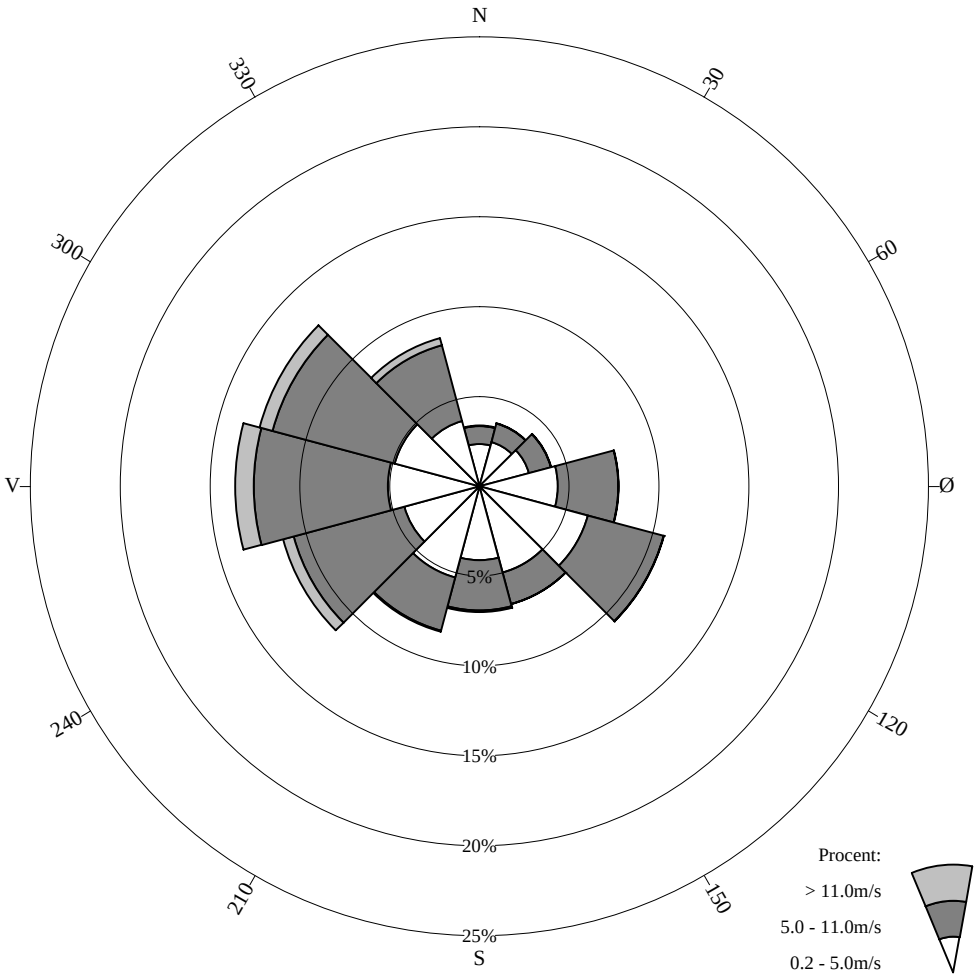
**Comments:**
Please notice, that the wind mast is located to the eastsoutheast of the place where the rest of the weather station is located.



# Station 06080
# ESBJERG LUFTHAVN

01-01-89 - 31-12-98

Hele perioden



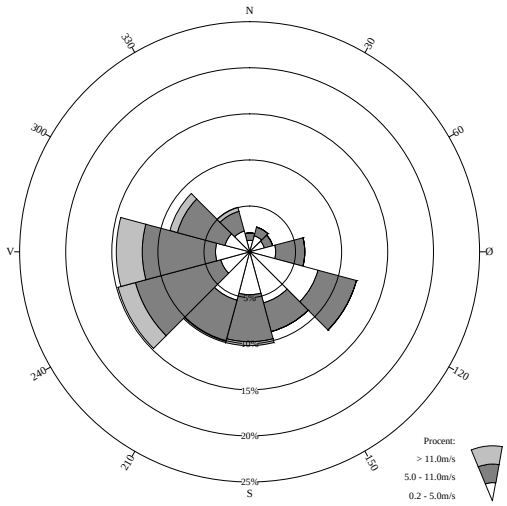

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.4 | 3.6 | 4.1 | 7.8 | 10.6 | 6.8 | 7.0 | 8.4 | 11.3 | 13.6 | 12.7 | 8.5 | 97.9 |
| % 0.2-5.0m/s | 2.4 | 2.6 | 2.9 | 4.4 | 6.3 | 5.0 | 4.1 | 5.3 | 4.3 | 5.1 | 4.9 | 3.8 | 50.8 |
| % 5.0-11.0m/s | 1.0 | 1.1 | 1.3 | 3.4 | 4.4 | 1.8 | 2.8 | 3.1 | 6.4 | 7.5 | 7.0 | 4.4 | 44.0 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.6 | 1.0 | 0.7 | 0.4 | 3.0 |
| Middel hastighed | 4.1 | 4.0 | 4.0 | 4.8 | 4.7 | 4.1 | 4.7 | 4.5 | 6.1 | 6.2 | 6.0 | 5.7 | 5.2 |
| Største hastighed | 13.4 | 11.8 | 14.4 | 15.4 | 13.9 | 10.8 | 15.4 | 18.0 | 22.6 | 20.6 | 23.1 | 20.1 | 23.1 |

Totalt antal observationer = 24571 Kilde: DMI

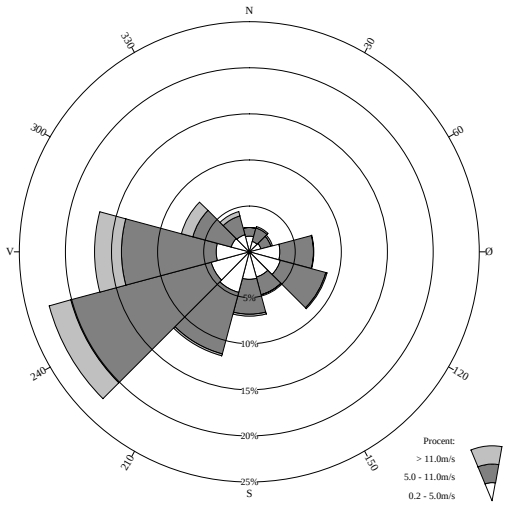
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 520 = 2.1%

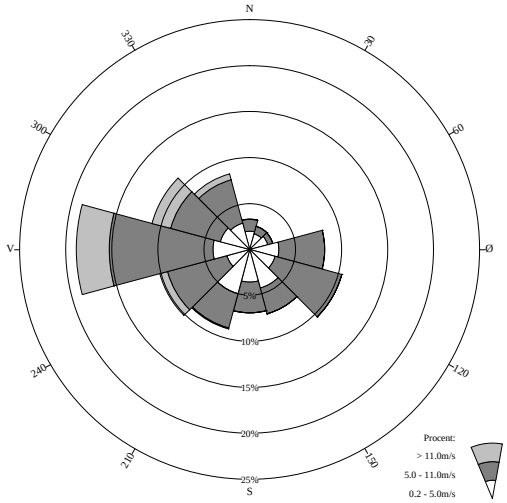
## JANUAR



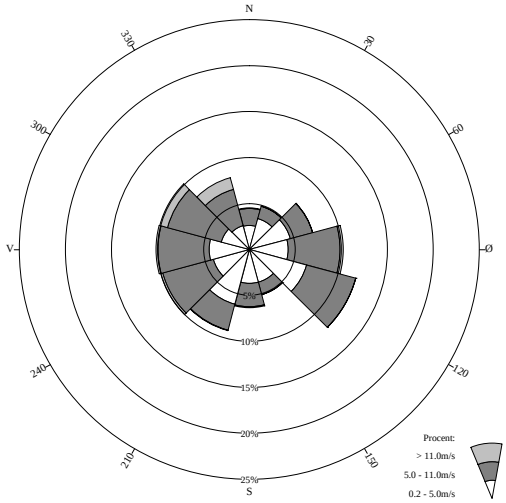

## FEBRUAR



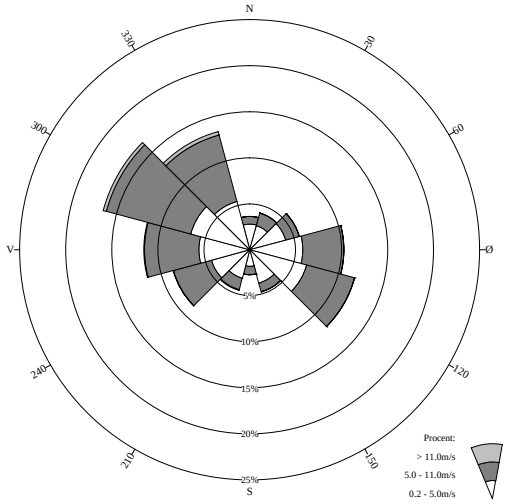

## MARTS



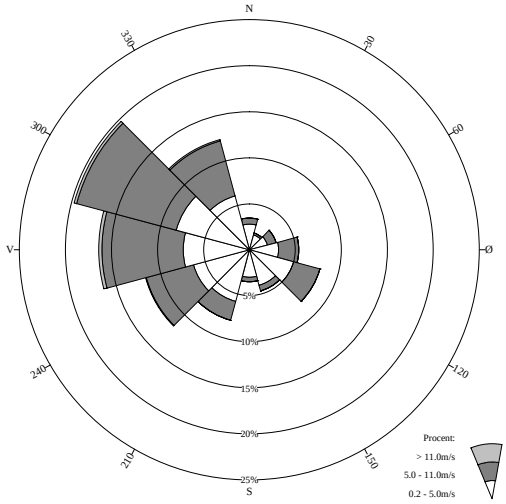

## APRIL



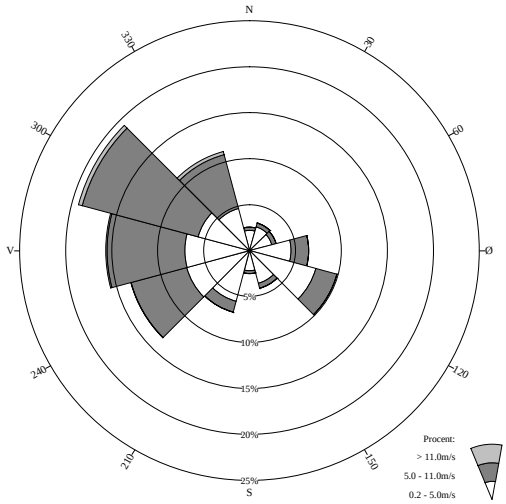

## MAJ



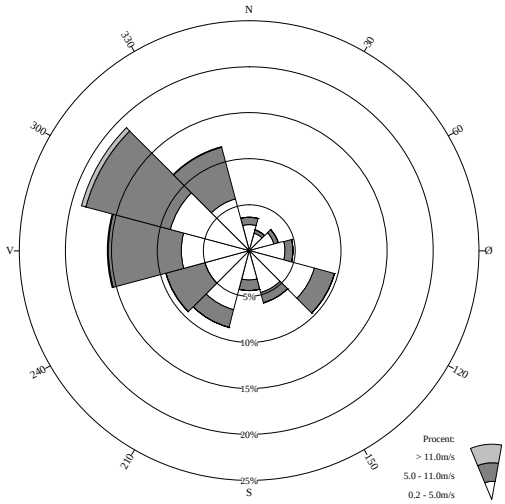

## JUNI



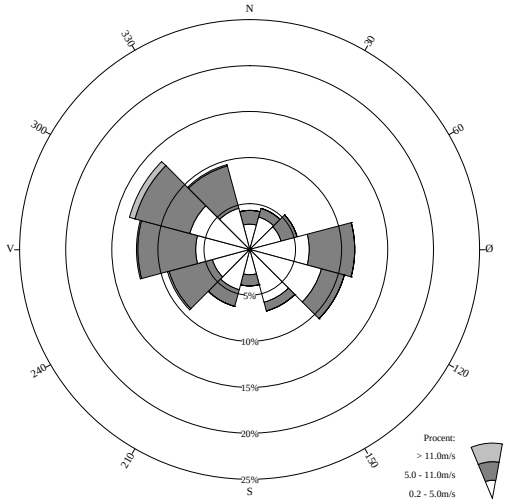
## JULI



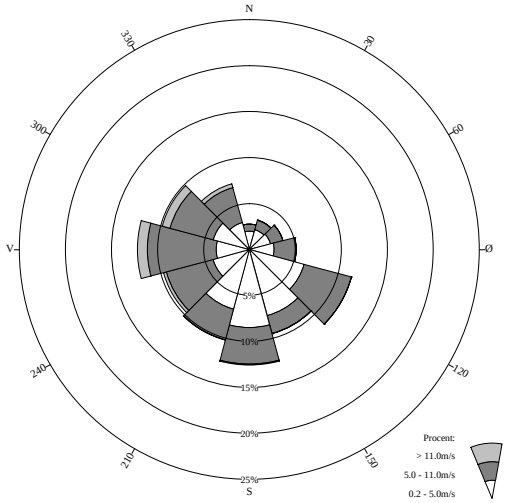

## AUGUST



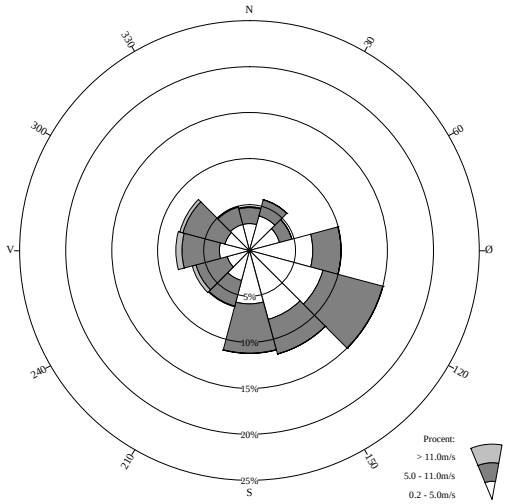

## SEPTEMBER



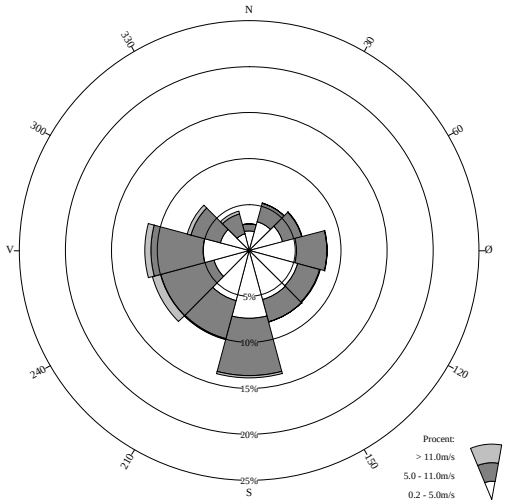

## OKTOBER




## NOVEMBER

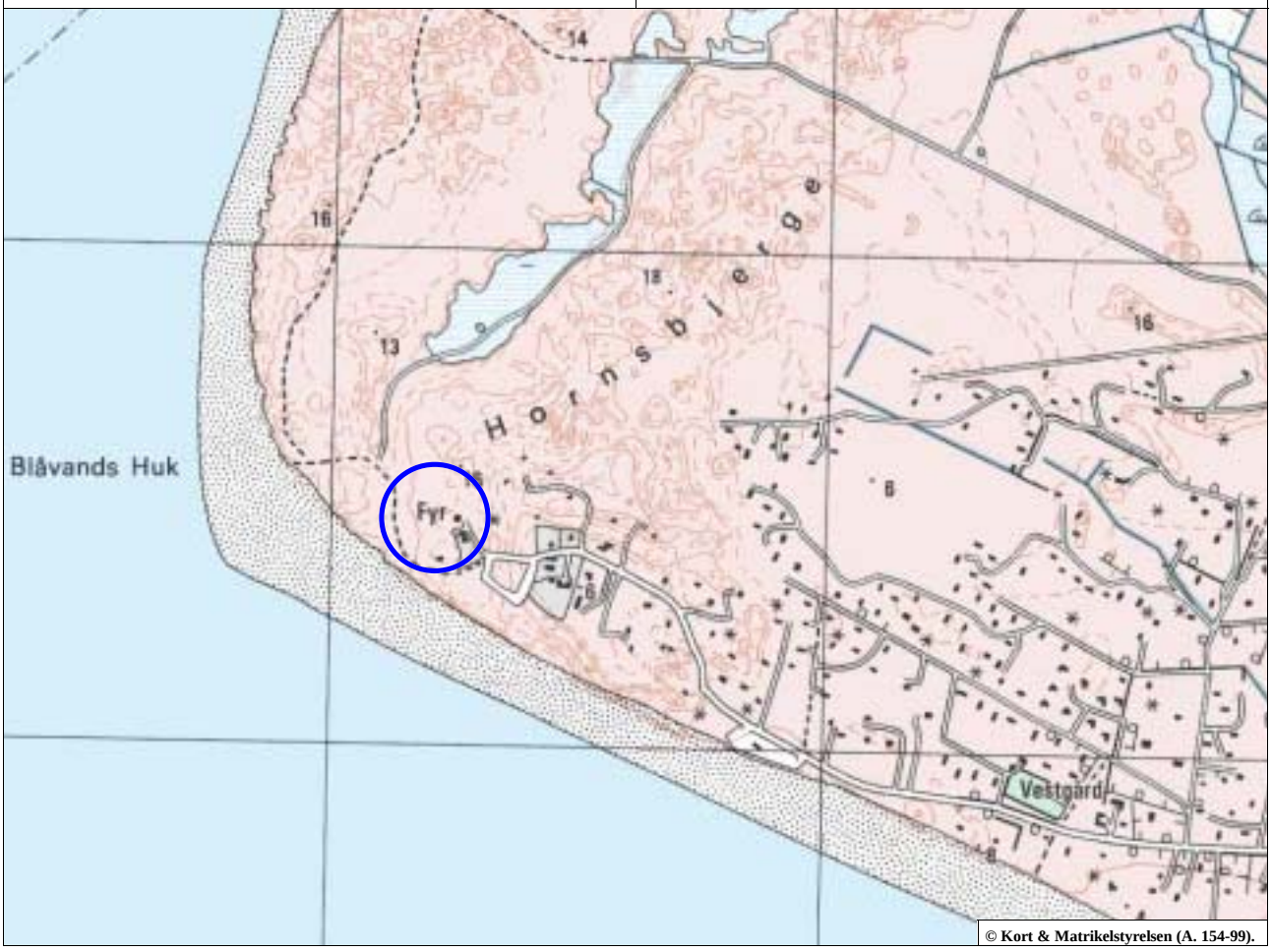



## DECEMBER



# 06081 Blåvandshuk Fyr

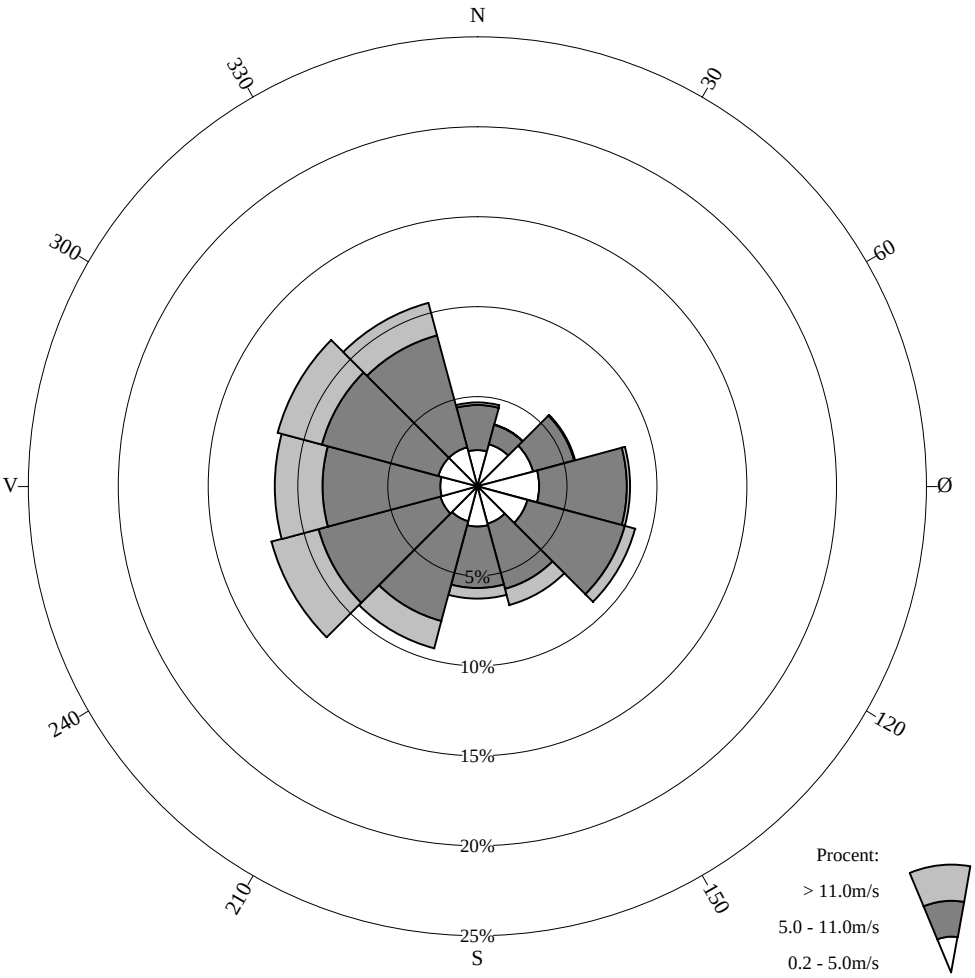
| | |
|---|---|
| **Position:** 55° 33’ N, 08° 05’ E<br>**UTM-koordinater:** 32U 6157.450N 442.210E<br>**Stationsbasis** (m.o.h.)**:** 13<br>**Vindmastbasis** (m.o.h.)**:** 13<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:** | **Position:** lat 55° 33’ N, long 08° 05’ E<br>**UTM-positions:** 32U 6157.450N 442.210E<br>**Elevation** (m.a.s.l.)**:** 13<br>**Base of wind mast** (m.a.s.l.)**:** 13<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:** |



# Station 06081
# BLÅVANDSHUK FYR

01-01-89 - 31-12-98

Hele perioden



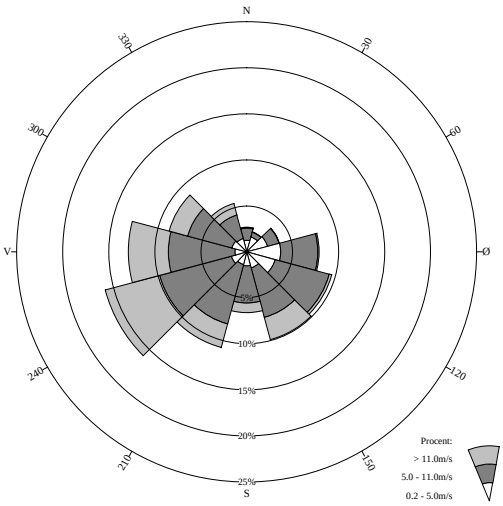

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.7 | 3.6 | 5.6 | 8.5 | 9.1 | 6.8 | 6.3 | 9.3 | 11.9 | 11.3 | 11.5 | 10.6 | 99.2 |
| % 0.2-5.0m/s | 2.0 | 2.4 | 3.2 | 3.4 | 2.9 | 2.2 | 2.3 | 2.0 | 2.1 | 2.1 | 2.3 | 2.3 | 29.2 |
| % 5.0-11.0m/s | 2.5 | 1.1 | 2.4 | 4.9 | 5.6 | 3.8 | 3.4 | 5.8 | 7.0 | 6.6 | 6.7 | 6.4 | 56.2 |
| % > 11.0m/s | 0.1 | 0.0 | 0.0 | 0.2 | 0.6 | 0.9 | 0.6 | 1.6 | 2.7 | 2.7 | 2.6 | 1.9 | 13.8 |
| Middel hastighed | 5.7 | 4.4 | 4.8 | 5.8 | 6.5 | 7.0 | 6.4 | 7.8 | 8.4 | 8.5 | 8.3 | 7.8 | 7.2 |
| Største hastighed | 18.0 | 16.5 | 13.9 | 17.5 | 25.7 | 21.1 | 19.5 | 26.2 | 27.3 | 25.8 | 25.7 | 23.2 | 27.3 |

Totalt antal observationer = 81990 Kilde: DMI

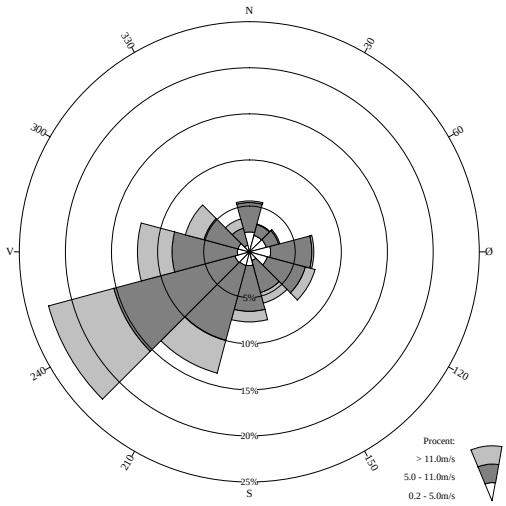
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 672 = 0.8%

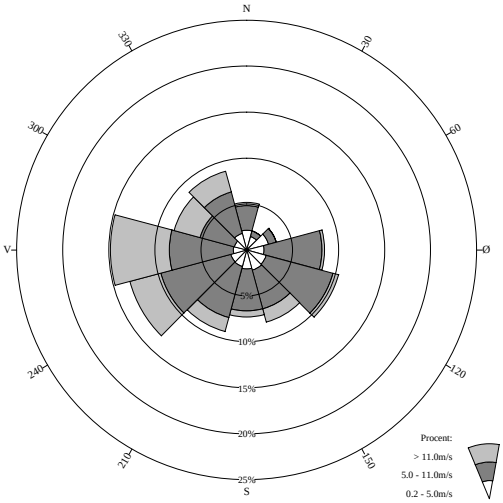
## JANUAR



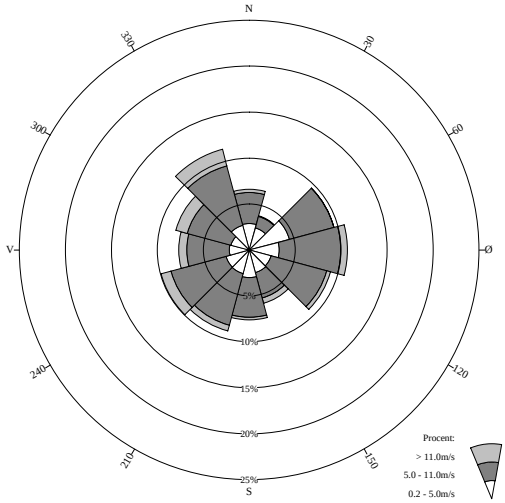

## FEBRUAR



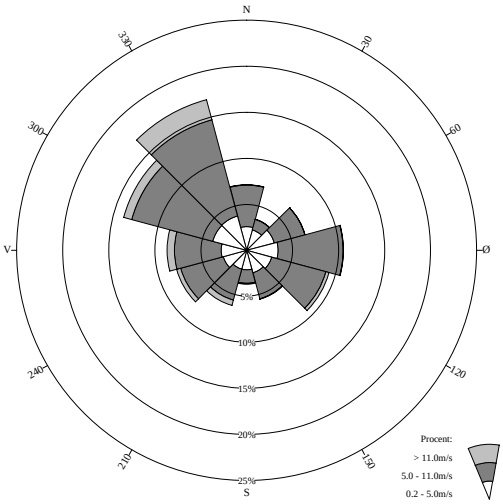

## MARTS



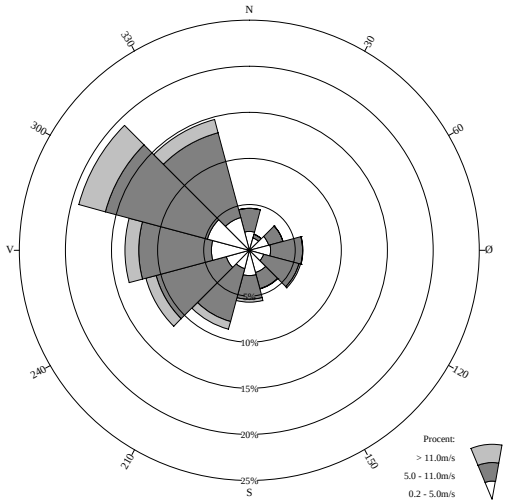

## APRIL



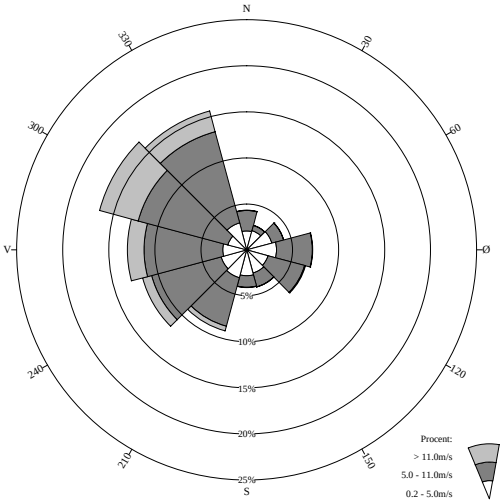

## MAJ



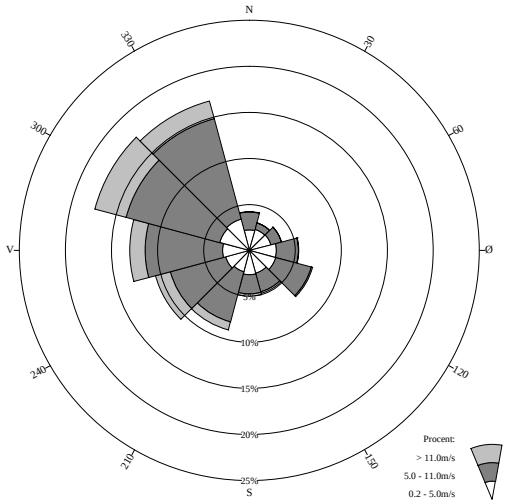

## JUNI



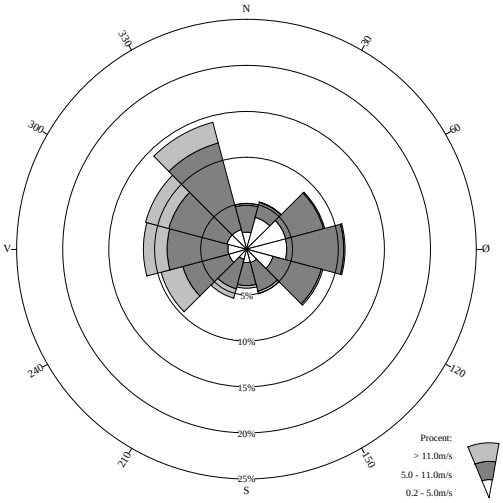
## JULI



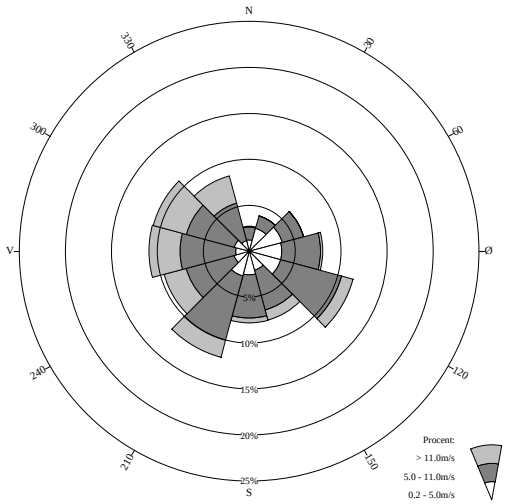

## AUGUST



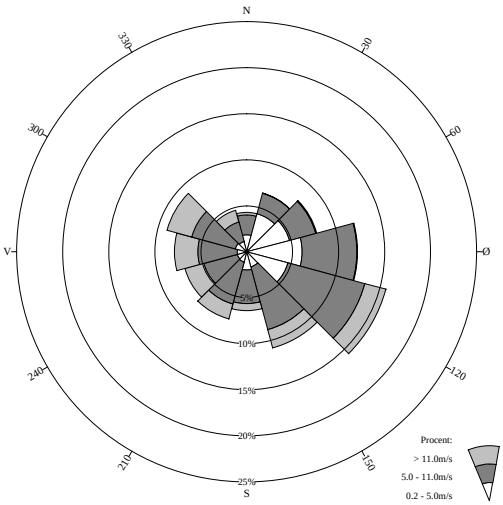

## SEPTEMBER



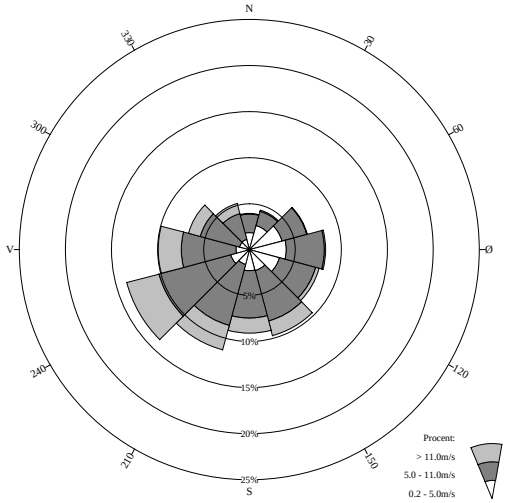

## OKTOBER




## NOVEMBER

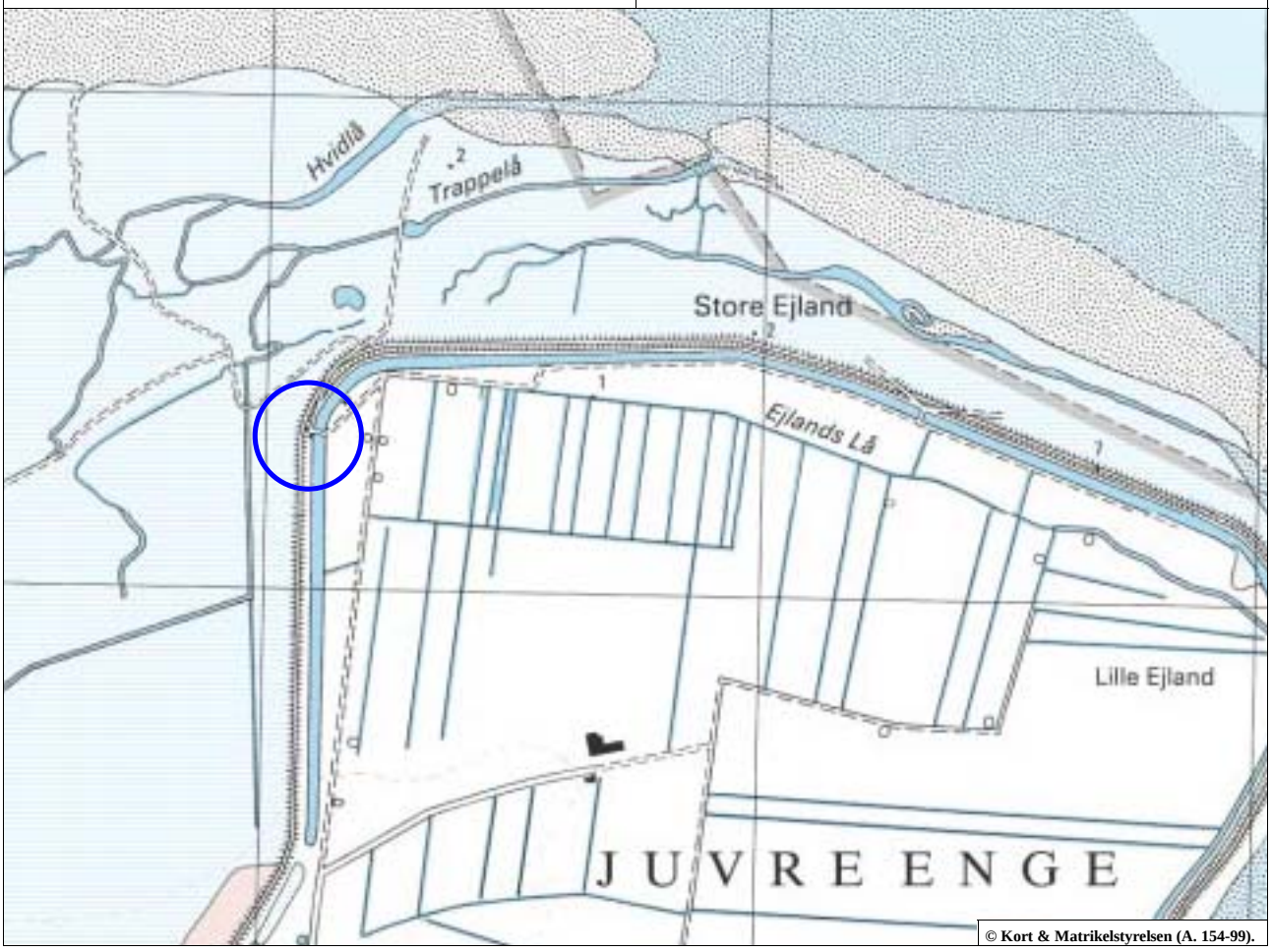



## DECEMBER



# 06096 Rømø/Juvre

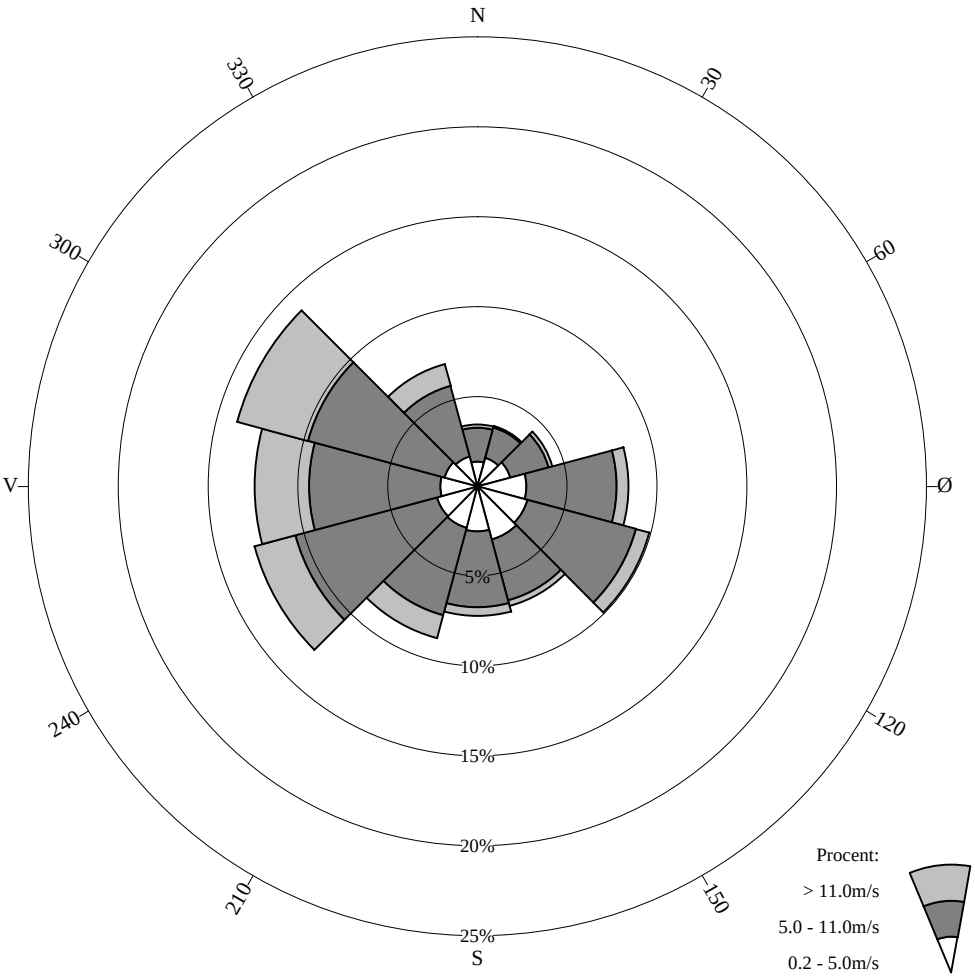
| | |
|---|---|
| **Position:** 55° 11’ N, 08° 34’ E<br>**UTM-koordinater:** 32U 6116.310N 472.070E<br>**Stationsbasis** (m.o.h.)**:** 4<br>**Vindmastbasis** (m.o.h.)**:** 4<br>**Vindmålehøjde:** 19 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:** | **Position:** lat 55° 11’ N, long 08° 34’ E<br>**UTM-positions:** 32U 6116.310N 472.070E<br>**Elevation** (m.a.s.l.)**:** 4<br>**Base of wind mast** (m.a.s.l.)**:** 4<br>**Level of measurement:** 19 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:** |



# Station 06096
# RØMØ/JUVRE

01-01-89 - 31-12-98

Hele perioden



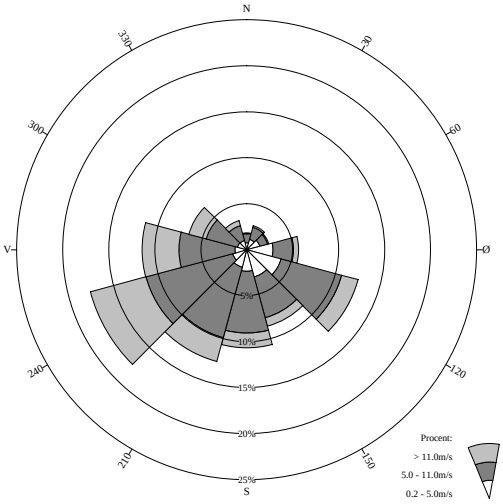

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.4 | 3.5 | 4.3 | 8.4 | 9.9 | 6.9 | 7.2 | 8.8 | 12.9 | 12.4 | 13.9 | 7.1 | 98.6 |
| % 0.2-5.0m/s | 1.4 | 1.7 | 1.9 | 2.7 | 2.9 | 3.1 | 2.5 | 2.4 | 2.3 | 2.1 | 1.9 | 1.7 | 26.6 |
| % 5.0-11.0m/s | 1.9 | 1.7 | 2.2 | 5.0 | 6.2 | 3.5 | 4.2 | 5.0 | 8.2 | 7.3 | 7.9 | 4.1 | 57.3 |
| % > 11.0m/s | 0.2 | 0.1 | 0.2 | 0.7 | 0.8 | 0.3 | 0.5 | 1.3 | 2.4 | 3.0 | 4.1 | 1.3 | 14.8 |
| Middel hastighed | 5.9 | 5.3 | 5.7 | 6.5 | 6.7 | 5.7 | 6.3 | 7.3 | 8.1 | 8.7 | 9.1 | 7.7 | 7.4 |
| Største hastighed | 19.6 | 18.0 | 21.1 | 18.5 | 21.1 | 21.6 | 19.0 | 22.6 | 28.8 | 30.4 | 28.8 | 27.8 | 30.4 |

Totalt antal observationer = 83532 Kilde: DMI

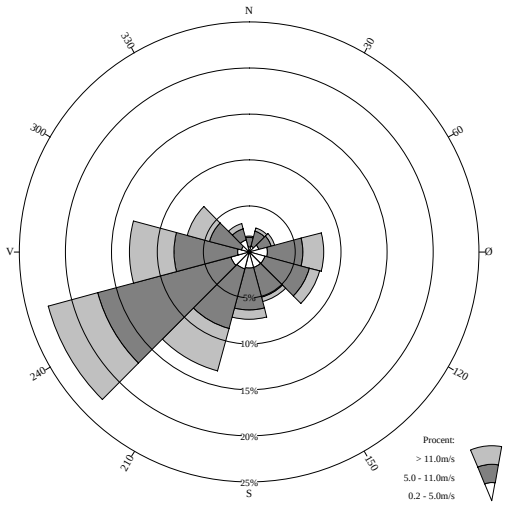
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1153 = 1.4%

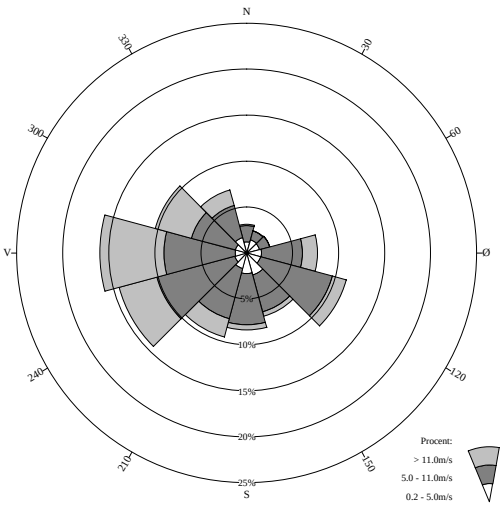
## JANUAR



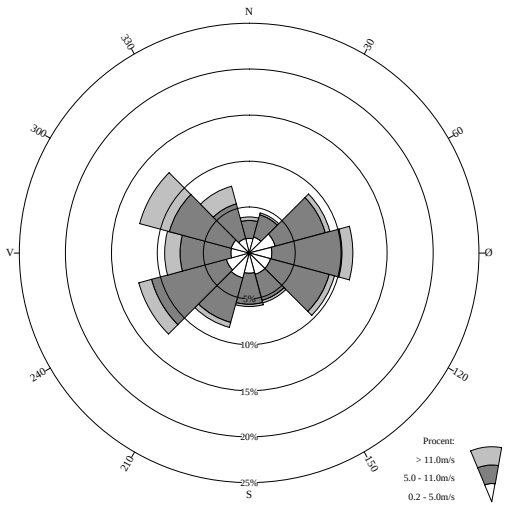

## FEBRUAR



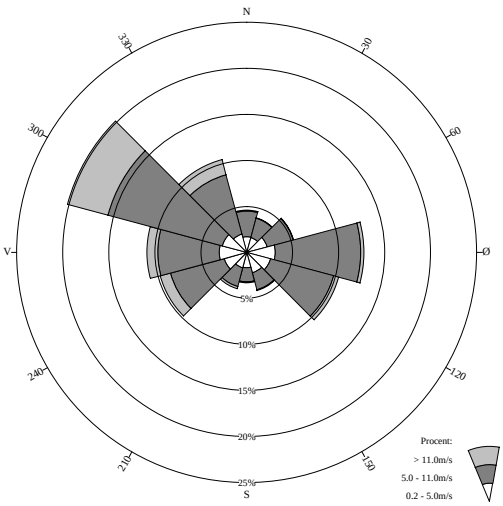

## MARTS



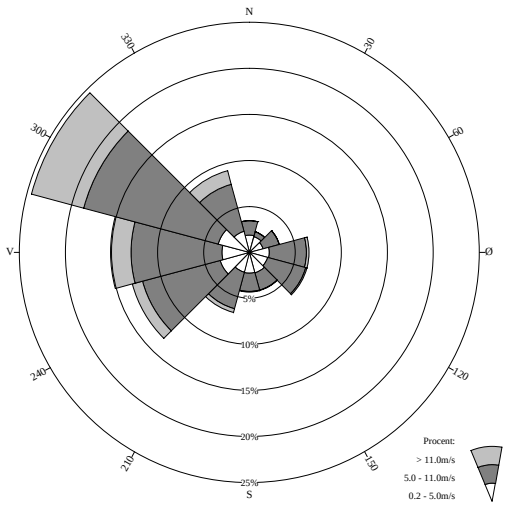

## APRIL



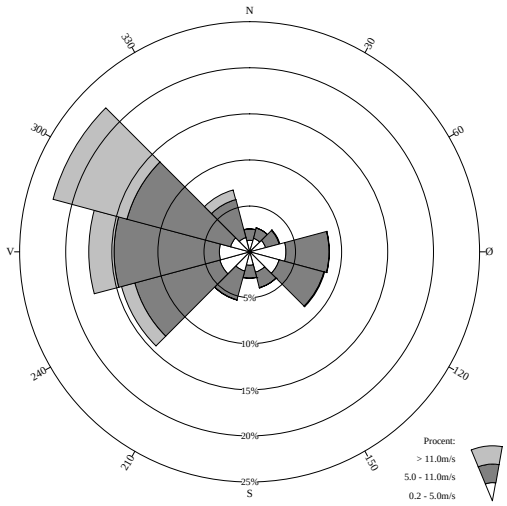

## MAJ



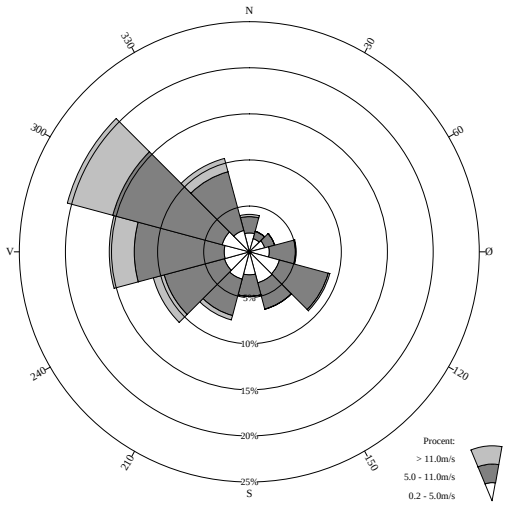

## JUNI



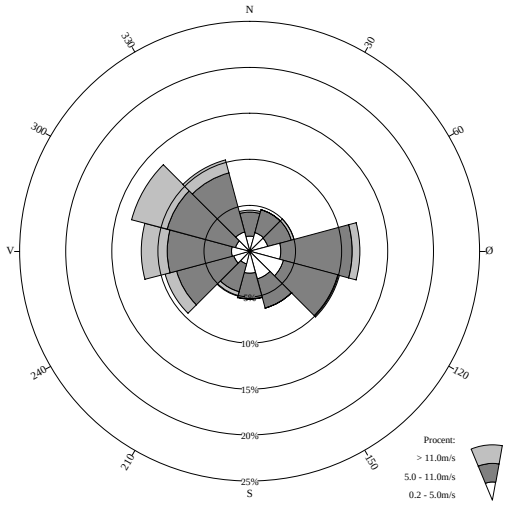
## JULI



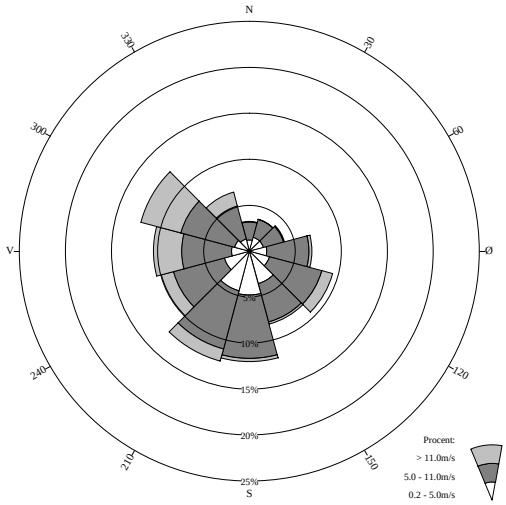

## AUGUST



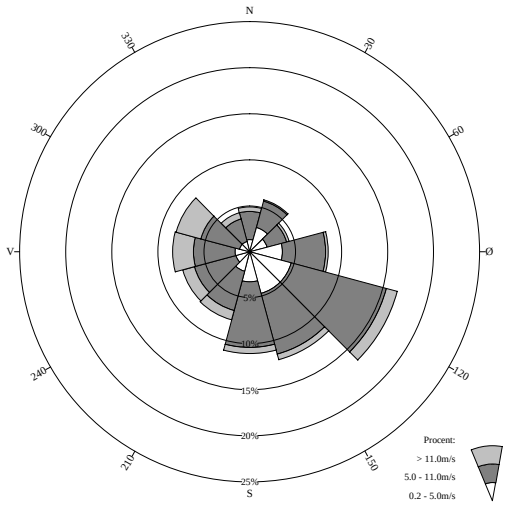

## SEPTEMBER



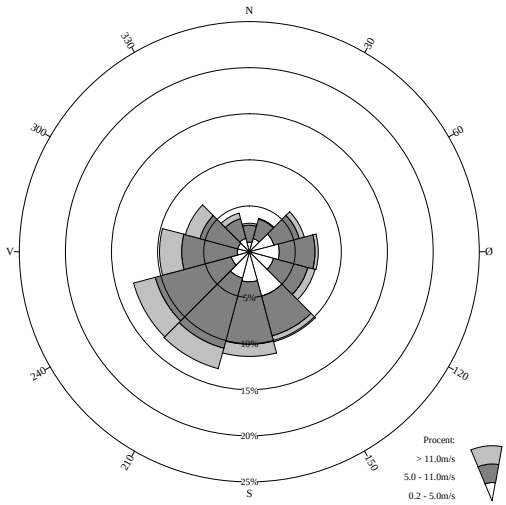

## OKTOBER




## NOVEMBER

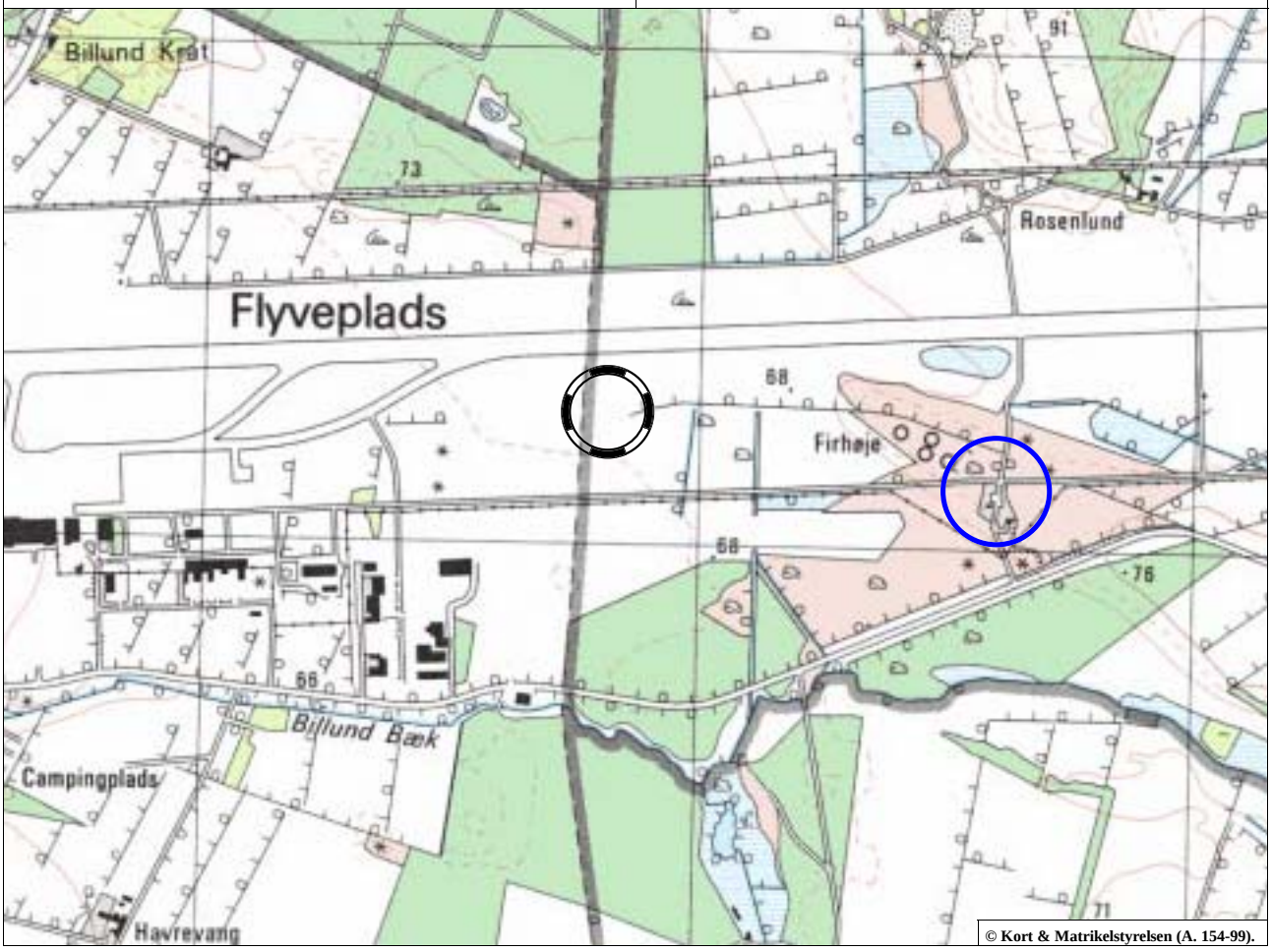



## DECEMBER



# 06104 Billund Lufthavn

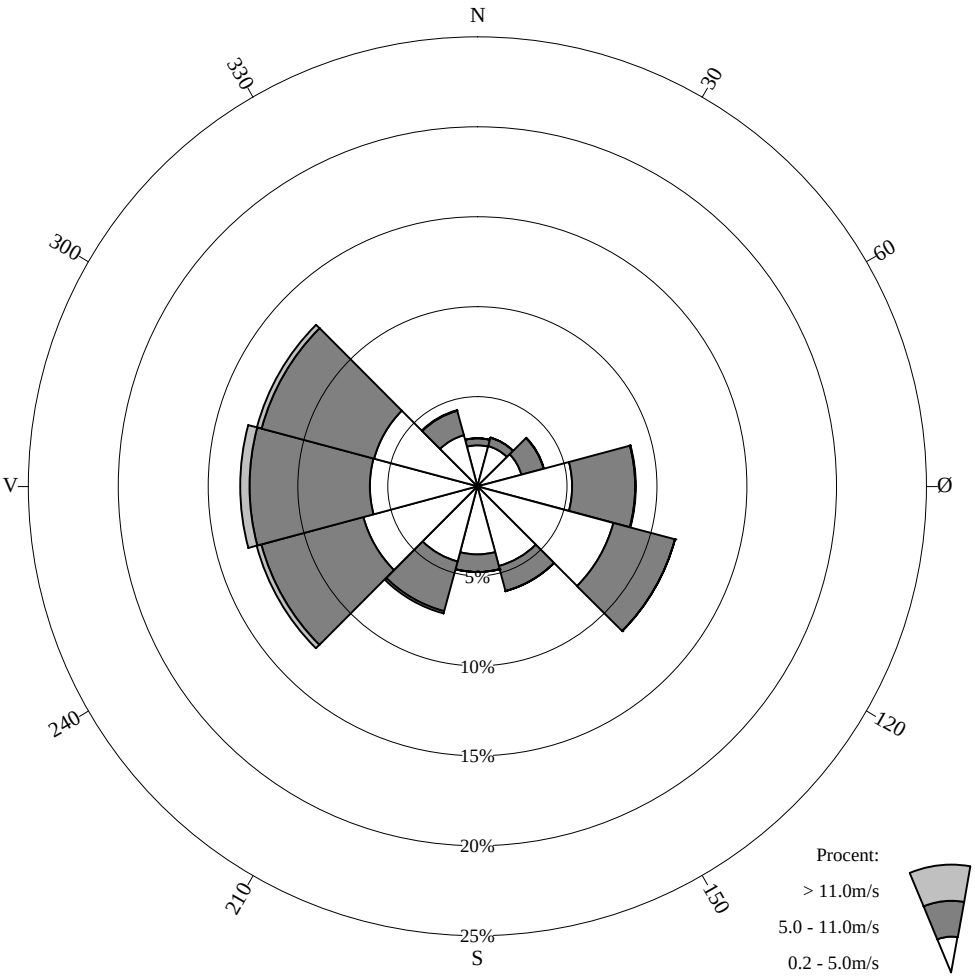
| | |
|---|---|
| **Position:** 55° 44’ N, 09° 10’ E<br>**UTM-koordinater:** 32U 6177.120N 510.560E<br>**Stationsbasis** (m.o.h.)**:** 75<br>**Vindmastbasis** (m.o.h.)**:** 75<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Vær opmærksom på, at vindmasten er placeret vest for det sted, hvor resten af vejrstationen er placeret. | **Position:** lat 55° 44’ N, long 09° 10’ E<br>**UTM-positions:** 32U 6177.120N 510.560E<br>**Elevation** (m.a.s.l.)**:** 75<br>**Base of wind mast** (m.a.s.l.)**:** 75<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>Please notice, that the wind mast is located to the west of the place where the rest of the weather station is located. |



# Station 06104
# BILLUND LUFTHAVN

01-01-89 - 31-12-98

Hele perioden



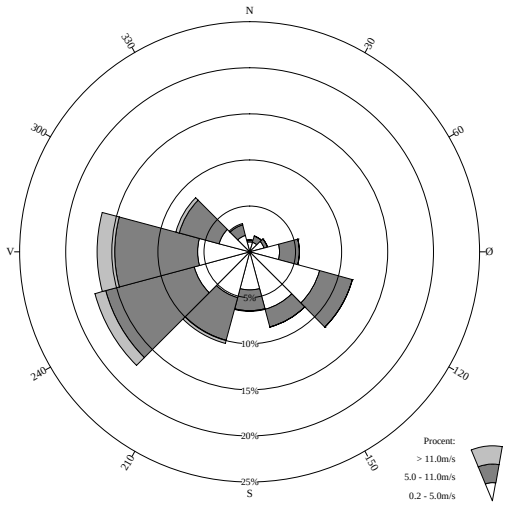

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 2.7 | 2.8 | 3.8 | 8.8 | 11.4 | 6.0 | 4.8 | 7.3 | 12.7 | 13.2 | 12.7 | 4.4 | 90.8 |
| % 0.2-5.0m/s | 2.3 | 2.3 | 2.5 | 5.3 | 7.8 | 4.6 | 3.8 | 4.3 | 6.6 | 6.0 | 6.0 | 2.9 | 54.5 |
| % 5.0-11.0m/s | 0.4 | 0.5 | 1.3 | 3.5 | 3.5 | 1.4 | 1.0 | 2.9 | 5.9 | 6.7 | 6.5 | 1.4 | 34.9 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.5 | 0.3 | 0.0 | 1.3 |
| Middel hastighed | 3.3 | 3.3 | 4.2 | 4.4 | 4.0 | 3.8 | 3.7 | 4.8 | 5.2 | 5.6 | 5.3 | 4.3 | 4.6 |
| Største hastighed | 11.9 | 9.3 | 13.4 | 14.4 | 10.8 | 11.8 | 12.9 | 14.9 | 18.5 | 21.6 | 17.5 | 14.9 | 21.6 |

Totalt antal observationer = 29105 Kilde: DMI

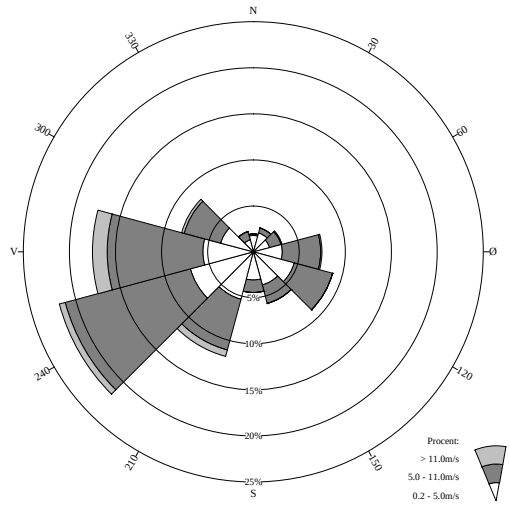
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 2691 = 9.2%

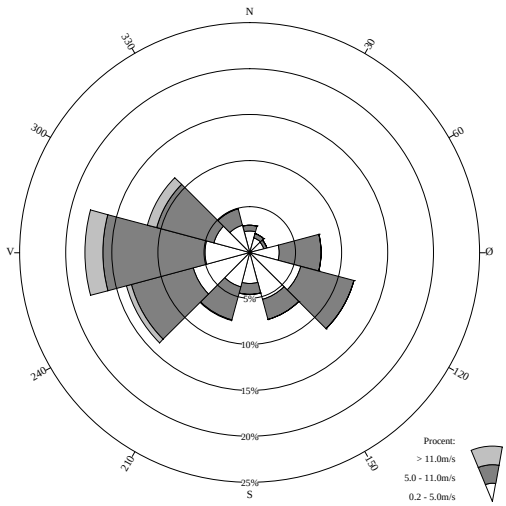
## JANUAR



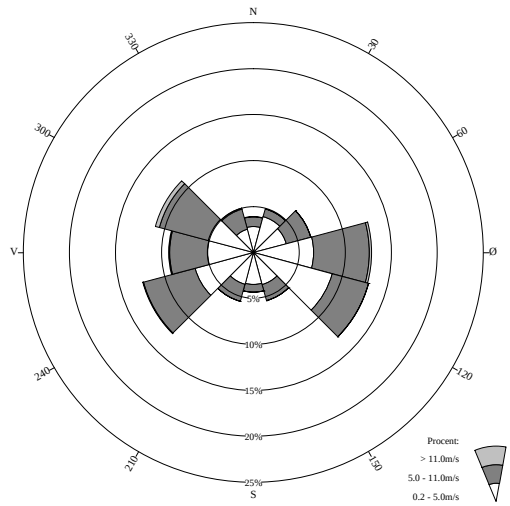

## FEBRUAR



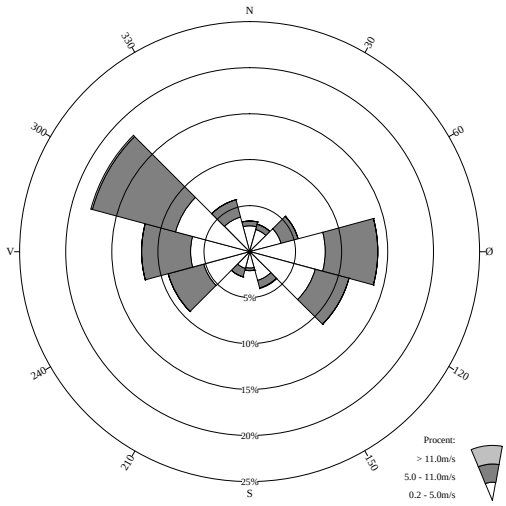

## MARTS



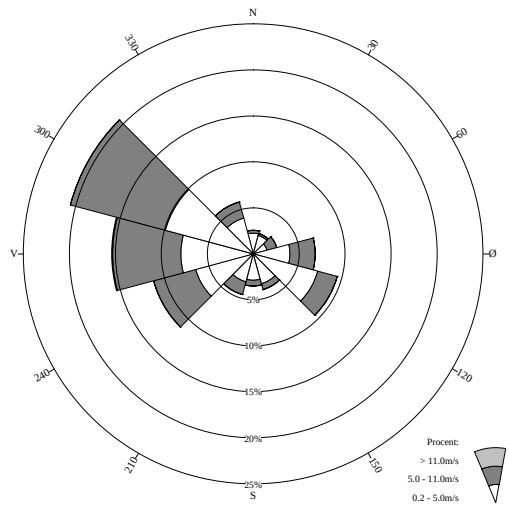

## APRIL



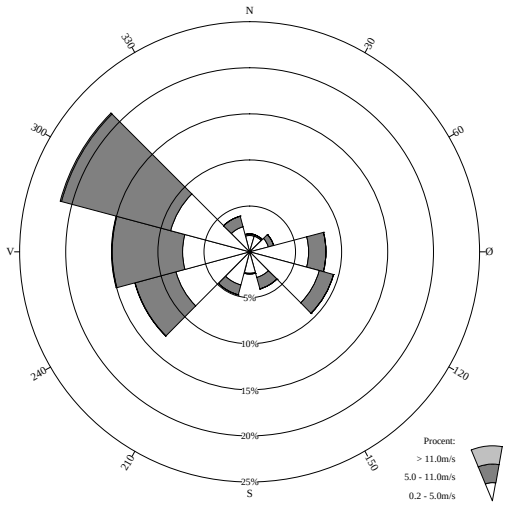

## MAJ



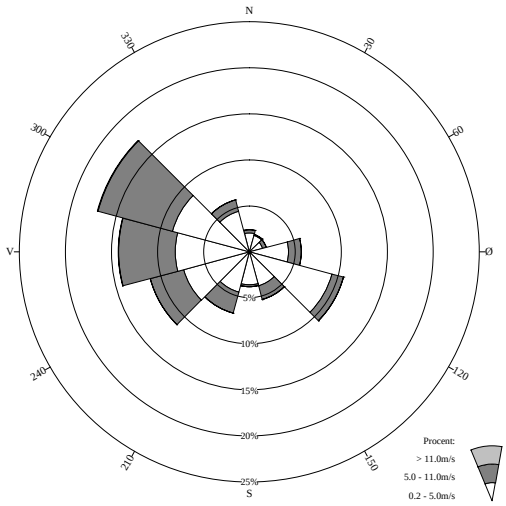

## JUNI



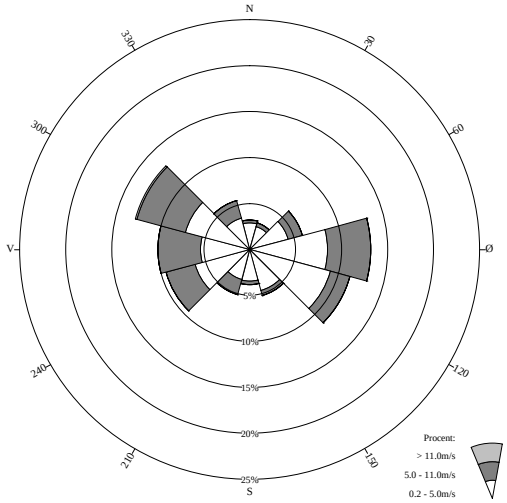
## JULI



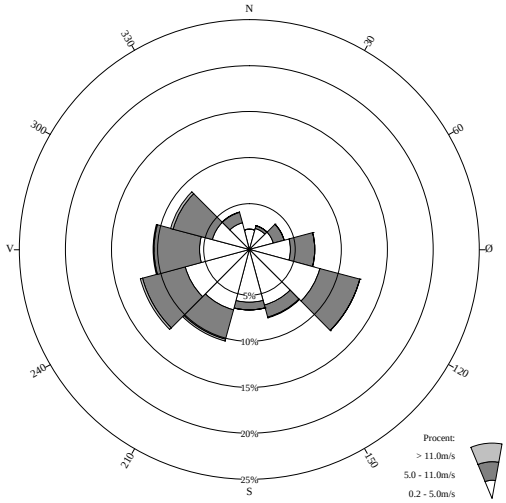

## AUGUST



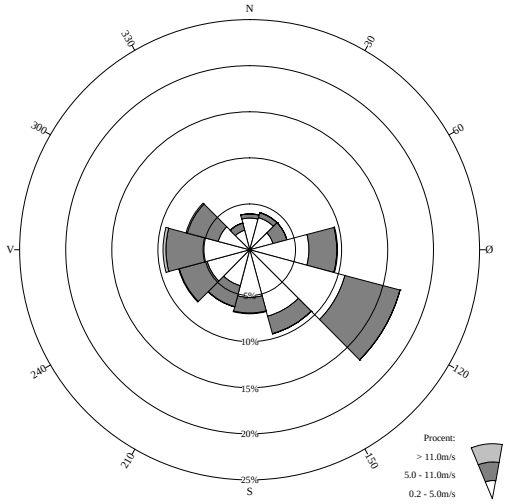

## SEPTEMBER



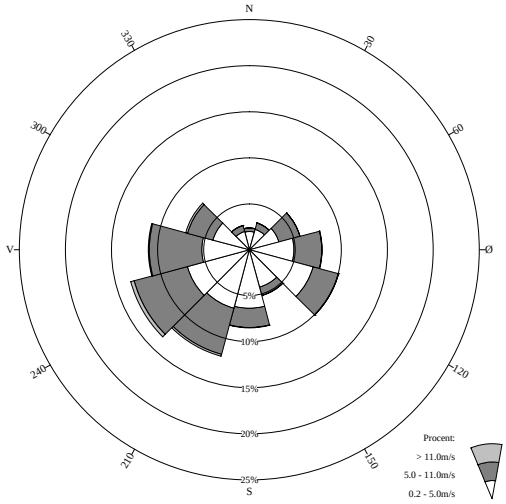

## OKTOBER




## NOVEMBER

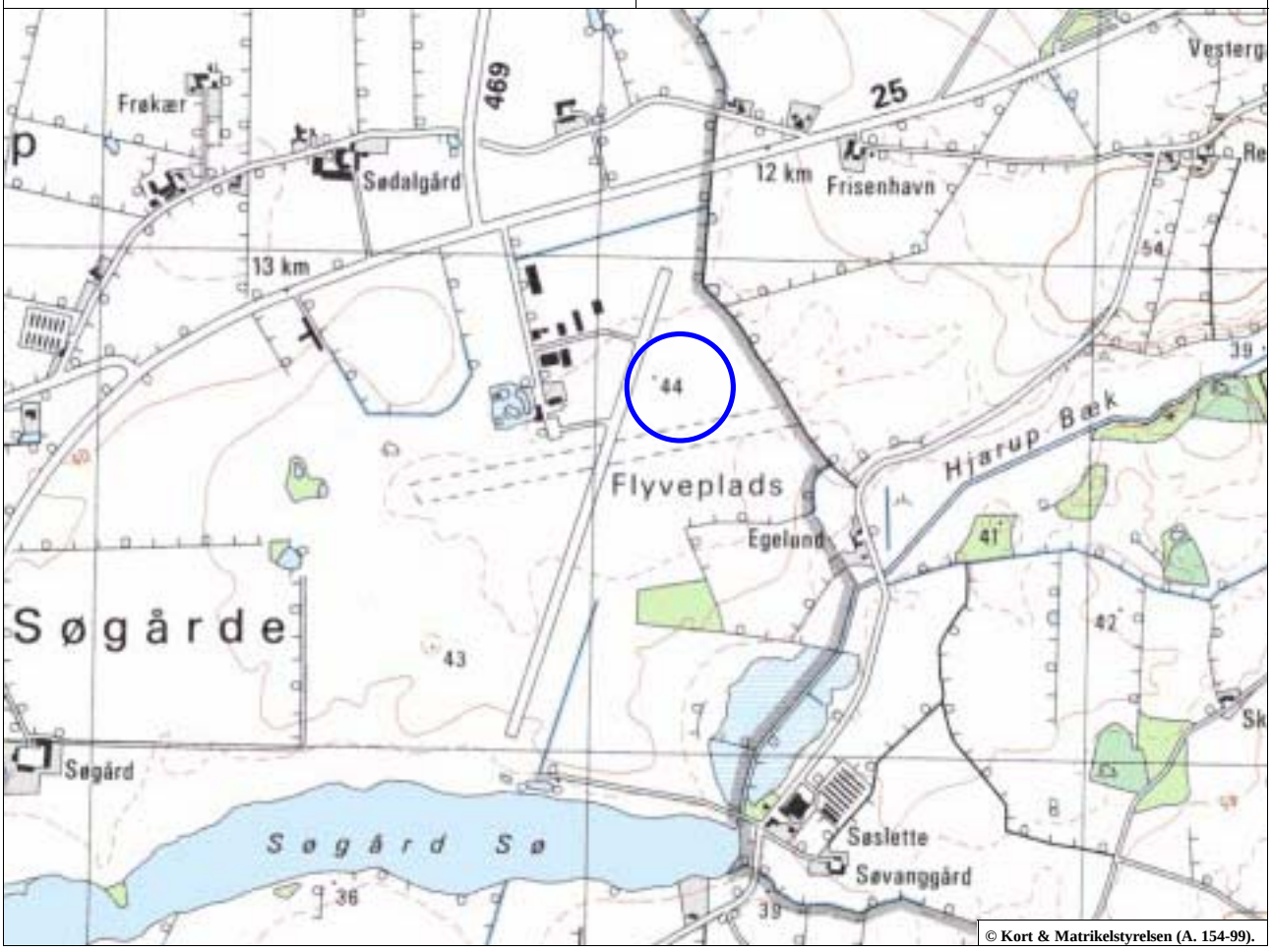



## DECEMBER



# 06108 Koldingegnens Lufthavn

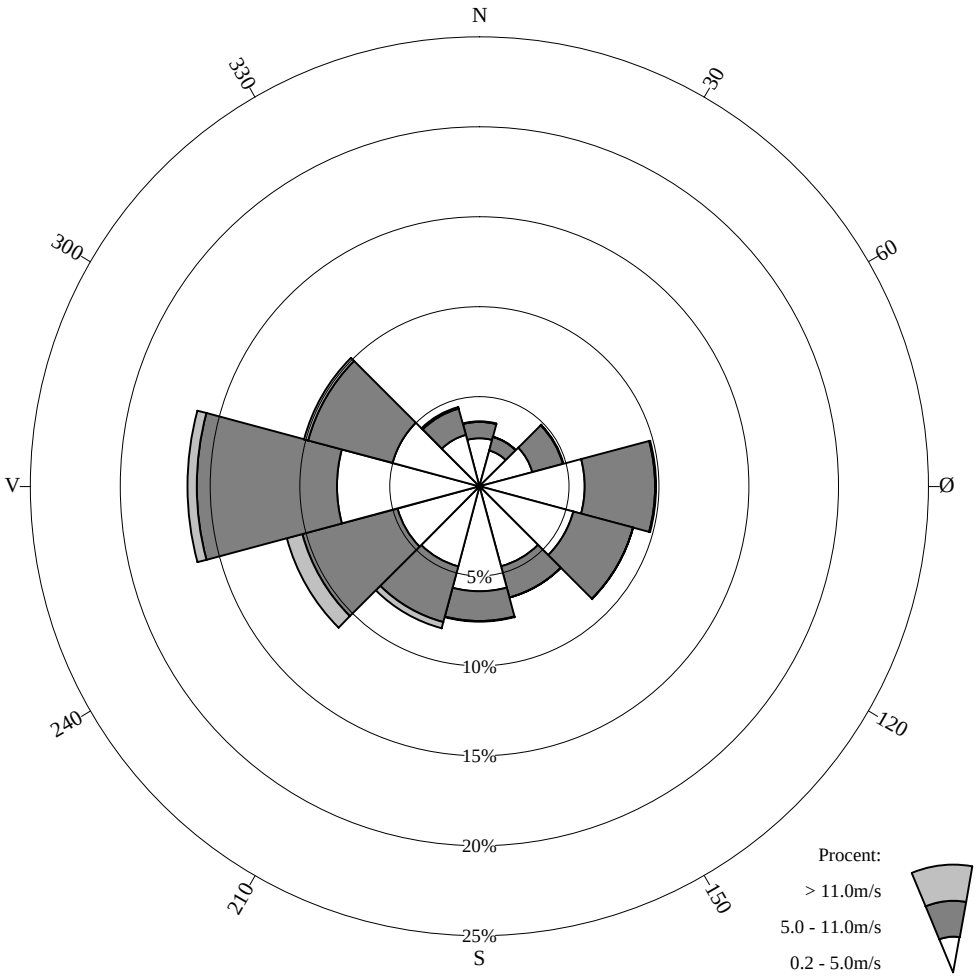
| | |
|---|---|
| **Position:** 55° 26’ N, 09° 20’ E<br>**UTM-koordinater:** 32U 6143.750N 521.130E<br>**Stationsbasis** (m.o.h.)**:** 44<br>**Vindmastbasis** (m.o.h.)**:** 44<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Dataserien omfatter perioden 01.01.91-31.12.98. | **Position:** lat 55° 26’ N, long 09° 20’ E<br>**UTM-positions:** 32U 6143.750N 521.130E<br>**Elevation** (m.a.s.l.)**:** 44<br>**Base of wind mast** (m.a.s.l.)**:** 44<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>The data series covers the period 01.01.91-31.12.98. |



# Station 06108
# KOLDINGEGNENS LUFTHAVN

01-01-91 - 31-12-98

Hele perioden



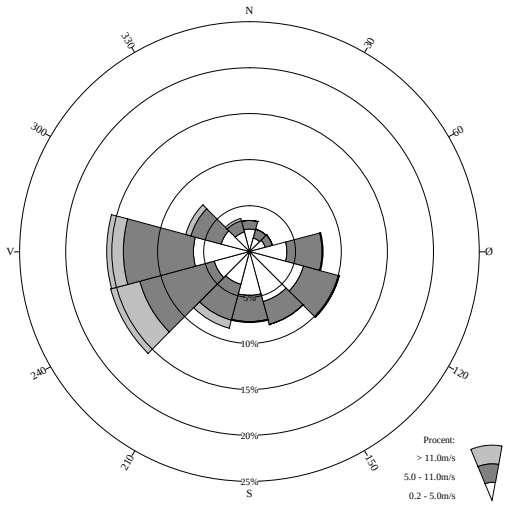

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.6 | 2.9 | 4.9 | 9.8 | 8.9 | 6.4 | 7.5 | 8.2 | 11.1 | 16.3 | 10.1 | 4.6 | 94.3 |
| % 0.2-5.0m/s | 2.7 | 2.1 | 3.1 | 5.9 | 5.4 | 4.6 | 5.8 | 4.6 | 4.7 | 7.9 | 5.0 | 3.0 | 54.8 |
| % 5.0-11.0m/s | 0.9 | 0.8 | 1.8 | 3.9 | 3.4 | 1.8 | 1.7 | 3.2 | 5.5 | 7.8 | 4.9 | 1.5 | 37.2 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.9 | 0.5 | 0.2 | 0.1 | 2.3 |
| Middel hastighed | 3.7 | 3.7 | 4.4 | 4.6 | 4.5 | 3.9 | 3.6 | 5.0 | 6.1 | 5.3 | 5.2 | 4.3 | 4.8 |
| Største hastighed | 14.5 | 11.3 | 16.0 | 13.4 | 12.4 | 12.3 | 13.9 | 20.6 | 22.1 | 19.0 | 18.0 | 17.6 | 22.1 |

Totalt antal observationer = 68454 Kilde: DMI

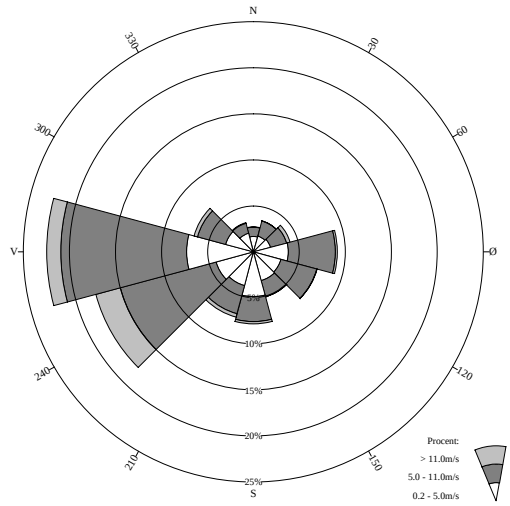
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 3935 = 5.7%

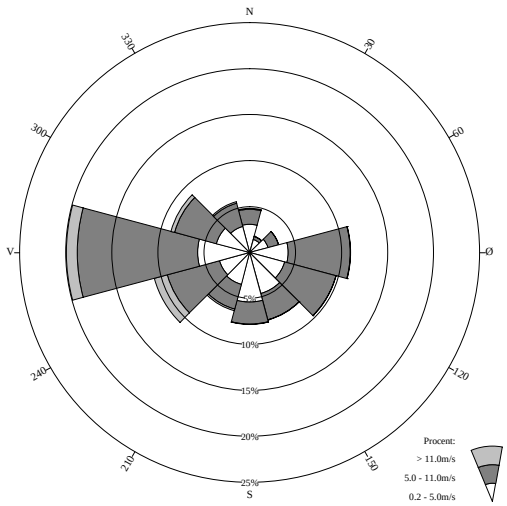
## JANUAR



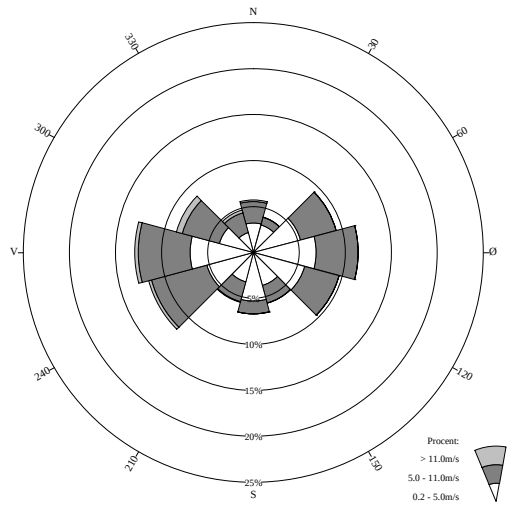

## FEBRUAR



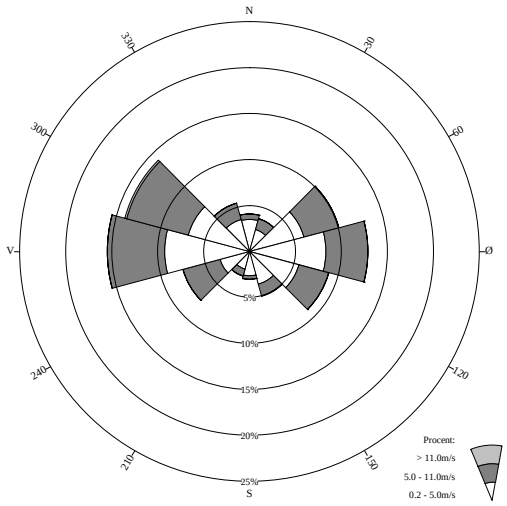

## MARTS



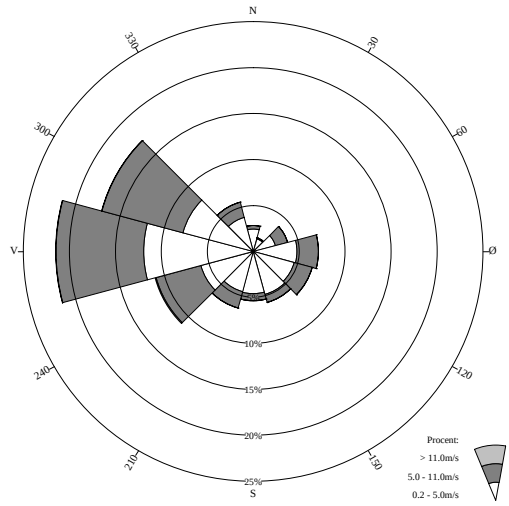

## APRIL



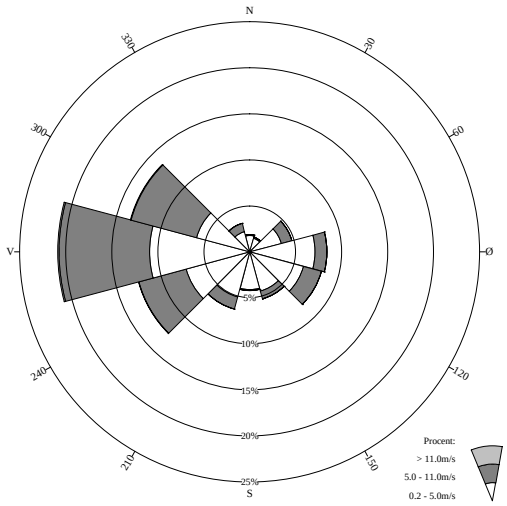

## MAJ



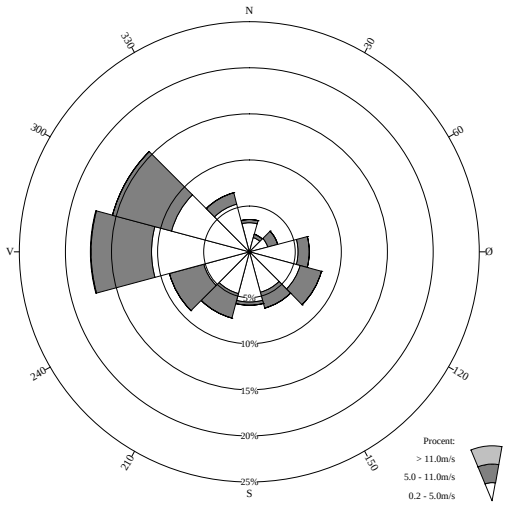

## JUNI



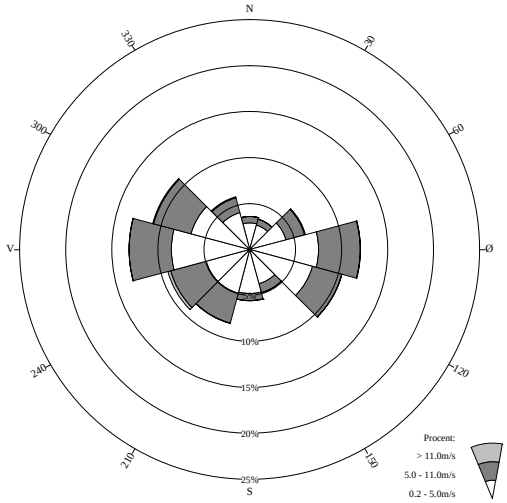
## JULI



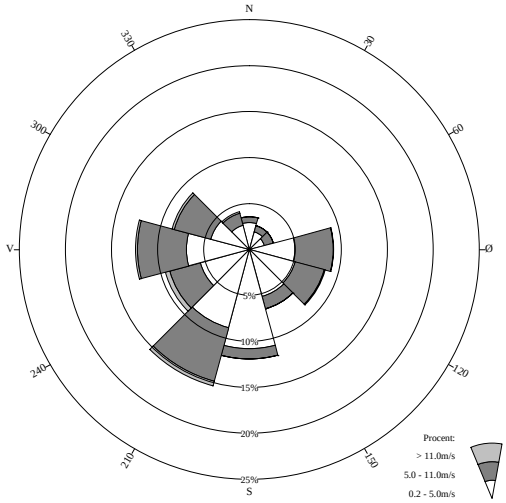

## AUGUST



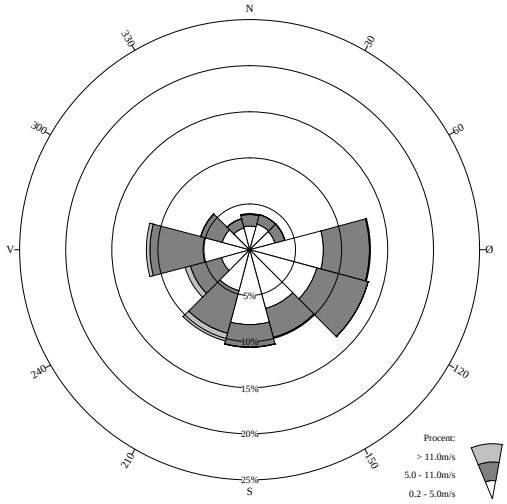

## SEPTEMBER



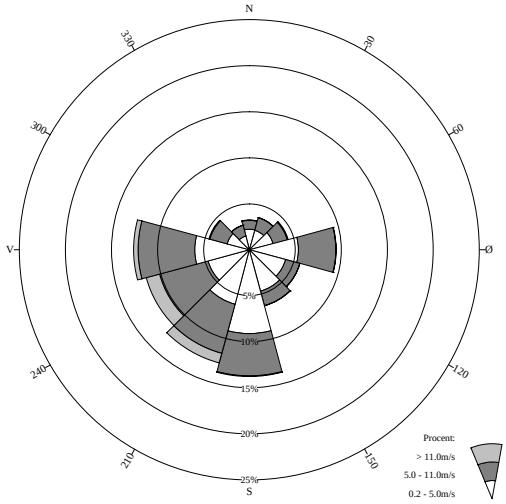

## OKTOBER




## NOVEMBER

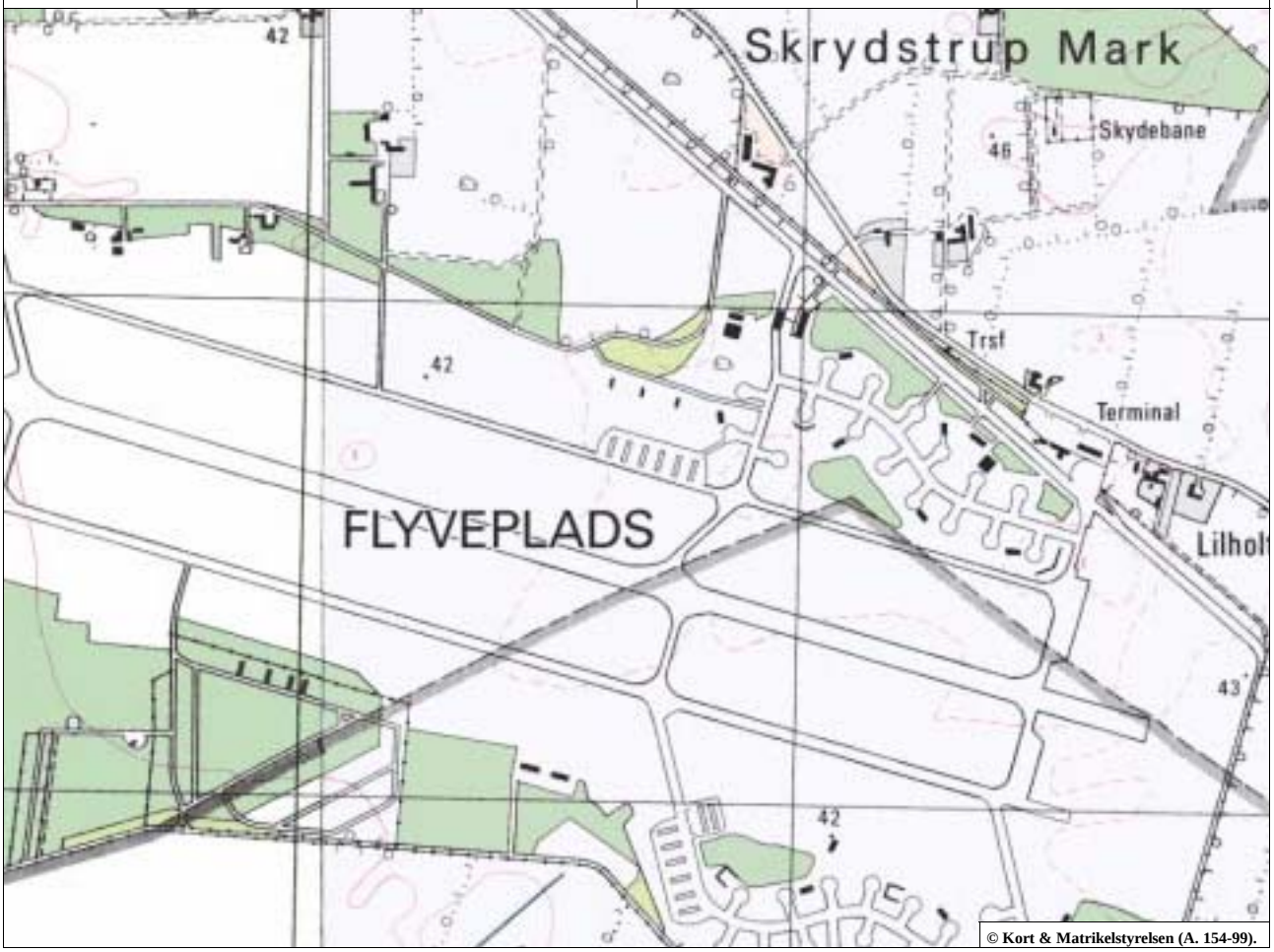



## DECEMBER



# 06110 FSN Skrydstrup

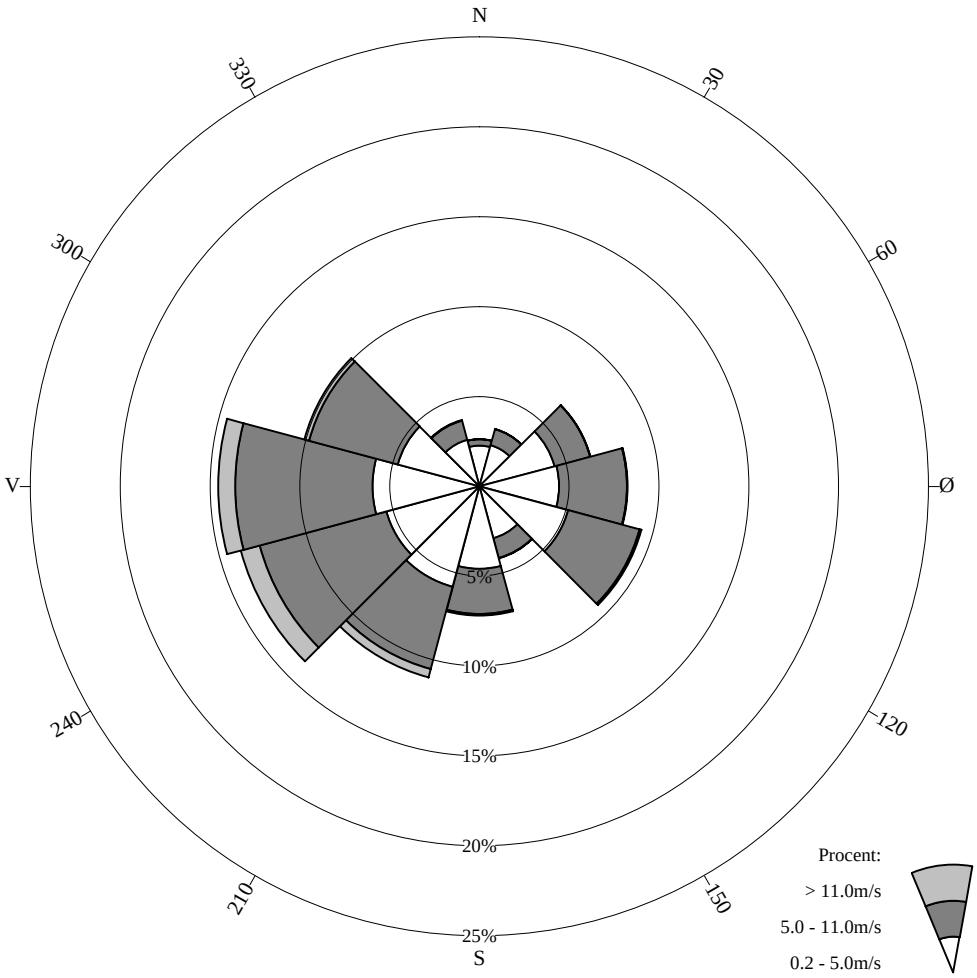
| | |
|---|---|
| **Position:** 55° 14’ N, 09° 16’ E<br>**UTM-koordinater:**<br>**Stationsbasis** (m.o.h.)**:** 41<br>**Vindmastbasis** (m.o.h.)**:** 41<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Stationen hører under Forsvaret og er derfor ikke markeret på kortet. | **Position:** lat 55° 14’ N, long 09° 16’ E<br>**UTM-positions:**<br>**Elevation** (m.a.s.l.)**:** 41<br>**Base of wind mast** (m.a.s.l.)**:** 41<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>The station belongs to the Ministry of Defence and for that reason not marked on the map. |



# Station 06110
# FSN SKRYDSTRUP

01-01-89 - 31-12-98

Hele perioden



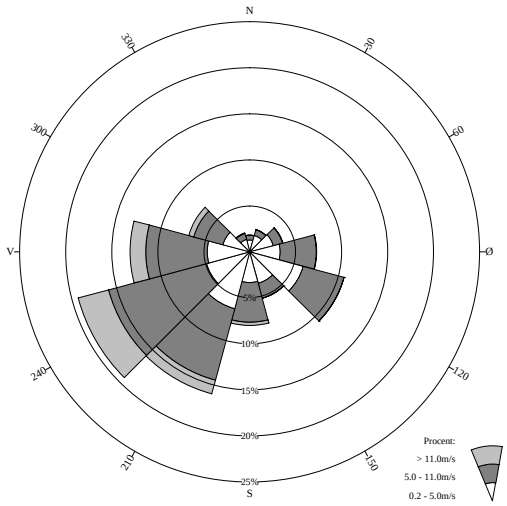

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 2.6 | 3.3 | 6.4 | 8.3 | 9.3 | 4.2 | 7.2 | 11.0 | 13.8 | 14.5 | 10.1 | 3.8 | 94.5 |
| % 0.2-5.0m/s | 2.3 | 2.4 | 4.3 | 4.4 | 5.1 | 3.0 | 4.6 | 5.8 | 5.4 | 6.0 | 4.7 | 2.7 | 50.7 |
| % 5.0-11.0m/s | 0.4 | 0.9 | 2.1 | 3.8 | 4.1 | 1.1 | 2.5 | 4.7 | 7.3 | 7.7 | 5.1 | 1.1 | 40.8 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.5 | 1.1 | 0.9 | 0.3 | 0.0 | 3.1 |
| Middel hastighed | 3.1 | 3.8 | 4.2 | 4.9 | 4.9 | 4.0 | 4.4 | 5.3 | 6.3 | 6.0 | 5.4 | 4.1 | 5.1 |
| Største hastighed | 11.8 | 11.8 | 13.4 | 12.9 | 13.9 | 13.4 | 14.9 | 20.6 | 20.1 | 21.6 | 18.5 | 13.4 | 21.6 |

Totalt antal observationer = 29196 Kilde: DMI

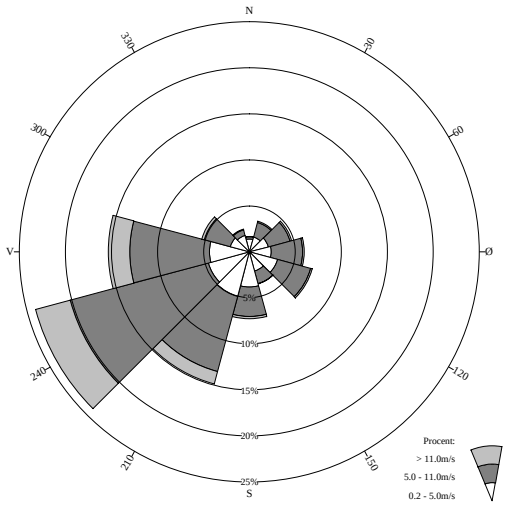
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1603 = 5.5%

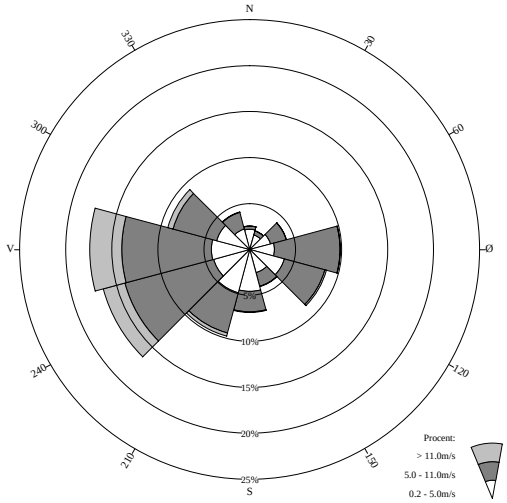
## JANUAR



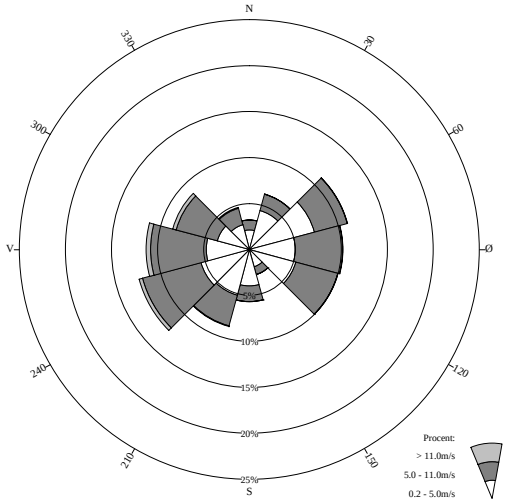

## FEBRUAR



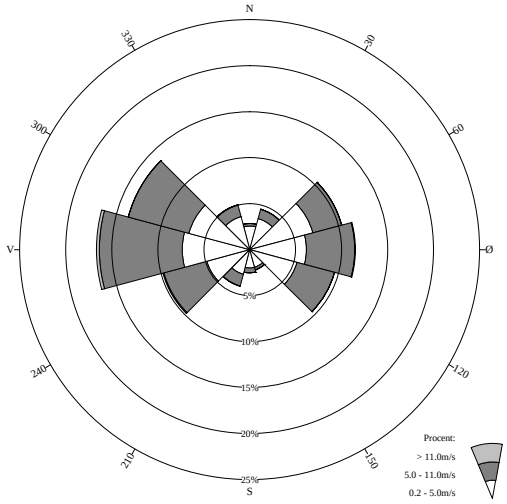

## MARTS



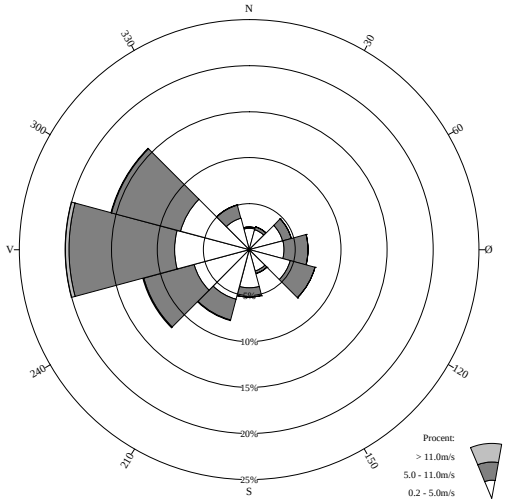

## APRIL



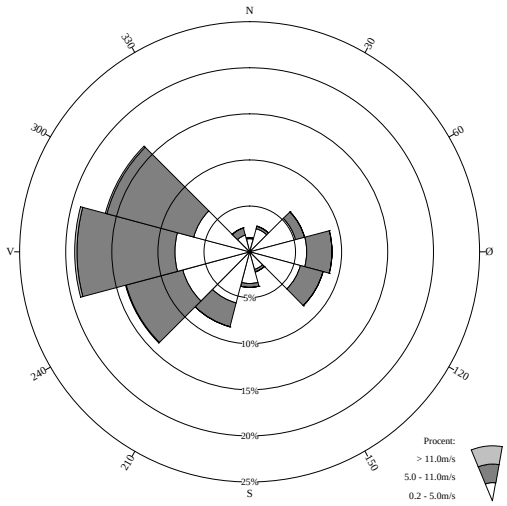

## MAJ



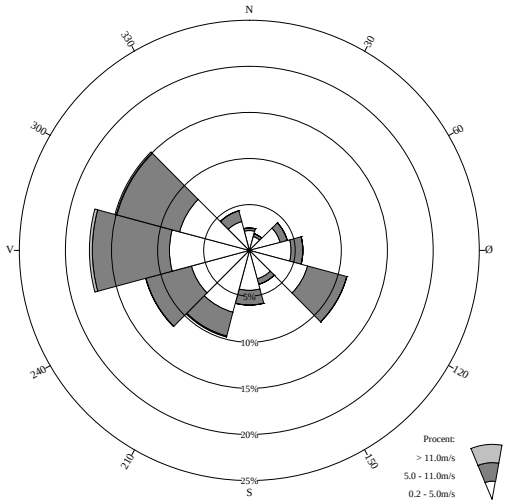

## JUNI



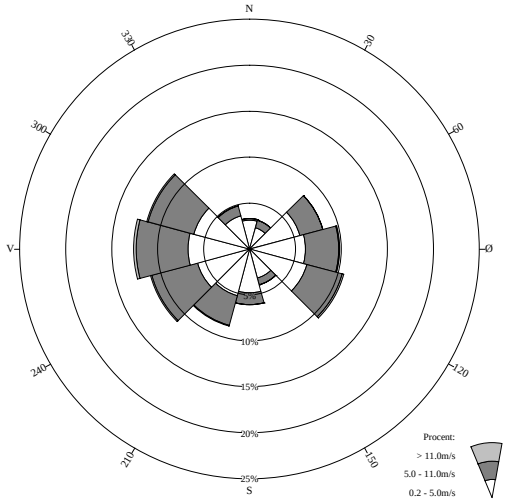
## JULI



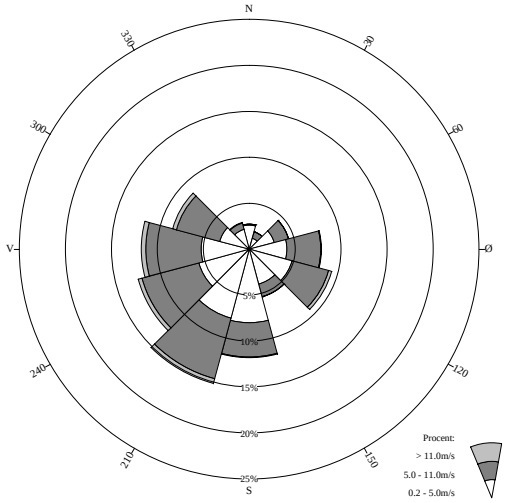

## AUGUST



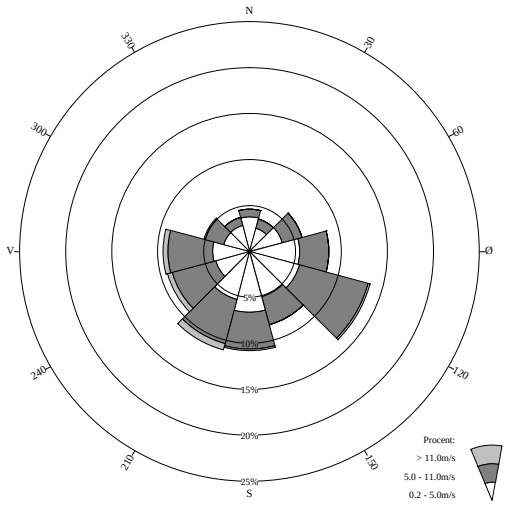

## SEPTEMBER



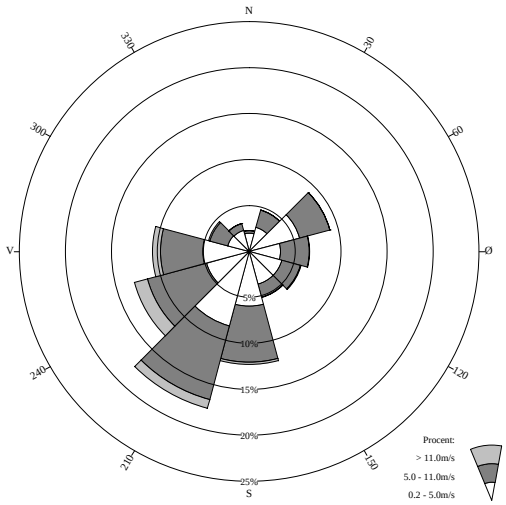

## OKTOBER




## NOVEMBER




## DECEMBER



# 06111 Bågø Fyr

**Position:** 55° 18’ N, 09° 48’ E
**UTM-koordinater:** 32U 6128.410N 550.840E
**Stationsbasis** (m.o.h.)**:** 2
**Vindmastbasis** (m.o.h.)**:** 2
**Vindmålehøjde:** 10 m
**Registreringsfrekvens:** se bemærkninger
**Vindstød:** nej

**Bemærkninger:**
Vinddata er kun registreret i dagtimerne kl. 06, 09, 12, 15 og 18 UTC.
Vindretninger er subjektivt bedømt uden nogen form for instrumenter eller vindpose.
Vær opmærksom på, at vindmasten er placeret syd for det sted, hvor resten af vejrstationen er placeret.

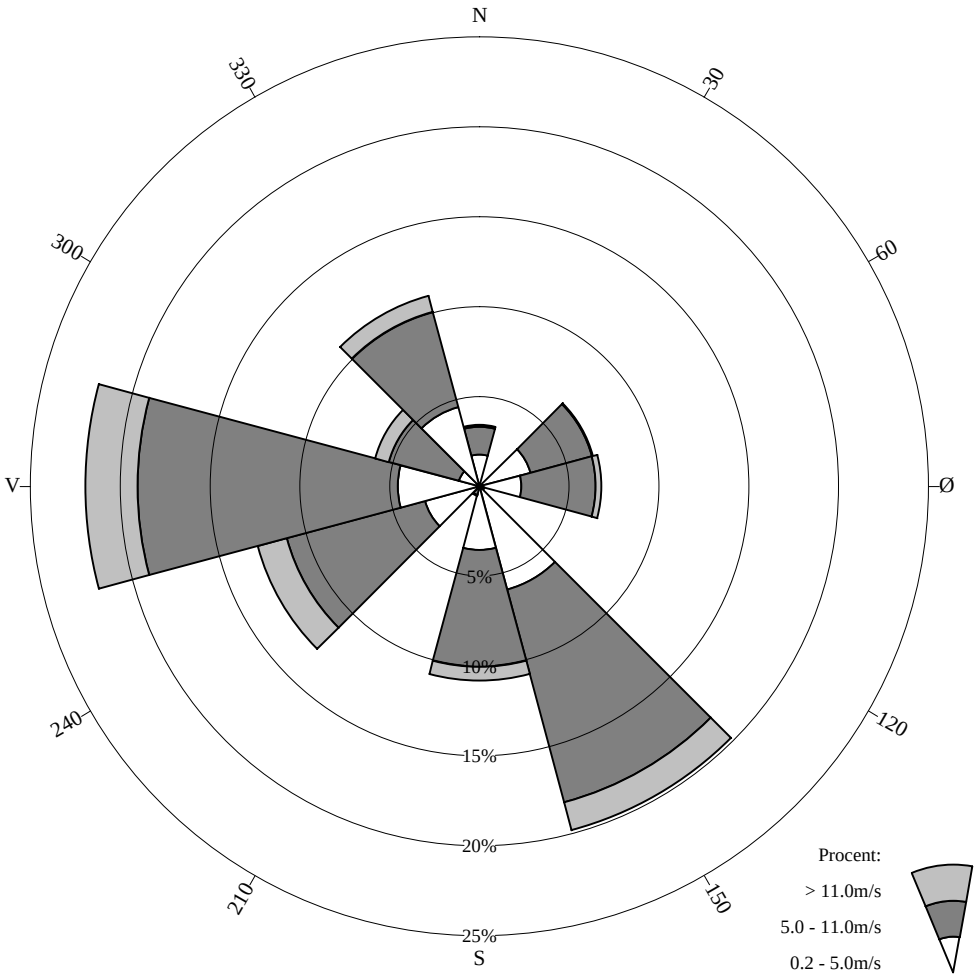
**Position:** lat 55° 18’ N, long 09° 48’ E
**UTM-positions:** 32U 6128.410N 550.840E
**Elevation** (m.a.s.l.)**:** 2
**Base of wind mast** (m.a.s.l.)**:** 2
**Level of measurement:** 10 m
**Frequency of observations:** see comments
**Gust:** no

**Comments:**
The winddata are measured only at 06, 09, 12, 15 and 18 UTC.
The wind direction is judged without instruments of any kind even a wind sock.
Please notice, that the wind mast is located to the south of the place where the rest of the weather station is located.

# Station 06111
# BÅGØ FYR

01-01-89 - 31-12-98

Hele perioden



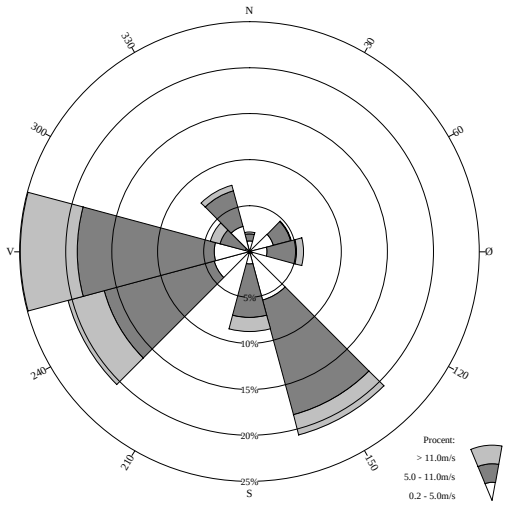

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.4 | 0.0 | 6.5 | 6.8 | 0.3 | 19.8 | 10.8 | 0.6 | 12.8 | 21.9 | 6.0 | 11.0 | 100.0 |
| % 0.2-5.0m/s | 1.8 | 0.0 | 2.9 | 2.3 | 0.0 | 5.9 | 3.6 | 0.1 | 3.1 | 4.6 | 1.2 | 4.6 | 30.2 |
| % 5.0-11.0m/s | 1.6 | 0.0 | 3.5 | 4.1 | 0.2 | 12.3 | 6.5 | 0.4 | 8.0 | 14.5 | 4.0 | 5.5 | 60.6 |
| % > 11.0m/s | 0.1 | 0.0 | 0.1 | 0.3 | 0.0 | 1.6 | 0.8 | 0.1 | 1.7 | 2.9 | 0.8 | 0.9 | 9.2 |
| Middel hastighed | 5.0 | 2.4 | 5.2 | 6.0 | 6.6 | 6.5 | 6.3 | 7.1 | 7.2 | 7.3 | 7.6 | 6.1 | 6.6 |
| Største hastighed | 16.5 | 6.2 | 15.5 | 16.5 | 10.3 | 18.0 | 18.6 | 15.9 | 20.1 | 23.7 | 21.1 | 22.1 | 23.7 |

Totalt antal observationer = 16326 Kilde: DMI

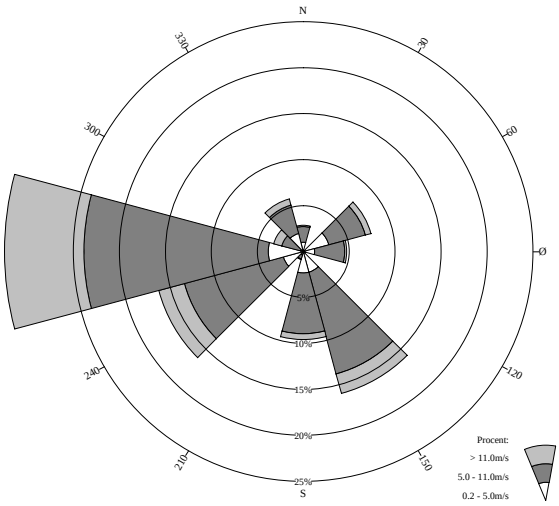
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 8 = 0.0%

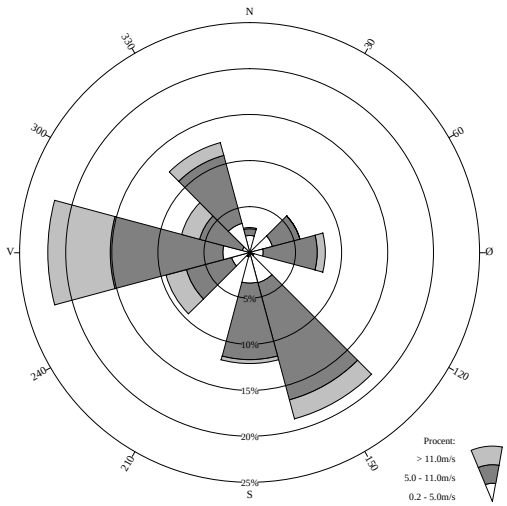
## JANUAR



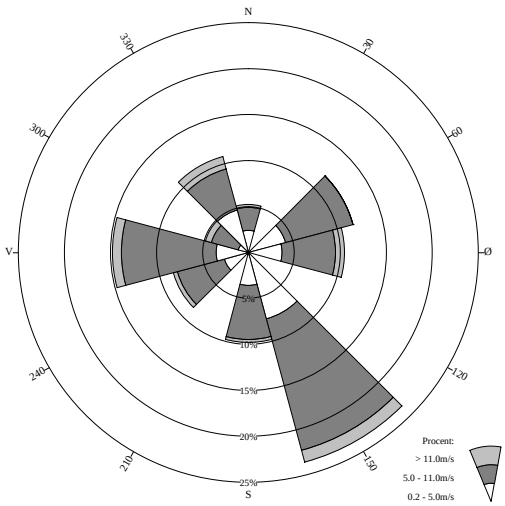

## FEBRUAR



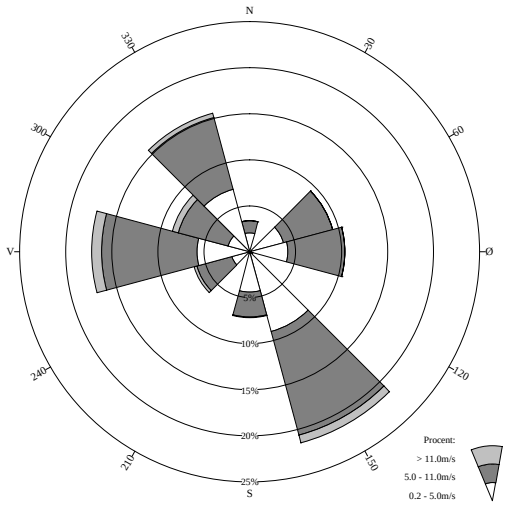

## MARTS



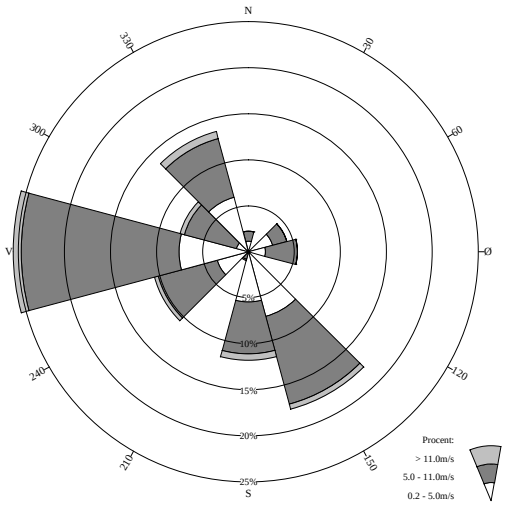

## APRIL



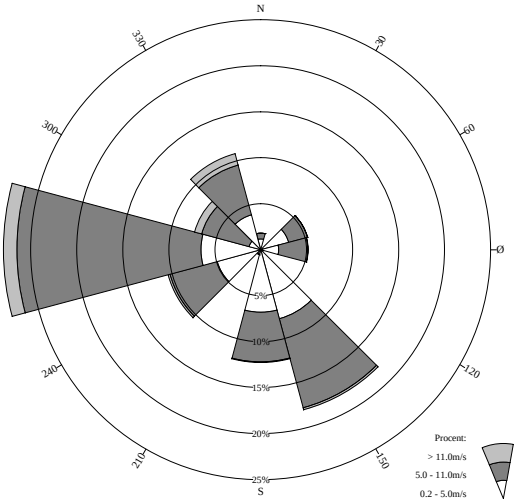

## MAJ



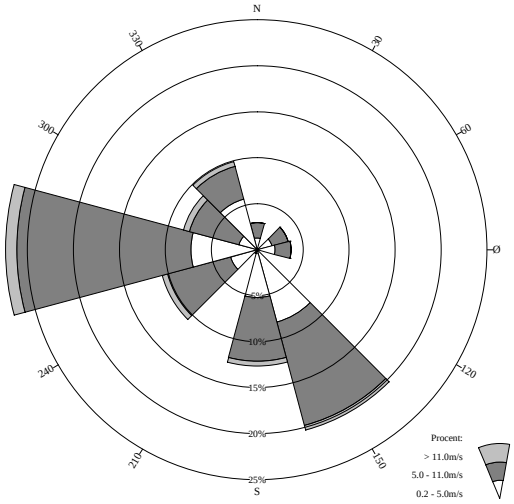

## JUNI



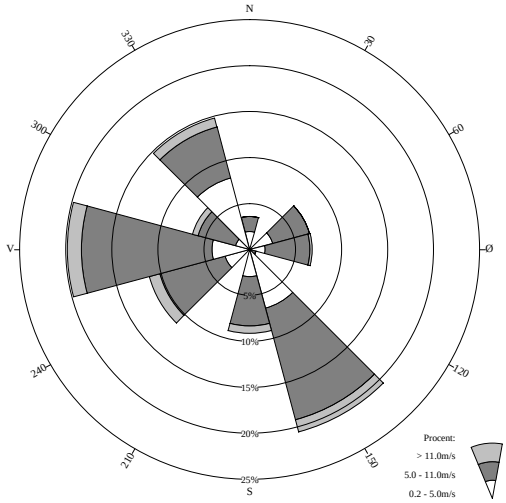
## JULI



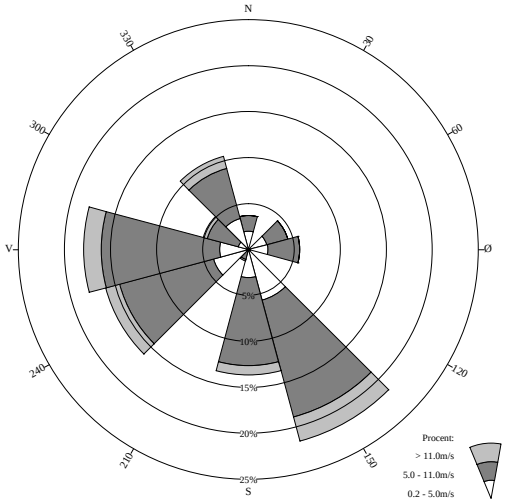

## AUGUST



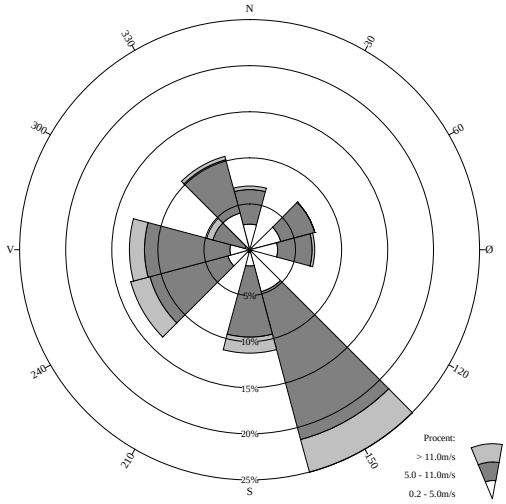

## SEPTEMBER



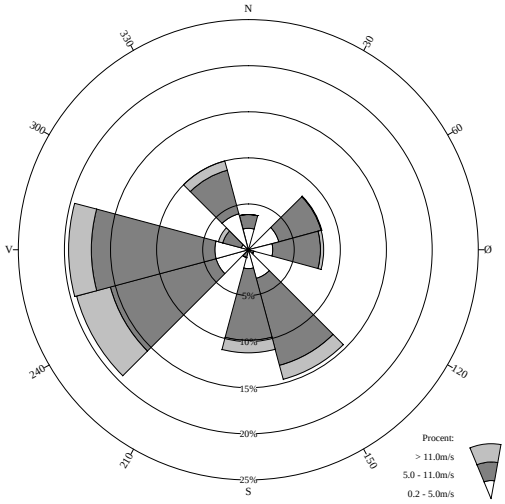

## OKTOBER




## NOVEMBER

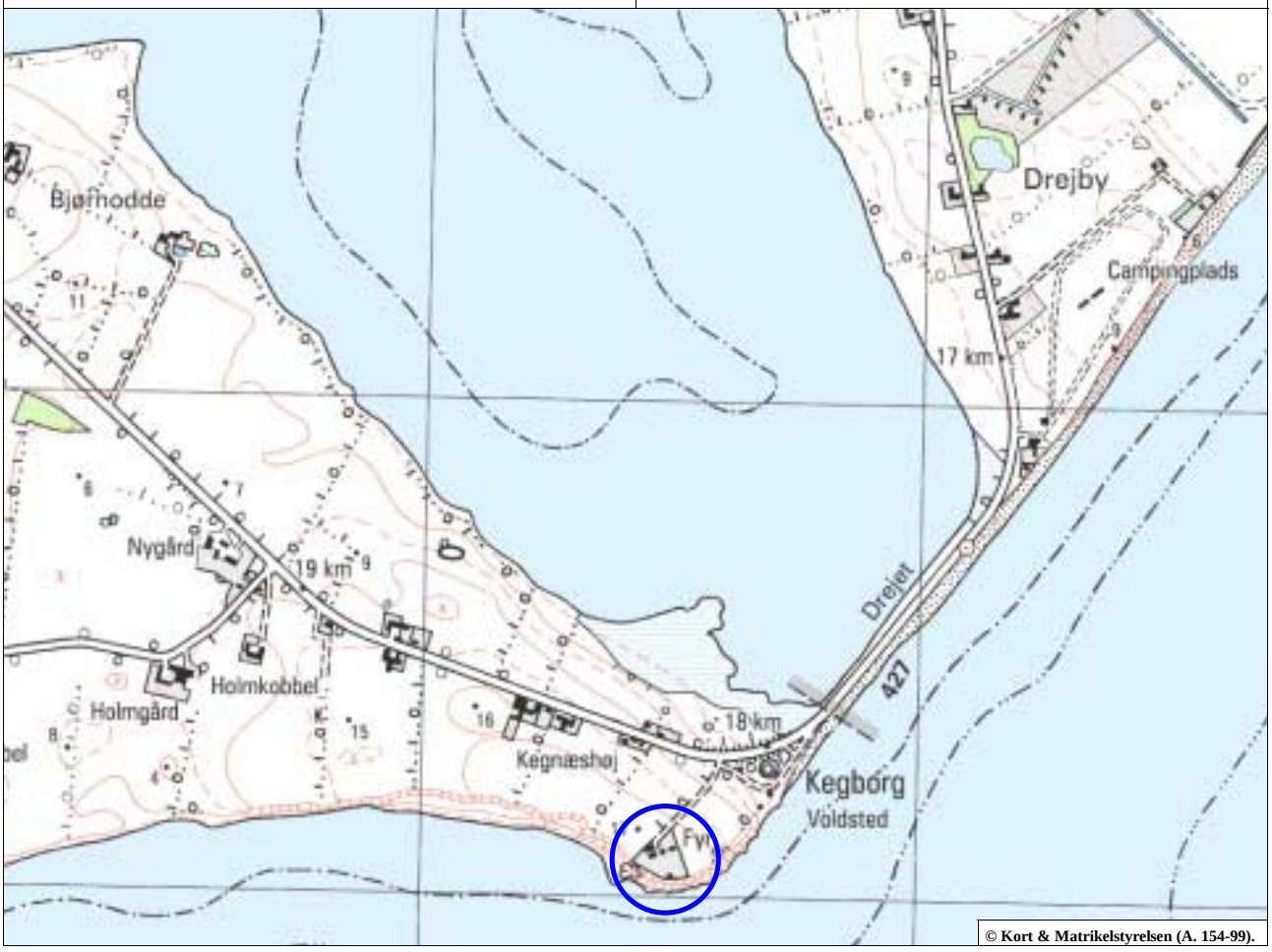



## DECEMBER



# 06119 Kegnæs Fyr

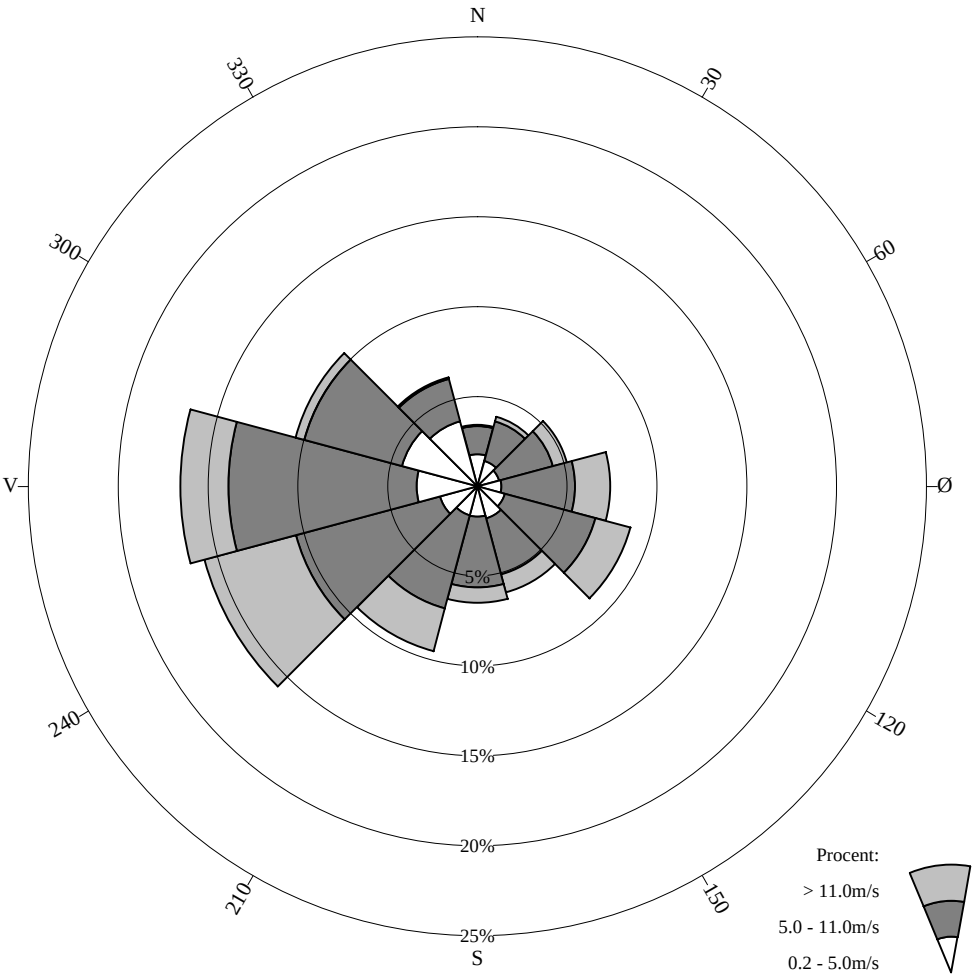
| | |
|---|---|
| **Position:** 54° 51’ N, 09° 59’ E<br>**UTM-koordinater:** 32U 6079.080N 563.510E<br>**Stationsbasis** (m.o.h.)**:** 16<br>**Vindmastbasis** (m.o.h.)**:** 16<br>**Vindmålehøjde:** 15 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** nej<br><br>**Bemærkninger:** | **Position:** lat 54° 51’ N, long 09° 59’ E<br>**UTM-positions:** 32U 6079.080N 563.510E<br>**Elevation** (m.a.s.l.)**:** 16<br>**Base of wind mast** (m.a.s.l.)**:** 16<br>**Level of measurement:** 15 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** no<br><br>**Comments:** |



# Station 06119
# KEGNÆS FYR

01-01-89 - 31-12-98

Hele perioden



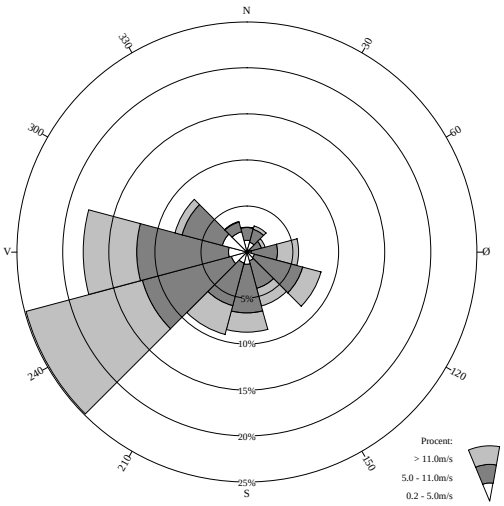

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.4 | 4.0 | 5.2 | 7.4 | 8.8 | 6.1 | 6.5 | 9.5 | 15.7 | 16.5 | 10.5 | 6.3 | 100.0 |
| % 0.2-5.0m/s | 1.8 | 1.5 | 1.3 | 1.3 | 1.6 | 1.9 | 1.7 | 1.7 | 2.2 | 3.4 | 4.4 | 3.7 | 26.3 |
| % 5.0-11.0m/s | 1.6 | 2.3 | 3.1 | 4.1 | 5.2 | 3.2 | 3.9 | 5.4 | 8.3 | 10.5 | 5.6 | 2.5 | 55.6 |
| % > 11.0m/s | 0.1 | 0.3 | 0.8 | 2.0 | 2.0 | 1.0 | 0.9 | 2.5 | 5.3 | 2.7 | 0.5 | 0.1 | 18.0 |
| Middel hastighed | 4.9 | 6.0 | 7.4 | 8.5 | 8.2 | 7.0 | 7.2 | 8.5 | 9.4 | 7.6 | 5.7 | 4.6 | 7.5 |
| Største hastighed | 15.4 | 19.5 | 21.6 | 23.7 | 20.6 | 19.5 | 22.6 | 22.7 | 29.9 | 30.9 | 18.5 | 17.0 | 30.9 |

Totalt antal observationer = 28997 Kilde: DMI

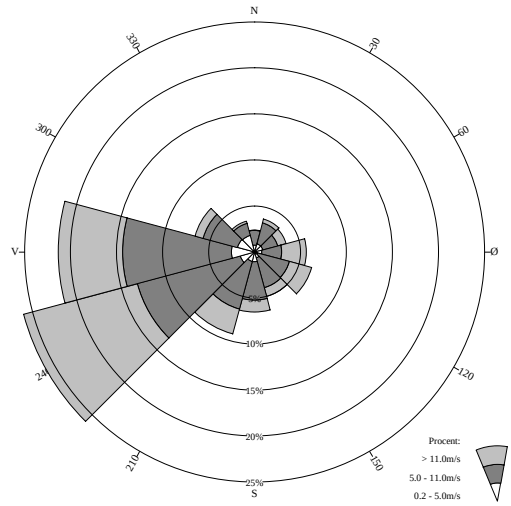
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 9 = 0.0%

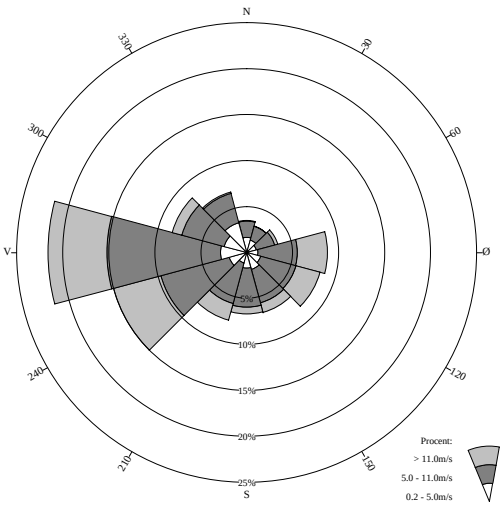
## JANUAR



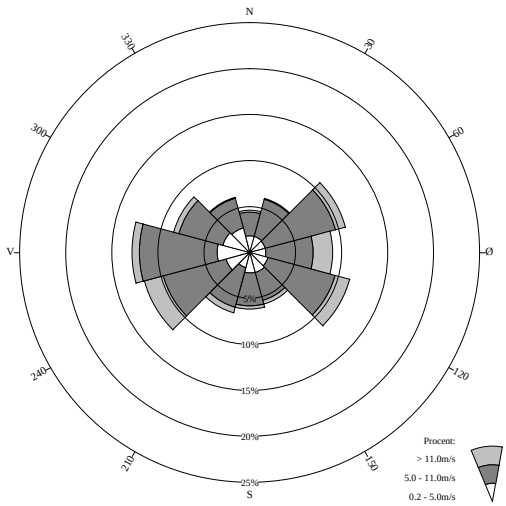

## FEBRUAR



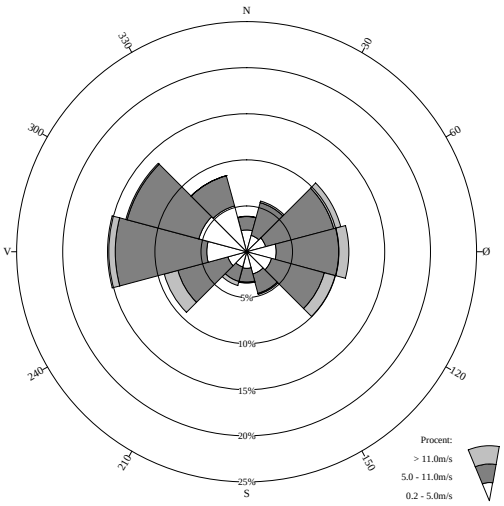

## MARTS



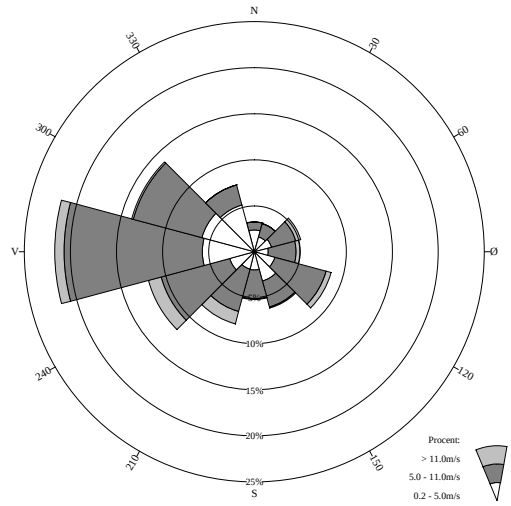

## APRIL



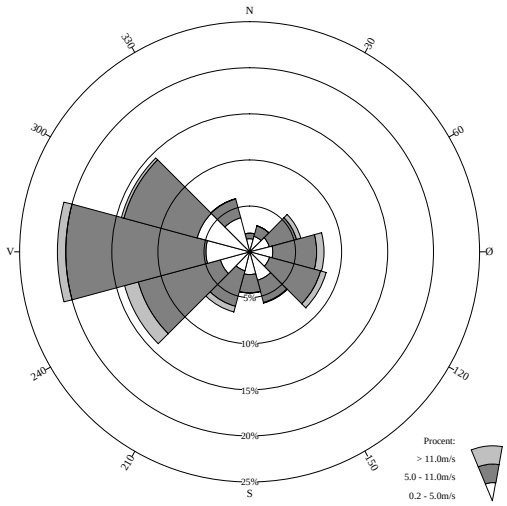

## MAJ



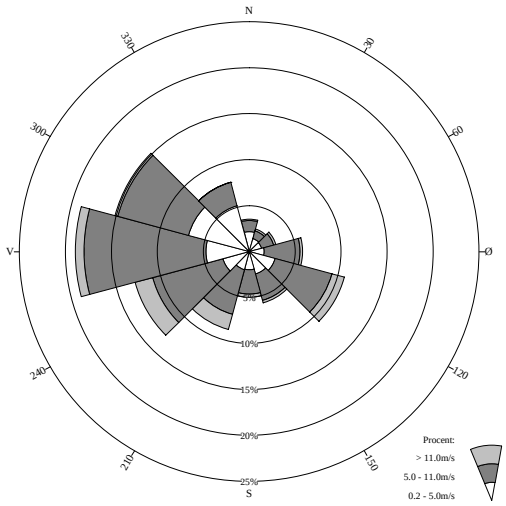

## JUNI



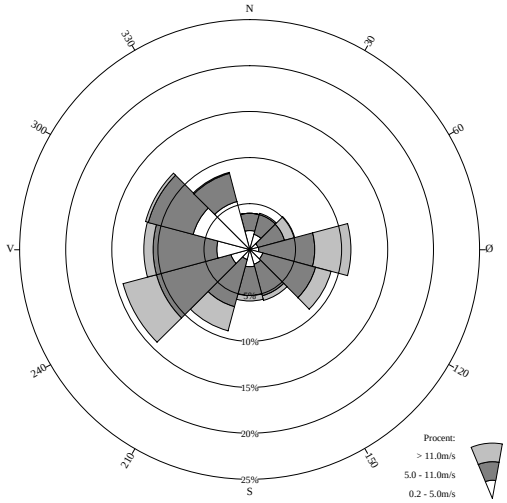
## JULI



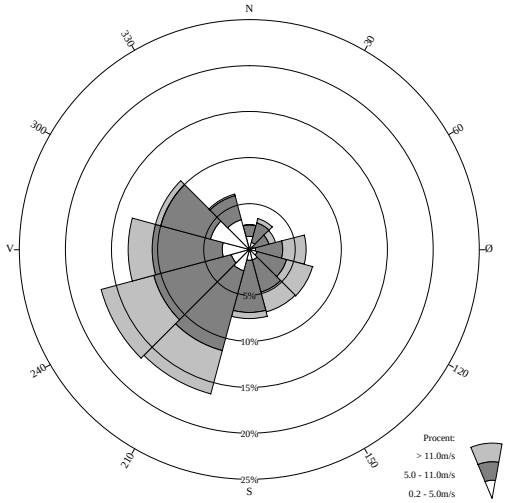

## AUGUST



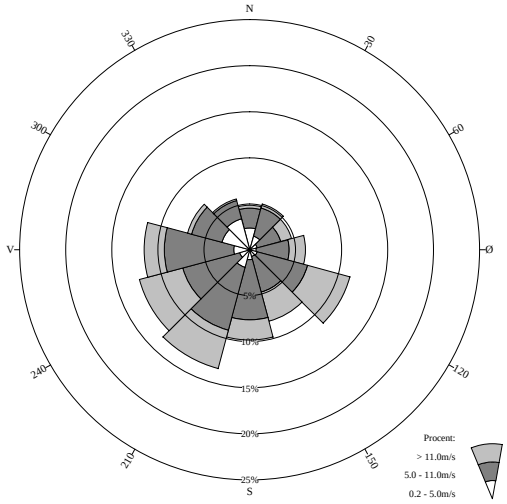

## SEPTEMBER



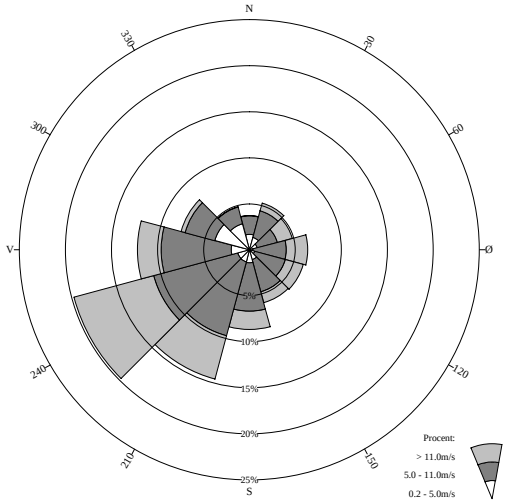

## OKTOBER




## NOVEMBER

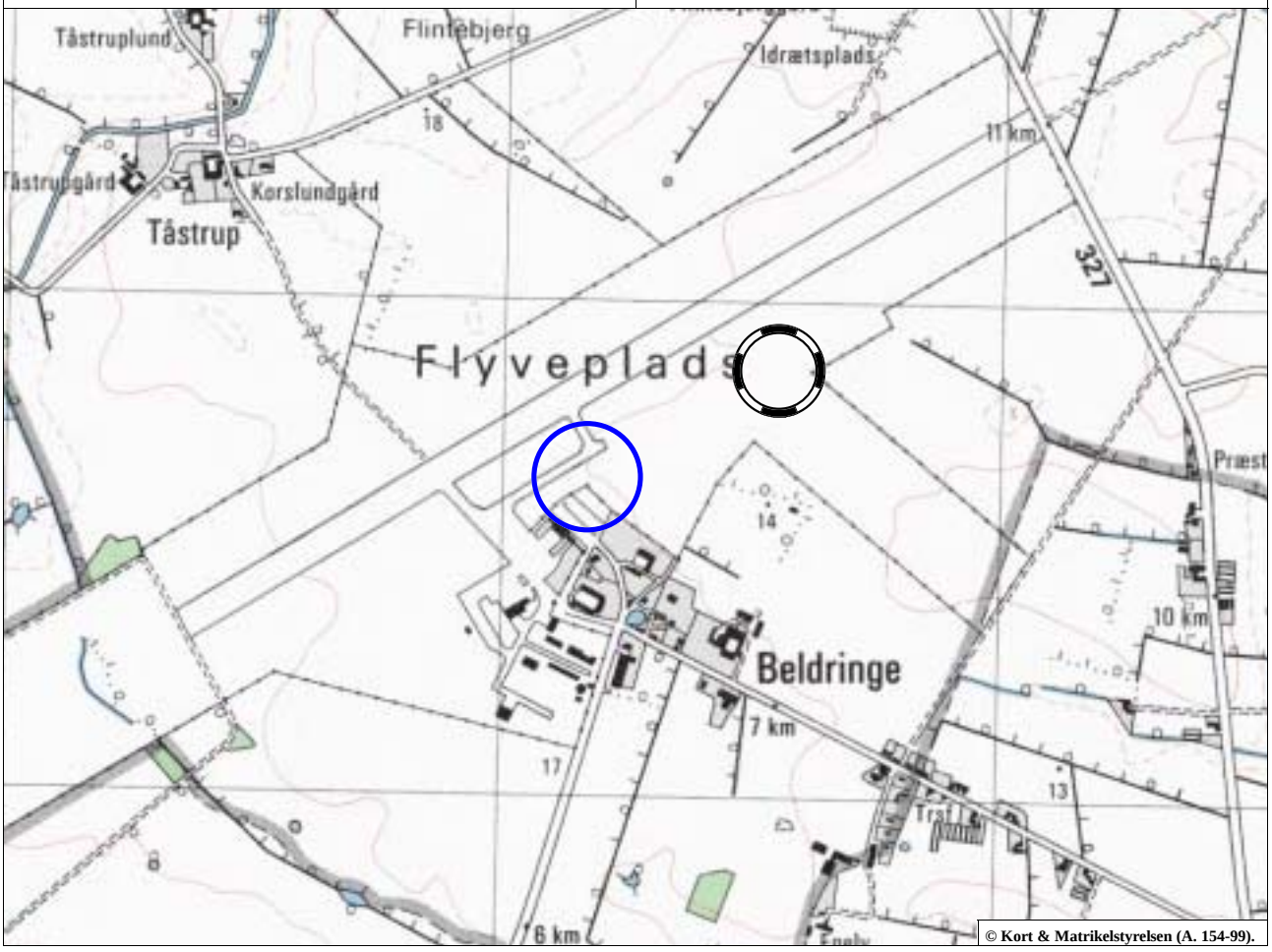



## DECEMBER



# 06120 Odense Lufthavn

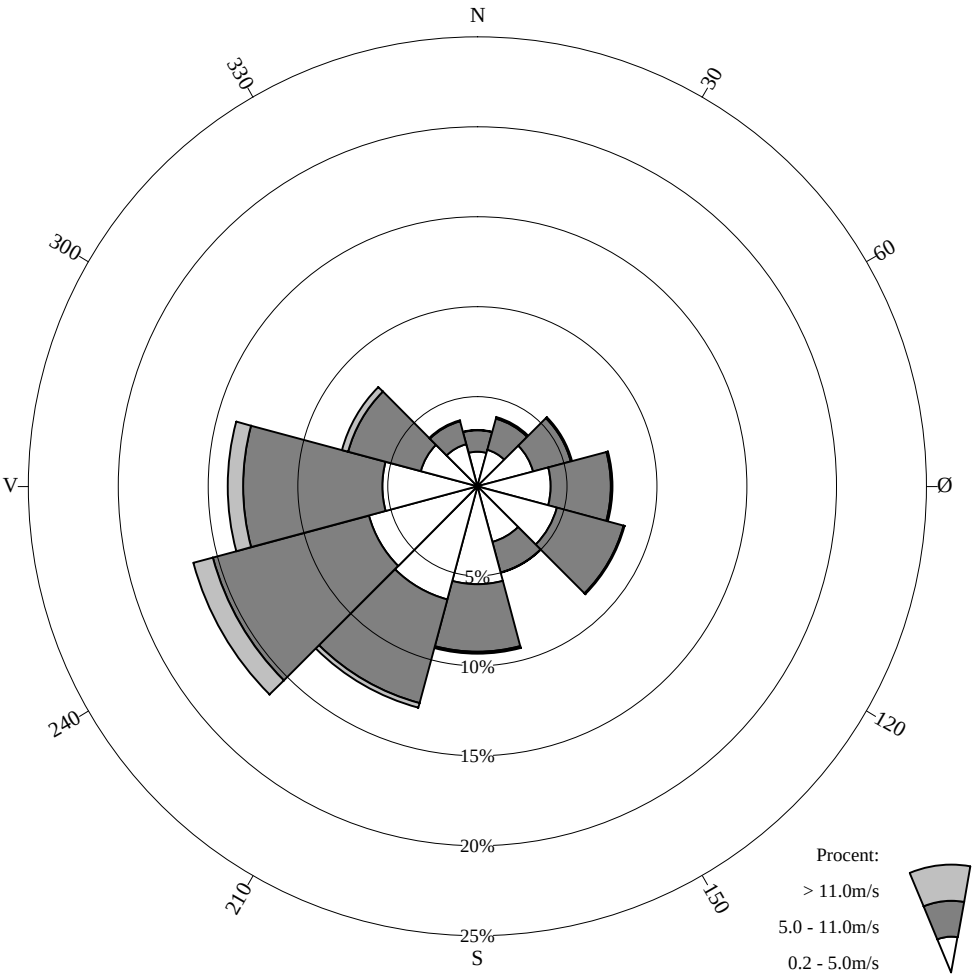
| | |
|---|---|
| **Position:** 55° 29’ N, 10° 20’ E<br>**UTM-koordinater:** 32U 6148.645N 584.170E<br>**Stationsbasis** (m.o.h.)**:** 15<br>**Vindmastbasis** (m.o.h.)**:** 15<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Vær opmærksom på, at vindmasten er placeret nordøst for det sted, hvor resten af vejrstationen er placeret. | **Position:** lat 55° 29’ N, long 10° 20’ E<br>**UTM-positions:** 32U 6148.645N 584.170E<br>**Elevation** (m.a.s.l.)**:** 15<br>**Base of wind mast** (m.a.s.l.)**:** 15<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>Please notice, that the wind mast is located to the northeast of the place where the rest of the weather station is located. |



# Station 06120
# ODENSE LUFTHAVN

01-01-89 - 31-12-98

Hele perioden



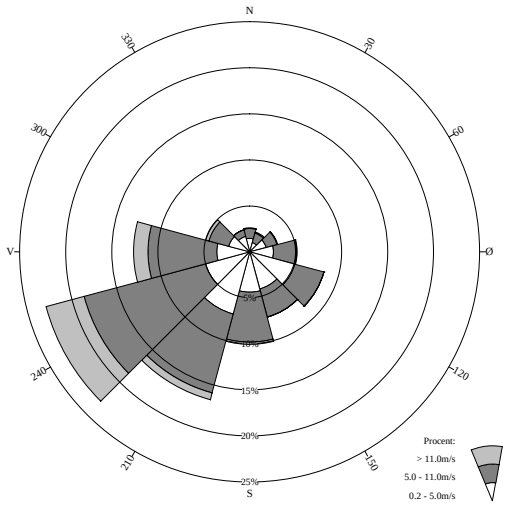

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.1 | 4.0 | 5.5 | 7.5 | 8.5 | 5.0 | 9.3 | 12.8 | 16.4 | 13.9 | 7.8 | 3.8 | 97.6 |
| % 0.2-5.0m/s | 1.9 | 2.1 | 3.2 | 4.1 | 4.6 | 3.2 | 5.5 | 6.5 | 6.3 | 5.3 | 3.3 | 2.4 | 48.4 |
| % 5.0-11.0m/s | 1.2 | 1.8 | 2.2 | 3.3 | 3.8 | 1.8 | 3.7 | 6.0 | 9.0 | 7.8 | 4.2 | 1.3 | 46.1 |
| % > 11.0m/s | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.3 | 1.1 | 0.8 | 0.4 | 0.0 | 3.1 |
| Middel hastighed | 4.6 | 4.9 | 4.8 | 4.9 | 4.9 | 4.4 | 4.8 | 5.1 | 6.2 | 6.2 | 5.8 | 4.5 | 5.3 |
| Største hastighed | 13.9 | 15.4 | 15.5 | 14.9 | 13.4 | 12.9 | 13.4 | 15.9 | 20.6 | 22.6 | 19.0 | 15.5 | 22.6 |

Totalt antal observationer = 28851 Kilde: DMI

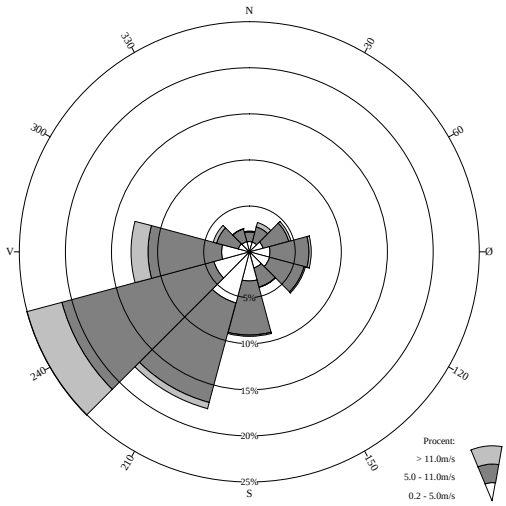
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 704 = 2.4%

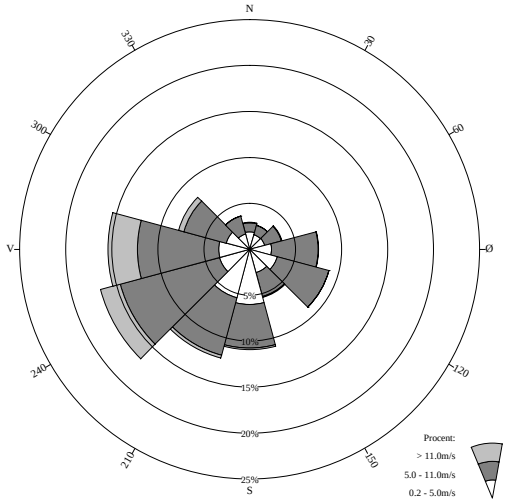
## JANUAR



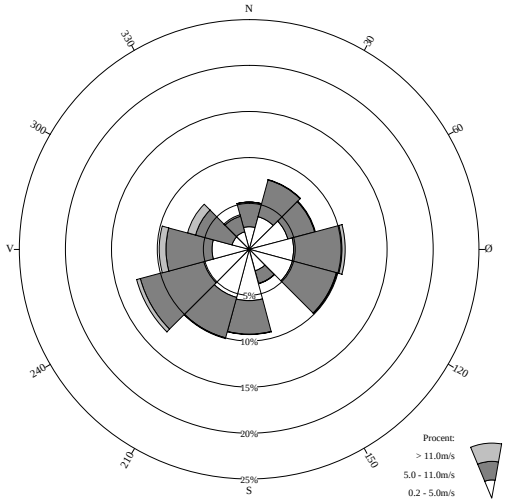

## FEBRUAR



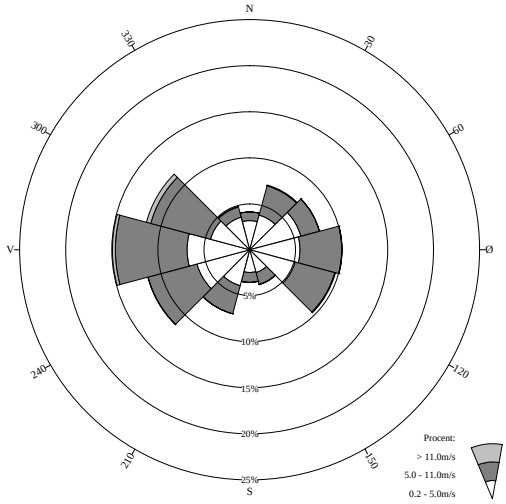

## MARTS



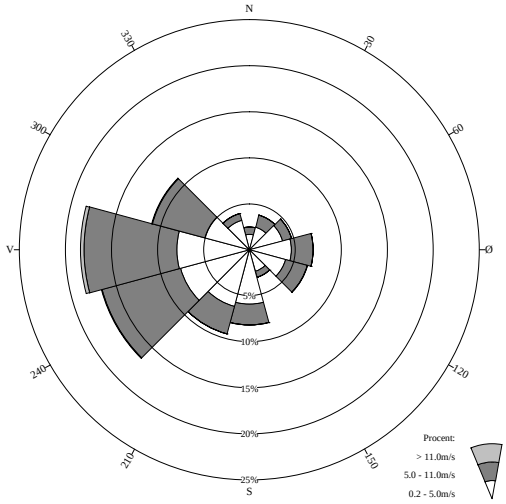

## APRIL



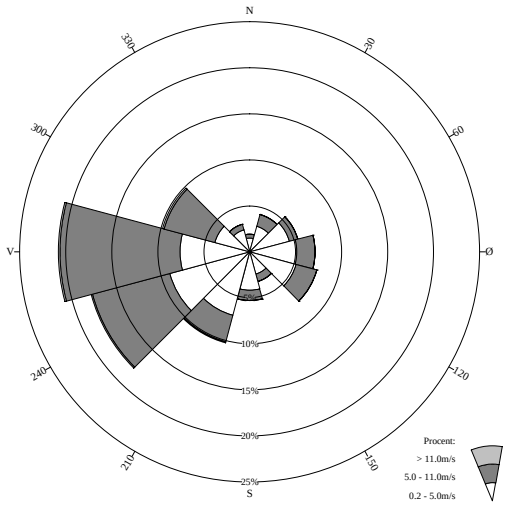

## MAJ



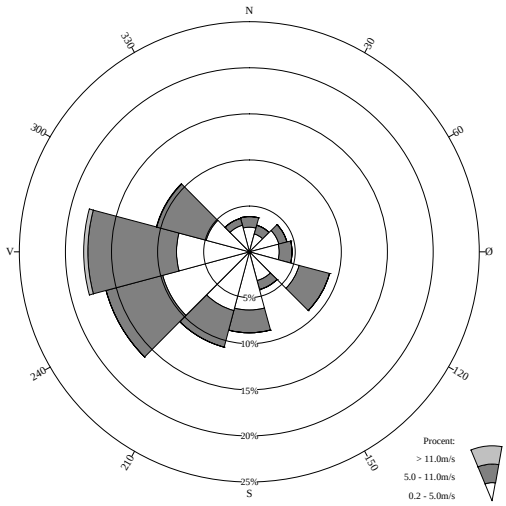

## JUNI



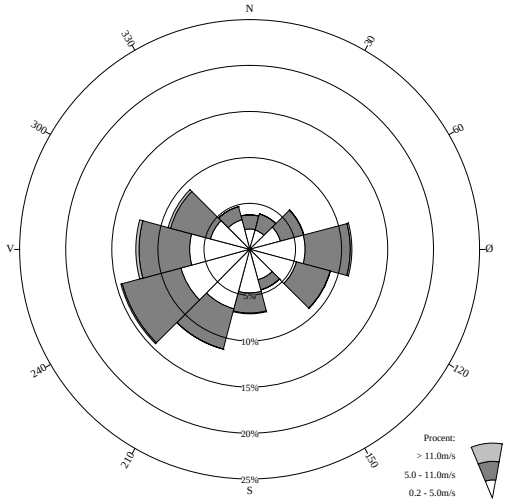
## JULI



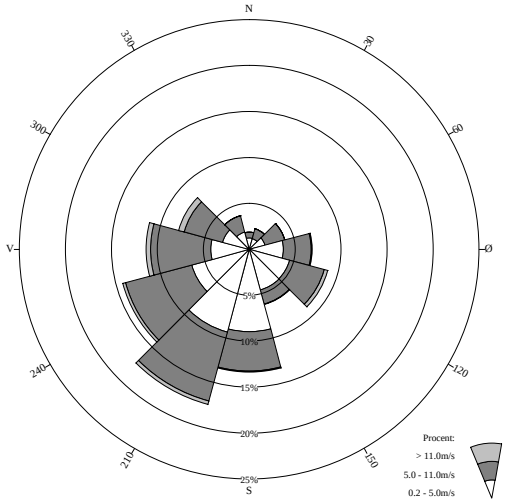

## AUGUST



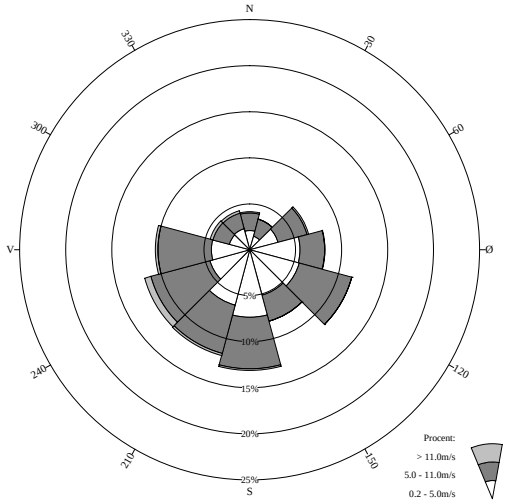

## SEPTEMBER



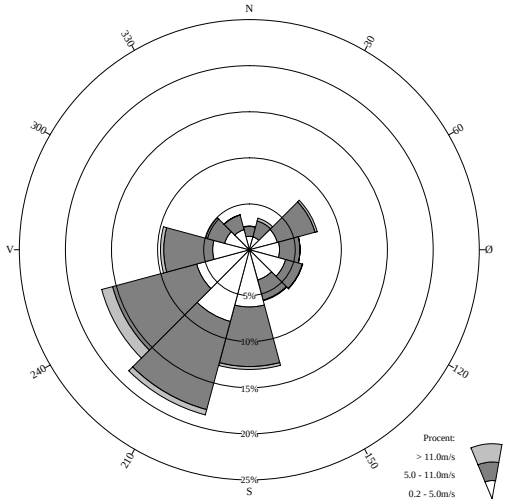

## OKTOBER




## NOVEMBER

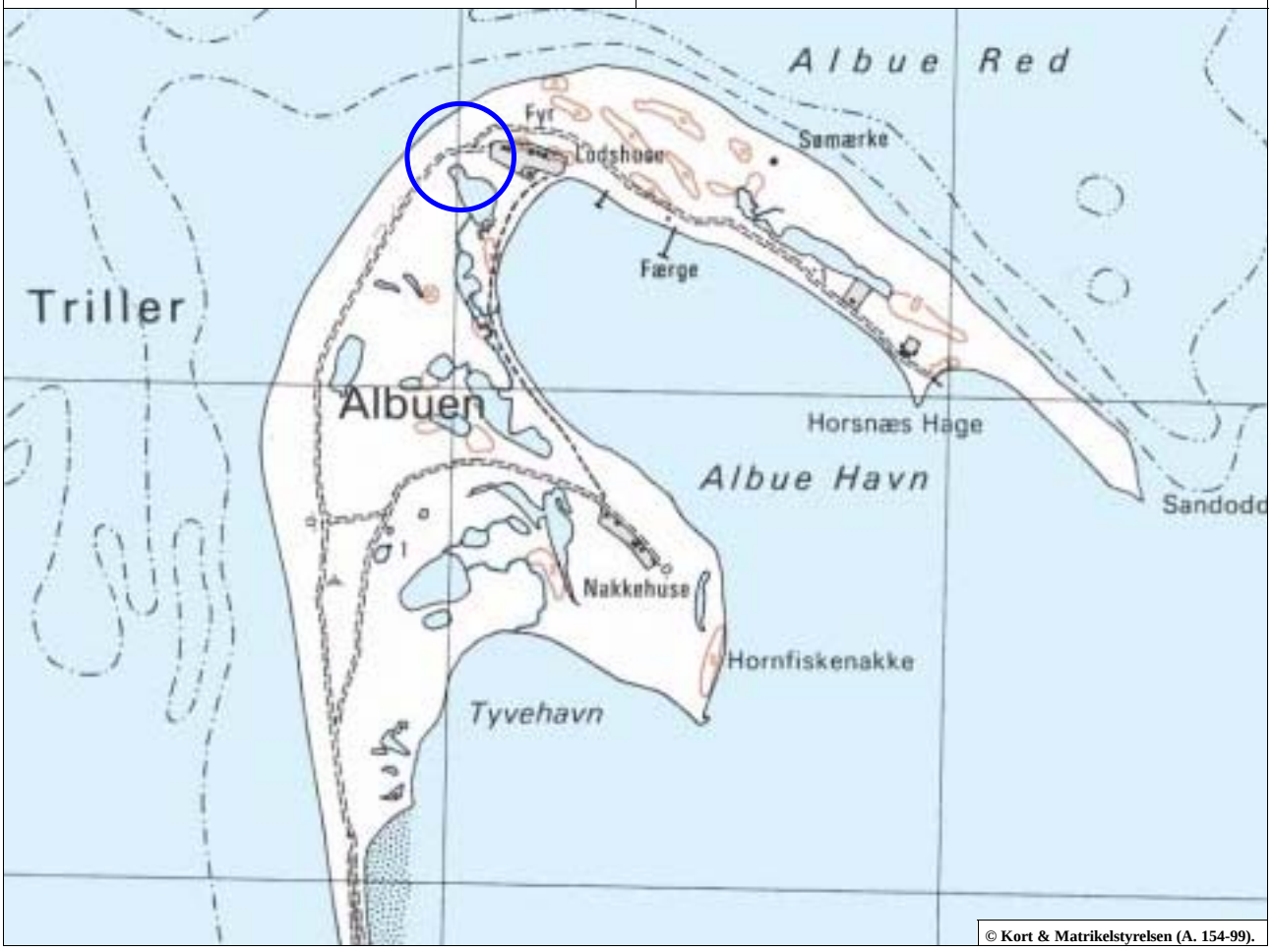



## DECEMBER



# 06142 Albuen Fyr

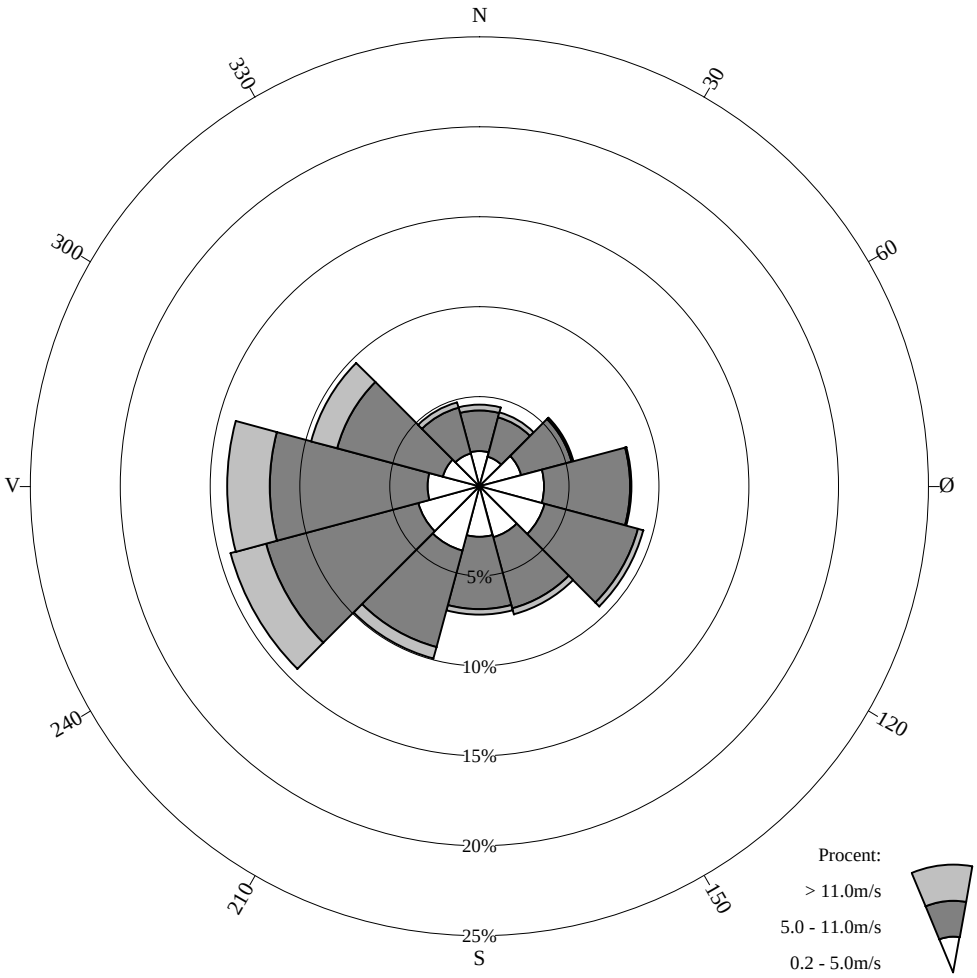
| | |
|---|---|
| **Position:** 54° 50’ N, 10° 58’ E<br>**UTM-koordinater:** 32U 6078.475N 625.990E<br>**Stationsbasis** (m.o.h.)**:** 2<br>**Vindmastbasis** (m.o.h.)**:** 2<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** nej<br><br>**Bemærkninger:**<br>Dataserien omfatter perioden 01.01.92-31.12.98. | **Position:** lat 54° 50’ N, long 10° 58’ E<br>**UTM-positions:** 32U 6078.475N 625.990E<br>**Elevation** (m.a.s.l.)**:** 2<br>**Base of wind mast** (m.a.s.l.)**:** 2<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** no<br><br>**Comments:**<br>The data series covers the period 01.01.92-31.12.98 |



# Station 06142
# ALBUEN FYR

01-01-92 - 31-12-98

Hele perioden



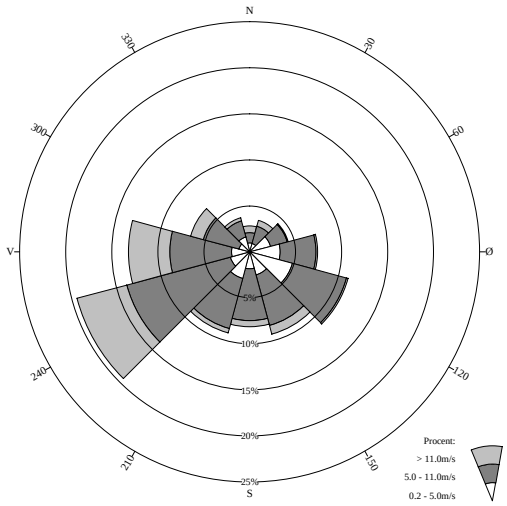

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.5 | 4.3 | 5.4 | 8.5 | 9.4 | 7.4 | 7.1 | 9.9 | 14.4 | 14.0 | 9.7 | 4.8 | 99.5 |
| % 0.2-5.0m/s | 2.0 | 1.7 | 2.4 | 3.6 | 3.8 | 3.0 | 2.8 | 3.7 | 3.5 | 2.9 | 2.1 | 1.9 | 33.4 |
| % 5.0-11.0m/s | 2.3 | 2.3 | 2.9 | 4.8 | 5.4 | 4.1 | 4.0 | 5.6 | 8.8 | 8.8 | 6.1 | 2.6 | 57.5 |
| % > 11.0m/s | 0.3 | 0.3 | 0.1 | 0.1 | 0.3 | 0.3 | 0.3 | 0.7 | 2.1 | 2.4 | 1.5 | 0.3 | 8.6 |
| Middel hastighed | 5.9 | 6.0 | 5.4 | 5.5 | 5.8 | 5.9 | 5.9 | 6.3 | 7.4 | 7.8 | 7.6 | 5.9 | 6.5 |
| Største hastighed | 25.7 | 18.0 | 16.5 | 14.4 | 14.4 | 16.5 | 19.6 | 21.7 | 25.2 | 26.3 | 23.7 | 24.7 | 26.3 |

Totalt antal observationer = 59453 Kilde: DMI

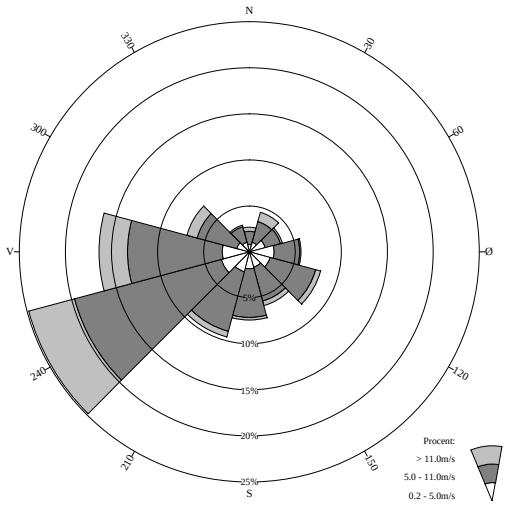
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 287 = 0.5%

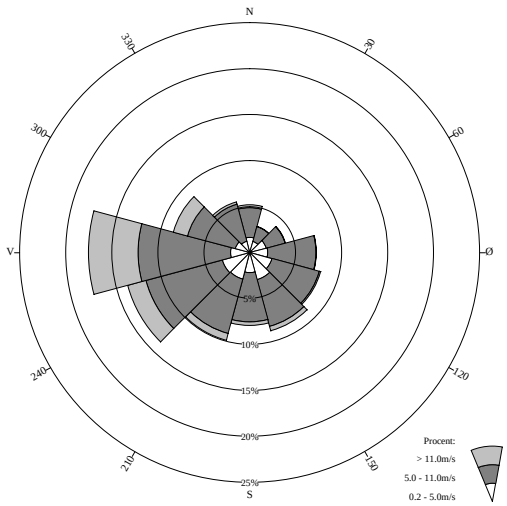
## JANUAR



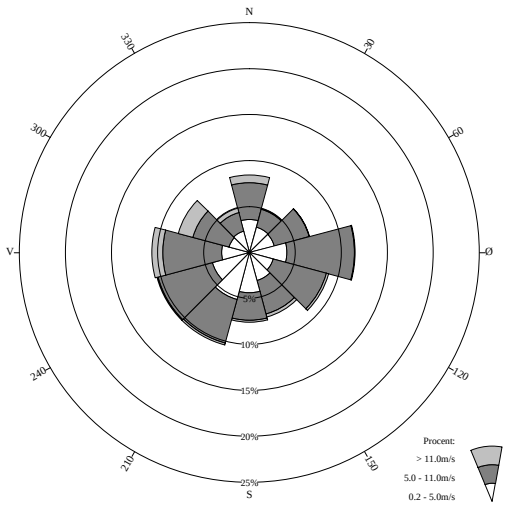

## FEBRUAR



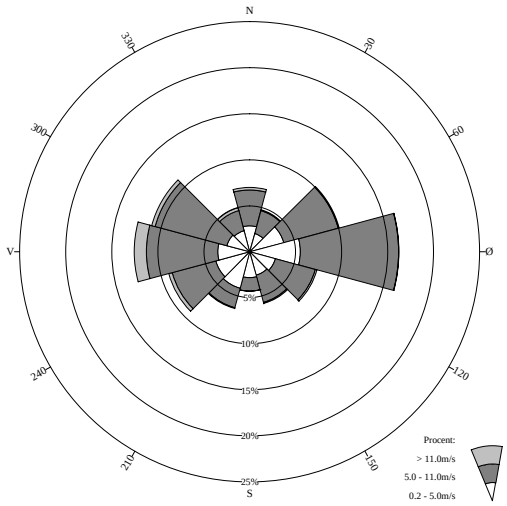

## MARTS



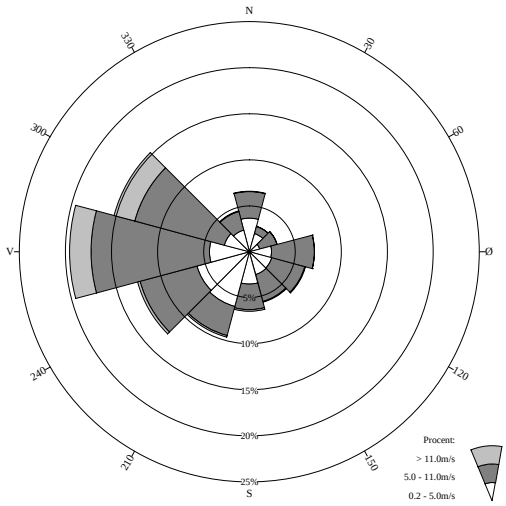

## APRIL



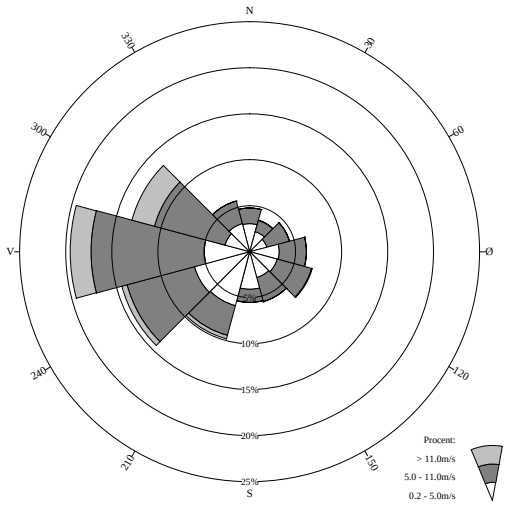

## MAJ



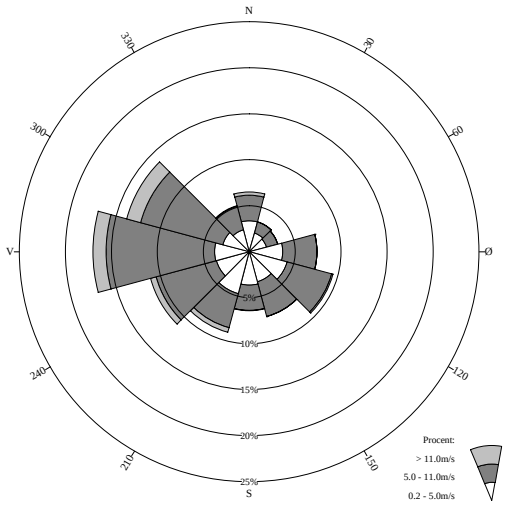

## JUNI



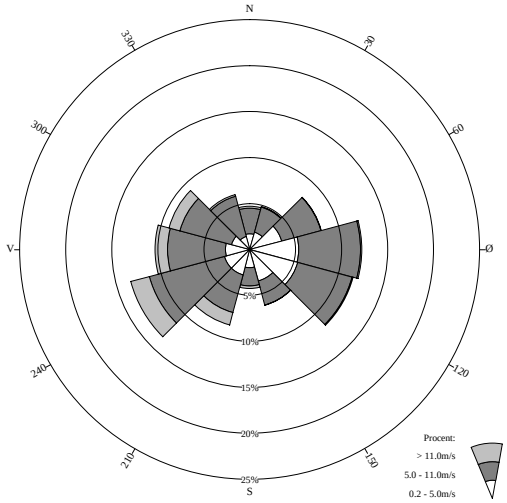
## JULI



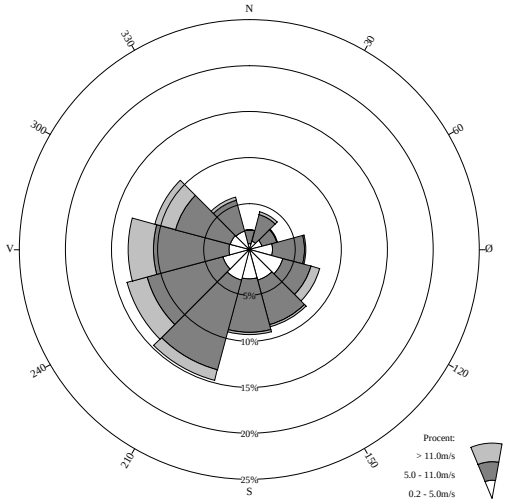

## AUGUST



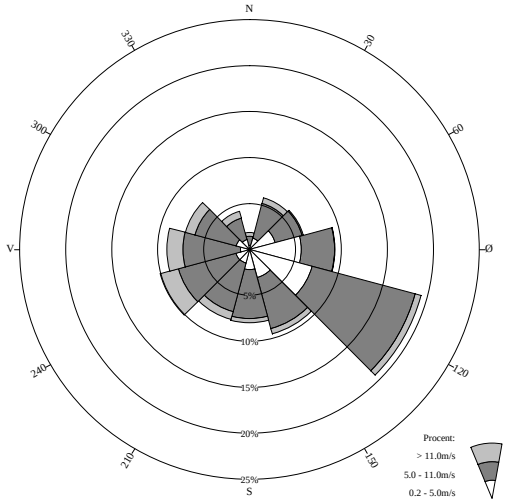

## SEPTEMBER



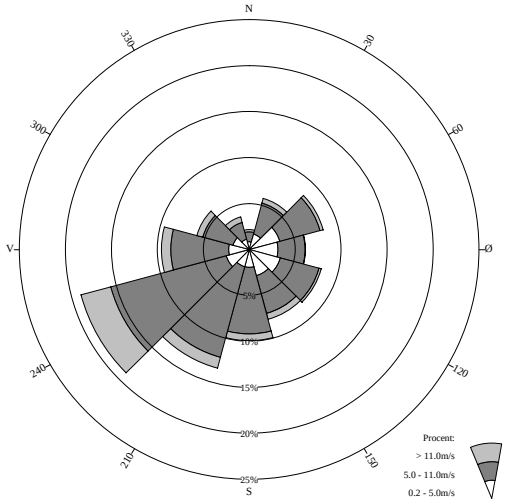

## OKTOBER




## NOVEMBER




## DECEMBER



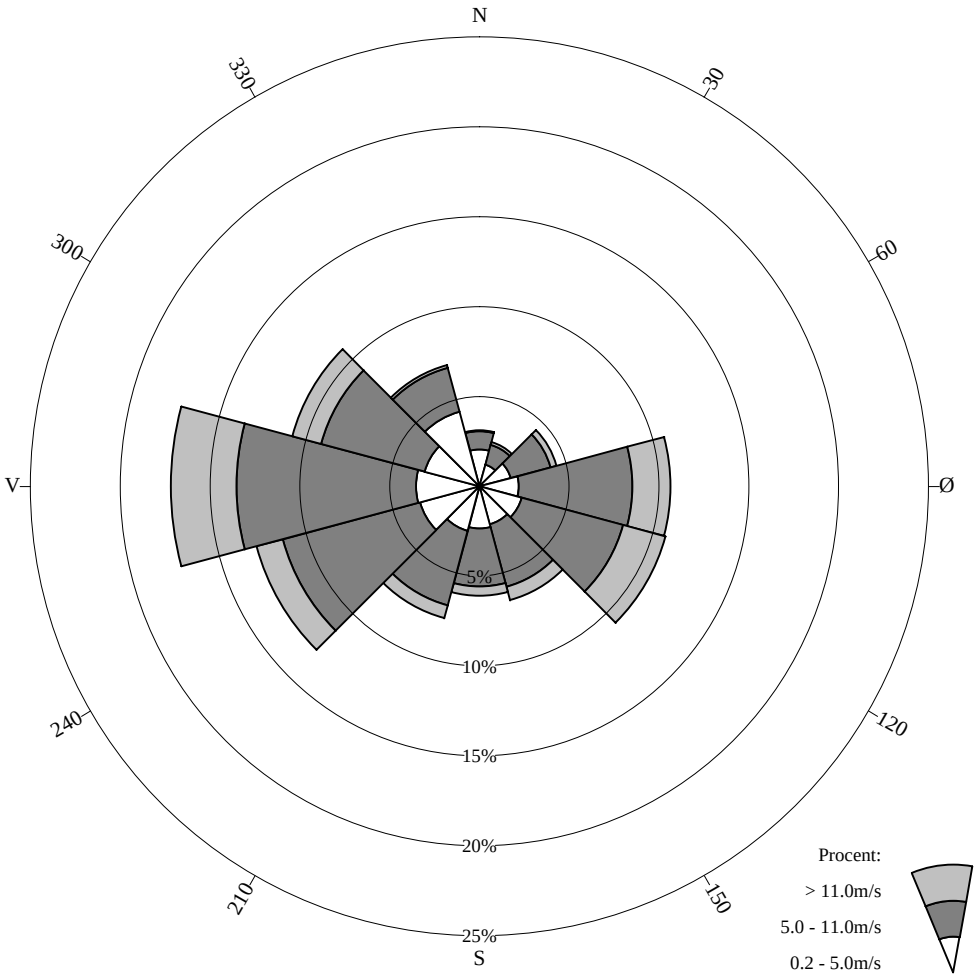
# 06149 Gedser Odde

| | |
|---|---|
| **Position:** 54° 34’ N, 11° 58’ E<br>**UTM-koordinater:** 32V 6050.100N 692.170E<br>**Stationsbasis** (m.o.h.)**:** 8<br>**Vindmastbasis** (m.o.h.)**:** 8<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** nej<br><br>**Bemærkninger:**<br>Dataserien omfatter perioden 01.01.94-31.12.98. | **Position:** lat 54° 34’ N, long 11° 58’ E<br>**UTM-positions:** 32V 6050.100N 692.170E<br>**Elevation** (m.a.s.l.)**:** 8<br>**Base of wind mast** (m.a.s.l.)**:** 8<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** no<br><br>**Comments:**<br>The data series covers the period 01.01.94-31.12.98. |

# Station 06149
# GEDSER ODDE

01-01-94 - 31-12-98

Hele perioden



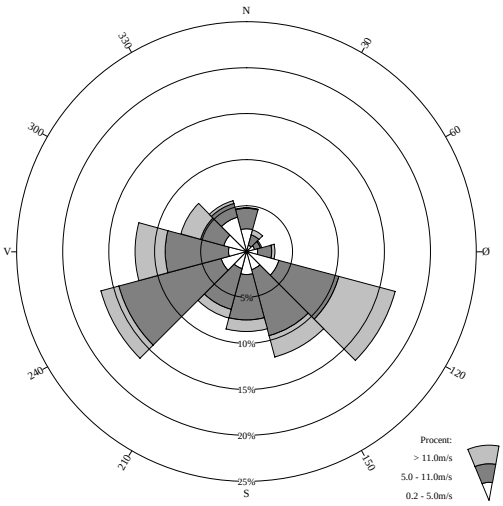

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.1 | 2.6 | 4.4 | 10.6 | 10.7 | 6.6 | 6.1 | 7.6 | 12.9 | 17.2 | 10.8 | 7.0 | 99.5 |
| % 0.2-5.0m/s | 2.1 | 1.3 | 1.8 | 2.2 | 2.4 | 2.2 | 2.4 | 2.6 | 3.4 | 3.5 | 3.2 | 4.3 | 31.3 |
| % 5.0-11.0m/s | 1.0 | 1.1 | 2.3 | 6.3 | 5.8 | 3.6 | 3.2 | 4.3 | 7.9 | 10.0 | 6.0 | 2.5 | 54.1 |
| % > 11.0m/s | 0.0 | 0.2 | 0.3 | 2.1 | 2.4 | 0.8 | 0.5 | 0.7 | 1.5 | 3.7 | 1.7 | 0.1 | 14.1 |
| Middel hastighed | 4.3 | 5.4 | 6.1 | 8.0 | 8.1 | 6.7 | 6.2 | 6.6 | 7.2 | 8.1 | 7.2 | 4.7 | 7.0 |
| Største hastighed | 14.4 | 15.0 | 18.5 | 19.1 | 19.6 | 18.0 | 19.0 | 18.6 | 19.6 | 21.1 | 22.1 | 16.5 | 22.1 |

Totalt antal observationer = 43540 Kilde: DMI

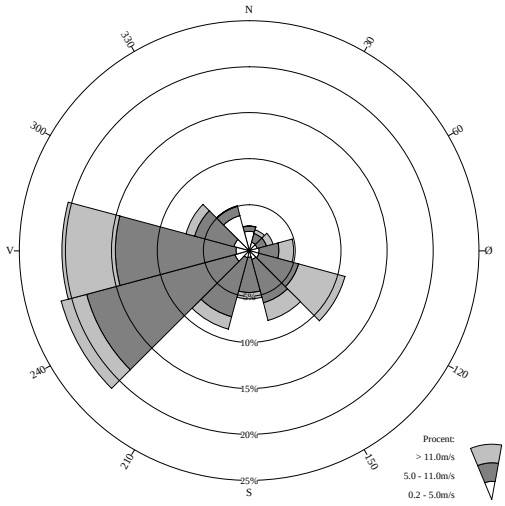
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 210 = 0.5%

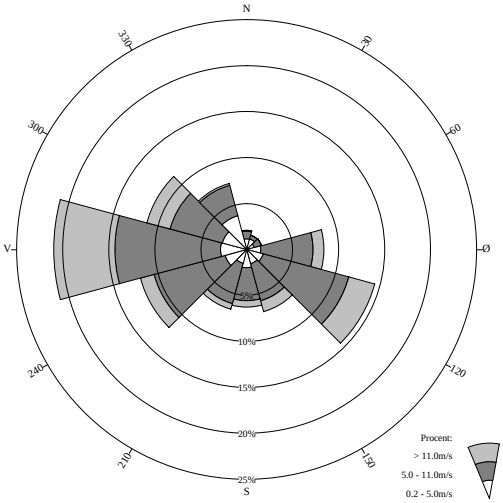
## JANUAR



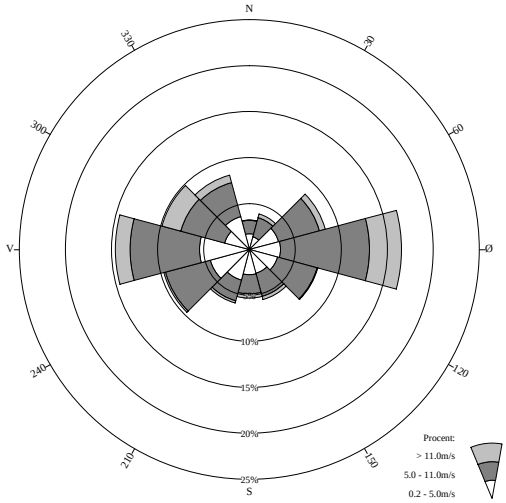

## FEBRUAR



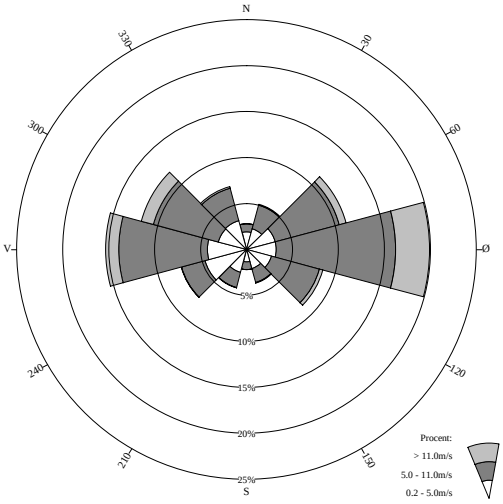

## MARTS



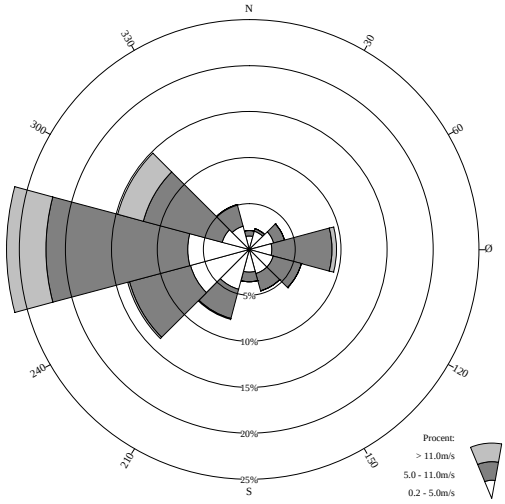

## APRIL



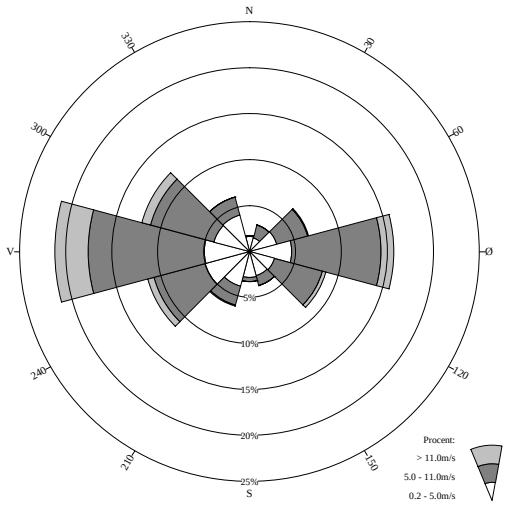

## MAJ



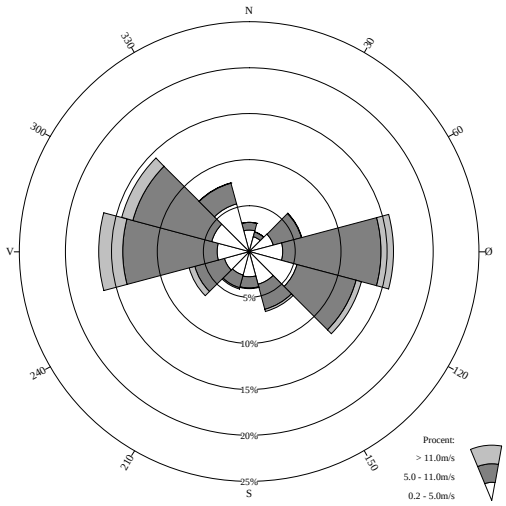

## JUNI



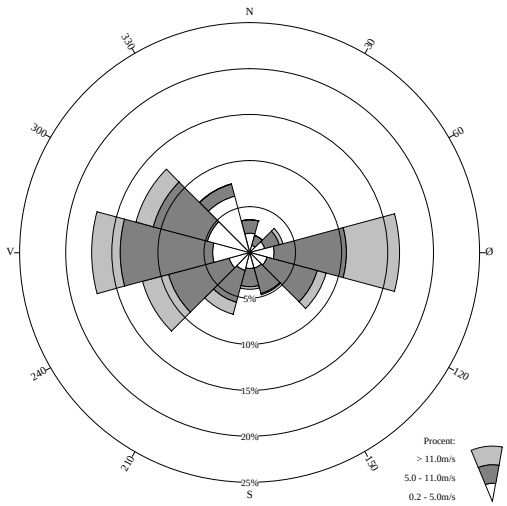
## JULI



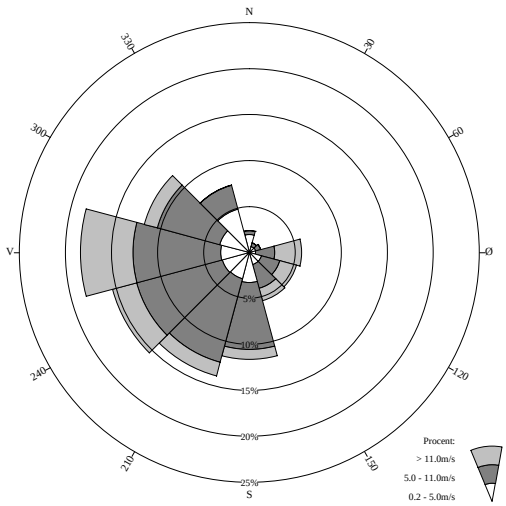

## AUGUST



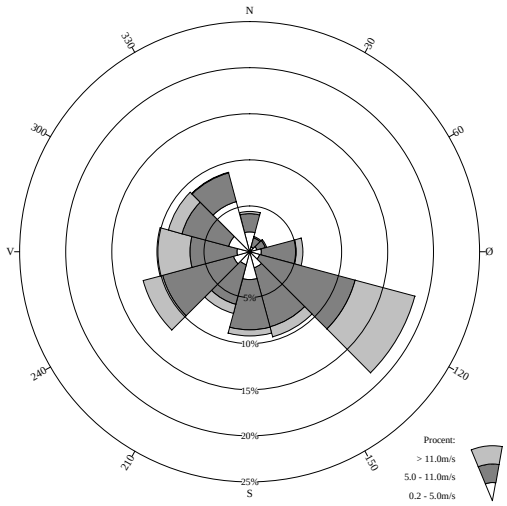

## SEPTEMBER



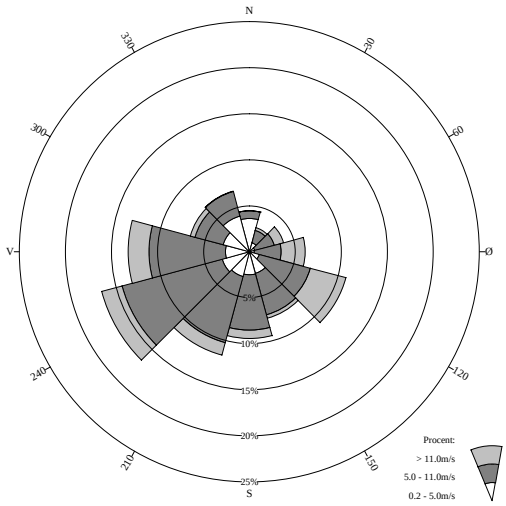

## OKTOBER




## NOVEMBER

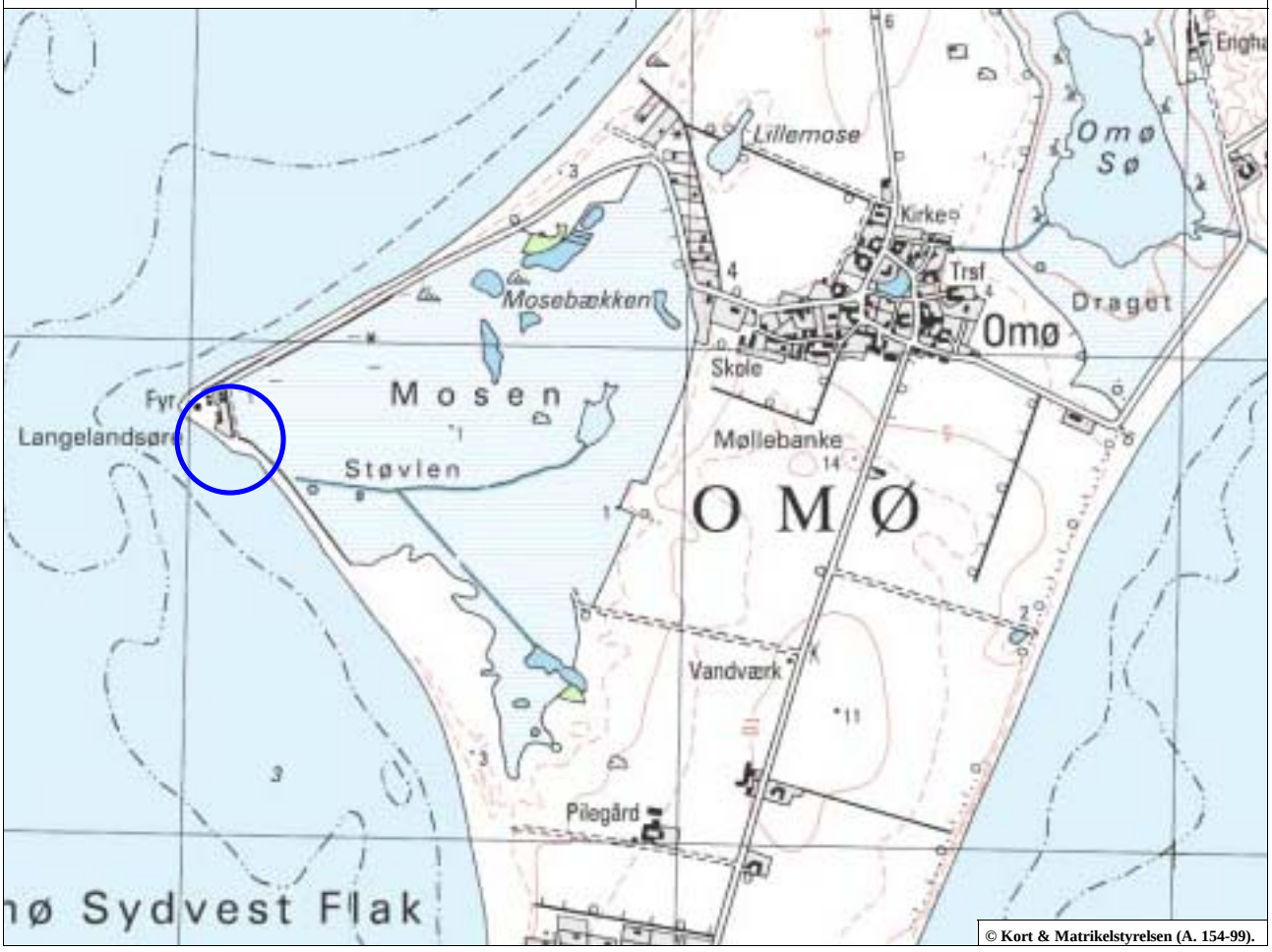



## DECEMBER



# 06151 Omø Fyr

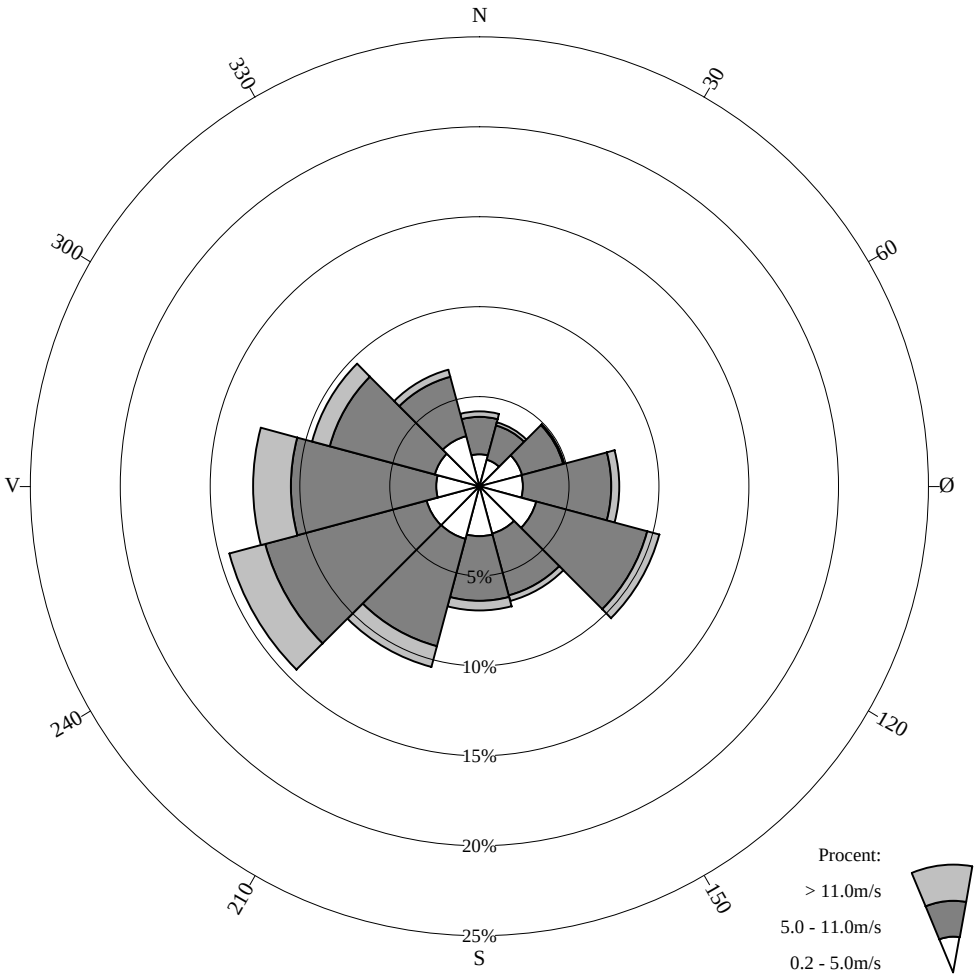
| | |
|---|---|
| **Position:** 55° 10’ N, 11° 08’ E<br>**UTM-koordinater:** 32U 6114.860N 636.030E<br>**Stationsbasis** (m.o.h.)**:** 1<br>**Vindmastbasis** (m.o.h.)**:** 1<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** nej<br><br>**Bemærkninger:** | **Position:** lat 55° 10’ N, long 11° 08’ E<br>**UTM-positions:** 32U 6114.860N 636.030E<br>**Elevation** (m.a.s.l.)**:** 1<br>**Base of wind mast** (m.a.s.l.)**:** 1<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** no<br><br>**Comments:** |



# Station 06151
# OMØ FYR

01-01-89 - 31-12-98

Hele perioden



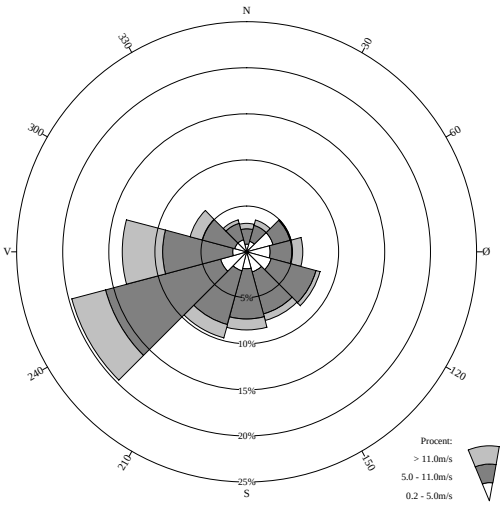

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.2 | 3.7 | 4.9 | 7.8 | 10.4 | 6.6 | 6.9 | 10.4 | 14.4 | 12.6 | 9.6 | 6.7 | 98.3 |
| % 0.2-5.0m/s | 1.8 | 1.5 | 2.5 | 2.4 | 3.3 | 2.7 | 2.8 | 3.0 | 3.1 | 2.4 | 2.6 | 2.9 | 31.0 |
| % 5.0-11.0m/s | 2.1 | 2.0 | 2.4 | 4.9 | 6.4 | 3.6 | 3.6 | 6.2 | 9.3 | 8.1 | 6.1 | 3.4 | 57.9 |
| % > 11.0m/s | 0.3 | 0.2 | 0.1 | 0.4 | 0.7 | 0.3 | 0.5 | 1.2 | 2.1 | 2.1 | 1.0 | 0.4 | 9.3 |
| Middel hastighed | 5.9 | 5.7 | 5.0 | 6.3 | 6.4 | 5.8 | 6.1 | 6.9 | 7.5 | 7.8 | 7.1 | 5.7 | 6.6 |
| Største hastighed | 20.6 | 16.5 | 15.4 | 20.6 | 17.5 | 17.5 | 20.6 | 25.7 | 36.0 | 27.7 | 23.7 | 20.6 | 36.0 |

Totalt antal observationer = 60155 Kilde: DMI

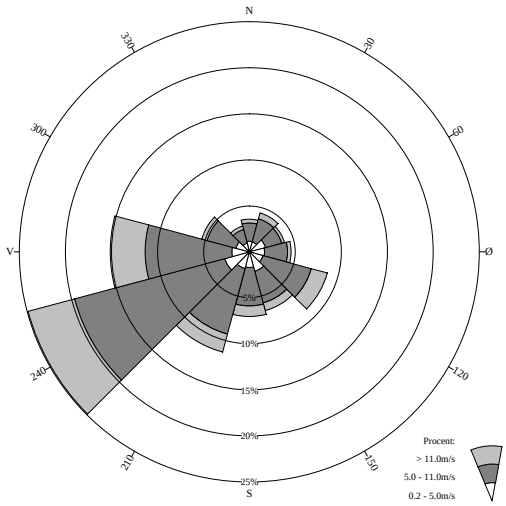
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1028 = 1.7%

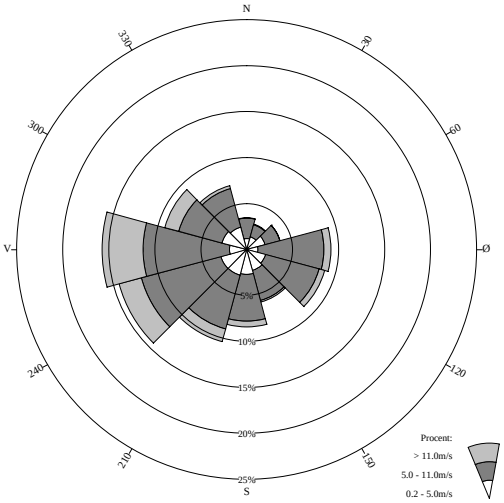
## JANUAR



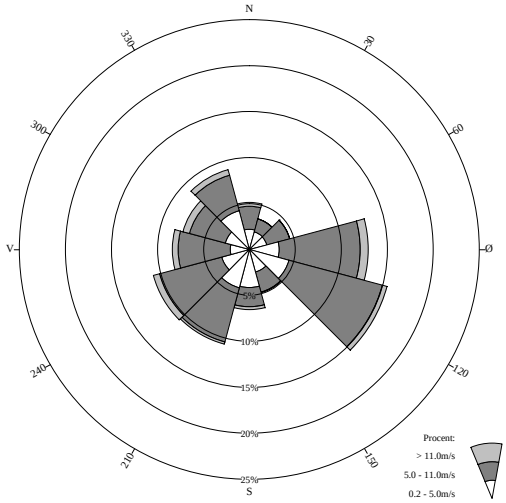

## FEBRUAR



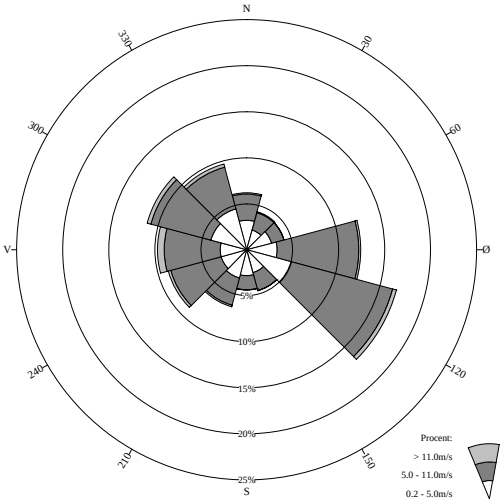

## MARTS



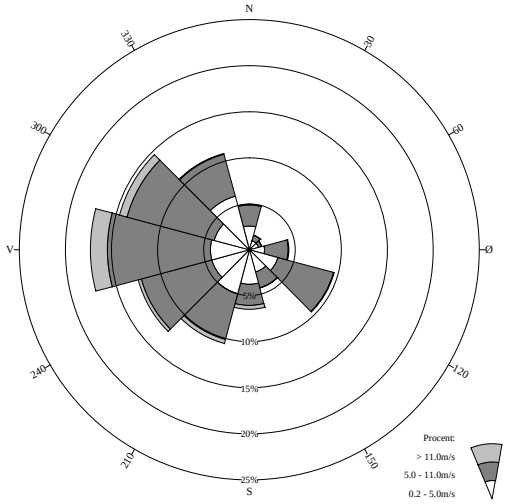

## APRIL



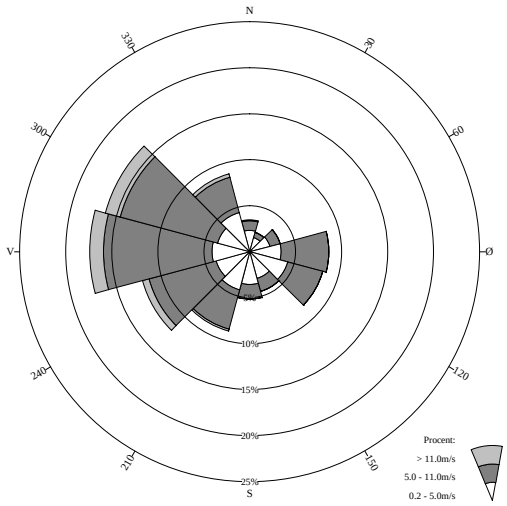

## MAJ



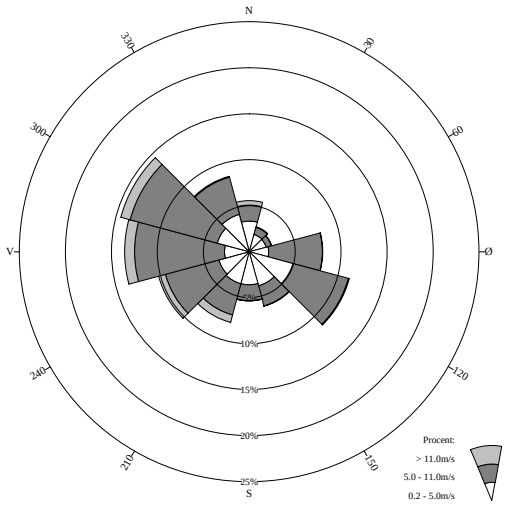

## JUNI



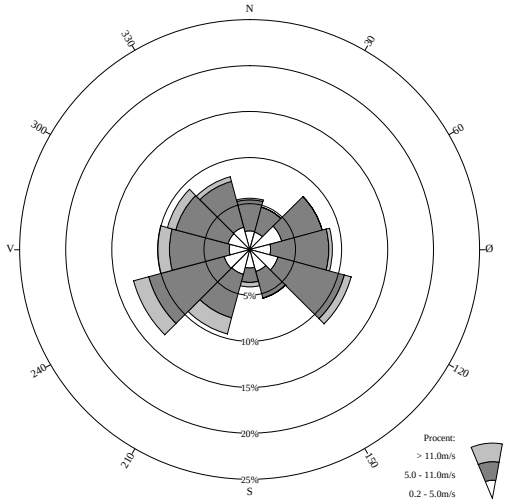
## JULI



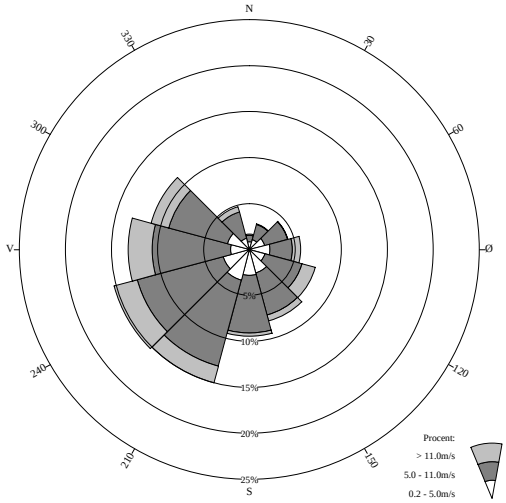

## AUGUST



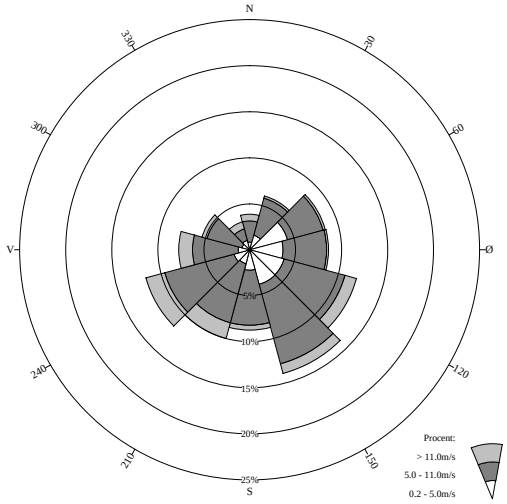

## SEPTEMBER



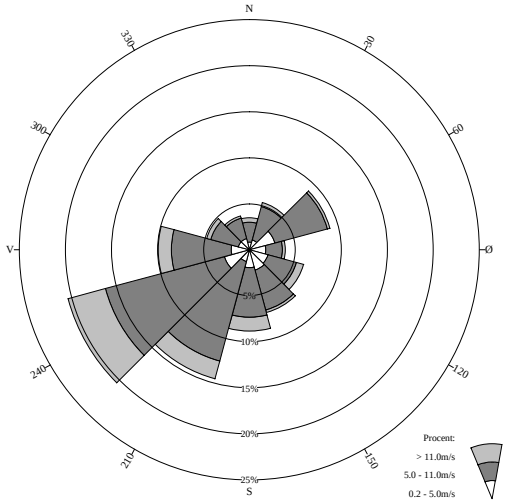

## OKTOBER




## NOVEMBER




## DECEMBER



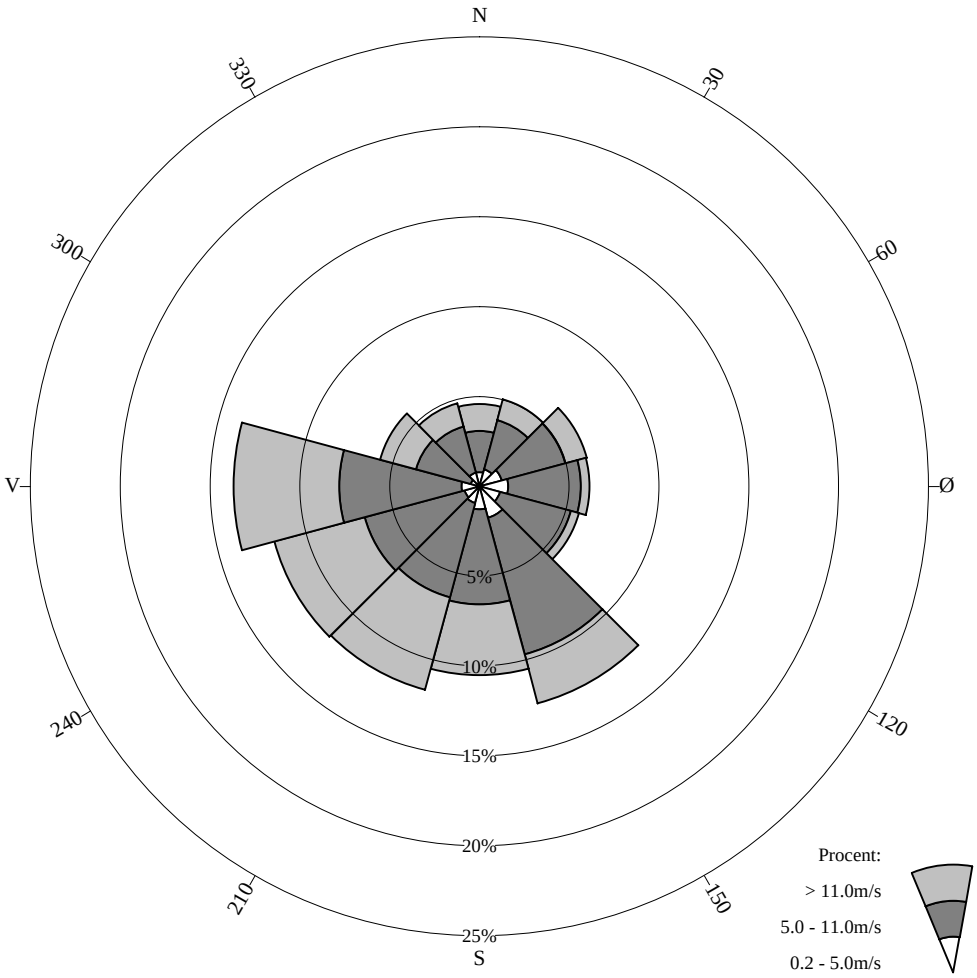
# 06159 Røsnæs Fyr

| | |
|---|---|
| **Position:** 55° 45’ N, 10° 52’ E<br>**UTM-koordinater:** 32U 6179.320N 617.410E<br>**Stationsbasis** (m.o.h.)**:** 12<br>**Vindmastbasis** (m.o.h.)**:** 12<br>**Vindmålehøjde:** 16 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** nej<br><br>**Bemærkninger:** | **Position:** lat 55° 45’ N, long 10° 52’ E<br>**UTM-positions:** 32U 6179.320N 617.410E<br>**Elevation** (m.a.s.l.)**:** 12<br>**Base of wind mast** (m.a.s.l.)**:** 12<br>**Level of measurement:** 16 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** no<br><br>**Comments:** |

# Station 06159
# RØSNÆS FYR

01-01-89 - 31-12-98

Hele perioden



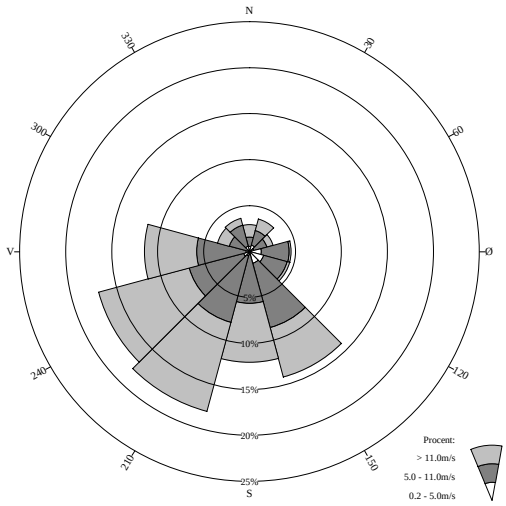

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.6 | 5.0 | 6.2 | 6.1 | 5.7 | 12.5 | 10.5 | 11.7 | 11.8 | 13.7 | 5.7 | 4.8 | 98.4 |
| % 0.2-5.0m/s | 0.8 | 1.0 | 1.3 | 1.6 | 1.2 | 1.8 | 1.3 | 1.0 | 0.9 | 1.0 | 0.5 | 0.8 | 13.2 |
| % 5.0-11.0m/s | 2.3 | 2.8 | 3.7 | 4.0 | 4.1 | 7.9 | 5.3 | 5.4 | 5.8 | 6.8 | 3.1 | 2.7 | 53.9 |
| % > 11.0m/s | 1.5 | 1.2 | 1.2 | 0.5 | 0.5 | 2.8 | 3.9 | 5.3 | 5.2 | 5.9 | 2.1 | 1.3 | 31.4 |
| Middel hastighed | 9.1 | 8.2 | 7.8 | 6.6 | 6.9 | 8.5 | 9.8 | 10.7 | 10.6 | 10.5 | 9.8 | 8.8 | 9.3 |
| Største hastighed | 31.9 | 25.7 | 26.8 | 22.6 | 18.5 | 28.9 | 28.3 | 30.9 | 36.0 | 30.9 | 25.7 | 25.7 | 36.0 |

Totalt antal observationer = 28839 Kilde: DMI

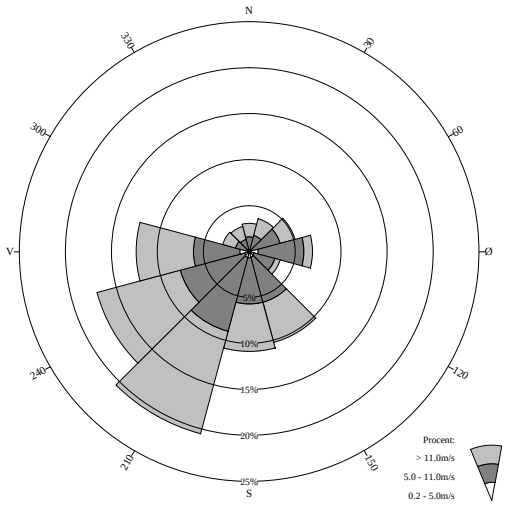
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 461 = 1.6%

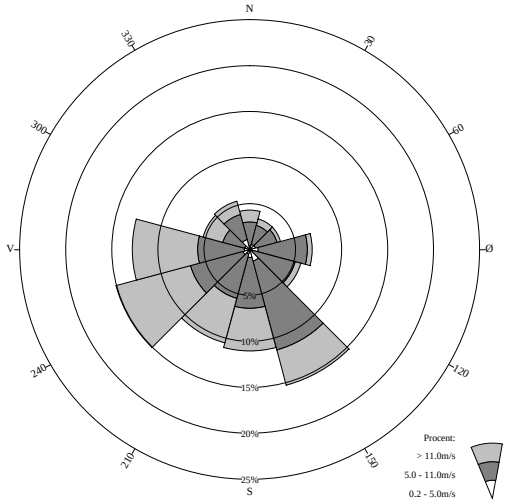
## JANUAR



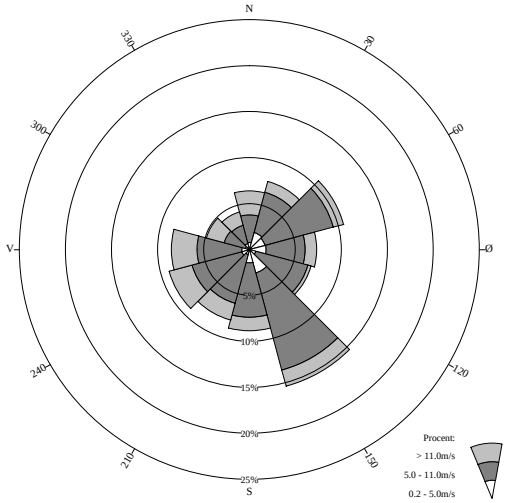

## FEBRUAR



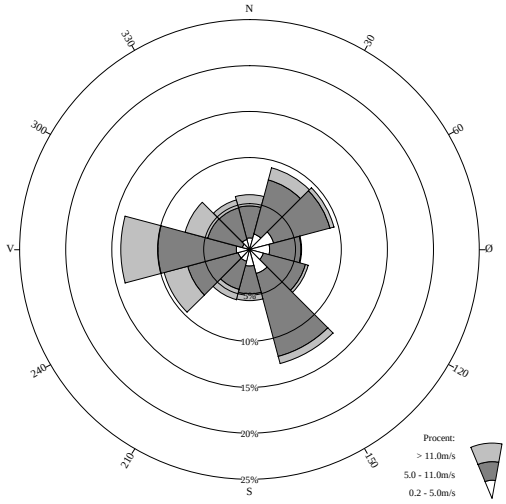

## MARTS



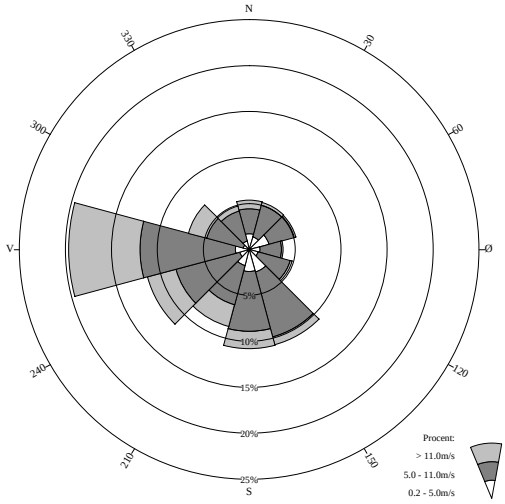

## APRIL



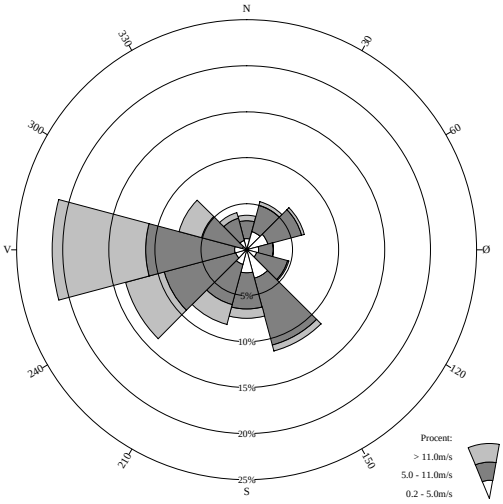

## MAJ



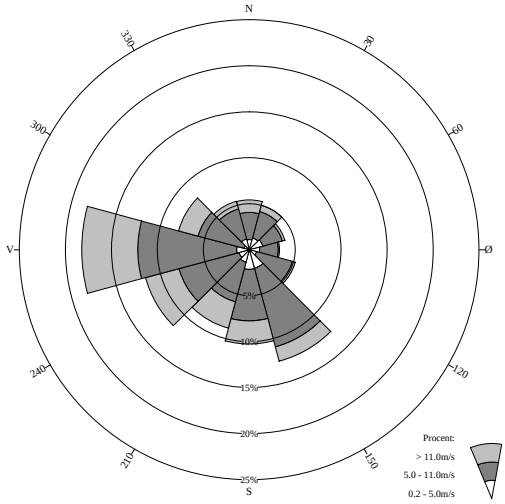

## JUNI



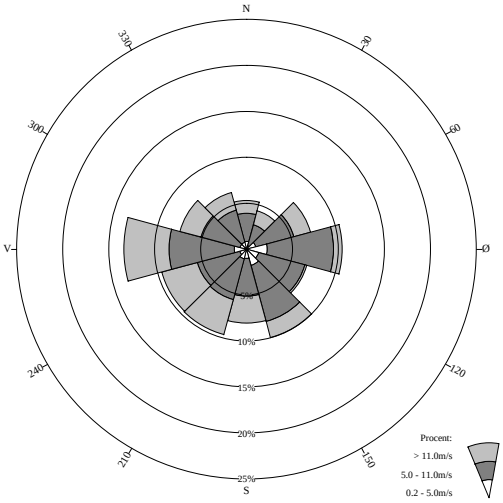
## JULI



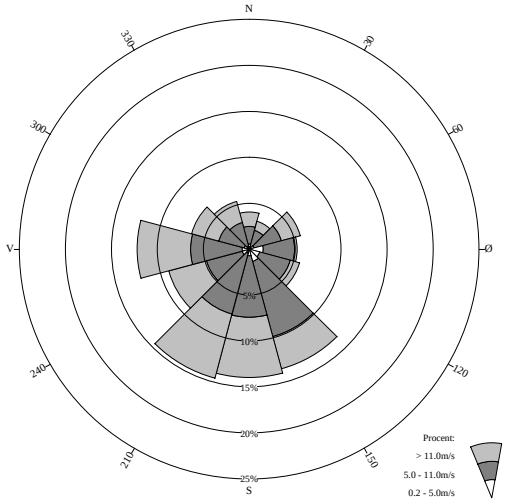

## AUGUST



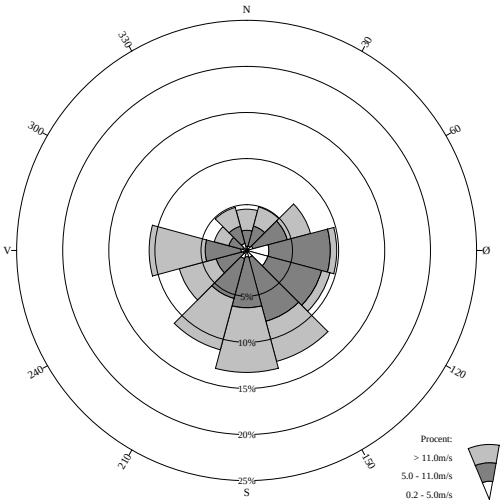

## SEPTEMBER



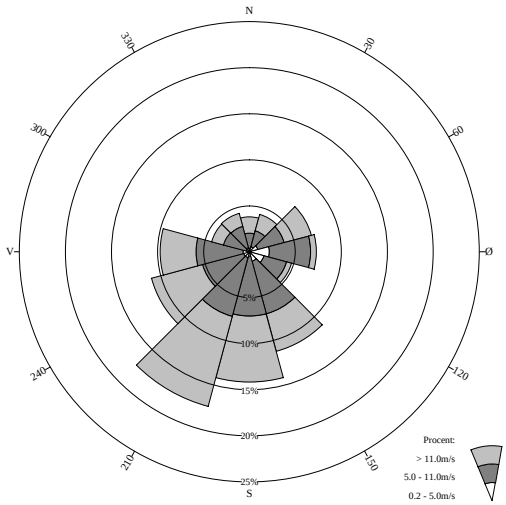

## OKTOBER




## NOVEMBER

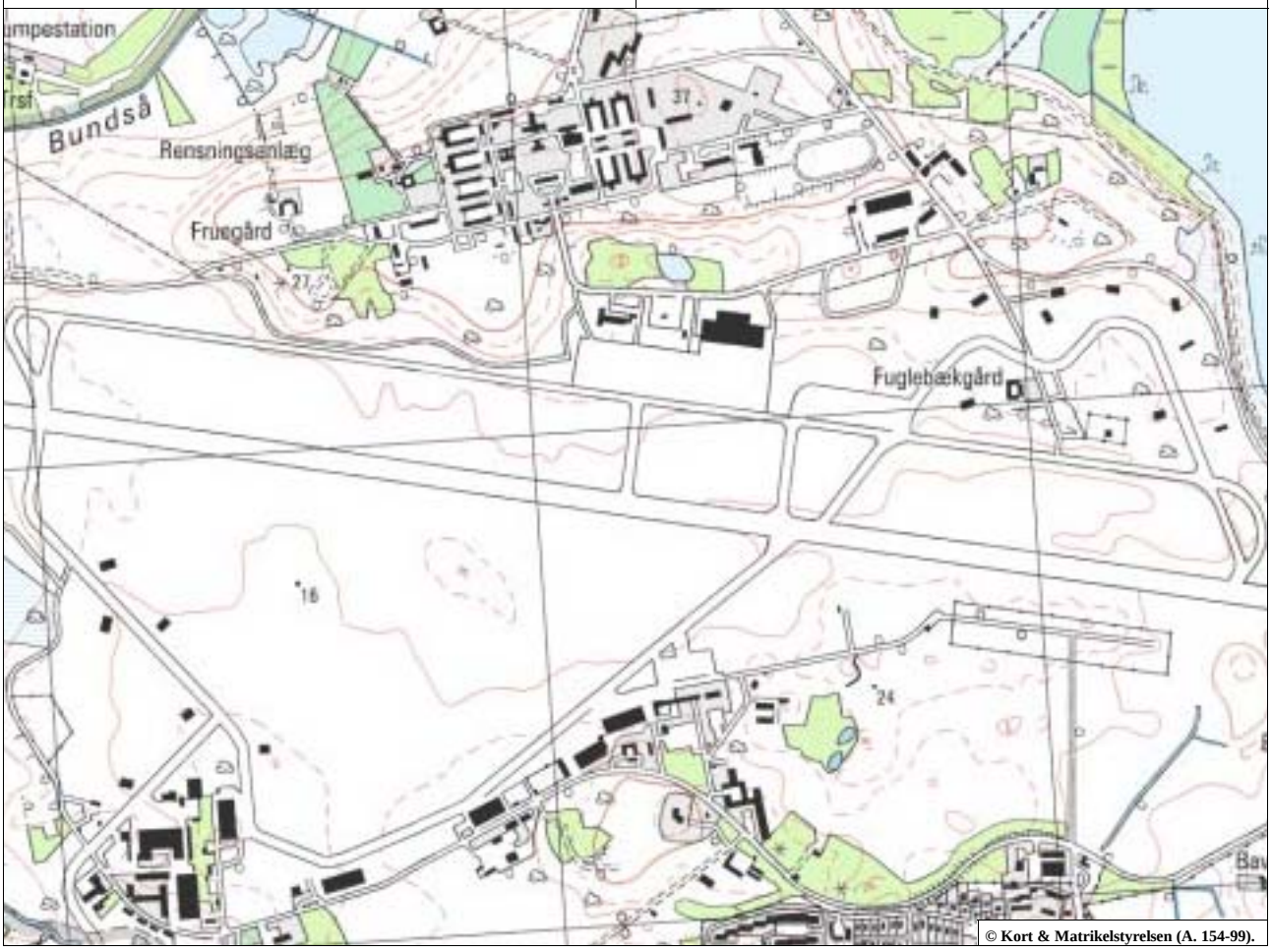



## DECEMBER



# 06160 FSN Værløse

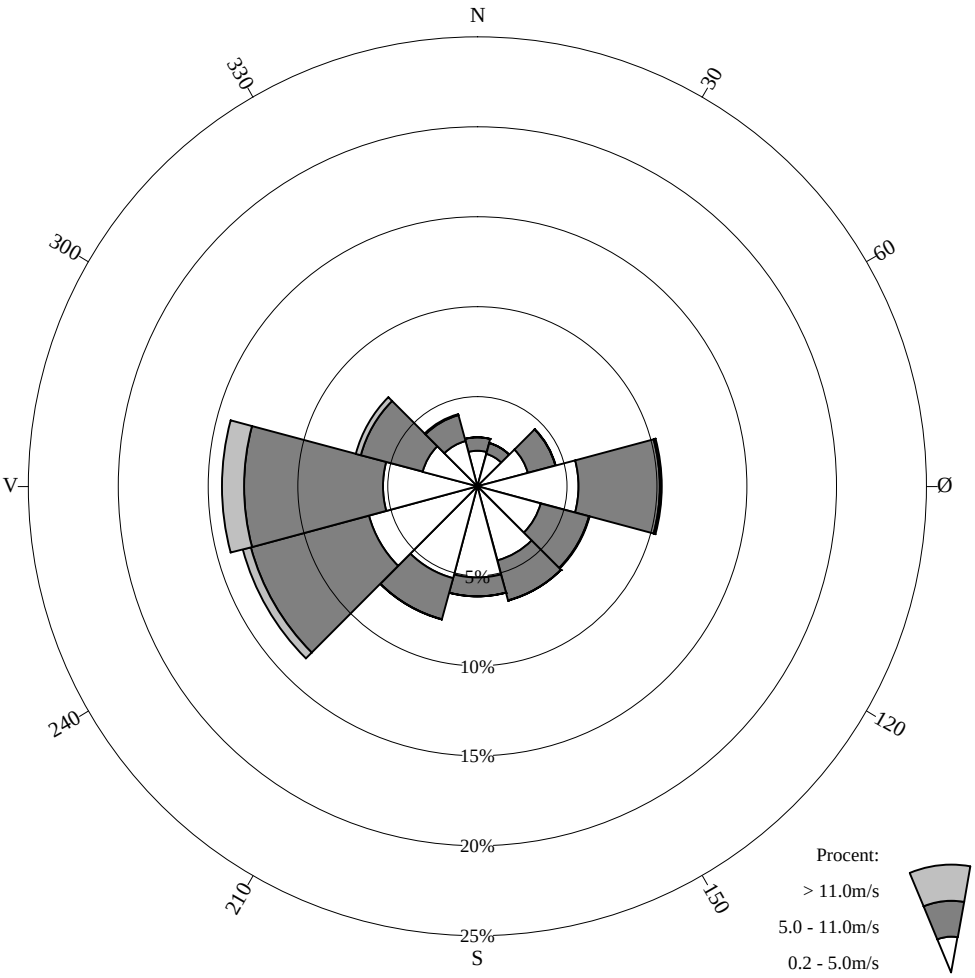
| | |
|---|---|
| **Position:** 55° 46’ N, 12° 20’ E<br>**UTM-koordinater:**<br>**Stationsbasis** (m.o.h.)**:** 17<br>**Vindmastbasis** (m.o.h.)**:** 17<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja | **Position:** lat 55° 46’ N, long 12° 20’ E<br>**UTM-positions:**<br>**Elevation** (m.a.s.l.)**:** 17<br>**Base of wind mast** (m.a.s.l.)**:** 17<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes |
| **Bemærkninger:**<br>Stationen hører under Forsvaret og er derfor ikke markeret på kortet. | **Comments:**<br>The station belongs to the Ministry of Defence and for that reason not marked on the map. |



# Station 06160
# FSN VÆRLØSE

01-01-89 - 31-12-98

Hele perioden



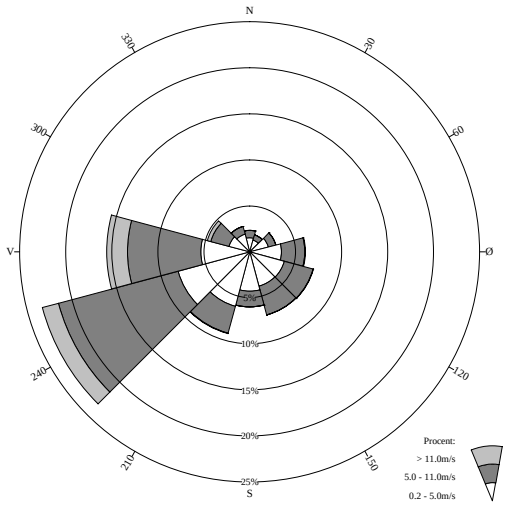

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 2.7 | 2.5 | 4.5 | 10.3 | 6.5 | 6.6 | 6.1 | 7.7 | 13.5 | 14.2 | 7.0 | 4.2 | 85.8 |
| % 0.2-5.0m/s | 2.0 | 1.9 | 2.9 | 5.6 | 3.7 | 4.3 | 5.1 | 5.3 | 6.3 | 5.3 | 3.2 | 2.6 | 48.0 |
| % 5.0-11.0m/s | 0.7 | 0.6 | 1.6 | 4.5 | 2.8 | 2.3 | 1.0 | 2.4 | 6.8 | 7.7 | 3.6 | 1.5 | 35.6 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 1.2 | 0.3 | 0.1 | 2.2 |
| Middel hastighed | 3.7 | 3.6 | 4.2 | 4.8 | 4.7 | 4.3 | 3.5 | 4.1 | 5.4 | 6.3 | 5.6 | 4.5 | 4.9 |
| Største hastighed | 11.8 | 10.8 | 12.4 | 18.5 | 13.4 | 11.3 | 10.8 | 13.4 | 18.0 | 20.6 | 20.1 | 16.0 | 20.6 |

Totalt antal observationer = 29140 Kilde: DMI

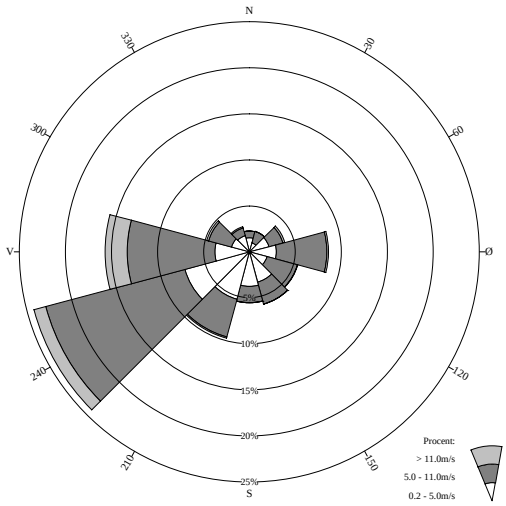
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 4133 = 14.2%

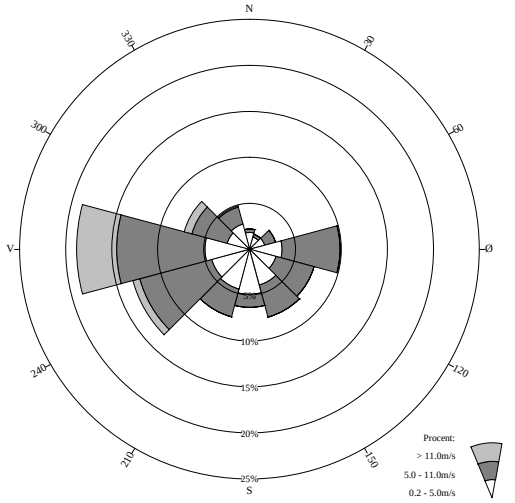
## JANUAR



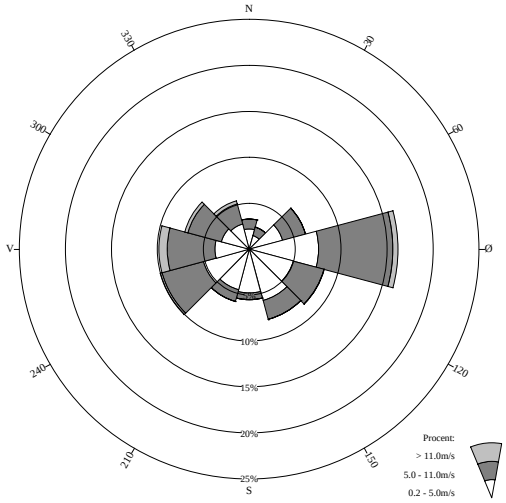

## FEBRUAR



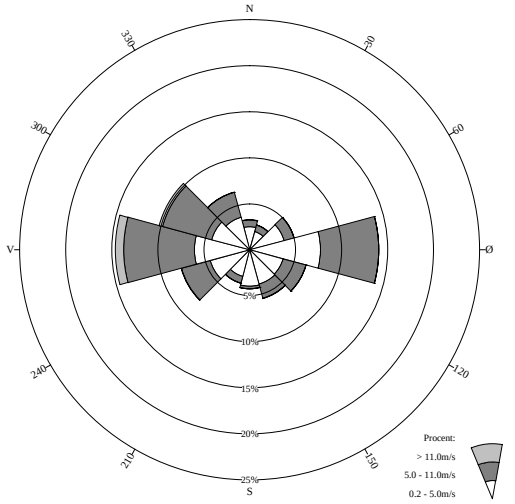

## MARTS



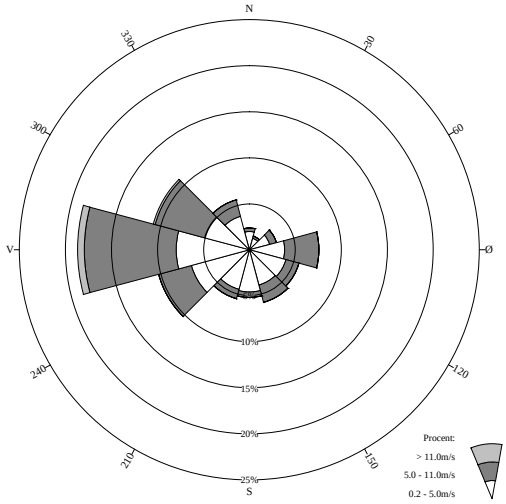

## APRIL



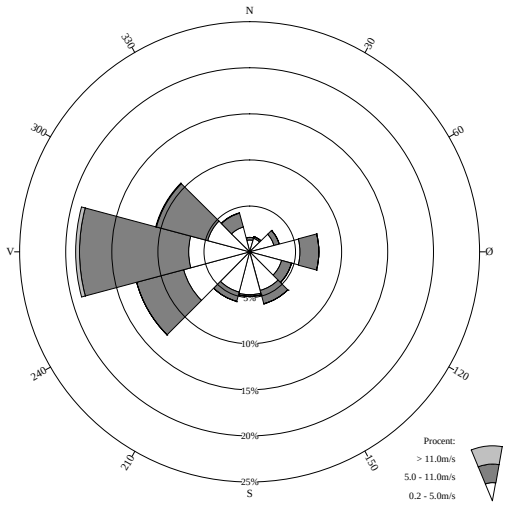

## MAJ



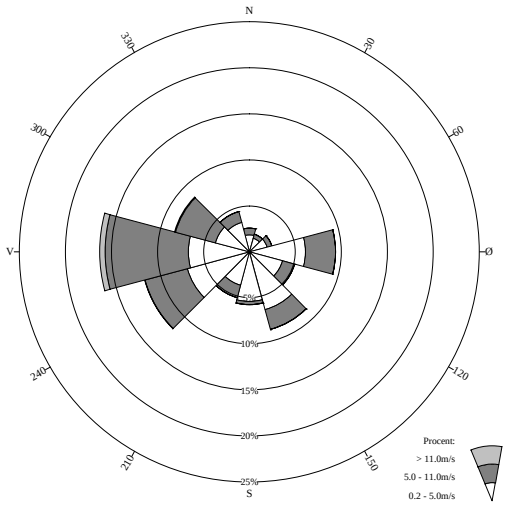

## JUNI



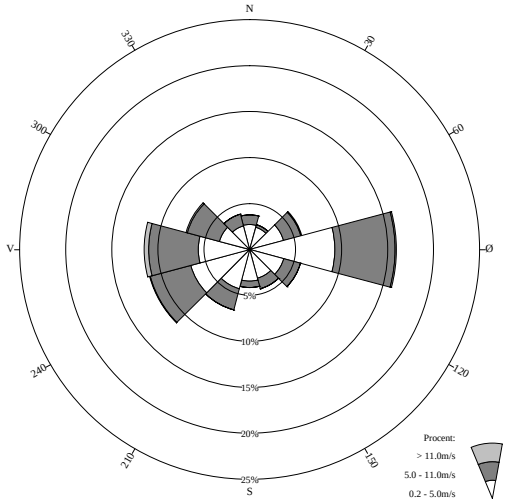
## JULI



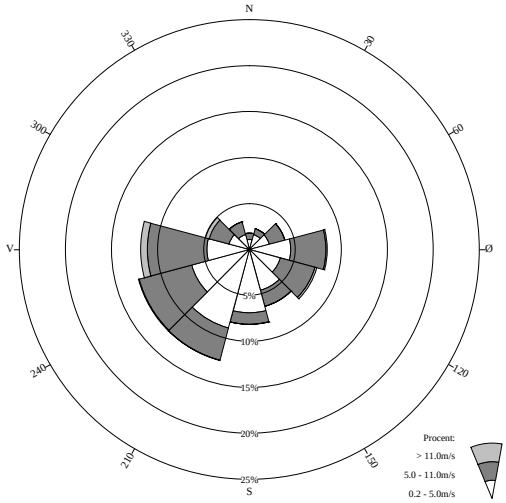

## AUGUST



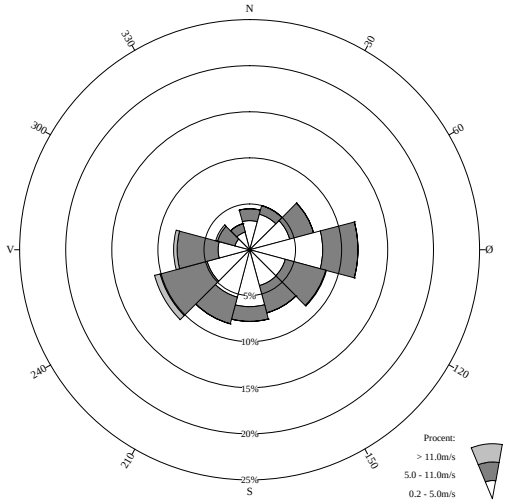

## SEPTEMBER



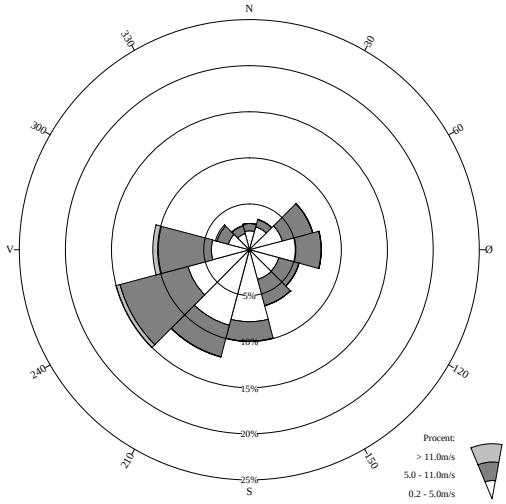

## OKTOBER




## NOVEMBER




## DECEMBER



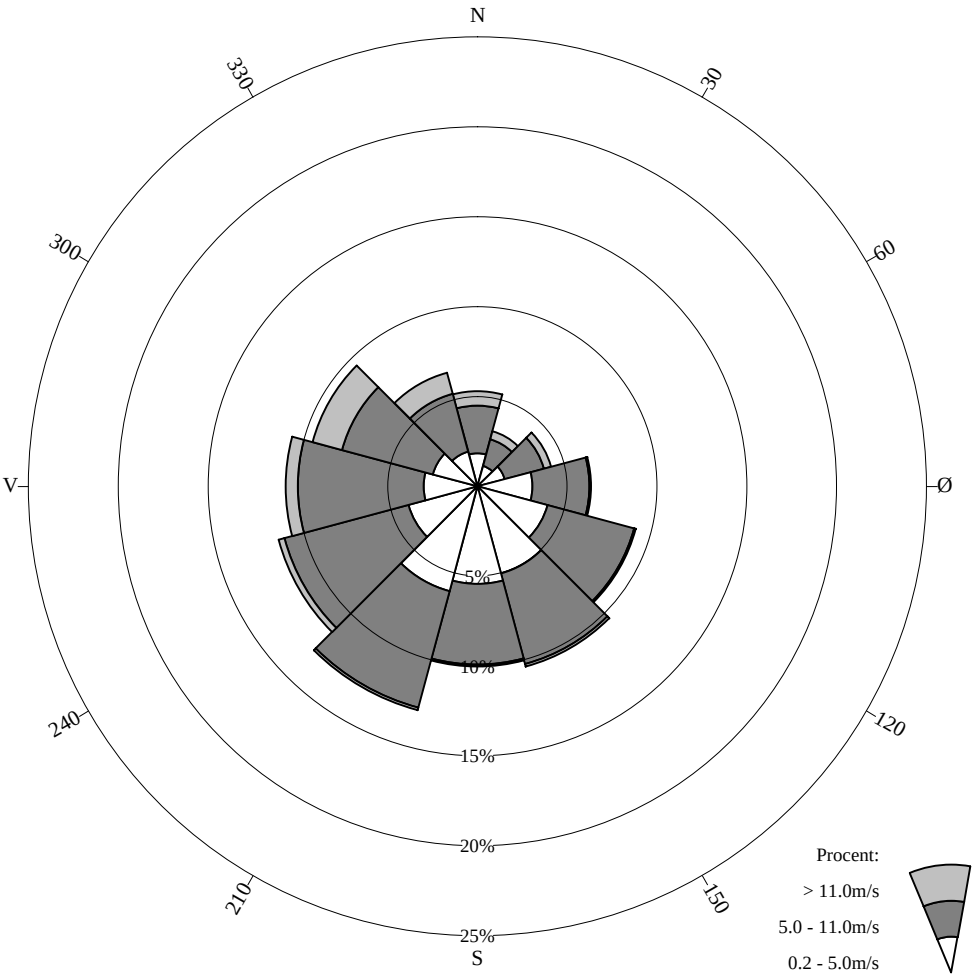
# 06168 Nakkehoved Fyr

| | |
|---|---|
| **Position:** 56° 07’ N, 12° 21’ E<br>**UTM-koordinater:** 33V 6222.740N 334.880E<br>**Stationsbasis** (m.o.h.)**:** 37<br>**Vindmastbasis** (m.o.h.)**:** 35<br>**Vindmålehøjde:** 24 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:** | **Position:** lat 56° 07’ N, long 12° 21’ E<br>**UTM-positions:** 33V 6222.740N 334.880E<br>**Elevation** (m.a.s.l.)**:** 37<br>**Base of wind mast** (m.a.s.l.)**:** 35<br>**Level of measurement:** 24 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:** |

# Station 06168
# NAKKEHOVED FYR

01-01-89 - 31-12-98

Hele perioden



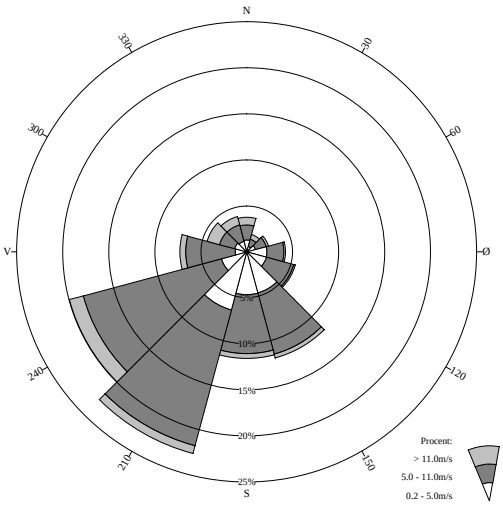

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 5.3 | 3.2 | 4.2 | 6.3 | 9.1 | 10.4 | 10.0 | 12.9 | 11.5 | 10.7 | 9.5 | 6.6 | 99.7 |
| % 0.2-5.0m/s | 1.8 | 1.2 | 1.6 | 3.1 | 4.0 | 5.0 | 5.4 | 6.0 | 4.0 | 3.0 | 2.6 | 2.0 | 39.8 |
| % 5.0-11.0m/s | 2.7 | 1.5 | 2.3 | 3.2 | 5.0 | 5.2 | 4.5 | 6.7 | 7.1 | 7.0 | 5.2 | 3.3 | 53.7 |
| % > 11.0m/s | 0.8 | 0.5 | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.7 | 1.7 | 1.2 | 6.1 |
| Middel hastighed | 6.9 | 6.8 | 6.5 | 5.3 | 5.5 | 5.3 | 5.0 | 5.3 | 6.1 | 6.6 | 7.6 | 7.5 | 6.1 |
| Største hastighed | 25.7 | 21.1 | 20.6 | 16.5 | 14.9 | 14.9 | 14.4 | 17.5 | 17.0 | 23.1 | 26.8 | 27.8 | 27.8 |

Totalt antal observationer = 83774 Kilde: DMI

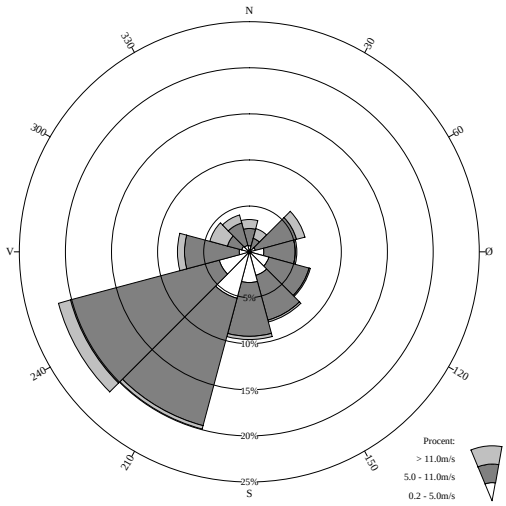
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 269 = 0.3%

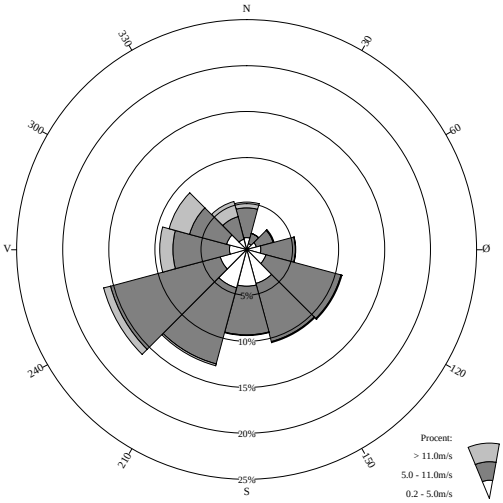
## JANUAR



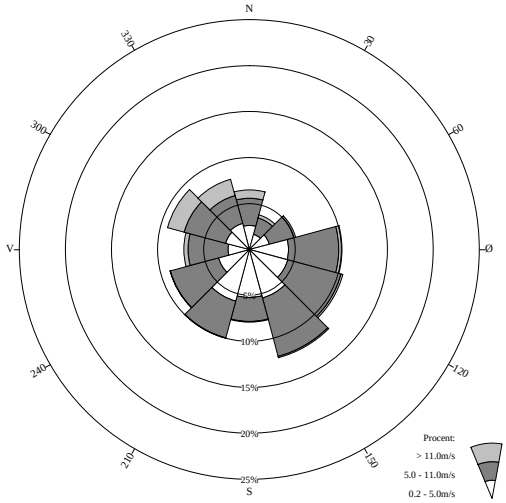

## FEBRUAR



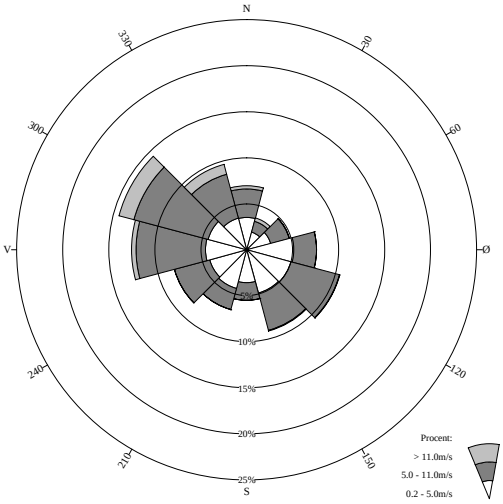

## MARTS



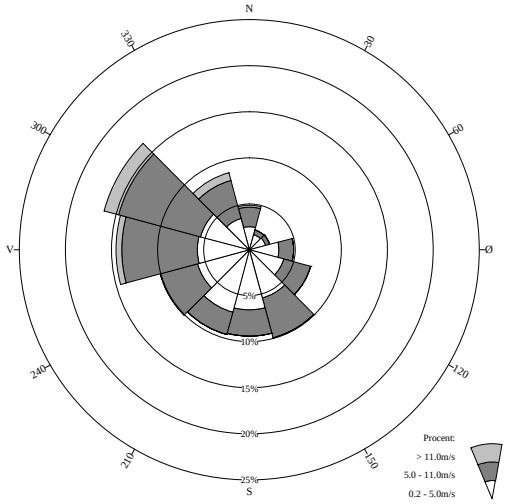

## APRIL



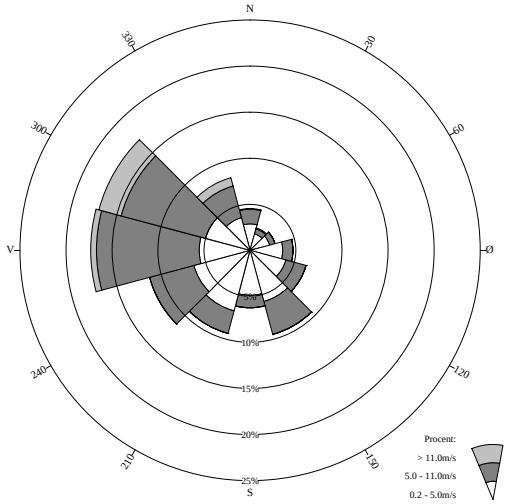

## MAJ



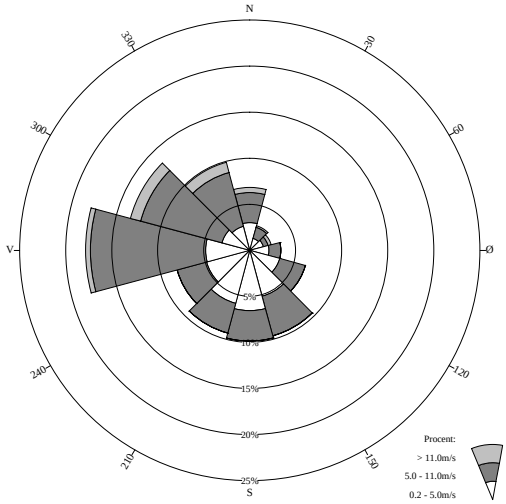

## JUNI



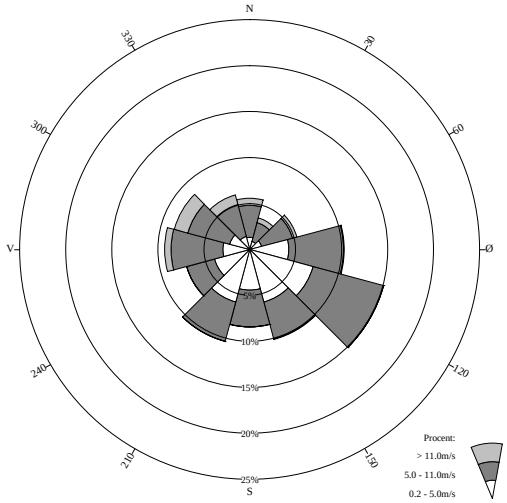
## JULI



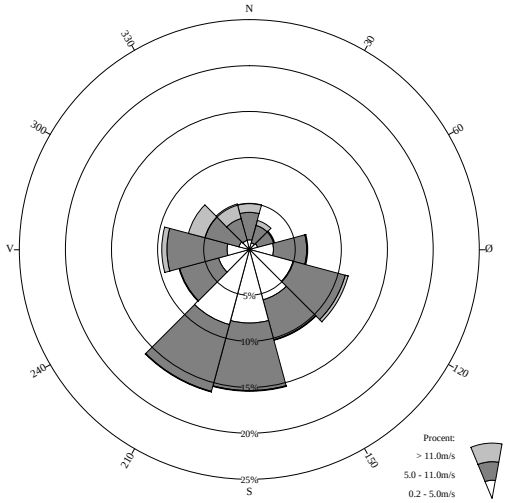

## AUGUST



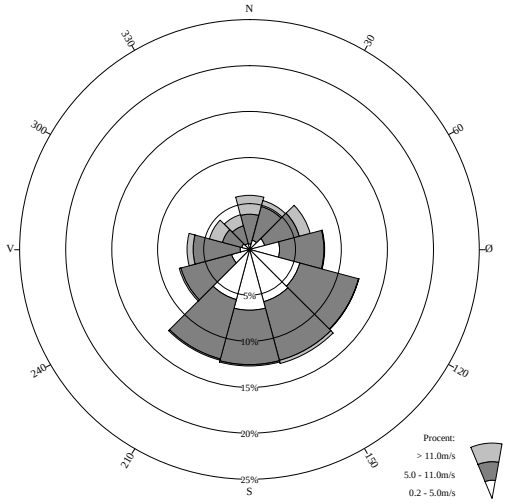

## SEPTEMBER



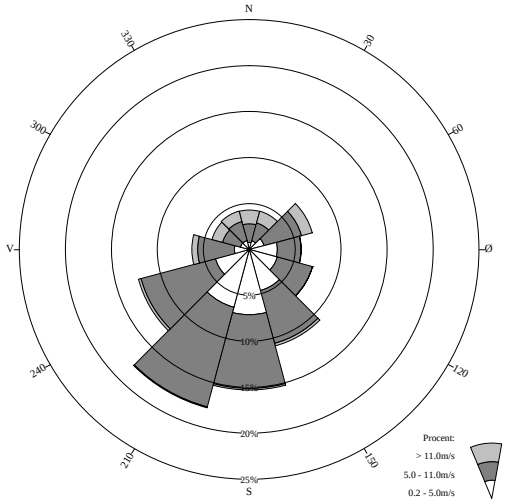

## OKTOBER




## NOVEMBER




## DECEMBER



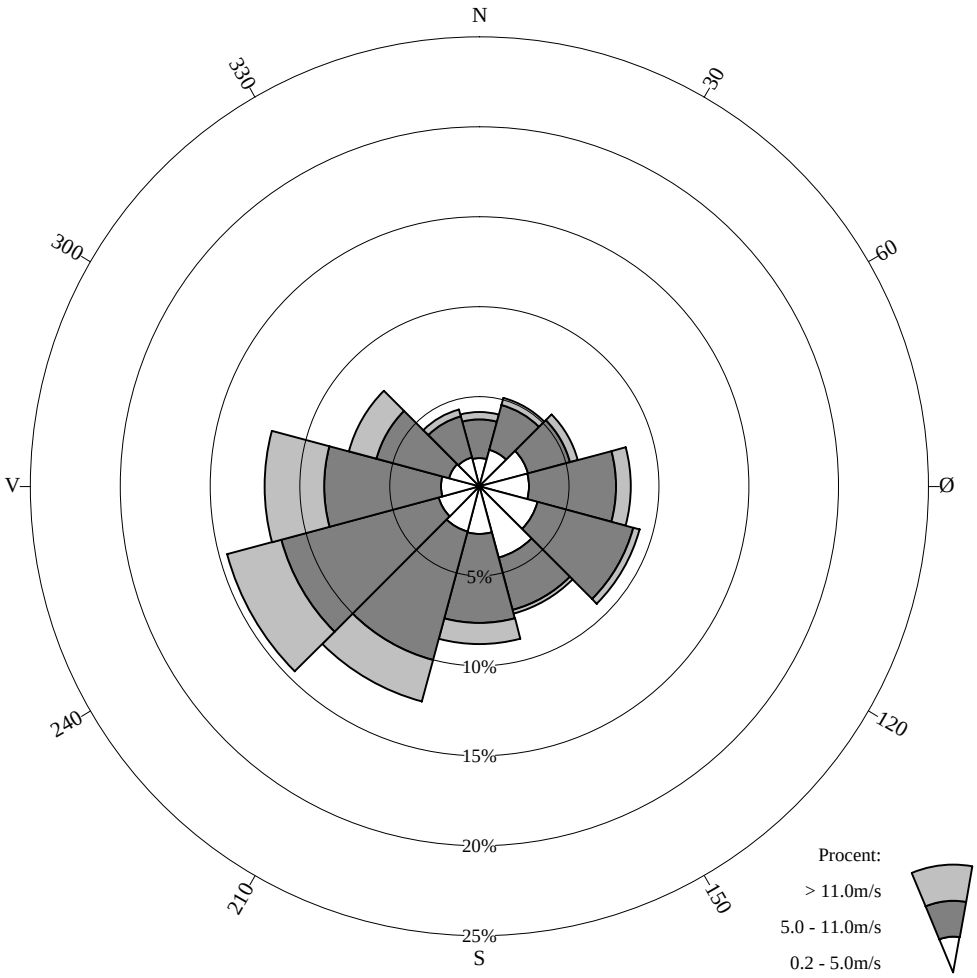
# 06169 Gniben

| | |
|---|---|
| **Position:** 56° 01’ N, 11° 17’ E<br>**UTM-koordinater:**<br>**Stationsbasis** (m.o.h.)**:** 13<br>**Vindmastbasis** (m.o.h.)**:** 13<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Stationen hører under Forsvaret og er derfor ikke markeret på kortet. | **Position:** lat 56° 01’ N, long 11° 17’ E<br>**UTM-positions:**<br>**Elevation** (m.a.s.l.)**:** 13<br>**Base of wind mast** (m.a.s.l.)**:** 13<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>The station belongs to the Ministry of Defence and for that reason not marked on the map. |

# Station 06169
# GNIBEN

01-01-89 - 31-12-98

Hele perioden



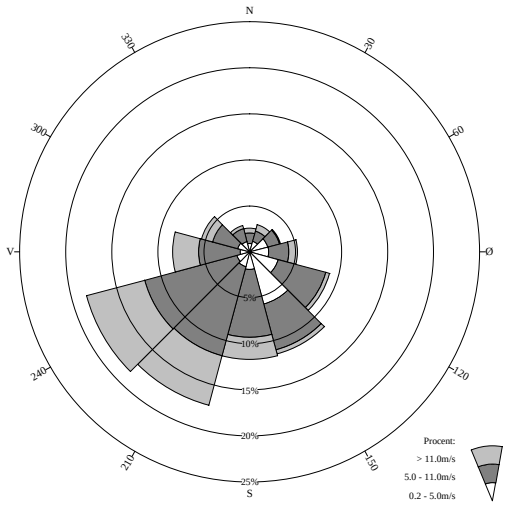

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.1 | 5.1 | 5.7 | 8.4 | 9.2 | 7.3 | 8.8 | 12.4 | 14.5 | 12.0 | 7.5 | 4.4 | 99.6 |
| % 0.2-5.0m/s | 1.6 | 2.1 | 2.8 | 2.8 | 3.4 | 4.1 | 2.7 | 2.6 | 2.4 | 2.2 | 1.8 | 1.7 | 29.9 |
| % 5.0-11.0m/s | 2.2 | 2.6 | 2.4 | 4.8 | 5.5 | 3.0 | 5.0 | 7.4 | 9.1 | 6.5 | 4.2 | 2.4 | 55.0 |
| % > 11.0m/s | 0.4 | 0.4 | 0.4 | 0.8 | 0.4 | 0.2 | 1.2 | 2.4 | 3.1 | 3.3 | 1.6 | 0.4 | 14.6 |
| Middel hastighed | 6.4 | 6.1 | 5.6 | 6.6 | 6.1 | 5.0 | 7.0 | 8.0 | 8.4 | 8.7 | 8.0 | 6.4 | 7.2 |
| Største hastighed | 24.2 | 21.6 | 20.1 | 20.1 | 16.0 | 18.0 | 25.2 | 26.8 | 25.2 | 22.7 | 26.3 | 20.1 | 26.8 |

Totalt antal observationer = 81475 Kilde: DMI

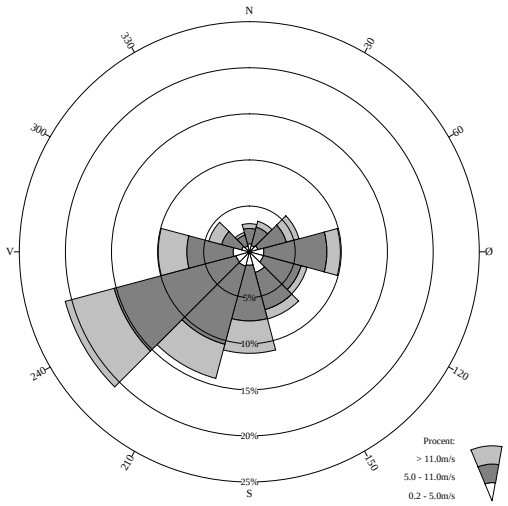
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 359 = 0.4%

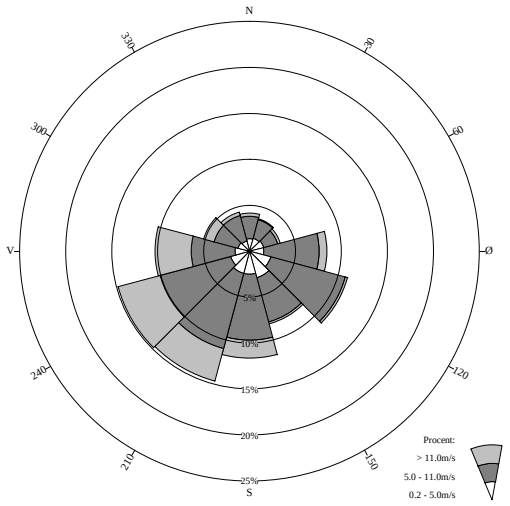
## JANUAR



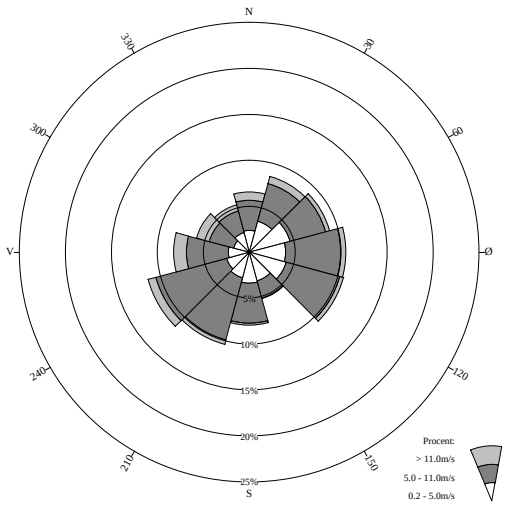

## FEBRUAR



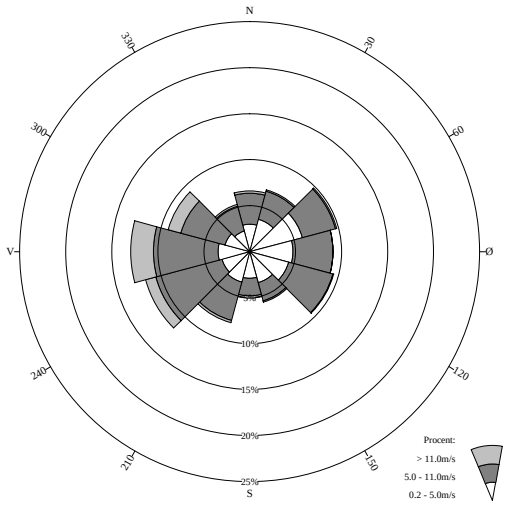

## MARTS



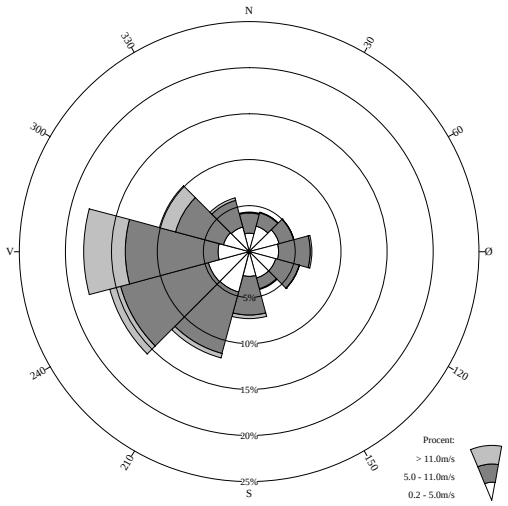

## APRIL



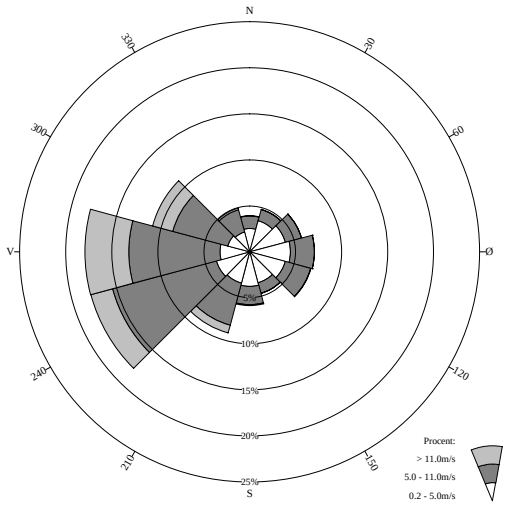

## MAJ



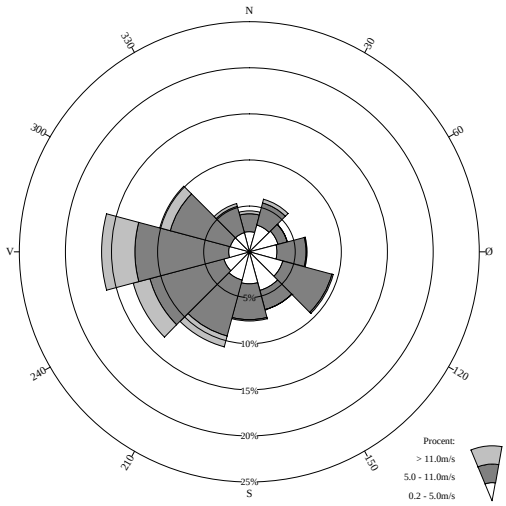

## JUNI



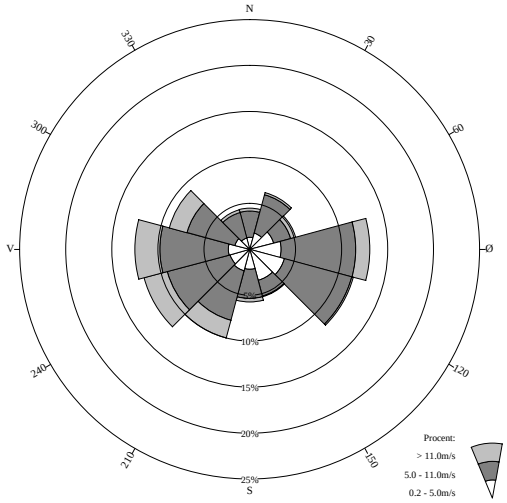
## JULI



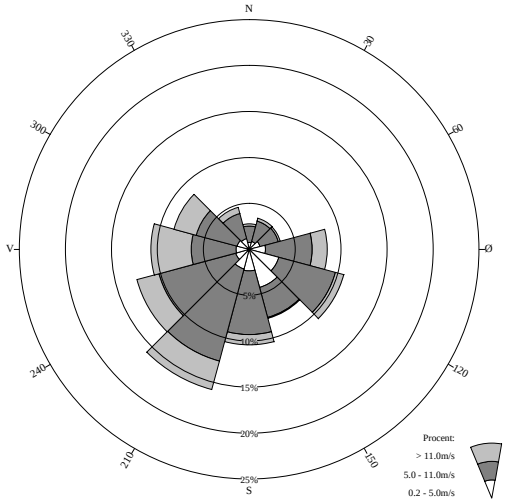

## AUGUST



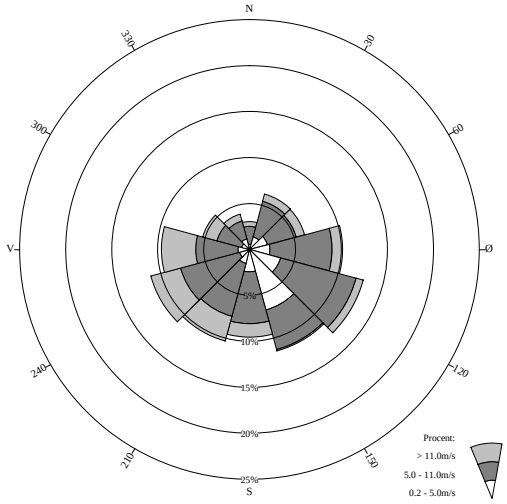

## SEPTEMBER



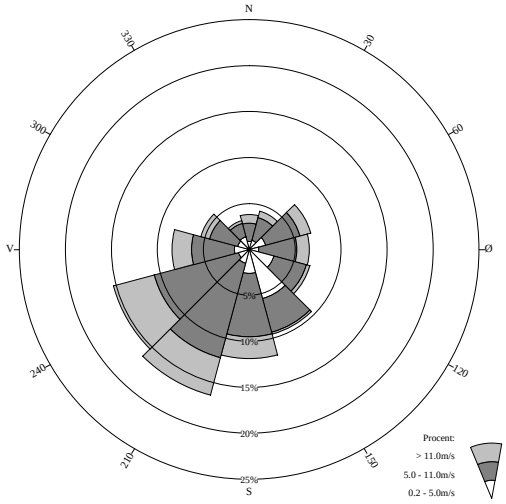

## OKTOBER




## NOVEMBER

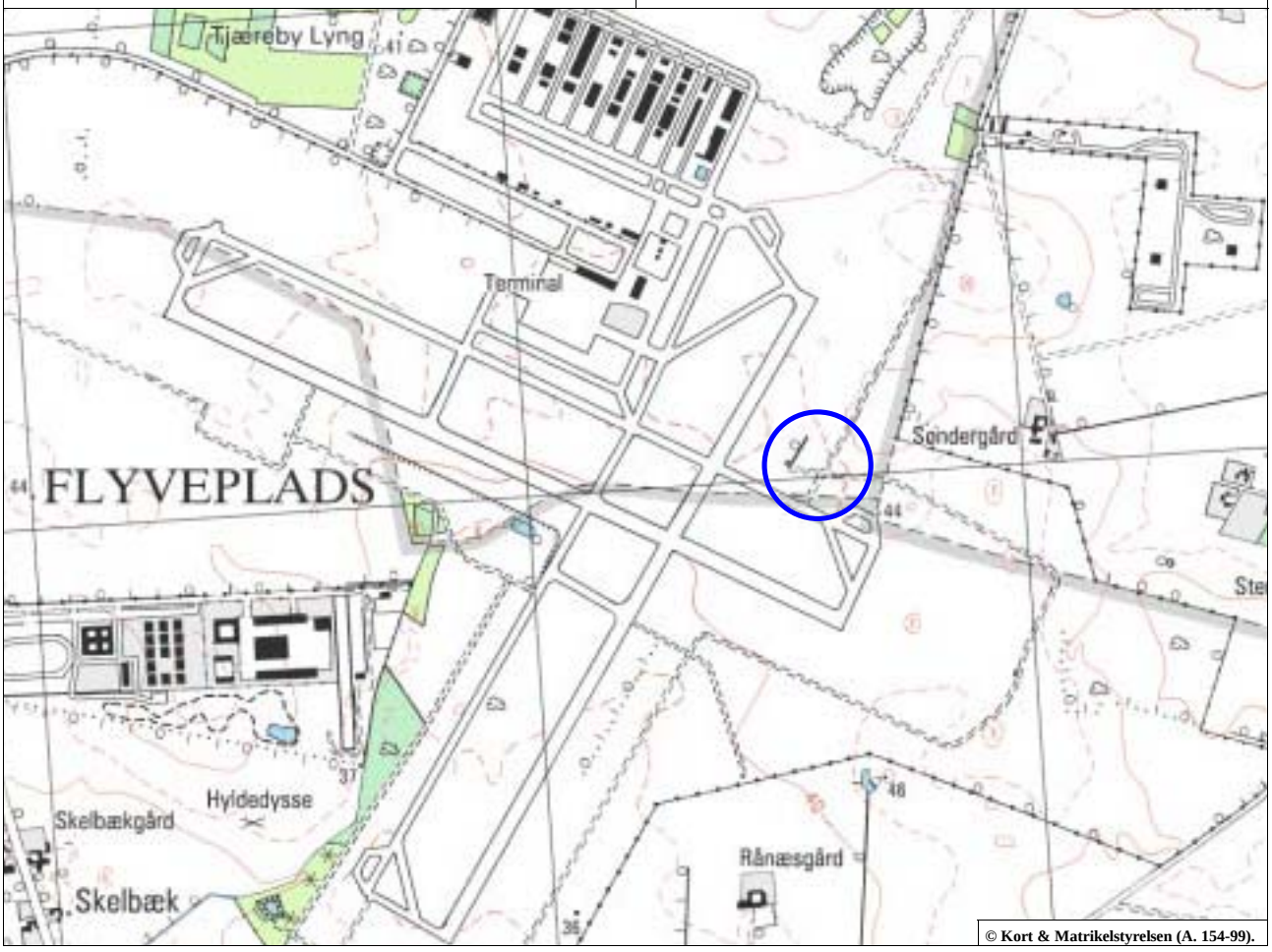



## DECEMBER



# 06170 Roskilde Lufthavn

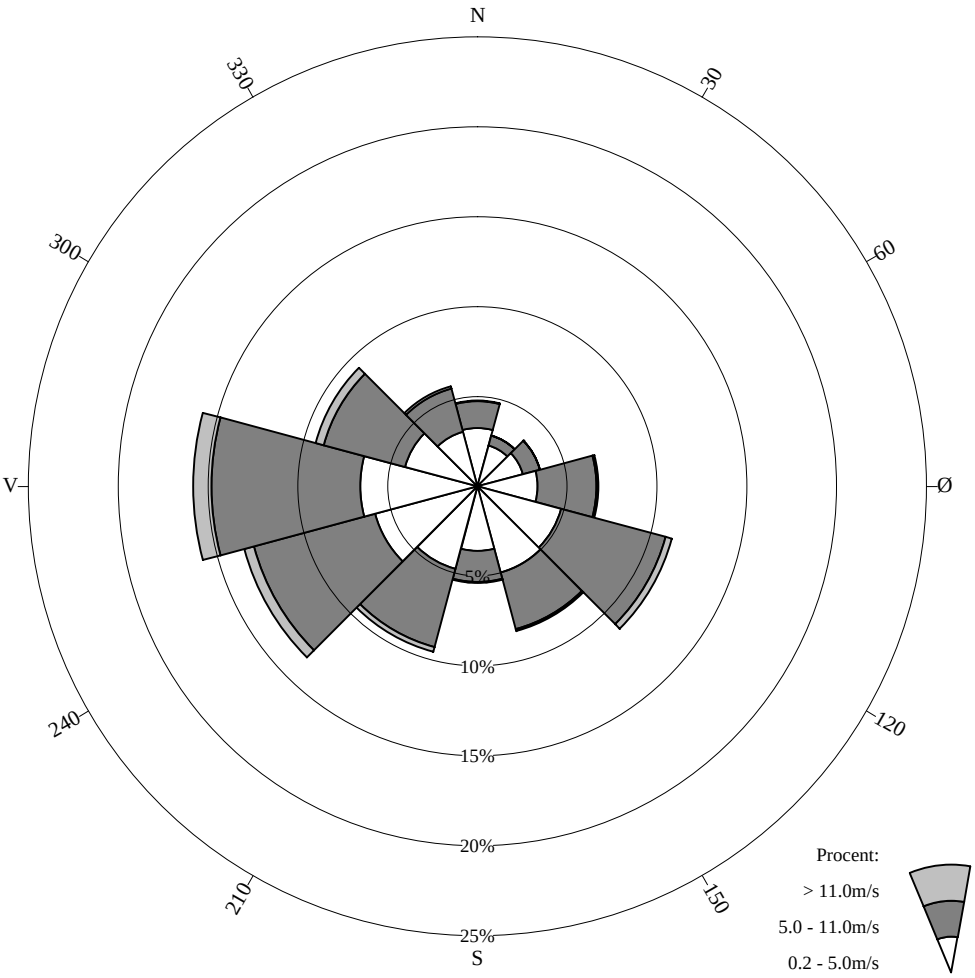
| | |
|---|---|
| **Position:** 55° 35’ N, 12° 08’ E<br>**UTM-koordinater:** 33U 6164.020N 319.590E<br>**Stationsbasis** (m.o.h.)**:** 42<br>**Vindmastbasis** (m.o.h.)**:** 42<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja<br><br>**Bemærkninger:** | **Position:** lat 55° 35’ N, long 12° 08’ E<br>**UTM-positions:** 33U 6164.020N 319.590E<br>**Elevation** (m.a.s.l.)**:** 42<br>**Base of wind mast** (m.a.s.l.)**:** 42<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes<br><br>**Comments:** |



# Station 06170
# ROSKILDE LUFTHAVN

01-01-89 - 31-12-98

Hele perioden



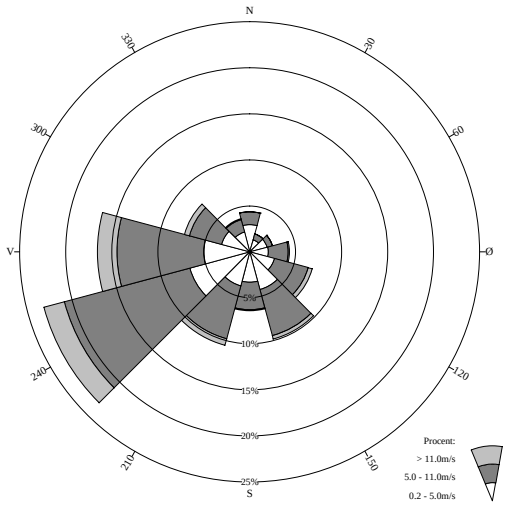

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.8 | 2.9 | 3.6 | 6.7 | 11.2 | 8.3 | 5.4 | 9.5 | 13.4 | 15.8 | 9.3 | 5.8 | 96.9 |
| % 0.2-5.0m/s | 3.3 | 2.4 | 2.6 | 3.4 | 4.8 | 5.0 | 3.6 | 4.8 | 5.9 | 6.5 | 4.2 | 3.1 | 49.5 |
| % 5.0-11.0m/s | 1.5 | 0.6 | 1.0 | 3.3 | 6.0 | 3.3 | 1.7 | 4.5 | 7.0 | 8.3 | 4.7 | 2.5 | 44.3 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 0.1 | 0.1 | 0.3 | 0.5 | 1.0 | 0.5 | 0.1 | 3.1 |
| Middel hastighed | 4.3 | 3.7 | 3.9 | 5.2 | 5.7 | 4.8 | 4.4 | 5.2 | 5.6 | 6.0 | 5.7 | 5.0 | 5.3 |
| Største hastighed | 15.0 | 10.3 | 14.4 | 16.5 | 15.5 | 14.9 | 14.9 | 17.0 | 20.6 | 20.6 | 18.5 | 17.6 | 20.6 |

Totalt antal observationer = 28946 Kilde: DMI

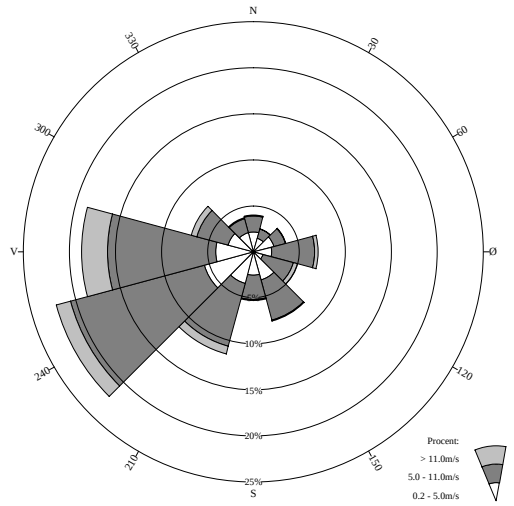
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 901 = 3.1%

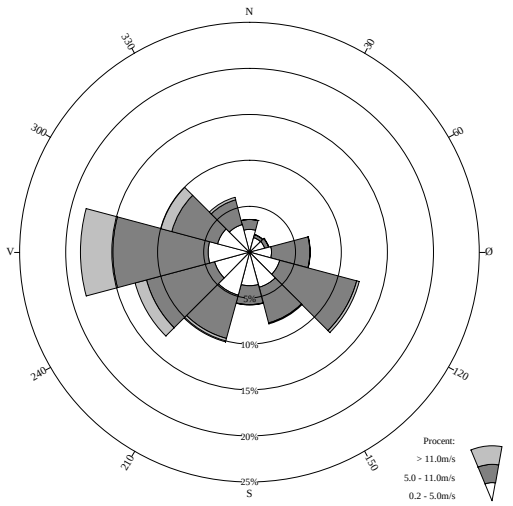
## JANUAR



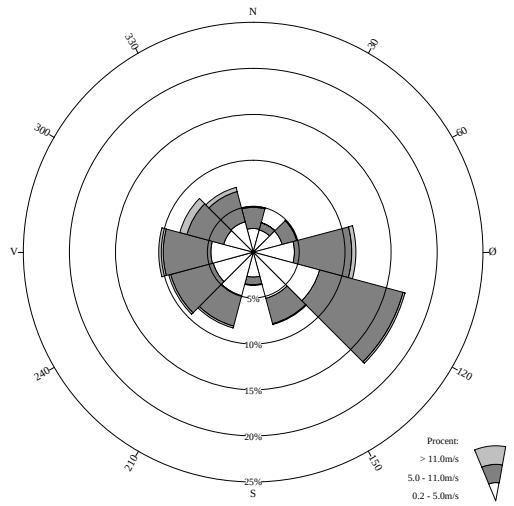

## FEBRUAR



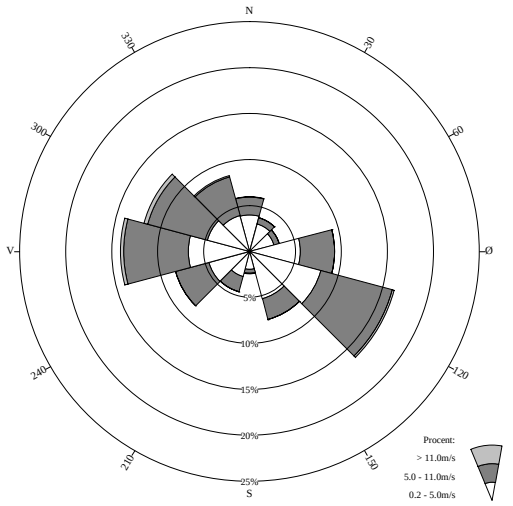

## MARTS



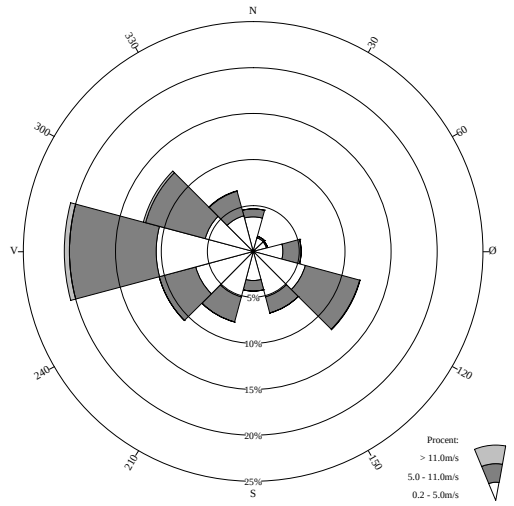

## APRIL



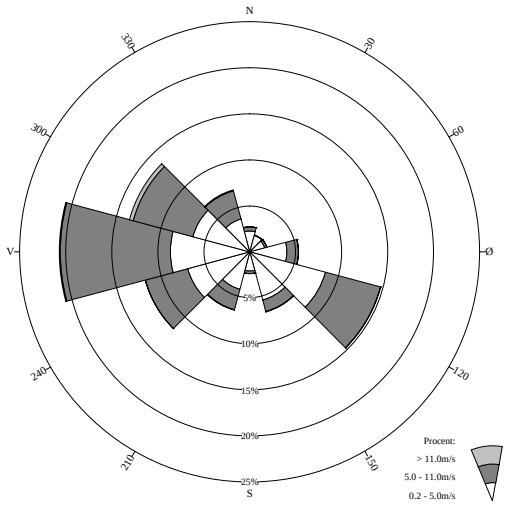

## MAJ



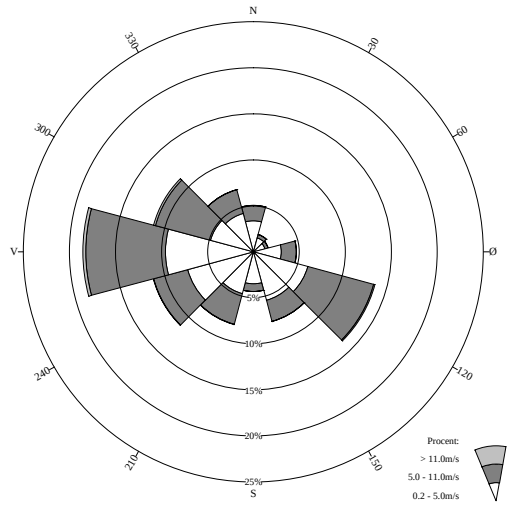

## JUNI



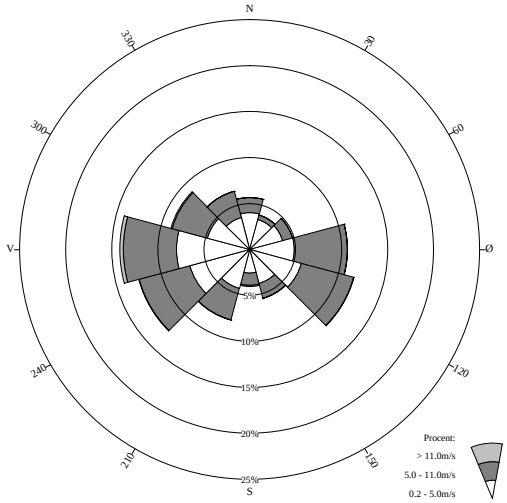
## JULI



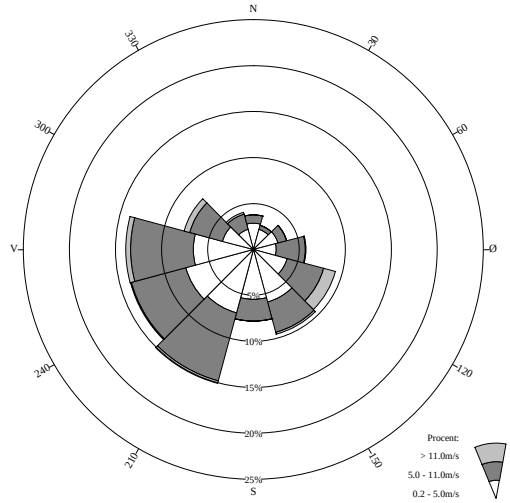

## AUGUST



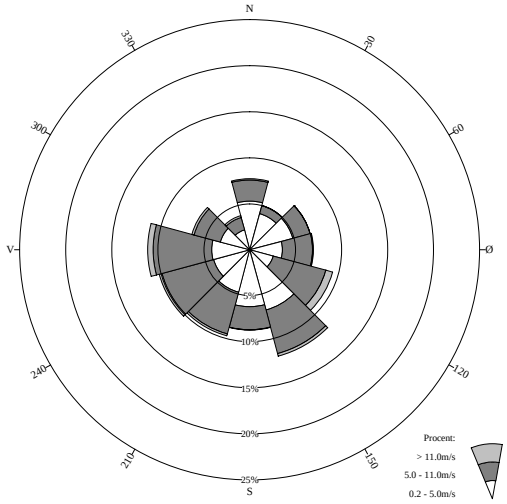

## SEPTEMBER



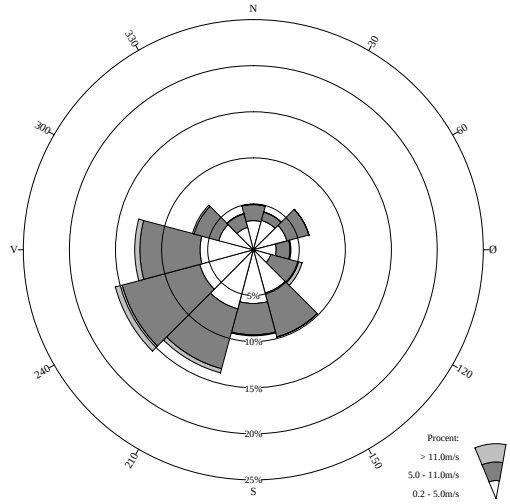

## OKTOBER




## NOVEMBER




## DECEMBER



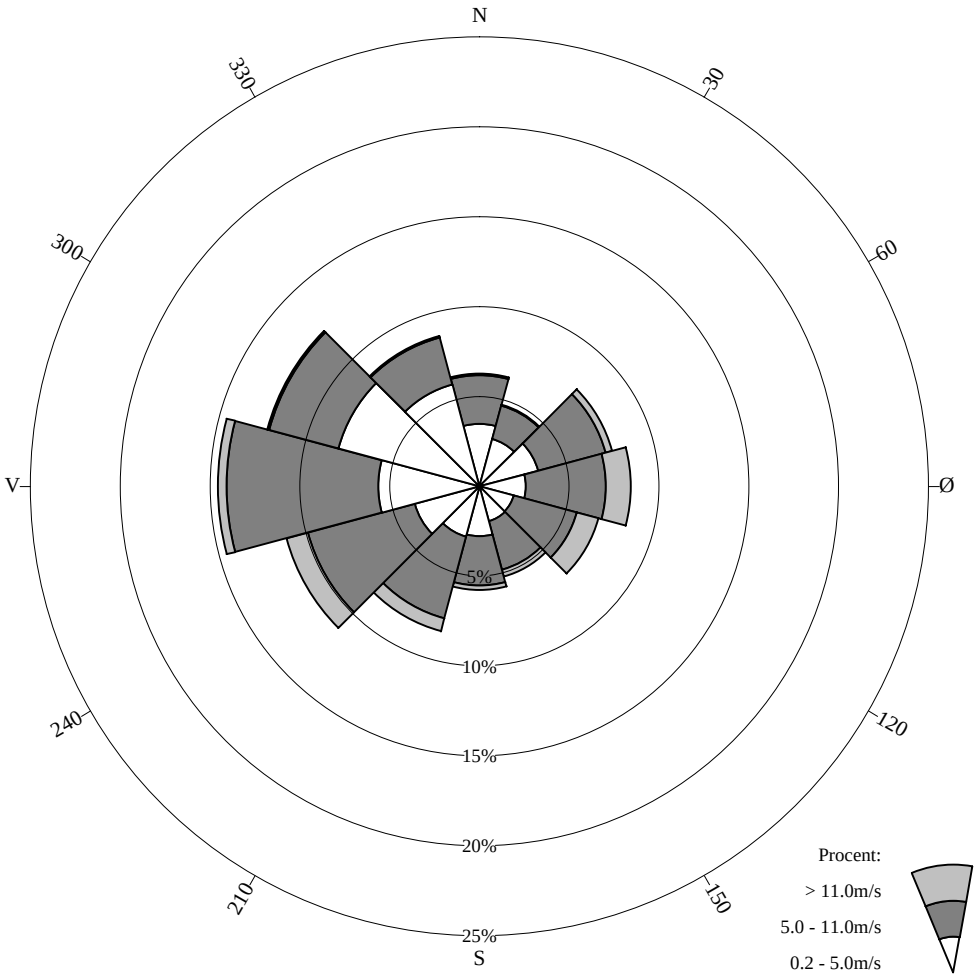
# 06179 Møn Fyr

| | |
|---|---|
| **Position:** 54° 57’ N, 12° 32’ E<br>**UTM-koordinater:** 33U 6091.810N 342.520E<br>**Stationsbasis** (m.o.h.)**:** 14<br>**Vindmastbasis** (m.o.h.)**:** 14<br>**Vindmålehøjde:** 14 m<br>**Registreringsfrekvens:** hver 1. time<br>**Vindstød:** ja<br><br>**Bemærkninger:**<br>Dataserien omfatter perioden 01.06.95-31.12.98.<br>Den 01.06.95 blev stationen automatiseret, og data før denne dato er ikke sammenlignelige med data efter. | **Position:** lat 54° 57’ N, long 12° 32’ E<br>**UTM-positions:** 33U 6091.810N 342.520E<br>**Elevation** (m.a.s.l.)**:** 14<br>**Base of wind mast** (m.a.s.l.)**:** 14<br>**Level of measurement:** 14 m<br>**Frequency of observations:** 1-hour intervals<br>**Gust:** yes<br><br>**Comments:**<br>The data series covers the period 01.06.95-31.12.98.<br>1 June 1995 the station became a fully automatic station.<br>Data before this date are not comparable with data after. |

# Station 06179
# MØN FYR

01-06-95 - 31-12-98

Hele perioden



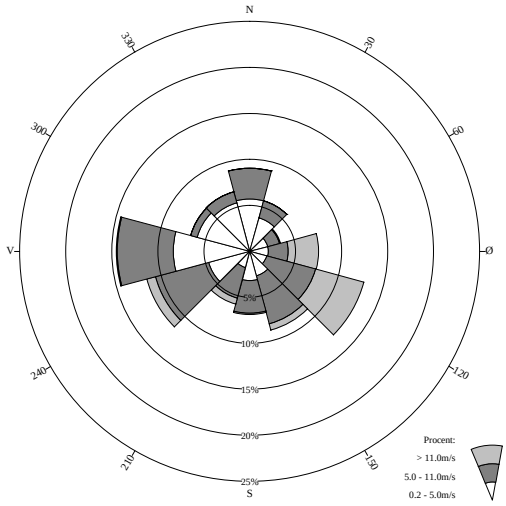

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 6.3 | 4.7 | 7.7 | 8.4 | 6.9 | 5.2 | 5.8 | 8.3 | 11.1 | 14.6 | 12.2 | 8.7 | 99.9 |
| % 0.2-5.0m/s | 3.5 | 2.7 | 3.4 | 2.6 | 2.0 | 2.0 | 2.8 | 2.9 | 3.7 | 5.6 | 8.1 | 5.9 | 45.3 |
| % 5.0-11.0m/s | 2.7 | 1.9 | 3.9 | 4.5 | 3.6 | 2.8 | 2.8 | 4.7 | 6.2 | 8.5 | 4.0 | 2.7 | 48.2 |
| % > 11.0m/s | 0.1 | 0.0 | 0.4 | 1.4 | 1.2 | 0.4 | 0.2 | 0.7 | 1.2 | 0.5 | 0.1 | 0.1 | 6.4 |
| Middel hastighed | 4.8 | 4.8 | 5.8 | 7.2 | 7.3 | 6.0 | 5.4 | 6.5 | 6.7 | 5.8 | 4.2 | 4.1 | 5.7 |
| Største hastighed | 16.0 | 17.5 | 16.5 | 18.1 | 17.5 | 16.0 | 16.0 | 20.6 | 20.6 | 17.0 | 15.5 | 17.6 | 20.6 |

Totalt antal observationer = 30159 Kilde: DMI

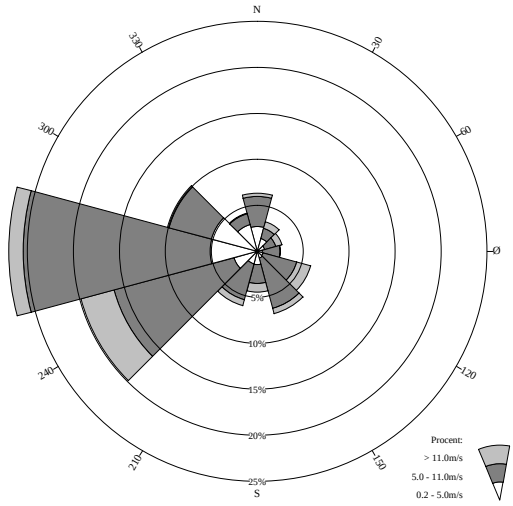
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 45 = 0.1%

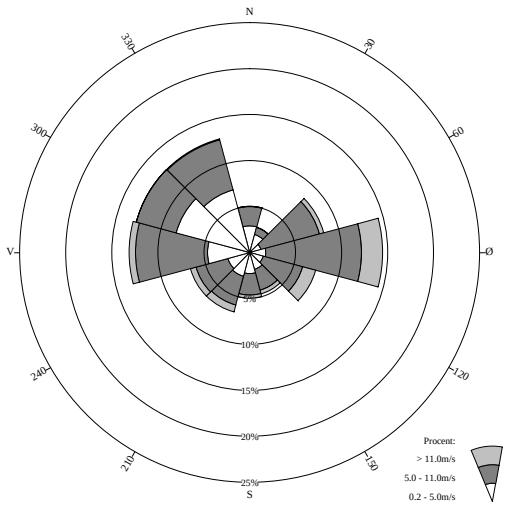
## JANUAR



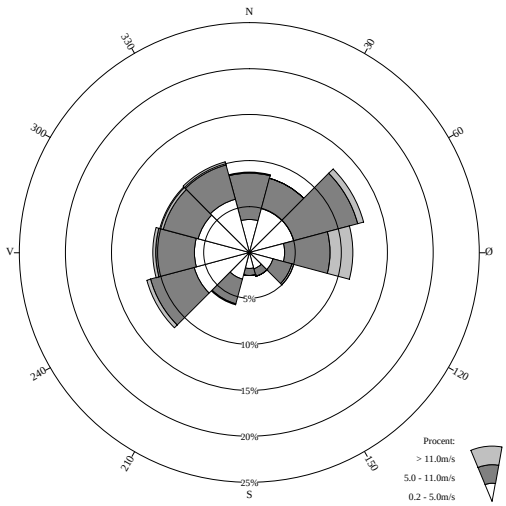

## FEBRUAR



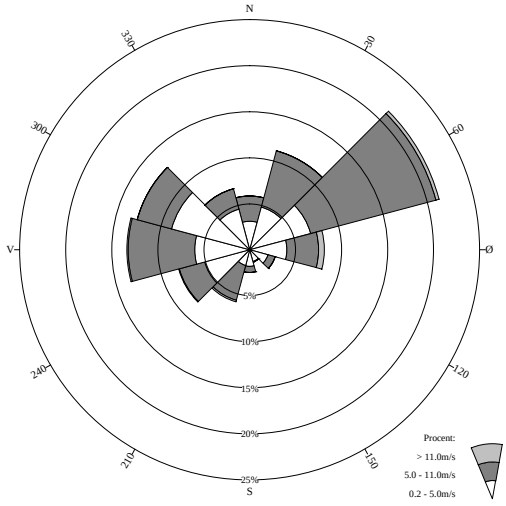

## MARTS



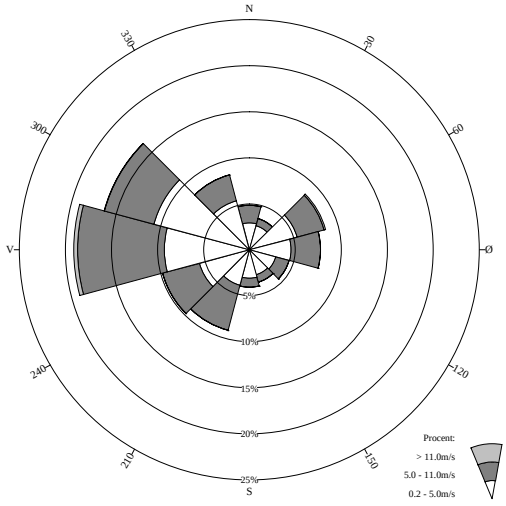

## APRIL



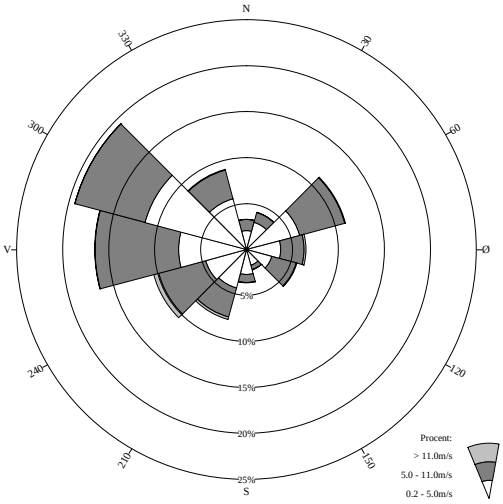

## MAJ



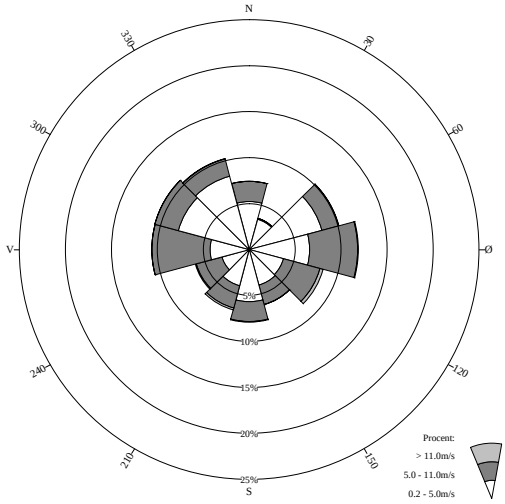

## JUNI



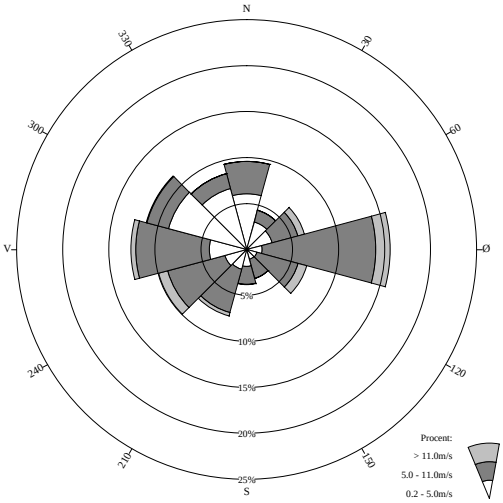
## JULI



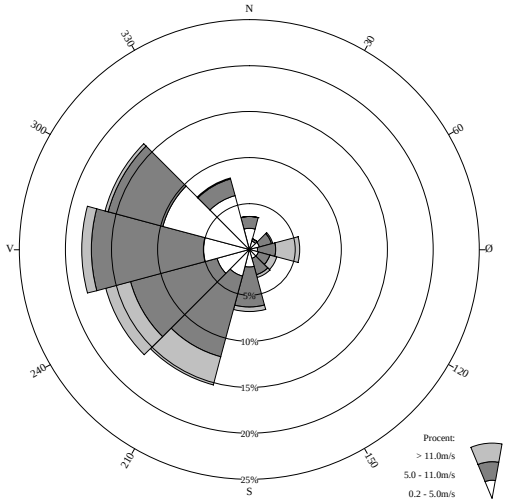

## AUGUST



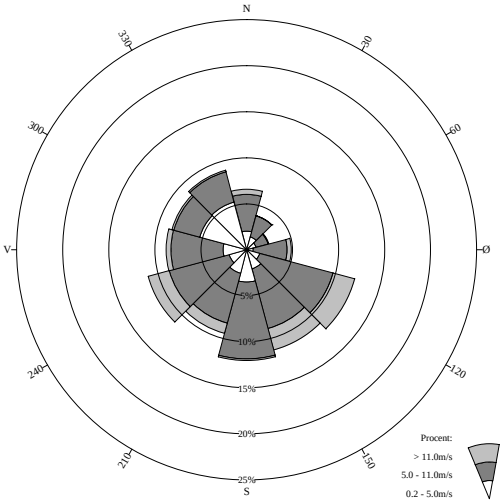

## SEPTEMBER



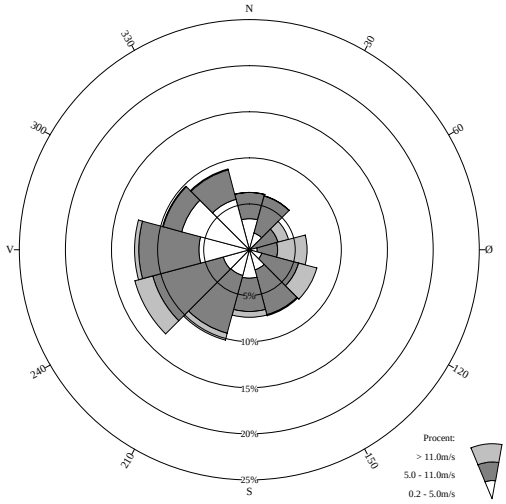

## OKTOBER




## NOVEMBER




## DECEMBER



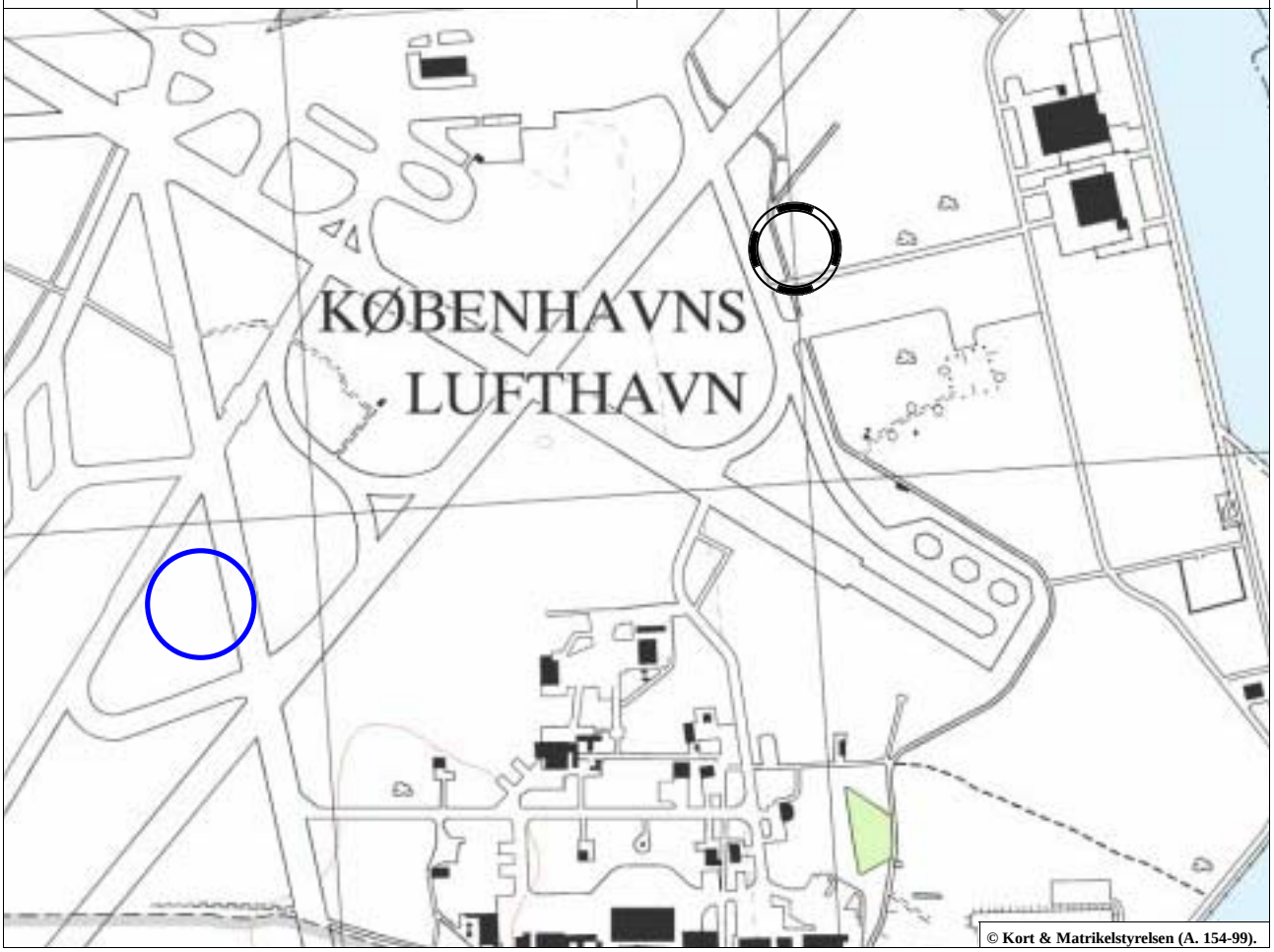
# 06180 Københavns Lufthavn

**Position:** 55° 37’ N, 12° 39’ E
**UTM-koordinater:** 33U 6165.840N 351.770E
**Stationsbasis** (m.o.h.)**:** 5
**Vindmastbasis** (m.o.h.)**:** 5
**Vindmålehøjde:** 10 m
**Registreringsfrekvens:** hver 3. time
**Vindstød:** ja

**Bemærkninger:**
Vær opmærksom på, at vindmasten er placeret nordøst for det sted, hvor resten af vejrstationen er placeret.

**Position:** lat 55° 37’ N, long 12° 39’ E
**UTM-positions:** 33U 6165.840N 351.770E
**Elevation** (m.a.s.l.)**:** 5
**Base of wind mast** (m.a.s.l.)**:** 5
**Level of measurement:** 10 m
**Frequency of observations:** 3-hour intervals
**Gust:** yes

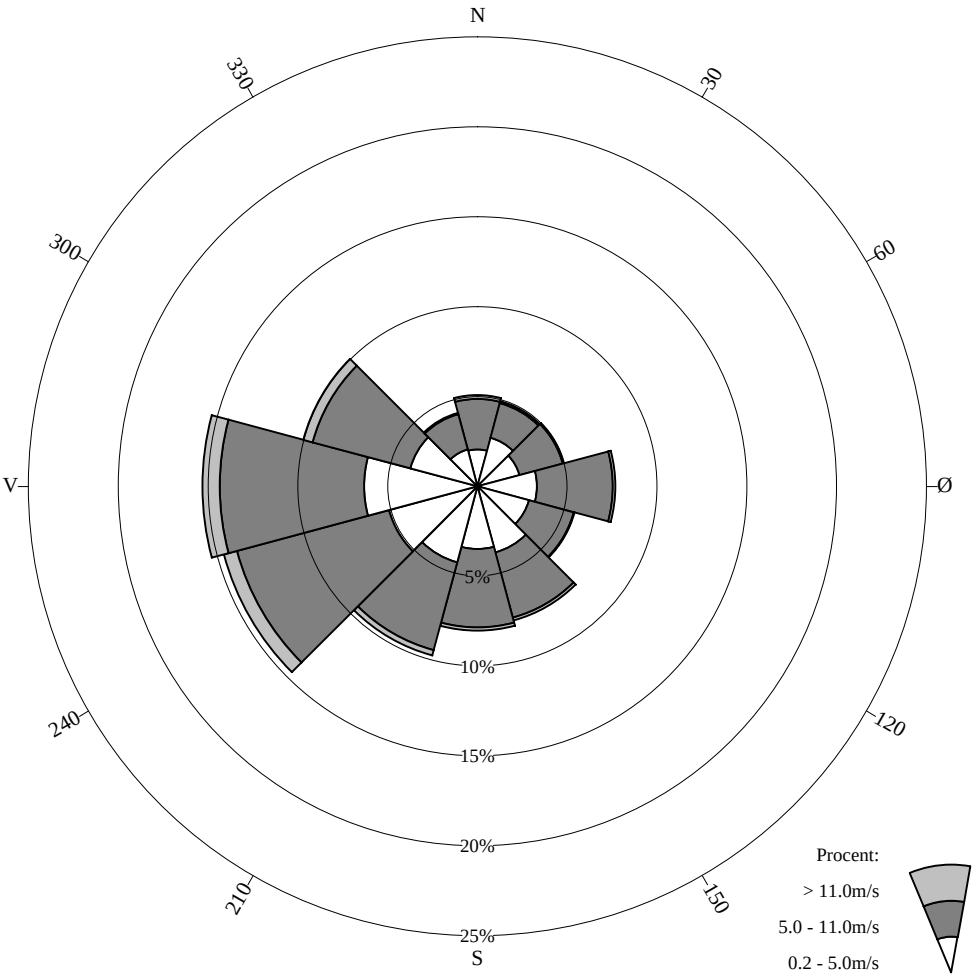
**Comments:**
Please notice, that the wind mast is located to the northeast of the place where the rest of the weather station is located.



# Station 06180
# KØBENHAVNS LUFTHAVN

01-01-89 - 31-12-98

Hele perioden



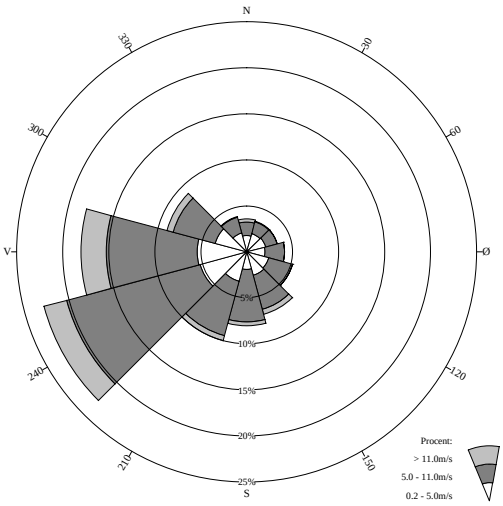

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 5.1 | 4.9 | 5.0 | 7.7 | 5.6 | 7.7 | 8.0 | 9.7 | 14.6 | 15.3 | 10.0 | 4.2 | 98.0 |
| % 0.2-5.0m/s | 2.1 | 2.8 | 2.4 | 3.3 | 3.0 | 3.8 | 3.5 | 4.4 | 5.1 | 6.3 | 3.9 | 2.1 | 42.7 |
| % 5.0-11.0m/s | 2.8 | 2.0 | 2.5 | 4.2 | 2.6 | 3.8 | 4.4 | 5.1 | 8.8 | 8.0 | 5.6 | 2.0 | 51.7 |
| % > 11.0m/s | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.2 | 0.3 | 0.8 | 1.0 | 0.5 | 0.1 | 3.6 |
| Middel hastighed | 5.9 | 5.0 | 5.2 | 5.5 | 5.0 | 5.2 | 5.5 | 5.6 | 6.3 | 6.0 | 6.1 | 5.3 | 5.7 |
| Største hastighed | 18.0 | 16.5 | 13.9 | 17.0 | 12.9 | 15.0 | 16.5 | 14.9 | 21.6 | 19.6 | 18.0 | 14.4 | 21.6 |

Totalt antal observationer = 29189 Kilde: DMI

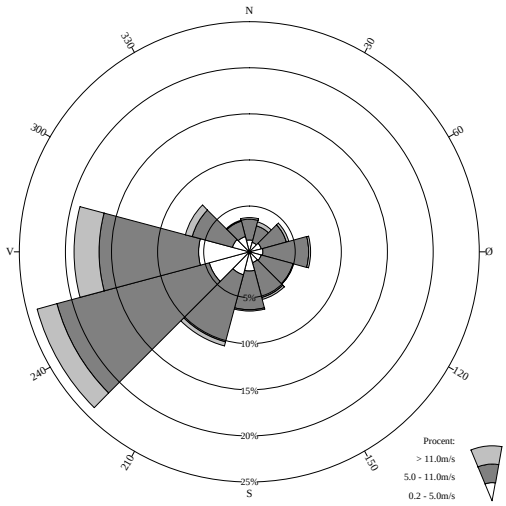
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 580 = 2.0%

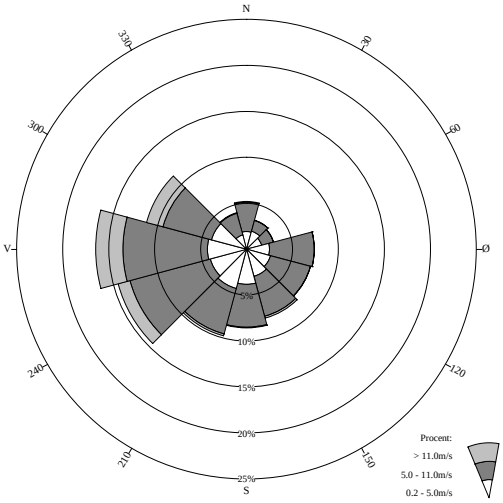
## JANUAR



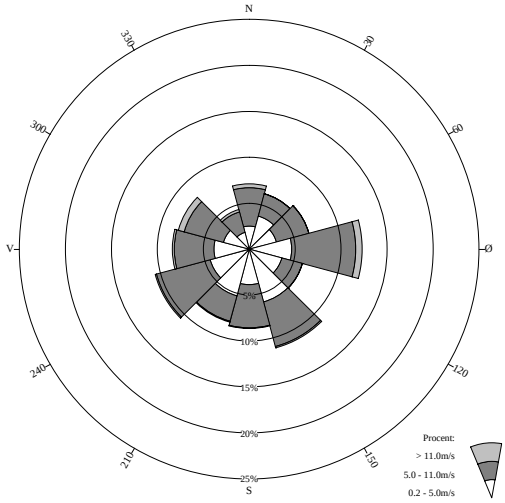

## FEBRUAR



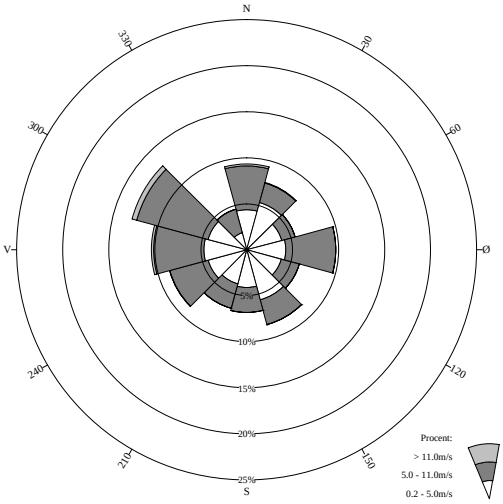

## MARTS



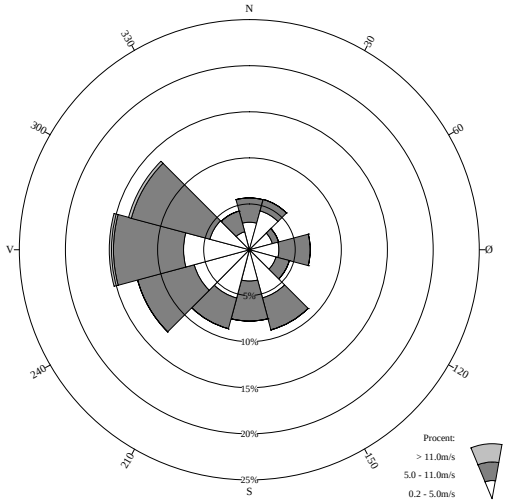

## APRIL



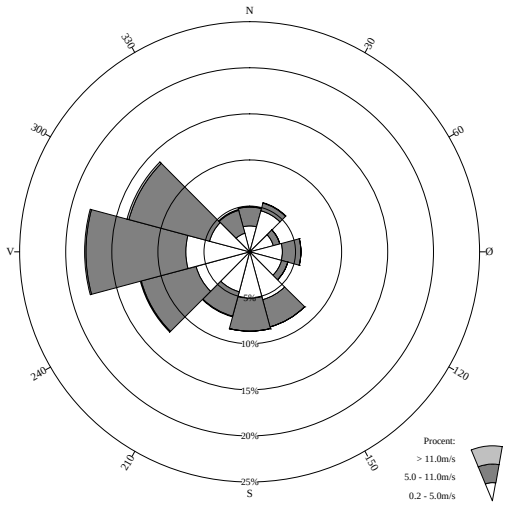

## MAJ



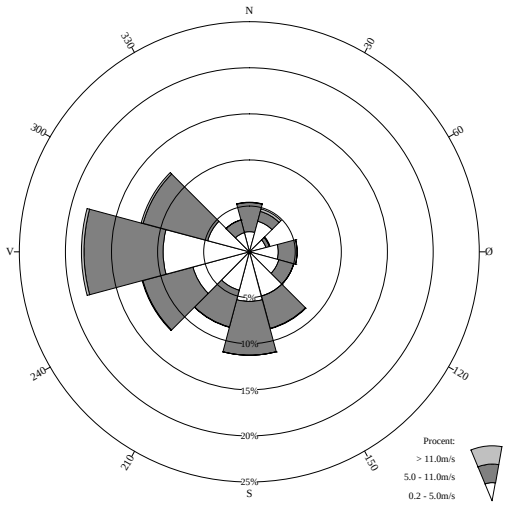

## JUNI



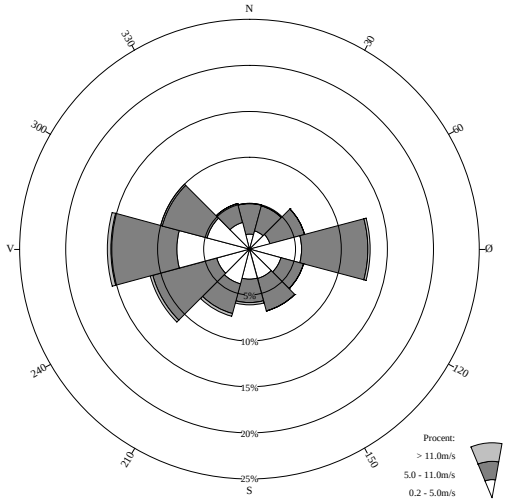
## JULI



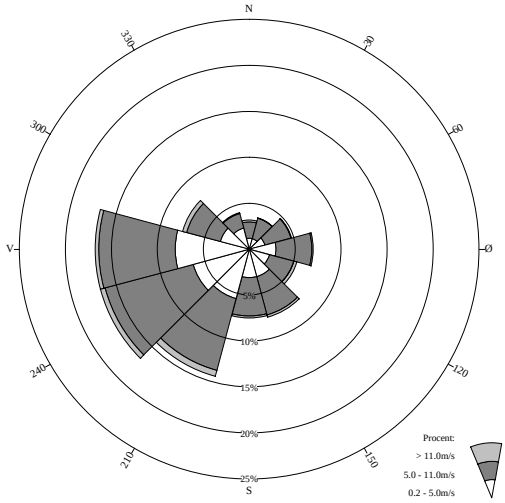

## AUGUST



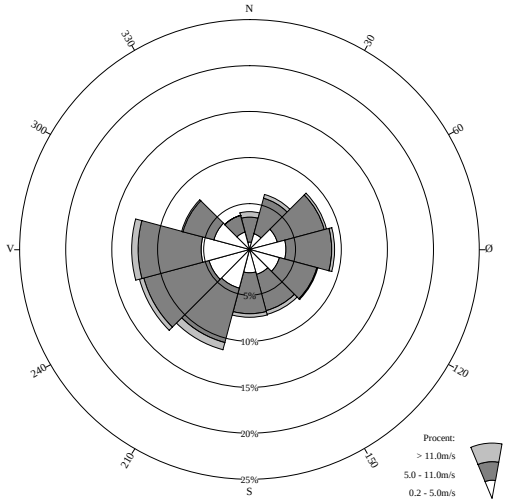

## SEPTEMBER



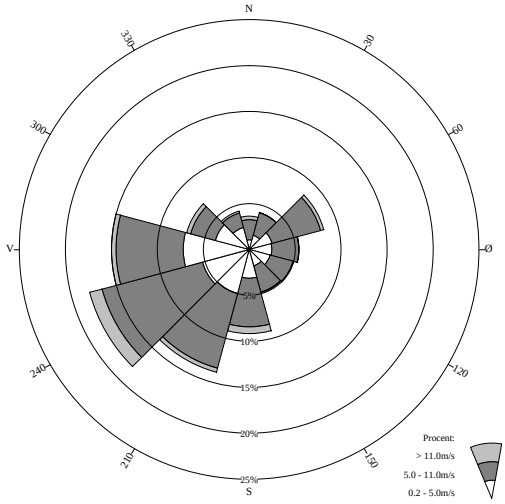

## OKTOBER




## NOVEMBER

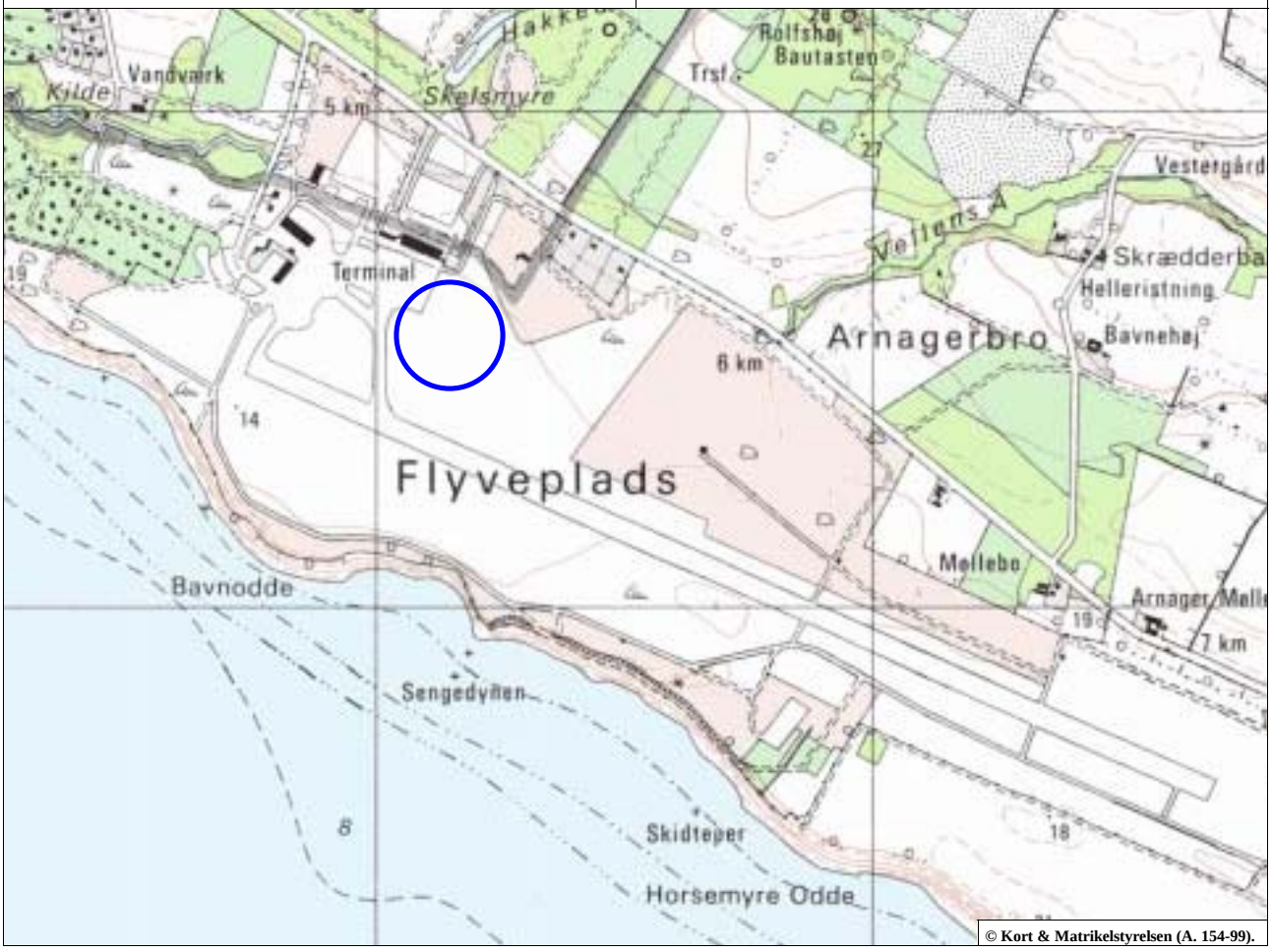



## DECEMBER



# 06190 Bornholms Lufthavn

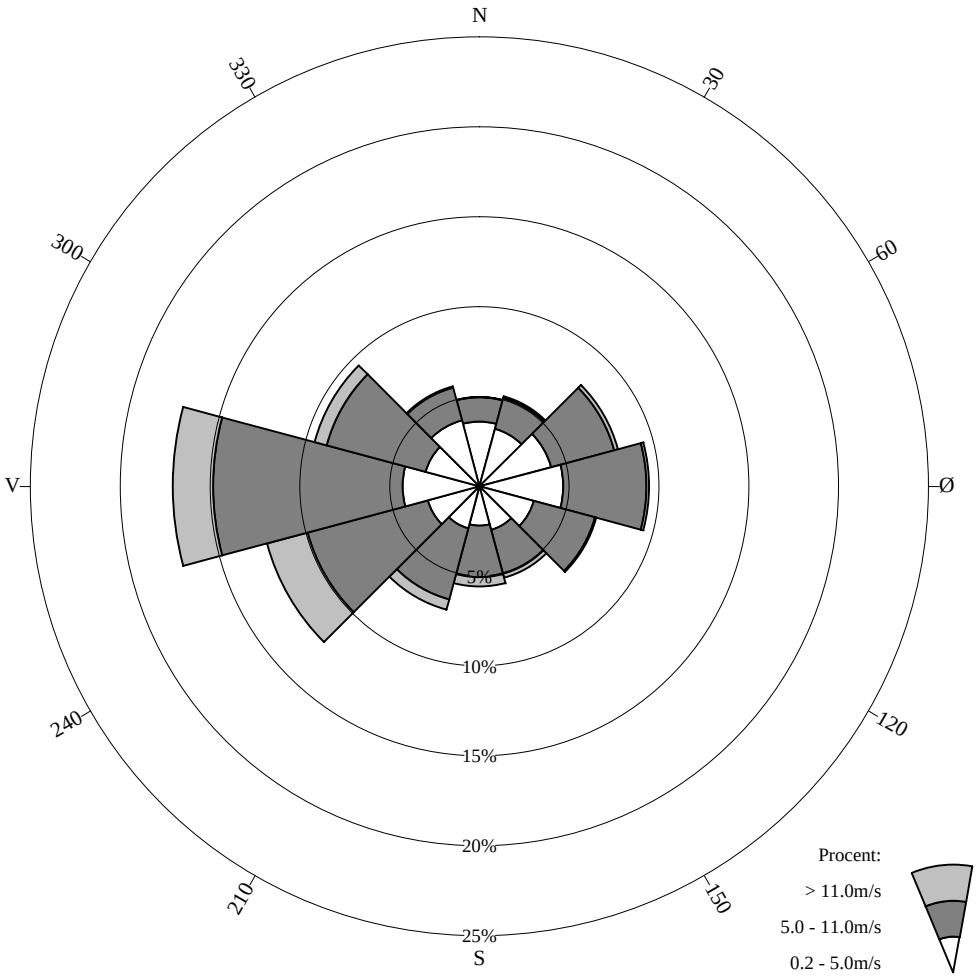
| | |
|---|---|
| **Position:** 55° 04’ N, 14° 45’ E<br>**UTM-koordinater:** 33U 6102.560N 484.070E<br>**Stationsbasis** (m.o.h.)**:** 15<br>**Vindmastbasis** (m.o.h.)**:** 15<br>**Vindmålehøjde:** 10 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** ja<br><br>**Bemærkninger:** | **Position:** lat 55° 04’ N, long 14° 45’ E<br>**UTM-positions:** 33U 6102.560N 484.070E<br>**Elevation** (m.a.s.l.)**:** 15<br>**Base of wind mast** (m.a.s.l.)**:** 15<br>**Level of measurement:** 10 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** yes<br><br>**Comments:** |



# Station 06190
# BORNHOLMS LUFTHAVN

01-01-89 - 31-12-98

Hele perioden



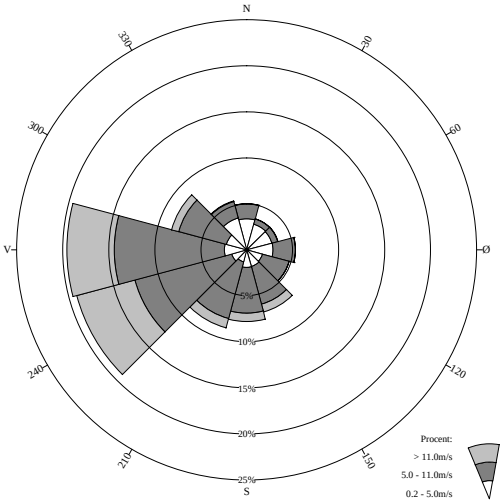

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 5.0 | 5.2 | 8.0 | 9.4 | 6.7 | 5.3 | 5.6 | 7.1 | 12.3 | 17.1 | 9.5 | 5.8 | 96.9 |
| % 0.2-5.0m/s | 3.6 | 3.3 | 4.1 | 4.7 | 3.1 | 2.5 | 2.2 | 2.4 | 3.0 | 4.3 | 3.1 | 3.8 | 40.2 |
| % 5.0-11.0m/s | 1.4 | 1.8 | 3.6 | 4.6 | 3.5 | 2.5 | 2.9 | 4.1 | 6.9 | 10.6 | 5.7 | 1.9 | 49.5 |
| % > 11.0m/s | 0.0 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.5 | 0.6 | 2.3 | 2.2 | 0.7 | 0.1 | 7.2 |
| Middel hastighed | 3.9 | 4.5 | 5.2 | 5.3 | 5.3 | 5.6 | 6.3 | 6.6 | 7.8 | 7.3 | 6.5 | 4.4 | 6.1 |
| Største hastighed | 11.3 | 15.0 | 18.0 | 15.9 | 13.9 | 16.5 | 17.5 | 19.5 | 21.6 | 26.8 | 22.2 | 16.5 | 26.8 |

Totalt antal observationer = 29013 Kilde: DMI

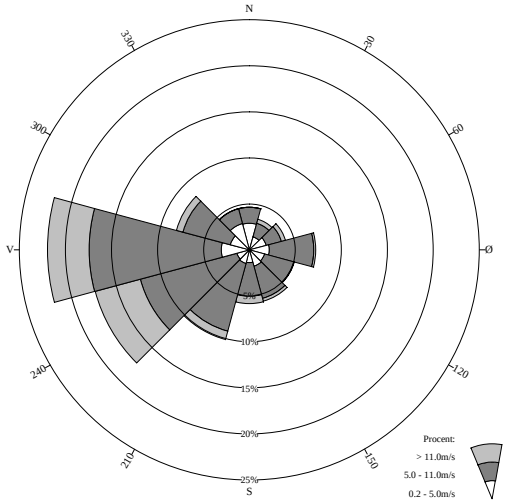
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 895 = 3.1%

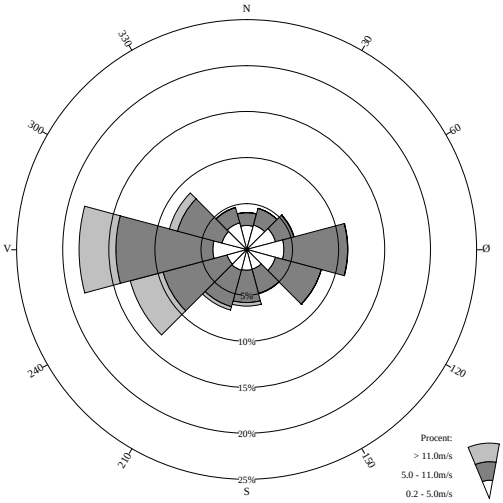
## JANUAR



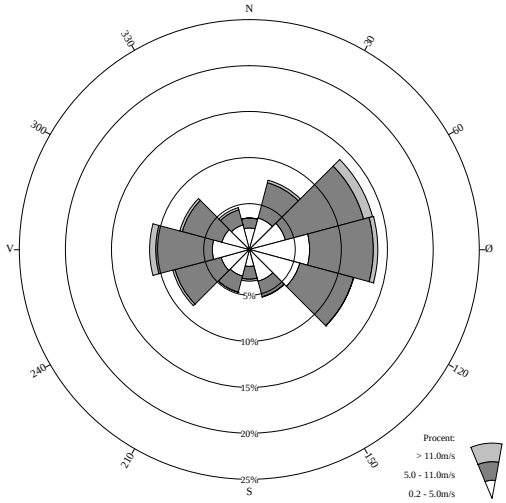

## FEBRUAR



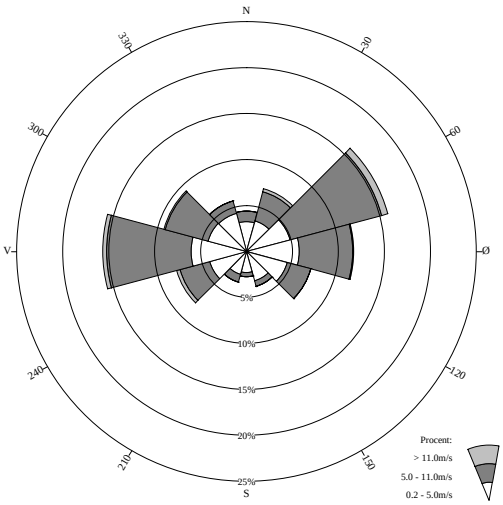

## MARTS



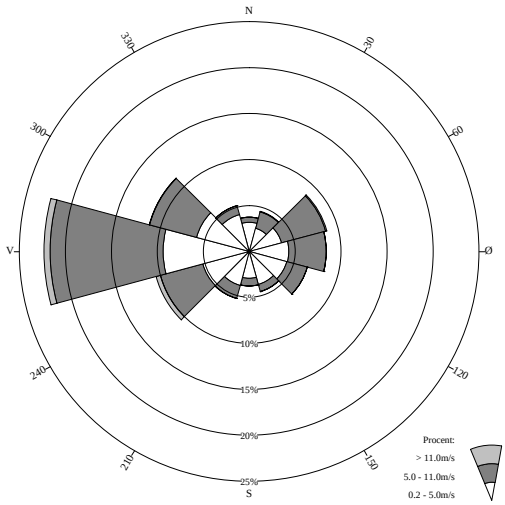

## APRIL



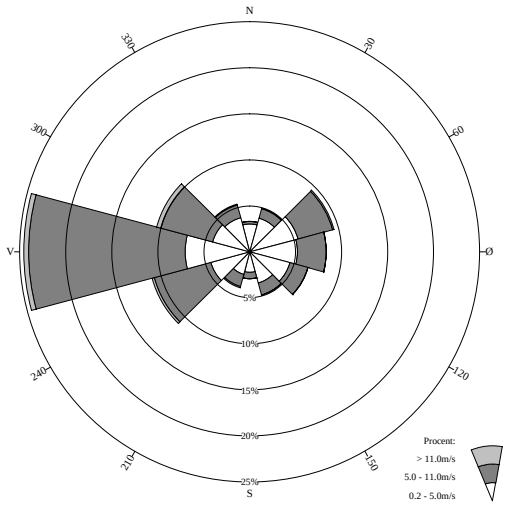

## MAJ



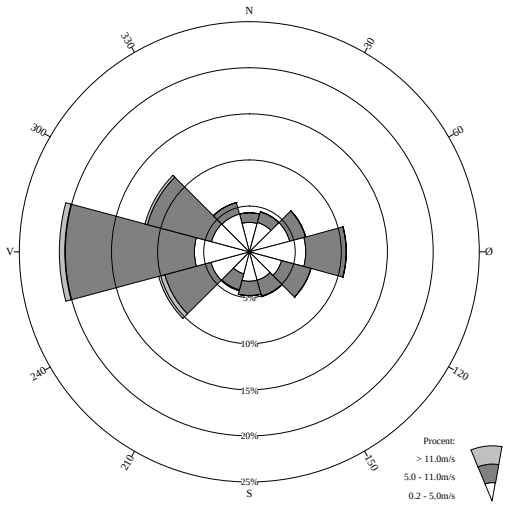

## JUNI



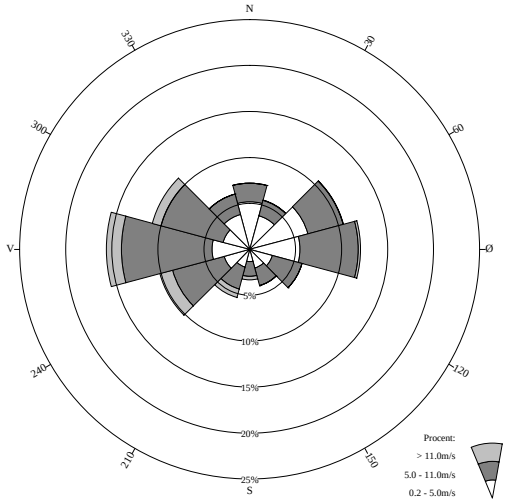
## JULI



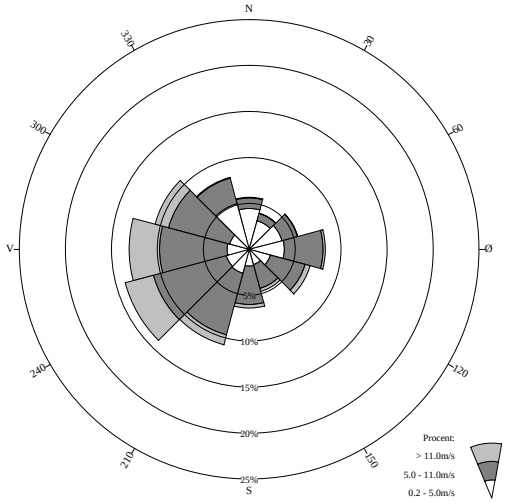

## AUGUST



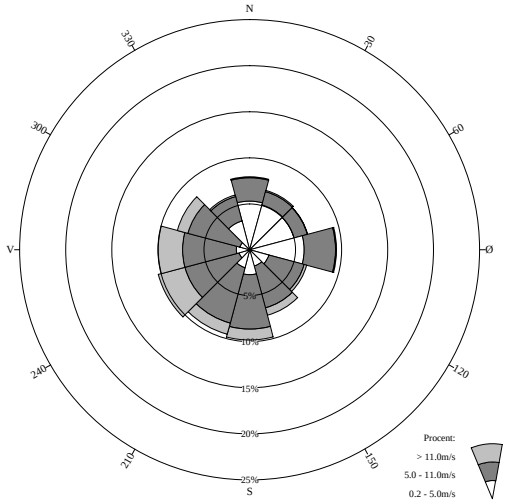

## SEPTEMBER



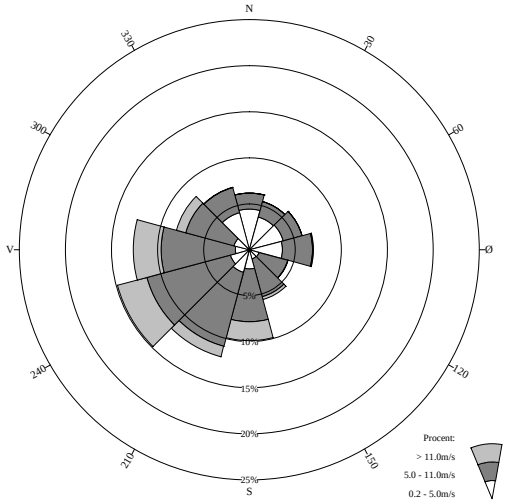

## OKTOBER




## NOVEMBER




## DECEMBER



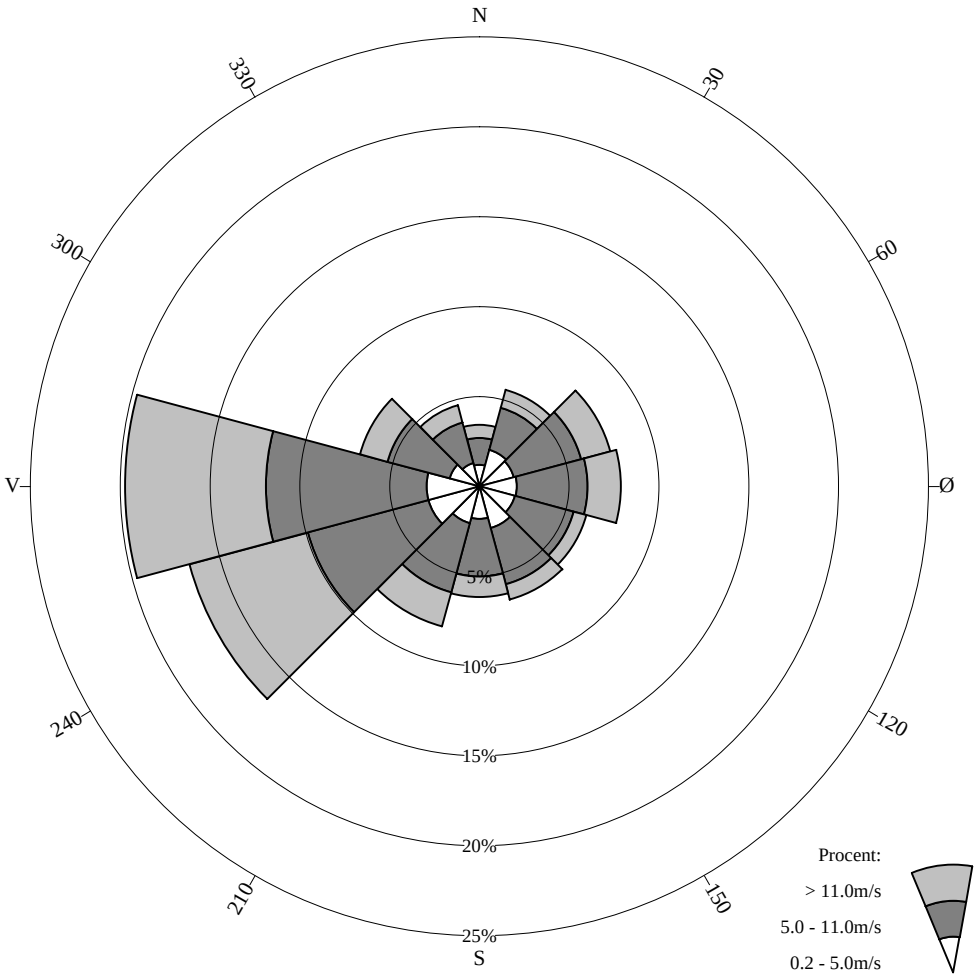
# 06191 Christiansø Fyr

| | |
|---|---|
| **Position:** 55° 19’ N, 15° 11’ E<br>**UTM-koordinater:** 33U 6130.820N 511.970E<br>**Stationsbasis** (m.o.h.)**:** 13<br>**Vindmastbasis** (m.o.h.)**:** 16<br>**Vindmålehøjde:** 15 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** nej<br><br>**Bemærkninger:**<br>Dataserien omfatter perioden 01.01.89-31.12.97. | **Position:** lat 55° 19’ N, long 15° 11’ E<br>**UTM-positions:** 33U 6130.820N 511.970E<br>**Elevation** (m.a.s.l.)**:** 13<br>**Base of wind mast** (m.a.s.l.)**:** 16<br>**Level of measurement:** 15 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** no<br><br>**Comments:**<br>The data series covers the period 01.01.89-31.12.97. |

# Station 06191
# CHRISTIANSØ FYR

01-01-89 - 31-12-97

Hele perioden



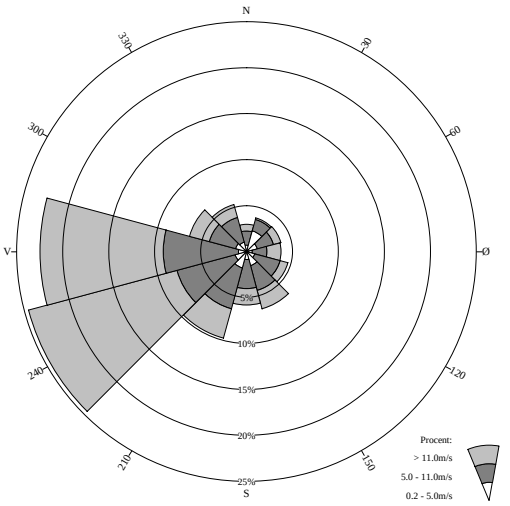

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.4 | 5.6 | 7.5 | 7.9 | 6.2 | 6.5 | 6.2 | 8.1 | 16.7 | 19.7 | 6.9 | 4.7 | 99.4 |
| % 0.2-5.0m/s | 1.2 | 2.1 | 2.0 | 2.1 | 2.0 | 2.4 | 1.8 | 2.1 | 3.0 | 3.0 | 1.7 | 1.3 | 24.8 |
| % 5.0-11.0m/s | 1.5 | 2.4 | 3.9 | 3.9 | 3.4 | 3.3 | 3.2 | 4.0 | 6.9 | 8.9 | 3.6 | 2.3 | 47.4 |
| % > 11.0m/s | 0.7 | 1.0 | 1.7 | 1.8 | 0.7 | 0.9 | 1.1 | 2.0 | 6.8 | 7.8 | 1.6 | 1.0 | 27.2 |
| Middel hastighed | 7.4 | 7.0 | 7.7 | 7.9 | 6.7 | 6.6 | 7.5 | 8.2 | 10.2 | 10.1 | 8.2 | 7.8 | 8.5 |
| Største hastighed | 23.1 | 22.7 | 24.2 | 24.2 | 19.0 | 20.1 | 25.2 | 28.8 | 30.8 | 28.8 | 23.7 | 26.8 | 30.8 |

Totalt antal observationer = 26269 Kilde: DMI

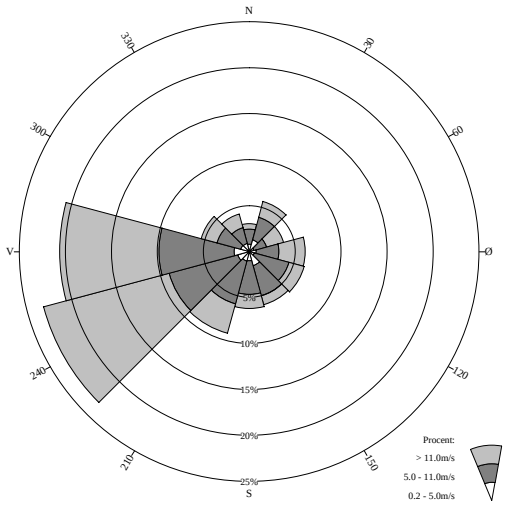
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 163 = 0.6%

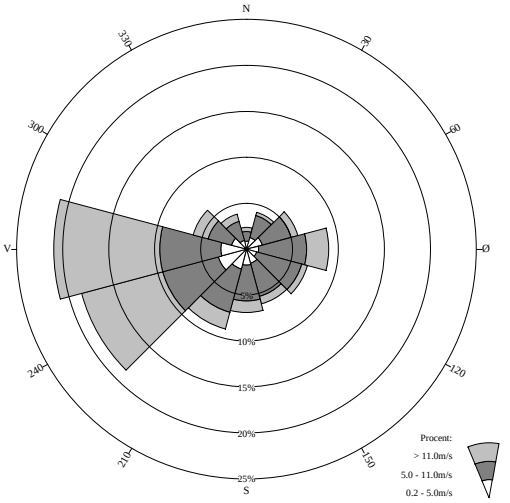
## JANUAR



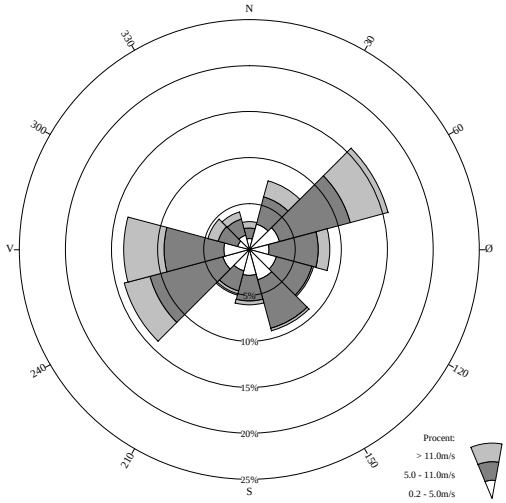

## FEBRUAR



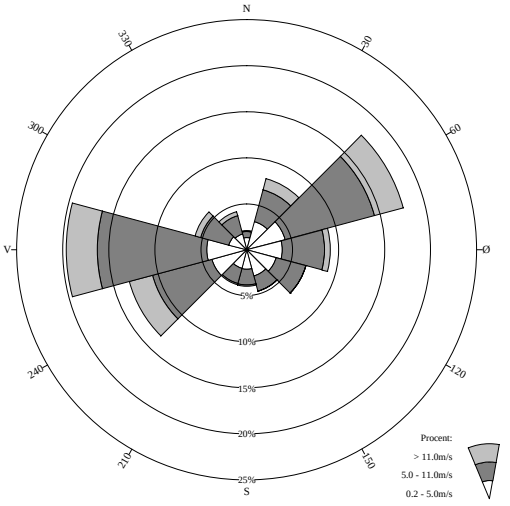

## MARTS



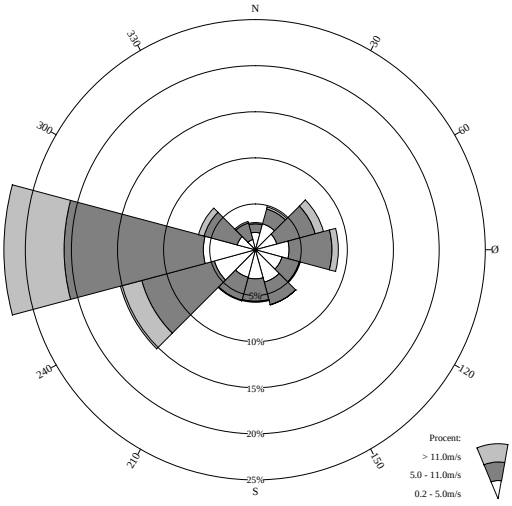

## APRIL



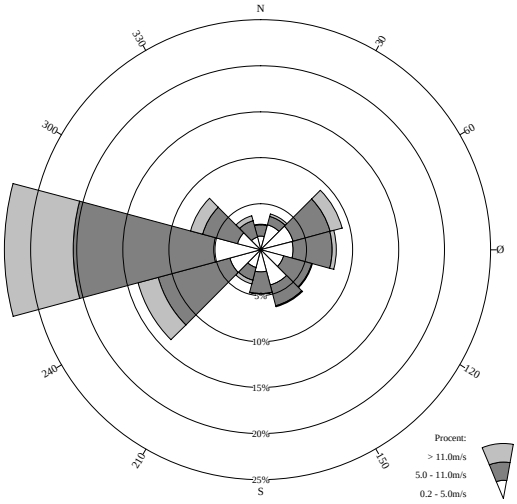

## MAJ



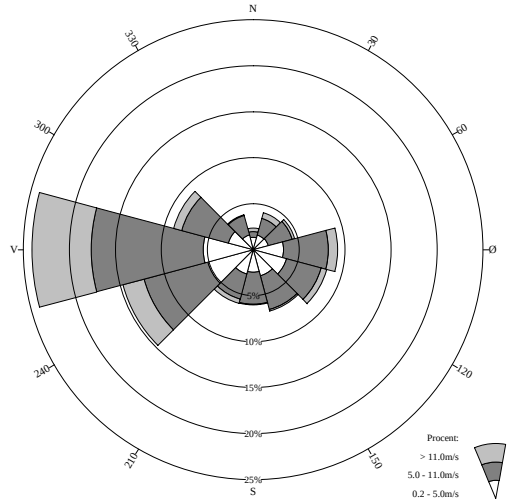

## JUNI



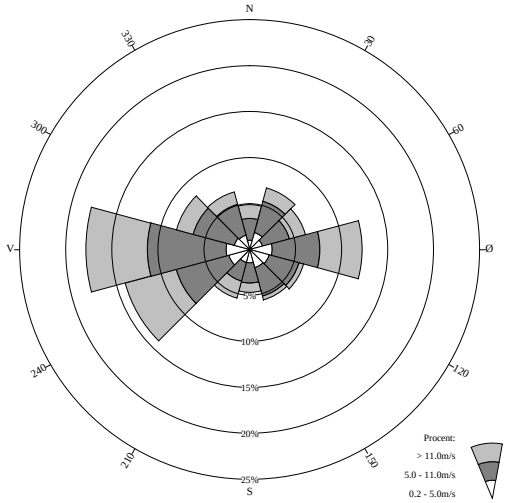
## JULI



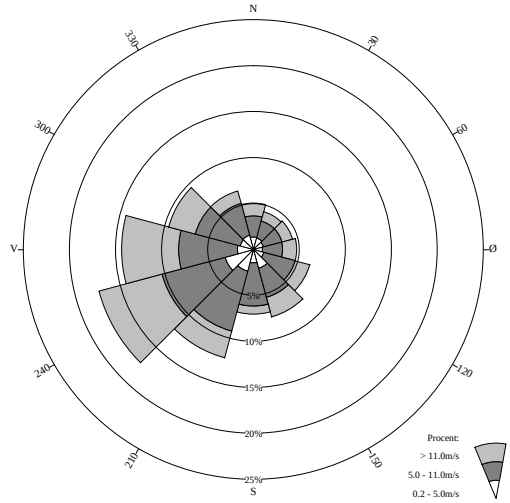

## AUGUST



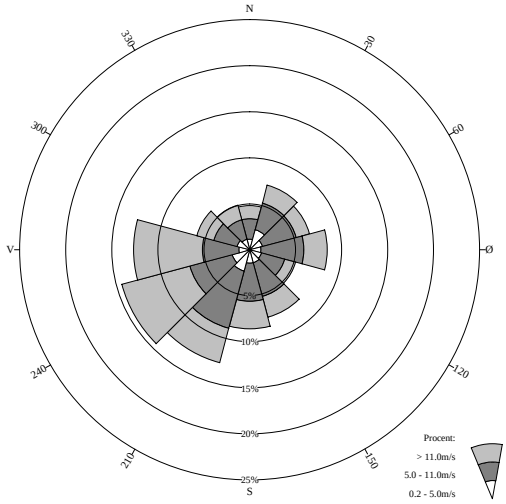

## SEPTEMBER



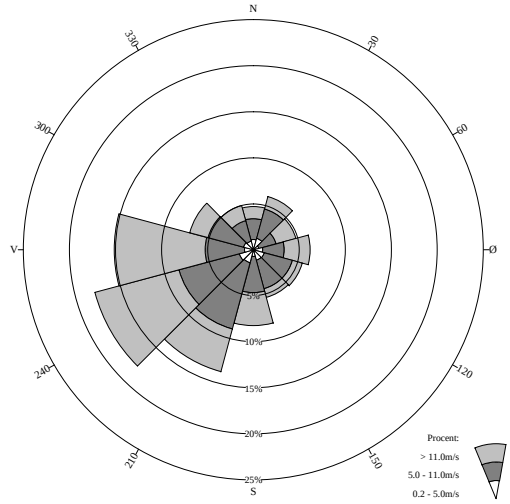

## OKTOBER




## NOVEMBER

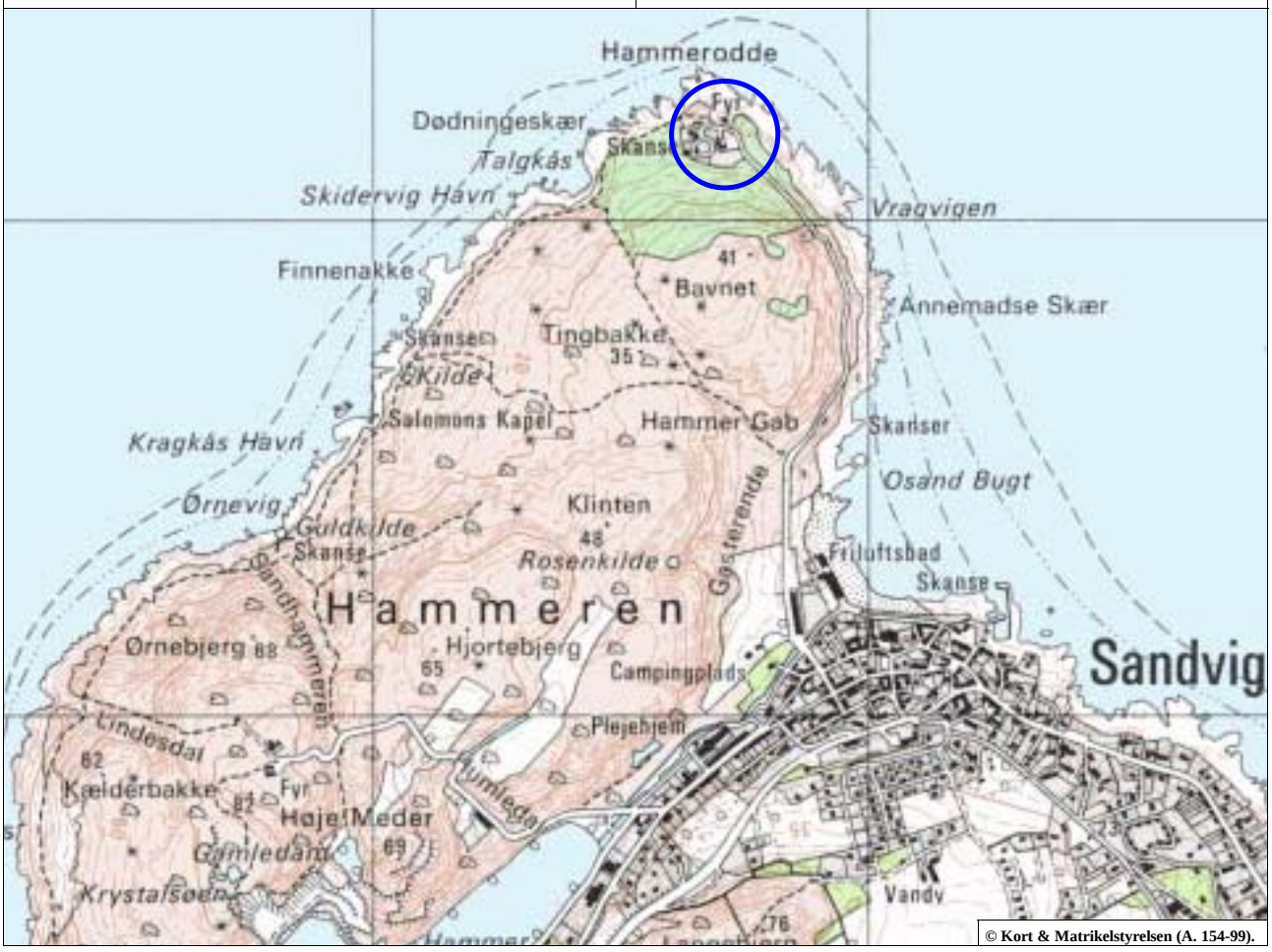



## DECEMBER



# 06193 Hammer Odde Fyr

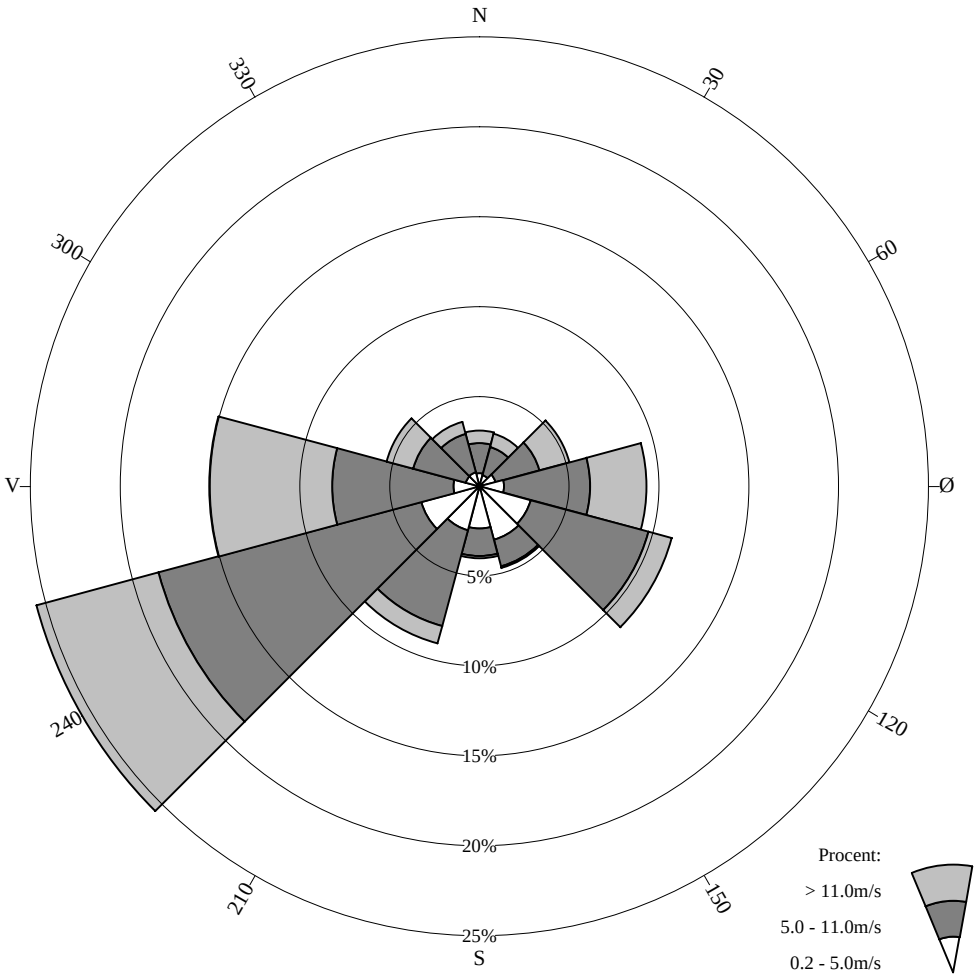
| | |
|---|---|
| **Position:** 55° 18’ N, 14° 47’ E<br>**UTM-koordinater:** 33U 6128.170N 485.710E<br>**Stationsbasis** (m.o.h.)**:** 11<br>**Vindmastbasis** (m.o.h.)**:** 11<br>**Vindmålehøjde:** 16 m<br>**Registreringsfrekvens:** hver 3. time<br>**Vindstød:** nej<br><br>**Bemærkninger:** | **Position:** lat 55° 18’ N, long 14° 47’ E<br>**UTM-positions:** 33U 6128.170N 485.710E<br>**Elevation** (m.a.s.l.)**:** 11<br>**Base of wind mast** (m.a.s.l.)**:** 11<br>**Level of measurement:** 16 m<br>**Frequency of observations:** 3-hour intervals<br>**Gust:** no<br><br>**Comments:** |



# Station 06193
# HAMMER ODDE FYR

01-01-89 - 31-12-98

Hele perioden



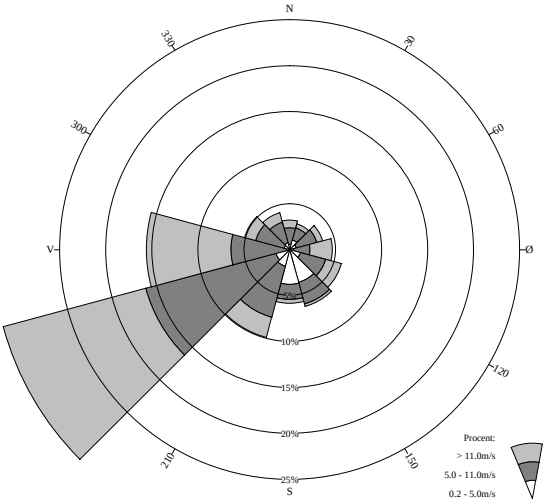

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.1 | 3.0 | 5.2 | 9.3 | 11.1 | 4.7 | 4.0 | 9.0 | 25.5 | 15.1 | 5.4 | 3.7 | 99.1 |
| % 0.2-5.0m/s | 0.7 | 0.7 | 0.9 | 1.4 | 3.0 | 3.1 | 2.3 | 2.5 | 3.4 | 1.4 | 0.8 | 0.8 | 21.1 |
| % 5.0-11.0m/s | 1.7 | 1.6 | 2.5 | 4.8 | 6.8 | 1.5 | 1.5 | 5.5 | 15.1 | 6.8 | 3.0 | 2.2 | 53.1 |
| % > 11.0m/s | 0.7 | 0.8 | 1.7 | 3.1 | 1.3 | 0.1 | 0.1 | 1.0 | 7.0 | 6.8 | 1.5 | 0.7 | 25.0 |
| Middel hastighed | 7.9 | 8.2 | 8.9 | 9.3 | 6.9 | 4.2 | 4.5 | 6.8 | 8.8 | 10.5 | 8.9 | 7.7 | 8.2 |
| Største hastighed | 19.5 | 23.7 | 23.2 | 26.8 | 21.6 | 15.4 | 16.5 | 18.0 | 30.9 | 28.8 | 25.7 | 22.6 | 30.9 |

Totalt antal observationer = 29196 Kilde: DMI

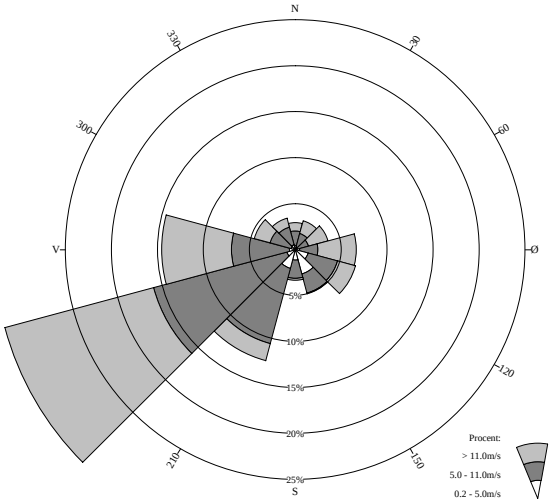
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 249 = 0.9%

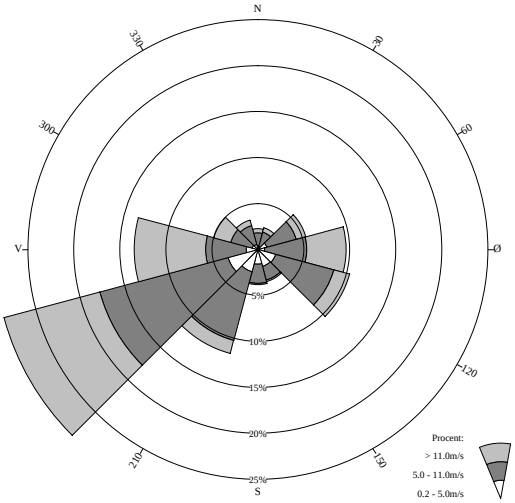
## JANUAR



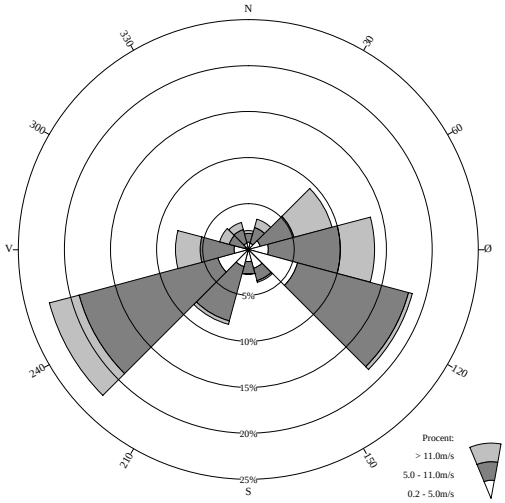

## FEBRUAR



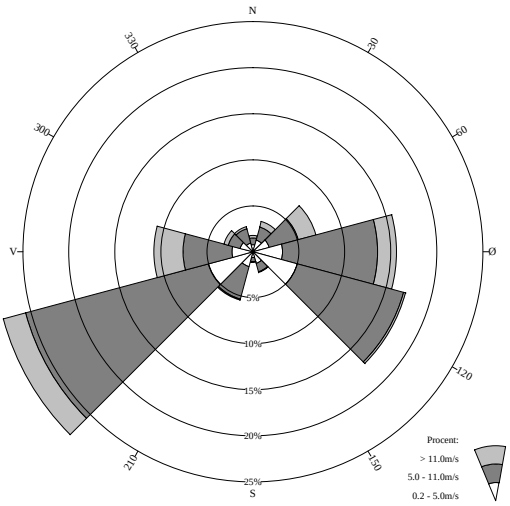

## MARTS



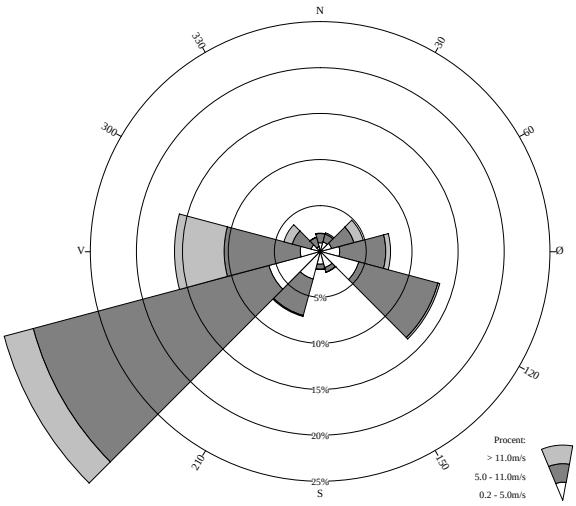

## APRIL



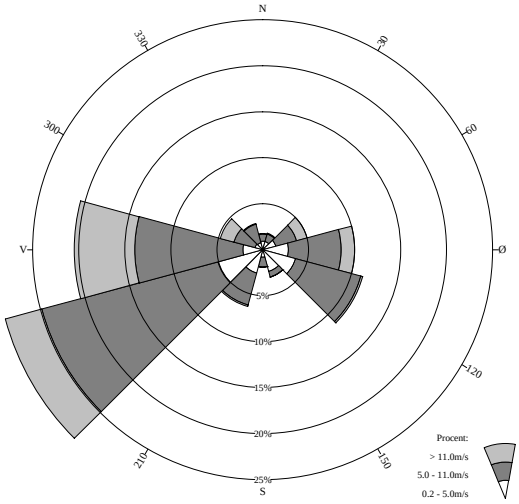

## MAJ



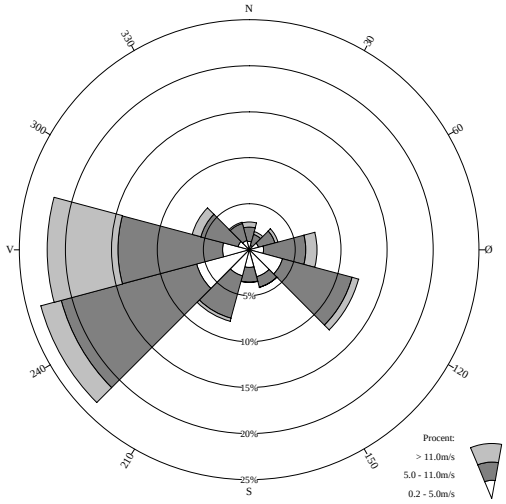

## JUNI



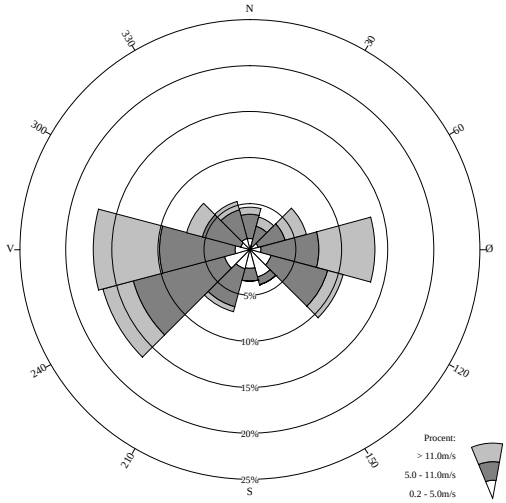
## JULI



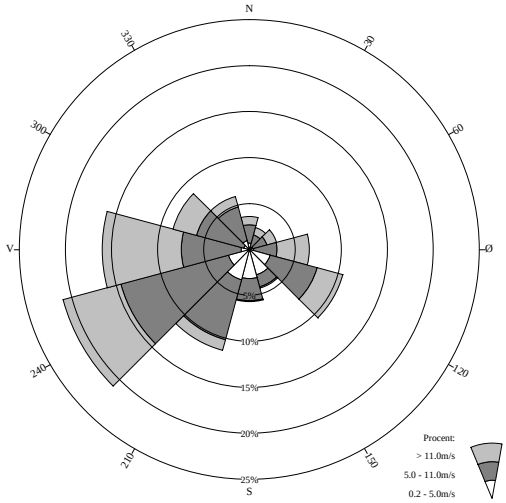

## AUGUST



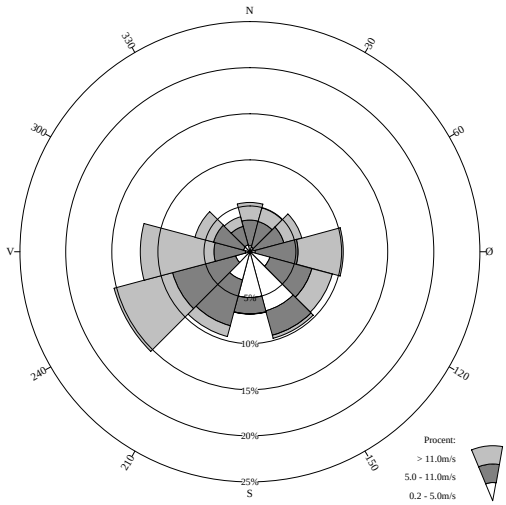

## SEPTEMBER



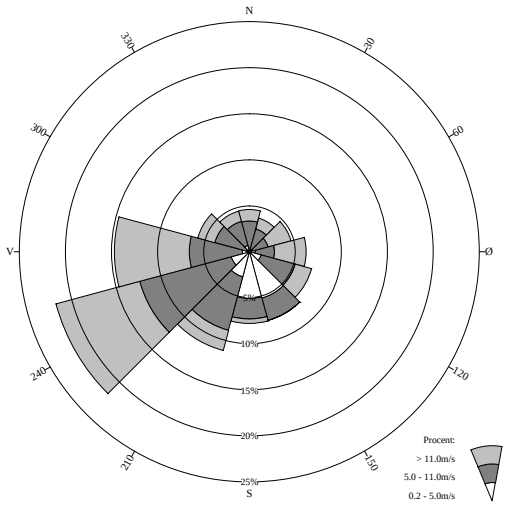

## OKTOBER

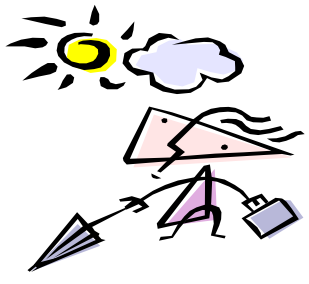



## NOVEMBER




## DECEMBER





# Vindroser og statistikker for perioden 1989-98

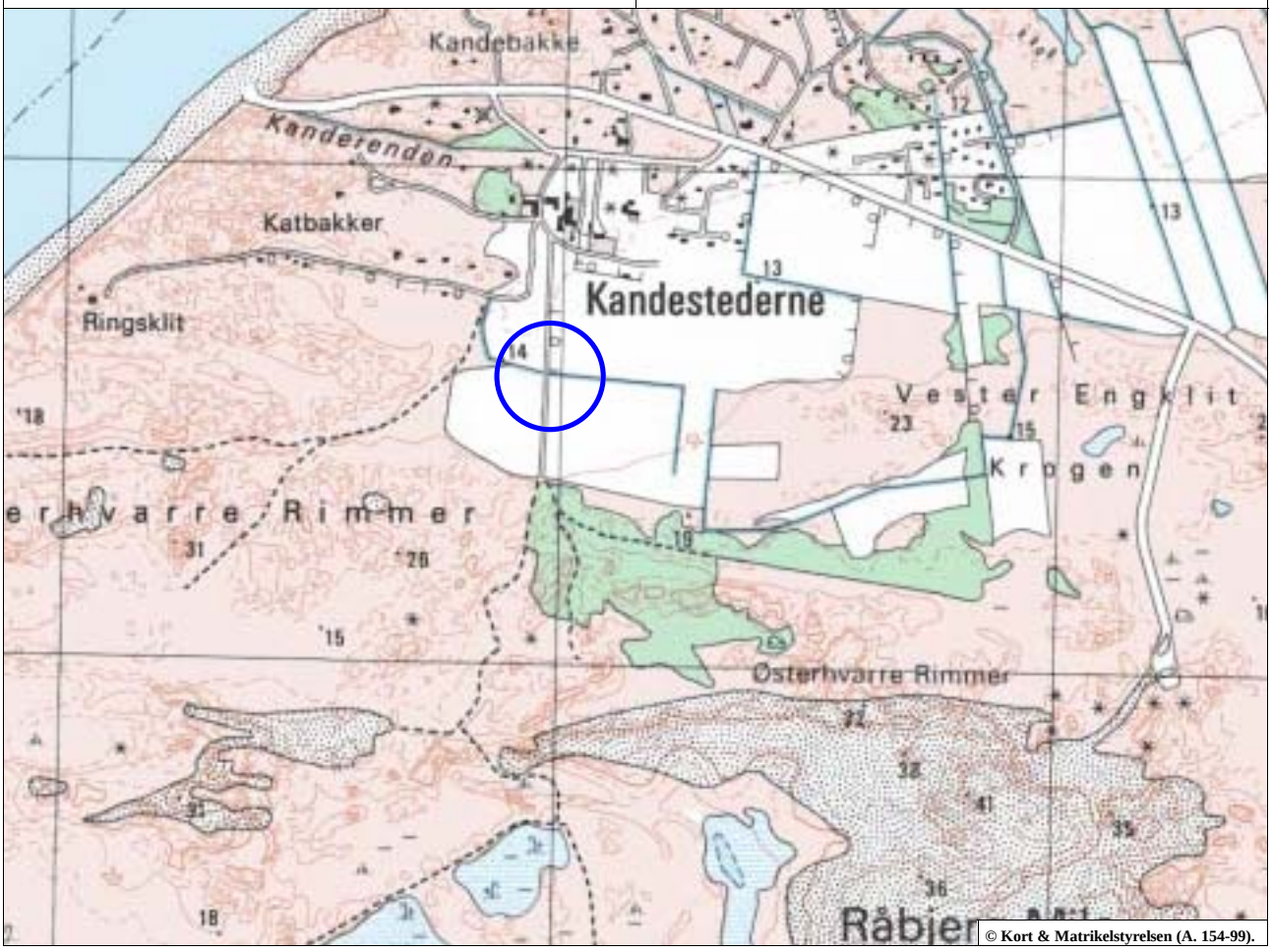
## AUTOMATISKE KLIMASTATIONER

# Wind roses and statistics for the period 1989-98

## AUTOMATIC CLIMATOLOGICAL STATIONS

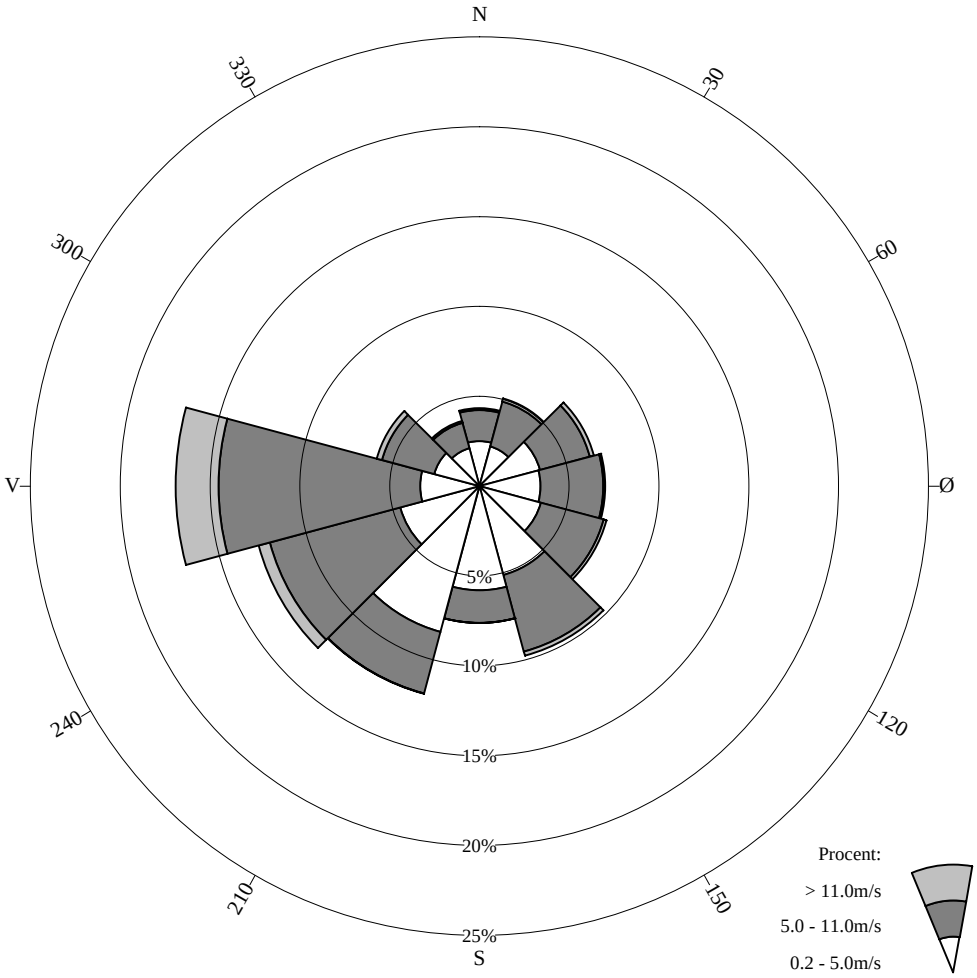
# 20012 Kandestederne

| | |
|---|---|
| **Position:** 57° 39’ N, 10° 23’ E<br>**UTM-koordinater:** 32V 6391.580N 582.980E<br>**Stationsbasis** (m.o.h.)**:** 13<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:**<br>Stationen er nedlagt i 1999. | **Position:** lat 57° 39’ N, long 10° 23’ E<br>**UTM-positions:** 32V 6391.580N 582.980E<br>**Elevation** (m.a.s.l.)**:** 13<br>**Level of measurement:** 10 m<br><br>**Comments:**<br>The station was closed down in 1999. |



# Station 20012
# KANDESTEDERNE

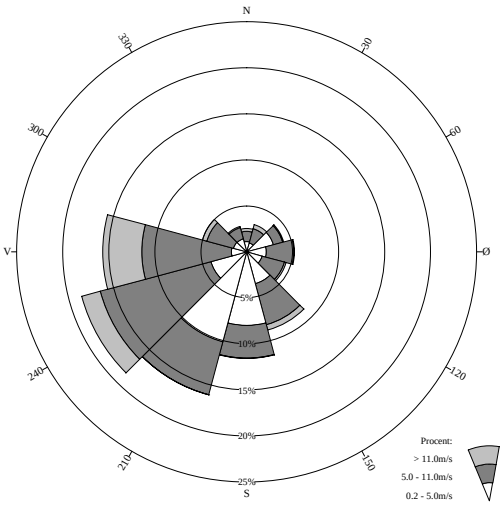
01-01-89 - 31-12-98



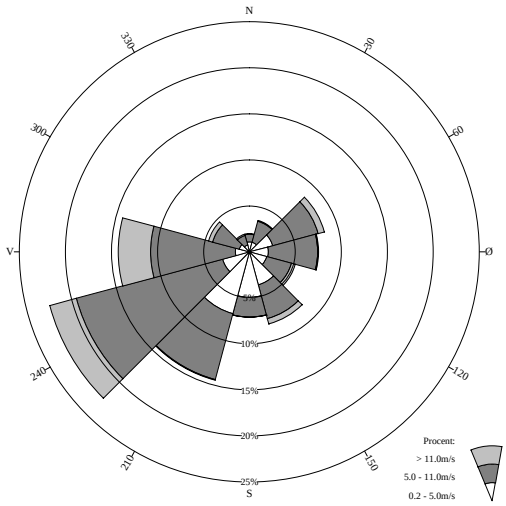

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.4 | 5.1 | 6.6 | 7.0 | 7.3 | 9.8 | 7.6 | 12.0 | 12.7 | 16.9 | 5.9 | 3.8 | 99.0 |
| % 0.2-5.0m/s | 2.5 | 2.3 | 3.5 | 3.4 | 3.6 | 5.1 | 5.8 | 8.4 | 4.6 | 3.3 | 2.6 | 2.2 | 47.3 |
| % 5.0-11.0m/s | 1.7 | 2.6 | 2.9 | 3.5 | 3.6 | 4.4 | 1.8 | 3.5 | 7.5 | 11.2 | 3.0 | 1.5 | 47.3 |
| % > 11.0m/s | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.0 | 0.0 | 0.6 | 2.4 | 0.3 | 0.1 | 4.5 |
| Middel hastighed | 5.0 | 5.5 | 5.1 | 5.2 | 5.2 | 5.1 | 3.9 | 4.2 | 6.2 | 7.6 | 5.9 | 4.9 | 5.5 |
| Største hastighed | 14.7 | 15.8 | 17.0 | 14.4 | 14.6 | 14.8 | 12.8 | 13.0 | 19.2 | 19.8 | 18.1 | 17.4 | 19.8 |

Totalt antal observationer = 86975 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 835 = 1.0%

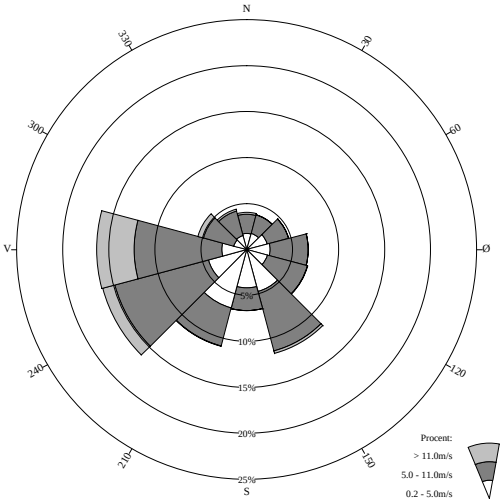
## JANUAR



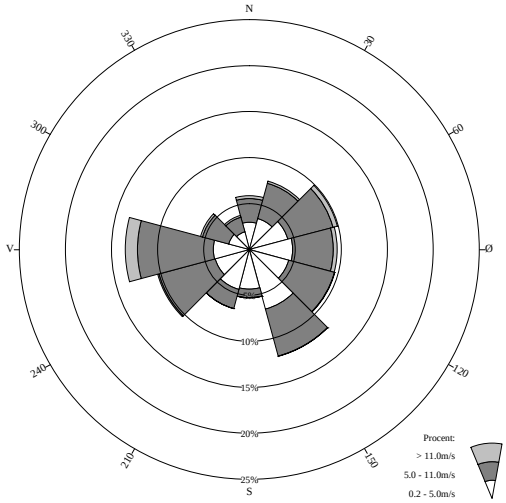

## FEBRUAR



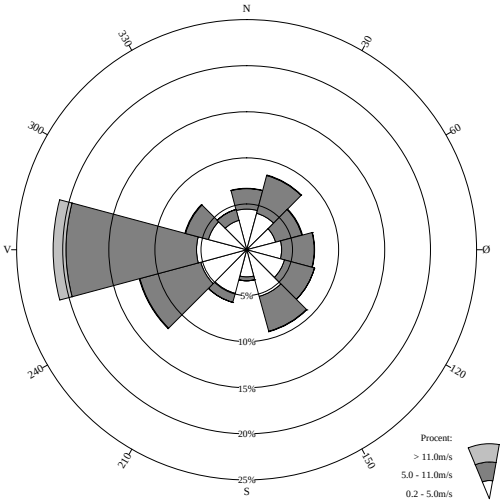

## MARTS



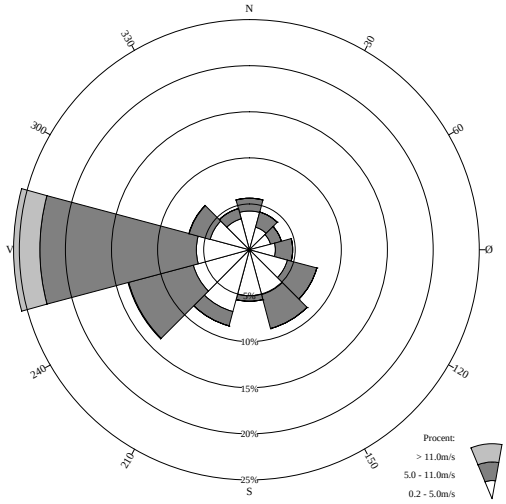

## APRIL



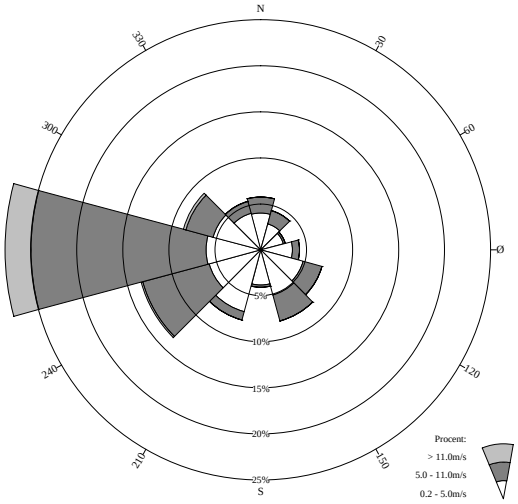

## MAJ



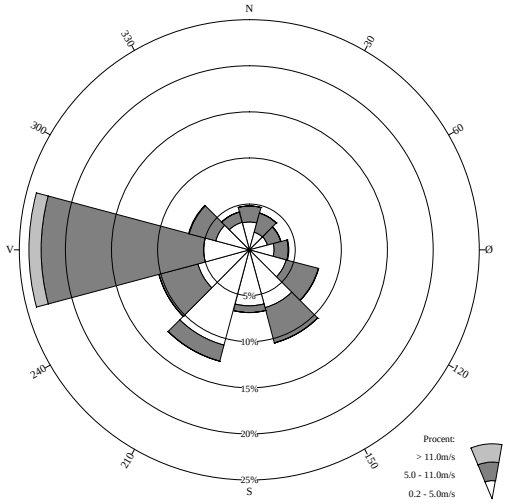

## JUNI



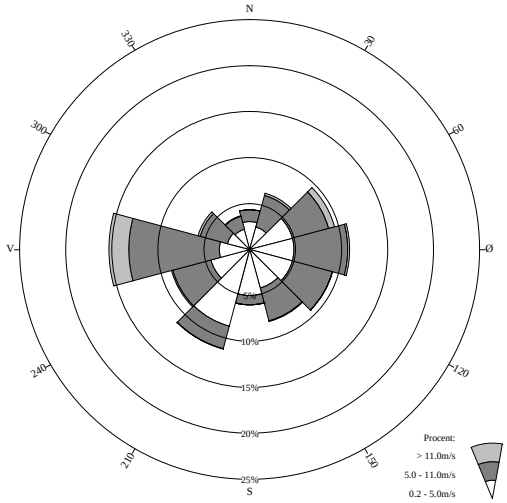
## JULI



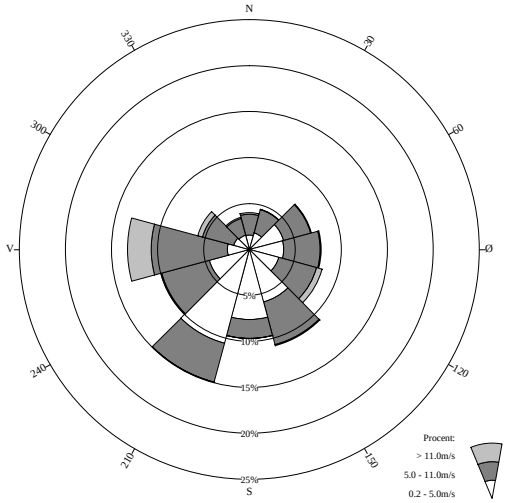

## AUGUST



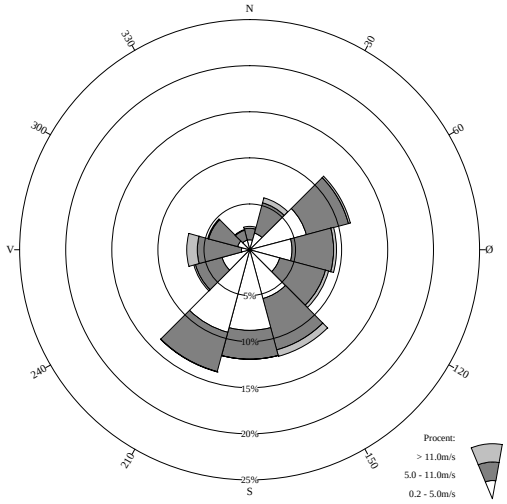

## SEPTEMBER



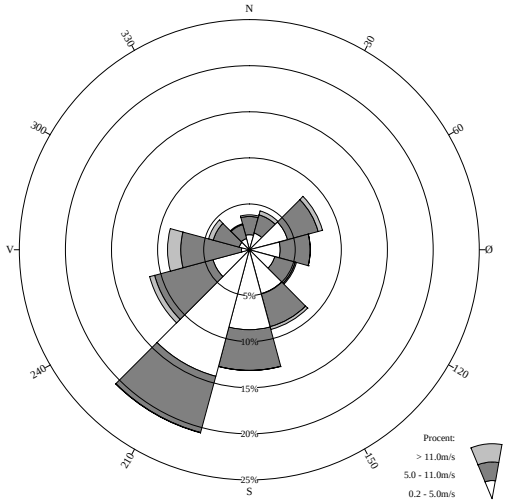

## OKTOBER




## NOVEMBER

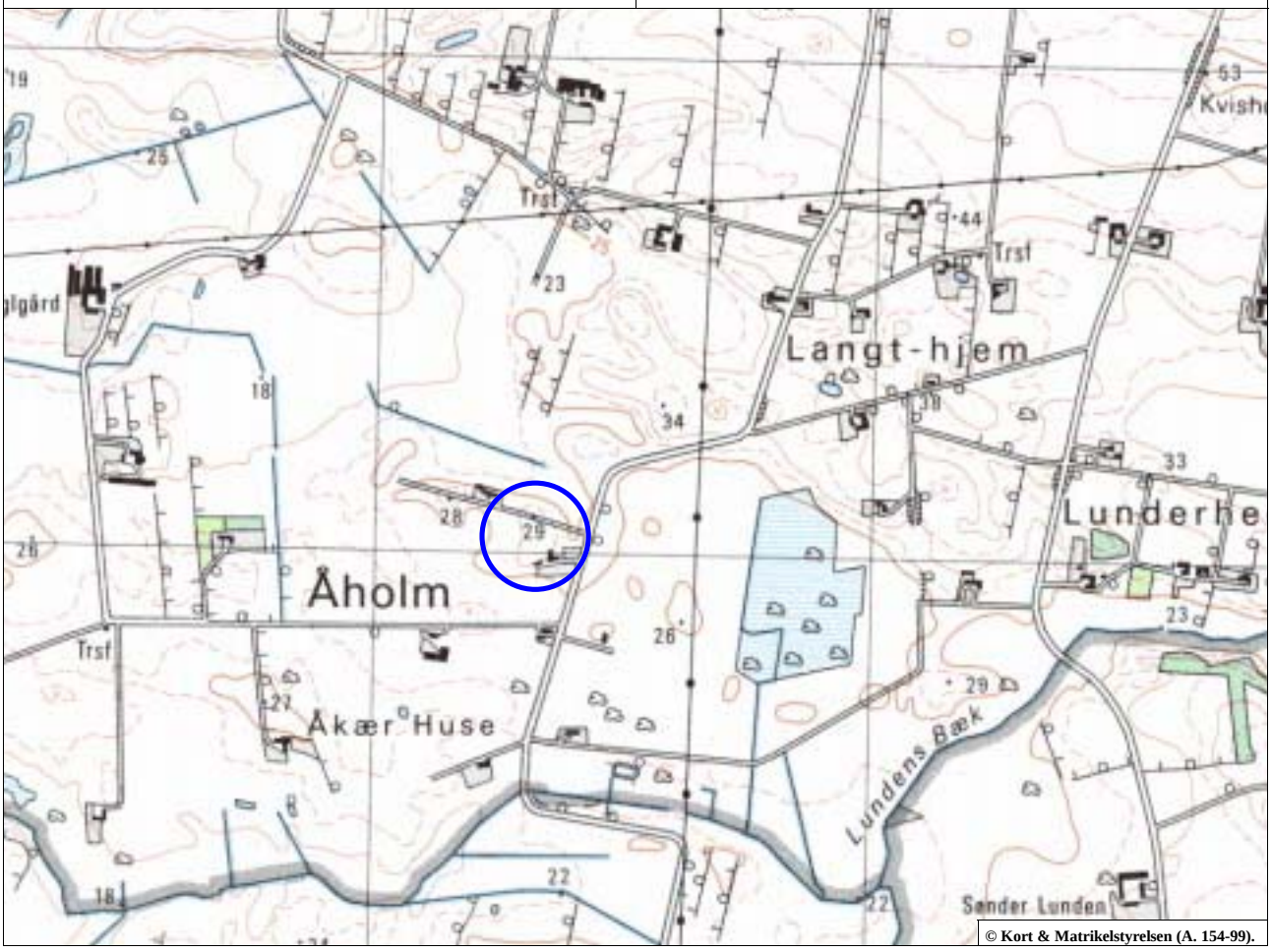



## DECEMBER



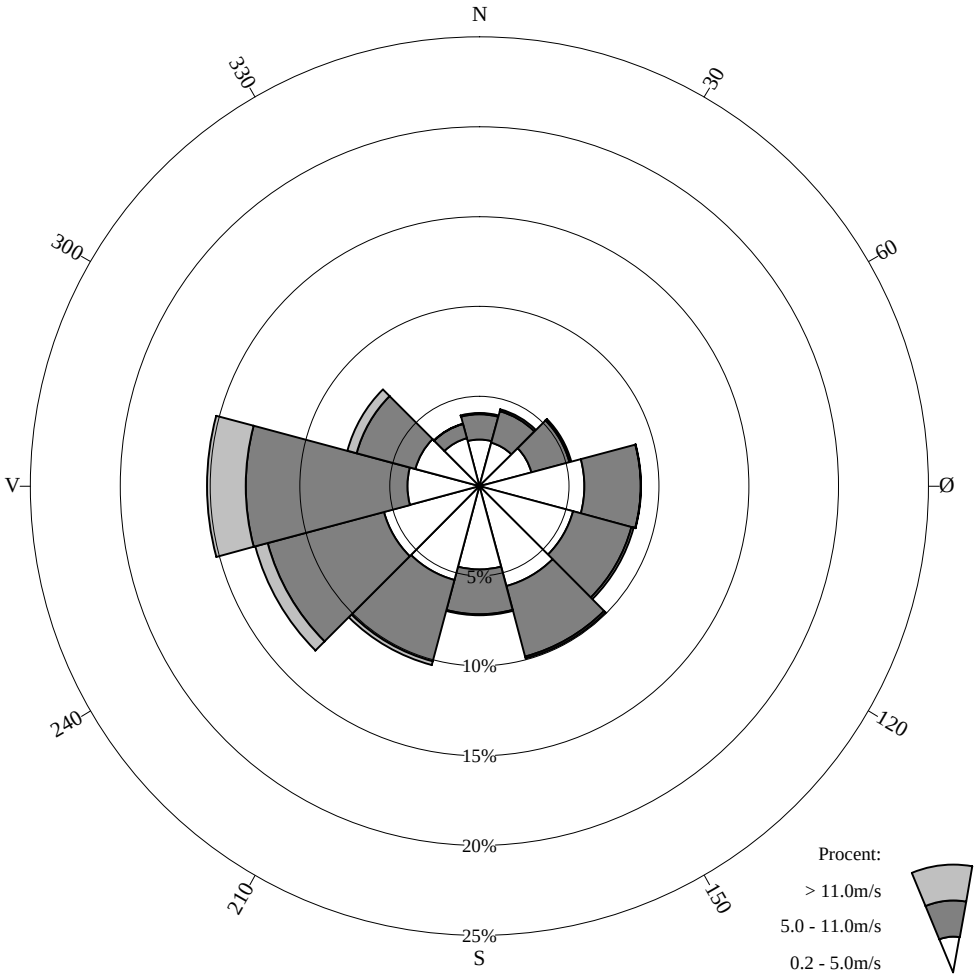
# 20155 Åholm

| | |
|---|---|
| **Position:** 57° 16’ N, 10° 04’ E<br>**UTM-koordinater:** 32V 6348.050N 564.300E<br>**Stationsbasis** (m.o.h.)**:** 29<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 57° 16’ N, long 10° 04’ E<br>**UTM-positions:** 32V 6348.050N 564.300E<br>**Elevation** (m.a.s.l.)**:** 29<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 20155
# ÅHOLM

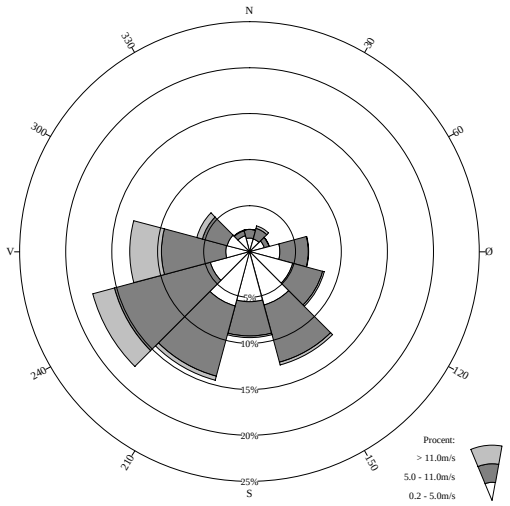
01-01-89 - 31-12-98



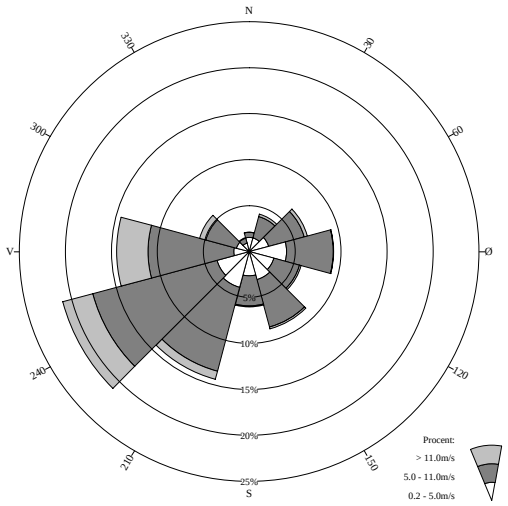

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.1 | 4.4 | 5.3 | 9.0 | 8.9 | 9.9 | 7.2 | 10.3 | 12.9 | 15.2 | 7.6 | 3.6 | 98.4 |
| % 0.2-5.0m/s | 2.6 | 2.5 | 3.0 | 5.8 | 5.4 | 5.8 | 4.6 | 5.4 | 5.5 | 4.0 | 3.7 | 2.8 | 51.2 |
| % 5.0-11.0m/s | 1.4 | 1.8 | 2.2 | 3.1 | 3.4 | 4.1 | 2.5 | 4.7 | 6.7 | 9.0 | 3.4 | 0.8 | 43.0 |
| % > 11.0m/s | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.7 | 2.2 | 0.5 | 0.0 | 4.2 |
| Middel hastighed | 4.4 | 4.8 | 4.8 | 4.2 | 4.5 | 4.7 | 4.3 | 5.1 | 5.9 | 7.2 | 5.6 | 3.5 | 5.2 |
| Største hastighed | 17.2 | 16.6 | 16.7 | 14.3 | 14.4 | 14.4 | 18.0 | 16.0 | 19.7 | 23.2 | 20.8 | 16.7 | 23.2 |

Totalt antal observationer = 86000 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 1340 = 1.6%

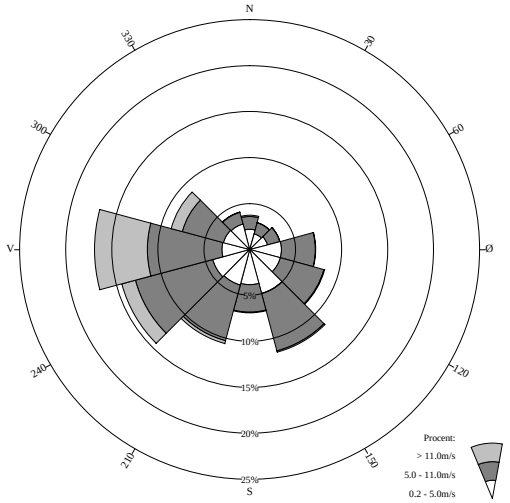
## JANUAR



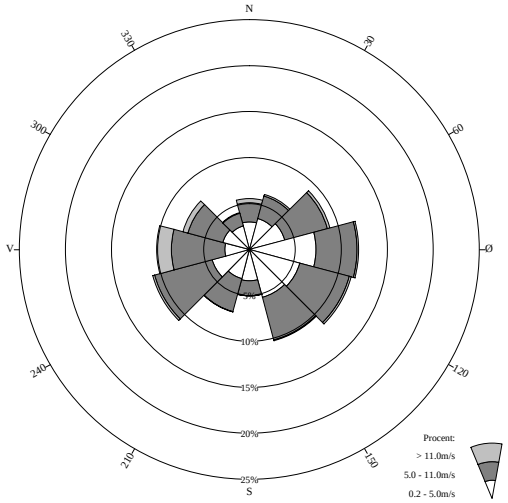

## FEBRUAR



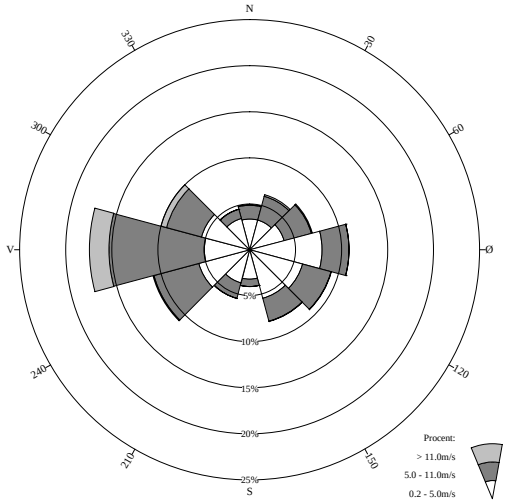

## MARTS



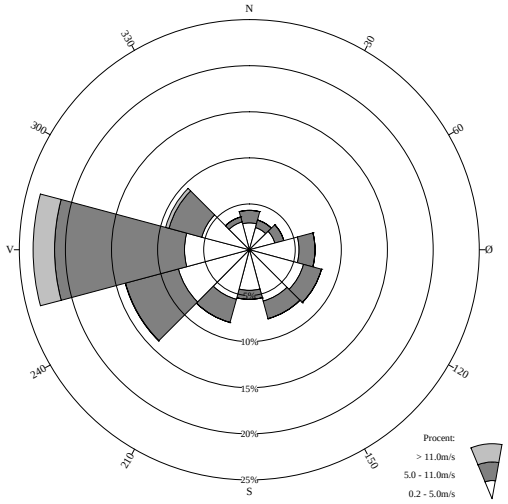

## APRIL



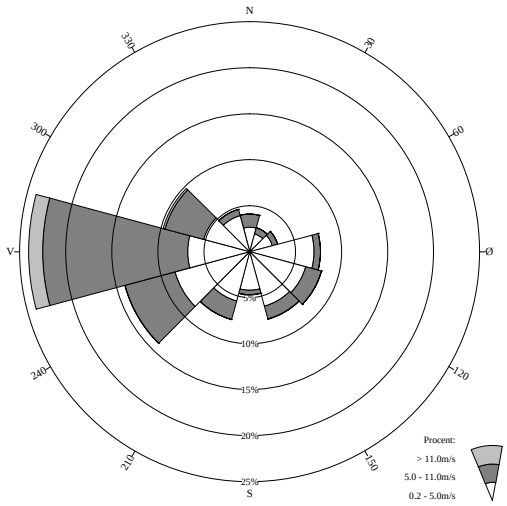

## MAJ



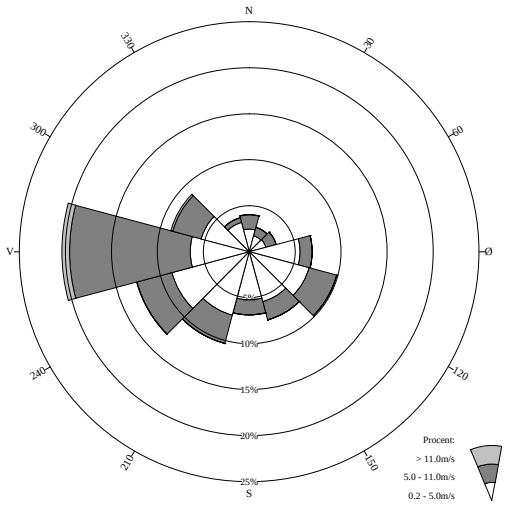

## JUNI



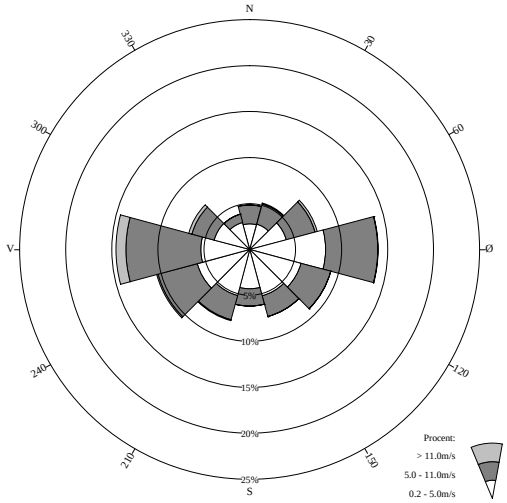
## JULI



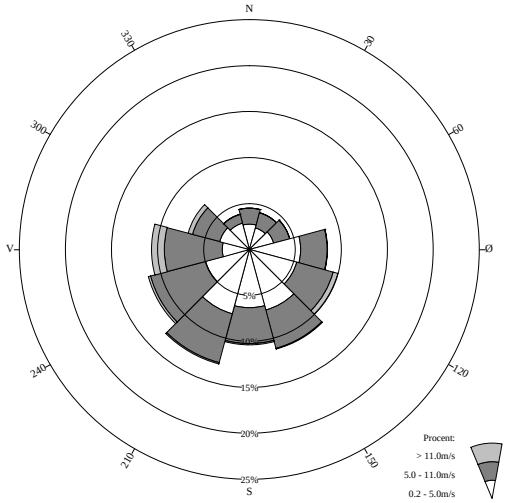

## AUGUST



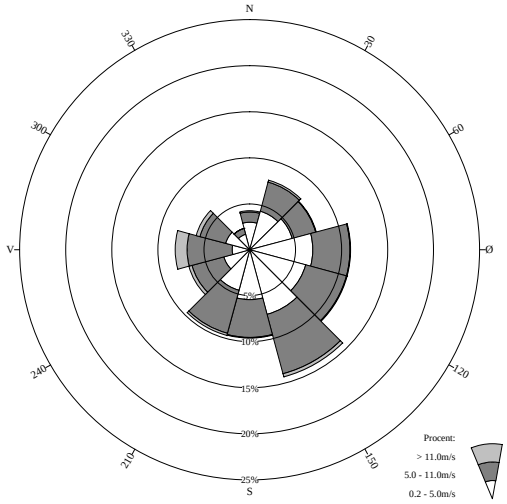

## SEPTEMBER



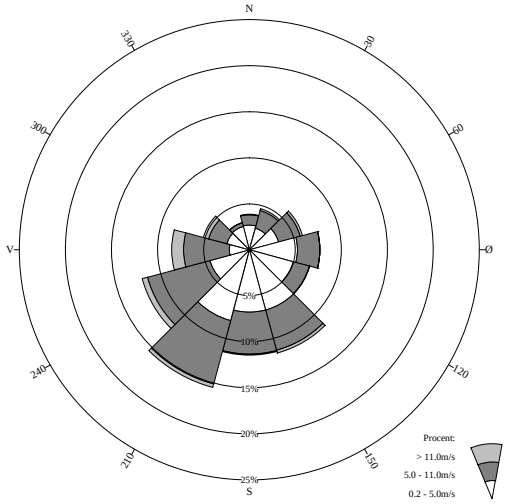

## OKTOBER




## NOVEMBER

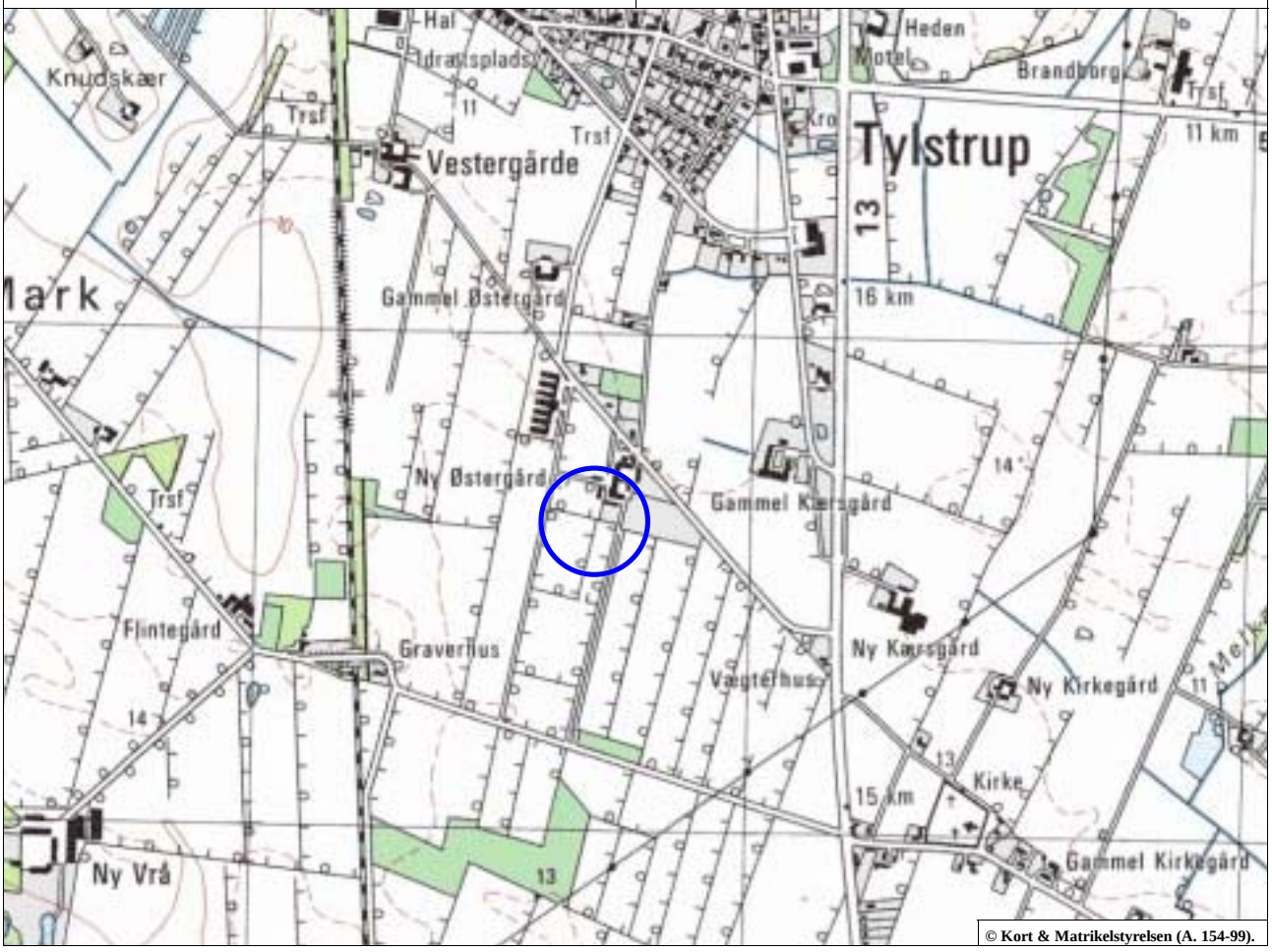



## DECEMBER



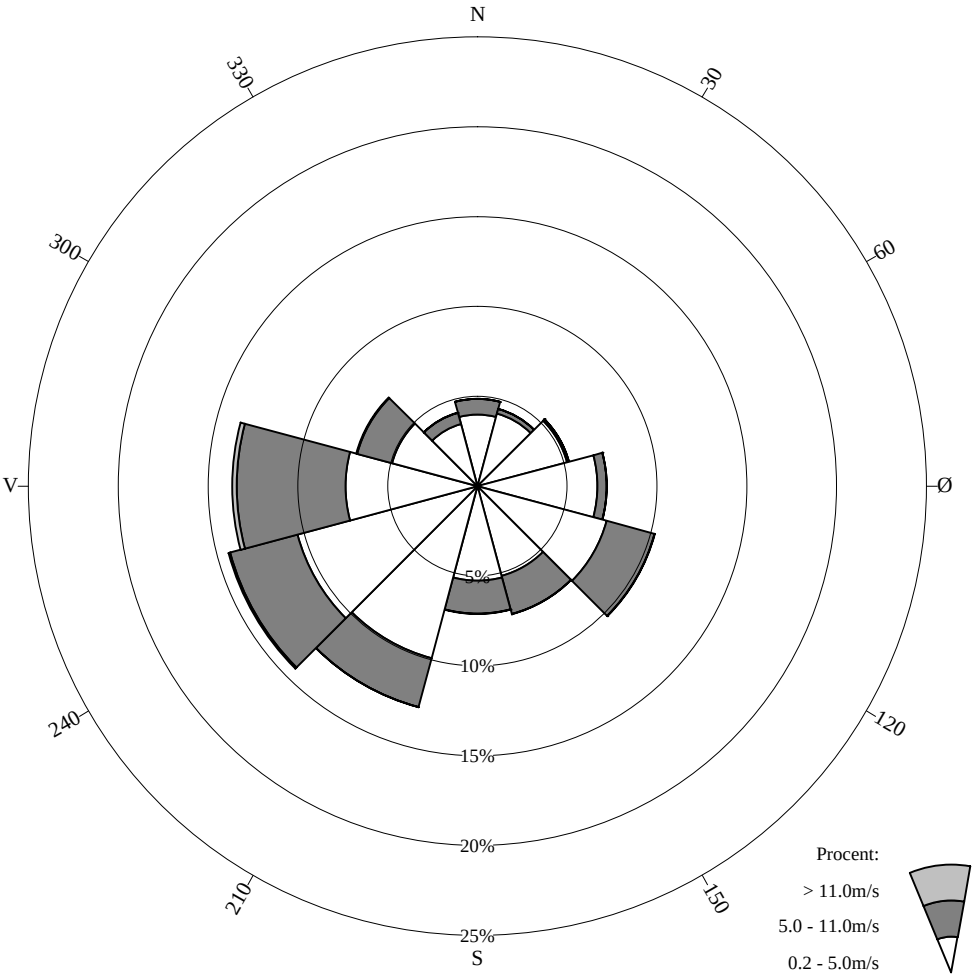
# 20209 Tylstrup

| | |
|---|---|
| **Position:** 57° 11’ N, 09° 57’ E<br>**UTM-koordinater:** 32V 6338.610N 557.680E<br>**Stationsbasis** (m.o.h.)**:** 13<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 57° 11’ N, long 09° 57’ E<br>**UTM-positions:** 32V 6338.610N 557.680E<br>**Elevation** (m.a.s.l.)**:** 13<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 20209
# TYLSTRUP II

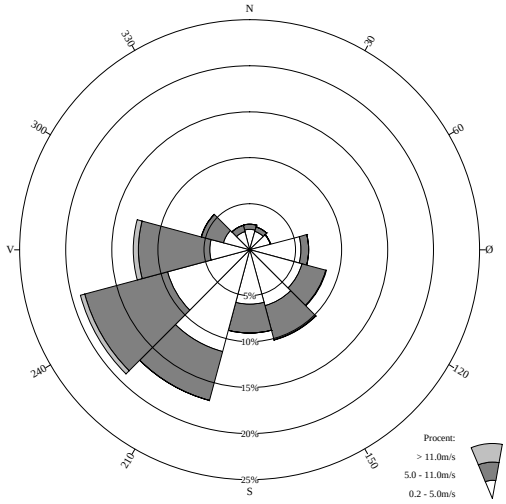
01-01-89 - 31-12-98



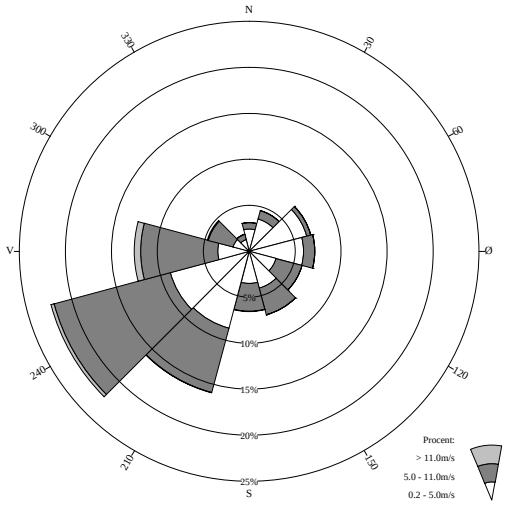

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.9 | 4.5 | 5.3 | 7.2 | 10.2 | 7.4 | 7.1 | 12.7 | 14.4 | 13.7 | 7.0 | 4.2 | 98.5 |
| % 0.2-5.0m/s | 4.0 | 4.2 | 5.2 | 6.7 | 7.4 | 5.2 | 5.3 | 9.9 | 10.4 | 7.3 | 4.9 | 3.6 | 74.1 |
| % 5.0-11.0m/s | 0.9 | 0.3 | 0.1 | 0.5 | 2.8 | 2.2 | 1.8 | 2.8 | 3.9 | 6.1 | 2.0 | 0.7 | 24.0 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.0 | 0.0 | 0.4 |
| Middel hastighed | 3.3 | 2.5 | 2.2 | 2.6 | 3.9 | 4.1 | 3.8 | 3.7 | 4.0 | 5.0 | 4.1 | 3.2 | 3.8 |
| Største hastighed | 12.0 | 9.5 | 7.2 | 9.5 | 12.2 | 12.4 | 11.5 | 12.5 | 14.3 | 17.0 | 14.4 | 13.9 | 17.0 |

Totalt antal observationer = 86427 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 1292 = 1.5%

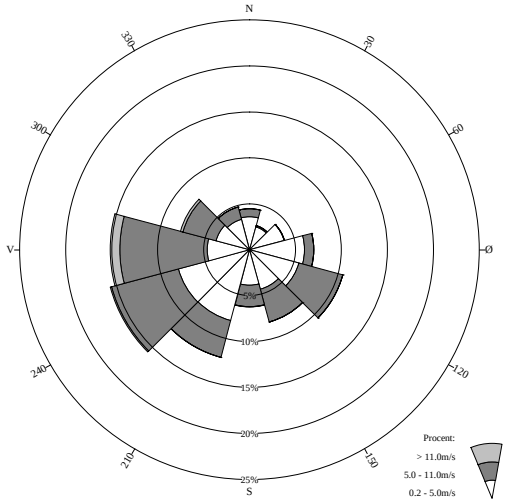
## JANUAR



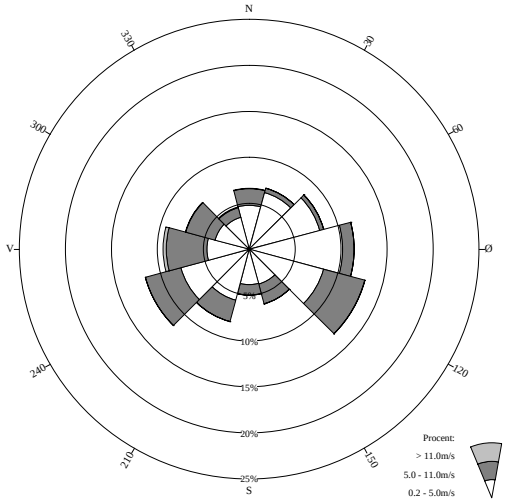

## FEBRUAR



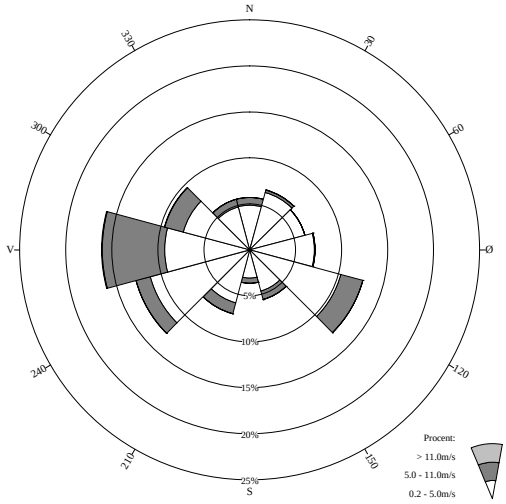

## MARTS



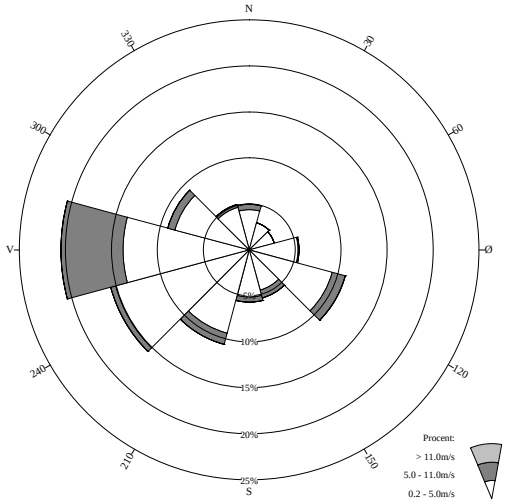

## APRIL



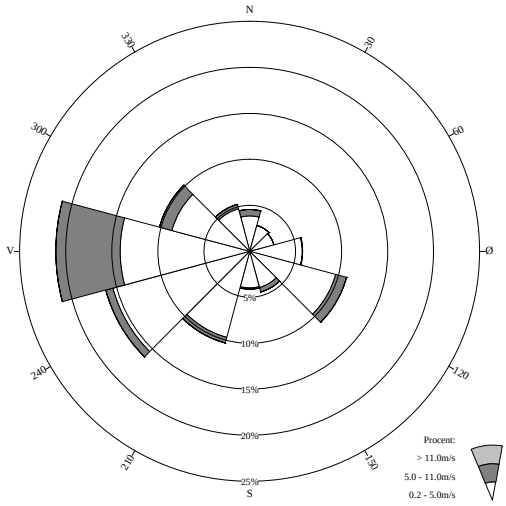

## MAJ



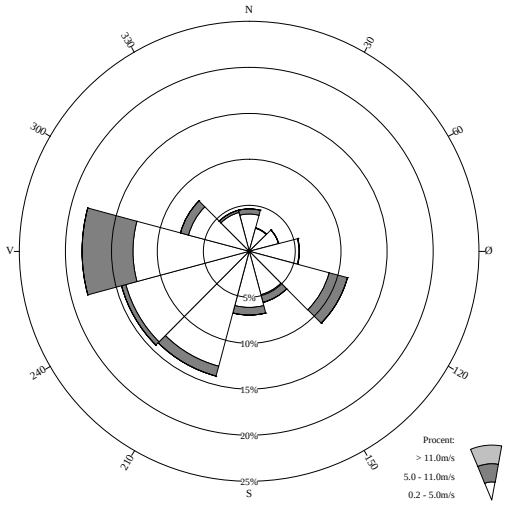

## JUNI



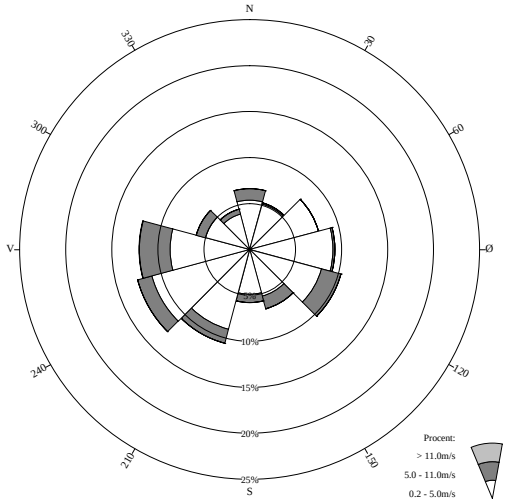
## JULI



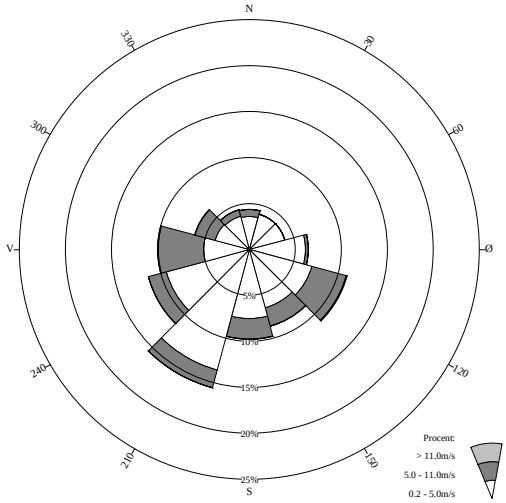

## AUGUST



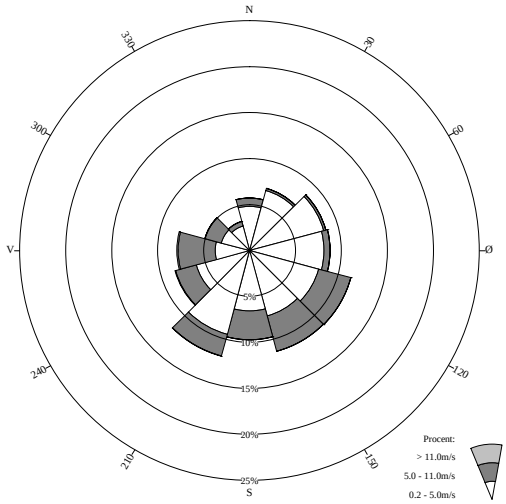

## SEPTEMBER



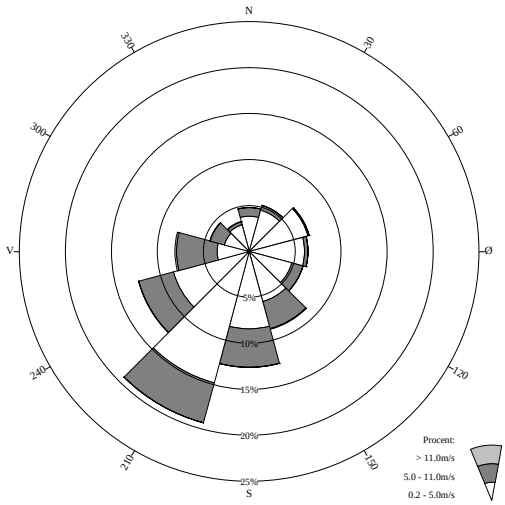

## OKTOBER




## NOVEMBER

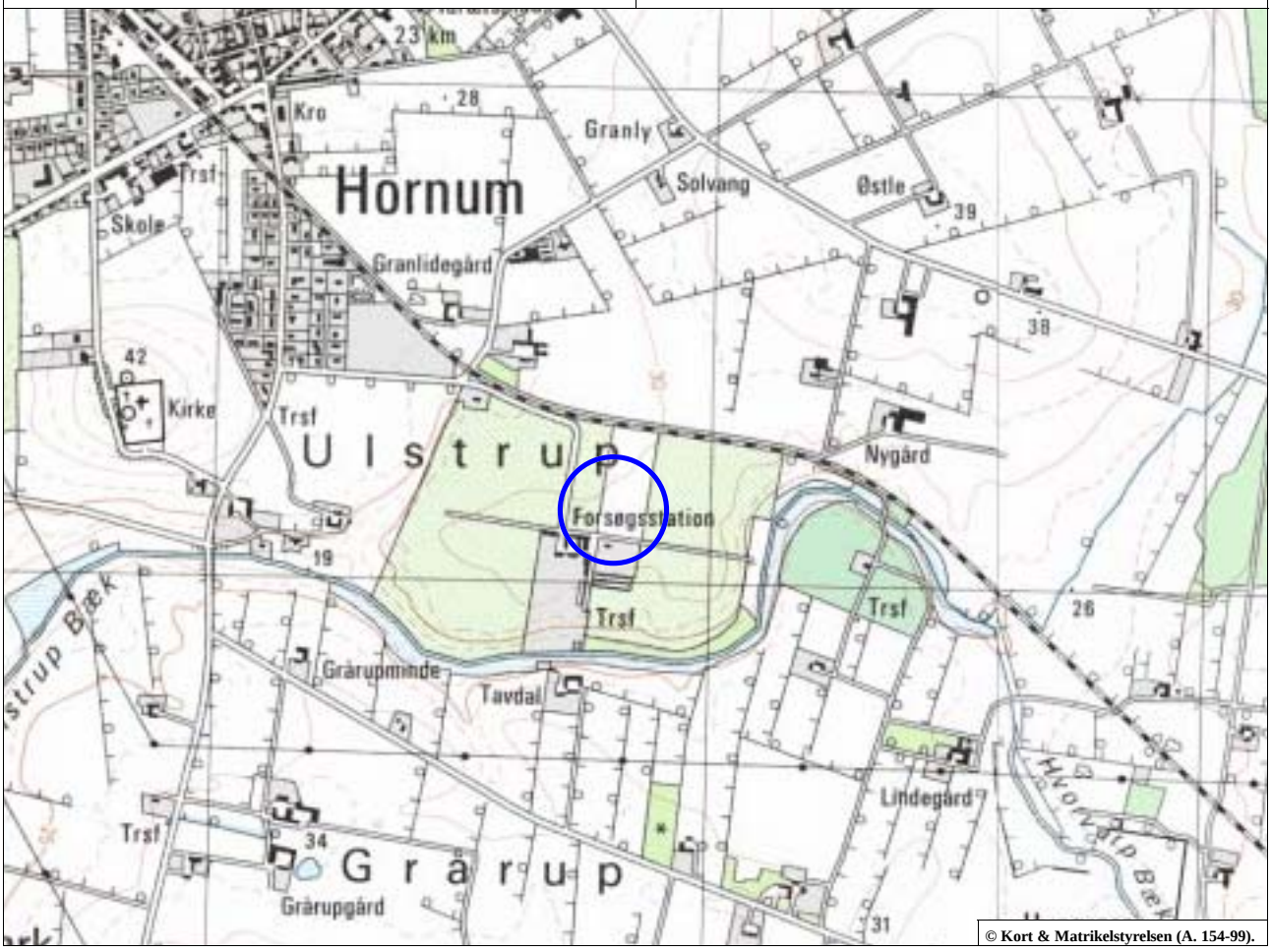



## DECEMBER



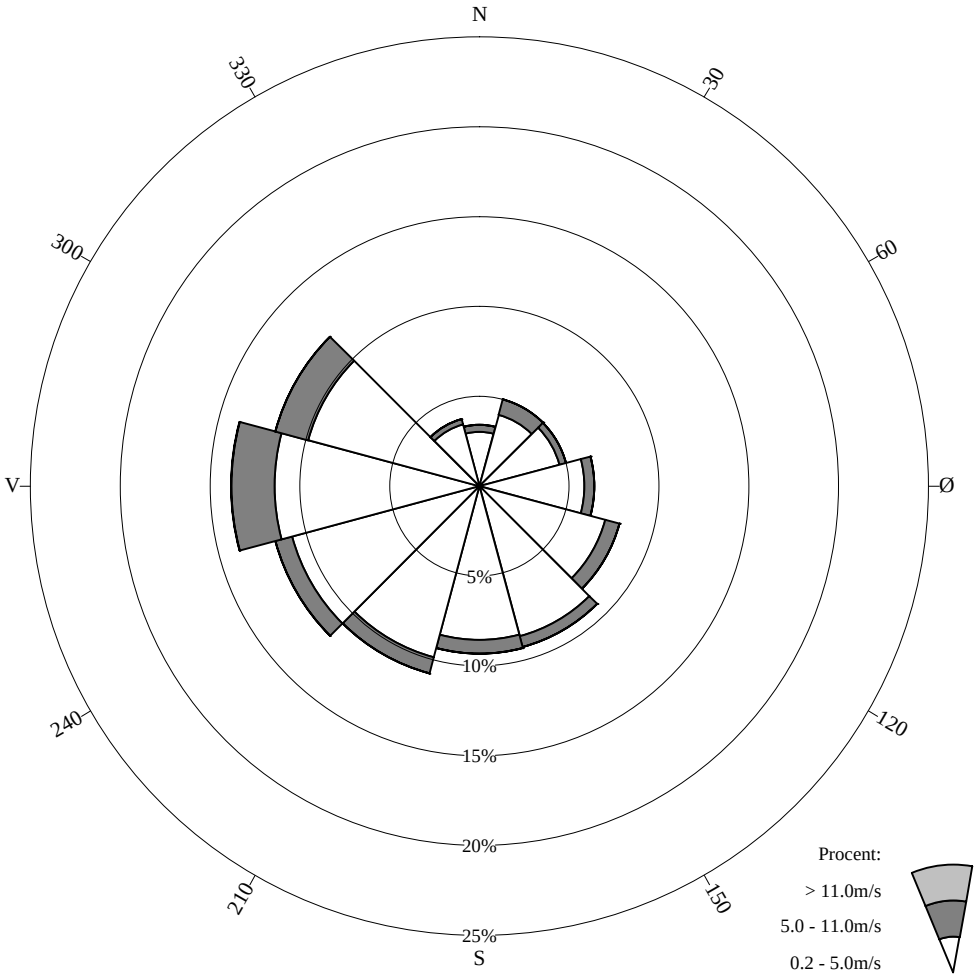
# 20501 Hornum

| | |
|---|---|
| **Position:** 56° 50’ N, 09° 26’ E<br>**UTM-koordinater:** 32V 6299.150N 526.810E<br>**Stationsbasis** (m.o.h.)**:** 30<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 56° 50’ N, long 09° 26’ E<br>**UTM-positions:** 32V 6299.150N 526.810E<br>**Elevation** (m.a.s.l.)**:** 30<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 20501
# HORNUM II

01-01-89 - 31-12-98



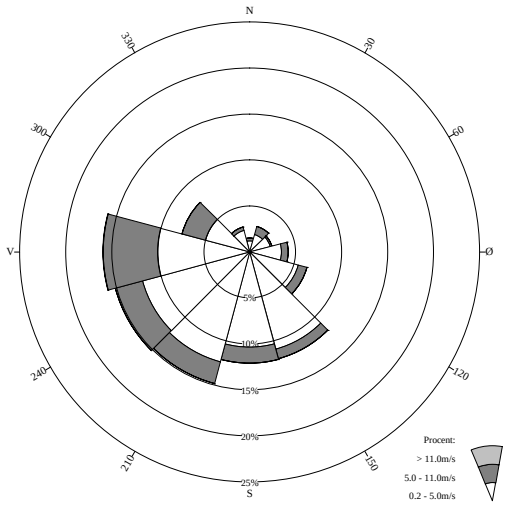

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.4 | 5.0 | 5.0 | 6.4 | 8.1 | 9.3 | 9.3 | 10.8 | 11.8 | 13.8 | 11.8 | 3.9 | 98.6 |
| % 0.2-5.0m/s | 3.0 | 4.1 | 4.6 | 5.8 | 7.3 | 8.7 | 8.6 | 9.9 | 10.8 | 11.4 | 9.9 | 3.6 | 87.6 |
| % 5.0-11.0m/s | 0.4 | 0.9 | 0.4 | 0.6 | 0.8 | 0.6 | 0.8 | 0.9 | 1.0 | 2.4 | 1.9 | 0.3 | 10.9 |
| % > 11.0m/s | 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 |
| Middel hastighed | 2.9 | 3.4 | 2.7 | 2.8 | 2.9 | 2.6 | 2.6 | 2.7 | 2.8 | 3.5 | 3.3 | 2.6 | 3.0 |
| Største hastighed | 11.4 | 11.5 | 9.6 | 9.5 | 8.3 | 8.5 | 8.9 | 10.6 | 11.5 | 12.6 | 11.5 | 12.1 | 12.6 |

Totalt antal observationer = 86983 Kilde: DMI

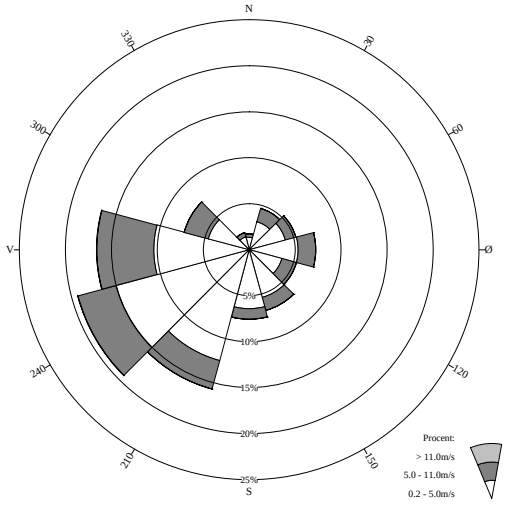
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1260 = 1.4%

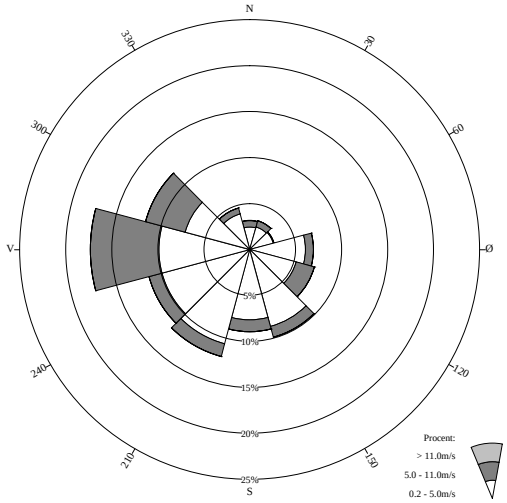
## JANUAR



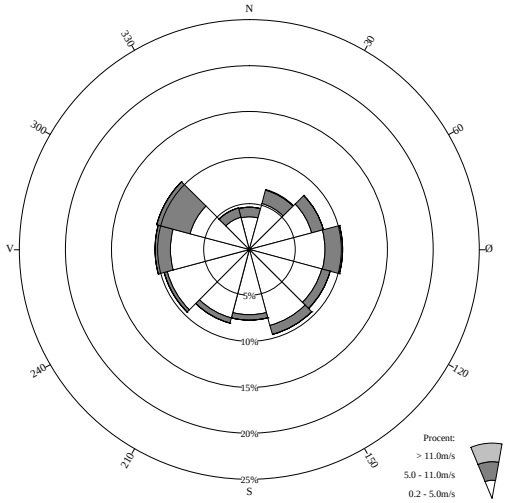

## FEBRUAR



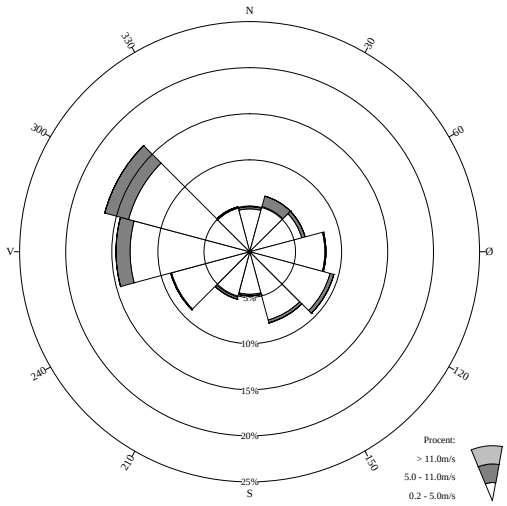

## MARTS



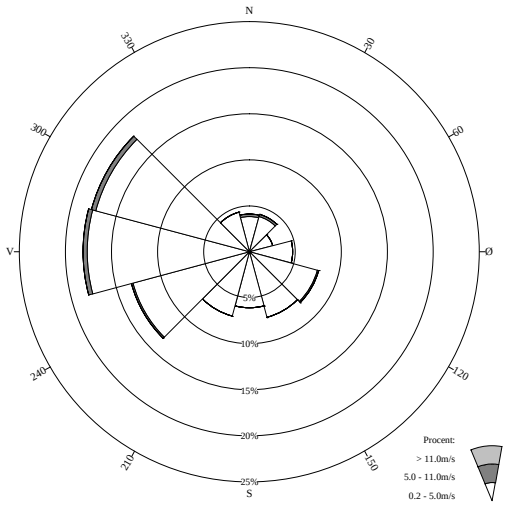

## APRIL



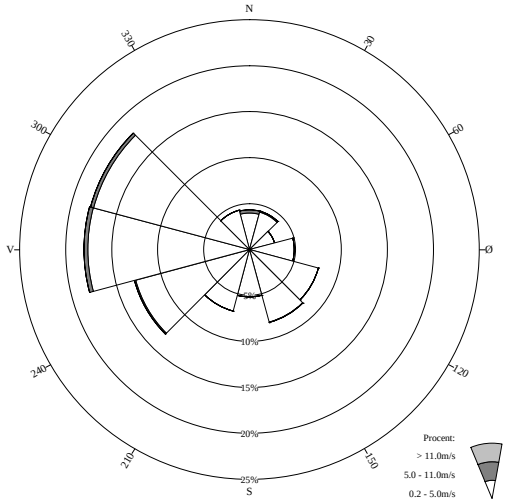

## MAJ



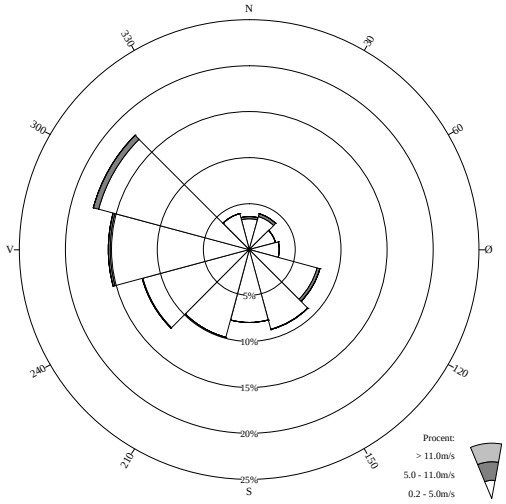

## JUNI



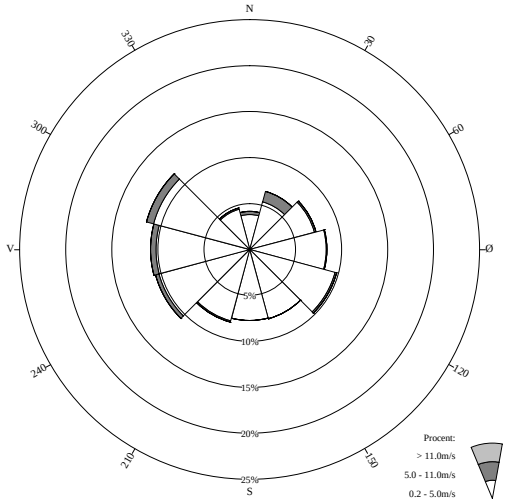
## JULI



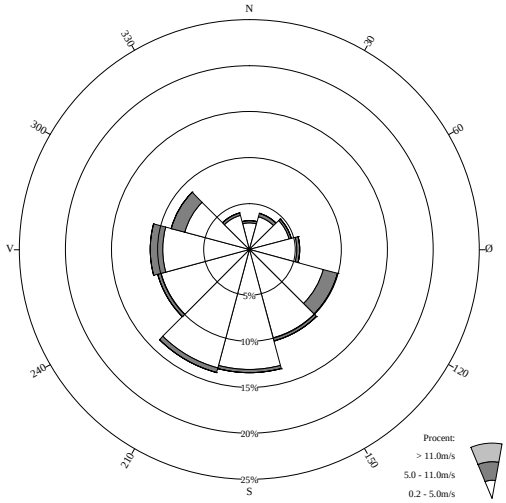

## AUGUST



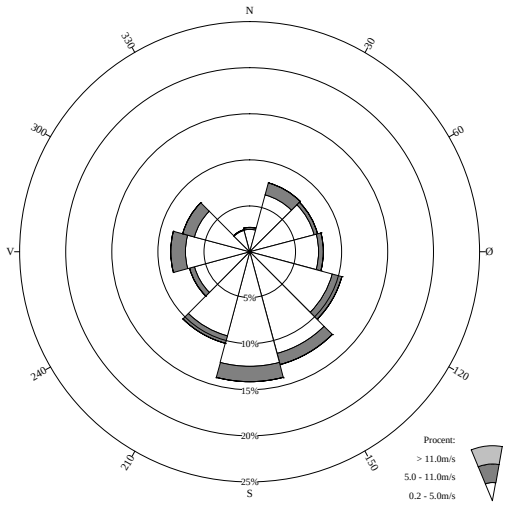

## SEPTEMBER



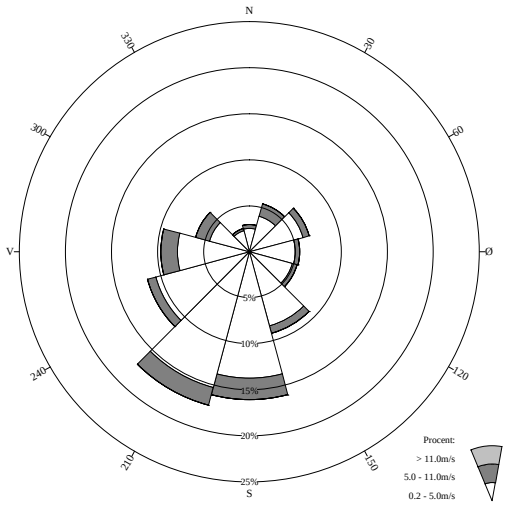

## OKTOBER




## NOVEMBER

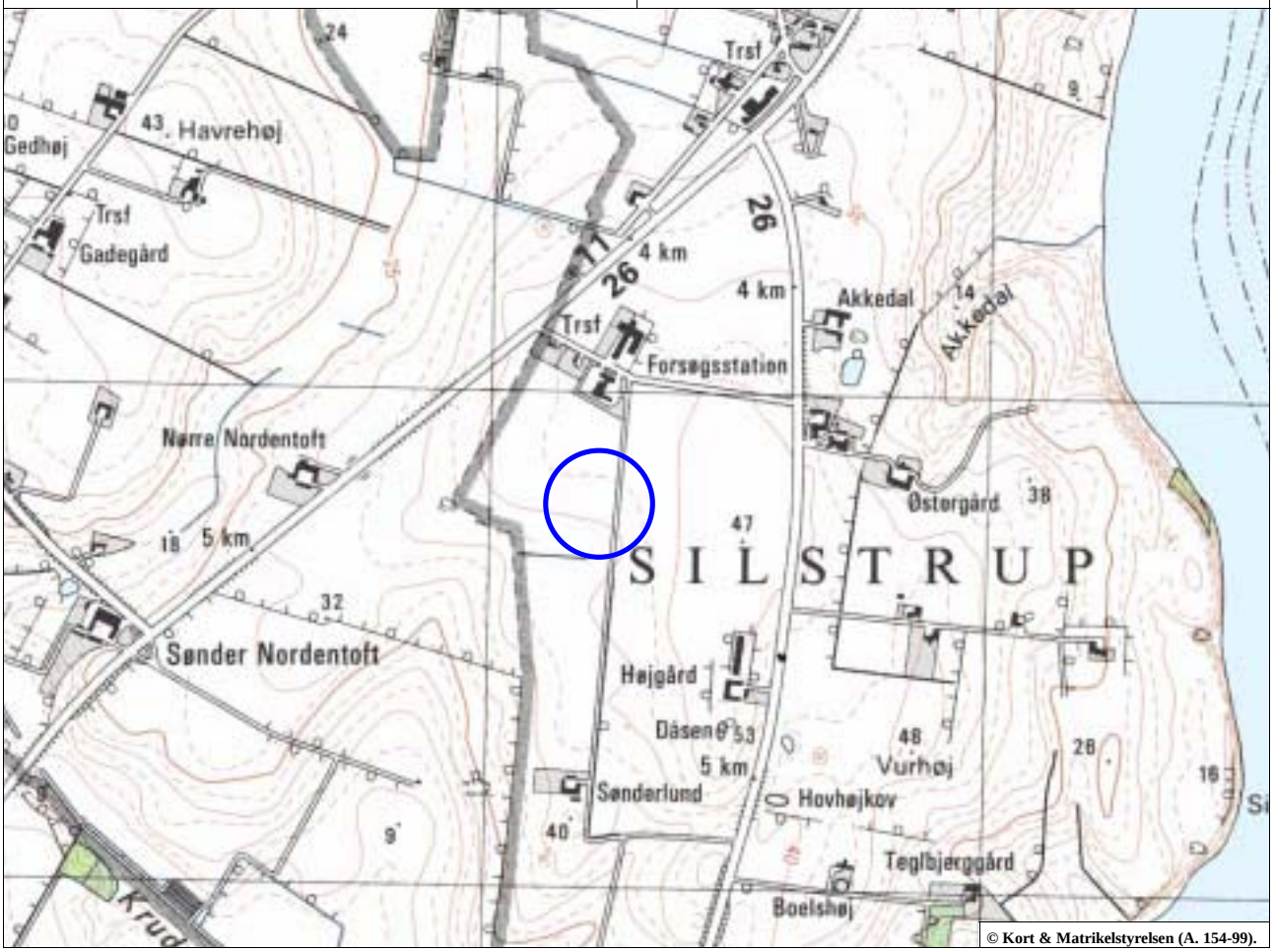



## DECEMBER



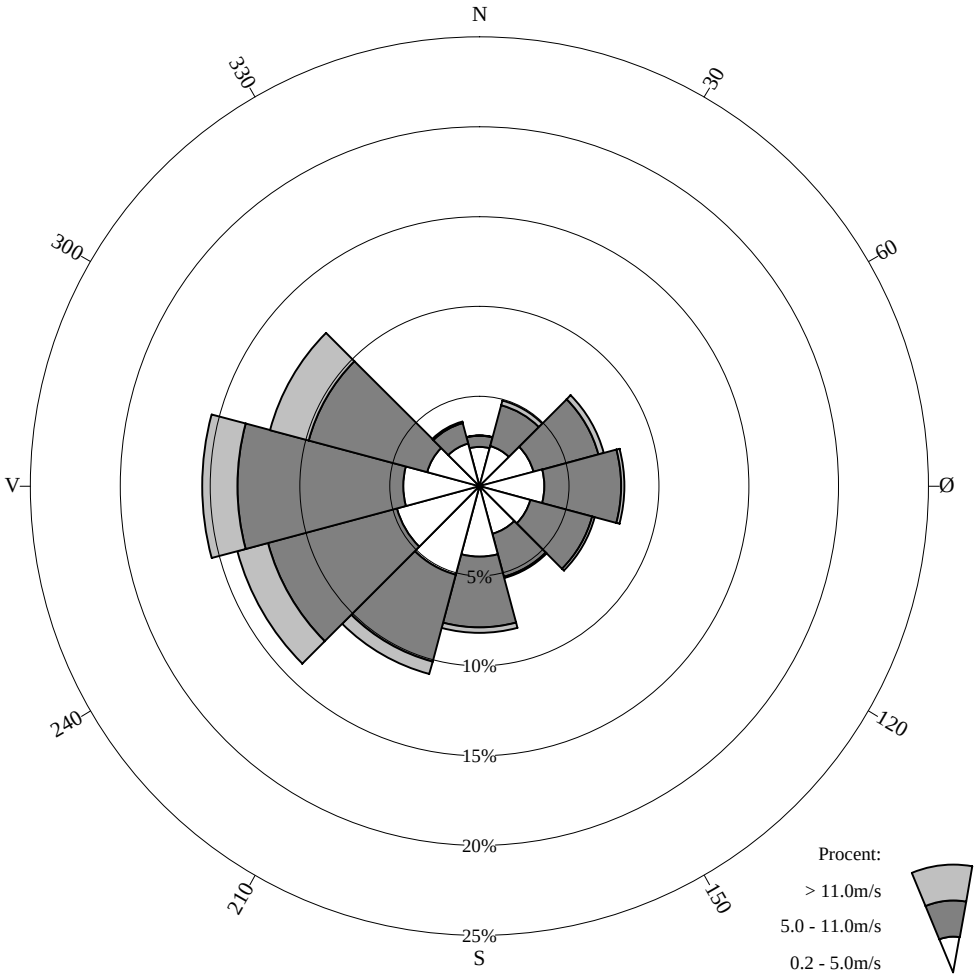
# 21061 Silstrup

| | |
|---|---|
| **Position:** 56° 56’ N, 08° 39’ E<br>**UTM-koordinater:** 32V 6309.770N 478.230E<br>**Stationsbasis** (m.o.h.)**:** 41<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 56° 56’ N, long 08° 39’ E<br>**UTM-positions:** 32V 6309.770N 478.230E<br>**Elevation** (m.a.s.l.)**:** 41<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 21061
# SILSTRUP II

01-01-89 - 31-12-98



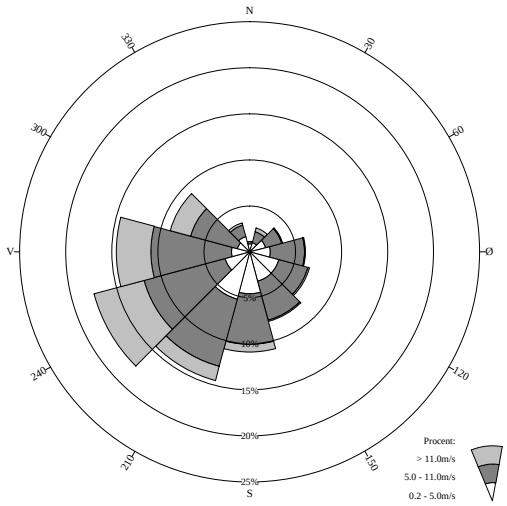

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 2.8 | 4.9 | 7.2 | 8.1 | 6.7 | 5.3 | 8.2 | 10.8 | 14.0 | 15.4 | 12.1 | 3.7 | 99.2 |
| % 0.2-5.0m/s | 2.2 | 2.3 | 3.1 | 3.6 | 2.9 | 2.8 | 3.9 | 5.1 | 4.8 | 4.3 | 3.0 | 2.5 | 40.5 |
| % 5.0-11.0m/s | 0.6 | 2.3 | 3.7 | 4.3 | 3.6 | 2.5 | 3.9 | 5.0 | 7.4 | 9.2 | 6.8 | 1.2 | 50.7 |
| % > 11.0m/s | 0.0 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | 0.3 | 0.7 | 1.8 | 1.9 | 2.2 | 0.1 | 8.0 |
| Middel hastighed | 3.8 | 5.6 | 5.8 | 5.6 | 5.6 | 5.1 | 5.5 | 5.7 | 6.8 | 7.1 | 7.7 | 4.5 | 6.2 |
| Største hastighed | 15.3 | 19.5 | 19.7 | 15.9 | 14.7 | 14.3 | 17.3 | 18.0 | 21.9 | 21.4 | 21.8 | 20.7 | 21.9 |

Totalt antal observationer = 85985 Kilde: DMI

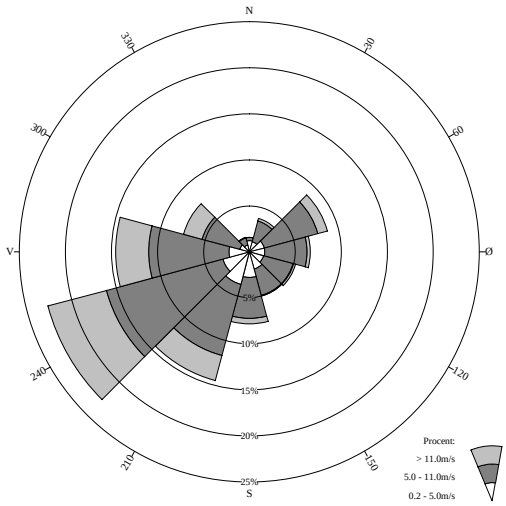
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 725 = 0.8%

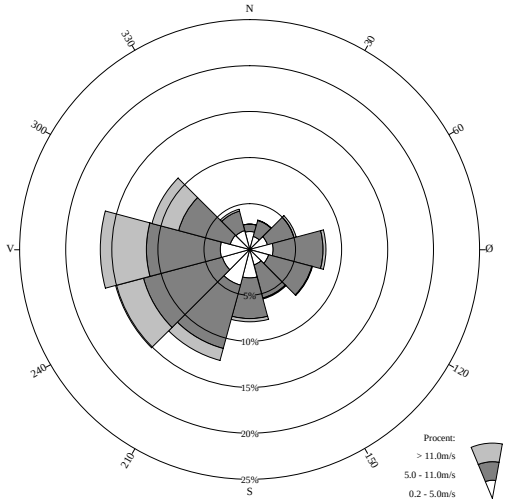
## JANUAR



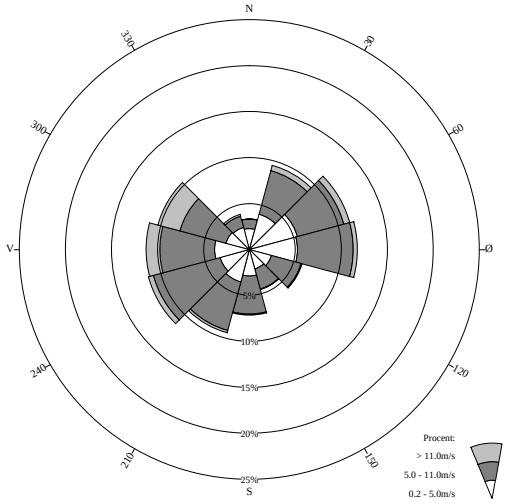

## FEBRUAR



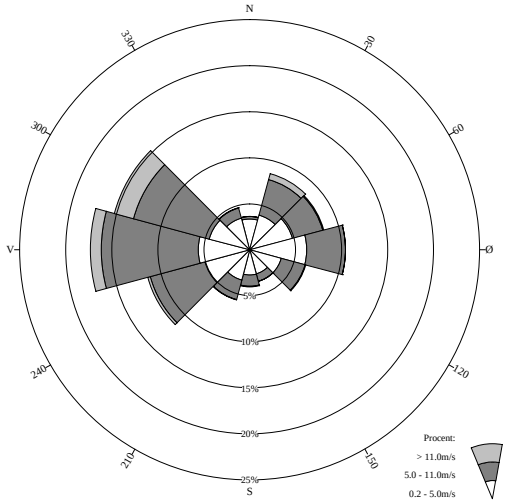

## MARTS



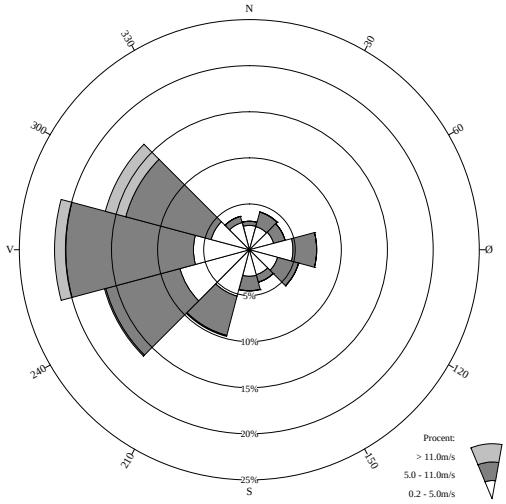

## APRIL



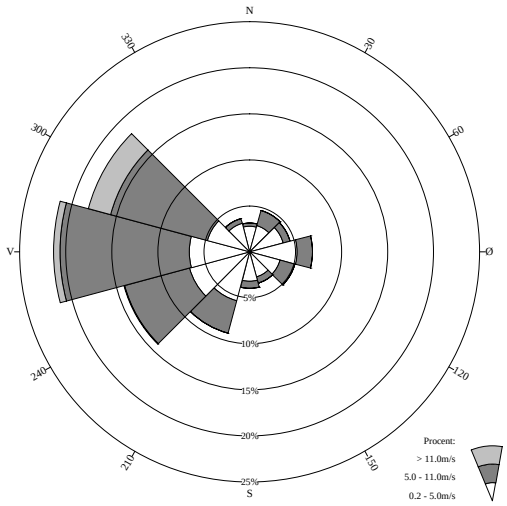

## MAJ



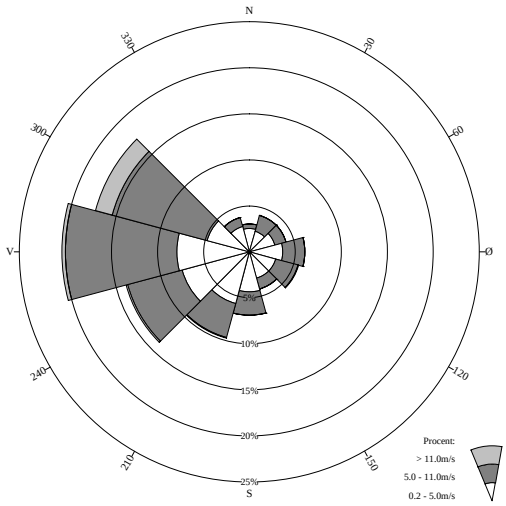

## JUNI



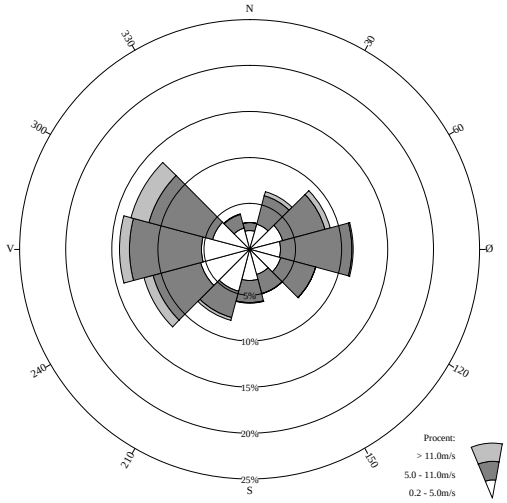
## JULI



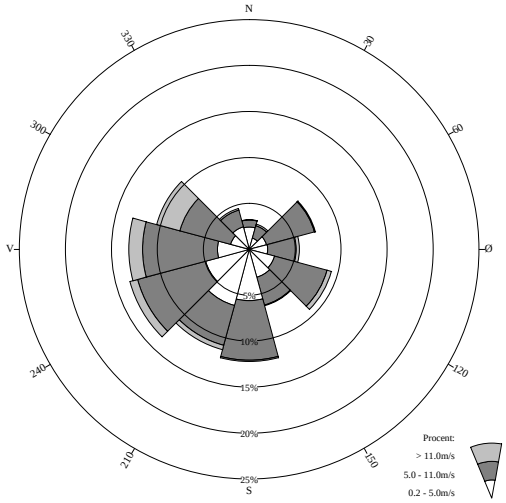

## AUGUST



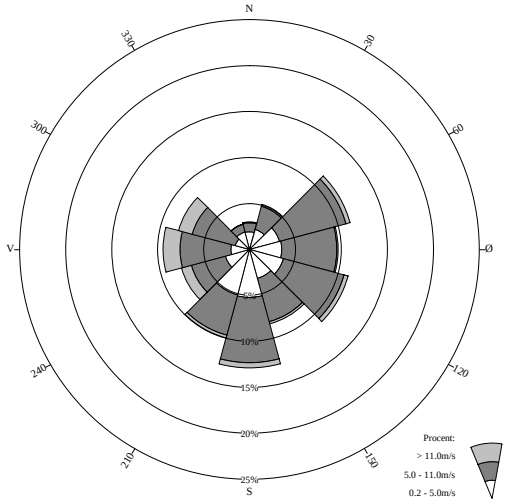

## SEPTEMBER



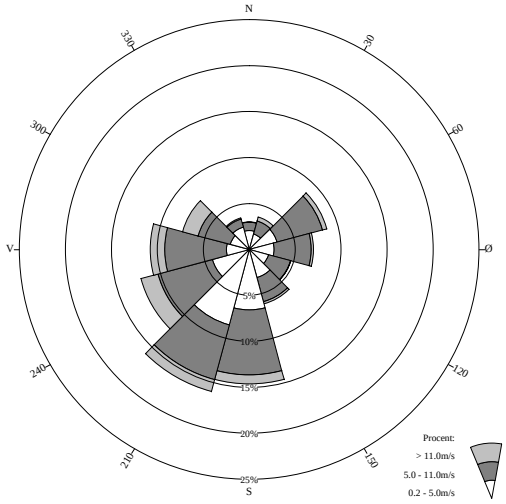

## OKTOBER




## NOVEMBER

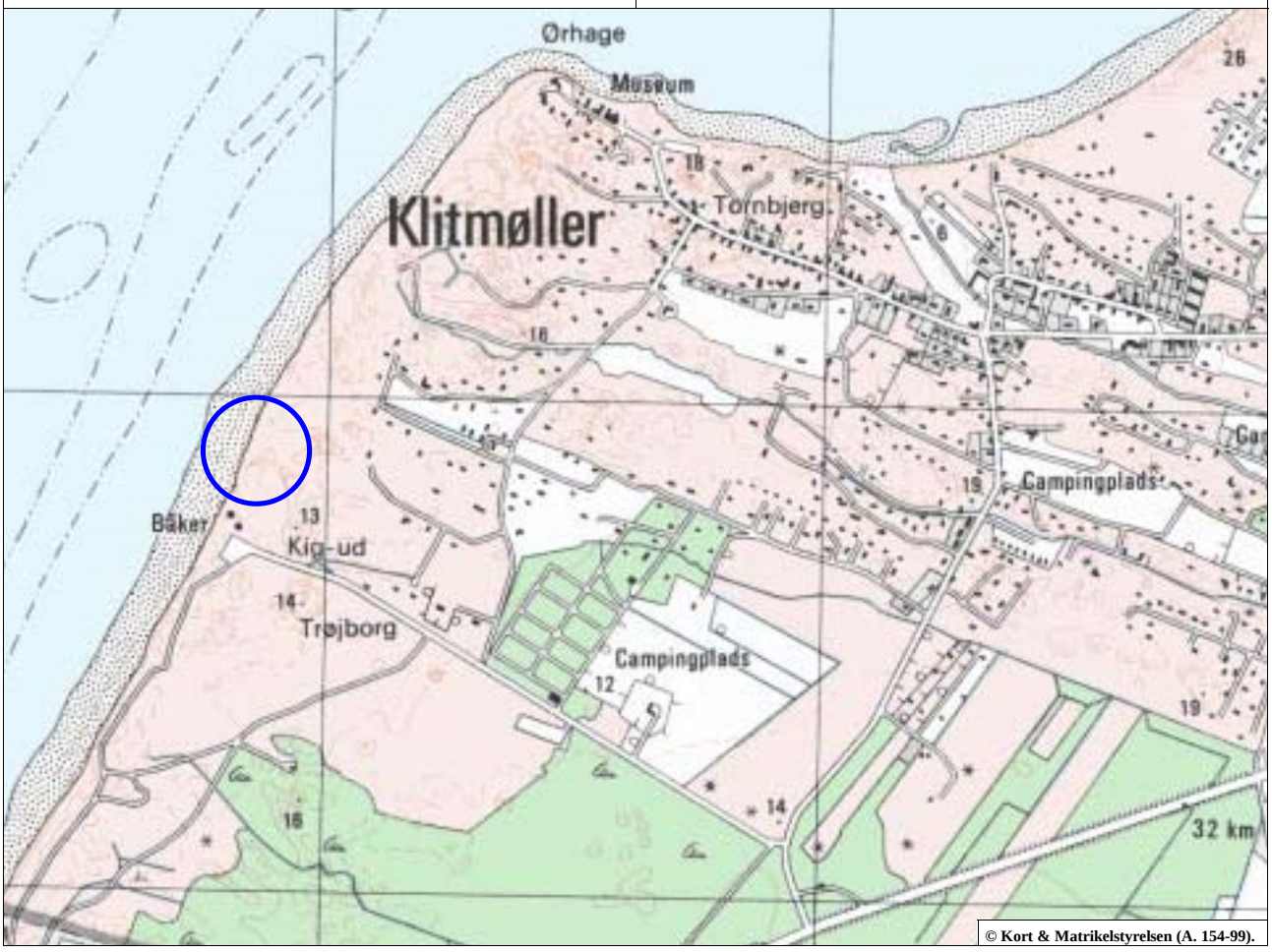



## DECEMBER



# 21075 Klitmøller Huse

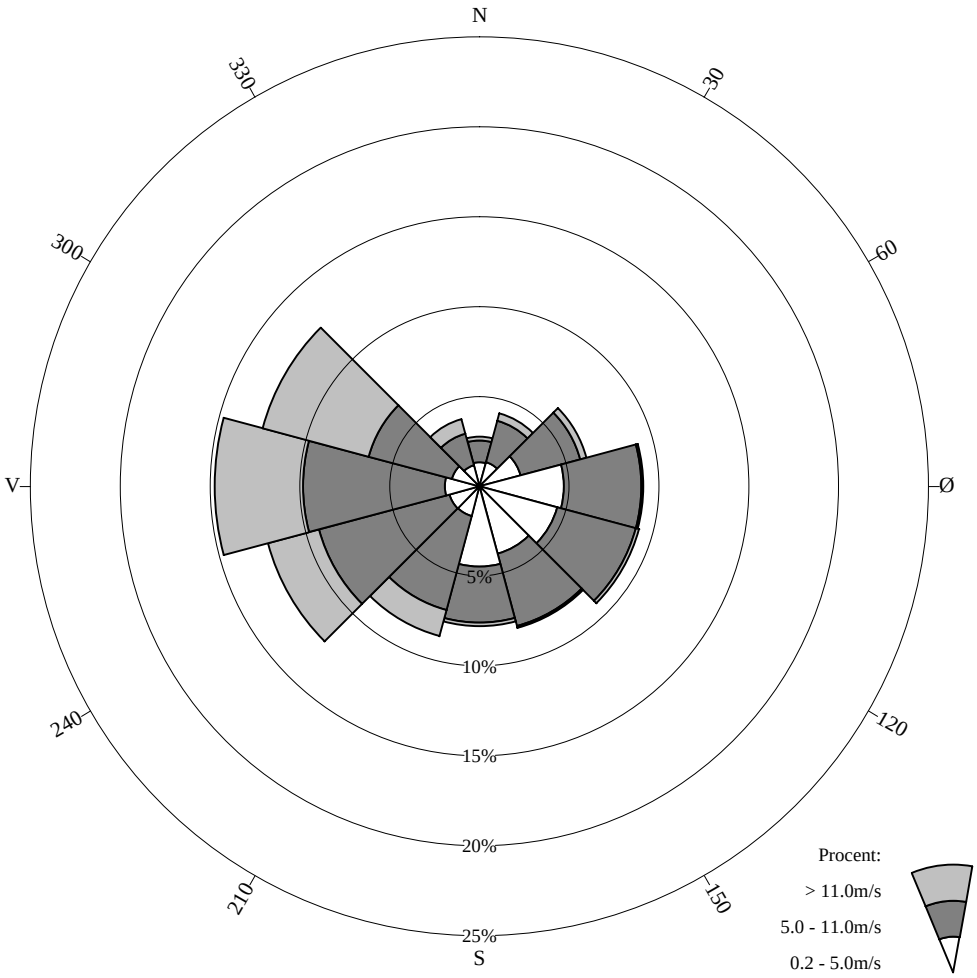
| | |
|---|---|
| **Position:** 57° 02’ N, 08° 28’ E<br>**UTM-koordinater:** 32V 6321.890N 467.840E<br>**Stationsbasis** (m.o.h.)**:** 5<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:**<br>Stationen er nedlagt i 1999. | **Position:** lat 57° 02’ N, long 08° 28’ E<br>**UTM-positions:** 32V 6321.890N 467.840E<br>**Elevation** (m.a.s.l.)**:** 5<br>**Level of measurement:** 10 m<br><br>**Comments:**<br>The station was closed down in 1999. |



# Station 21075
# Klitmøller Huse

01-01-89 - 31-12-98

Hele perioden



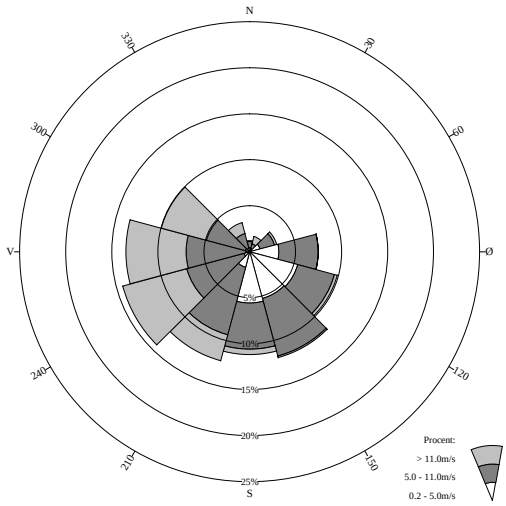

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 2.8 | 4.2 | 6.2 | 9.1 | 9.2 | 8.2 | 7.8 | 8.6 | 12.2 | 14.7 | 12.5 | 3.9 | 99.4 |
| % 0.2-5.0m/s | 1.3 | 1.4 | 2.4 | 4.7 | 4.5 | 3.9 | 4.5 | 1.7 | 1.7 | 1.9 | 1.6 | 1.2 | 30.9 |
| % 5.0-11.0m/s | 1.2 | 2.4 | 3.4 | 4.3 | 4.5 | 4.2 | 3.1 | 5.4 | 7.5 | 7.9 | 4.8 | 1.8 | 50.6 |
| % > 11.0m/s | 0.2 | 0.4 | 0.4 | 0.1 | 0.2 | 0.1 | 0.2 | 1.5 | 3.0 | 4.9 | 6.1 | 0.8 | 17.9 |
| Middel hastighed | 5.8 | 6.5 | 6.1 | 5.3 | 5.4 | 5.3 | 5.1 | 7.9 | 8.7 | 9.4 | 10.6 | 7.5 | 7.4 |
| Største hastighed | 19.5 | 19.8 | 18.8 | 14.3 | 13.6 | 14.0 | 17.5 | 19.8 | 24.6 | 27.6 | 26.4 | 21.5 | 27.6 |

Totalt antal observationer = 85205 Kilde: DMI

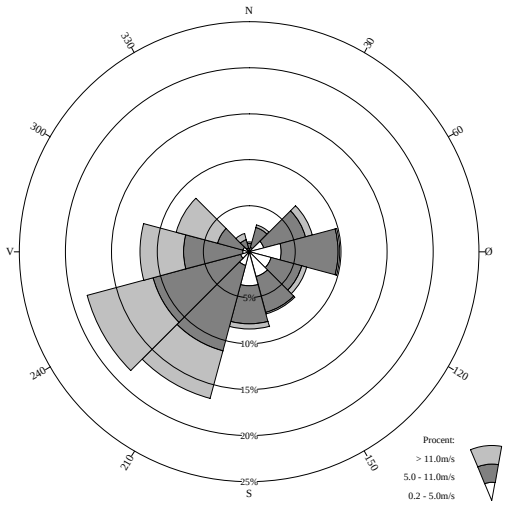
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 552 = 0.6%

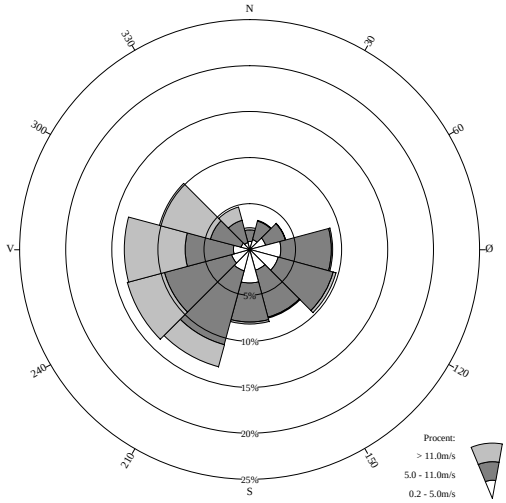
## JANUAR



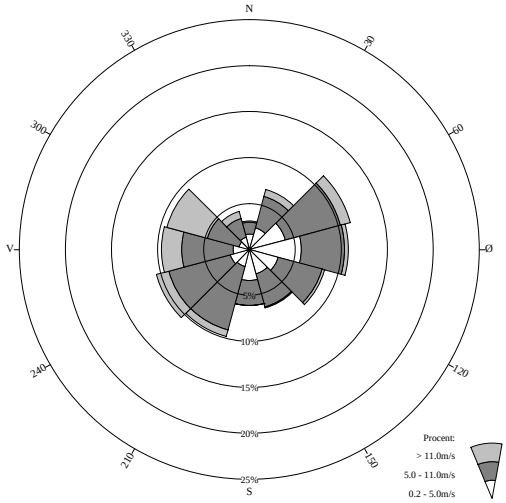

## FEBRUAR



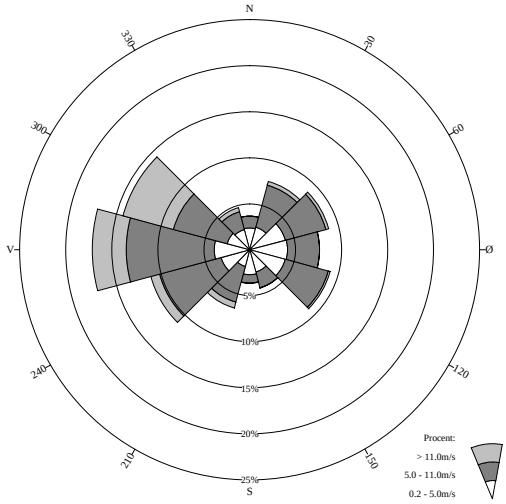

## MARTS



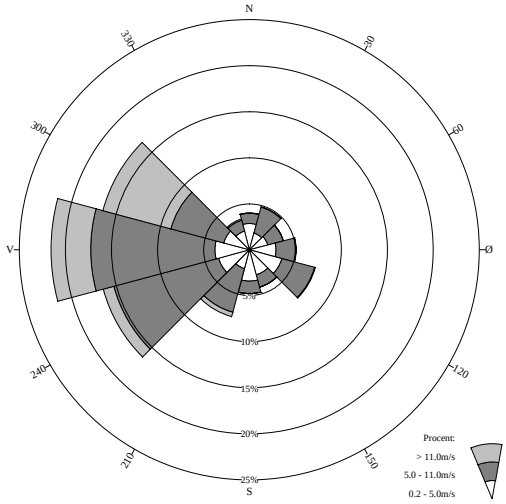

## APRIL



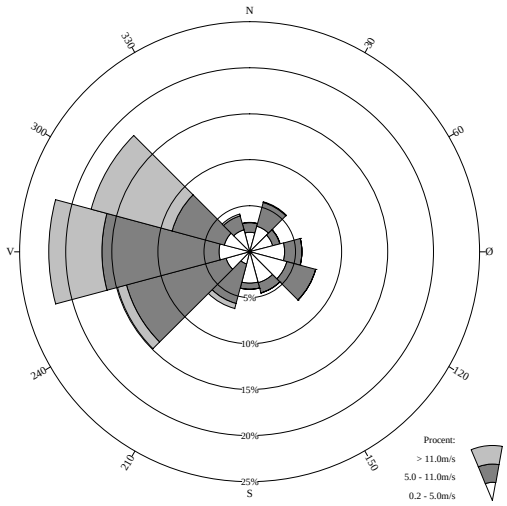

## MAJ



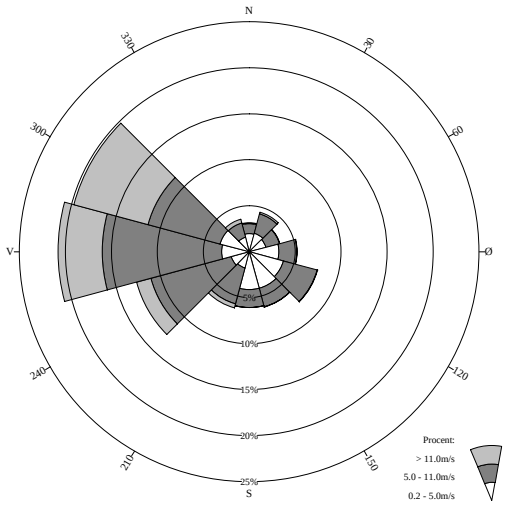

## JUNI



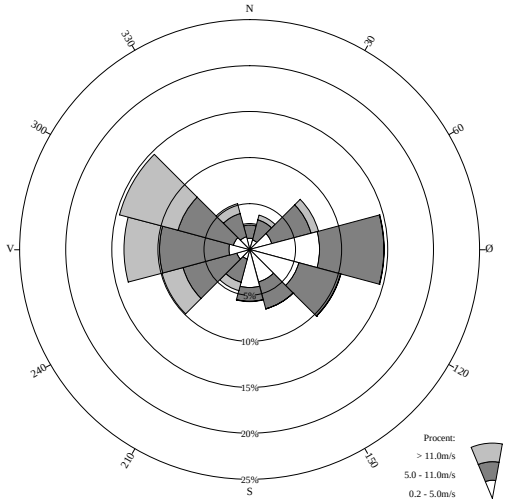
## JULI



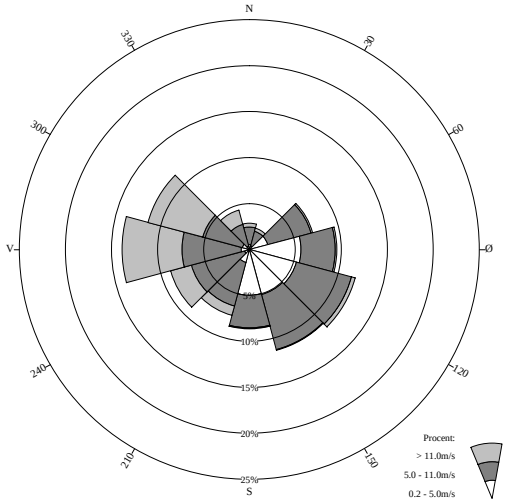

## AUGUST



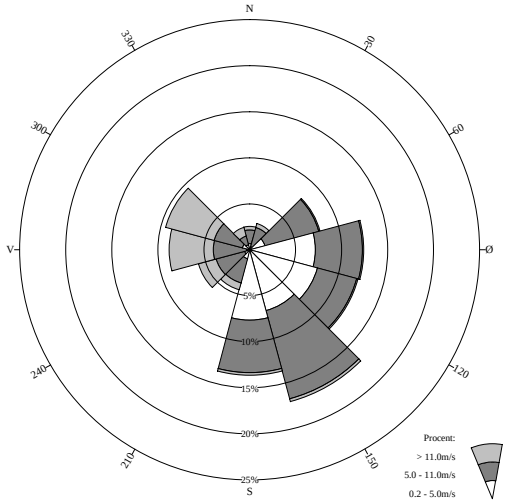

## SEPTEMBER



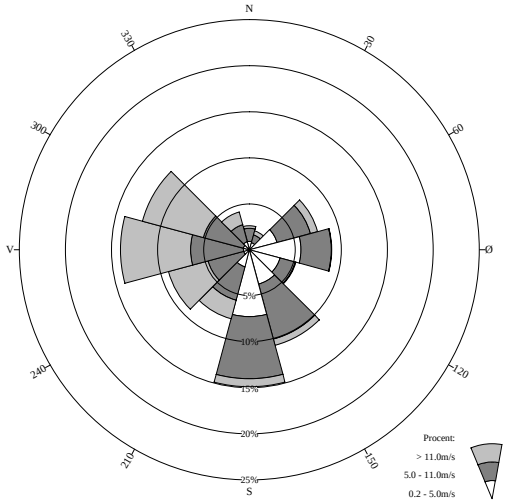

## OKTOBER




## NOVEMBER

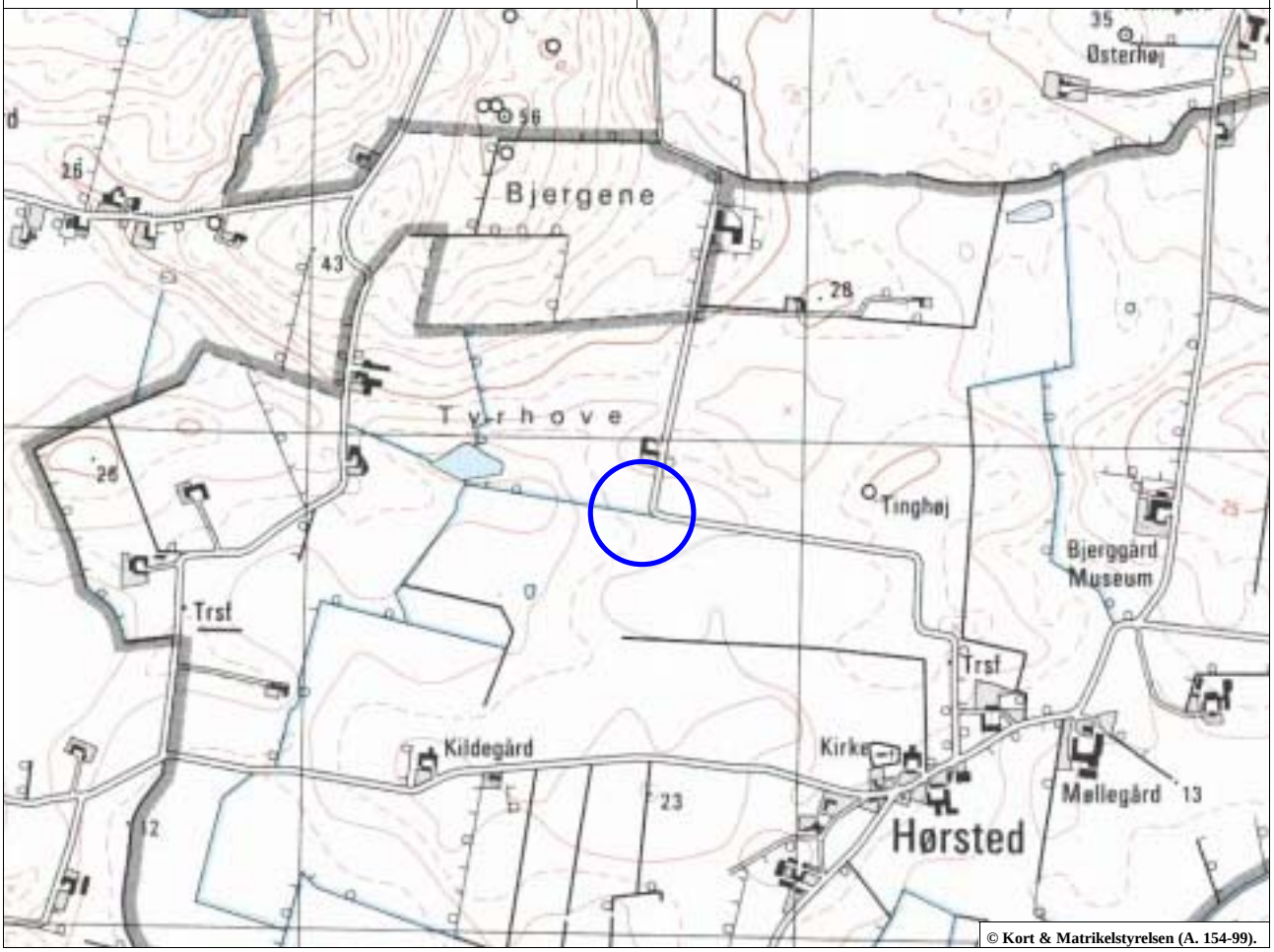



## DECEMBER



# 21108 Hørsted

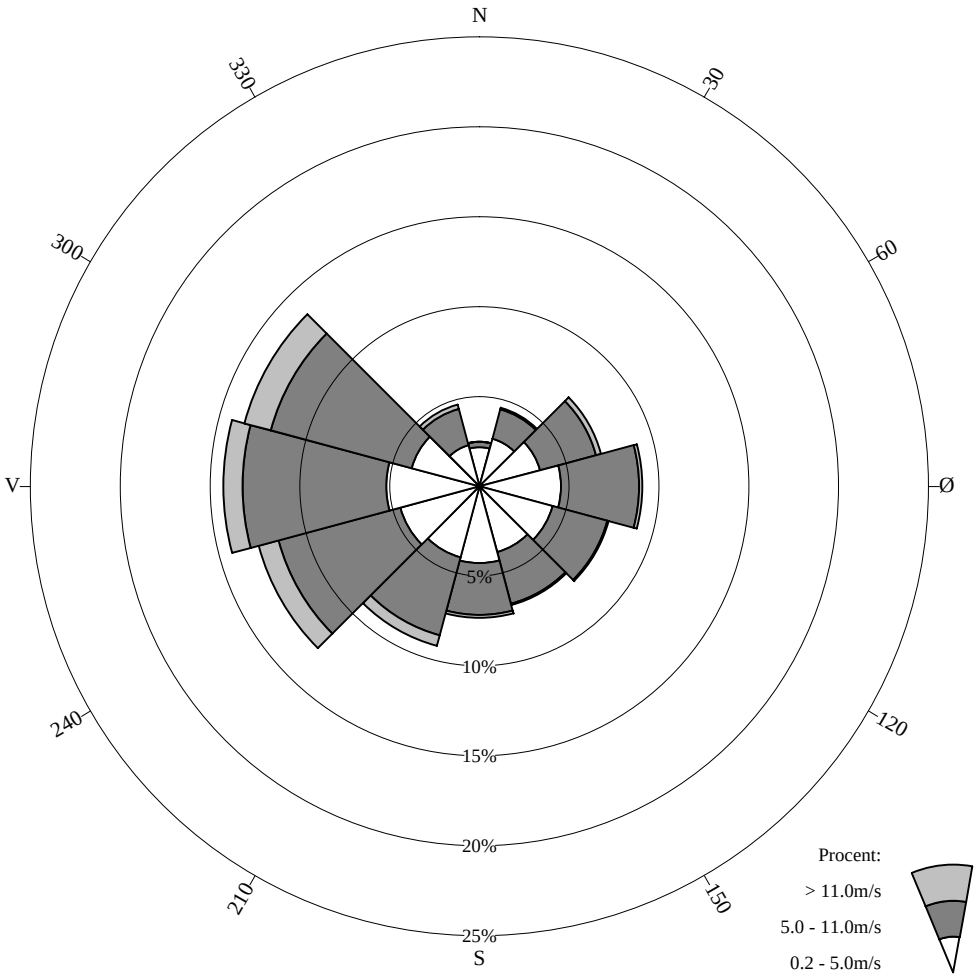
| | |
|---|---|
| **Position:** 56° 53’ N, 08° 29’ E<br>**UTM-koordinater:** 32V 6303.860N 468.680E<br>**Stationsbasis** (m.o.h.)**:** 18<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:**<br>Stationen er nedlagt i 1999. | **Position:** lat 56° 53’ N, long 08° 29’ E<br>**UTM-positions:** 32V 6303.860N 468.680E<br>**Elevation** (m.a.s.l.)**:** 18<br>**Level of measurement:** 10 m<br><br>**Comments:**<br>The station was closed down in 1999. |



# Station 21108
# HØRSTED

01-01-89 - 31-12-98

Hele perioden



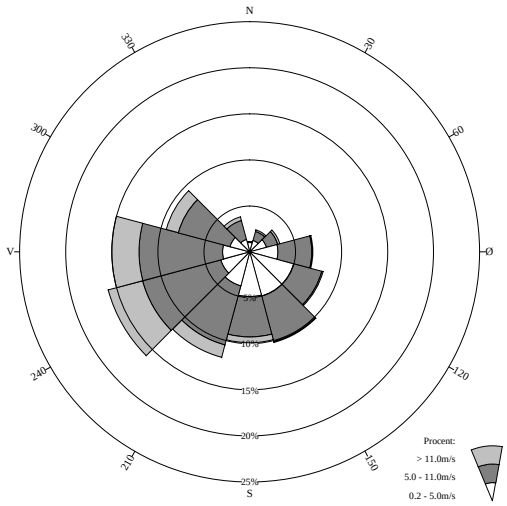

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 2.5 | 4.5 | 7.0 | 9.1 | 7.5 | 6.8 | 7.3 | 9.2 | 12.7 | 14.3 | 13.5 | 4.7 | 99.2 |
| % 0.2-5.0m/s | 2.2 | 2.7 | 3.5 | 4.5 | 4.2 | 3.8 | 4.3 | 4.1 | 4.6 | 5.2 | 3.9 | 2.4 | 45.4 |
| % 5.0-11.0m/s | 0.3 | 1.7 | 3.2 | 4.3 | 3.2 | 3.0 | 2.9 | 4.5 | 7.0 | 8.0 | 8.1 | 2.1 | 48.3 |
| % > 11.0m/s | 0.0 | 0.1 | 0.3 | 0.2 | 0.1 | 0.1 | 0.2 | 0.6 | 1.1 | 1.1 | 1.5 | 0.2 | 5.5 |
| Middel hastighed | 3.1 | 4.7 | 5.4 | 5.2 | 4.8 | 4.8 | 4.8 | 5.8 | 6.3 | 6.2 | 7.0 | 5.5 | 5.7 |
| Største hastighed | 10.0 | 18.0 | 18.0 | 15.2 | 14.1 | 15.0 | 17.2 | 18.6 | 19.4 | 20.7 | 23.3 | 20.0 | 23.3 |

Totalt antal observationer = 86467 Kilde: DMI

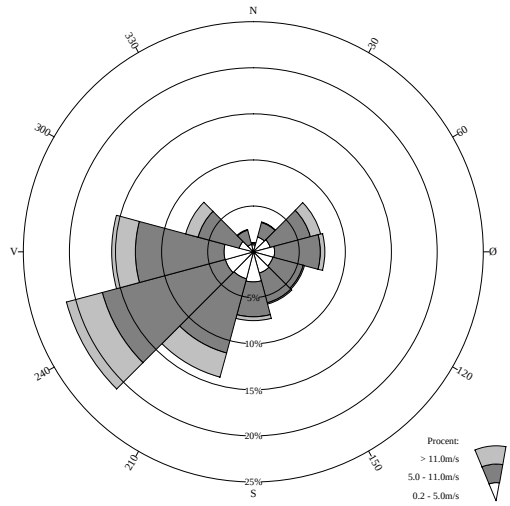
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 721 = 0.8%

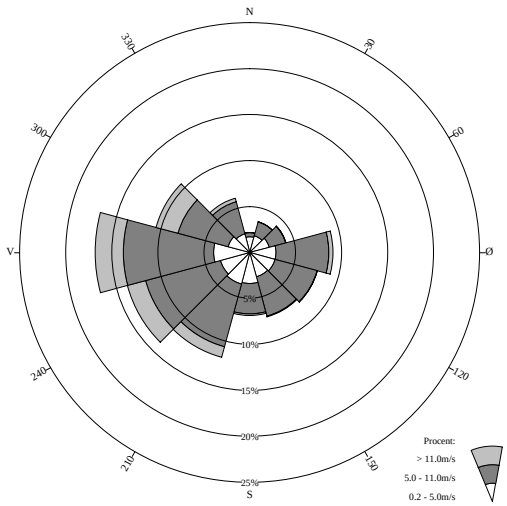
## JANUAR



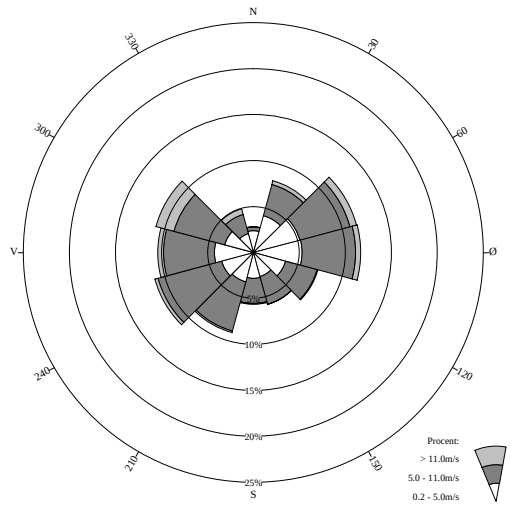

## FEBRUAR



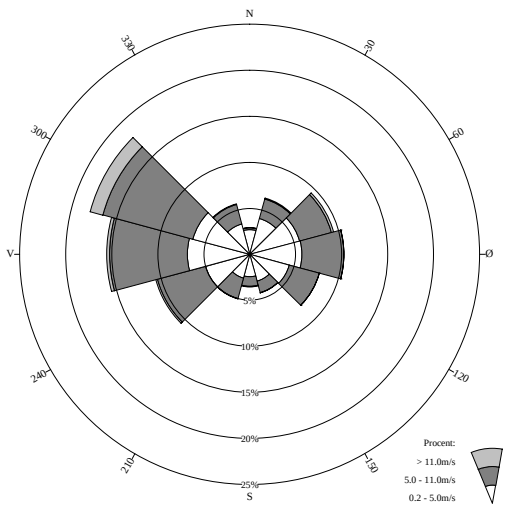

## MARTS



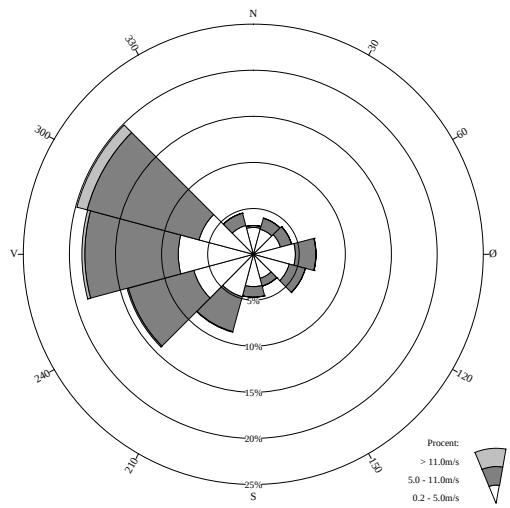

## APRIL



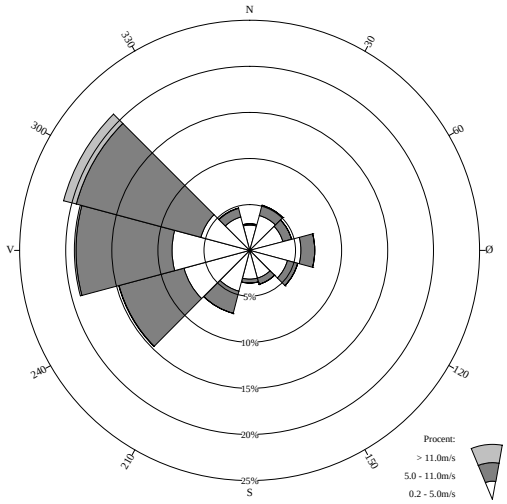

## MAJ



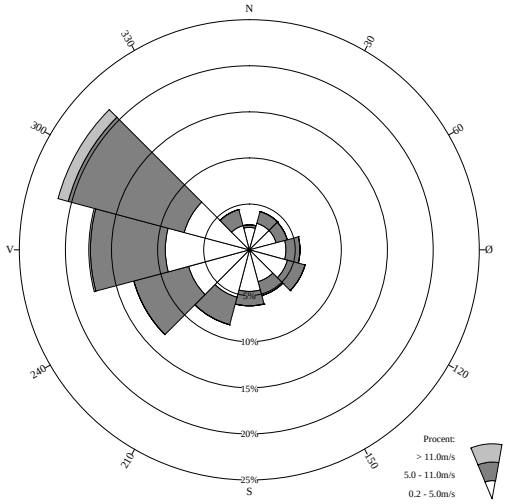

## JUNI



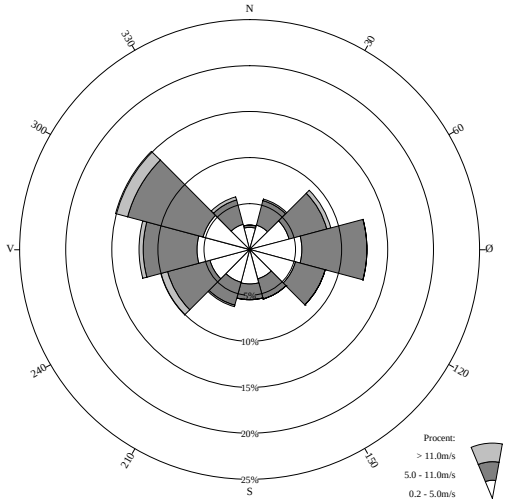
## JULI



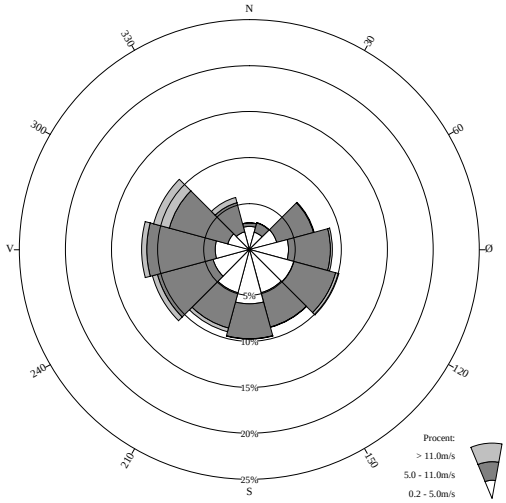

## AUGUST



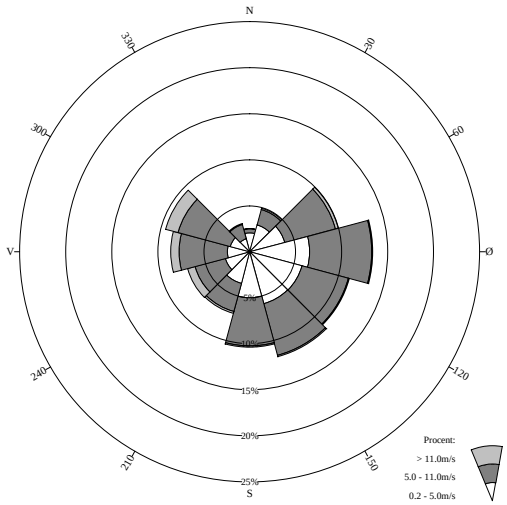

## SEPTEMBER



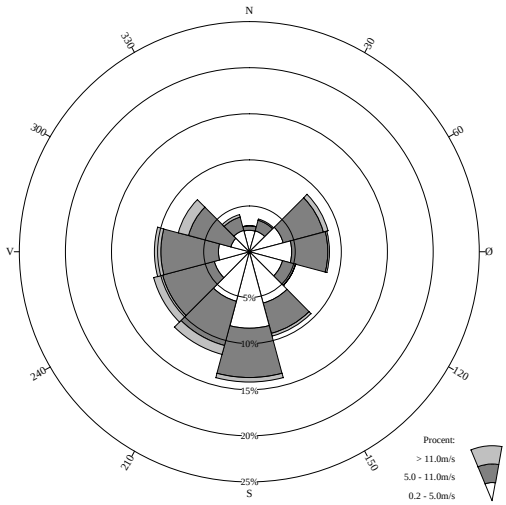

## OKTOBER




## NOVEMBER

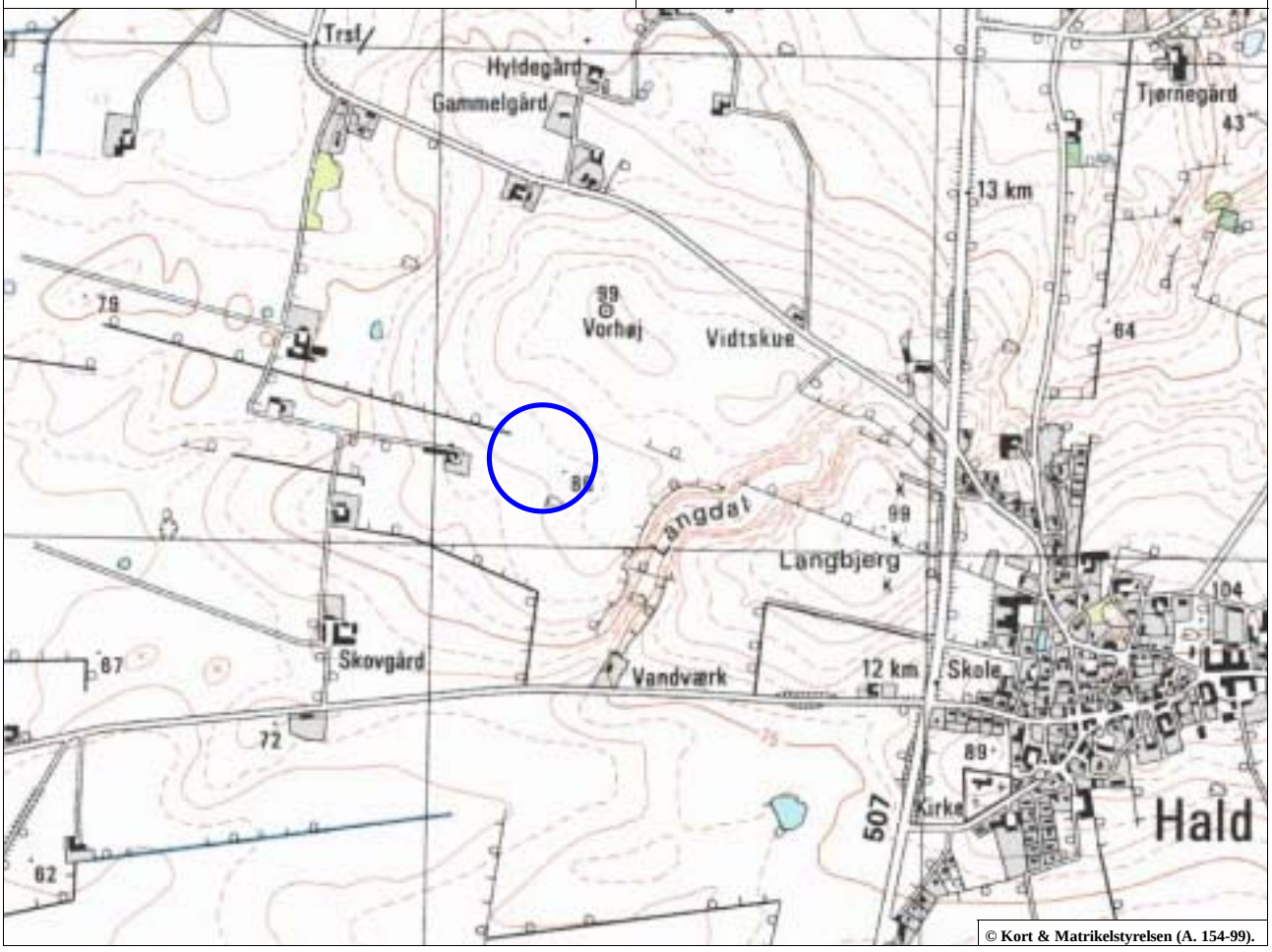



## DECEMBER



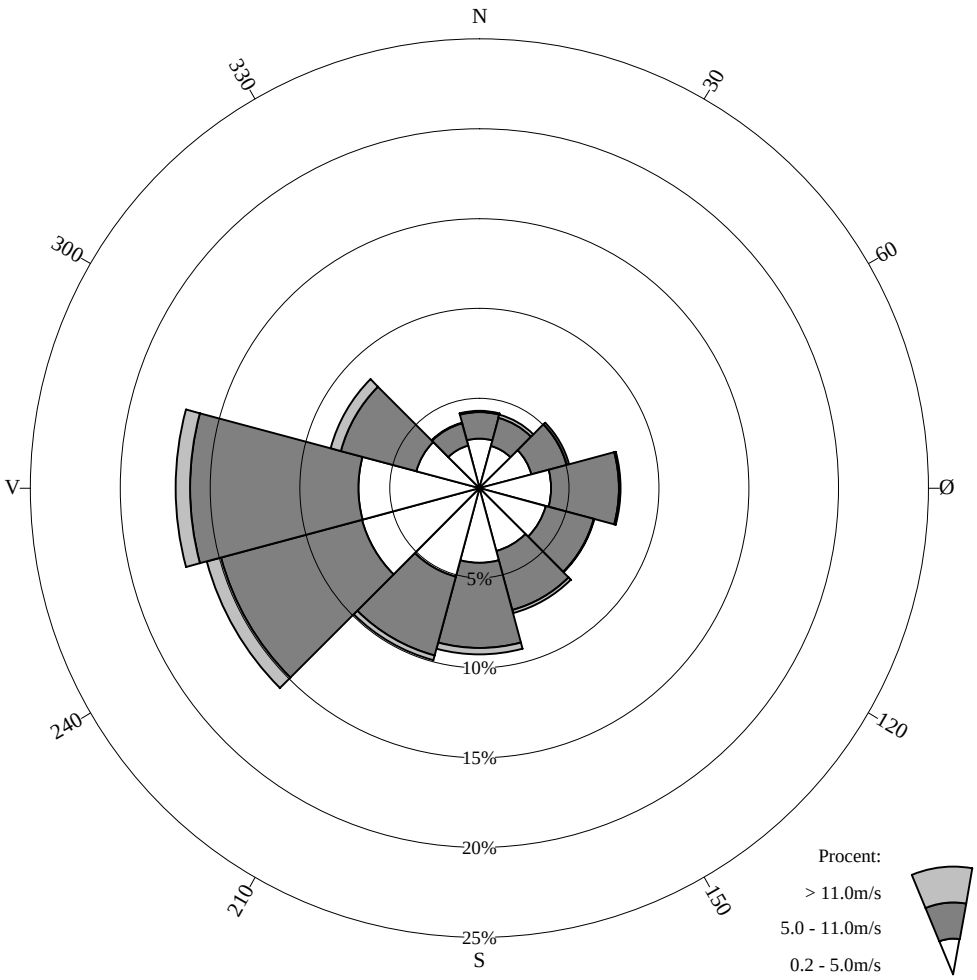
# 22022 Hald V

| | |
|---|---|
| **Position:** 56° 34’ N, 10° 06’ E<br>**UTM-koordinater:** 32V 6269.190N 567.230E<br>**Stationsbasis** (m.o.h.)**:** 86<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 56° 34’ N, long 10° 06’ E<br>**UTM-positions:** 32V 6269.190N 567.230E<br>**Elevation** (m.a.s.l.)**:** 86<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 22022
# HALD V

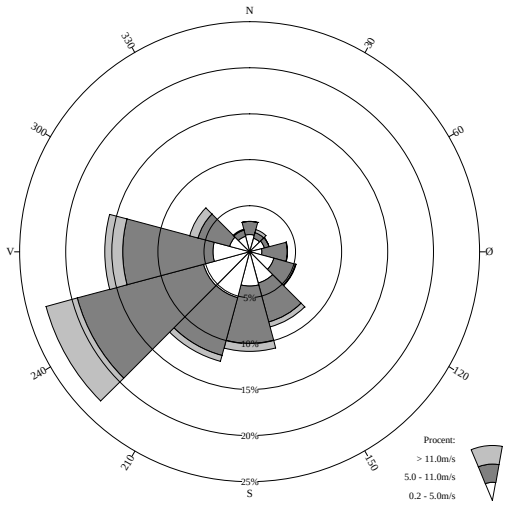
01-01-89 - 31-12-98



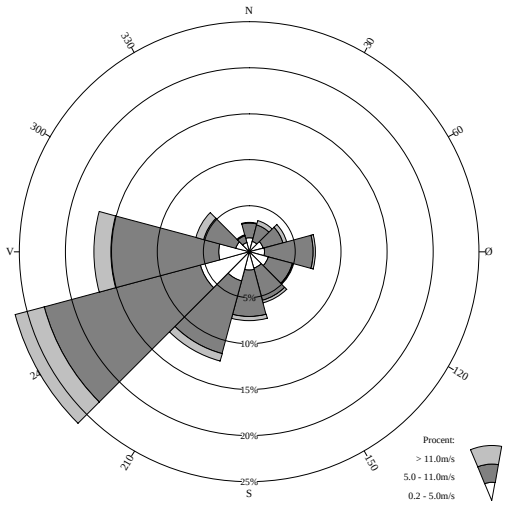

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.3 | 4.2 | 5.2 | 7.9 | 6.6 | 7.2 | 9.3 | 9.9 | 15.7 | 16.9 | 8.6 | 3.8 | 99.6 |
| % 0.2-5.0m/s | 2.8 | 2.4 | 3.0 | 4.0 | 3.8 | 3.6 | 4.2 | 5.1 | 6.8 | 6.8 | 3.6 | 2.5 | 48.6 |
| % 5.0-11.0m/s | 1.5 | 1.6 | 2.0 | 3.8 | 2.8 | 3.4 | 4.7 | 4.5 | 8.1 | 9.4 | 4.4 | 1.3 | 47.5 |
| % > 11.0m/s | 0.1 | 0.2 | 0.1 | 0.1 | 0.0 | 0.2 | 0.3 | 0.3 | 0.8 | 0.8 | 0.6 | 0.0 | 3.5 |
| Middel hastighed | 4.6 | 5.0 | 4.9 | 5.2 | 4.9 | 5.3 | 5.6 | 5.2 | 5.8 | 5.9 | 6.0 | 4.5 | 5.4 |
| Største hastighed | 16.6 | 17.7 | 17.5 | 14.0 | 12.5 | 15.5 | 17.1 | 20.4 | 21.4 | 20.9 | 18.3 | 18.7 | 21.4 |

Totalt antal observationer = 87023 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 373 = 0.4%

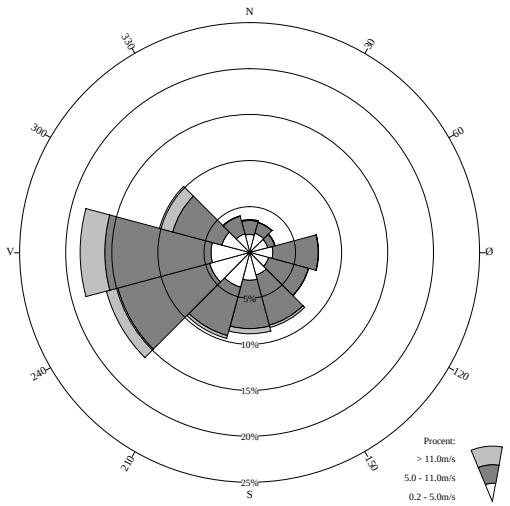
## JANUAR



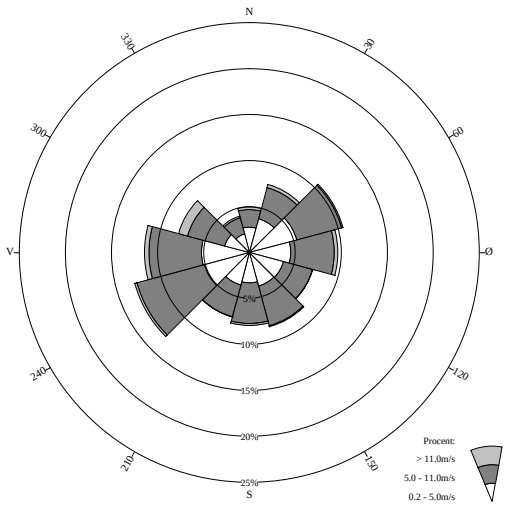

## FEBRUAR



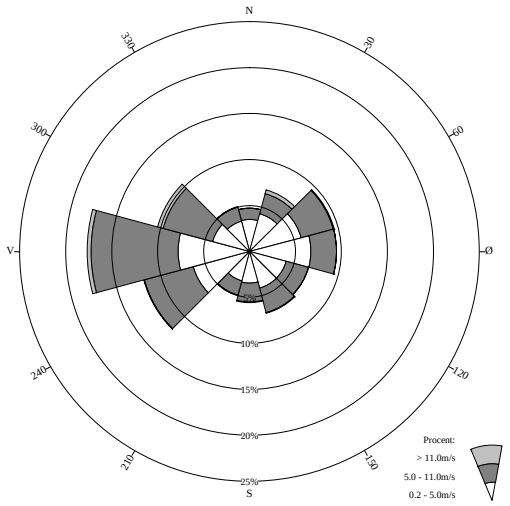

## MARTS



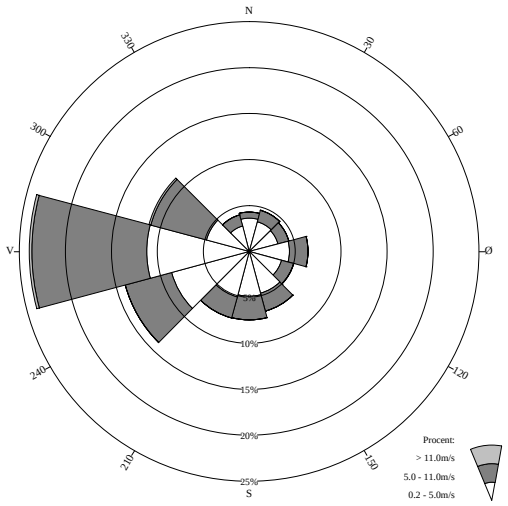

## APRIL



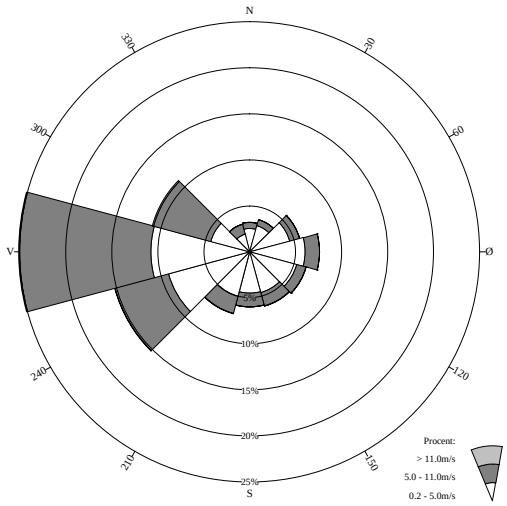

## MAJ



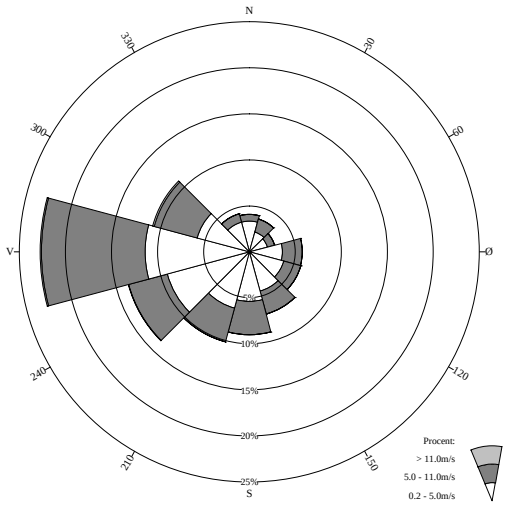

## JUNI



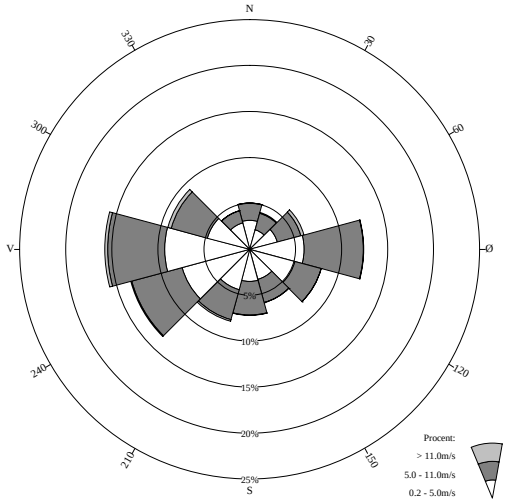
## JULI



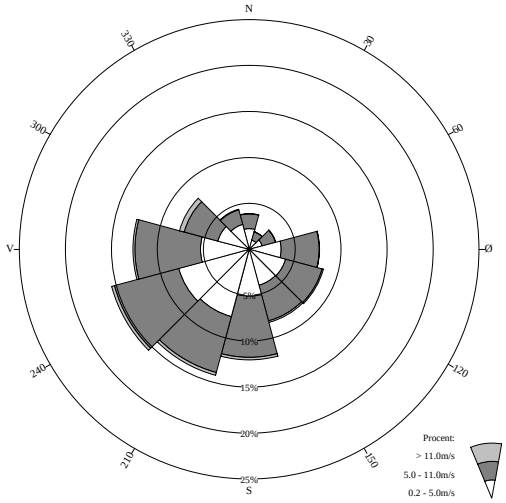

## AUGUST



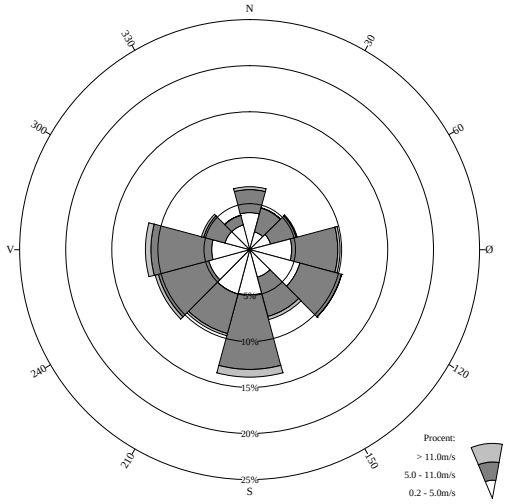

## SEPTEMBER



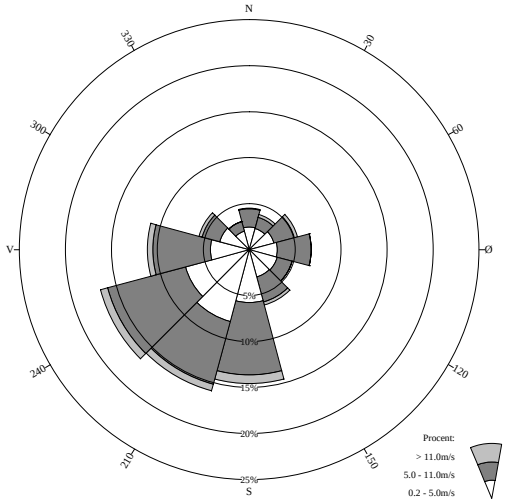

## OKTOBER




## NOVEMBER

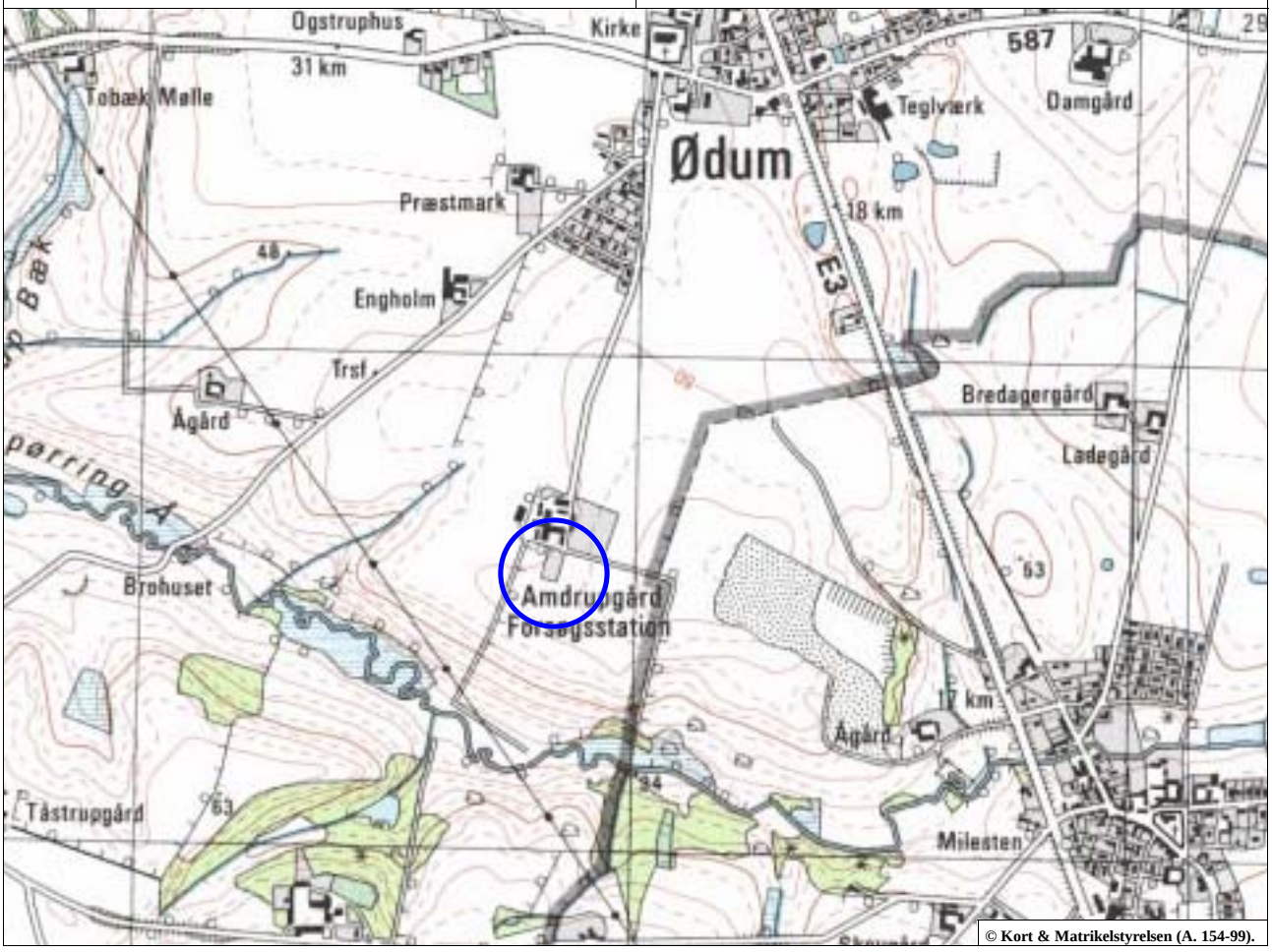



## DECEMBER



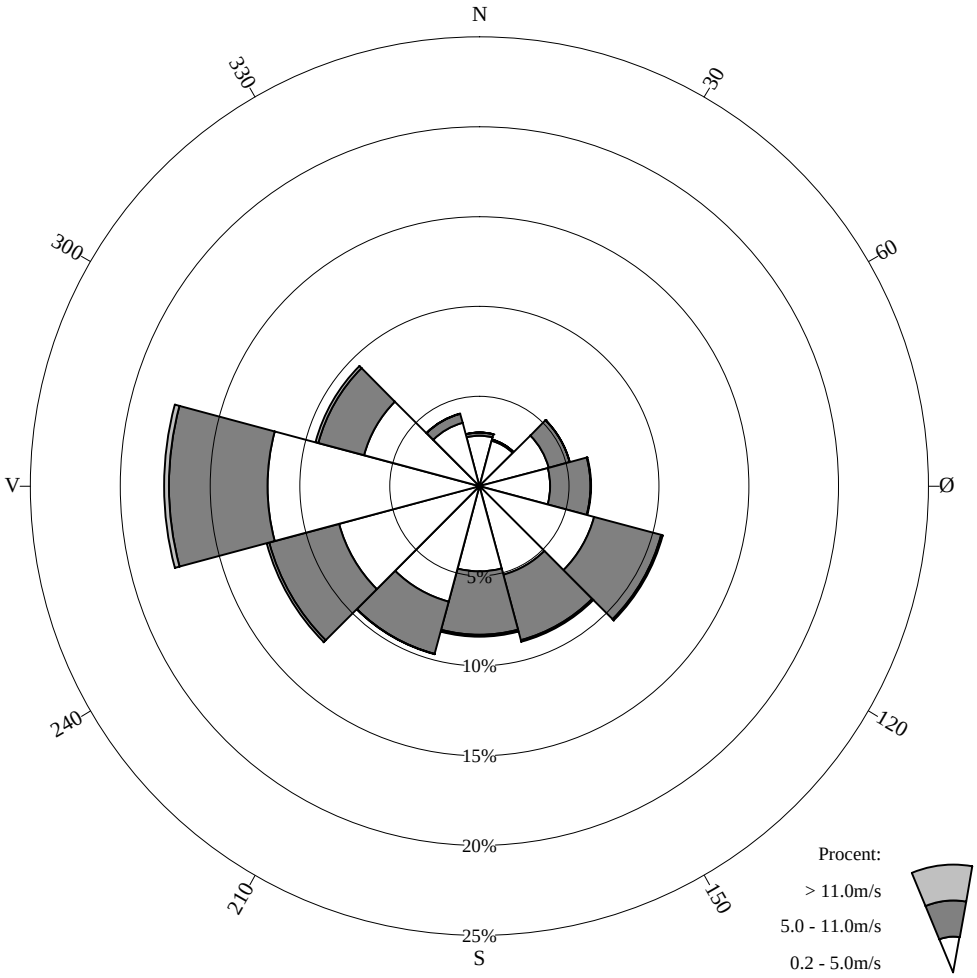
# 22231 Ødum

| | |
|---|---|
| **Position:** 56° 18’ N, 10° 08’ E<br>**UTM-koordinater:** 32V 6240.560N 569.835E<br>**Stationsbasis** (m.o.h.)**:** 61<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 56° 18’ N, long 10° 08’ E<br>**UTM-positions:** 32V 6240.560N 569.835E<br>**Elevation** (m.a.s.l.)**:** 61<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 22231
# ØDUM II

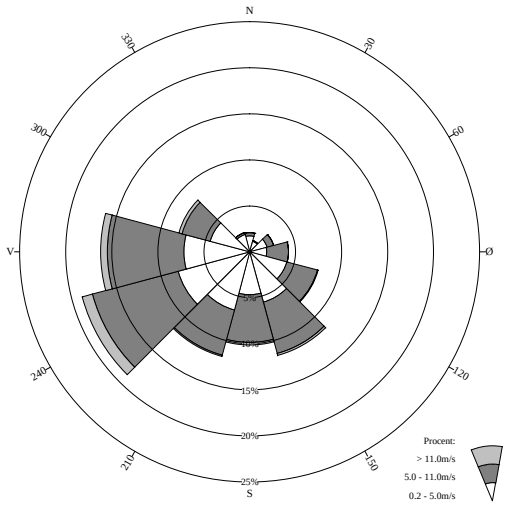
01-01-89 - 31-12-98



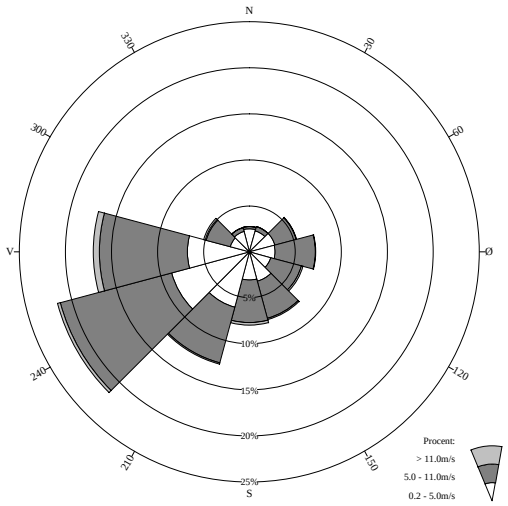

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.0 | 2.7 | 5.2 | 6.2 | 10.6 | 9.0 | 8.4 | 9.7 | 12.3 | 17.5 | 9.5 | 4.2 | 98.2 |
| % 0.2-5.0m/s | 2.8 | 2.6 | 4.0 | 4.0 | 6.6 | 5.1 | 4.7 | 6.6 | 8.1 | 11.8 | 6.7 | 3.6 | 66.7 |
| % 5.0-11.0m/s | 0.2 | 0.1 | 1.2 | 2.2 | 3.9 | 3.8 | 3.5 | 3.0 | 4.0 | 5.5 | 2.6 | 0.5 | 30.5 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.2 | 0.3 | 0.2 | 0.0 | 0.9 |
| Middel hastighed | 2.4 | 2.1 | 3.6 | 4.3 | 4.5 | 4.8 | 4.8 | 4.2 | 4.3 | 4.2 | 4.0 | 2.9 | 4.2 |
| Største hastighed | 9.8 | 7.3 | 12.8 | 13.4 | 13.3 | 13.9 | 14.5 | 14.0 | 17.3 | 17.2 | 17.4 | 11.8 | 17.4 |

Totalt antal observationer = 86367 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 1585 = 1.8%

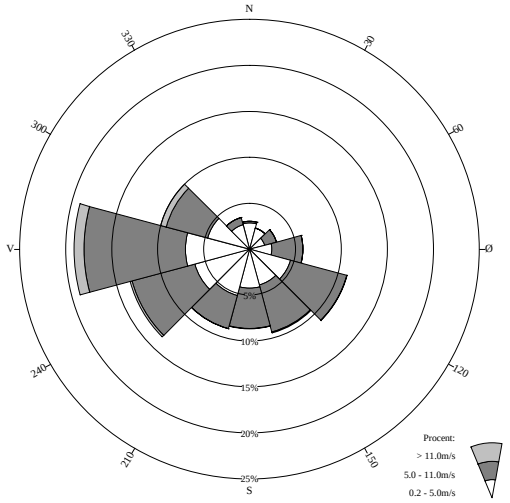
## JANUAR



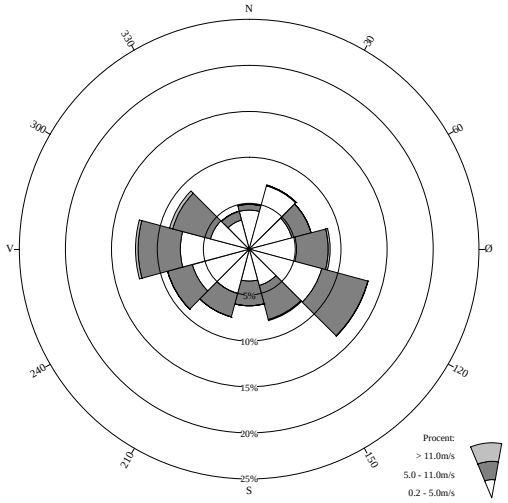

## FEBRUAR



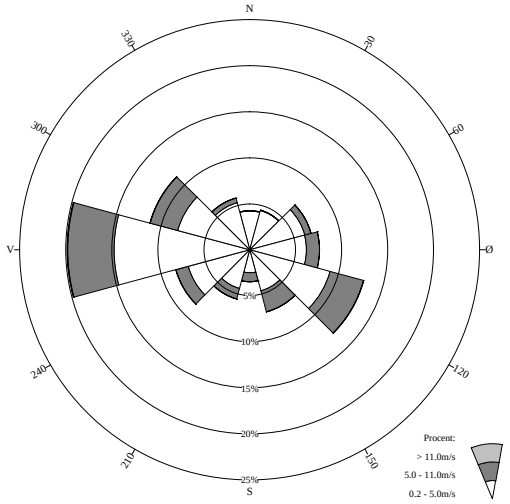

## MARTS



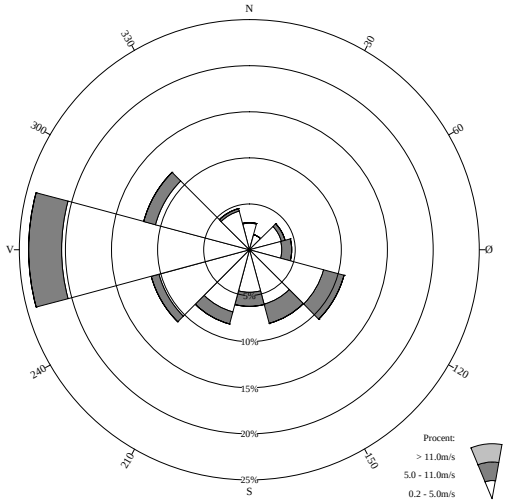

## APRIL



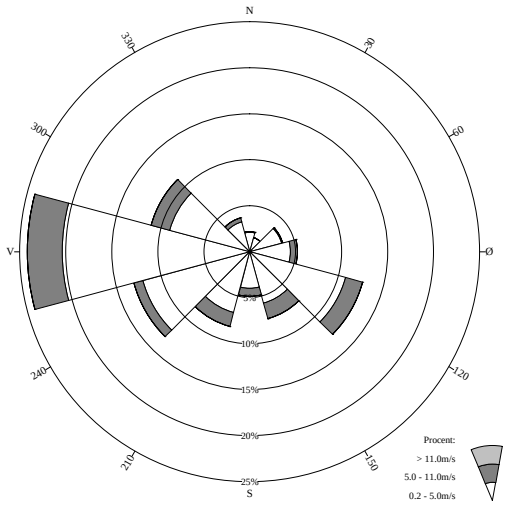

## MAJ



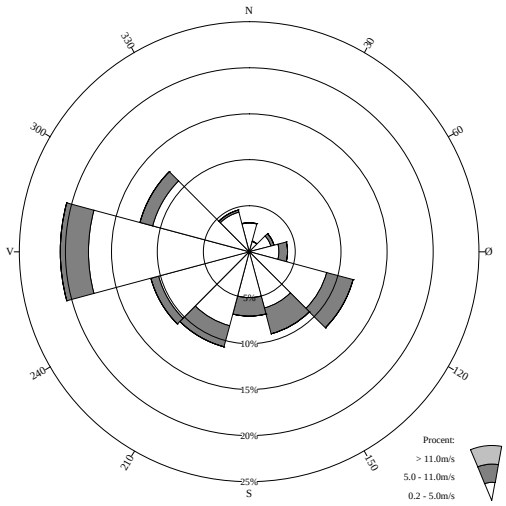

## JUNI



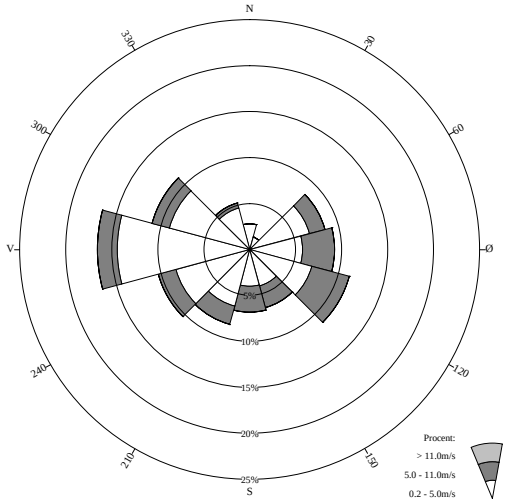
## JULI



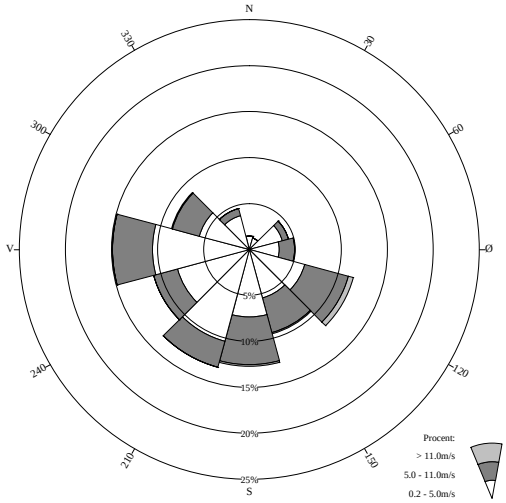

## AUGUST



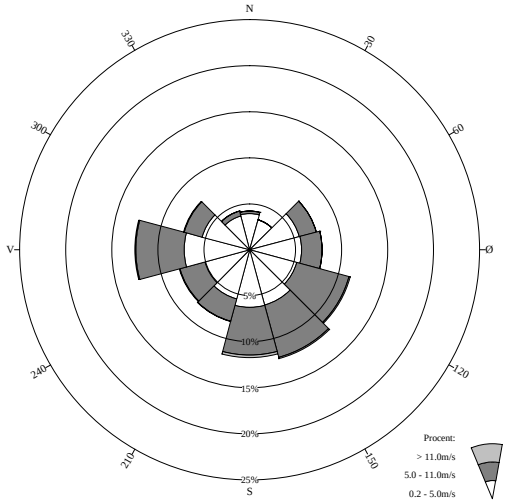

## SEPTEMBER



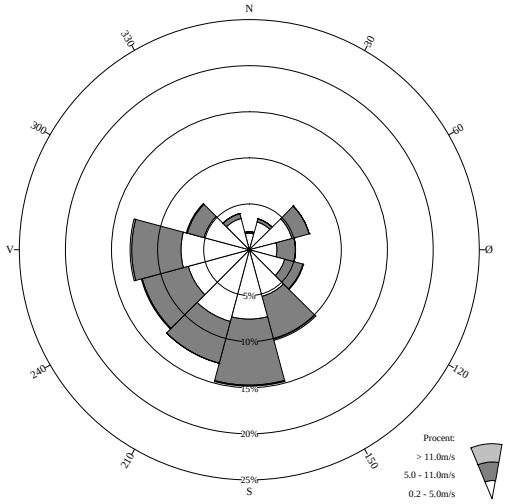

## OKTOBER




## NOVEMBER

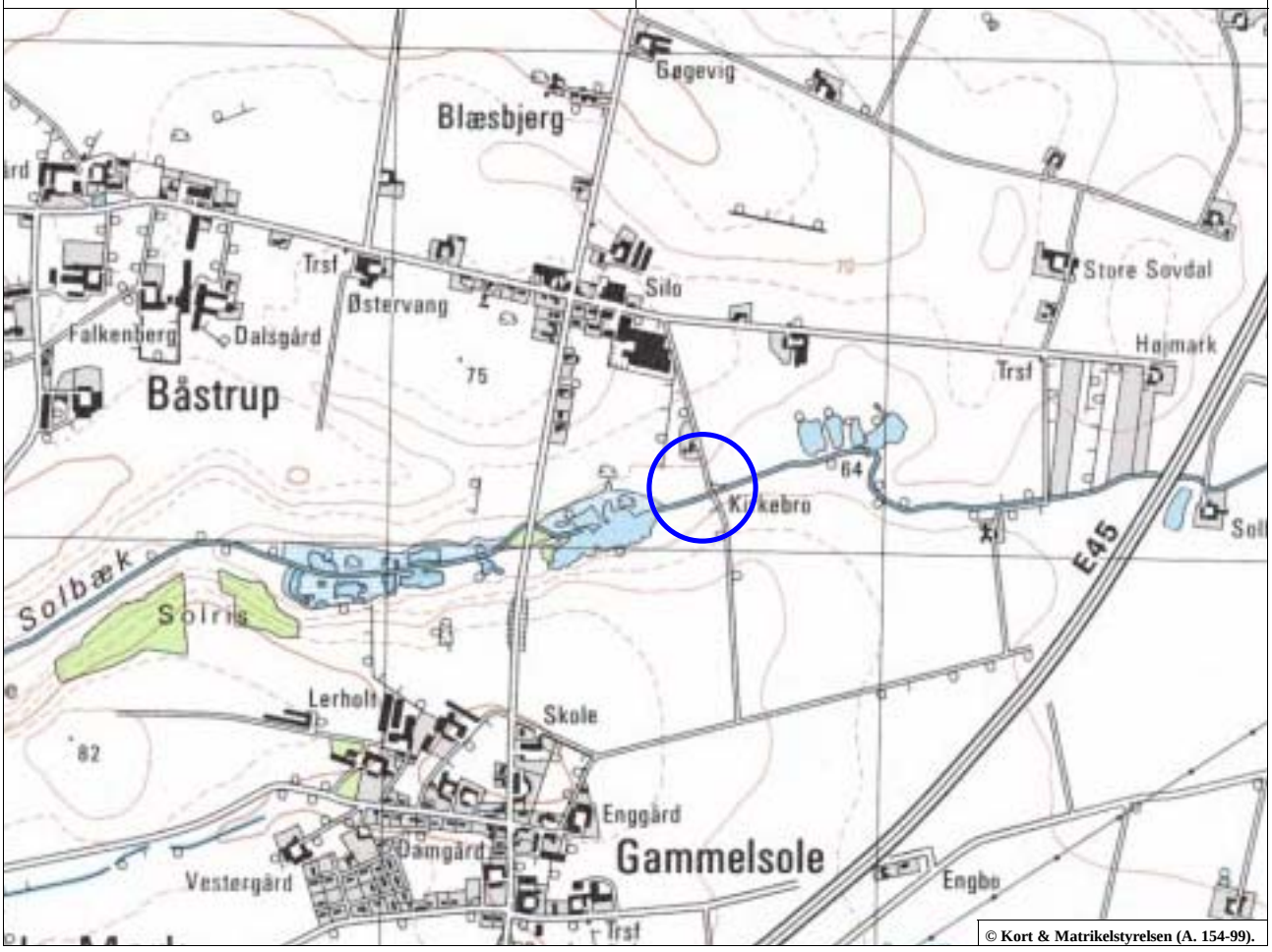



## DECEMBER



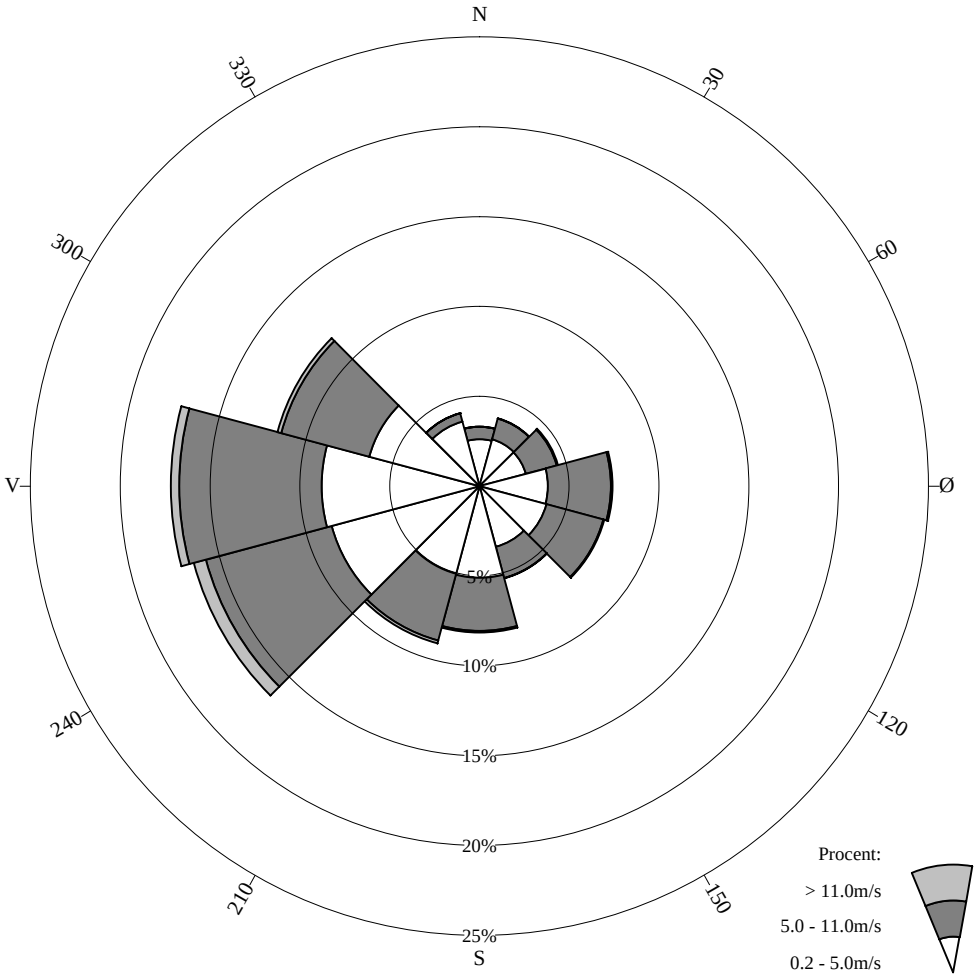
# 23155 Båstrup

| | |
|---|---|
| **Position:** 55° 47’ N, 09° 39’ E<br>**UTM-koordinater:** 32U 6182.140N 540.630E<br>**Stationsbasis** (m.o.h.)**:** 64<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 47’ N, long 09° 39’ E<br>**UTM-positions:** 32U 6182.140N 540.630E<br>**Elevation** (m.a.s.l.)**:** 64<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 23155
# BÅSTRUP

01-01-89 - 31-12-98



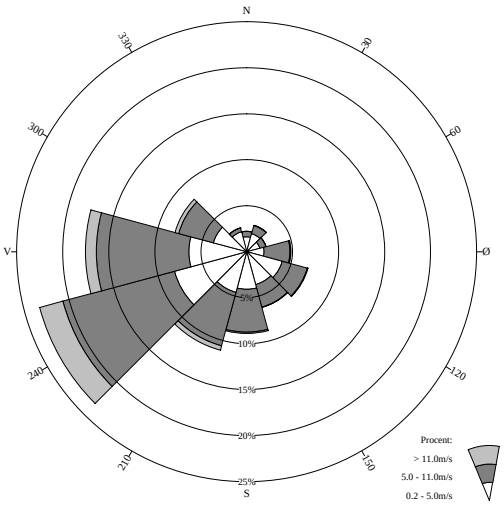

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.3 | 3.9 | 4.5 | 7.4 | 7.2 | 5.3 | 8.1 | 9.1 | 16.5 | 17.2 | 11.6 | 4.2 | 98.4 |
| % 0.2-5.0m/s | 2.6 | 2.7 | 2.7 | 3.8 | 3.9 | 3.5 | 5.1 | 5.1 | 8.5 | 8.8 | 6.4 | 3.7 | 56.8 |
| % 5.0-11.0m/s | 0.7 | 1.2 | 1.8 | 3.5 | 3.3 | 1.8 | 3.0 | 3.8 | 7.3 | 7.9 | 5.1 | 0.5 | 39.8 |
| % > 11.0m/s | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | 0.7 | 0.5 | 0.2 | 0.0 | 1.8 |
| Middel hastighed | 3.5 | 4.0 | 4.6 | 5.0 | 4.9 | 4.3 | 4.6 | 4.9 | 5.3 | 5.1 | 4.9 | 3.0 | 4.8 |
| Største hastighed | 12.1 | 13.1 | 15.9 | 17.0 | 13.9 | 12.7 | 15.8 | 16.0 | 20.5 | 20.6 | 16.2 | 12.3 | 20.6 |

Totalt antal observationer = 87285 Kilde: DMI

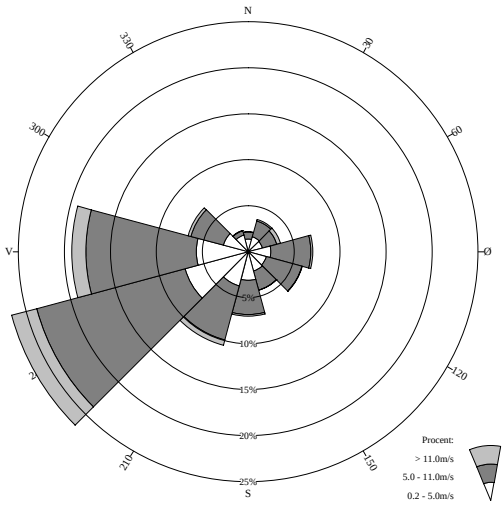
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1404 = 1.6%

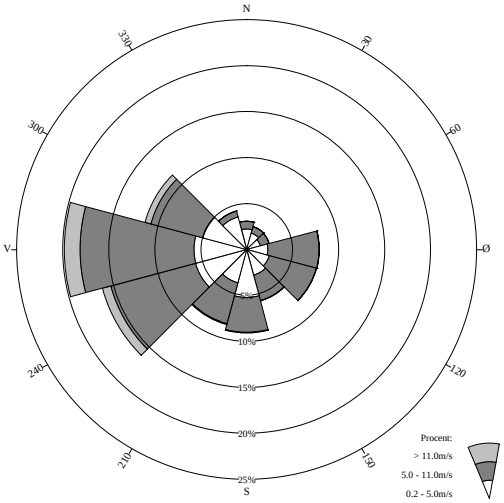
## JANUAR



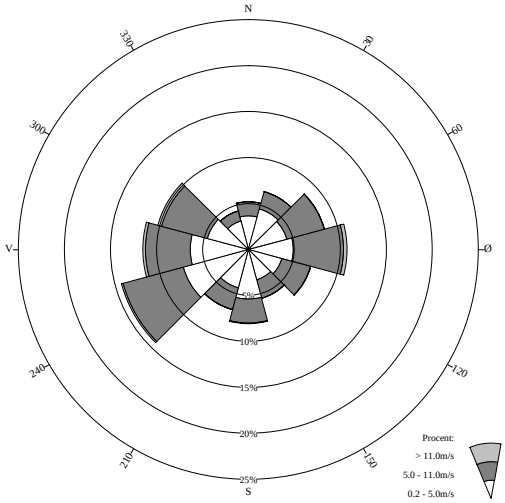

## FEBRUAR



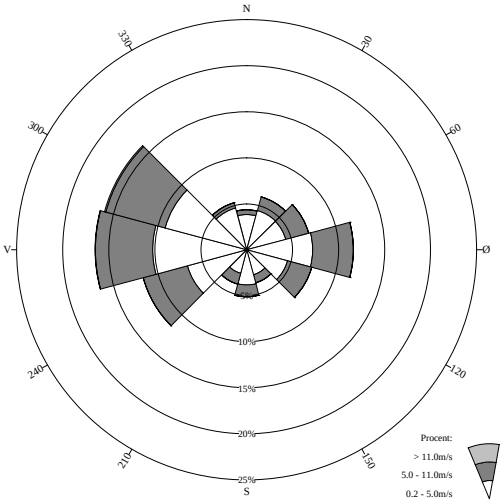

## MARTS



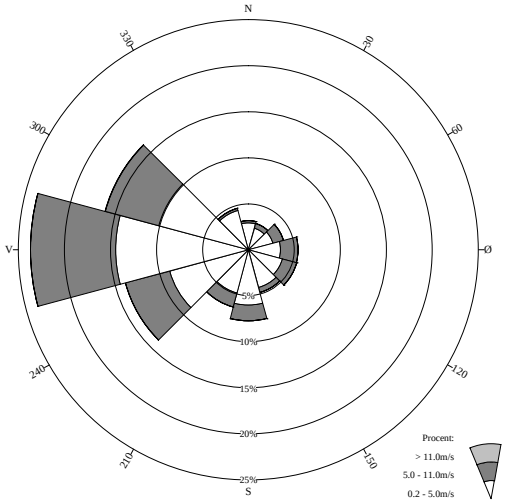

## APRIL



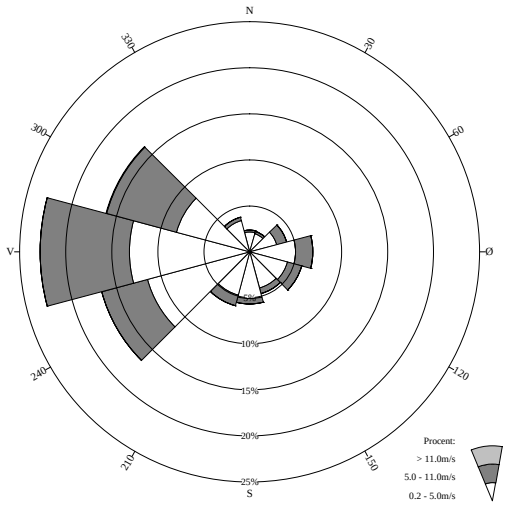

## MAJ



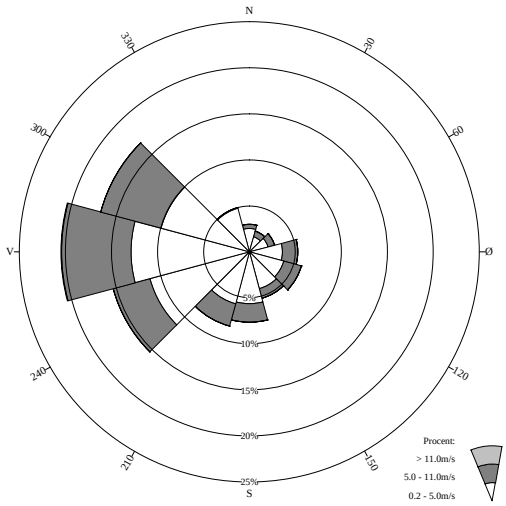

## JUNI



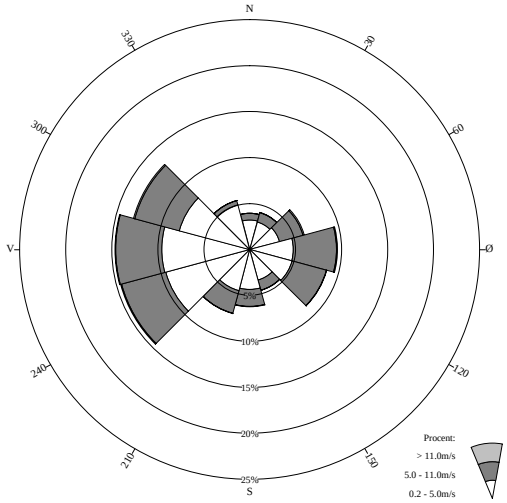
## JULI



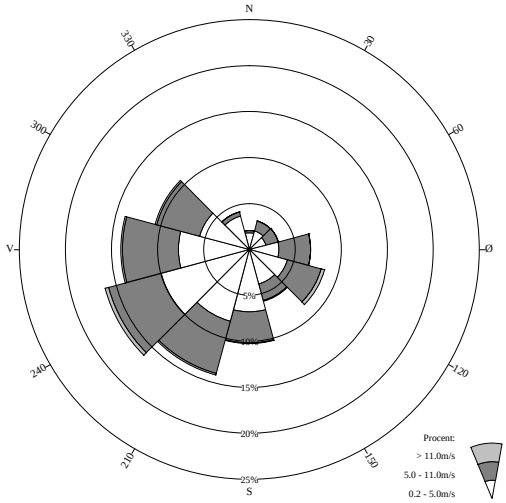

## AUGUST



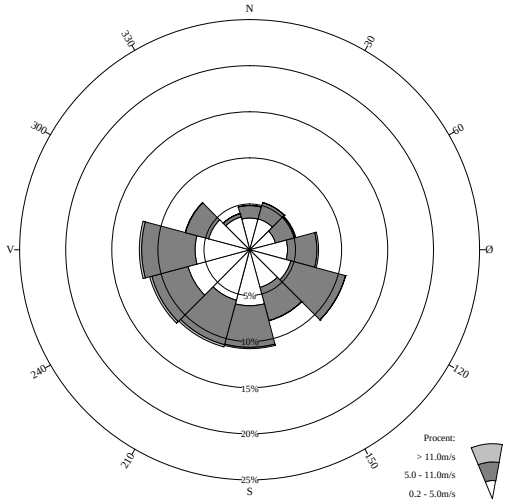

## SEPTEMBER



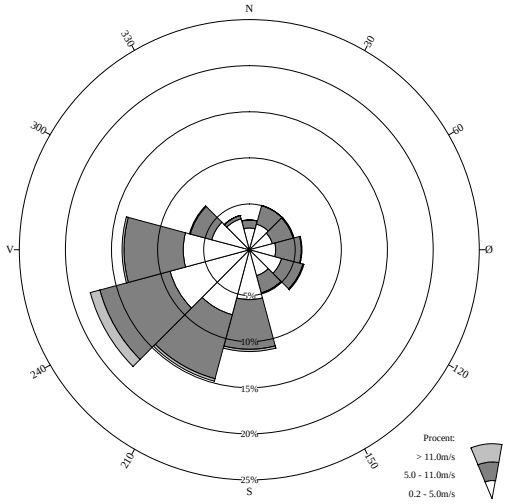

## OKTOBER




## NOVEMBER

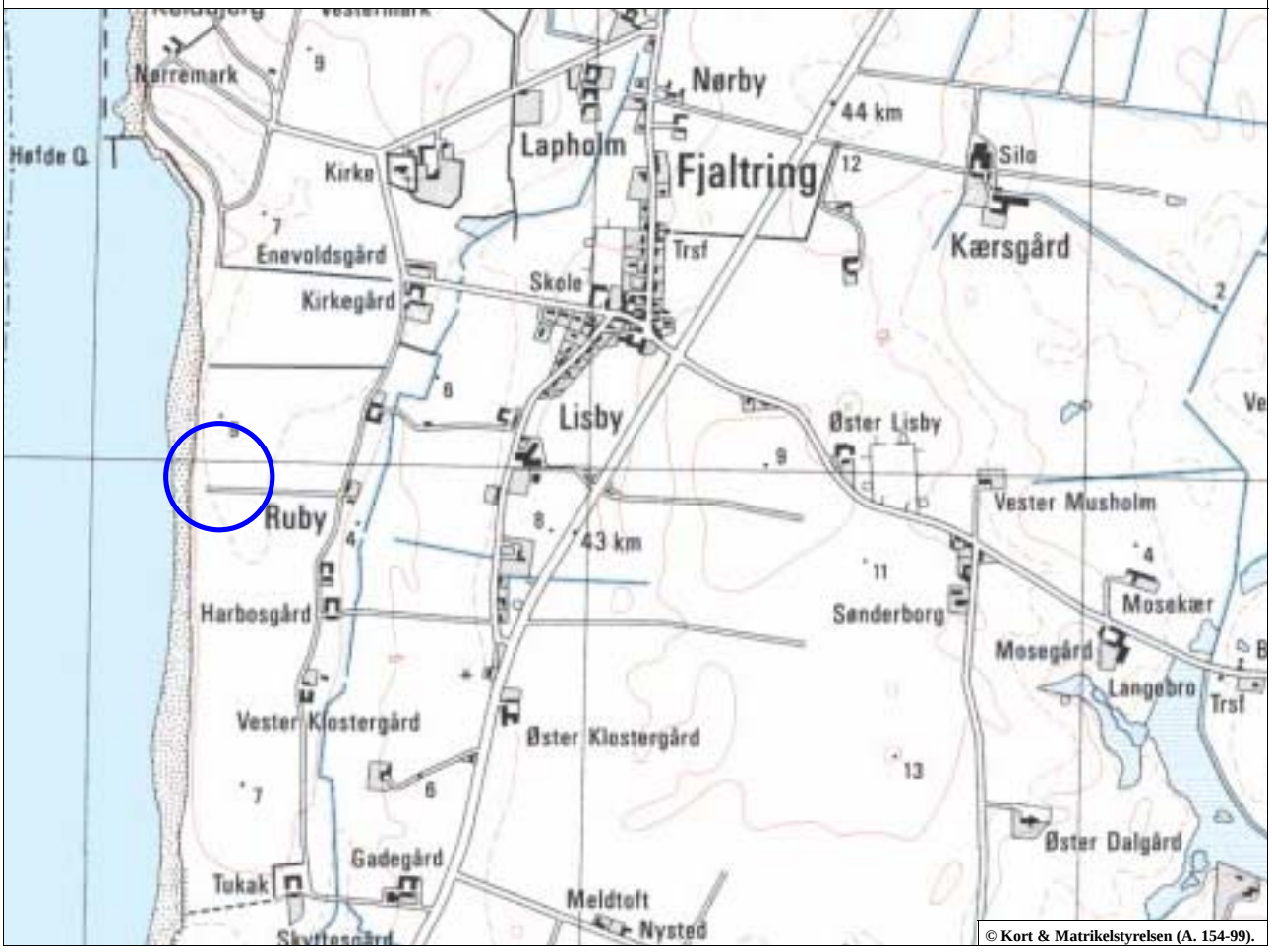



## DECEMBER



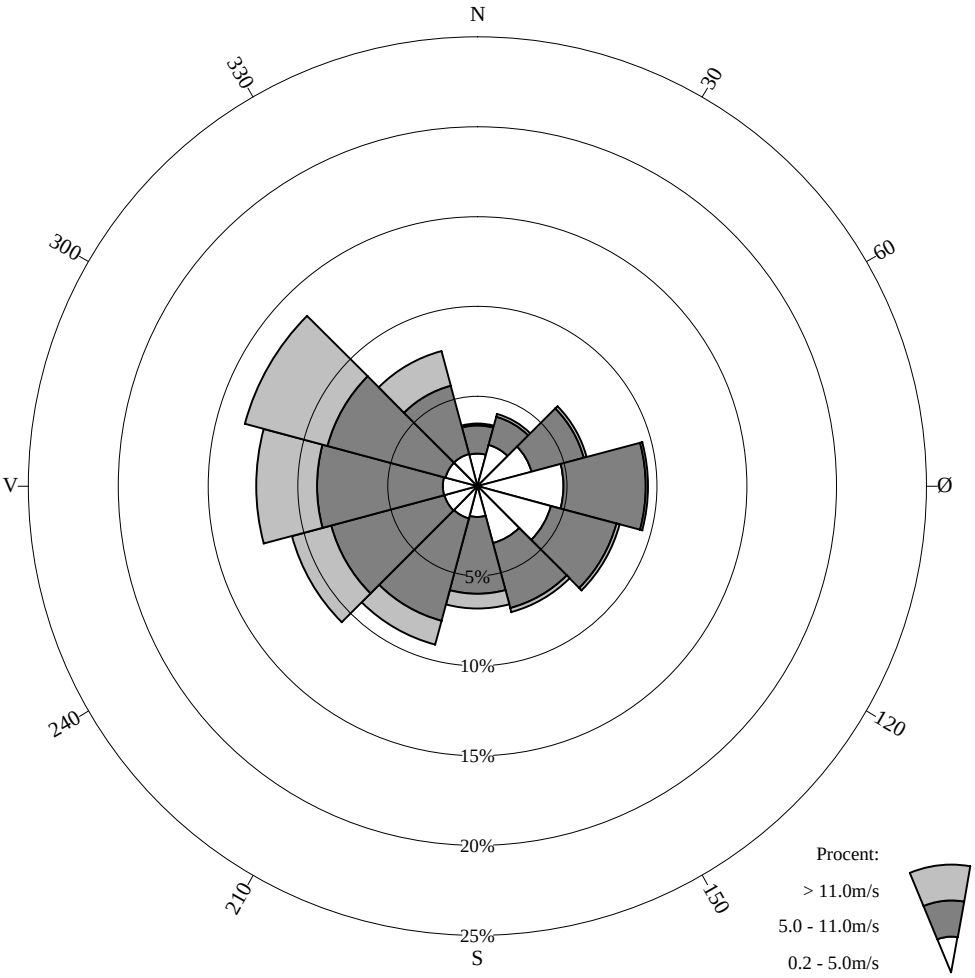
# 24025 Fjaltring

| | |
|---|---|
| **Position:** 56° 28’ N, 08° 08’ E<br>**UTM-koordinater:** 32V 6258.960N 446.250E<br>**Stationsbasis** (m.o.h.)**:** 8<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:**<br>Stationen er nedlagt i 1999. | **Position:** lat 56° 28’ N, long 08° 08’ E<br>**UTM-positions:** 32V 6258.960N 446.250E<br>**Elevation** (m.a.s.l.)**:** 8<br>**Level of measurement:** 10 m<br><br>**Comments:**<br>The station was closed down in 1999. |



# Station 24025
# FJALTRING

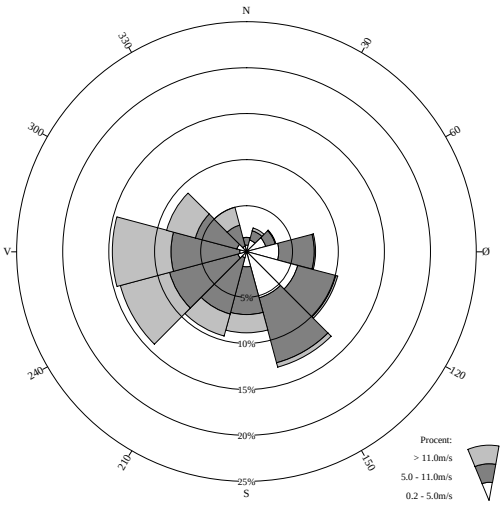
01-01-89 - 31-12-98



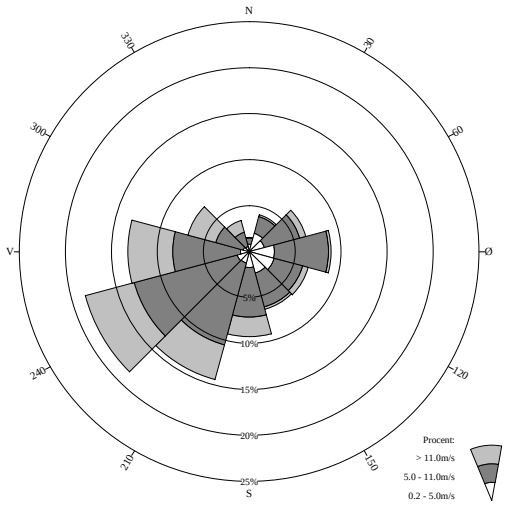

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.5 | 4.2 | 6.3 | 9.5 | 8.2 | 7.3 | 6.8 | 9.1 | 10.7 | 12.3 | 13.4 | 7.8 | 99.0 |
| % 0.2-5.0m/s | 1.8 | 2.4 | 3.1 | 4.8 | 4.2 | 3.3 | 1.7 | 1.9 | 1.9 | 1.9 | 1.8 | 1.9 | 30.8 |
| % 5.0-11.0m/s | 1.6 | 1.6 | 3.0 | 4.6 | 3.8 | 3.7 | 4.3 | 5.9 | 6.5 | 7.0 | 6.8 | 3.9 | 52.7 |
| % > 11.0m/s | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.8 | 1.4 | 2.3 | 3.4 | 4.7 | 2.0 | 15.5 |
| Middel hastighed | 5.3 | 5.1 | 5.4 | 5.3 | 5.3 | 5.5 | 7.2 | 7.7 | 8.3 | 8.9 | 9.4 | 8.3 | 7.2 |
| Største hastighed | 15.9 | 18.5 | 17.0 | 17.4 | 15.0 | 18.1 | 19.8 | 24.0 | 25.3 | 27.2 | 25.9 | 27.9 | 27.9 |

Totalt antal observationer = 87114 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 829 = 1.0%

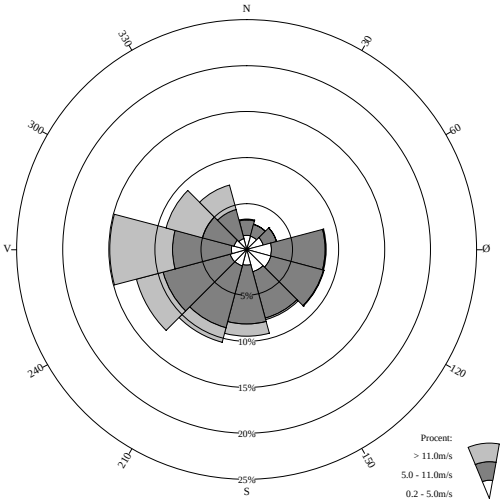
## JANUAR



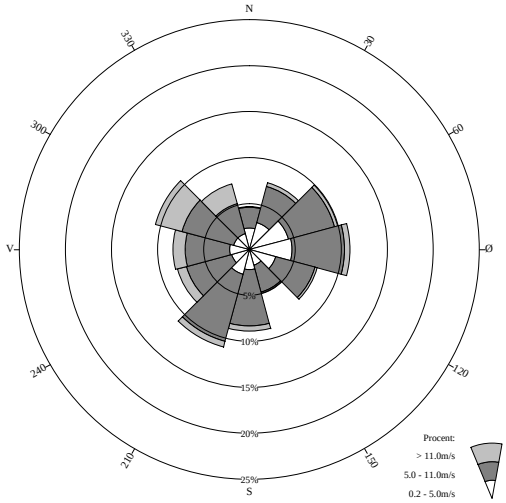

## FEBRUAR



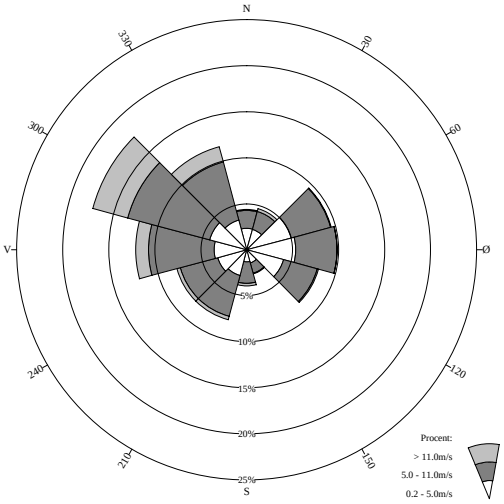

## MARTS



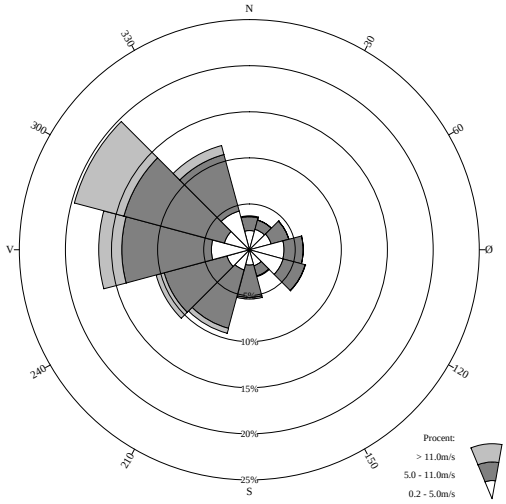

## APRIL



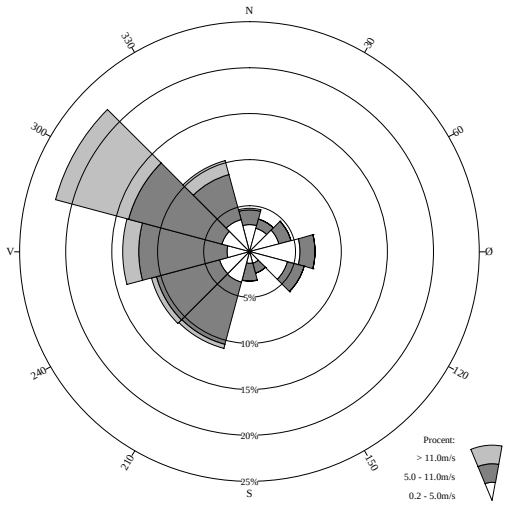

## MAJ



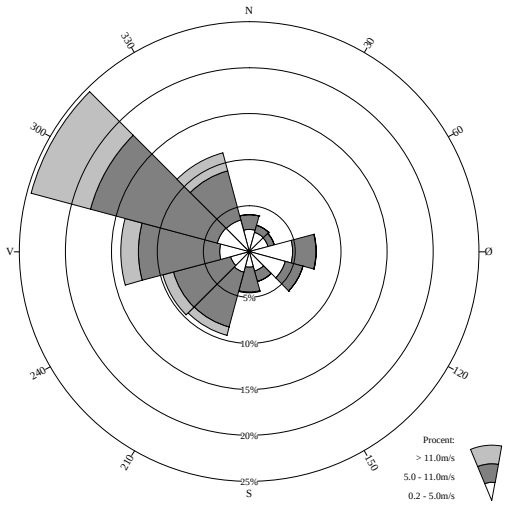

## JUNI



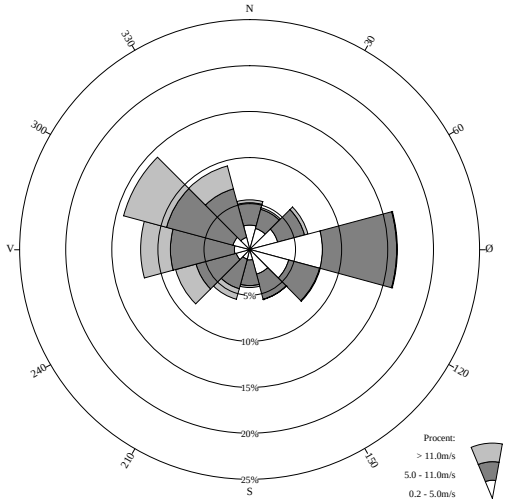
## JULI



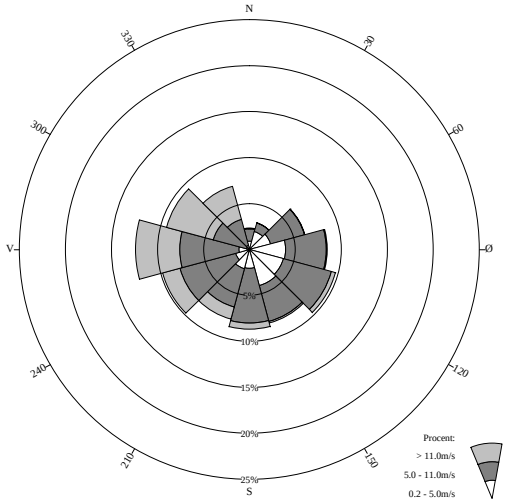

## AUGUST



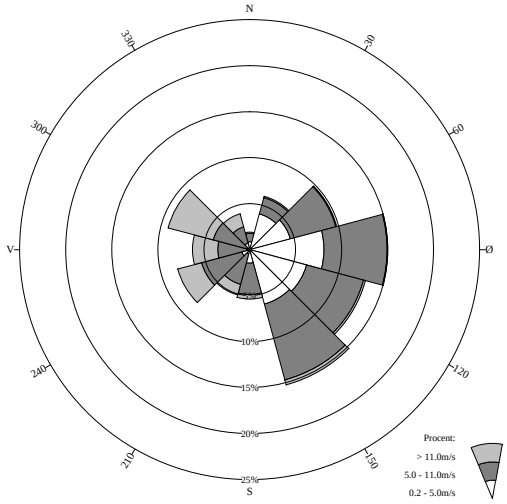

## SEPTEMBER



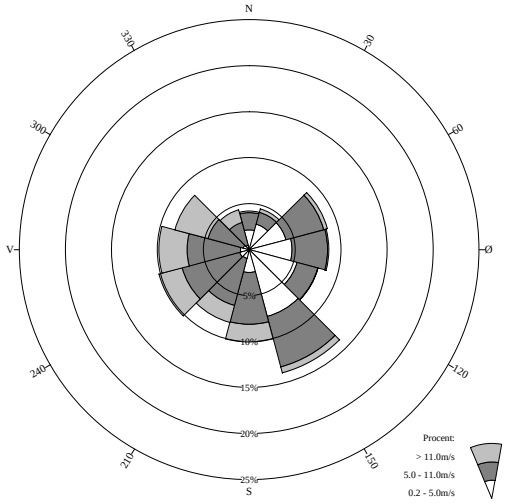

## OKTOBER




## NOVEMBER

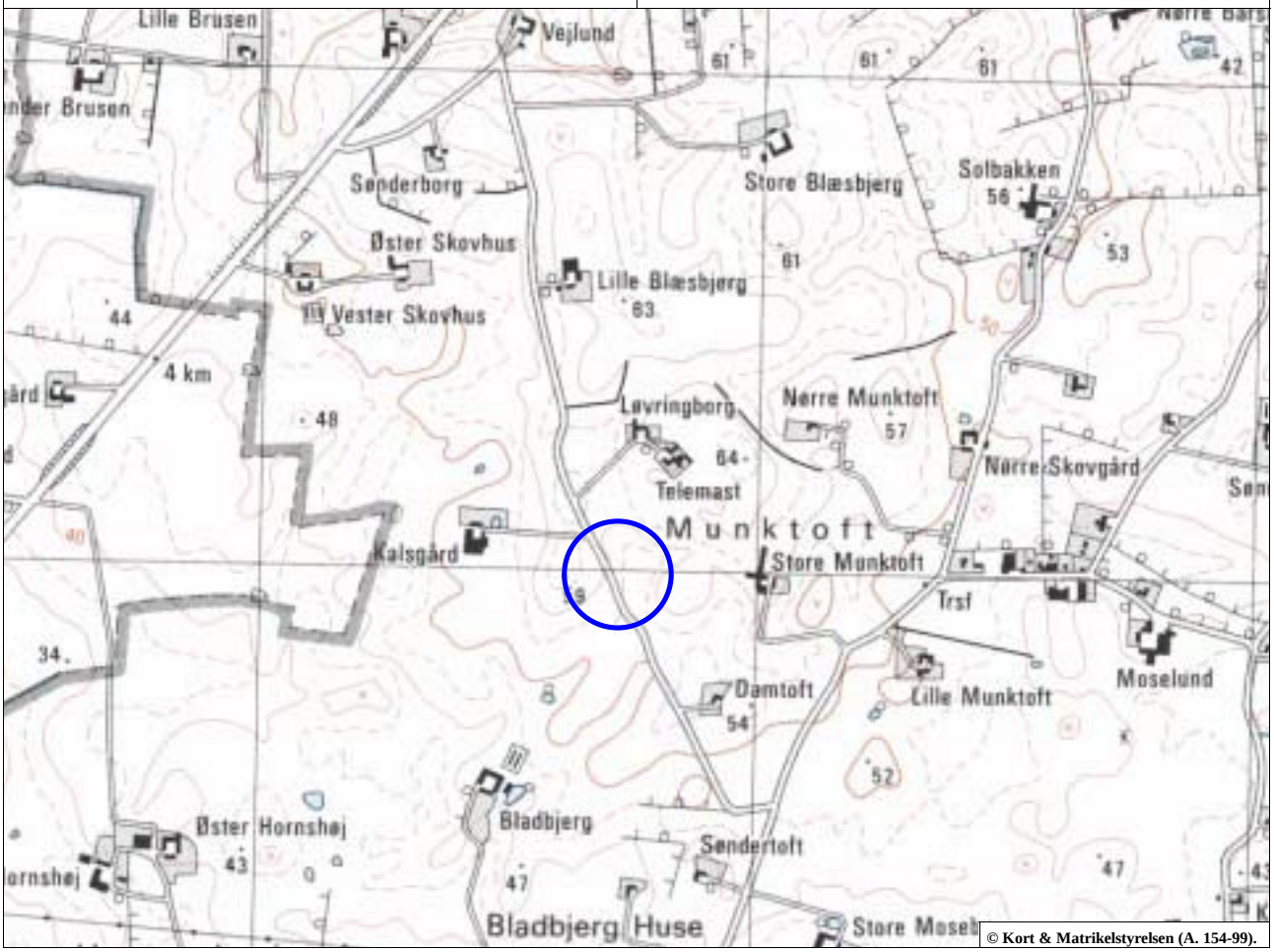



## DECEMBER



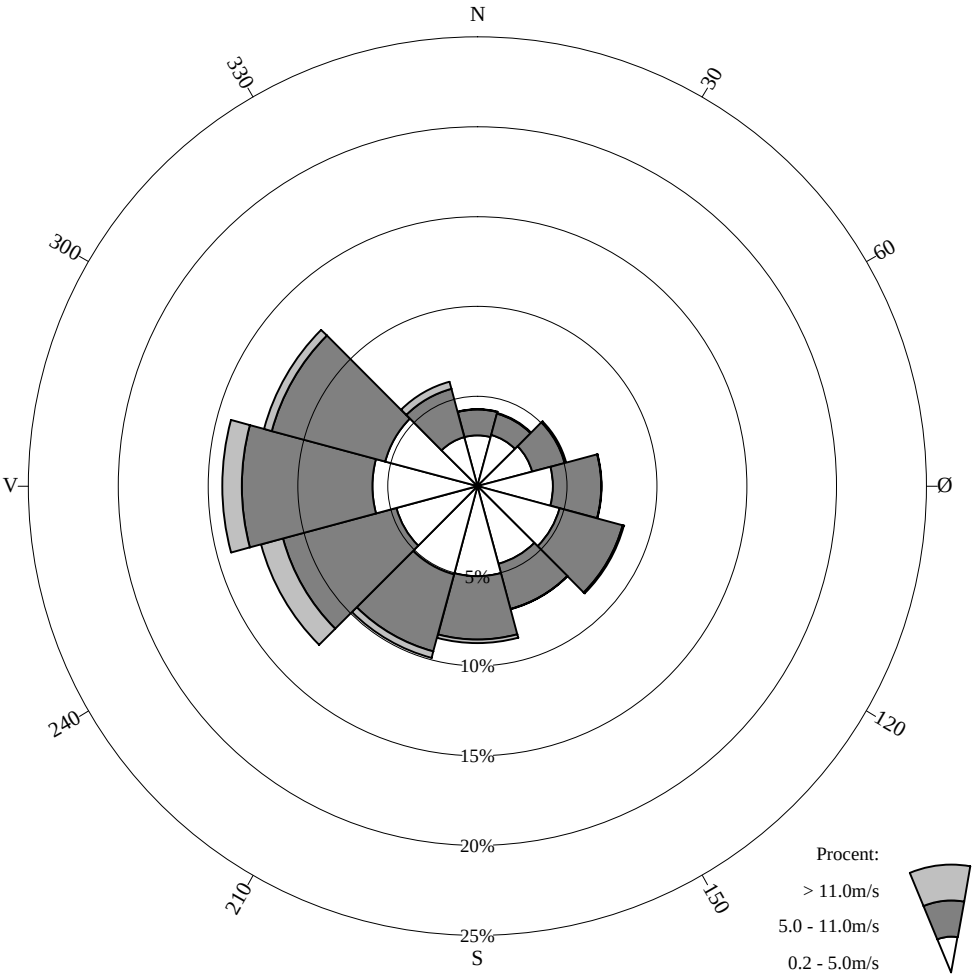
# 24099 Mejrup

| | |
|---|---|
| **Position:** 56° 23’ N, 08° 40’ E<br>**UTM-koordinater:** 32V 6248.990N 479.720E<br>**Stationsbasis** (m.o.h.)**:** 53<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 56° 23’ N, long 08° 40’ E<br>**UTM-positions:** 32V 6248.990N 479.720E<br>**Elevation** (m.a.s.l.)**:** 53<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 24099
## MEJRUP

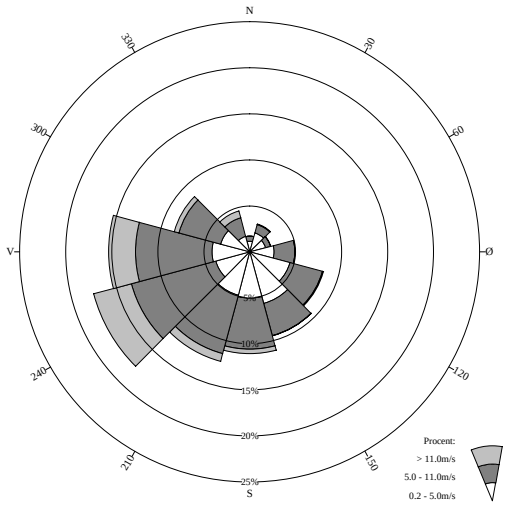
01-01-89 - 31-12-98



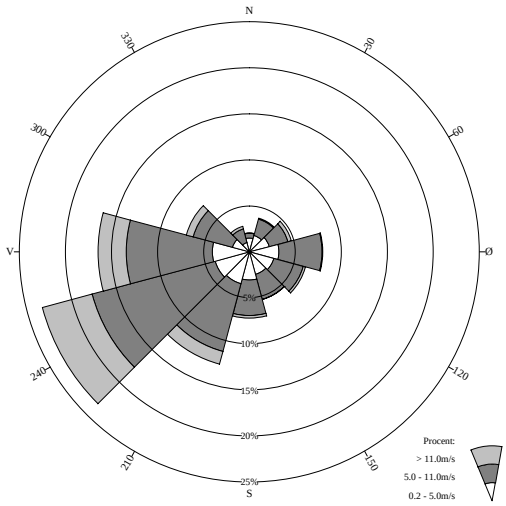

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.3 | 4.2 | 5.1 | 6.9 | 8.4 | 7.1 | 8.7 | 9.9 | 12.5 | 14.2 | 12.3 | 6.0 | 99.7 |
| % 0.2-5.0m/s | 2.8 | 2.9 | 3.1 | 4.2 | 4.7 | 4.5 | 5.0 | 5.1 | 4.7 | 5.9 | 5.3 | 2.8 | 51.2 |
| % 5.0-11.0m/s | 1.4 | 1.2 | 1.9 | 2.7 | 3.6 | 2.6 | 3.5 | 4.4 | 6.6 | 7.3 | 6.5 | 2.8 | 44.6 |
| % > 11.0m/s | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.2 | 0.4 | 1.3 | 1.1 | 0.4 | 0.4 | 4.0 |
| Middel hastighed | 4.5 | 4.3 | 4.7 | 4.6 | 5.0 | 4.5 | 4.9 | 5.3 | 6.4 | 6.1 | 5.7 | 5.8 | 5.3 |
| Største hastighed | 15.2 | 13.8 | 15.7 | 15.0 | 13.6 | 12.5 | 16.4 | 18.2 | 24.0 | 23.1 | 25.0 | 22.3 | 25.0 |

Totalt antal observationer = 87234 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 223 = 0.3%

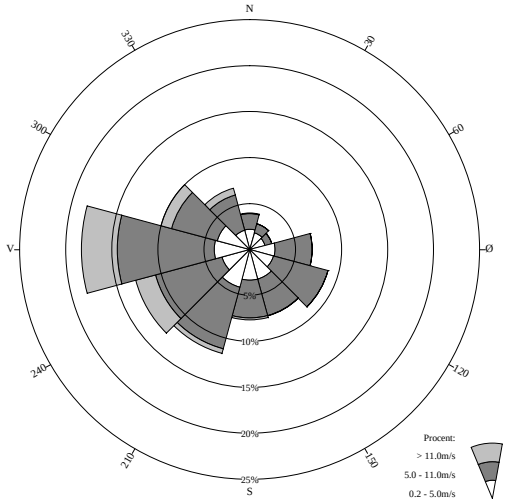
## JANUAR



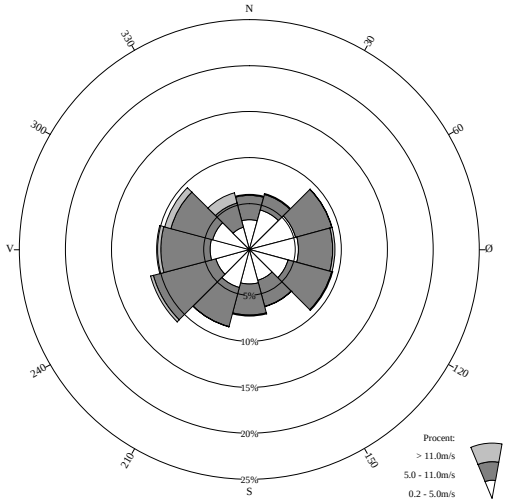

## FEBRUAR



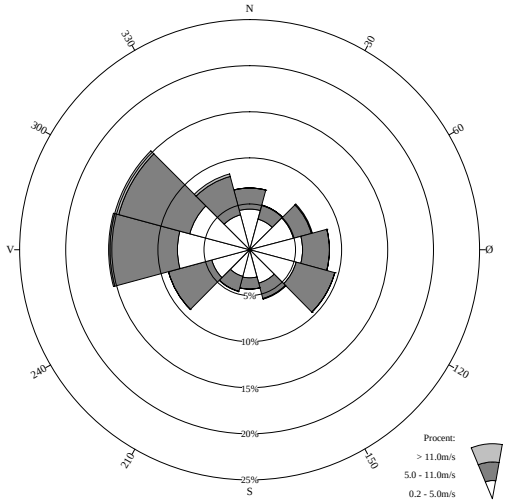

## MARTS



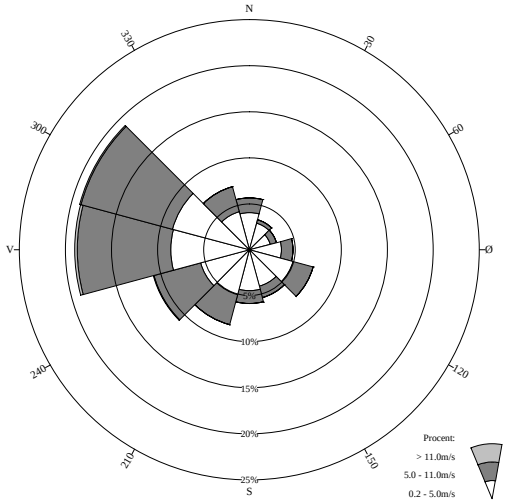

## APRIL



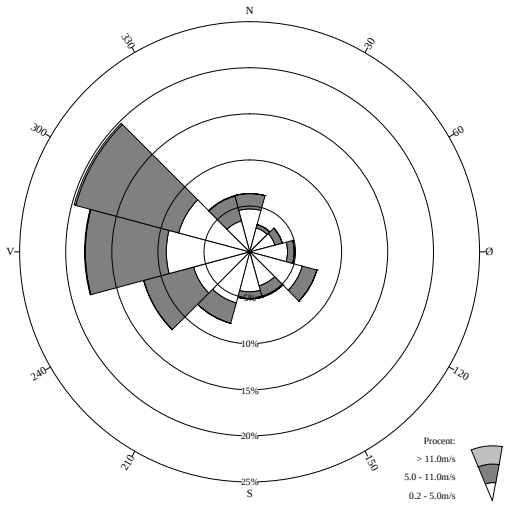

## MAJ



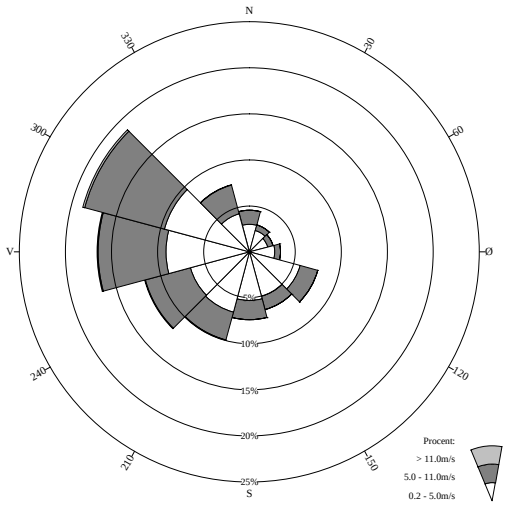

## JUNI



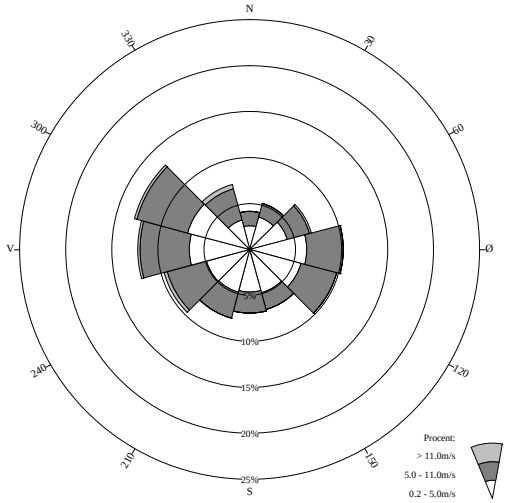
## JULI



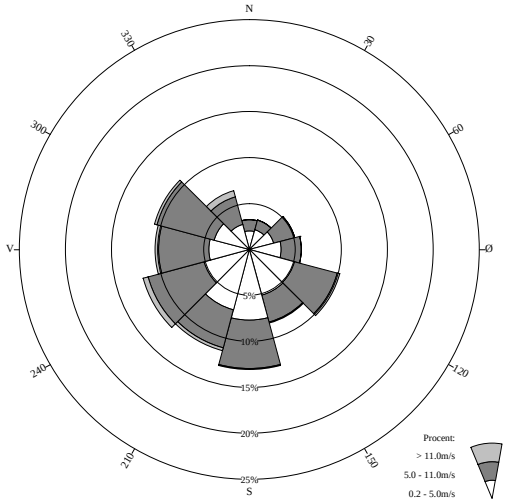

## AUGUST



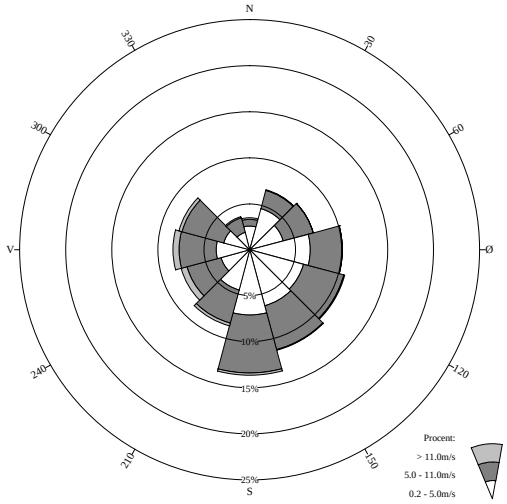

## SEPTEMBER



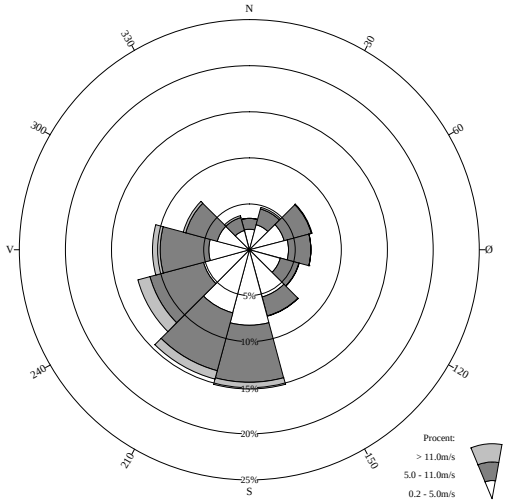

## OKTOBER




## NOVEMBER

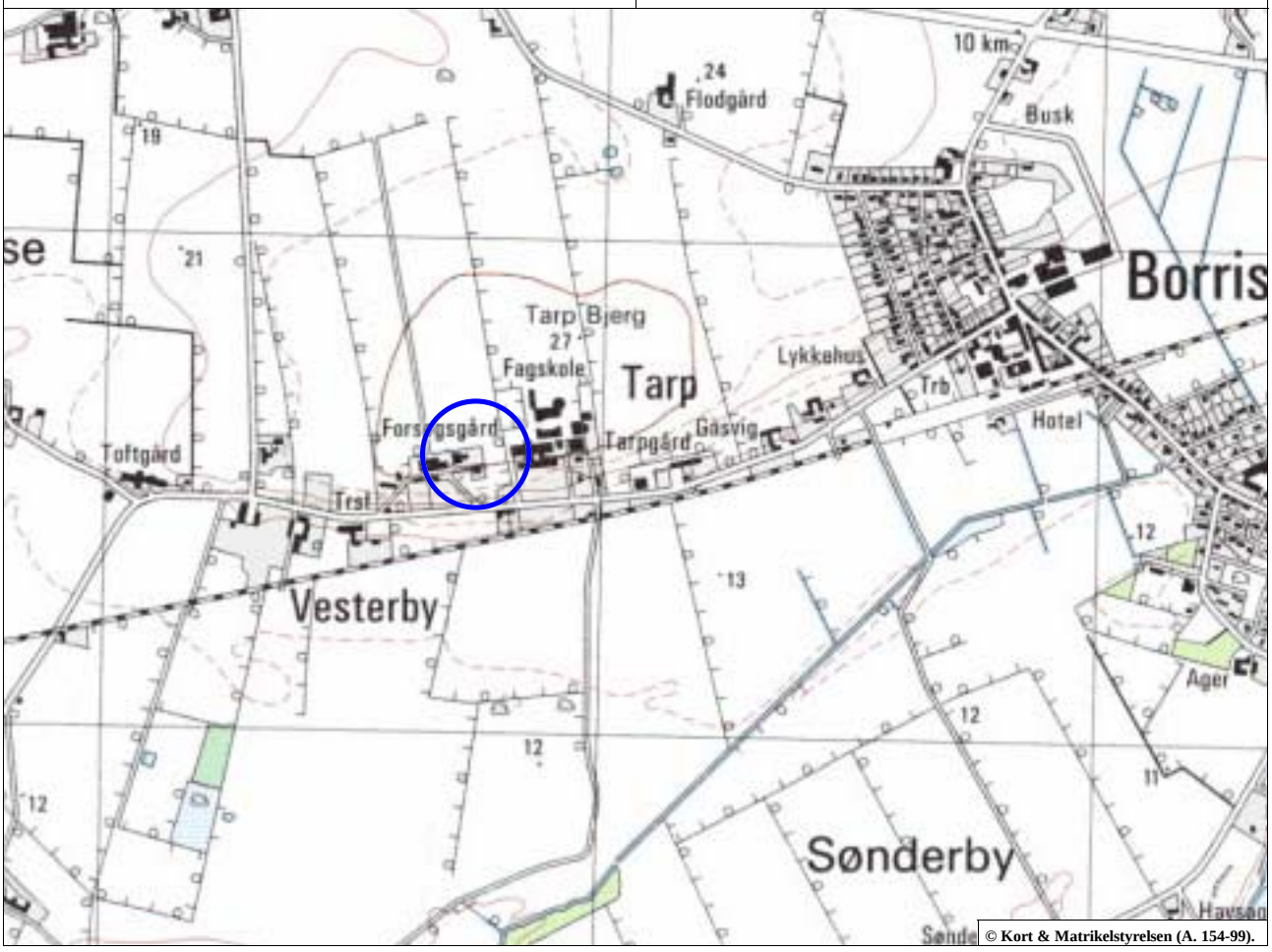



## DECEMBER



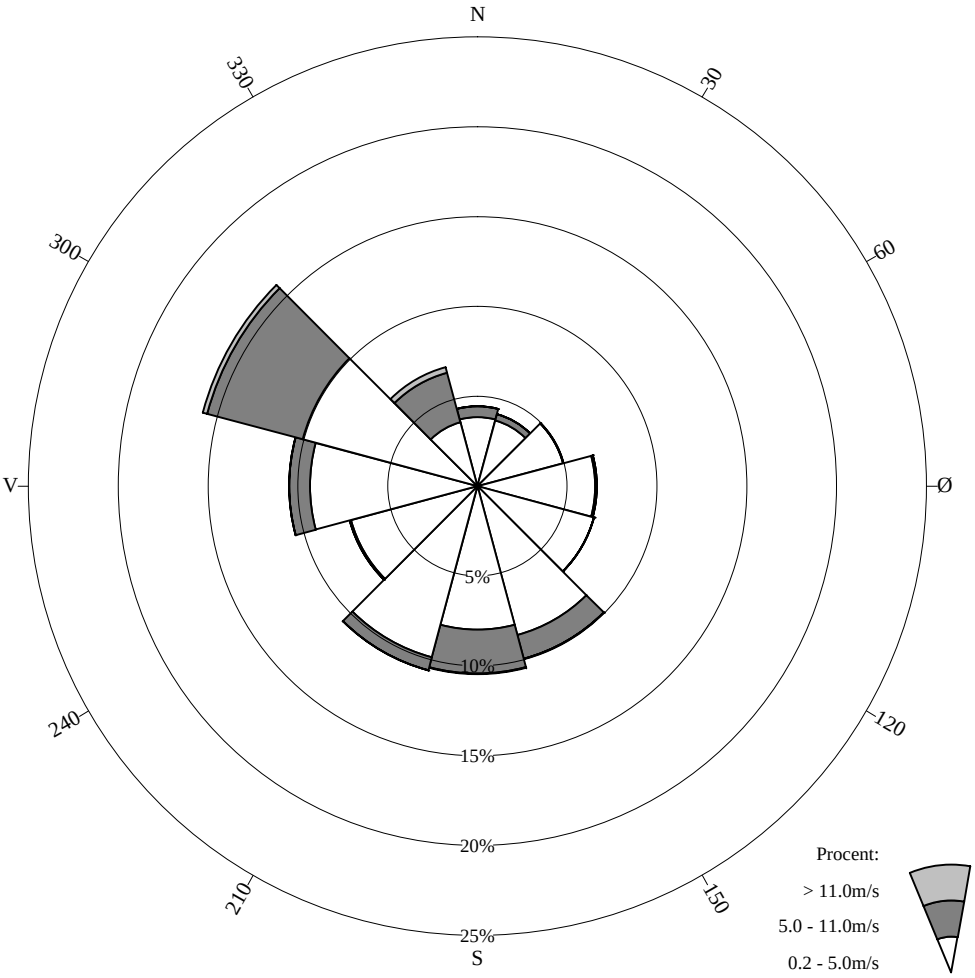
# 24381 Borris

| | |
|---|---|
| **Position:** 55° 57’ N, 08° 38’ E<br>**UTM-koordinater:** 32U 6201.565N 476.750E<br>**Stationsbasis** (m.o.h.)**:** 25<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 57’ N, long 08° 38’ E<br>**UTM-positions:** 32U 6201.565N 476.750E<br>**Elevation** (m.a.s.l.)**:** 25<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 24381
# BORRIS II

01-01-89 - 31-12-98



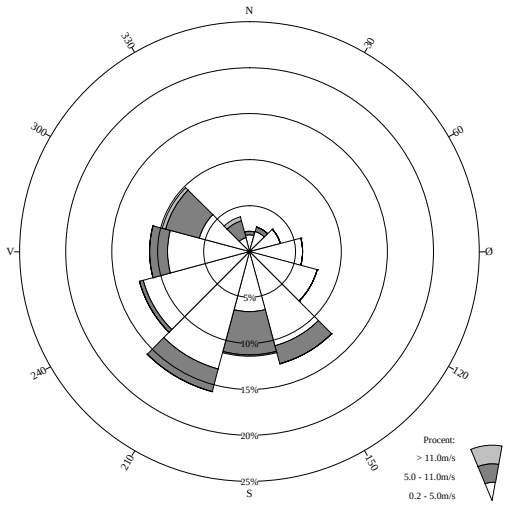

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.4 | 4.2 | 5.0 | 6.7 | 6.7 | 10.0 | 10.5 | 10.6 | 7.4 | 10.5 | 15.8 | 6.8 | 98.5 |
| % 0.2-5.0m/s | 3.8 | 3.8 | 4.9 | 6.6 | 6.7 | 8.6 | 8.0 | 9.9 | 7.3 | 9.3 | 10.1 | 3.7 | 82.7 |
| % 5.0-11.0m/s | 0.6 | 0.4 | 0.0 | 0.1 | 0.0 | 1.4 | 2.4 | 0.7 | 0.1 | 1.2 | 5.5 | 2.9 | 15.2 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 0.6 |
| Middel hastighed | 3.1 | 2.6 | 1.9 | 2.0 | 1.9 | 3.1 | 3.6 | 2.4 | 2.0 | 3.0 | 4.5 | 5.2 | 3.1 |
| Største hastighed | 14.8 | 9.7 | 6.6 | 9.0 | 5.2 | 12.1 | 15.0 | 12.6 | 7.4 | 13.3 | 19.4 | 21.6 | 21.6 |

Totalt antal observationer = 85555 Kilde: DMI

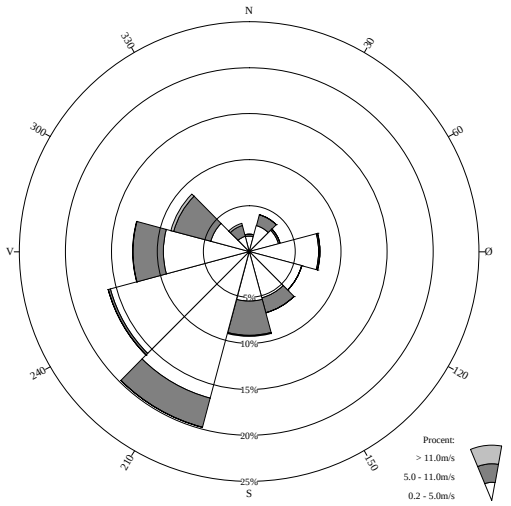
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1271 = 1.5%

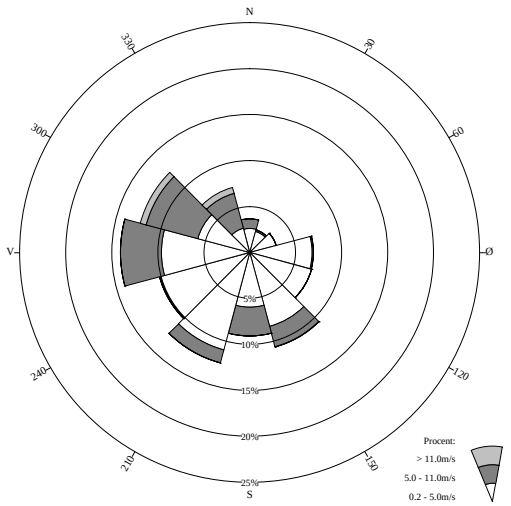
## JANUAR



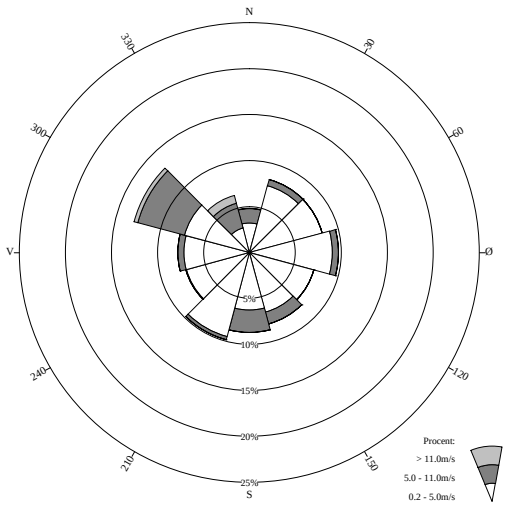

## FEBRUAR



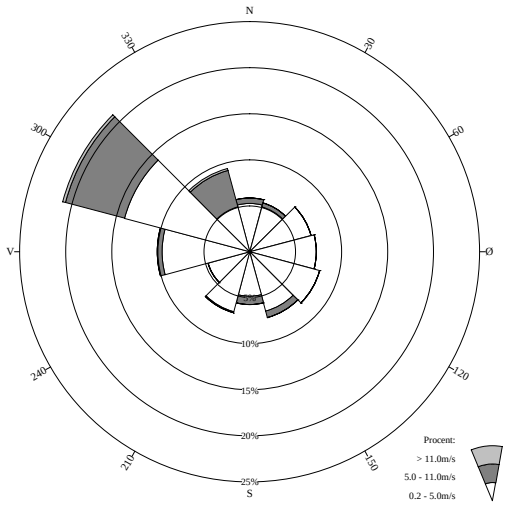

## MARTS



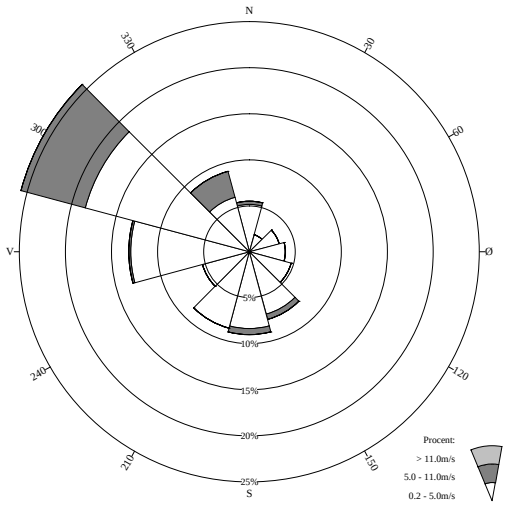

## APRIL



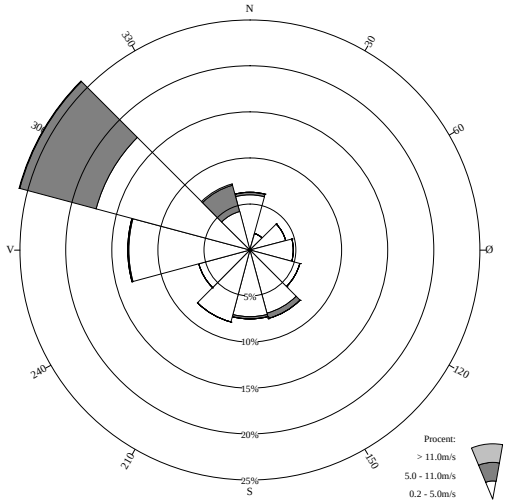

## MAJ



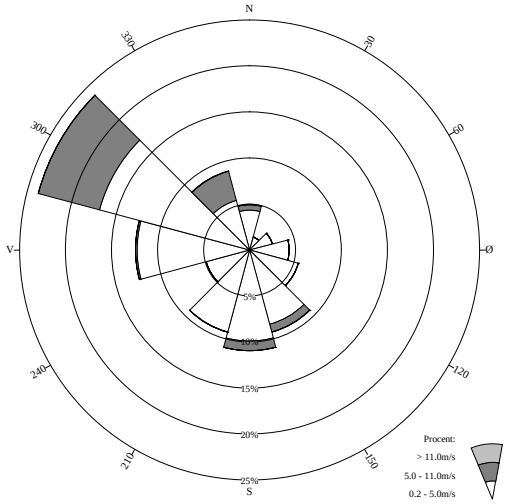

## JUNI



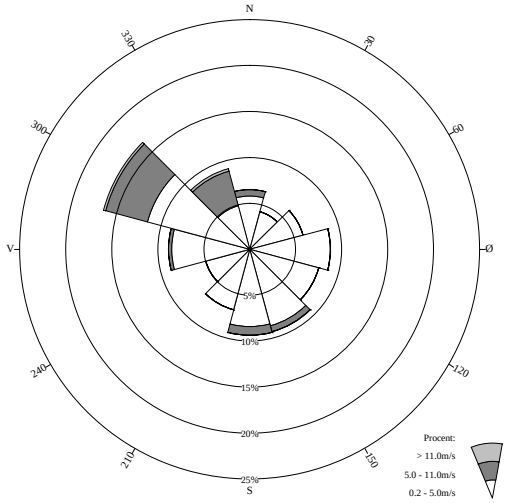
## JULI



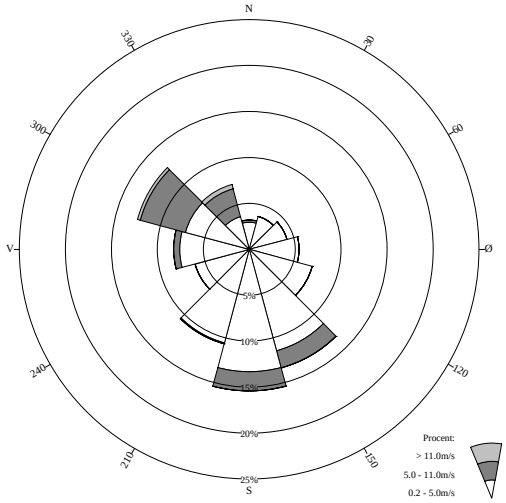

## AUGUST



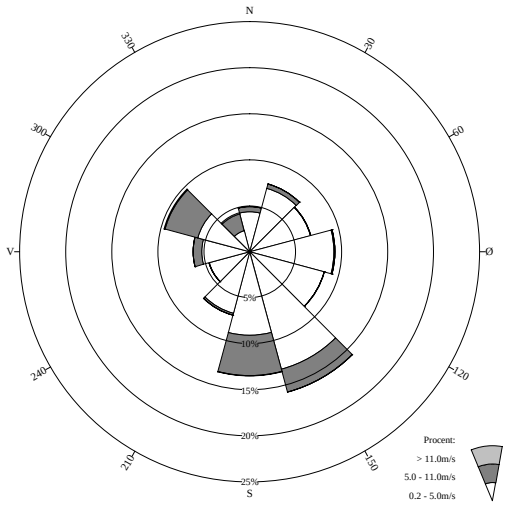

## SEPTEMBER



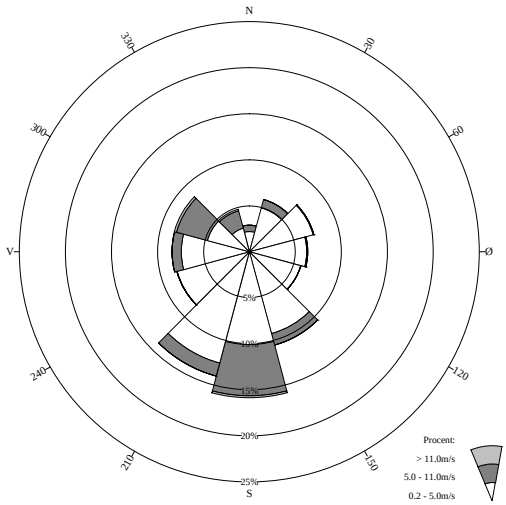

## OKTOBER




## NOVEMBER




## DECEMBER

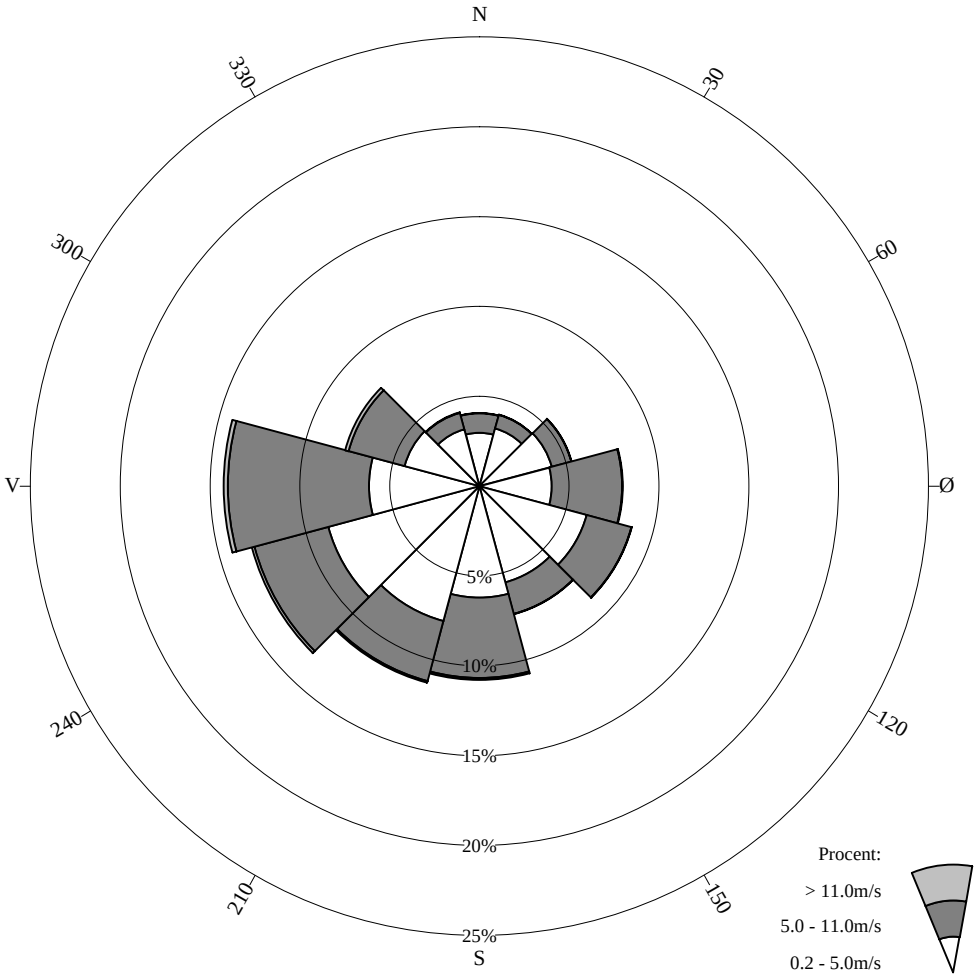


# 24427 Kølkær

| | |
|---|---|
| **Position:** 56° 04’ N, 09° 09’ E<br>**UTM-koordinater:** 32V 6213.380N 509.360E<br>**Stationsbasis** (m.o.h.)**:** 58<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 56° 04’ N, long 09° 09’ E<br>**UTM-positions:** 32V 6213.380N 509.360E<br>**Elevation** (m.a.s.l.)**:** 58<br>**Level of measurement:** 10 m<br><br>**Comments:** |

# Station 24427
# KØLKÆR

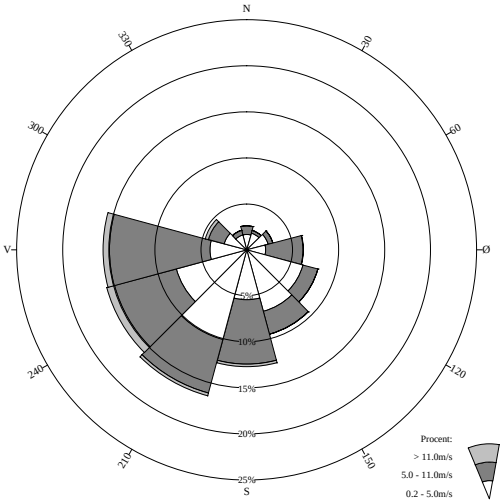
01-01-89 - 31-12-98



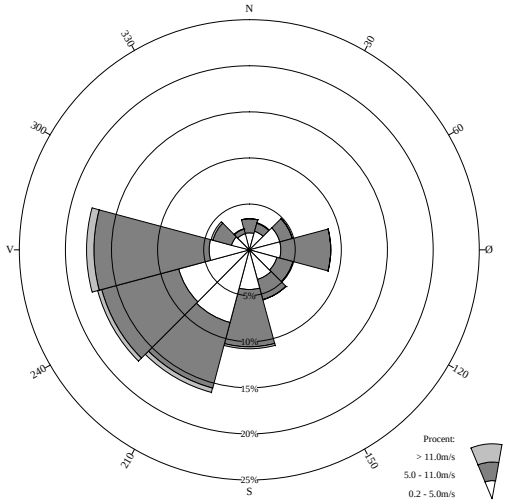

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.1 | 4.1 | 5.3 | 8.0 | 8.8 | 7.4 | 10.8 | 11.3 | 13.1 | 14.2 | 7.7 | 4.3 | 99.1 |
| % 0.2-5.0m/s | 3.0 | 3.3 | 4.2 | 4.0 | 6.2 | 5.6 | 6.2 | 7.8 | 8.7 | 6.2 | 4.3 | 3.3 | 62.7 |
| % 5.0-11.0m/s | 1.1 | 0.8 | 1.1 | 3.9 | 2.6 | 1.8 | 4.5 | 3.4 | 4.3 | 7.8 | 3.2 | 1.0 | 35.5 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.9 |
| Middel hastighed | 3.7 | 3.4 | 3.5 | 4.8 | 4.0 | 3.7 | 4.6 | 4.2 | 4.3 | 5.4 | 4.8 | 3.6 | 4.4 |
| Største hastighed | 12.3 | 12.7 | 15.3 | 13.6 | 11.6 | 13.6 | 14.9 | 15.9 | 16.5 | 21.5 | 20.2 | 16.6 | 21.5 |

Totalt antal observationer = 87018 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 755 = 0.9%

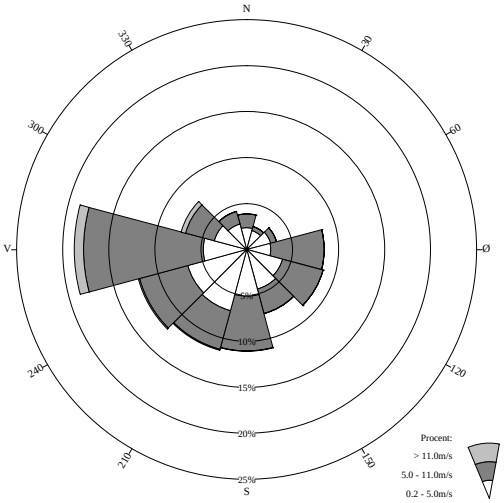
## JANUAR



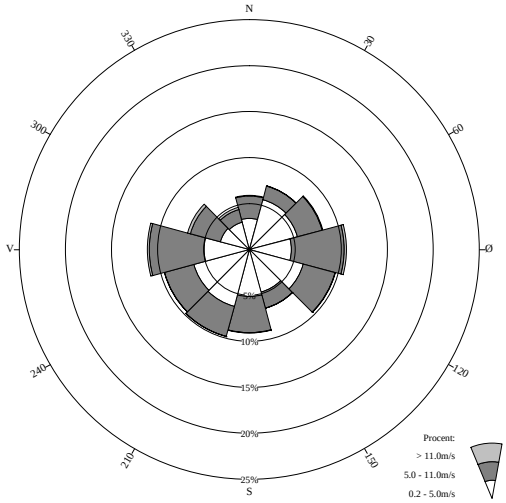

## FEBRUAR



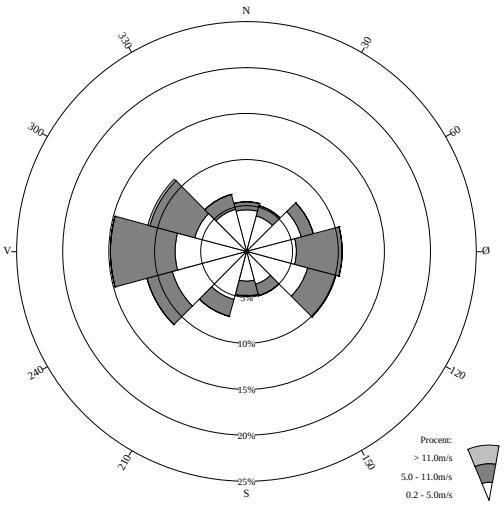

## MARTS



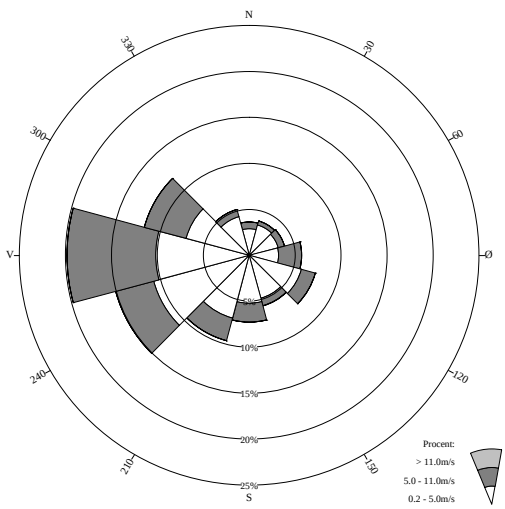

## APRIL



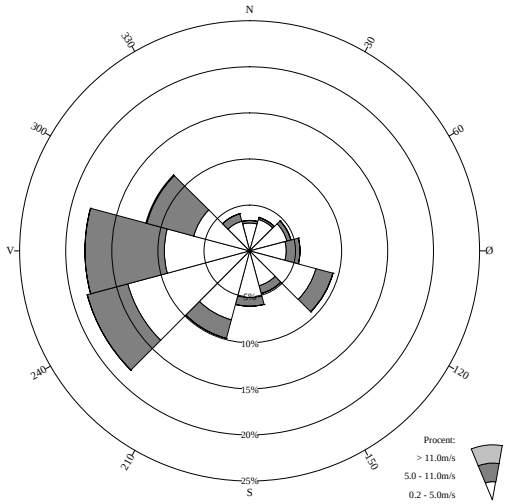

## MAJ



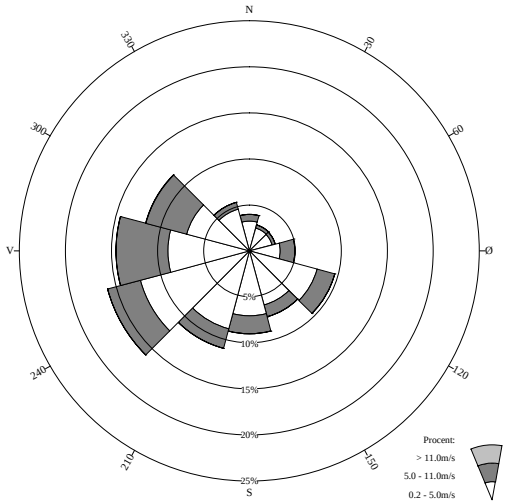

## JUNI



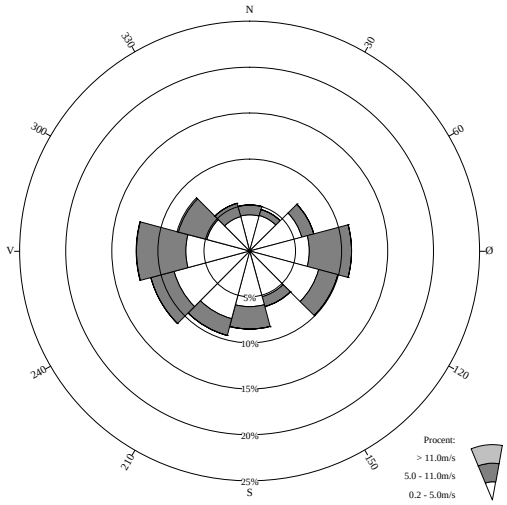
## JULI



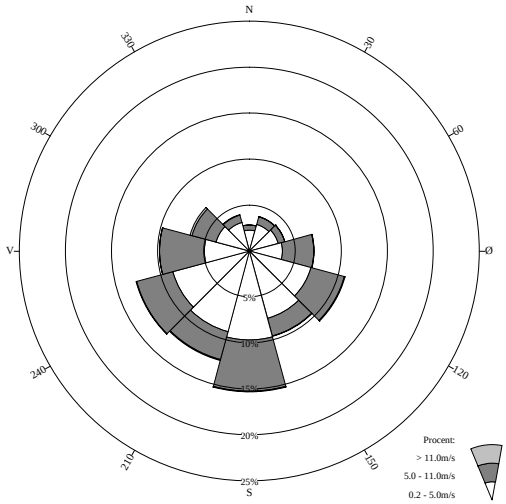

## AUGUST



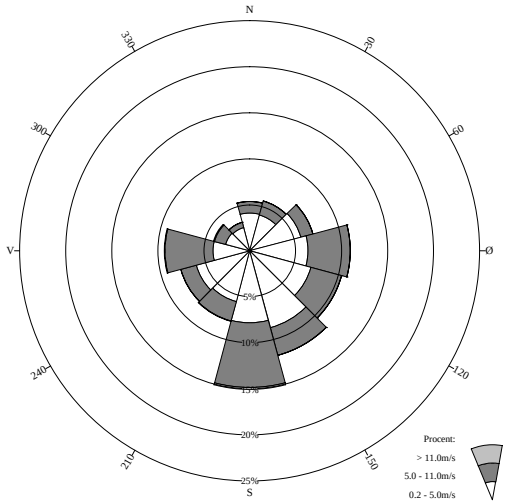

## SEPTEMBER



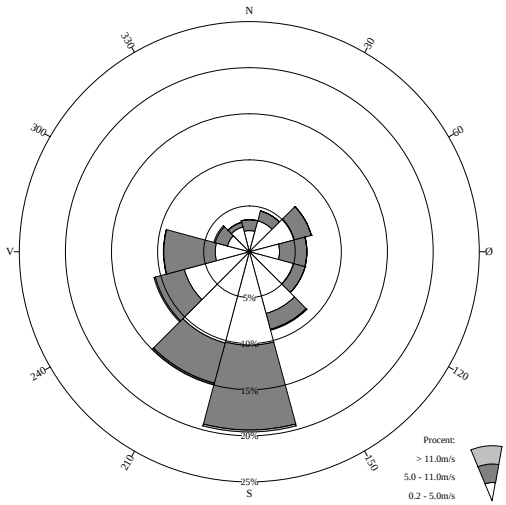

## OKTOBER




## NOVEMBER

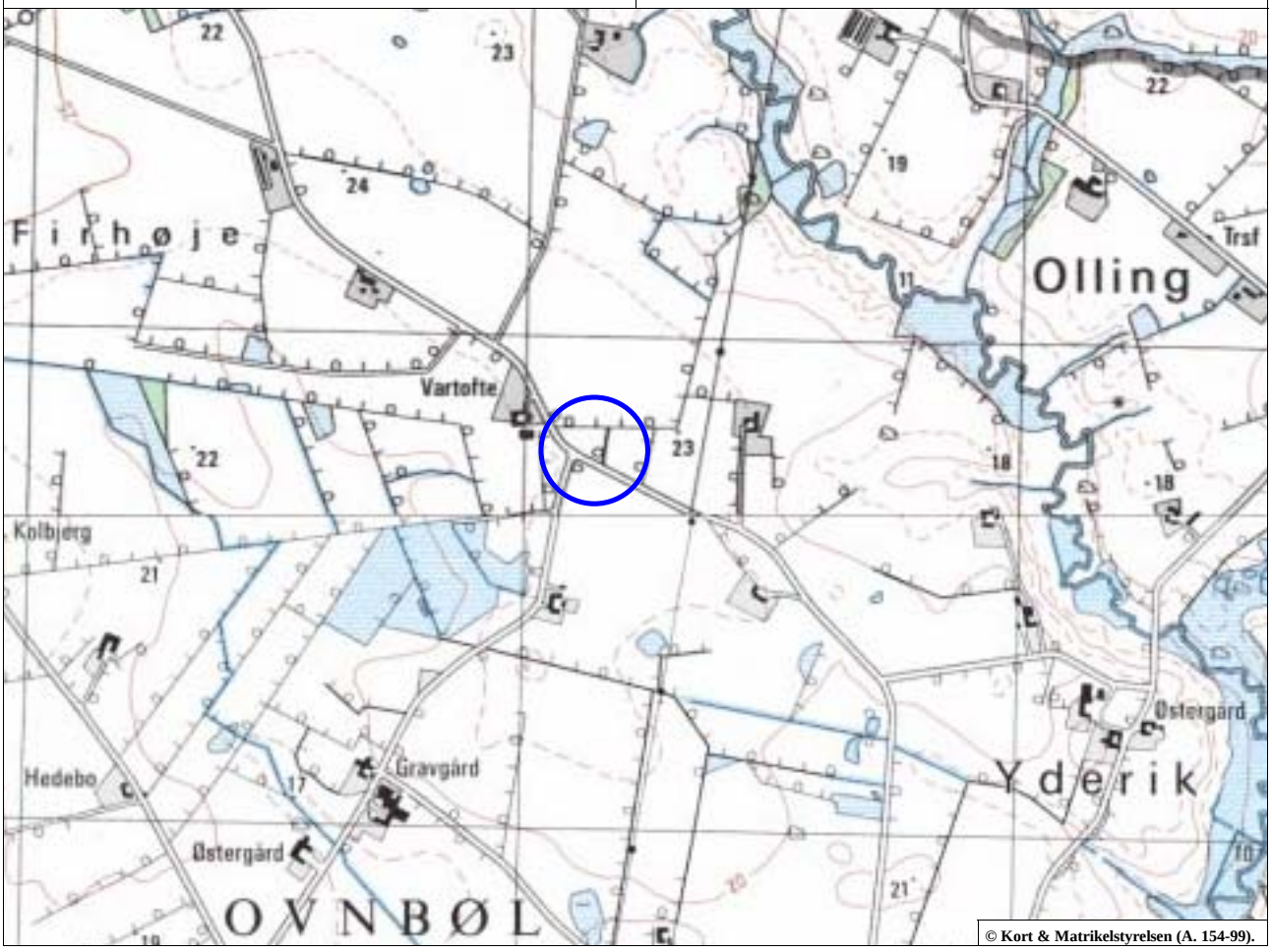



## DECEMBER



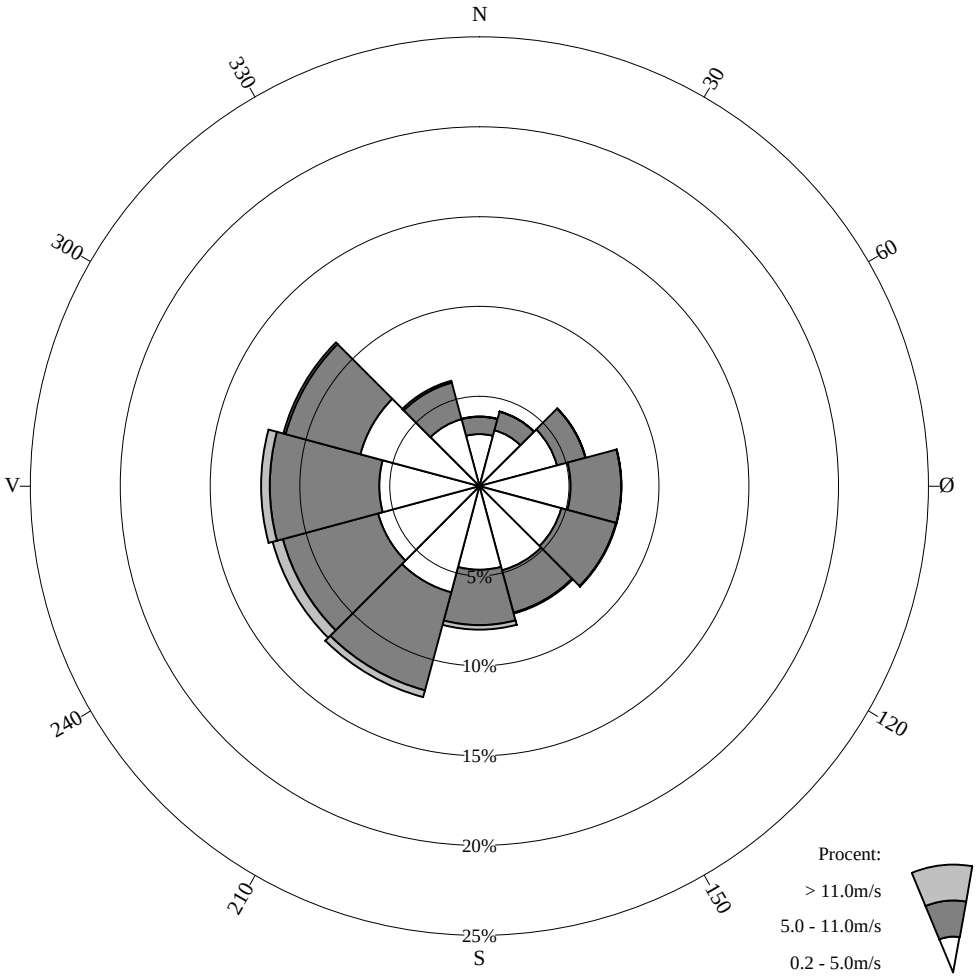
# 25192 Firhøje

| | |
|---|---|
| **Position:** 55° 42’ N, 08° 33’ E<br>**UTM-koordinater:** 32U 6172.770N 472.140E<br>**Stationsbasis** (m.o.h.)**:** 23<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:**<br>Stationen er nedlagt i 1999. | **Position:** lat 55° 42’ N, long 08° 33’ E<br>**UTM-positions:** 32U 6172.770N 472.140E<br>**Elevation** (m.a.s.l.)**:** 23<br>**Level of measurement:** 10 m<br><br>**Comments:**<br>The station was closed down in 1999. |



# Station 25192
# FIRHØJE

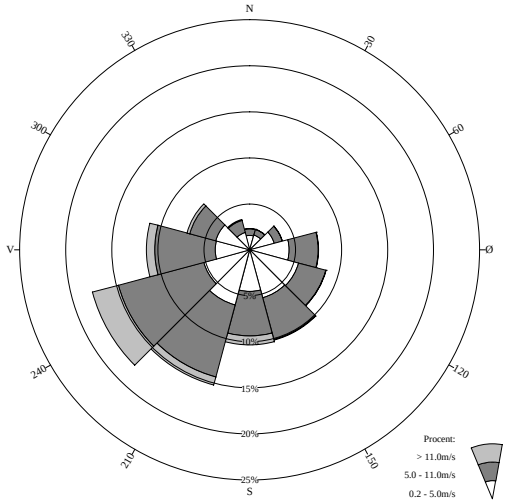
01-01-89 - 31-12-98



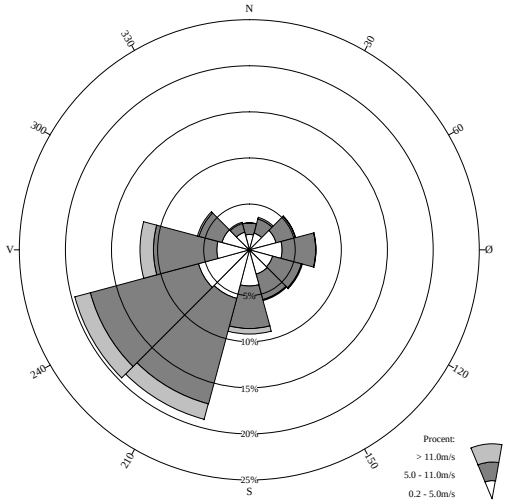

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.9 | 4.3 | 6.1 | 7.9 | 7.9 | 7.4 | 8.0 | 12.1 | 11.9 | 12.2 | 11.3 | 6.1 | 99.1 |
| % 0.2-5.0m/s | 2.9 | 3.2 | 4.5 | 5.1 | 4.7 | 4.9 | 4.7 | 6.1 | 5.9 | 5.6 | 6.9 | 3.9 | 58.2 |
| % 5.0-11.0m/s | 1.0 | 1.1 | 1.6 | 2.8 | 3.2 | 2.4 | 3.1 | 5.6 | 5.5 | 6.1 | 4.3 | 2.1 | 38.8 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.4 | 0.6 | 0.5 | 0.1 | 0.1 | 2.1 |
| Middel hastighed | 3.7 | 3.8 | 3.8 | 4.4 | 4.6 | 4.4 | 4.8 | 5.2 | 5.5 | 5.5 | 4.6 | 4.5 | 4.8 |
| Største hastighed | 14.5 | 13.0 | 14.2 | 12.0 | 12.7 | 16.1 | 15.5 | 18.1 | 21.6 | 20.2 | 17.1 | 17.1 | 21.6 |

Totalt antal observationer = 87231 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 755 = 0.9%

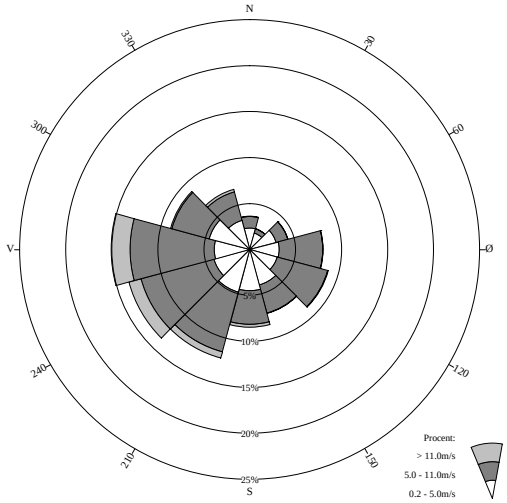
## JANUAR



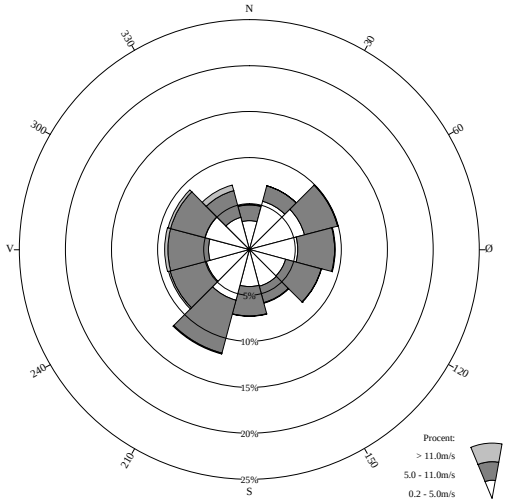

## FEBRUAR



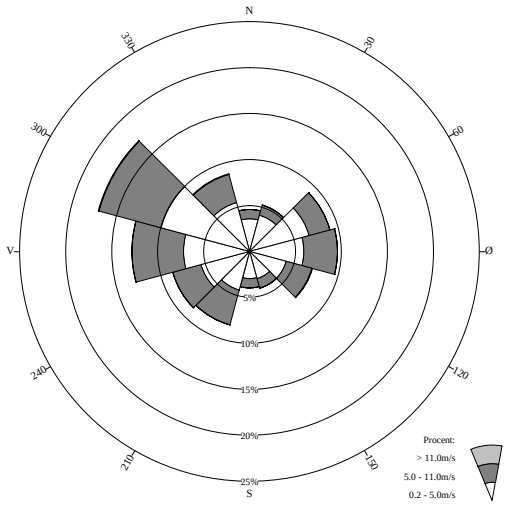

## MARTS



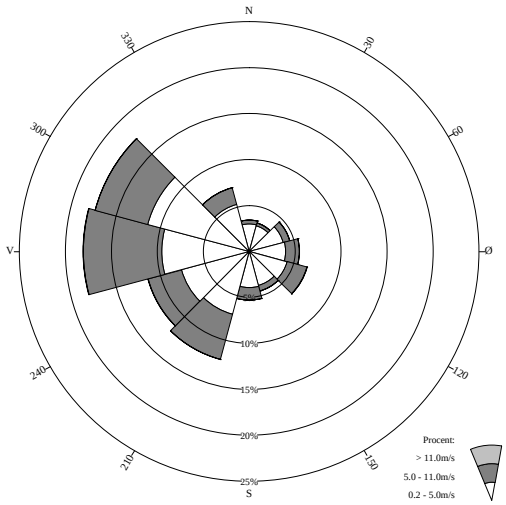

## APRIL



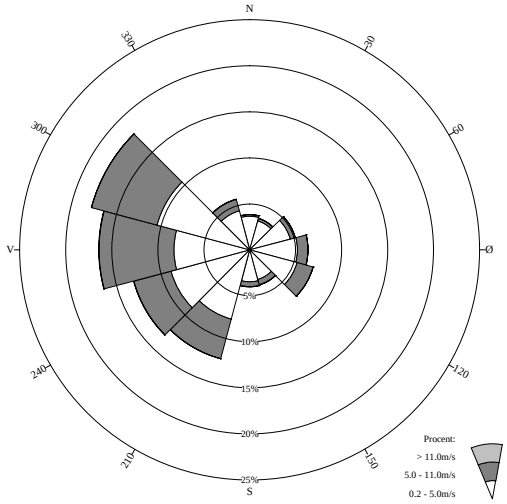

## MAJ



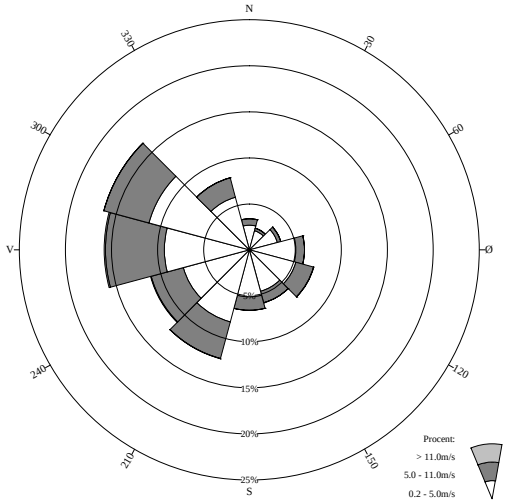

## JUNI



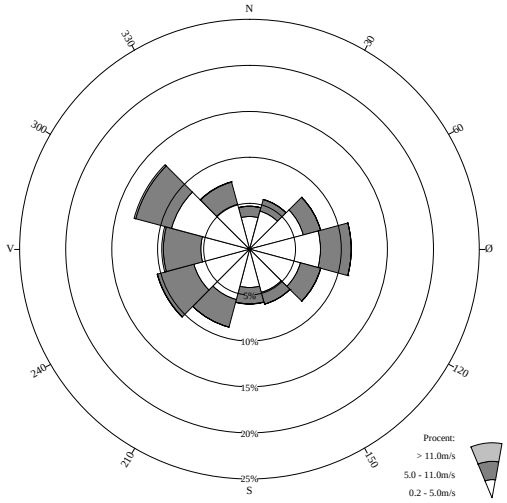
## JULI



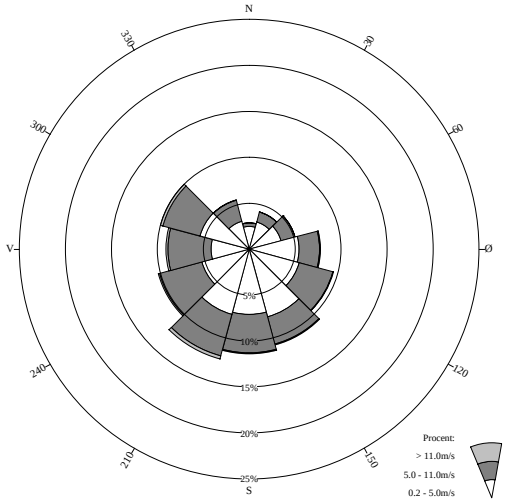

## AUGUST



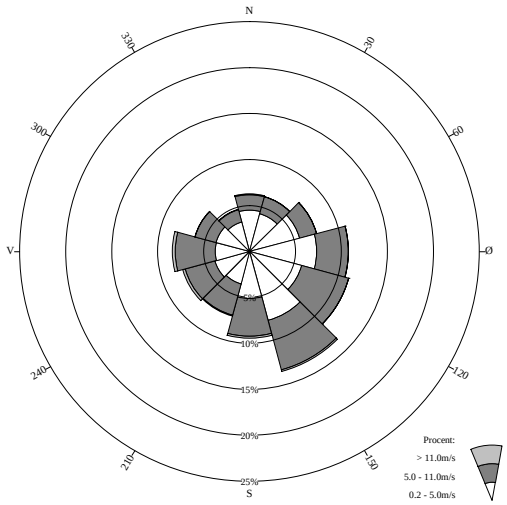

## SEPTEMBER



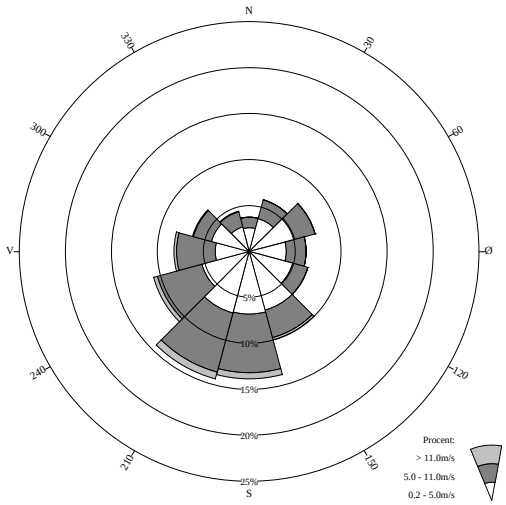

## OKTOBER




## NOVEMBER




## DECEMBER

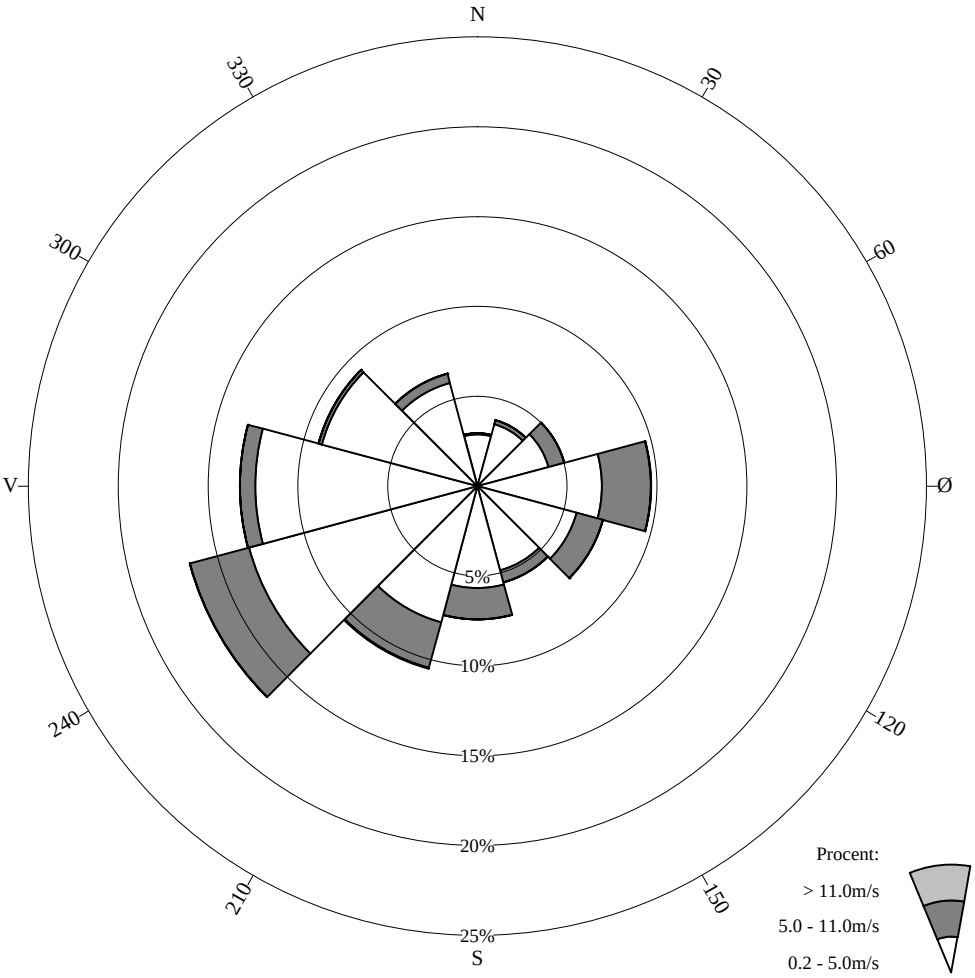


# 25271 Askov

| | |
|---|---|
| **Position:** 55° 28’ N, 09° 07’ E<br>**UTM-koordinater:** 32U 6147.540N 507.220E<br>**Stationsbasis** (m.o.h.)**:** 62<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 28’ N, long 09° 07’ E<br>**UTM-positions:** 32U 6147.540N 507.220E<br>**Elevation** (m.a.s.l.)**:** 62<br>**Level of measurement:** 10 m<br><br>**Comments:** |

# Station 25271
# ASKOV II

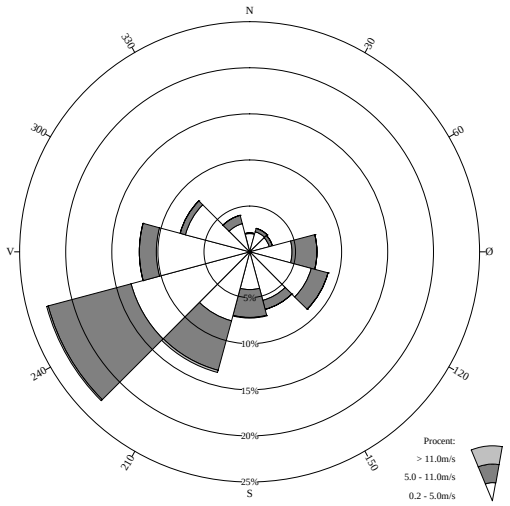
01-01-89 - 31-12-98



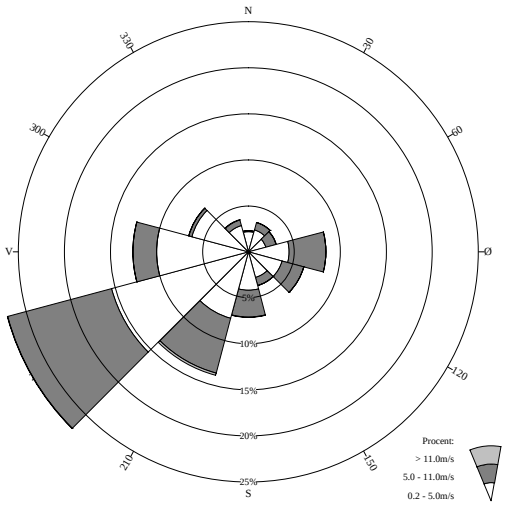

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.0 | 3.8 | 5.0 | 9.7 | 7.2 | 5.5 | 7.4 | 10.5 | 16.6 | 13.2 | 9.2 | 6.5 | 97.7 |
| % 0.2-5.0m/s | 2.9 | 3.6 | 4.1 | 6.9 | 5.7 | 4.9 | 5.7 | 7.8 | 13.2 | 12.4 | 9.0 | 5.9 | 82.1 |
| % 5.0-11.0m/s | 0.1 | 0.2 | 0.9 | 2.7 | 1.5 | 0.7 | 1.7 | 2.6 | 3.4 | 0.9 | 0.2 | 0.5 | 15.5 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Middel hastighed | 2.3 | 2.6 | 3.4 | 4.0 | 3.5 | 3.1 | 3.9 | 3.8 | 3.5 | 2.5 | 2.0 | 2.7 | 3.2 |
| Største hastighed | 7.3 | 9.3 | 13.0 | 14.7 | 10.0 | 9.3 | 12.2 | 14.3 | 13.2 | 10.0 | 9.3 | 11.7 | 14.7 |

Totalt antal observationer = 86573 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 2024 = 2.3%

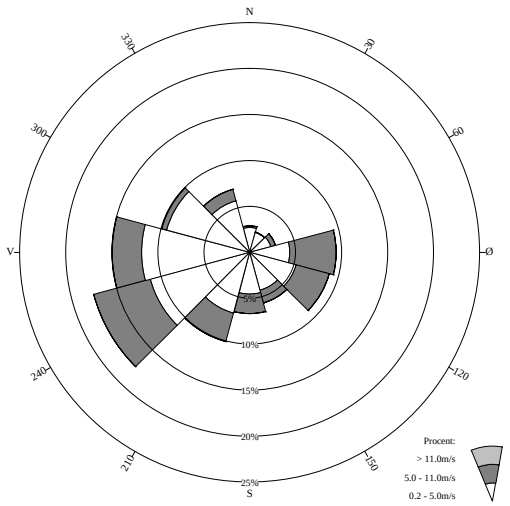
## JANUAR



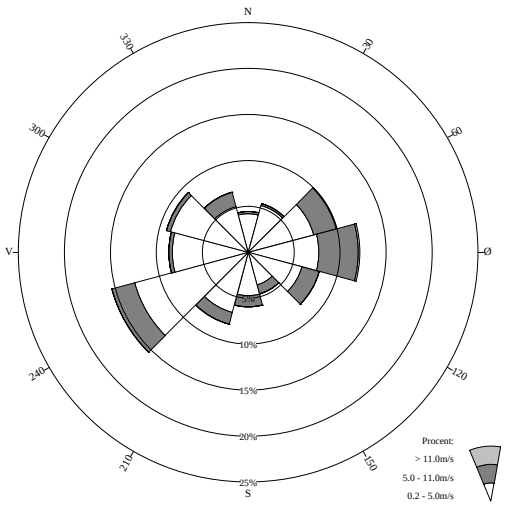

## FEBRUAR



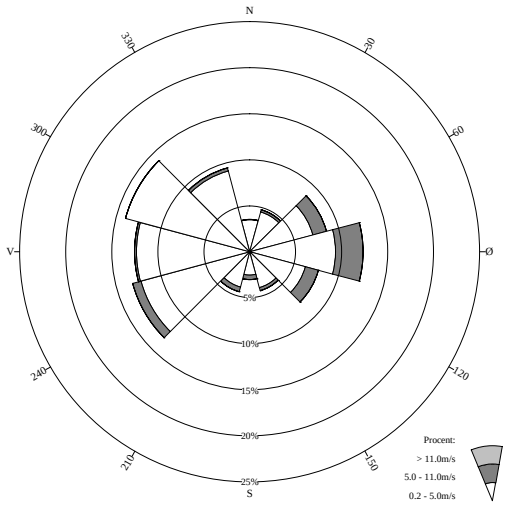

## MARTS



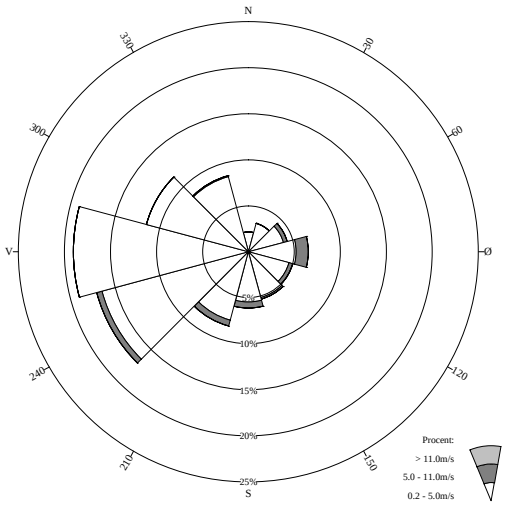

## APRIL



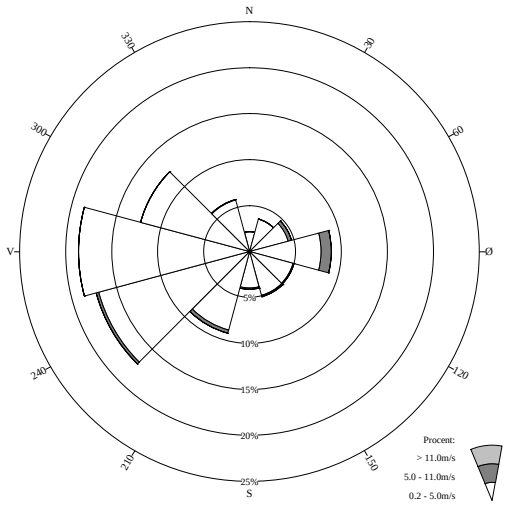

## MAJ



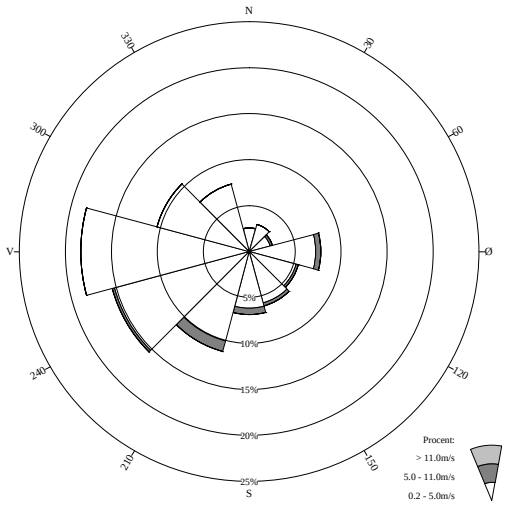

## JUNI



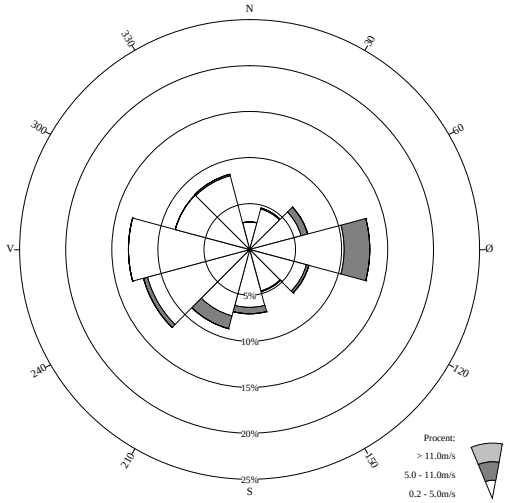
## JULI



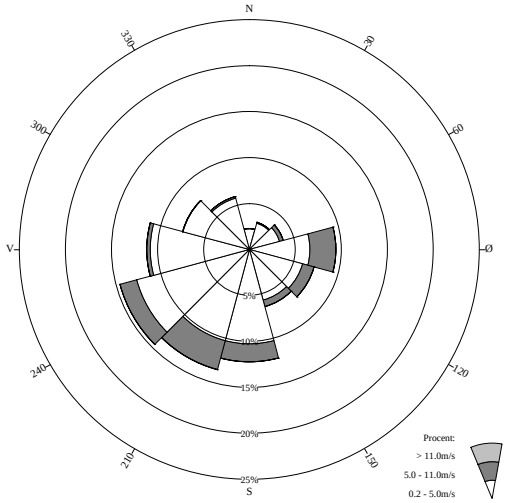

## AUGUST



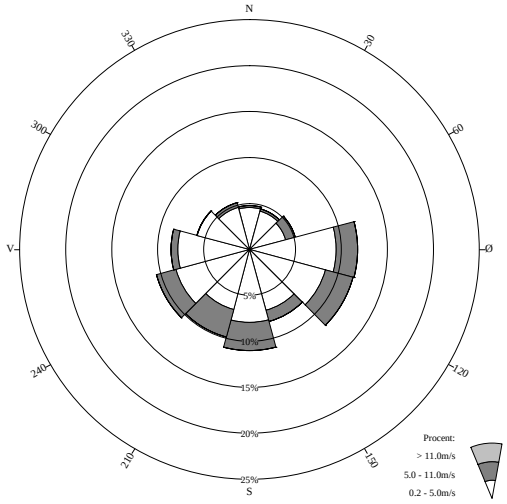

## SEPTEMBER



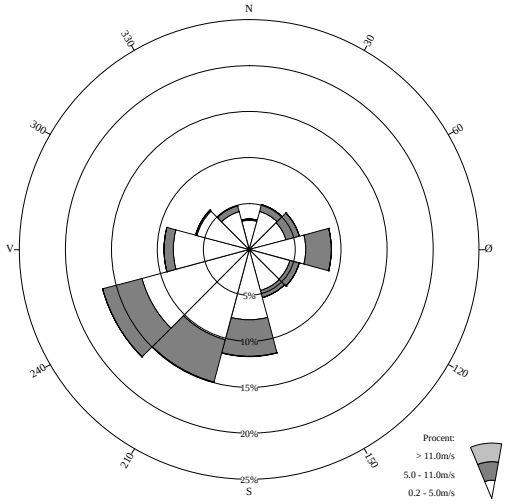

## OKTOBER




## NOVEMBER

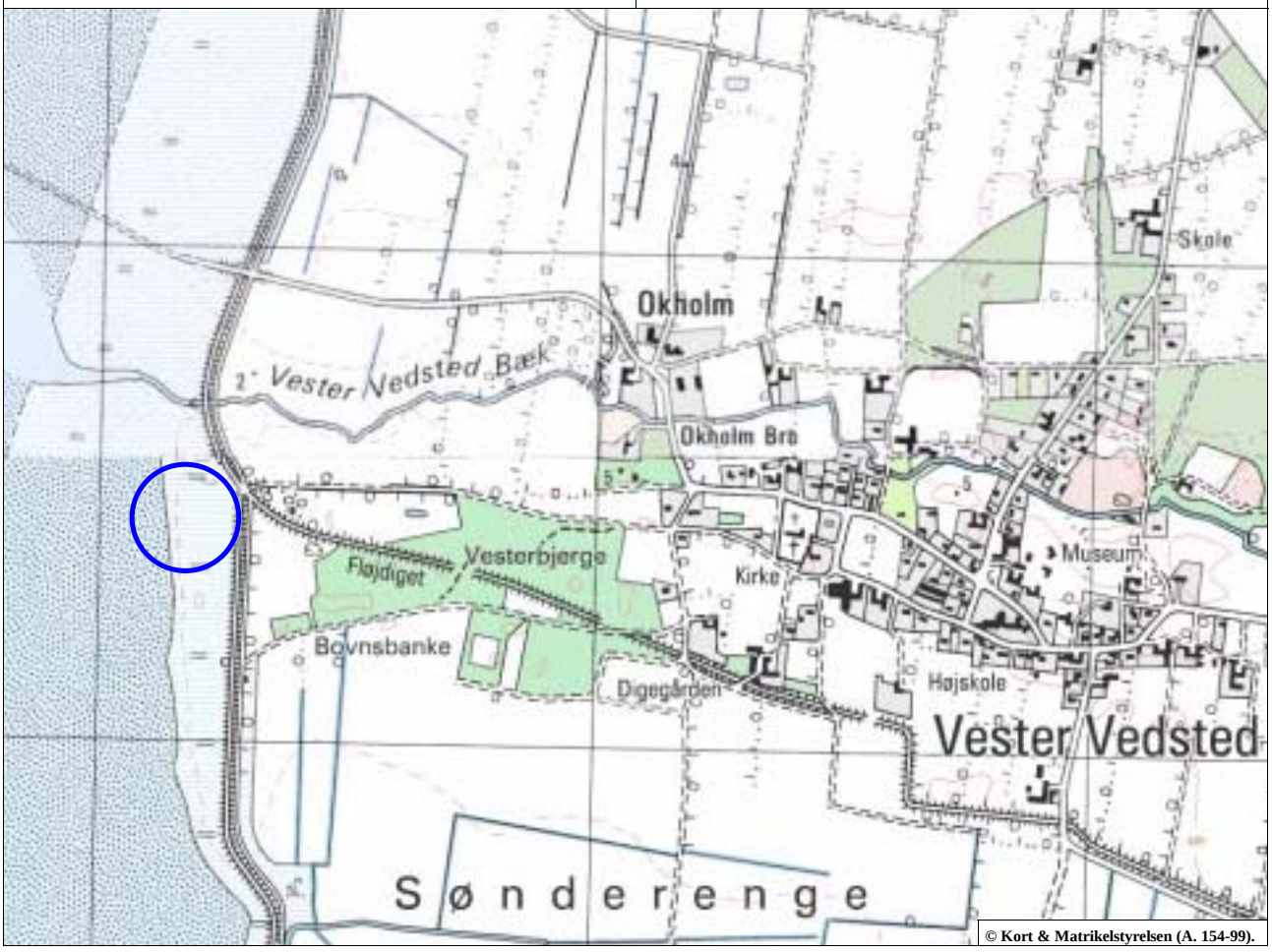



## DECEMBER



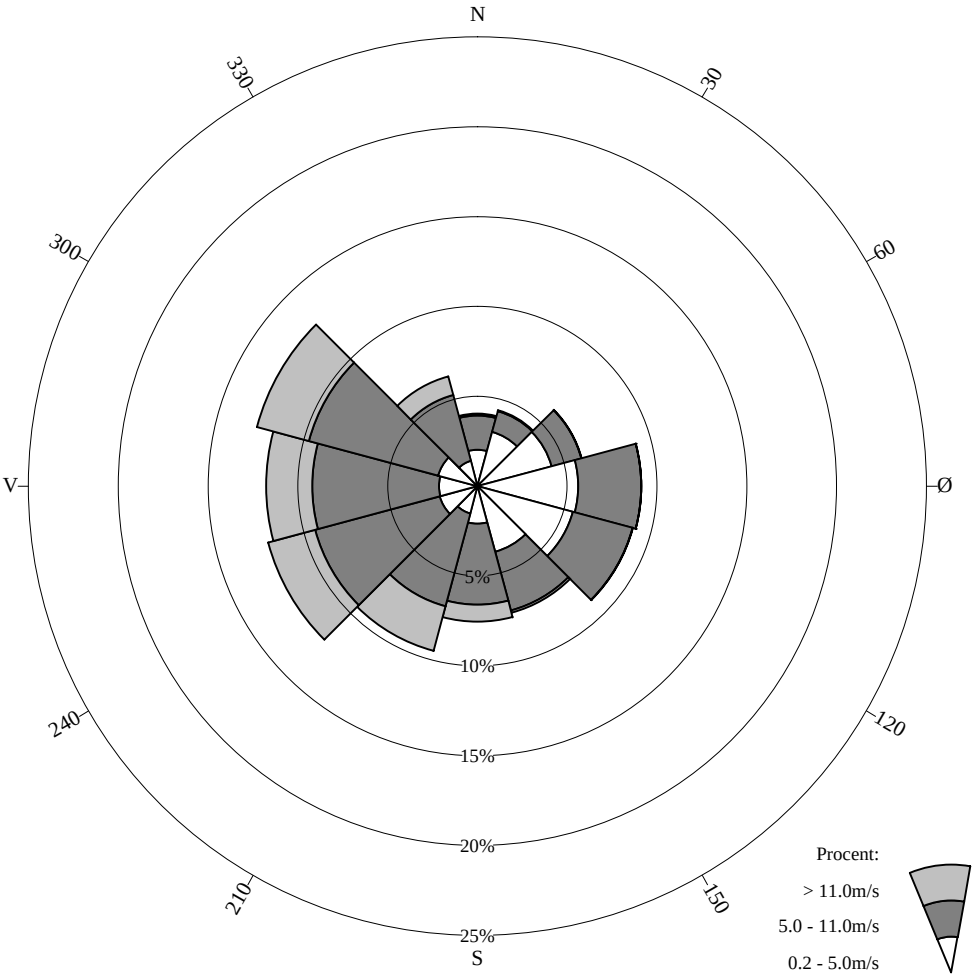
# 25348 Vester Vedsted

| | |
|---|---|
| **Position:** 55° 18’ N, 08° 40’ E<br>**UTM-koordinater:** 32U 6127.450N 478.170E<br>**Stationsbasis** (m.o.h.)**:** 3<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 18’ N, long 08° 40’ E<br>**UTM-positions:** 32U 6127.450N 478.170E<br>**Elevation** (m.a.s.l.)**:** 3<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 25348
# VESTER VEDSTED

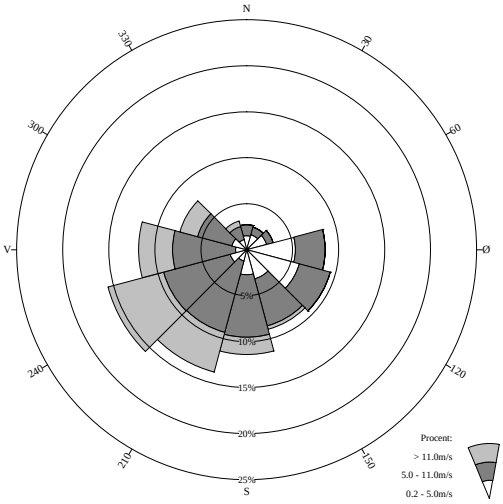
01-01-89 - 31-12-98



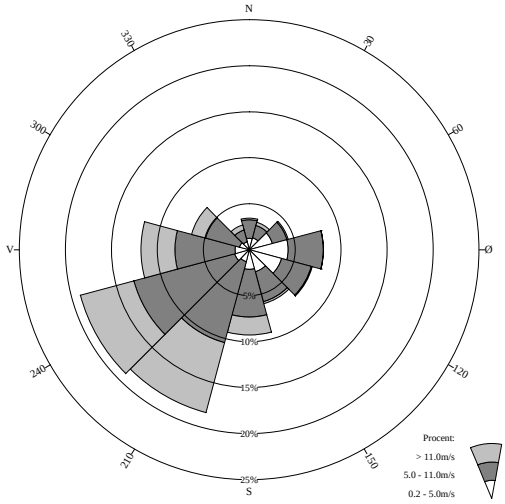

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.0 | 4.4 | 6.0 | 9.1 | 9.0 | 7.3 | 7.5 | 9.5 | 12.1 | 11.8 | 12.7 | 6.3 | 99.7 |
| % 0.2-5.0m/s | 2.0 | 3.1 | 4.3 | 5.6 | 5.5 | 3.8 | 2.1 | 1.6 | 2.2 | 2.1 | 2.3 | 1.5 | 36.1 |
| % 5.0-11.0m/s | 1.9 | 1.2 | 1.7 | 3.5 | 3.4 | 3.4 | 4.5 | 5.3 | 7.2 | 7.1 | 7.4 | 3.8 | 50.4 |
| % > 11.0m/s | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.9 | 2.6 | 2.7 | 2.6 | 3.0 | 1.1 | 13.2 |
| Middel hastighed | 5.2 | 4.2 | 4.2 | 4.6 | 4.7 | 5.2 | 7.1 | 8.7 | 8.3 | 8.3 | 8.4 | 7.6 | 6.8 |
| Største hastighed | 17.1 | 14.8 | 14.7 | 13.4 | 13.1 | 15.2 | 20.6 | 24.1 | 25.5 | 27.2 | 22.9 | 23.4 | 27.2 |

Totalt antal observationer = 86755 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 258 = 0.3%

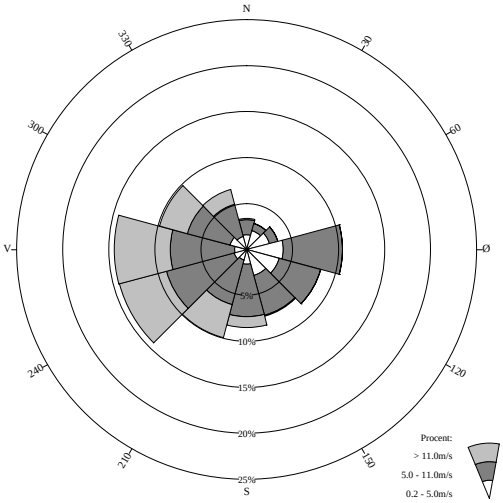
## JANUAR



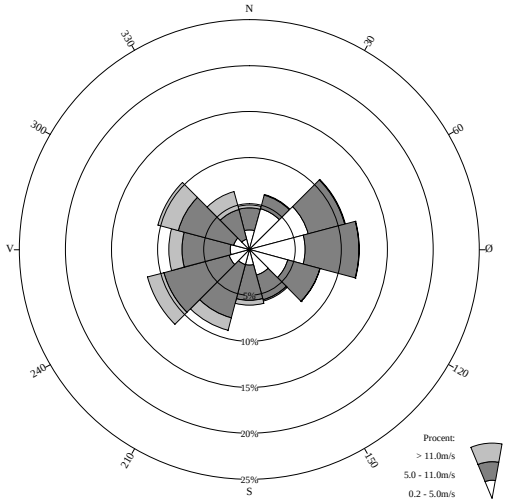

## FEBRUAR



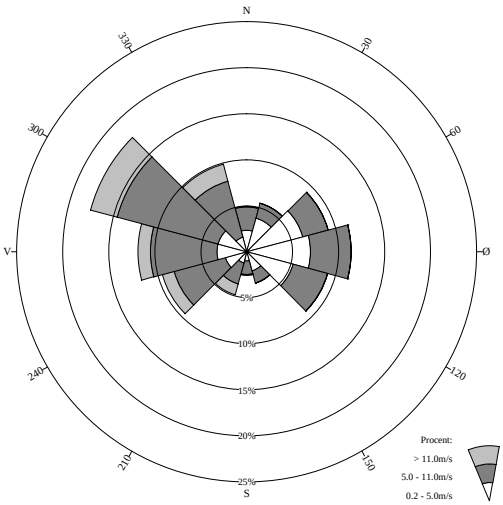

## MARTS



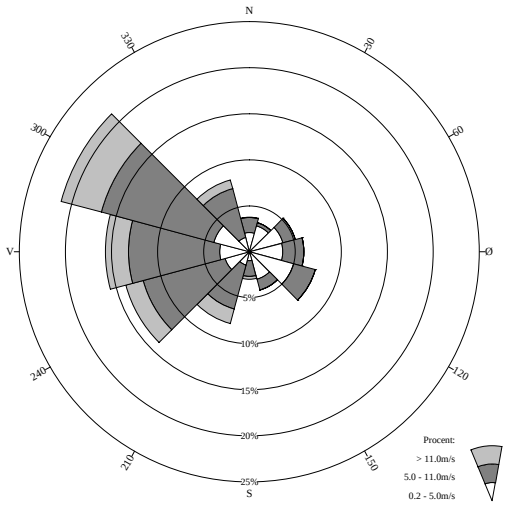

## APRIL



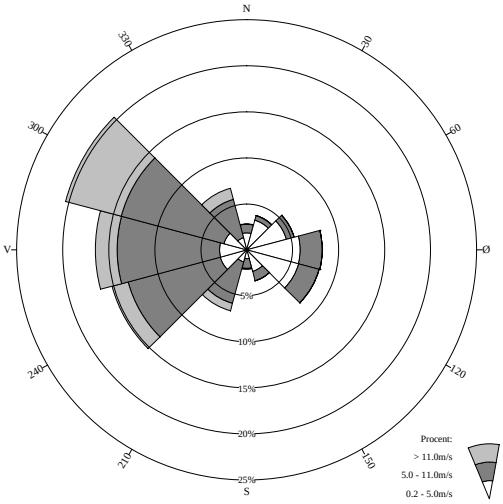

## MAJ



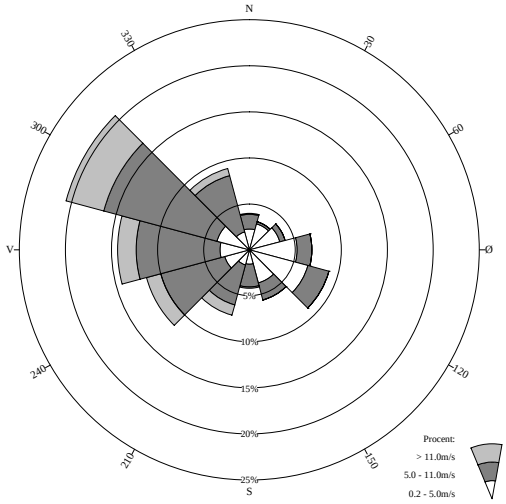

## JUNI



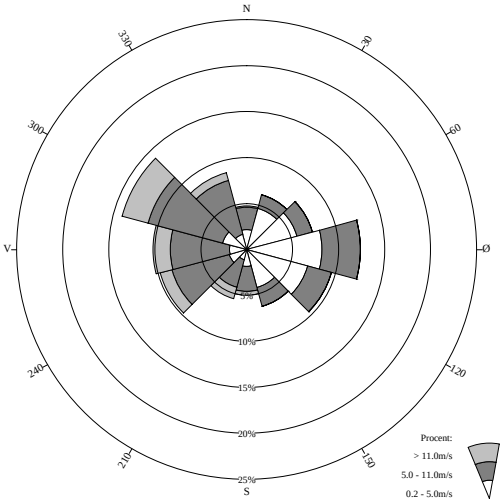
## JULI



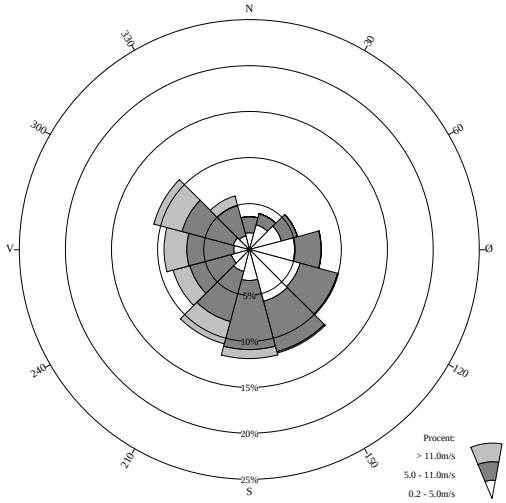

## AUGUST



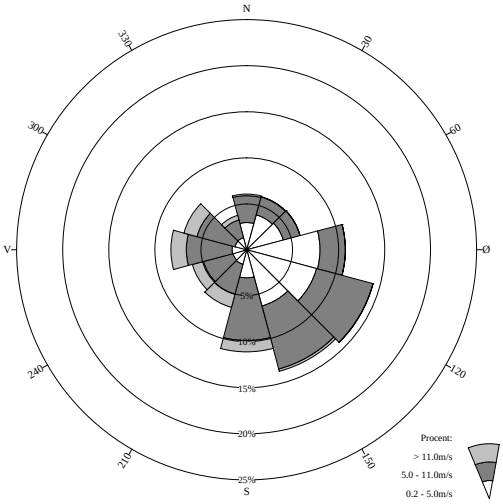

## SEPTEMBER



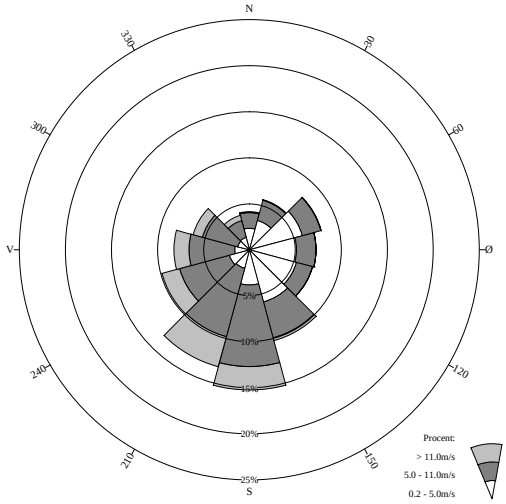

## OKTOBER




## NOVEMBER

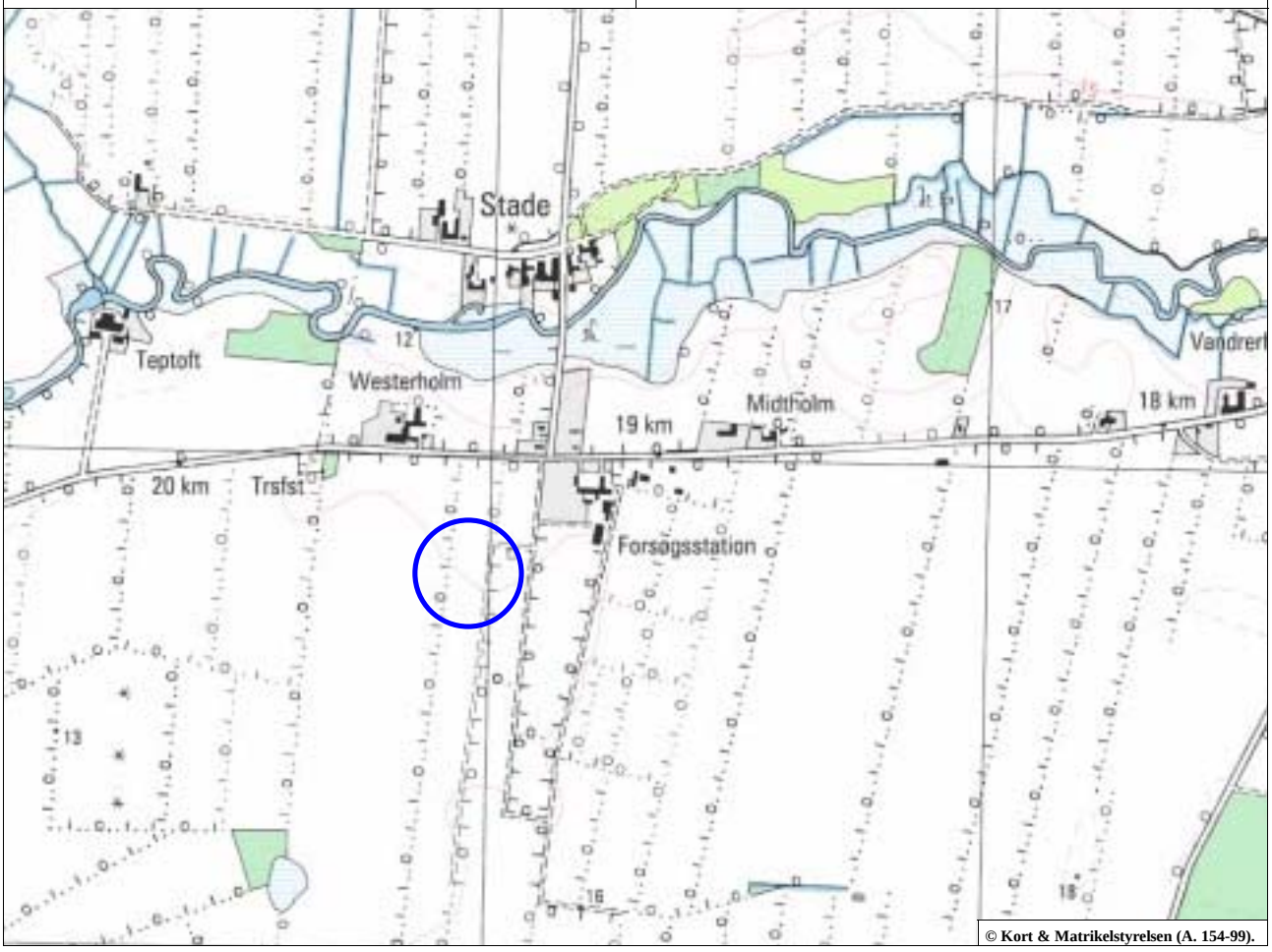



## DECEMBER



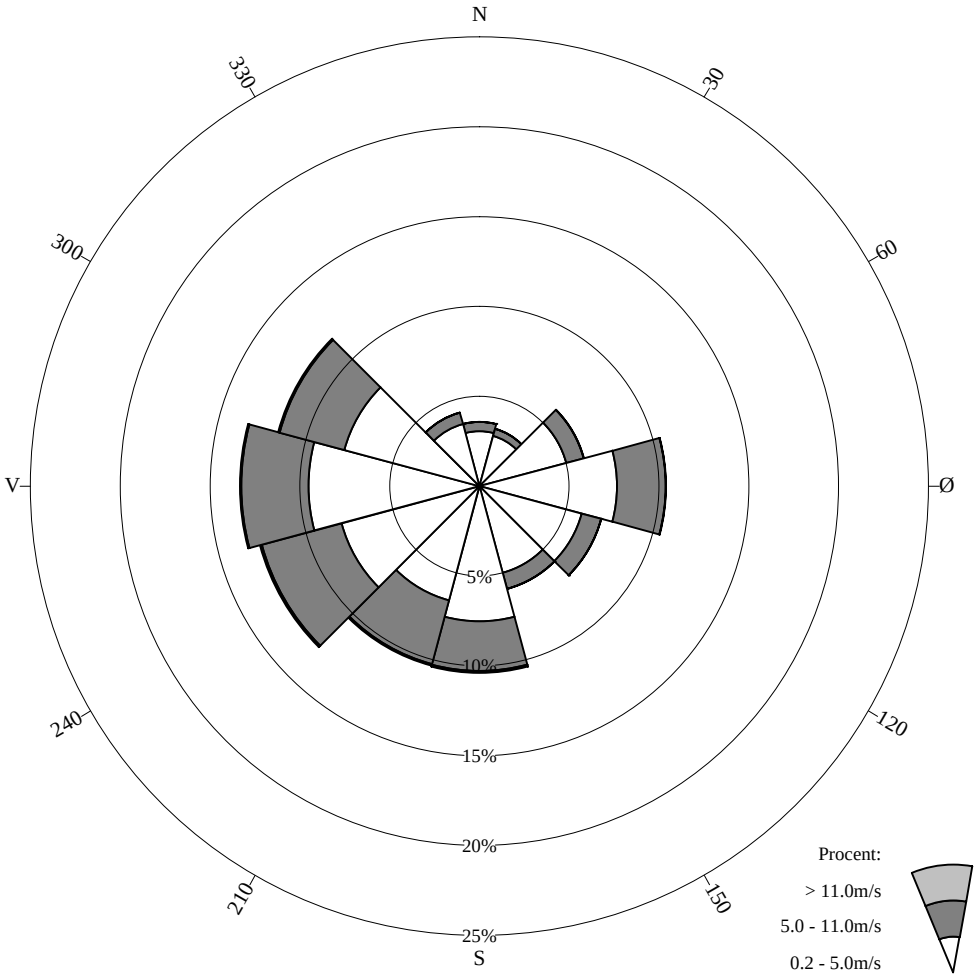
# 26401 Store Jyndevad

| | |
|---|---|
| **Position:** 54° 54’ N, 09° 07’ E<br>**UTM-koordinater:** 32U 6083.740N 507.950E<br>**Stationsbasis** (m.o.h.)**:** 15<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 54° 54’ N, long 09° 07’ E<br>**UTM-positions:** 32U 6083.740N 507.950E<br>**Elevation** (m.a.s.l.)**:** 15<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 26401
# STORE JYNDEVAD II

01-01-89 - 31-12-98



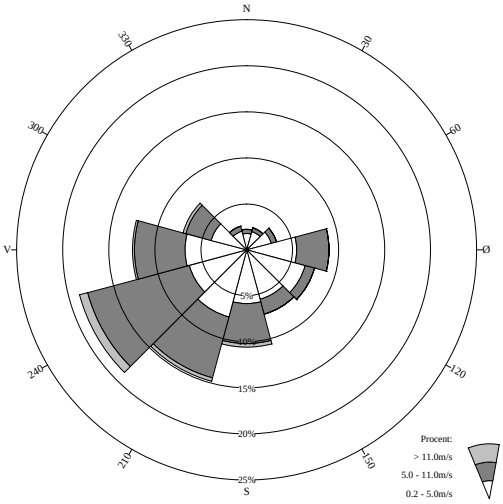

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.6 | 3.3 | 6.0 | 10.4 | 7.0 | 5.9 | 10.4 | 10.3 | 12.7 | 13.3 | 11.6 | 4.2 | 98.8 |
| % 0.2-5.0m/s | 3.1 | 2.9 | 5.0 | 7.7 | 5.9 | 5.0 | 7.5 | 6.6 | 8.0 | 9.5 | 7.8 | 3.6 | 72.5 |
| % 5.0-11.0m/s | 0.5 | 0.4 | 1.0 | 2.7 | 1.1 | 0.9 | 2.8 | 3.7 | 4.6 | 3.7 | 3.7 | 0.6 | 25.8 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.5 |
| Middel hastighed | 3.1 | 2.9 | 3.4 | 3.8 | 3.3 | 3.3 | 4.1 | 4.4 | 4.4 | 4.0 | 4.2 | 3.2 | 3.9 |
| Største hastighed | 11.0 | 9.2 | 12.7 | 15.4 | 9.9 | 10.2 | 14.7 | 17.4 | 17.5 | 17.2 | 15.5 | 12.9 | 17.5 |

Totalt antal observationer = 87173 Kilde: DMI

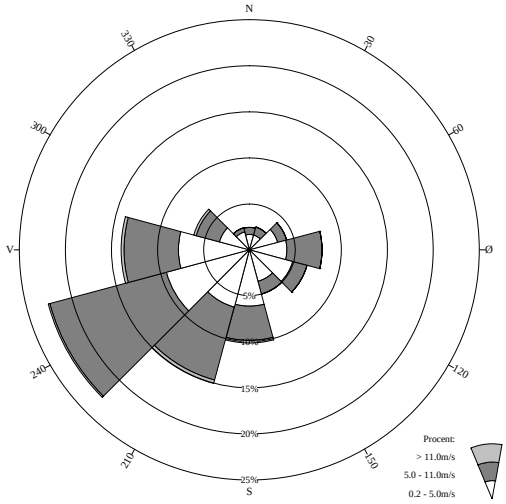
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1016 = 1.2%

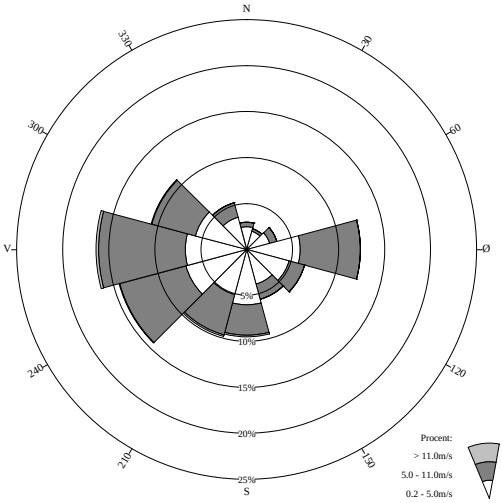
## JANUAR



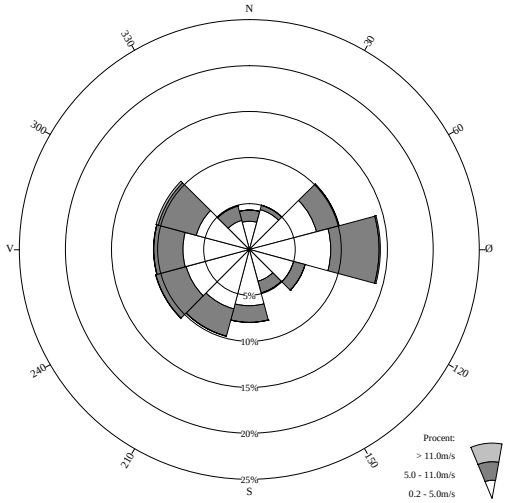

## FEBRUAR



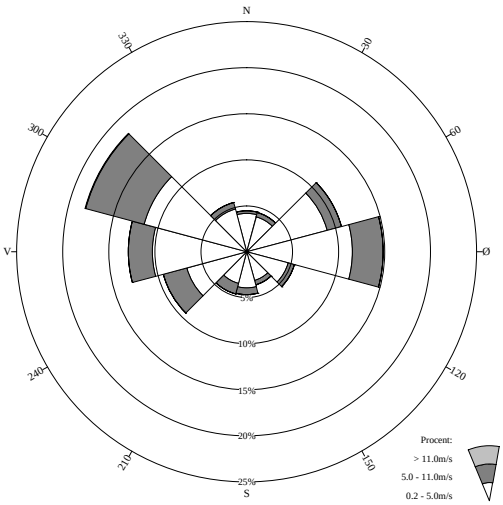

## MARTS



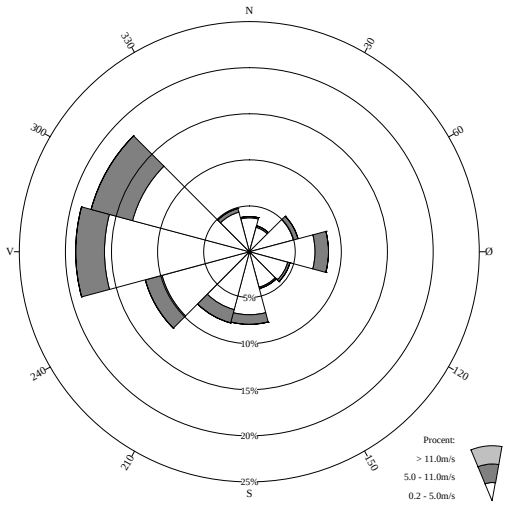

## APRIL



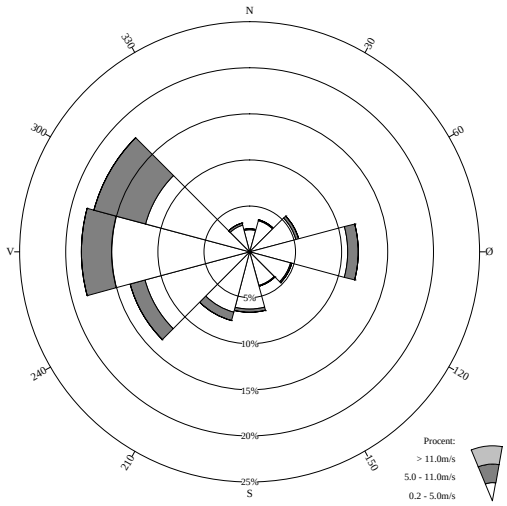

## MAJ



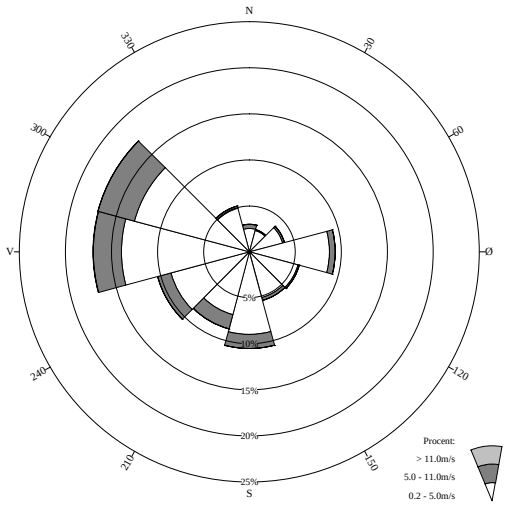

## JUNI



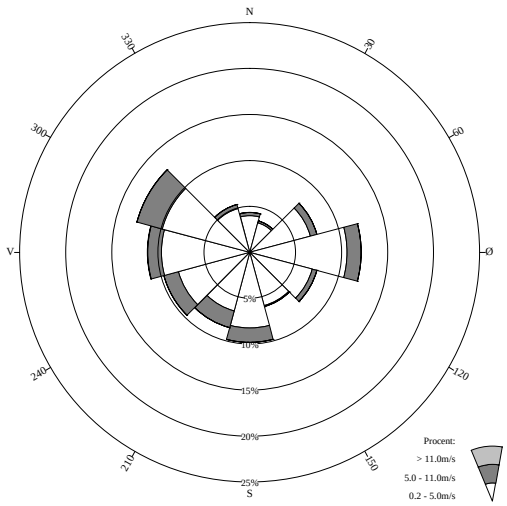
## JULI



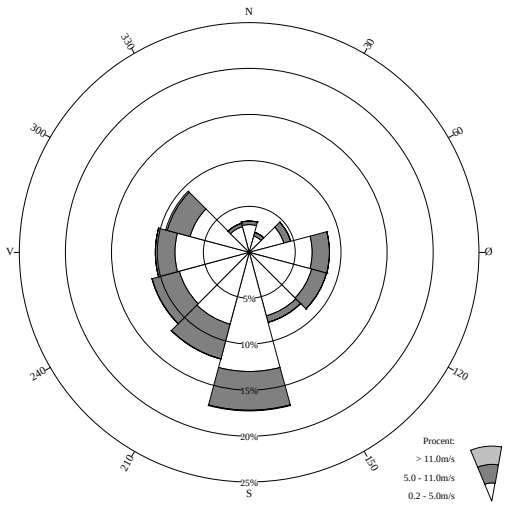

## AUGUST



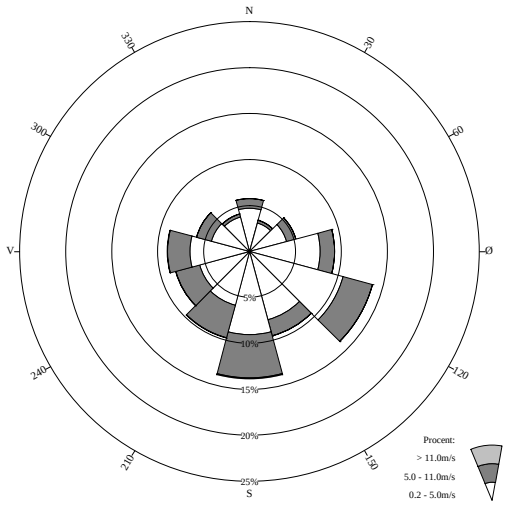

## SEPTEMBER



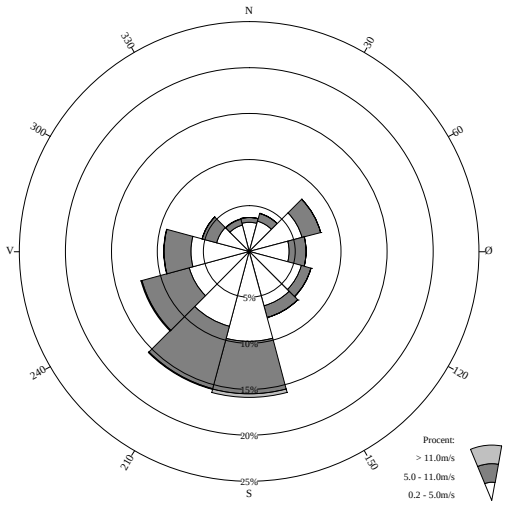

## OKTOBER




## NOVEMBER

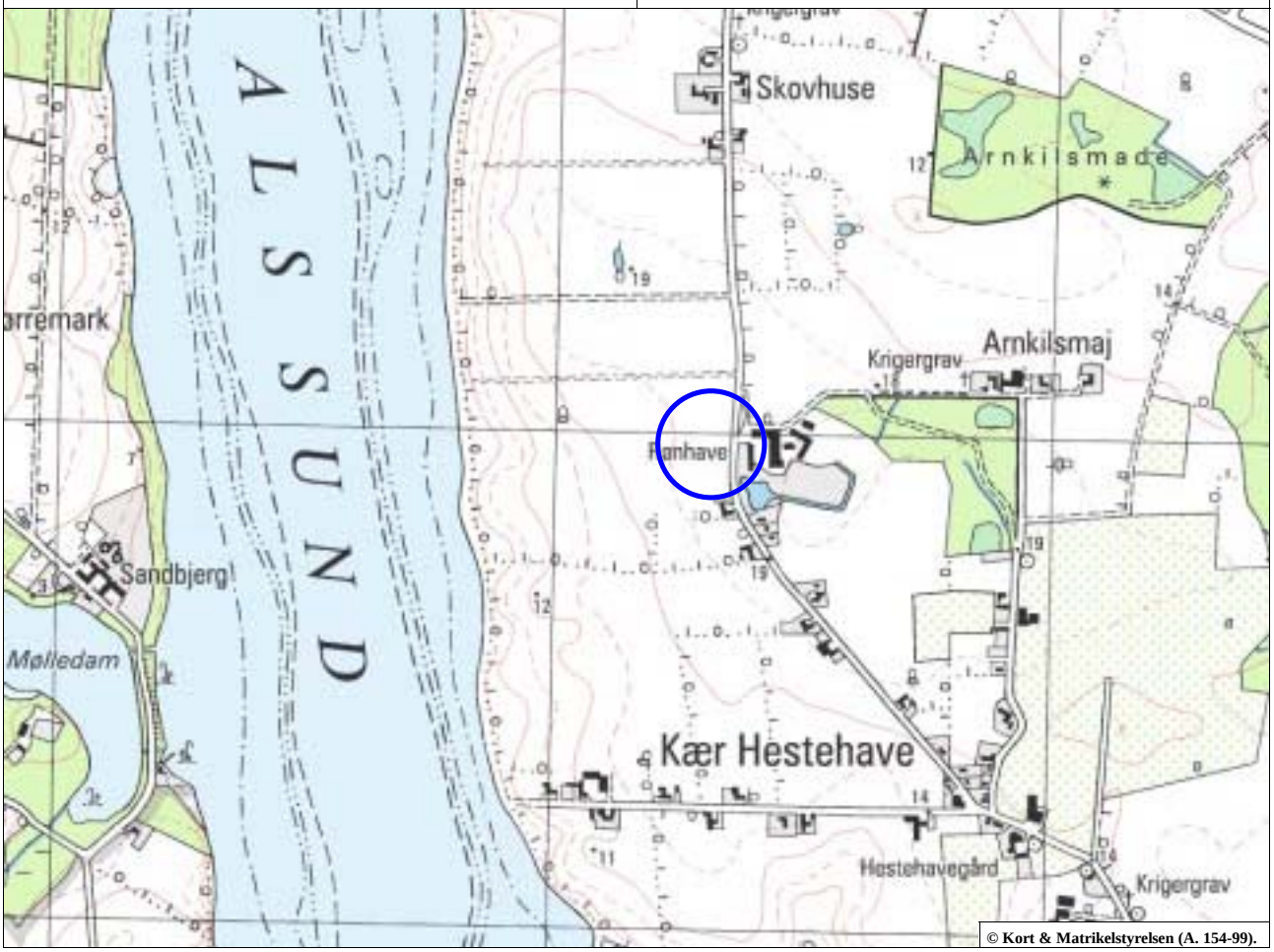



## DECEMBER



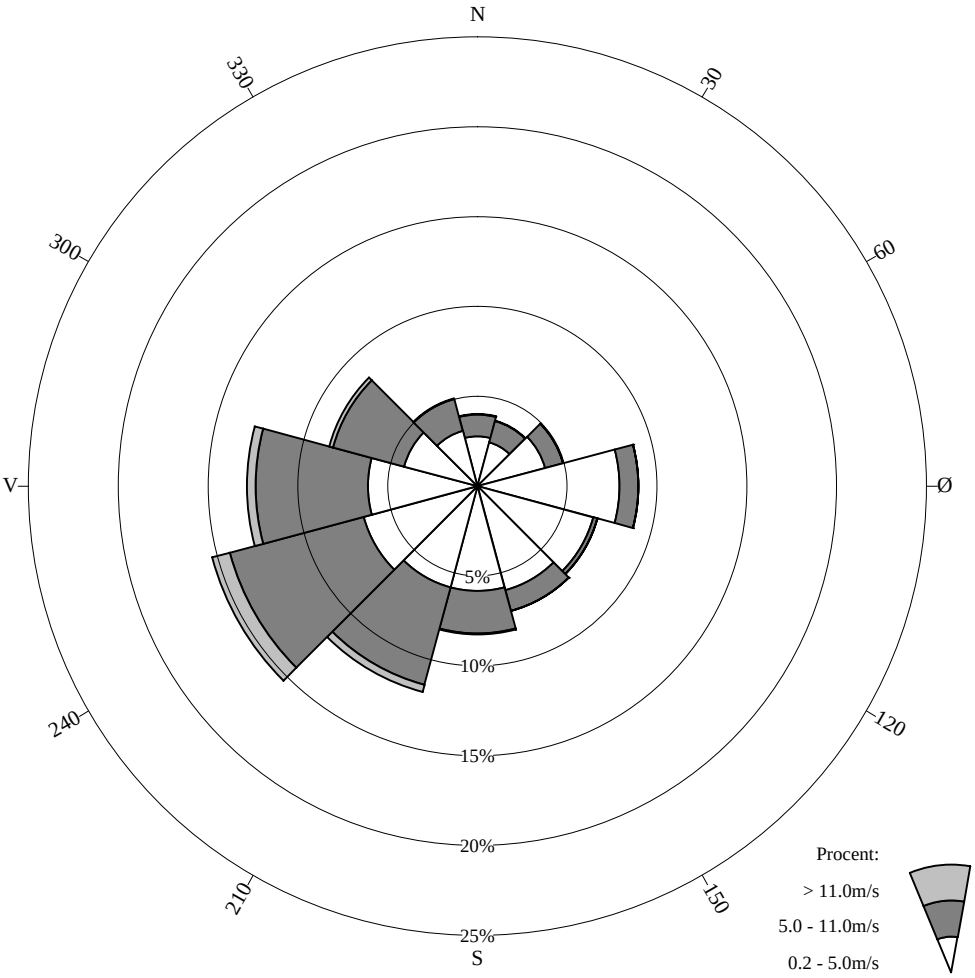
# 26471 Rønhave

| | |
|---|---|
| **Position:** 54° 57’ N, 09° 46’ E<br>**UTM-koordinater:** 32U 6089.990N 549.310E<br>**Stationsbasis** (m.o.h.)**:** 18<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 54° 57’ N, long 09° 46’ E<br>**UTM-positions:** 32U 6089.990N 549.310E<br>**Elevation** (m.a.s.l.)**:** 18<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 26471
# RØNHAVE II

01-01-89 - 31-12-98



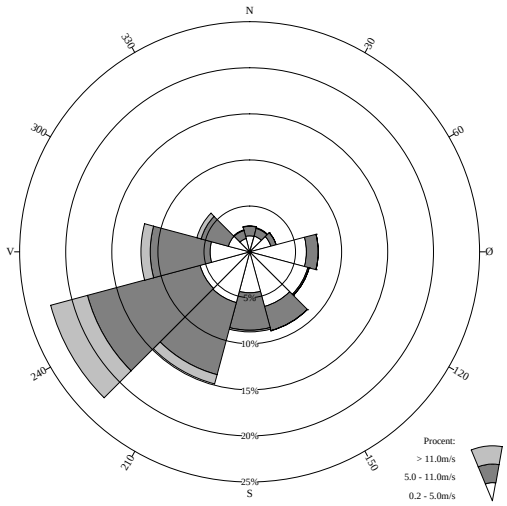

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.0 | 3.8 | 4.9 | 9.0 | 6.9 | 7.2 | 8.3 | 11.8 | 15.3 | 12.8 | 8.6 | 5.1 | 97.7 |
| % 0.2-5.0m/s | 2.8 | 2.5 | 3.9 | 7.9 | 6.7 | 6.0 | 5.8 | 5.8 | 6.6 | 6.1 | 4.2 | 3.2 | 61.6 |
| % 5.0-11.0m/s | 1.2 | 1.2 | 1.0 | 1.0 | 0.2 | 1.2 | 2.4 | 5.6 | 7.7 | 6.3 | 4.1 | 1.8 | 33.8 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.4 | 1.0 | 0.5 | 0.2 | 0.0 | 2.3 |
| Middel hastighed | 4.1 | 4.1 | 3.6 | 3.2 | 2.6 | 3.4 | 4.1 | 5.3 | 5.9 | 5.4 | 5.2 | 4.5 | 4.6 |
| Største hastighed | 15.1 | 12.9 | 12.0 | 10.6 | 7.8 | 10.6 | 14.7 | 20.3 | 20.1 | 22.0 | 19.9 | 16.4 | 22.0 |

Totalt antal observationer = 87194 Kilde: DMI

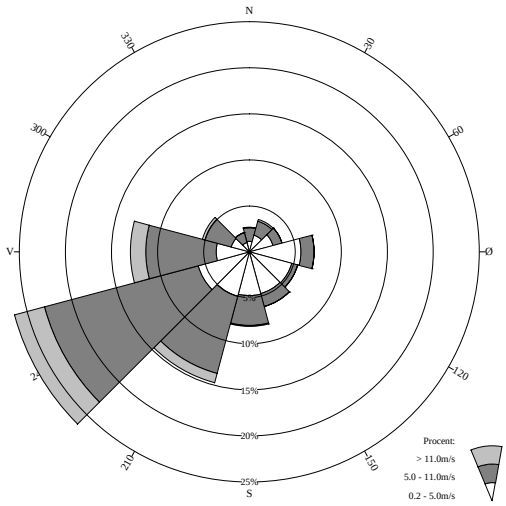
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 2022 = 2.3%

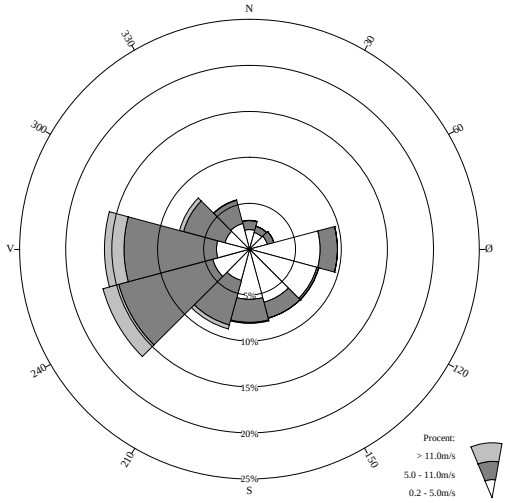
## JANUAR



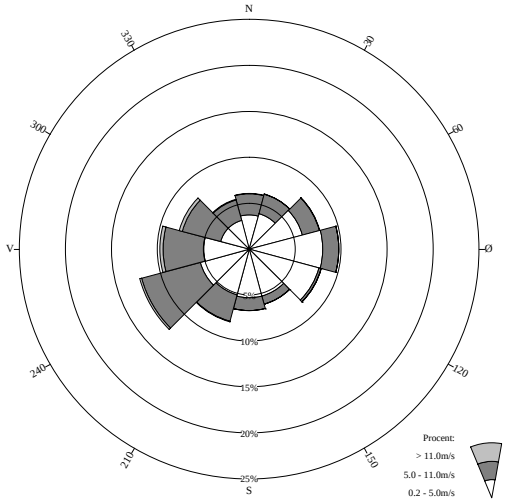

## FEBRUAR



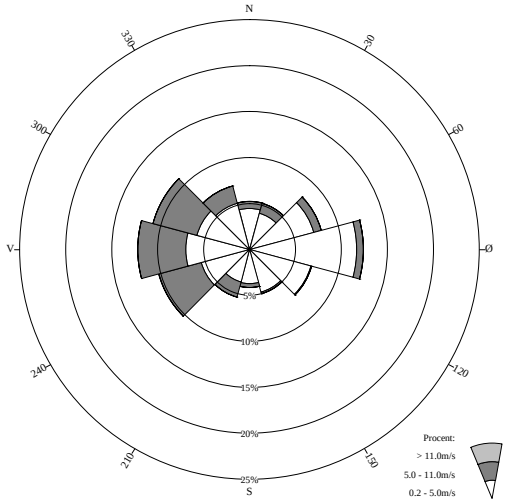

## MARTS



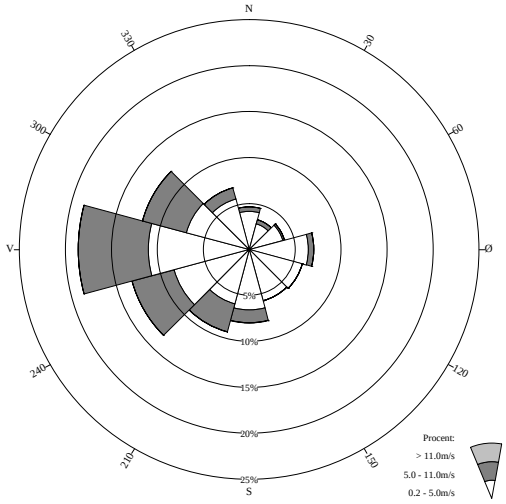

## APRIL



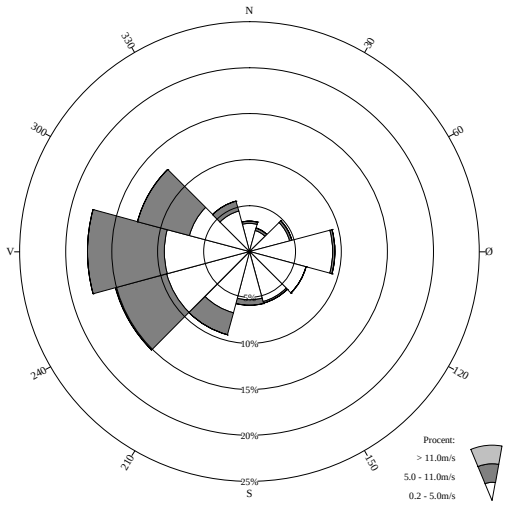

## MAJ



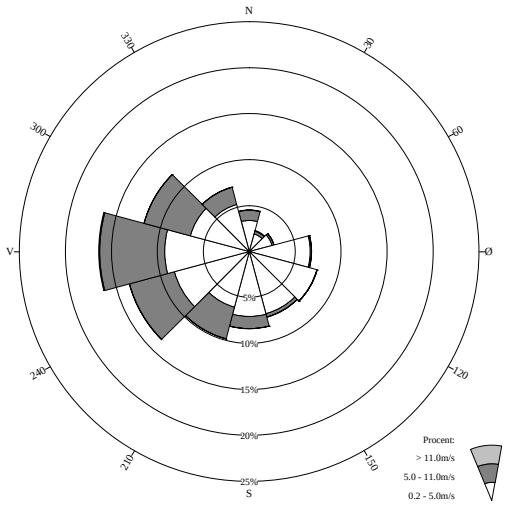

## JUNI



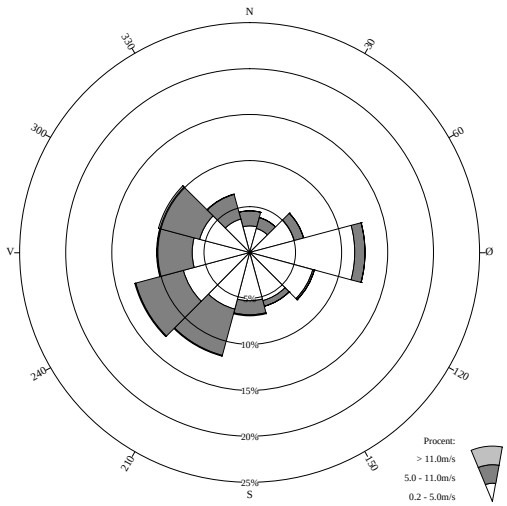
## JULI



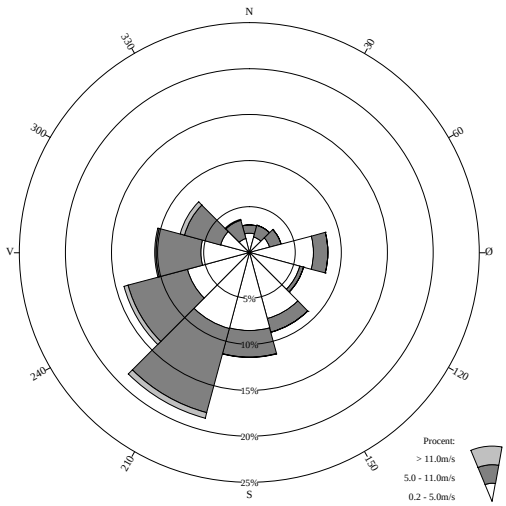

## AUGUST



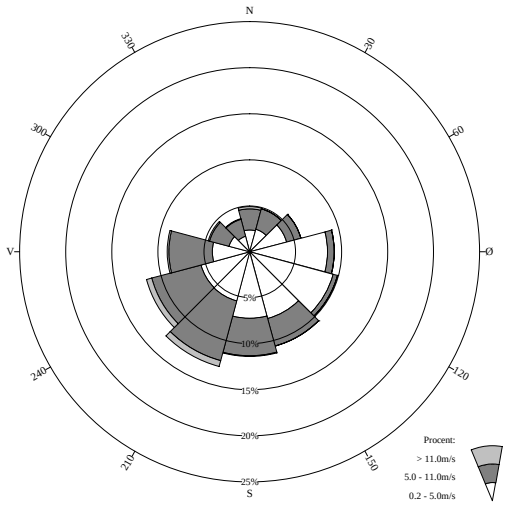

## SEPTEMBER



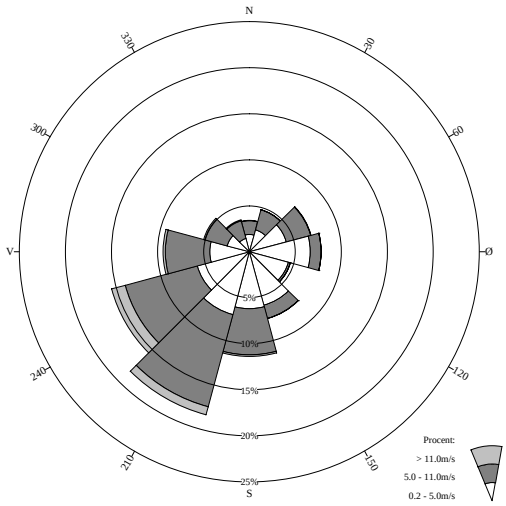

## OKTOBER




## NOVEMBER

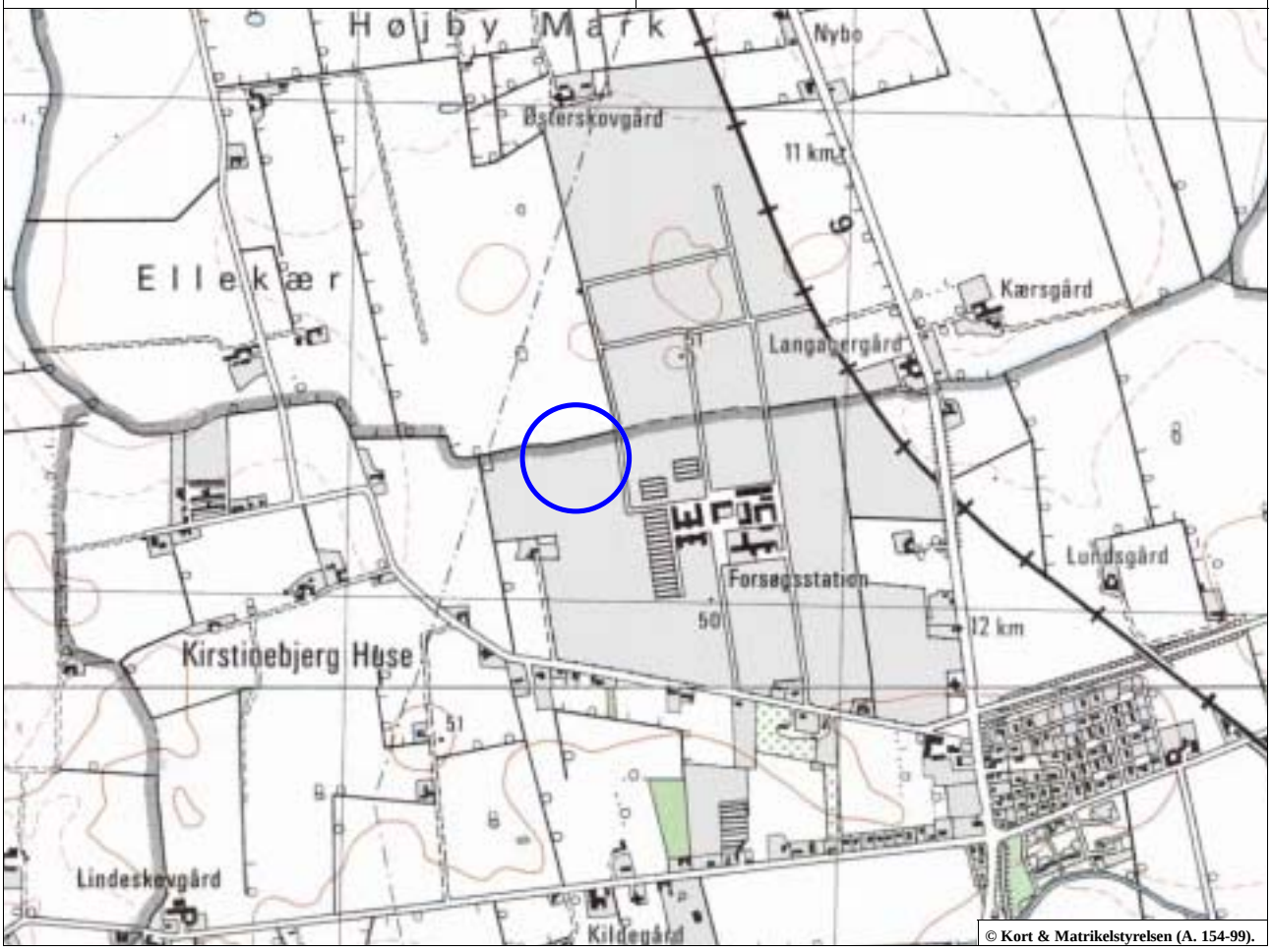



## DECEMBER



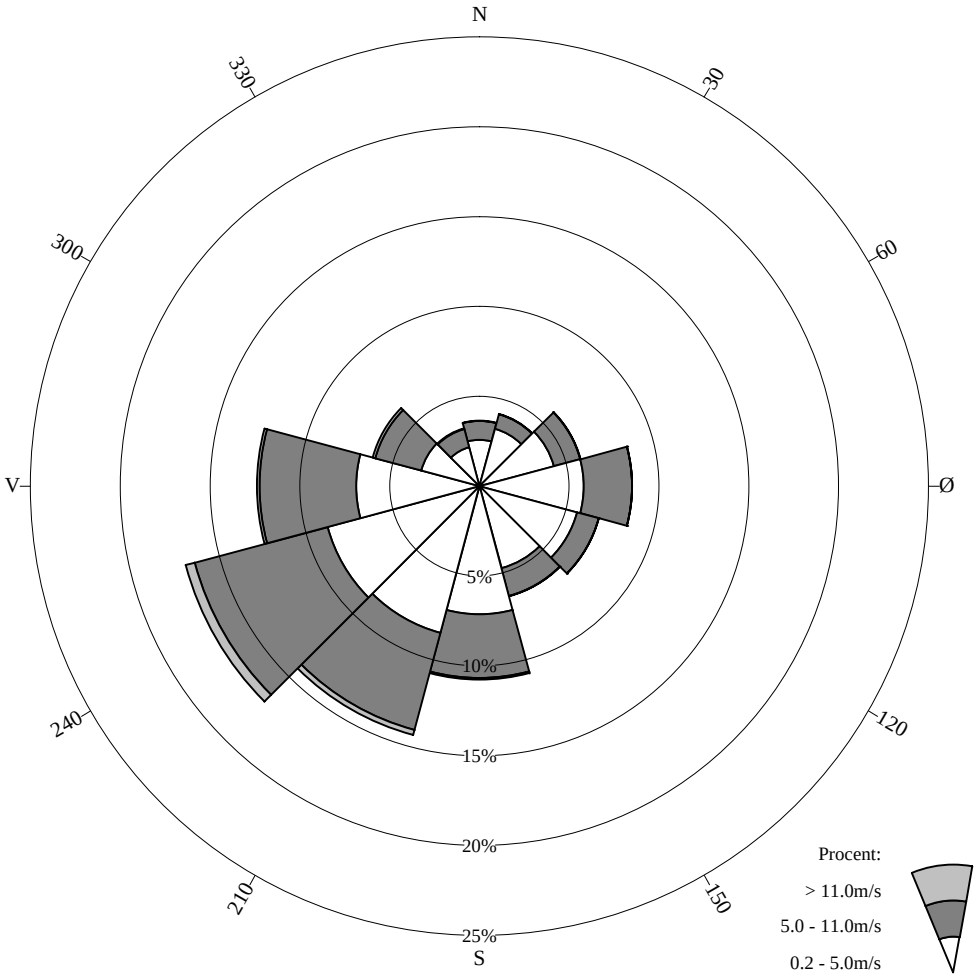
# 28281 Årslev

| | |
|---|---|
| **Position:** 55° 19’ N, 10° 26’ E<br>**UTM-koordinater:** 32U 6130.290N 591.460E<br>**Stationsbasis** (m.o.h.)**:** 49<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 19’ N, long 10° 26’ E<br>**UTM-positions:** 32U 6130.290N 591.460E<br>**Elevation** (m.a.s.l.)**:** 49<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 28281
# ÅRSLEV II

01-01-89 - 31-12-98



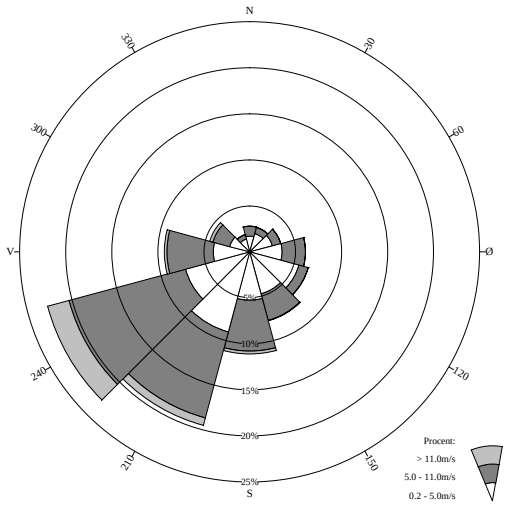

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.6 | 4.2 | 5.8 | 8.5 | 6.9 | 6.3 | 10.8 | 14.3 | 16.9 | 12.4 | 6.2 | 3.3 | 99.3 |
| % 0.2-5.0m/s | 2.6 | 3.3 | 4.3 | 5.8 | 5.6 | 4.7 | 7.1 | 8.5 | 8.8 | 6.9 | 3.4 | 2.3 | 63.2 |
| % 5.0-11.0m/s | 1.0 | 0.8 | 1.5 | 2.7 | 1.2 | 1.6 | 3.5 | 5.6 | 7.7 | 5.4 | 2.7 | 1.0 | 34.8 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.5 | 0.1 | 0.1 | 0.0 | 1.3 |
| Middel hastighed | 4.0 | 3.5 | 3.8 | 4.1 | 3.5 | 3.9 | 4.3 | 4.7 | 5.2 | 4.8 | 5.0 | 4.2 | 4.5 |
| Største hastighed | 12.9 | 13.2 | 13.8 | 11.4 | 9.6 | 14.6 | 13.7 | 18.9 | 19.2 | 17.9 | 18.4 | 14.6 | 19.2 |

Totalt antal observationer = 86971 Kilde: DMI

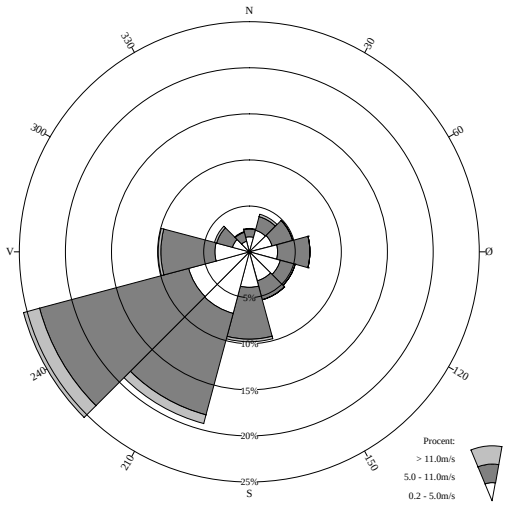
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 590 = 0.7%

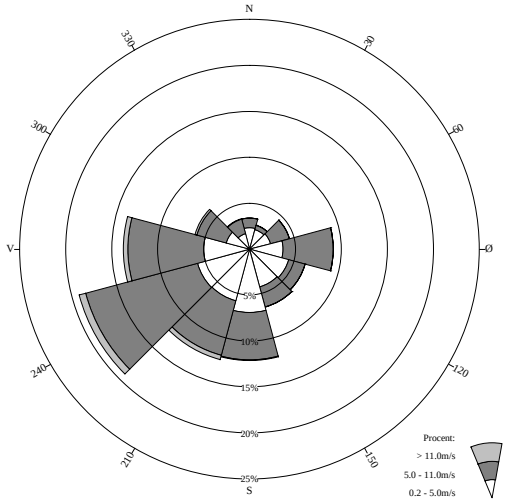
## JANUAR



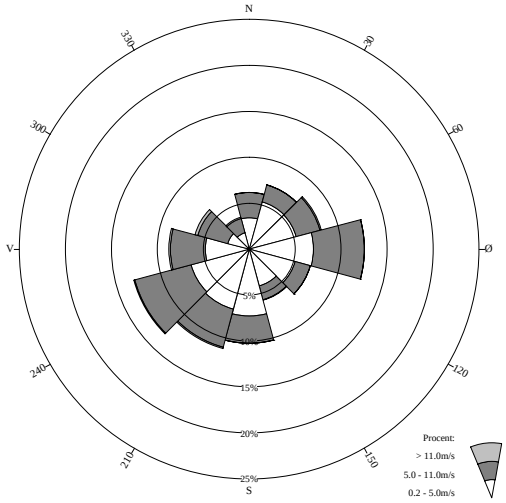

## FEBRUAR



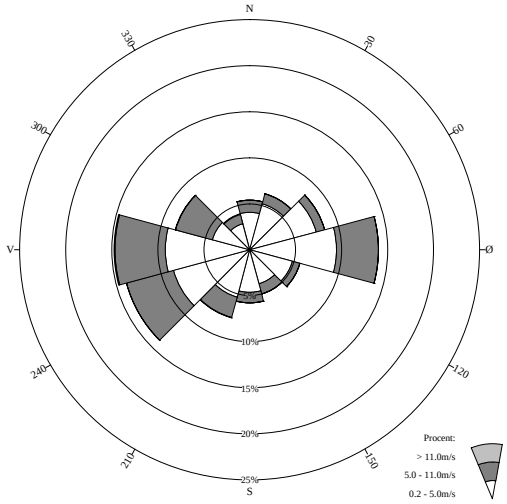

## MARTS



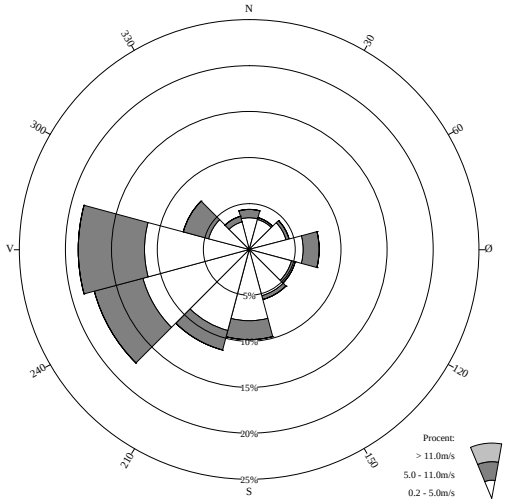

## APRIL



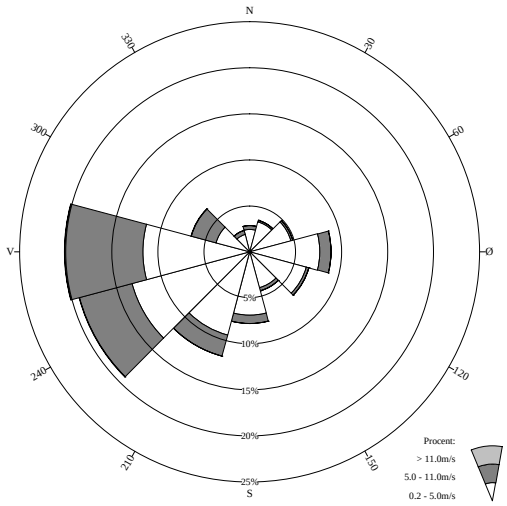

## MAJ



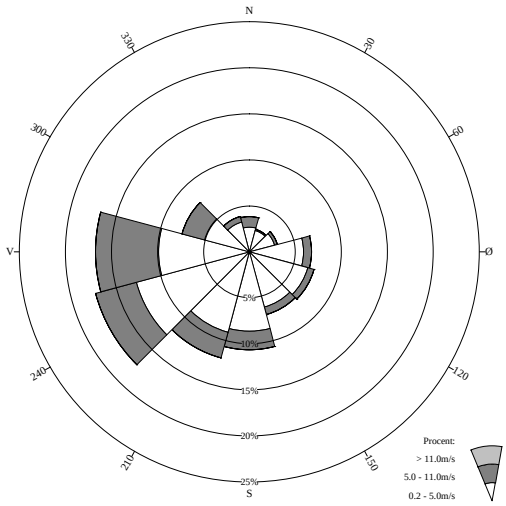

## JUNI



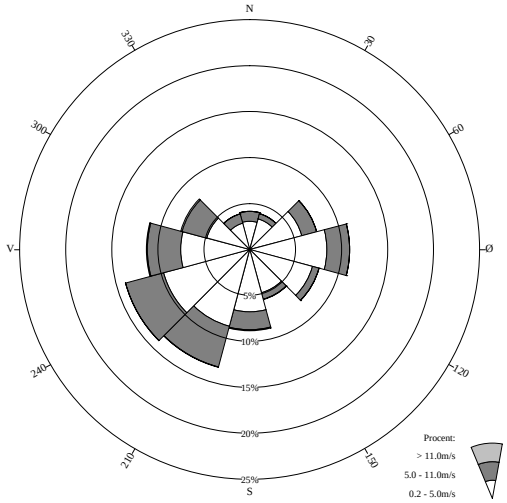
## JULI



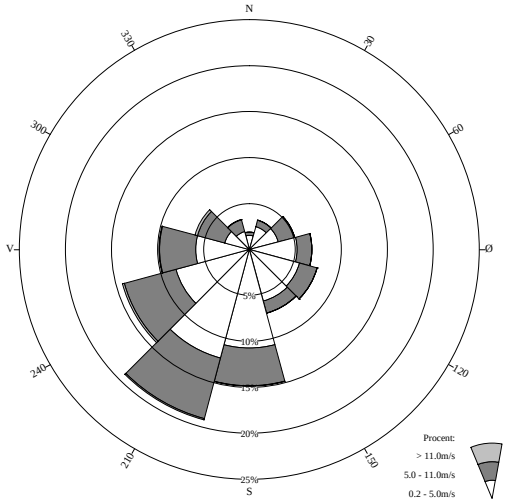

## AUGUST



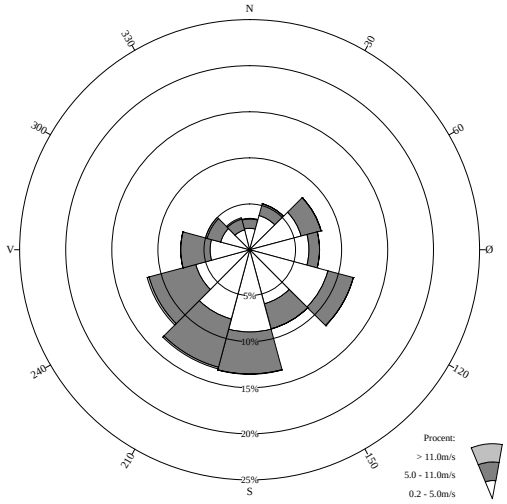

## SEPTEMBER



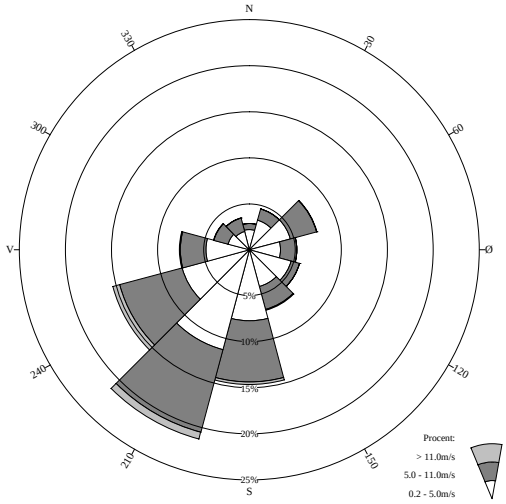

## OKTOBER




## NOVEMBER

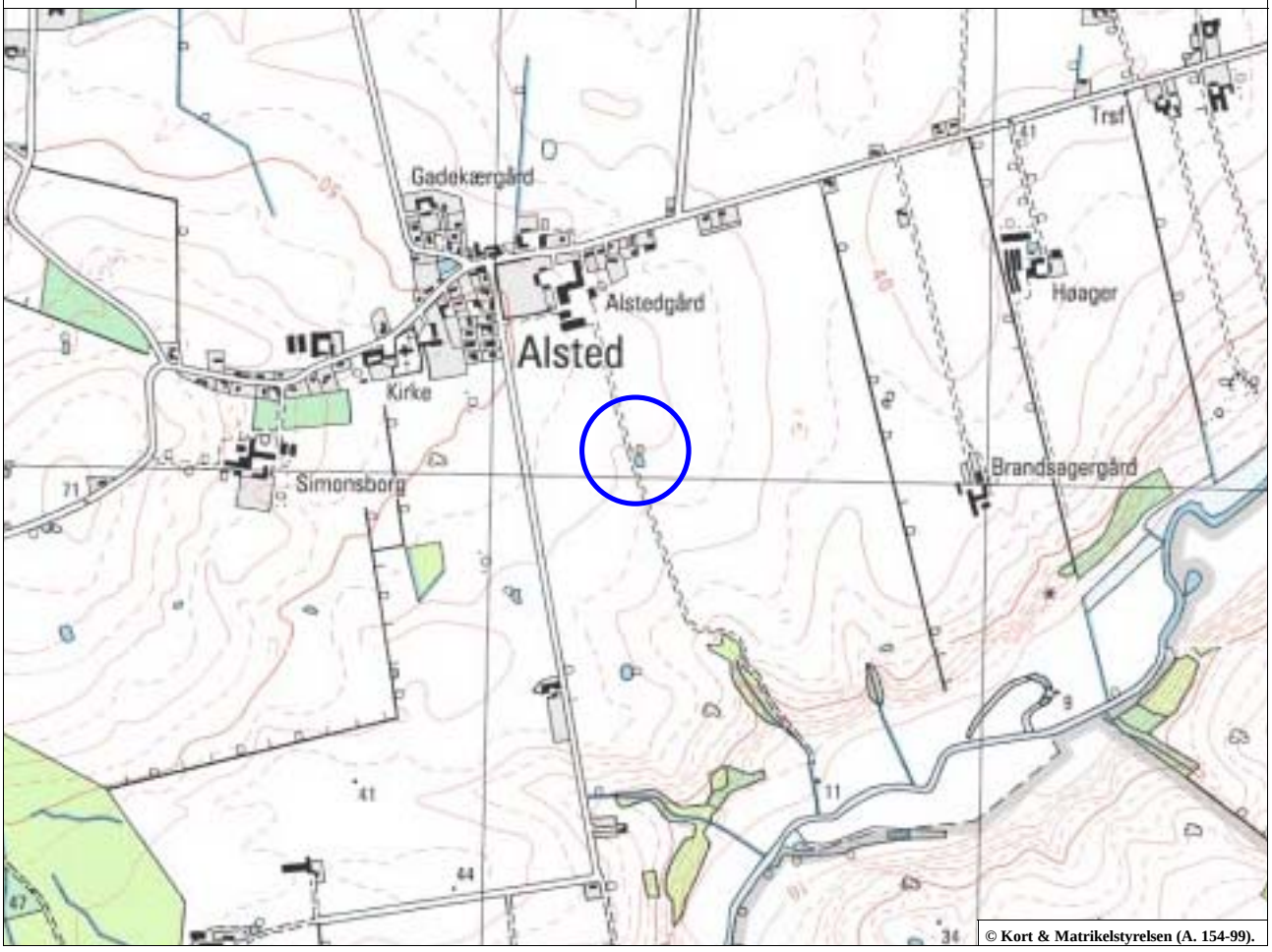



## DECEMBER



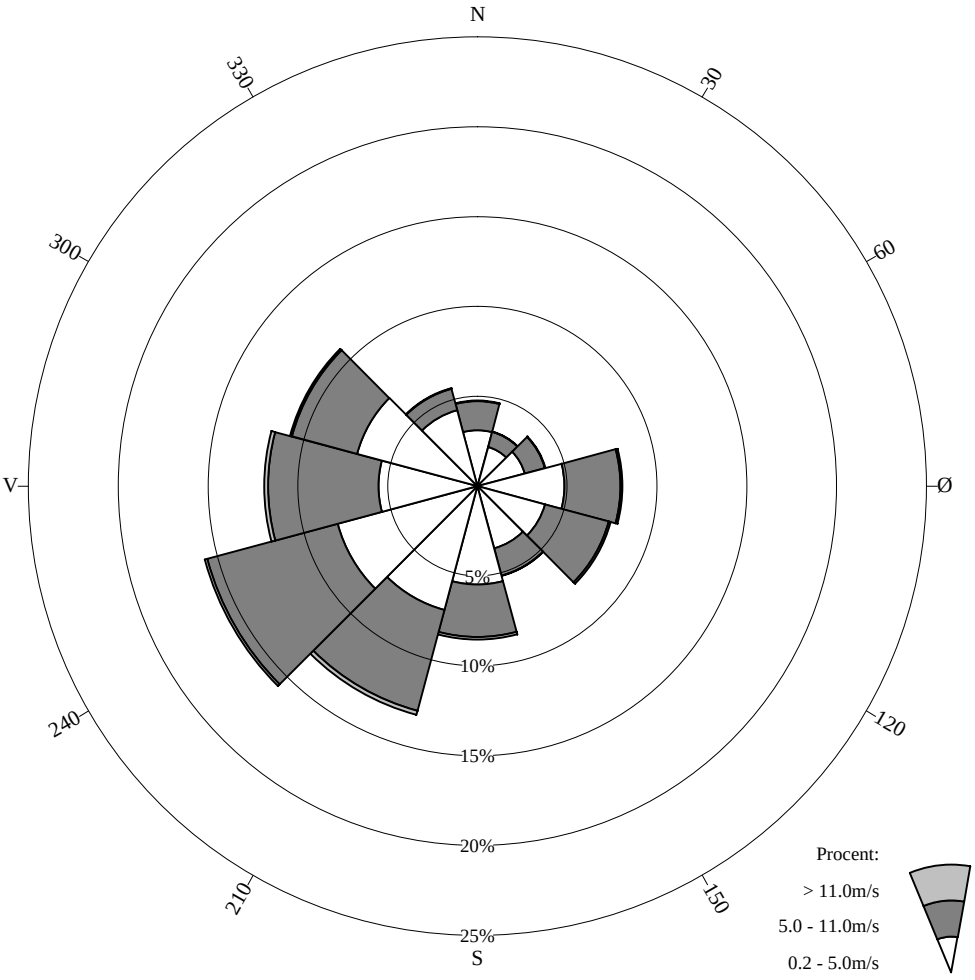
# 29271 Alstedgård

| | |
|---|---|
| **Position:** 55° 24’ N, 11° 40’ E<br>**UTM-koordinater:** 32U 6143.050N 669.280E<br>**Stationsbasis** (m.o.h.)**:** 45<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 24’ N, long 11° 40’ E<br>**UTM-positions:** 32U 6143.050N 669.280E<br>**Elevation** (m.a.s.l.)**:** 45<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 29271
# ALSTEDGÅRD II

01-01-89 - 31-12-98



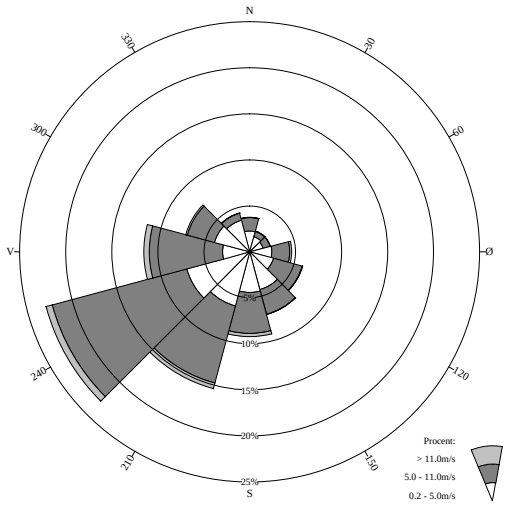

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.8 | 3.2 | 3.9 | 8.1 | 7.7 | 5.2 | 8.5 | 13.2 | 15.7 | 11.9 | 10.8 | 5.7 | 98.6 |
| % 0.2-5.0m/s | 3.1 | 2.3 | 2.7 | 4.8 | 3.9 | 3.6 | 5.5 | 7.1 | 8.1 | 5.5 | 6.9 | 4.4 | 58.0 |
| % 5.0-11.0m/s | 1.6 | 0.9 | 1.2 | 3.1 | 3.7 | 1.6 | 2.9 | 5.8 | 7.5 | 6.1 | 3.8 | 1.2 | 39.4 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | 0.1 | 0.2 | 0.1 | 0.0 | 1.2 |
| Middel hastighed | 4.4 | 3.9 | 3.9 | 4.5 | 5.1 | 4.0 | 4.4 | 5.0 | 5.1 | 5.4 | 4.5 | 3.8 | 4.7 |
| Største hastighed | 15.8 | 15.2 | 14.0 | 15.9 | 14.6 | 12.4 | 14.9 | 19.2 | 16.1 | 18.1 | 14.9 | 14.4 | 19.2 |

Totalt antal observationer = 87401 Kilde: DMI

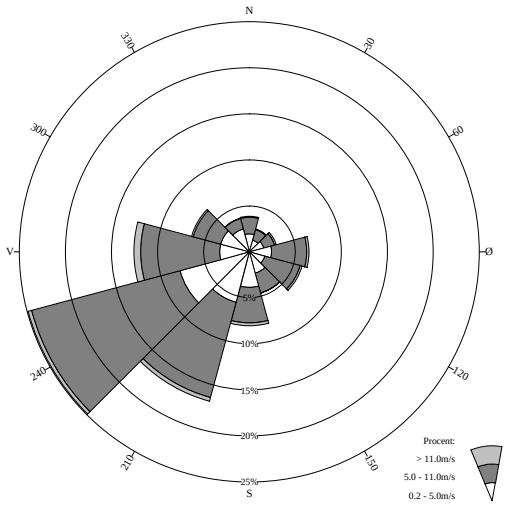
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1248 = 1.4%

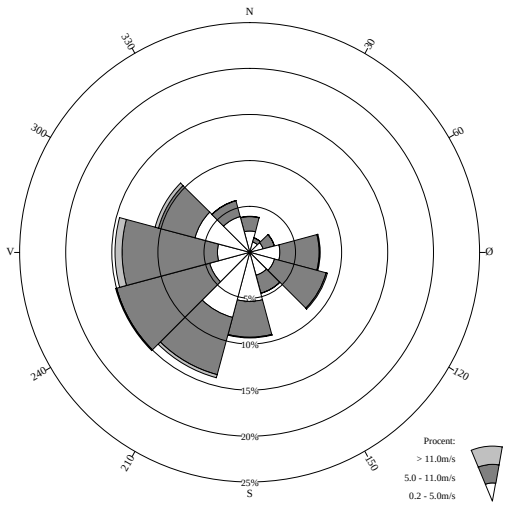
## JANUAR



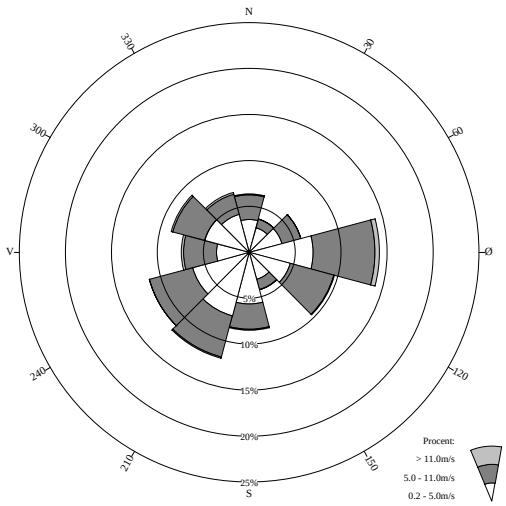

## FEBRUAR



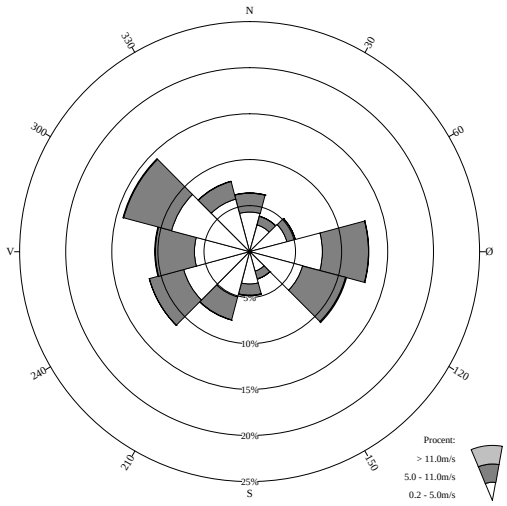

## MARTS



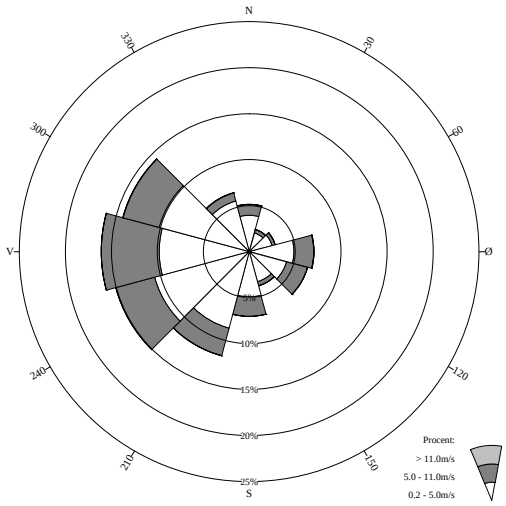

## APRIL



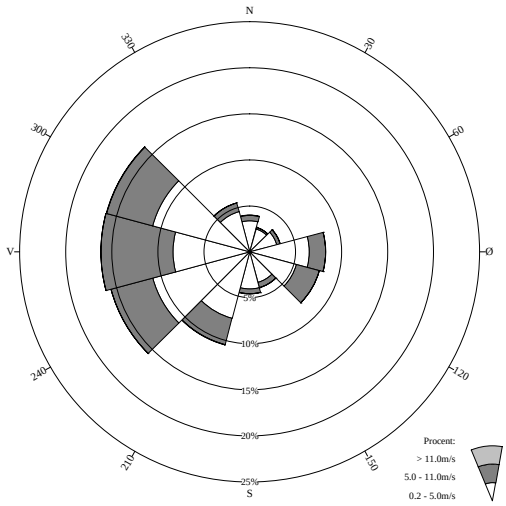

## MAJ



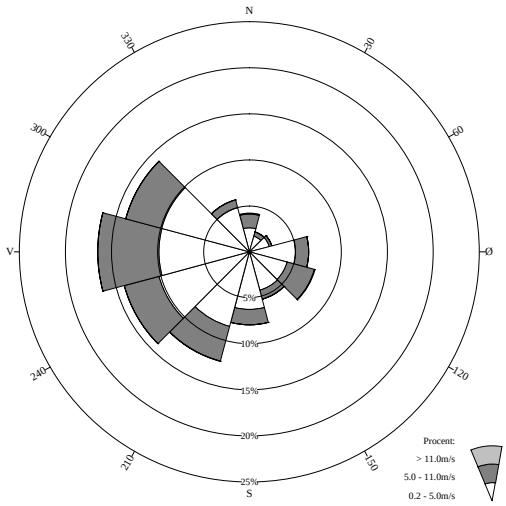

## JUNI



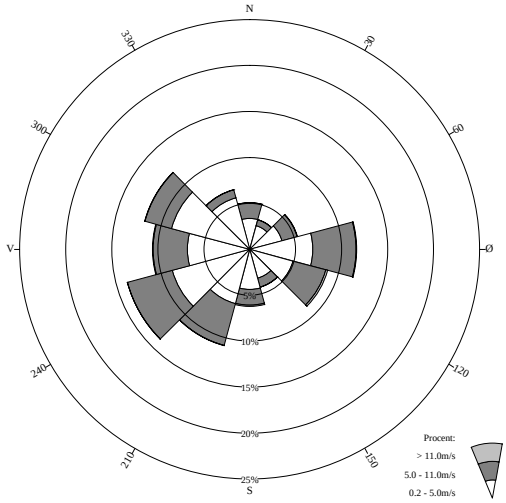
## JULI



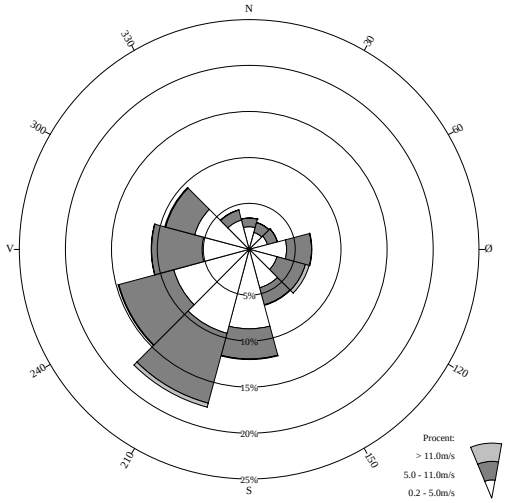

## AUGUST



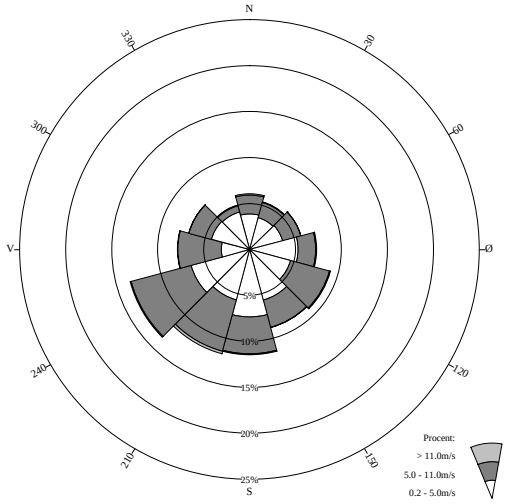

## SEPTEMBER



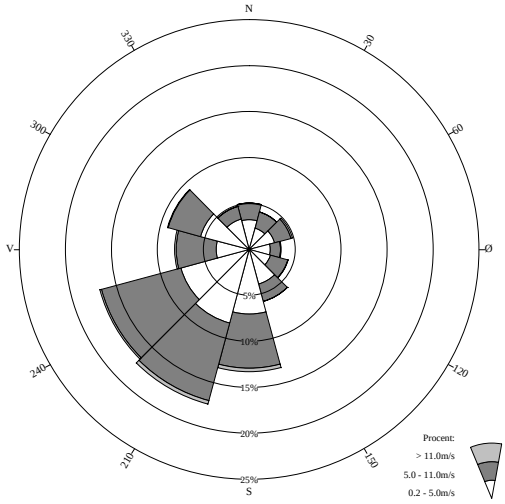

## OKTOBER




## NOVEMBER

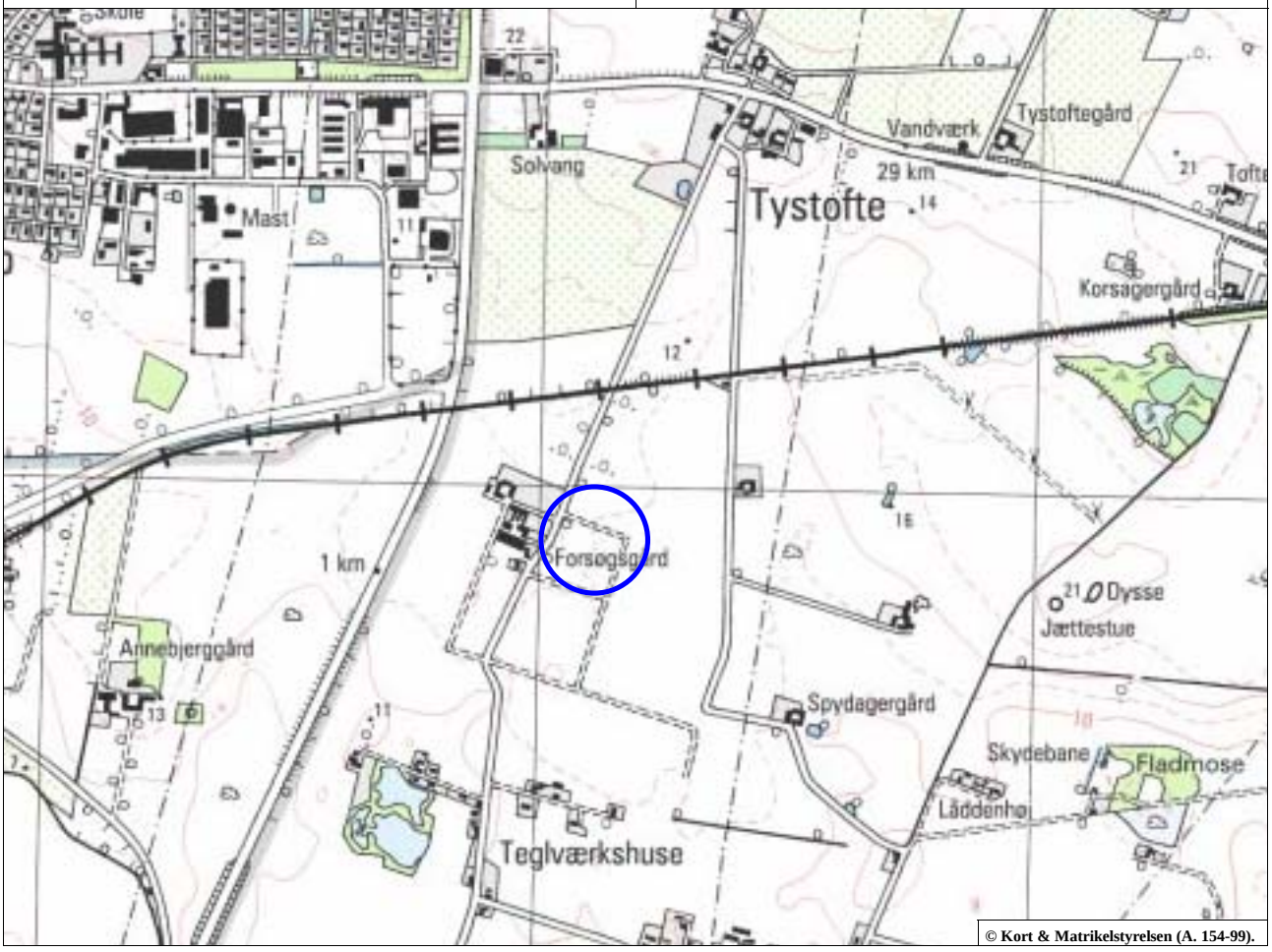



## DECEMBER



# 29439 Tystofte

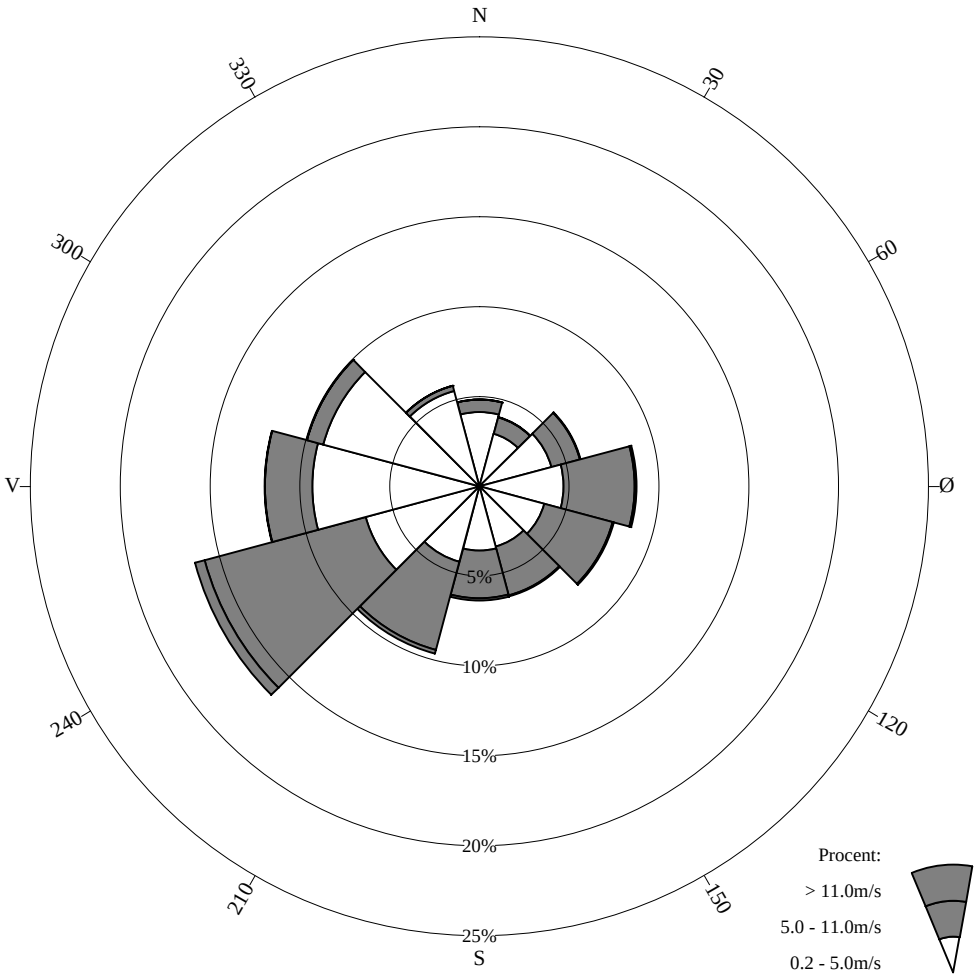
| | |
|---|---|
| **Position:** 55° 15’ N, 11° 20’ E<br>**UTM-koordinater:** 32U 6124.900N 648.100E<br>**Stationsbasis** (m.o.h.)**:** 12<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 15’ N, long 11° 20’ E<br>**UTM-positions:** 32U 6124.900N 648.100E<br>**Elevation** (m.a.s.l.)**:** 12<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 29439
# TYSTOFTE II

01-01-89 - 31-12-98

Hele perioden



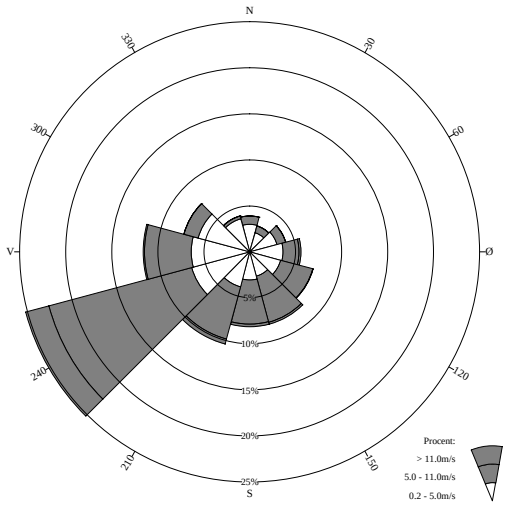

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.8 | 4.0 | 5.8 | 8.7 | 7.7 | 6.3 | 6.4 | 9.6 | 16.4 | 12.0 | 10.0 | 5.8 | 97.6 |
| % 0.2-5.0m/s | 4.1 | 3.0 | 4.2 | 4.7 | 3.8 | 3.5 | 3.6 | 4.4 | 6.6 | 9.3 | 9.0 | 5.5 | 61.6 |
| % 5.0-11.0m/s | 0.7 | 1.0 | 1.6 | 4.0 | 3.9 | 2.8 | 2.6 | 5.1 | 9.3 | 2.6 | 0.9 | 0.3 | 34.8 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.2 | 0.6 | 0.0 | 0.0 | 0.0 | 1.2 |
| Middel hastighed | 3.2 | 3.7 | 4.0 | 5.0 | 5.2 | 4.9 | 4.9 | 5.4 | 5.8 | 3.7 | 3.0 | 2.5 | 4.5 |
| Største hastighed | 11.1 | 12.6 | 14.1 | 16.8 | 13.6 | 13.8 | 15.9 | 19.7 | 20.2 | 14.3 | 10.0 | 9.5 | 20.2 |

Totalt antal observationer = 86542 Kilde: DMI

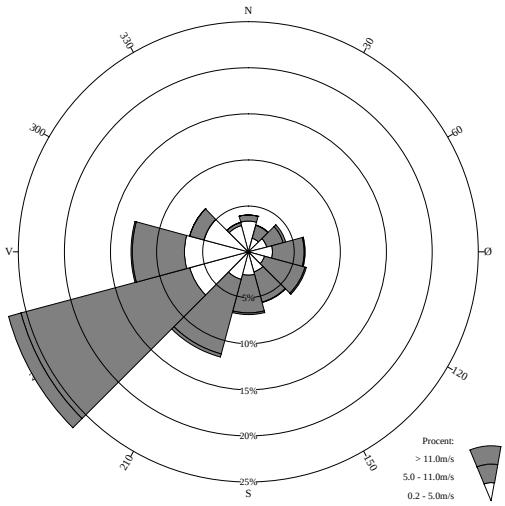
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 2094 = 2.4%

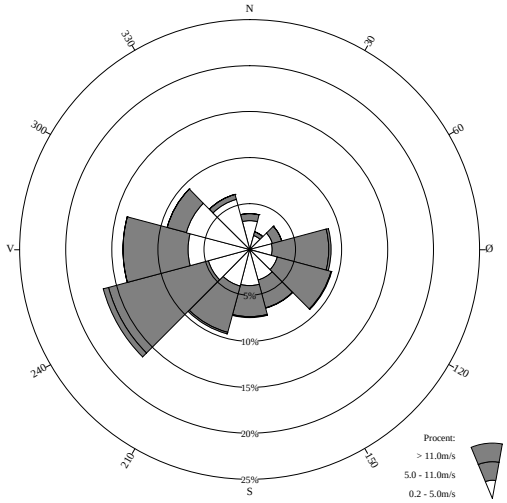
## JANUAR



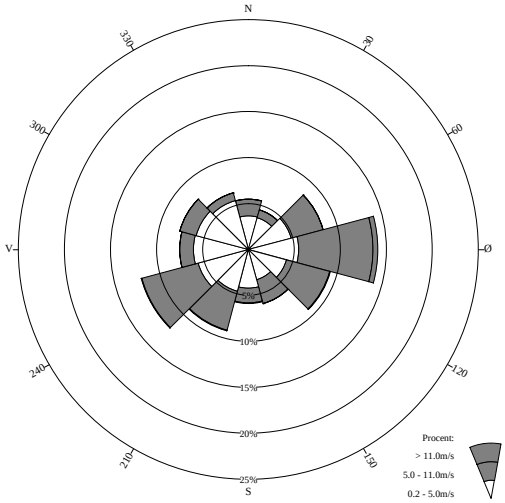

## FEBRUAR



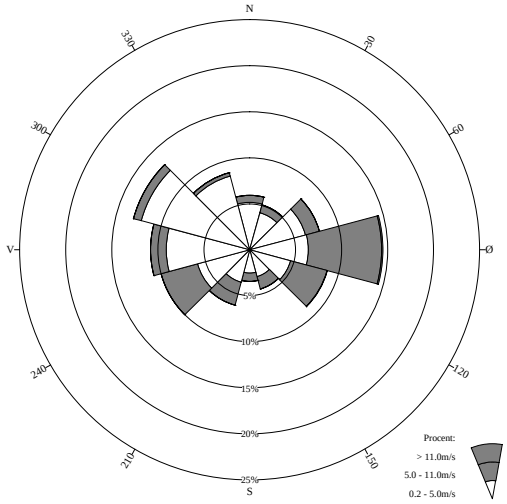

## MARTS



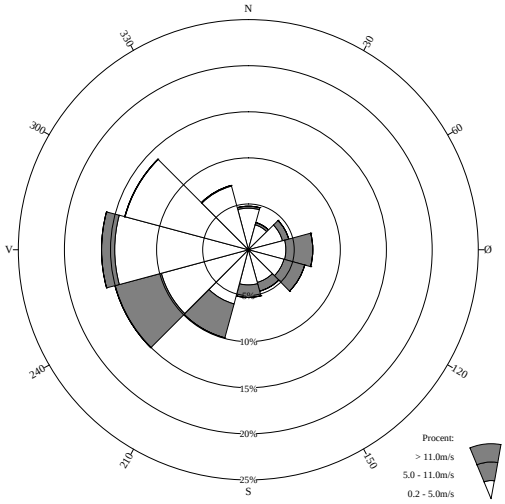

## APRIL



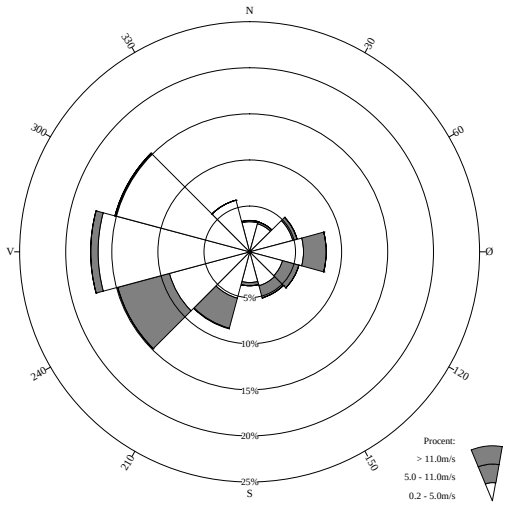

## MAJ



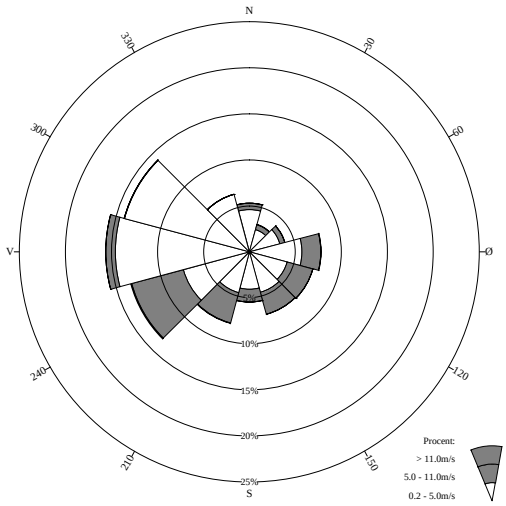

## JUNI



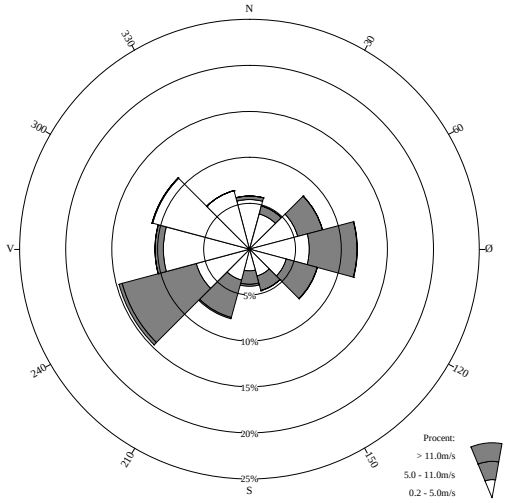
## JULI



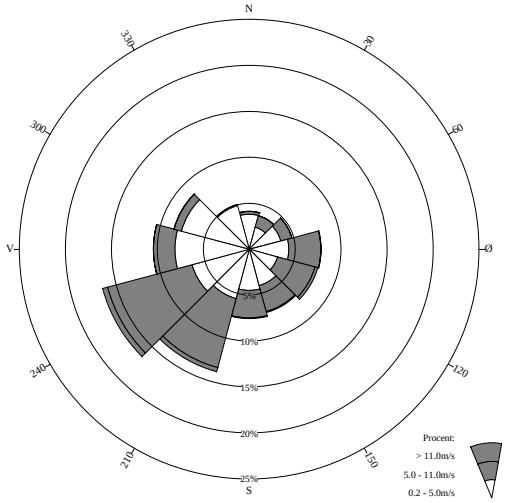

## AUGUST



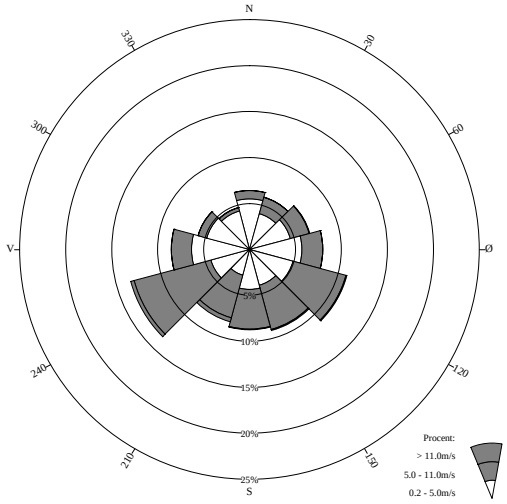

## SEPTEMBER



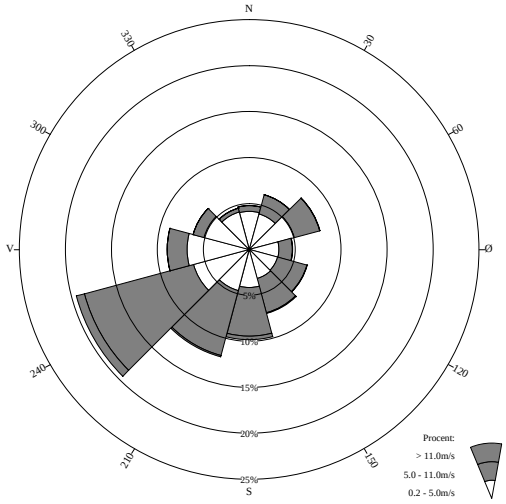

## OKTOBER




## NOVEMBER

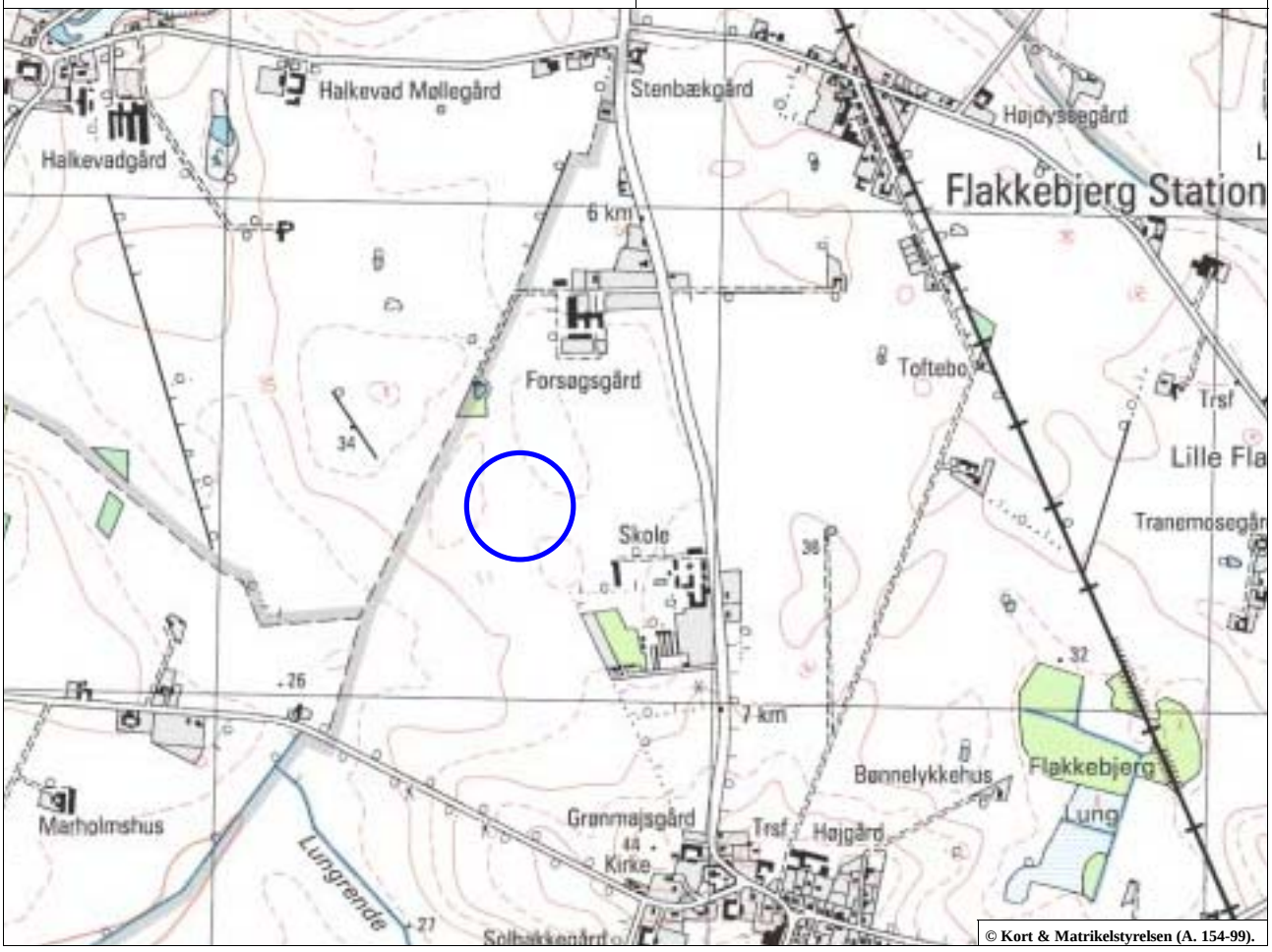



## DECEMBER



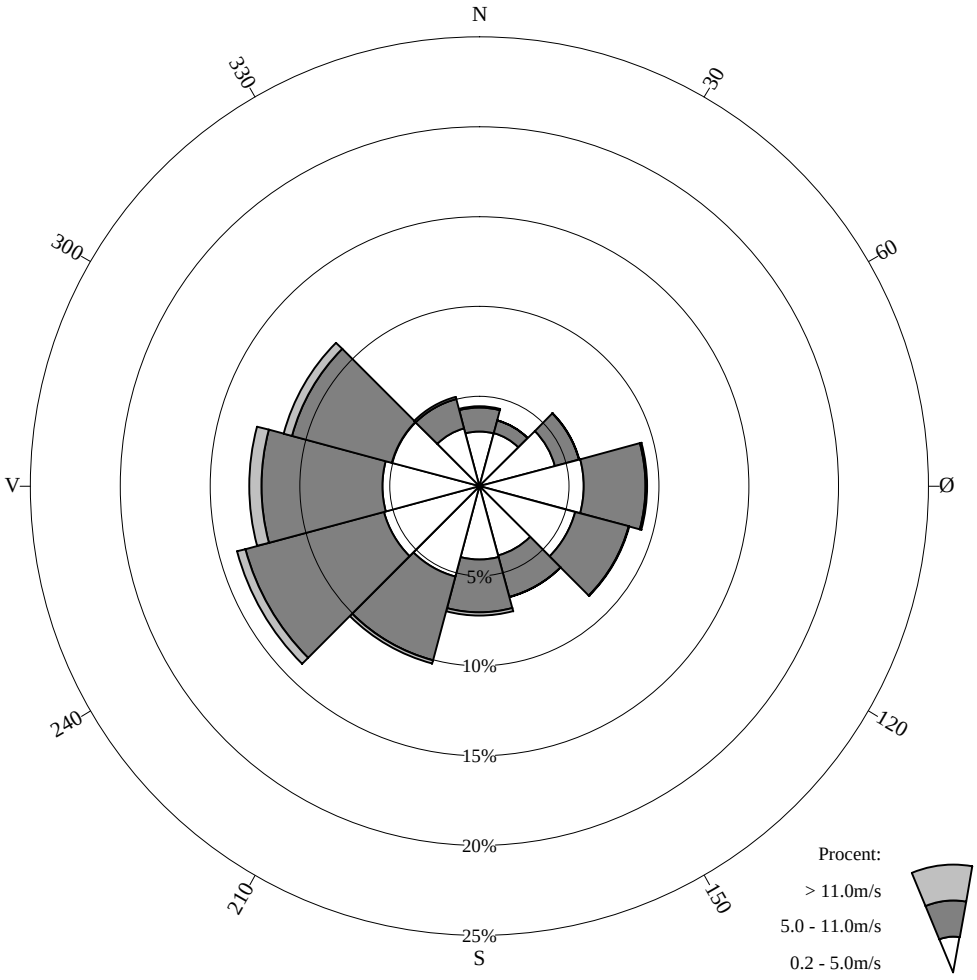
# 29451 Flakkebjerg

| | |
|---|---|
| **Position:** 55° 19’ N, 11° 23’ E<br>**UTM-koordinater:** 32U 6133.450N 651.600E<br>**Stationsbasis** (m.o.h.)**:** 32<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 19’ N, long 11° 23’ E<br>**UTM-positions:** 32U 6133.450N 651.600E<br>**Elevation** (m.a.s.l.)**:** 32<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 29451
# FLAKKEBJERG II

01-01-89 - 31-12-98



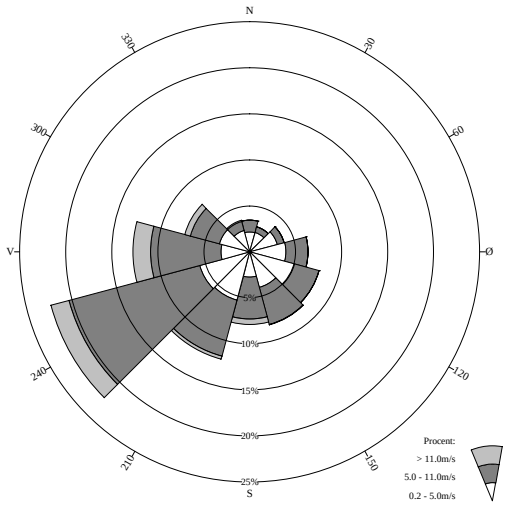

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.4 | 3.8 | 5.8 | 9.3 | 8.6 | 6.4 | 7.2 | 10.2 | 14.0 | 12.8 | 11.3 | 5.1 | 99.1 |
| % 0.2-5.0m/s | 3.1 | 3.1 | 4.4 | 5.8 | 5.5 | 4.0 | 4.1 | 5.2 | 5.5 | 5.4 | 5.1 | 3.3 | 54.4 |
| % 5.0-11.0m/s | 1.3 | 0.7 | 1.4 | 3.4 | 3.1 | 2.4 | 2.9 | 4.8 | 8.0 | 6.7 | 5.7 | 1.7 | 42.3 |
| % > 11.0m/s | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.2 | 0.5 | 0.7 | 0.5 | 0.1 | 2.3 |
| Middel hastighed | 4.2 | 3.4 | 3.7 | 4.5 | 4.4 | 4.5 | 4.9 | 5.1 | 5.8 | 5.9 | 5.7 | 4.5 | 5.0 |
| Største hastighed | 15.2 | 11.1 | 13.3 | 14.7 | 12.7 | 13.3 | 15.1 | 18.3 | 19.3 | 22.5 | 17.9 | 17.1 | 22.5 |

Totalt antal observationer = 86820 Kilde: DMI

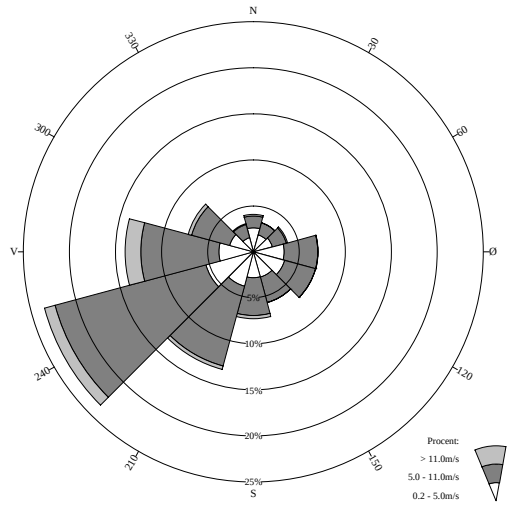
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 819 = 0.9%

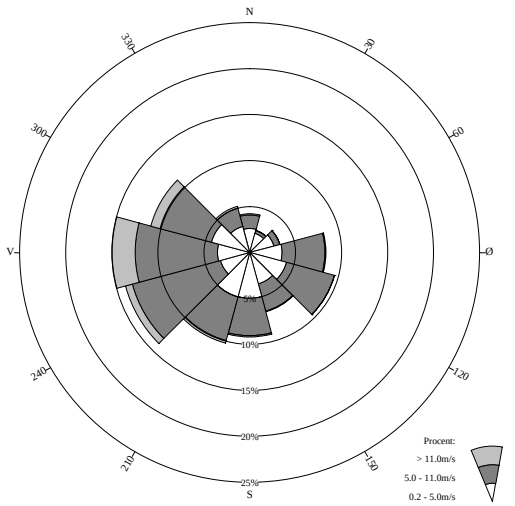
## JANUAR



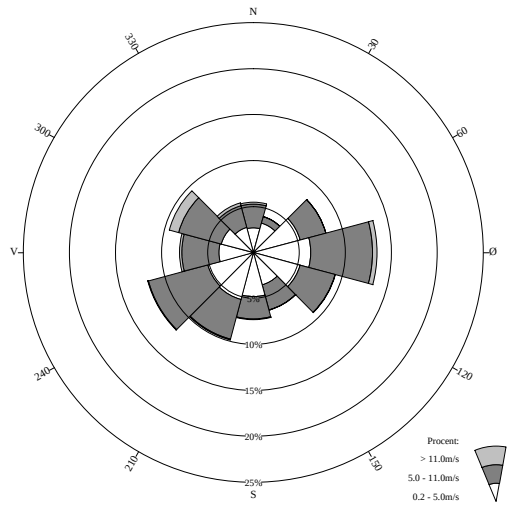

## FEBRUAR



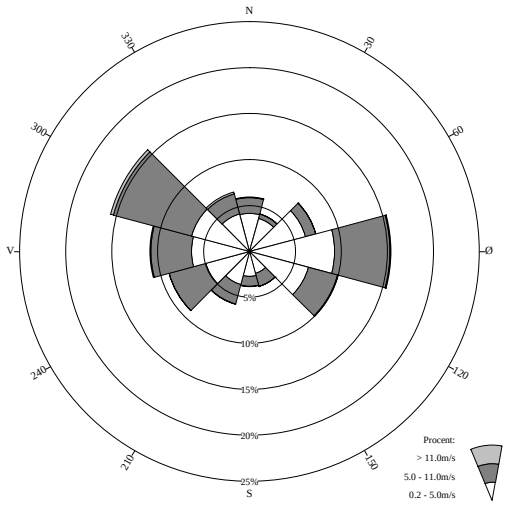

## MARTS



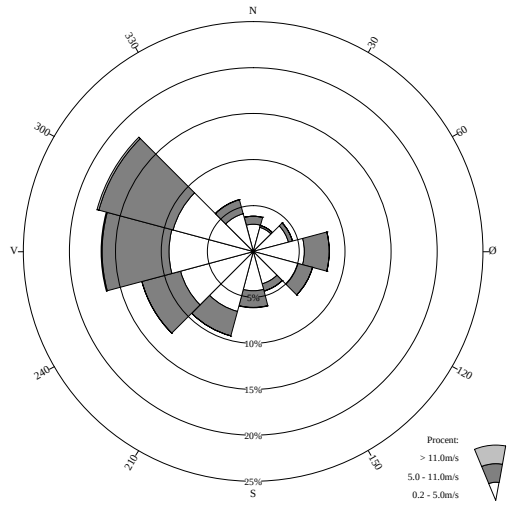

## APRIL



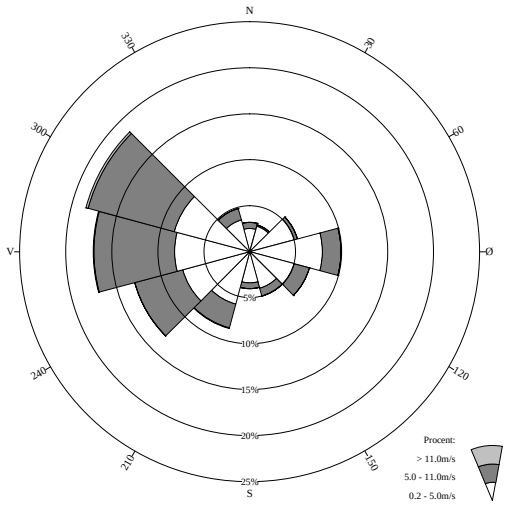

## MAJ



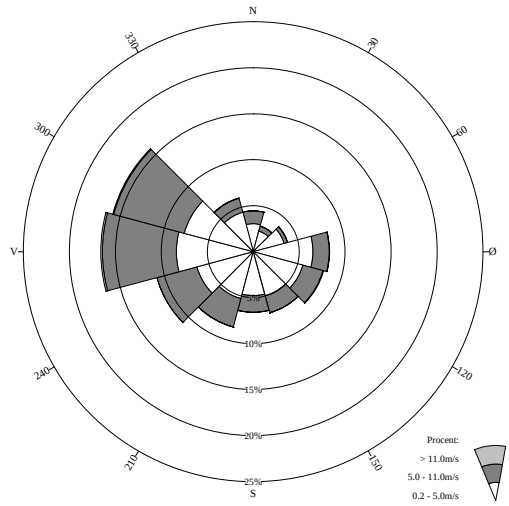

## JUNI



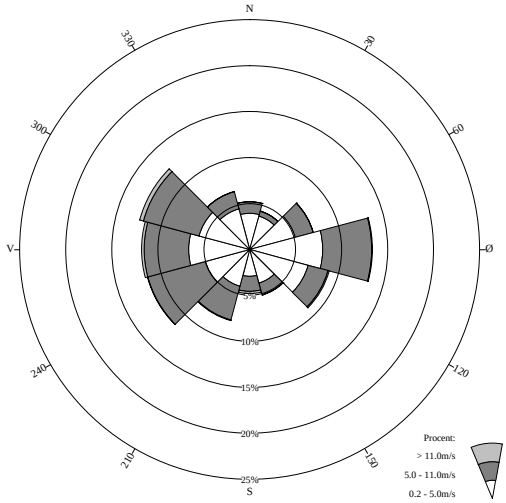
## JULI



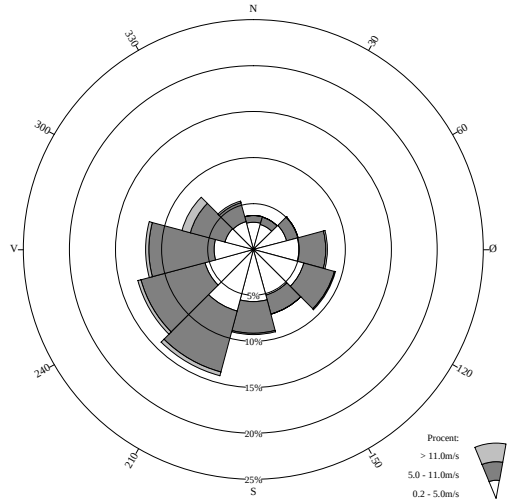

## AUGUST



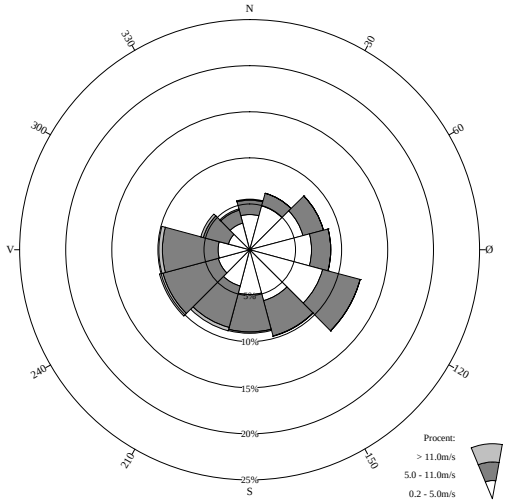

## SEPTEMBER



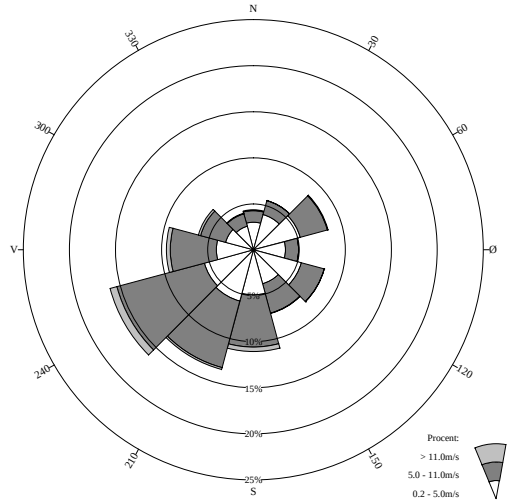

## OKTOBER




## NOVEMBER

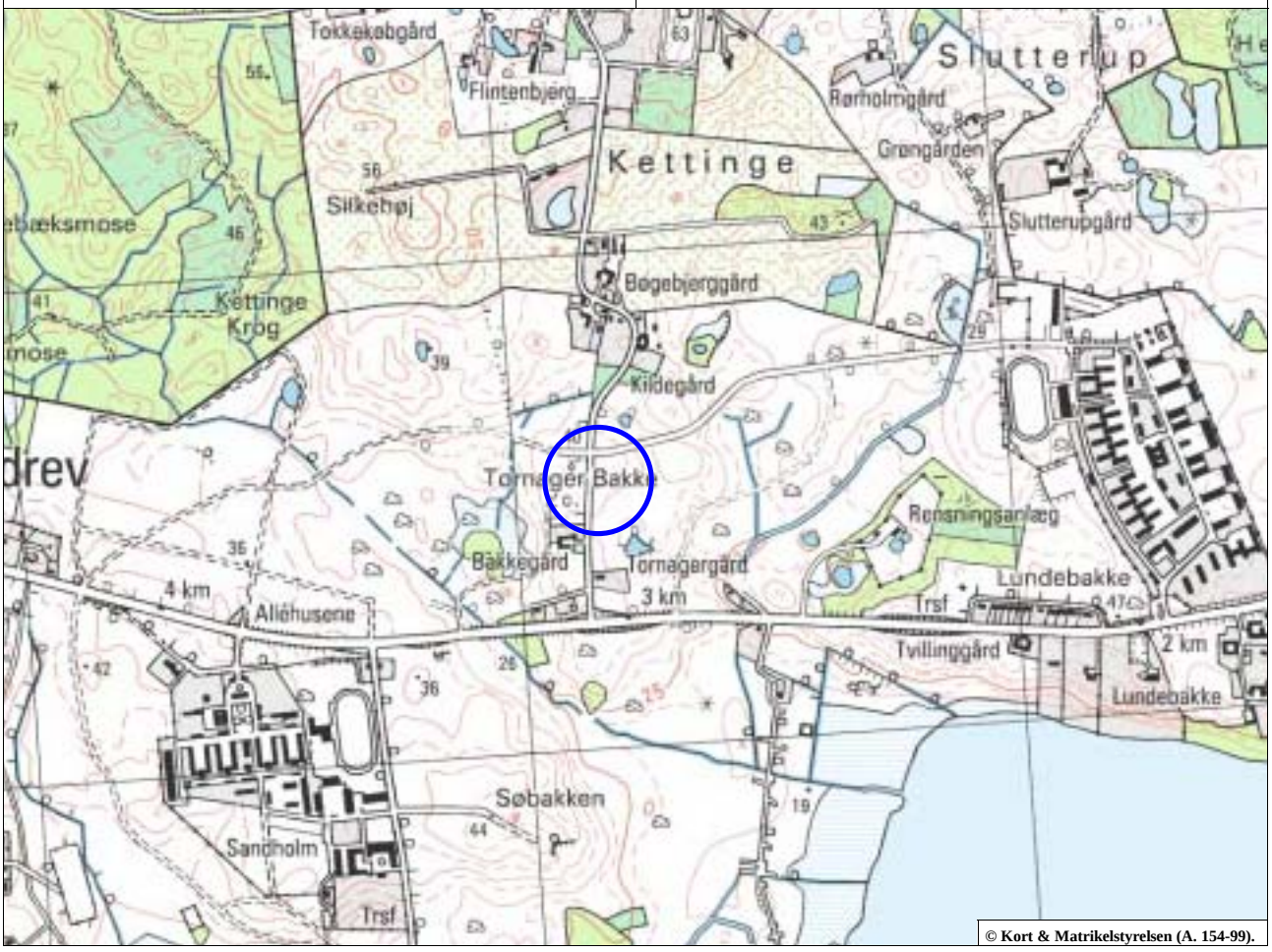



## DECEMBER



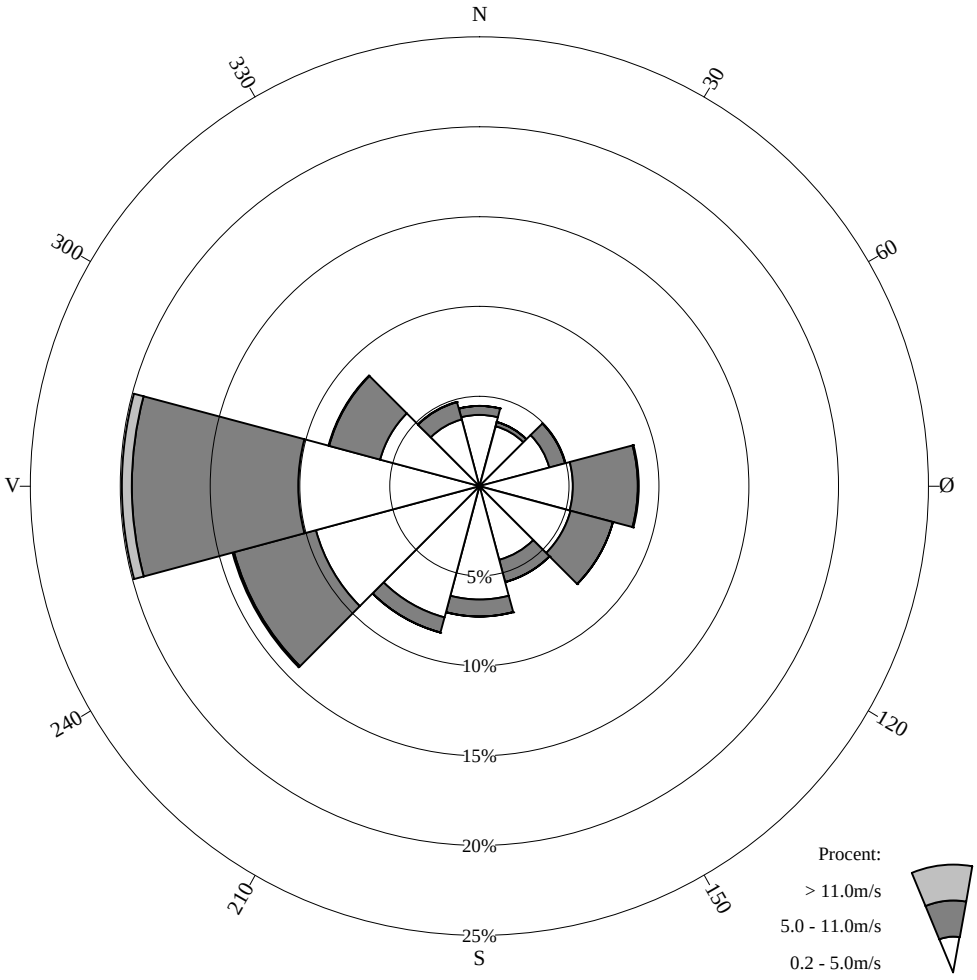
# 30188 Sjælsmark

| | |
|---|---|
| **Position:** 55° 53’ N, 12° 25’ E<br>**UTM-koordinater:** 33U 6195.570N 338.175E<br>**Stationsbasis** (m.o.h.)**:** 38<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 53’ N, long 12° 25’ E<br>**UTM-positions:** 33U 6195.570N 338.175E<br>**Elevation** (m.a.s.l.)**:** 38<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 30188
# SJÆLSMARK

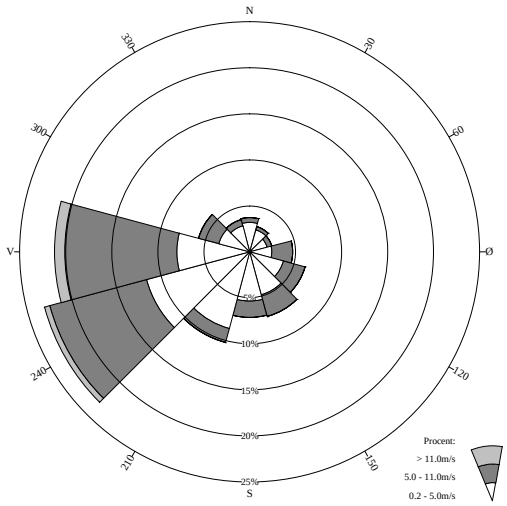
01-01-89 - 31-12-98



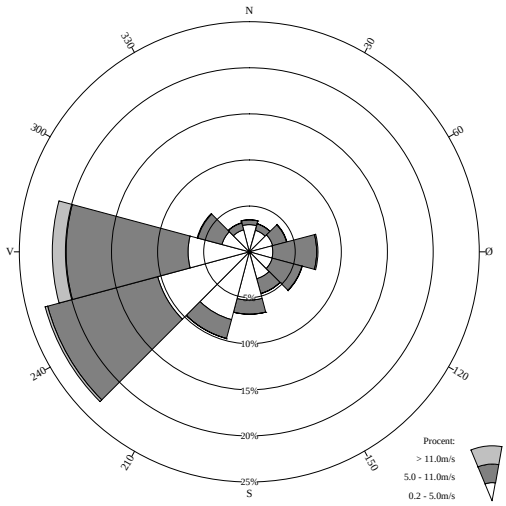

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.5 | 3.7 | 5.0 | 8.9 | 7.7 | 5.5 | 7.3 | 8.4 | 14.2 | 19.9 | 8.7 | 4.9 | 98.7 |
| % 0.2-5.0m/s | 4.0 | 3.5 | 4.0 | 5.2 | 5.3 | 4.2 | 6.3 | 7.6 | 9.4 | 10.1 | 5.7 | 3.8 | 69.2 |
| % 5.0-11.0m/s | 0.5 | 0.2 | 0.9 | 3.6 | 2.4 | 1.3 | 0.9 | 0.9 | 4.7 | 9.3 | 2.9 | 1.0 | 28.8 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.5 | 0.0 | 0.0 | 0.7 |
| Middel hastighed | 3.1 | 2.7 | 3.3 | 4.6 | 4.1 | 3.6 | 3.2 | 3.0 | 4.2 | 5.1 | 4.2 | 3.5 | 4.0 |
| Største hastighed | 10.0 | 9.1 | 11.4 | 15.0 | 12.0 | 10.5 | 10.0 | 10.4 | 14.6 | 19.7 | 13.9 | 13.2 | 19.7 |

Totalt antal observationer = 87363 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 1156 = 1.3%

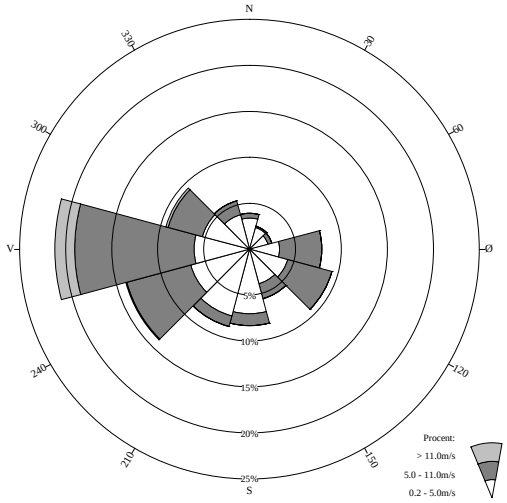
## JANUAR



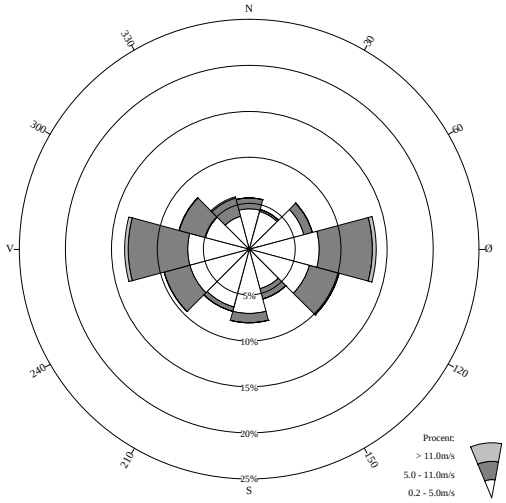

## FEBRUAR



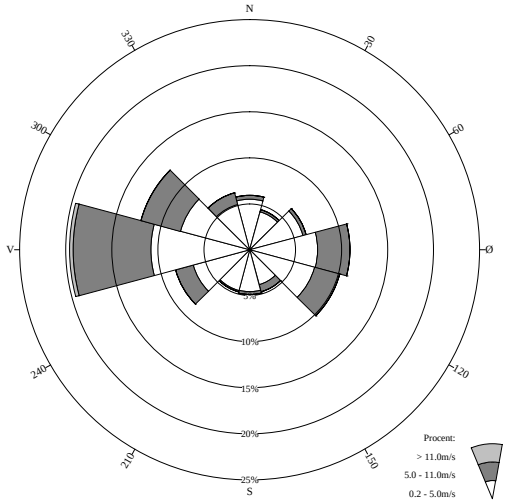

## MARTS



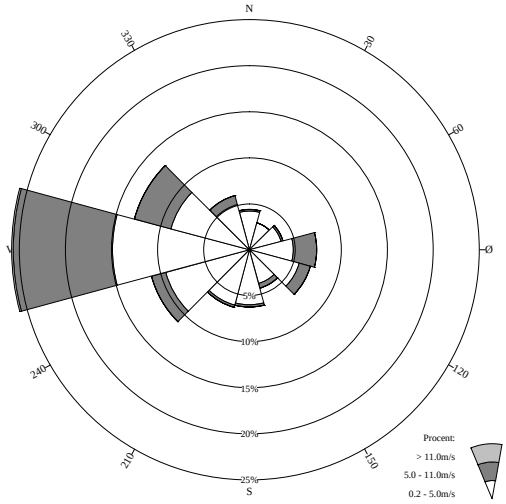

## APRIL



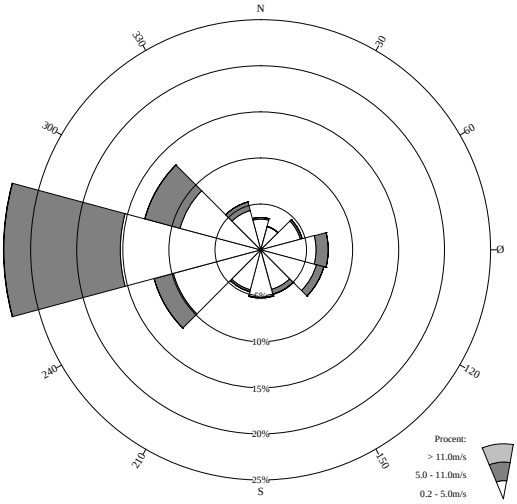

## MAJ



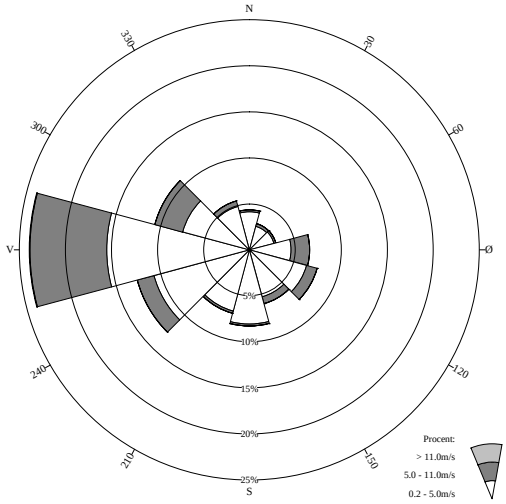

## JUNI



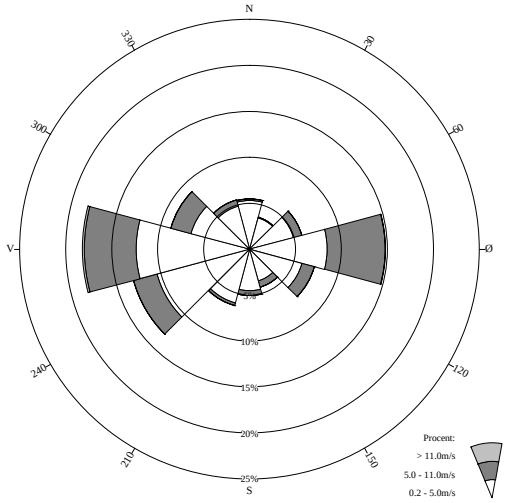
## JULI



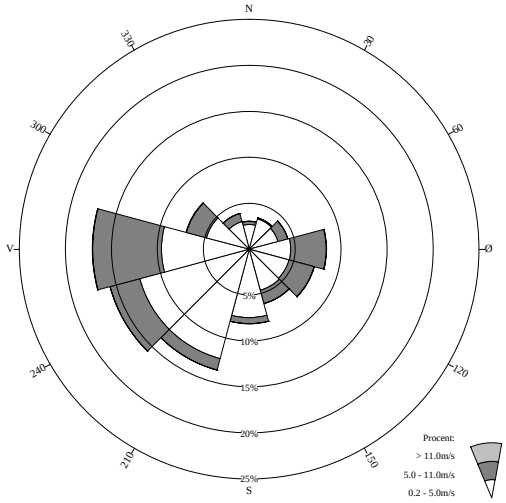

## AUGUST



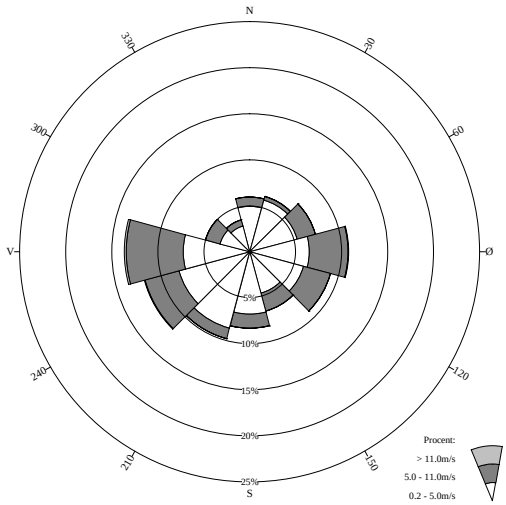

## SEPTEMBER



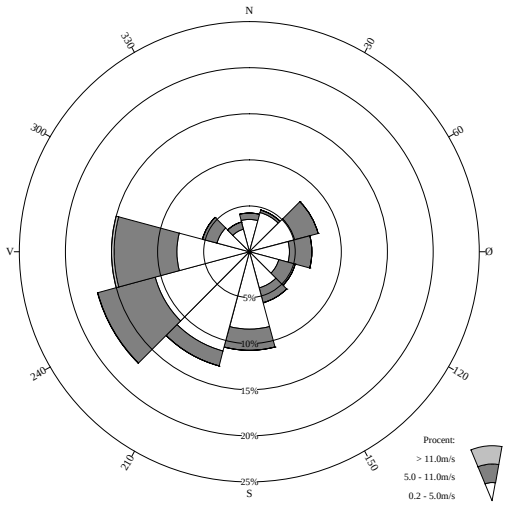

## OKTOBER




## NOVEMBER




## DECEMBER



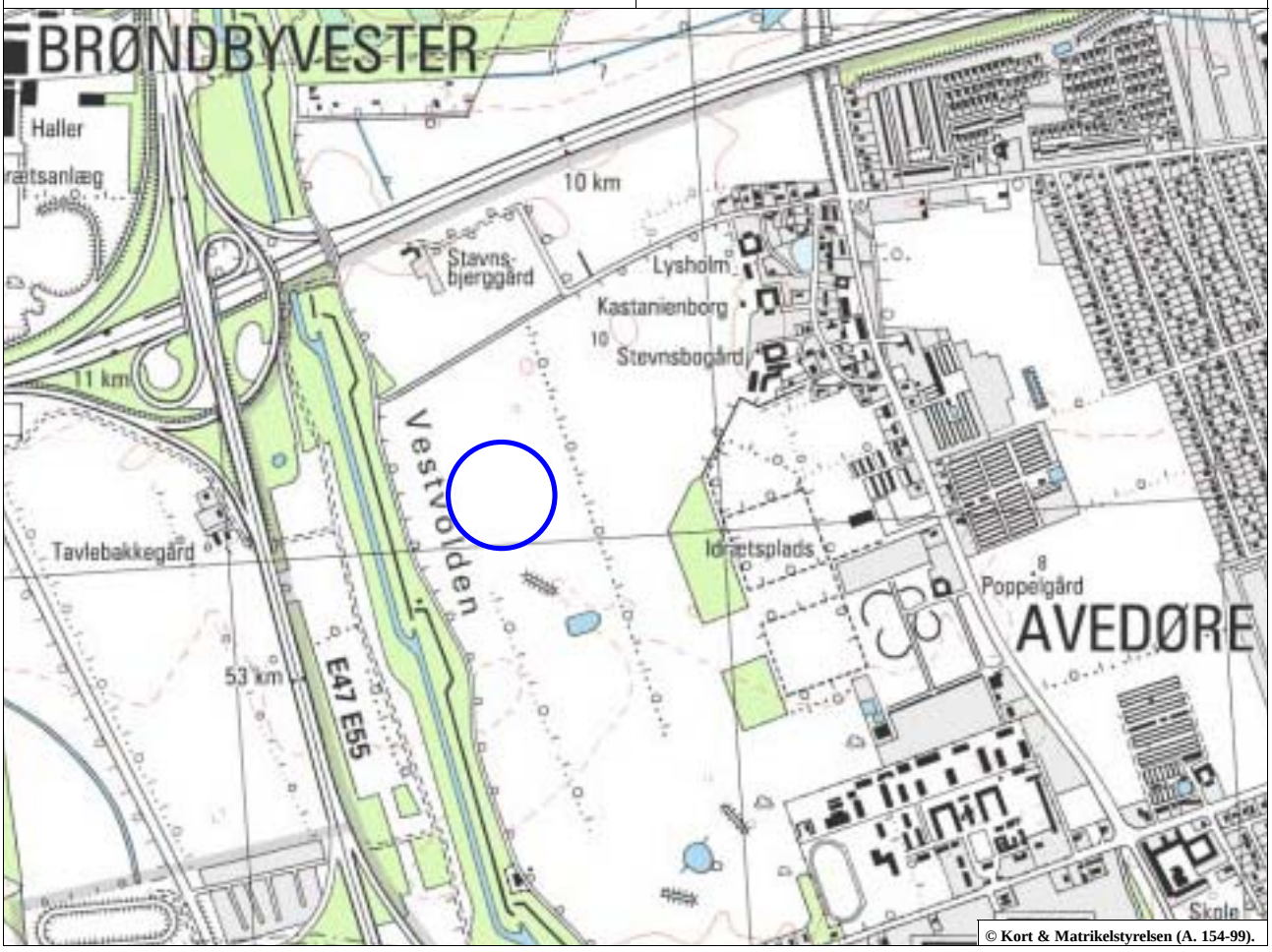
# 30383 Avedøre

**Position:** 55° 38’ N, 12° 26’ E
**UTM-koordinater:** 33U 6169.090N 338.570E
**Stationsbasis** (m.o.h.)**:** 8
**Vindmålehøjde:** 10 m

**Bemærkninger:**
Stationen er nedlagt i 1999.

**Position:** lat 55° 38’ N, long 12° 26’ E
**UTM-positions:** 33U 6169.090N 338.570E
**Elevation** (m.a.s.l.)**:** 8
**Level of measurement:** 10 m

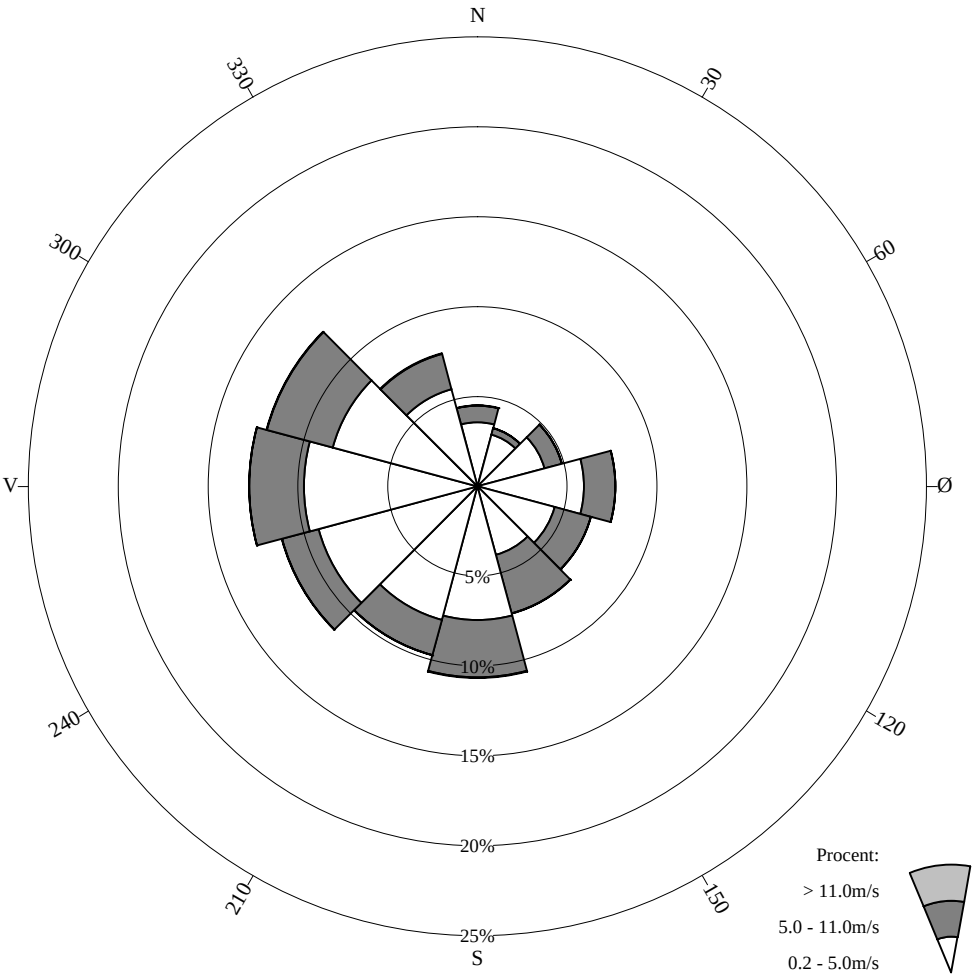
**Comments:**
The station was closed down in 1999.



# Station 30383
# AVEDØRE

01-01-89 - 31-12-98

Hele perioden



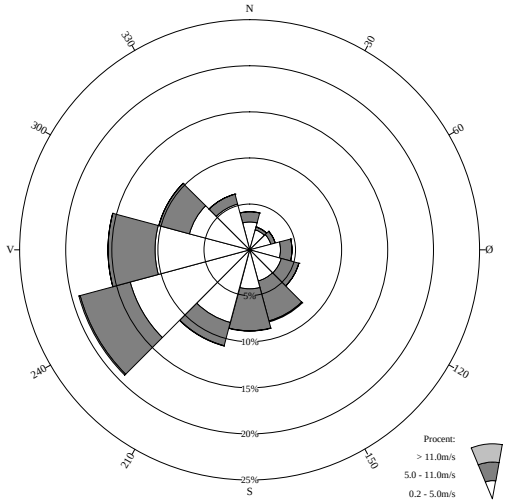

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.5 | 3.4 | 4.9 | 7.7 | 6.5 | 7.4 | 10.7 | 9.7 | 11.3 | 12.7 | 12.2 | 7.7 | 98.6 |
| % 0.2-5.0m/s | 3.6 | 3.0 | 3.9 | 5.9 | 4.5 | 4.0 | 7.4 | 7.7 | 9.2 | 9.7 | 8.4 | 5.6 | 72.7 |
| % 5.0-11.0m/s | 0.9 | 0.4 | 1.0 | 1.7 | 2.1 | 3.4 | 3.2 | 2.0 | 2.1 | 3.0 | 3.8 | 2.0 | 25.7 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Middel hastighed | 3.4 | 2.8 | 3.5 | 3.7 | 4.0 | 4.8 | 4.3 | 3.6 | 3.5 | 3.6 | 4.0 | 3.9 | 3.8 |
| Største hastighed | 12.4 | 10.1 | 10.8 | 13.0 | 11.0 | 13.1 | 14.9 | 13.1 | 13.1 | 12.5 | 12.5 | 13.5 | 14.9 |

Totalt antal observationer = 86783 Kilde: DMI

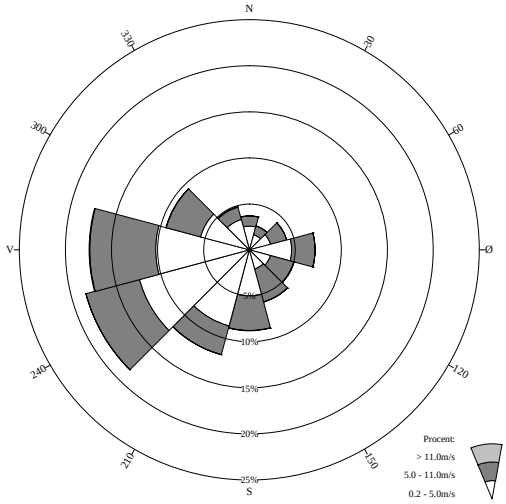
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 1250 = 1.4%

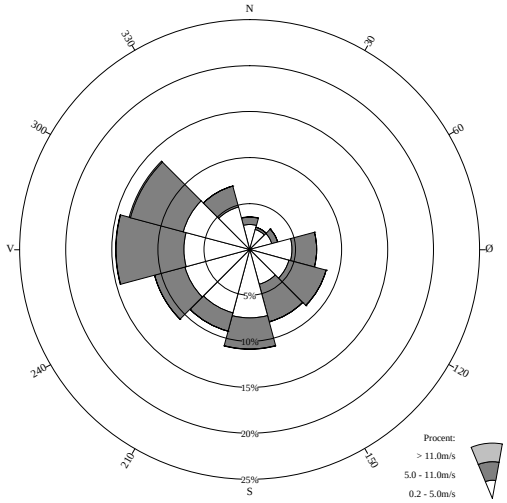
## JANUAR



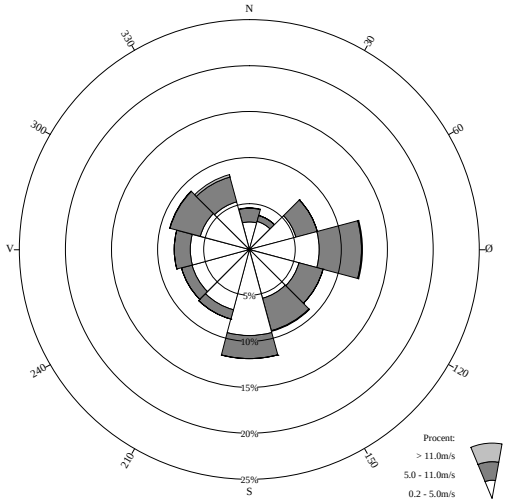

## FEBRUAR



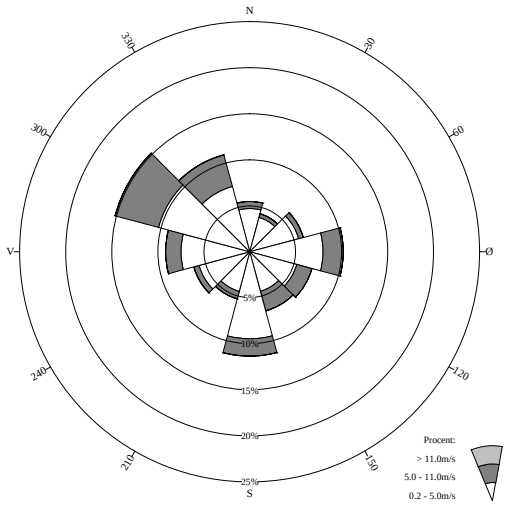

## MARTS



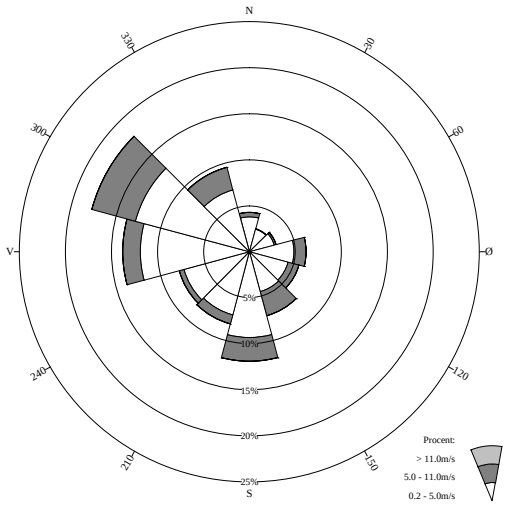

## APRIL



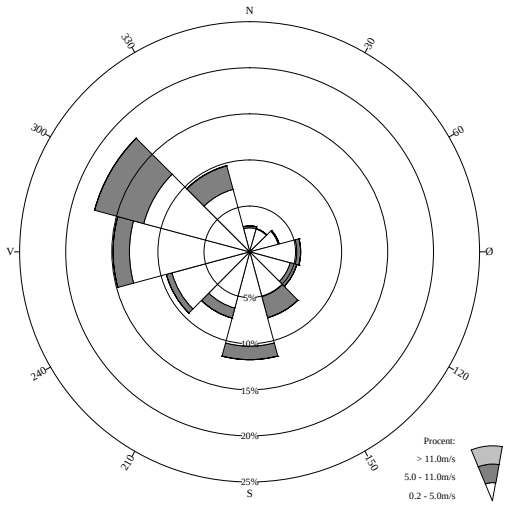

## MAJ



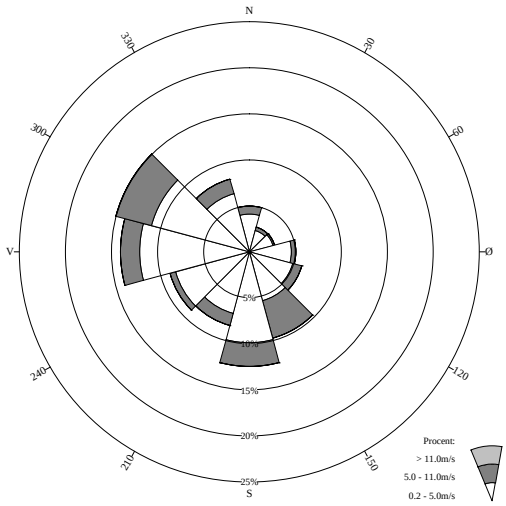

## JUNI



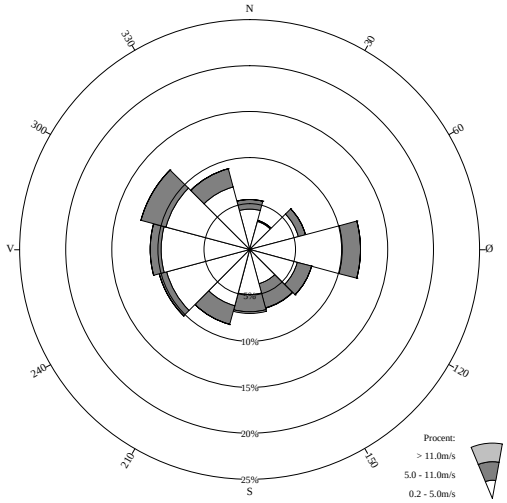
## JULI



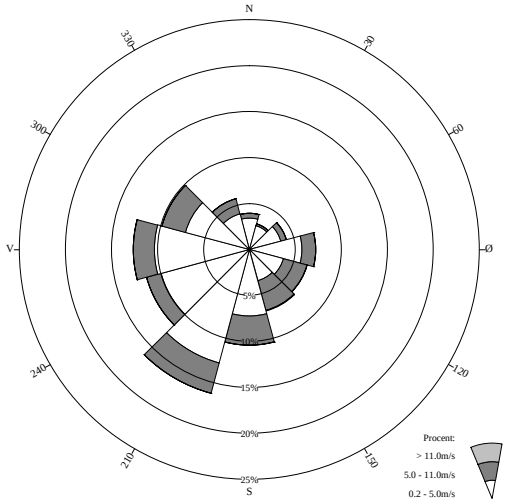

## AUGUST



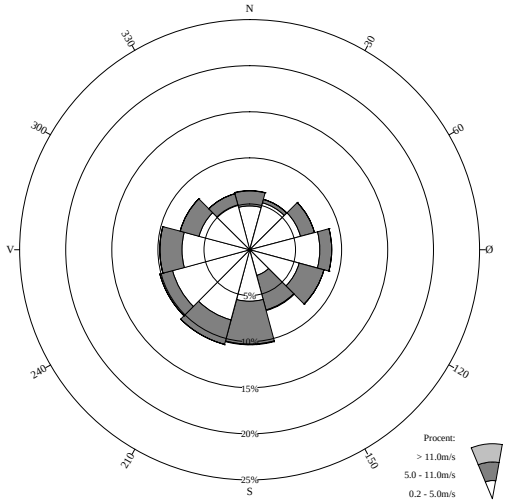

## SEPTEMBER



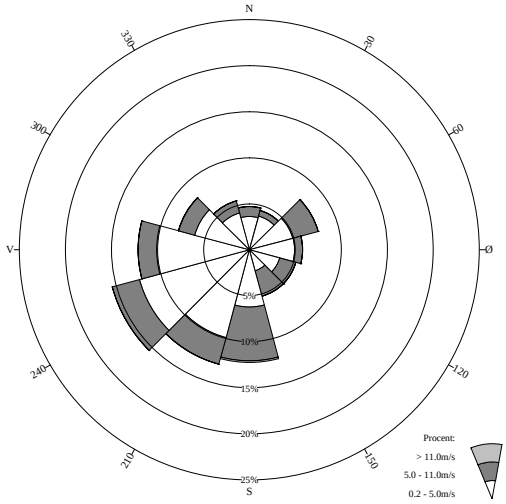

## OKTOBER




## NOVEMBER

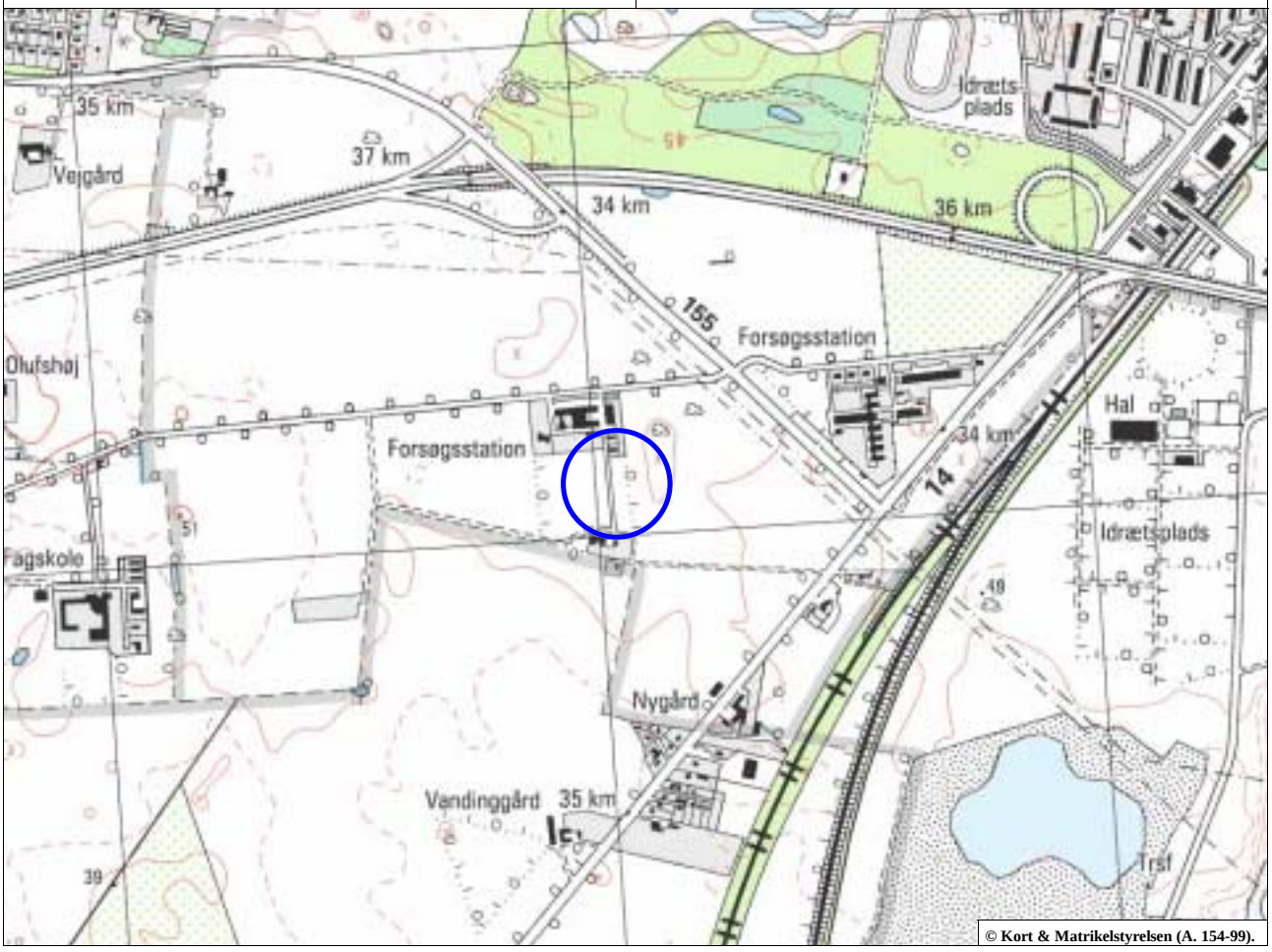



## DECEMBER



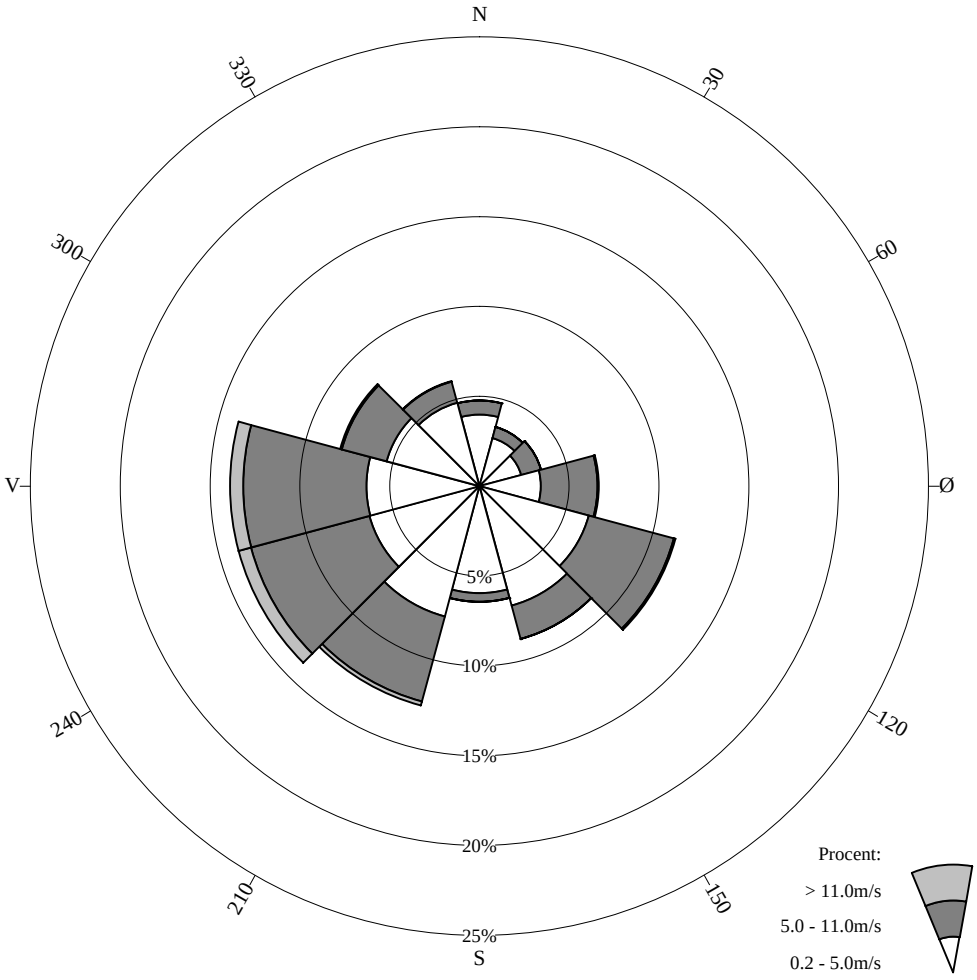
# 30421 Ledreborg Allé

| | |
|---|---|
| **Position:** 55° 37’ N, 12° 03’ E<br>**UTM-koordinater:** 33U 6168.130N 314.040E<br>**Stationsbasis** (m.o.h.)**:** 46<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 37’ N, long 12° 03’ E<br>**UTM-positions:** 33U 6168.130N 314.040E<br>**Elevation** (m.a.s.l.)**:** 46<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 30421
# LEDREBORG ALLE II

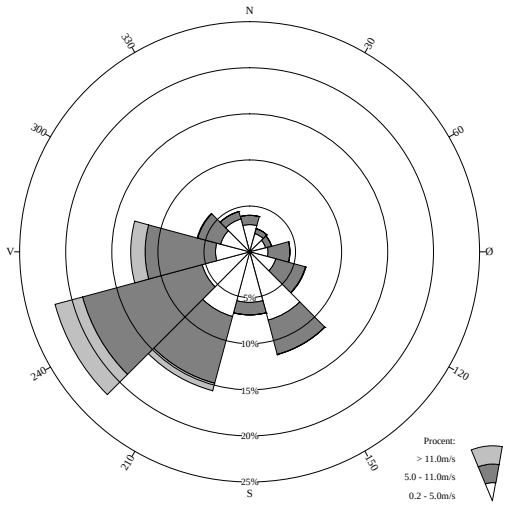
01-01-89 - 31-12-98



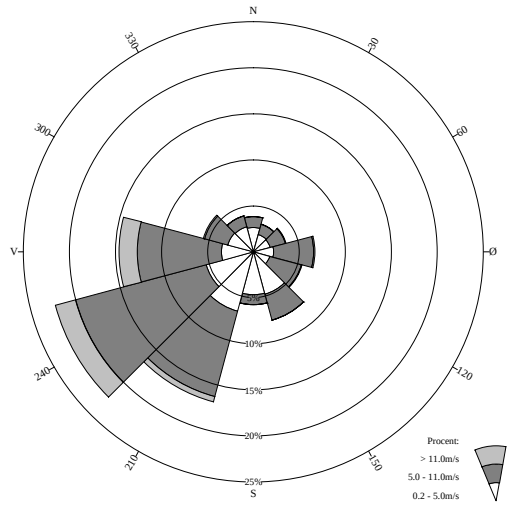

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.8 | 3.4 | 3.5 | 6.7 | 11.3 | 8.8 | 6.4 | 12.6 | 13.9 | 13.9 | 8.0 | 6.1 | 99.4 |
| % 0.2-5.0m/s | 4.0 | 2.8 | 2.4 | 3.4 | 6.3 | 6.9 | 6.0 | 7.5 | 6.4 | 6.3 | 5.4 | 4.8 | 62.1 |
| % 5.0-11.0m/s | 0.8 | 0.6 | 1.1 | 3.2 | 4.9 | 1.9 | 0.5 | 4.9 | 6.8 | 6.9 | 2.6 | 1.2 | 35.4 |
| % > 11.0m/s | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 | 0.7 | 0.7 | 0.1 | 0.0 | 1.9 |
| Middel hastighed | 3.3 | 3.5 | 4.2 | 5.1 | 4.9 | 3.7 | 2.7 | 4.7 | 5.6 | 5.7 | 4.3 | 3.6 | 4.6 |
| Største hastighed | 10.4 | 11.1 | 14.7 | 15.0 | 13.6 | 12.3 | 10.2 | 19.1 | 19.9 | 22.7 | 16.7 | 14.3 | 22.7 |

Totalt antal observationer = 86766 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 503 = 0.6%

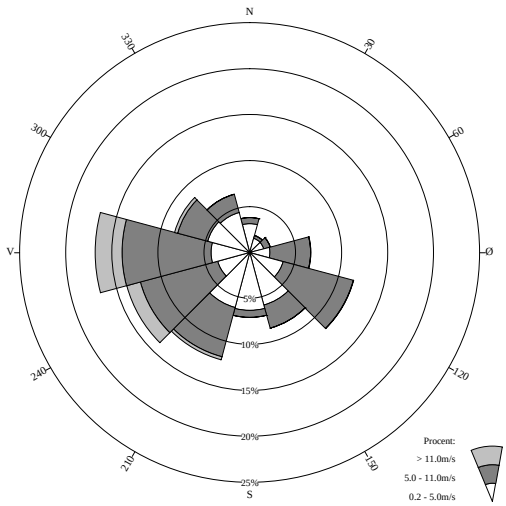
## JANUAR



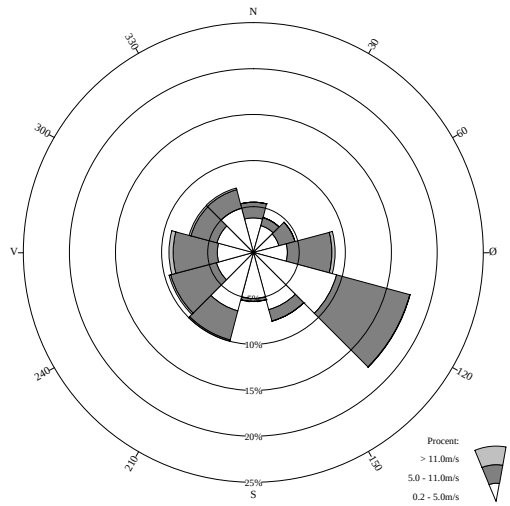

## FEBRUAR



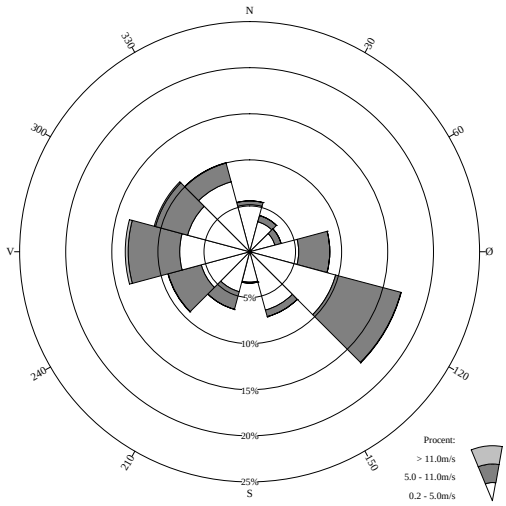

## MARTS



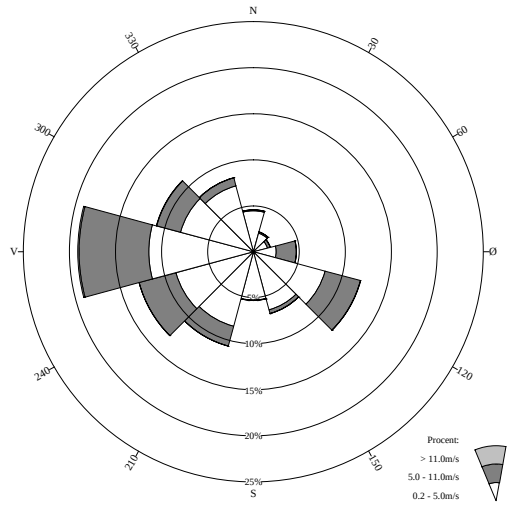

## APRIL



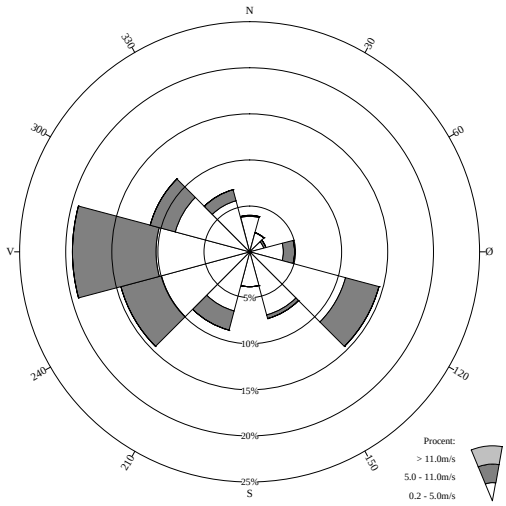

## MAJ



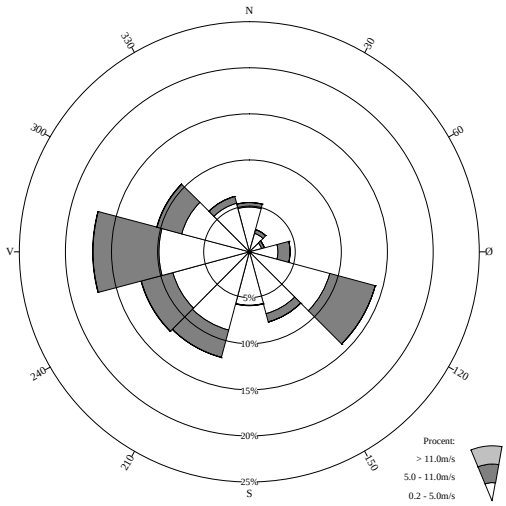

## JUNI



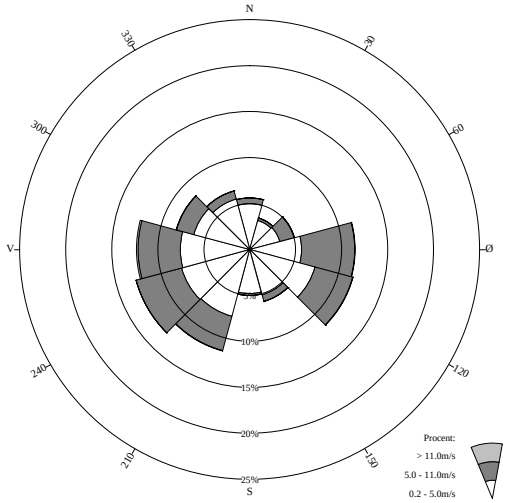
## JULI



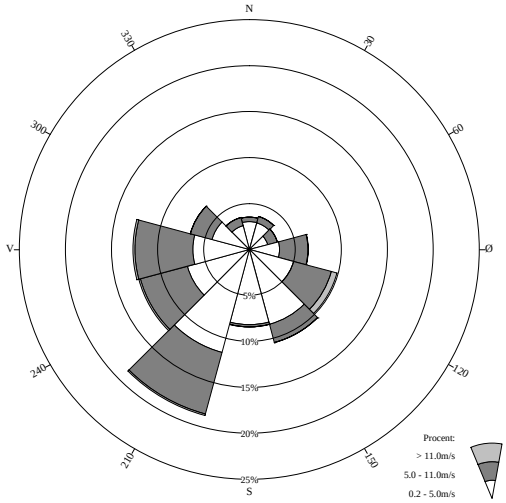

## AUGUST



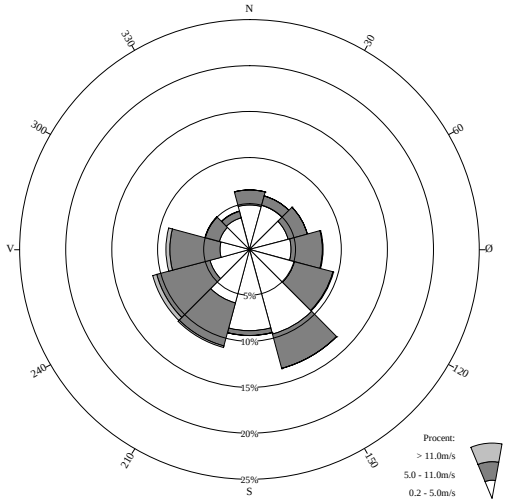

## SEPTEMBER



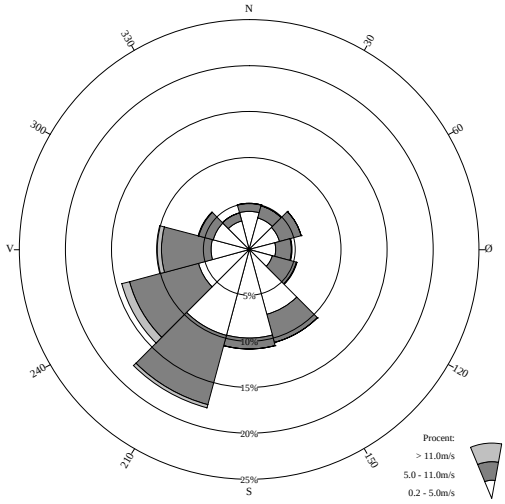

## OKTOBER




## NOVEMBER




## DECEMBER

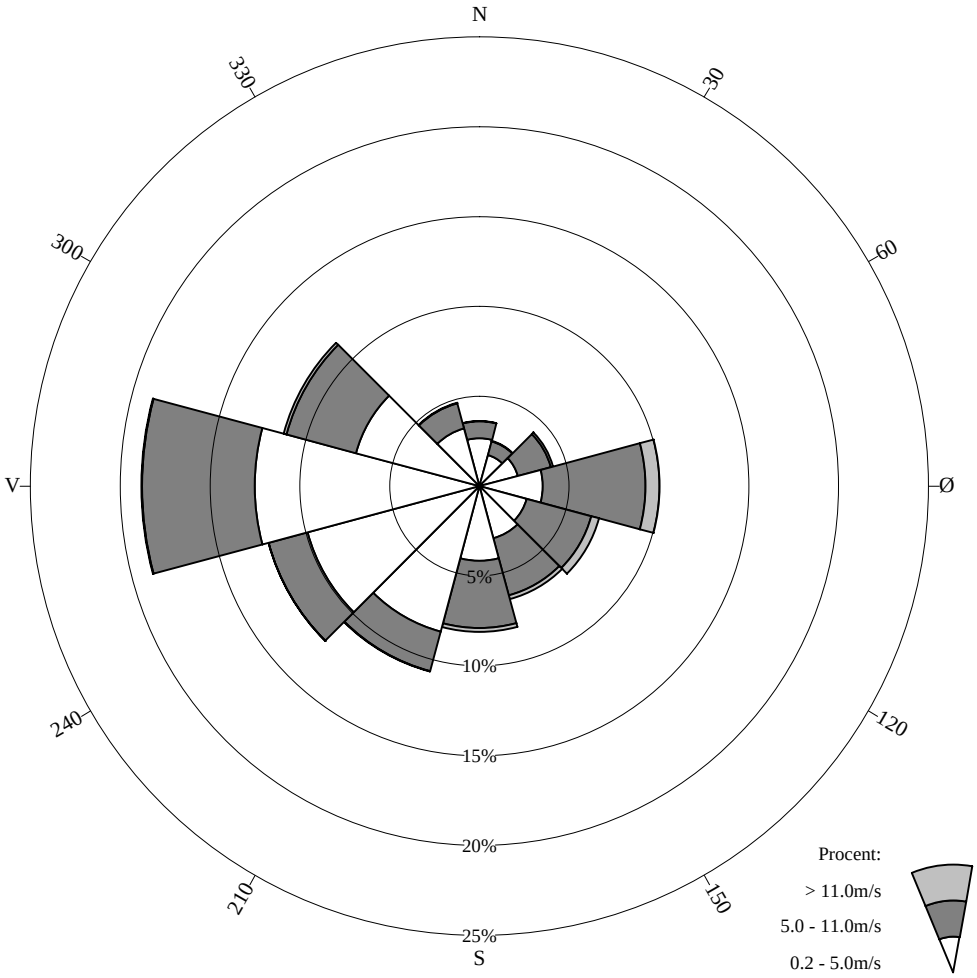


# 31215 Bønsvig Strand

| | |
|---|---|
| **Position:** 55° 06’ N, 12° 11’ E<br>**UTM-koordinater:** 33U 6110.200N 319.790E<br>**Stationsbasis** (m.o.h.)**:** 0<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 06’ N, long 12° 11’ E<br>**UTM-positions:** 33U 6110.200N 319.790E<br>**Elevation** (m.a.s.l.)**:** 0<br>**Level of measurement:** 10 m<br><br>**Comments:** |

# Station 31215
# BØNSVIG STRAND

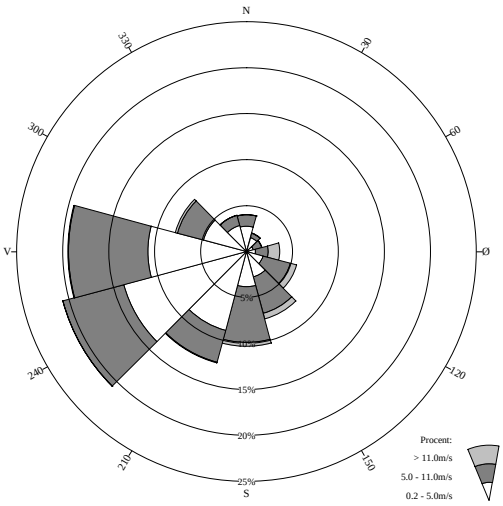
01-01-89 - 31-12-98



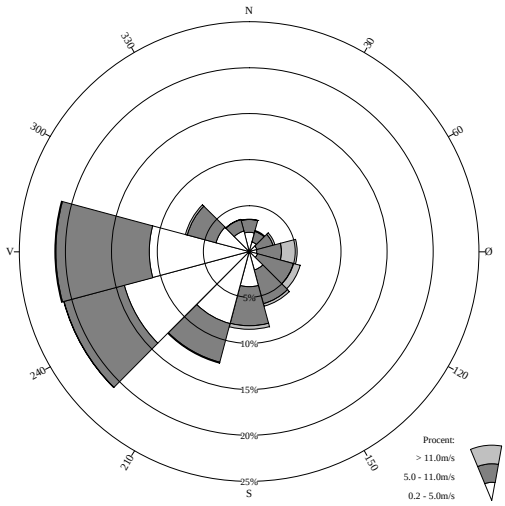

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 3.6 | 2.6 | 4.2 | 10.0 | 6.9 | 6.5 | 8.1 | 10.7 | 12.2 | 18.8 | 11.3 | 4.8 | 99.8 |
| % 0.2-5.0m/s | 2.7 | 1.8 | 2.2 | 3.5 | 2.7 | 3.0 | 4.2 | 8.4 | 9.9 | 12.5 | 7.1 | 3.3 | 61.4 |
| % 5.0-11.0m/s | 0.9 | 0.8 | 1.9 | 5.7 | 3.7 | 3.3 | 3.7 | 2.3 | 2.2 | 6.3 | 4.0 | 1.5 | 36.3 |
| % > 11.0m/s | 0.0 | 0.0 | 0.1 | 0.8 | 0.4 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 2.1 |
| Middel hastighed | 3.9 | 4.1 | 5.2 | 6.4 | 6.1 | 5.6 | 5.2 | 3.7 | 3.5 | 4.2 | 4.5 | 4.1 | 4.6 |
| Største hastighed | 12.8 | 13.6 | 16.6 | 17.1 | 16.0 | 15.2 | 18.1 | 12.6 | 12.2 | 15.4 | 15.5 | 14.1 | 18.1 |

Totalt antal observationer = 87317 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 165 = 0.2%

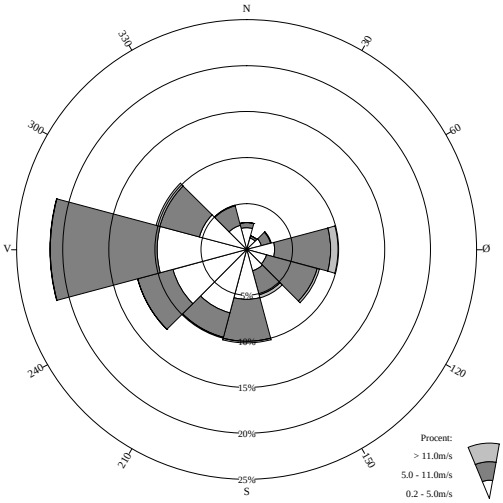
## JANUAR



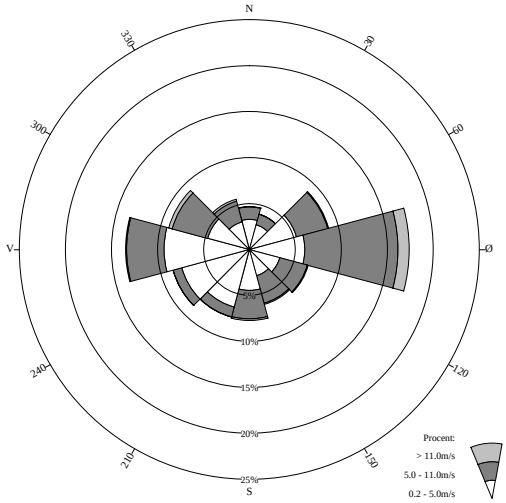

## FEBRUAR



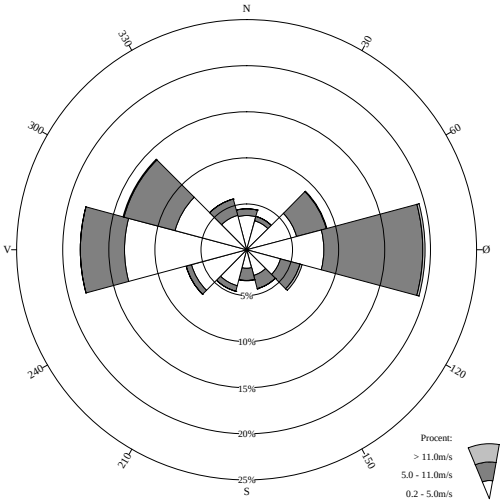

## MARTS



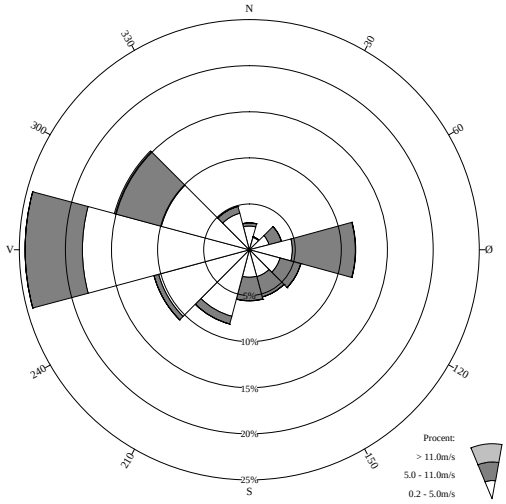

## APRIL



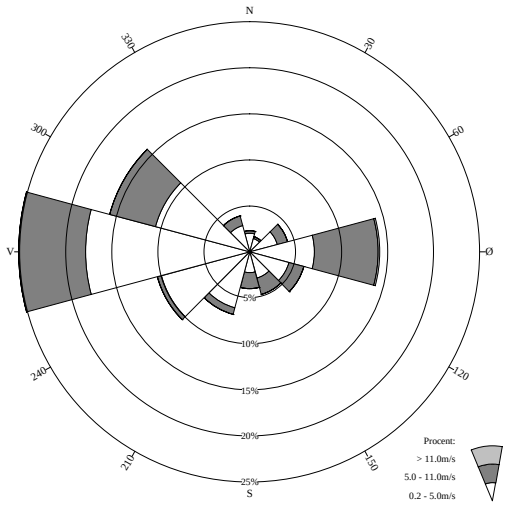

## MAJ



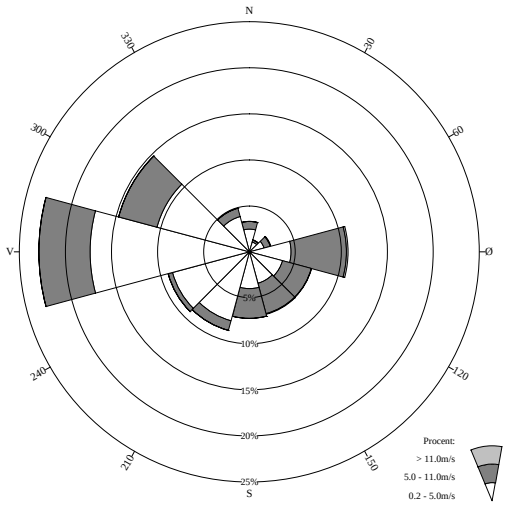

## JUNI



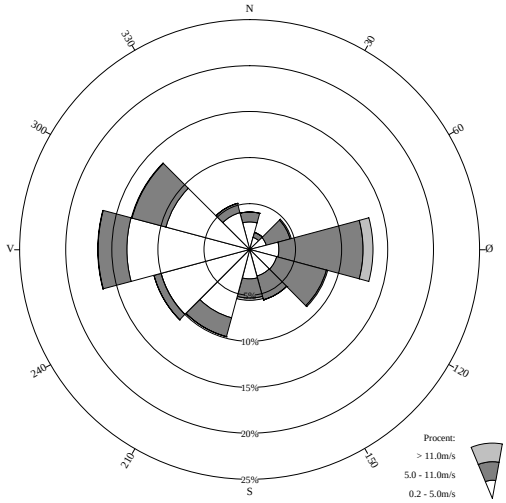
## JULI



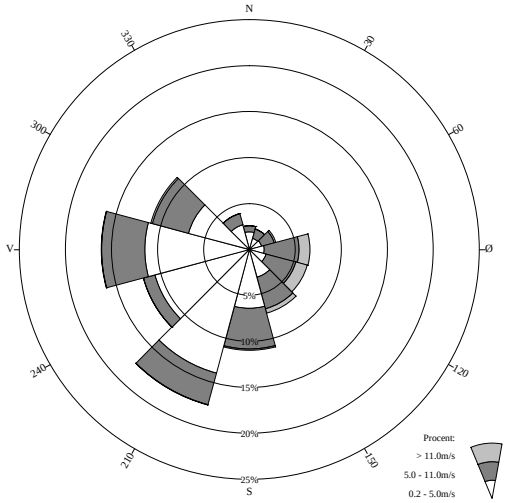

## AUGUST



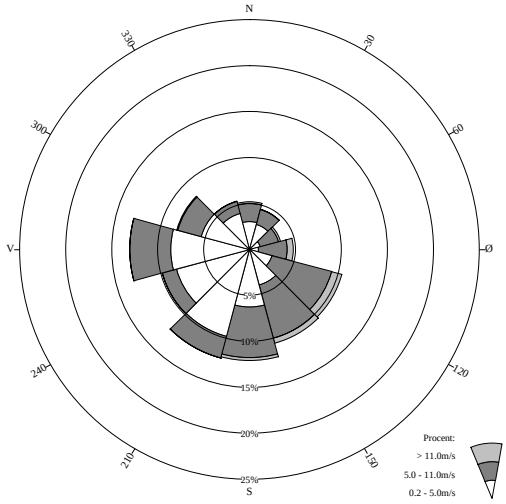

## SEPTEMBER



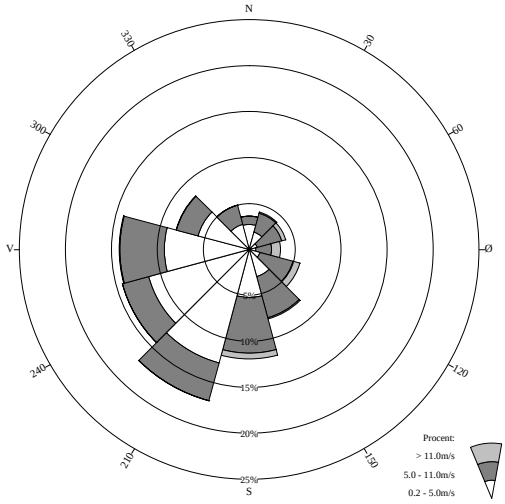

## OKTOBER




## NOVEMBER

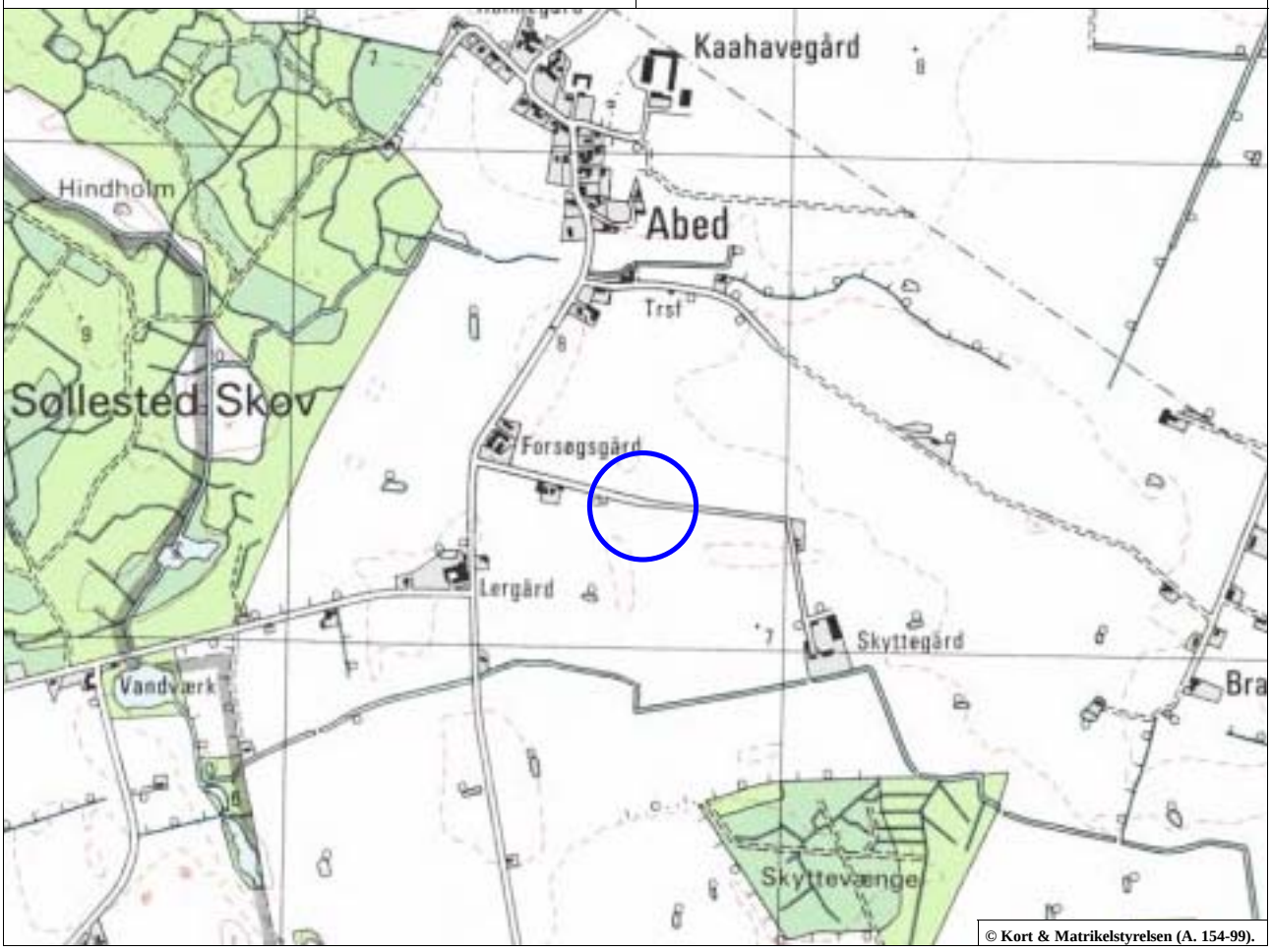



## DECEMBER



# 31351 Abed

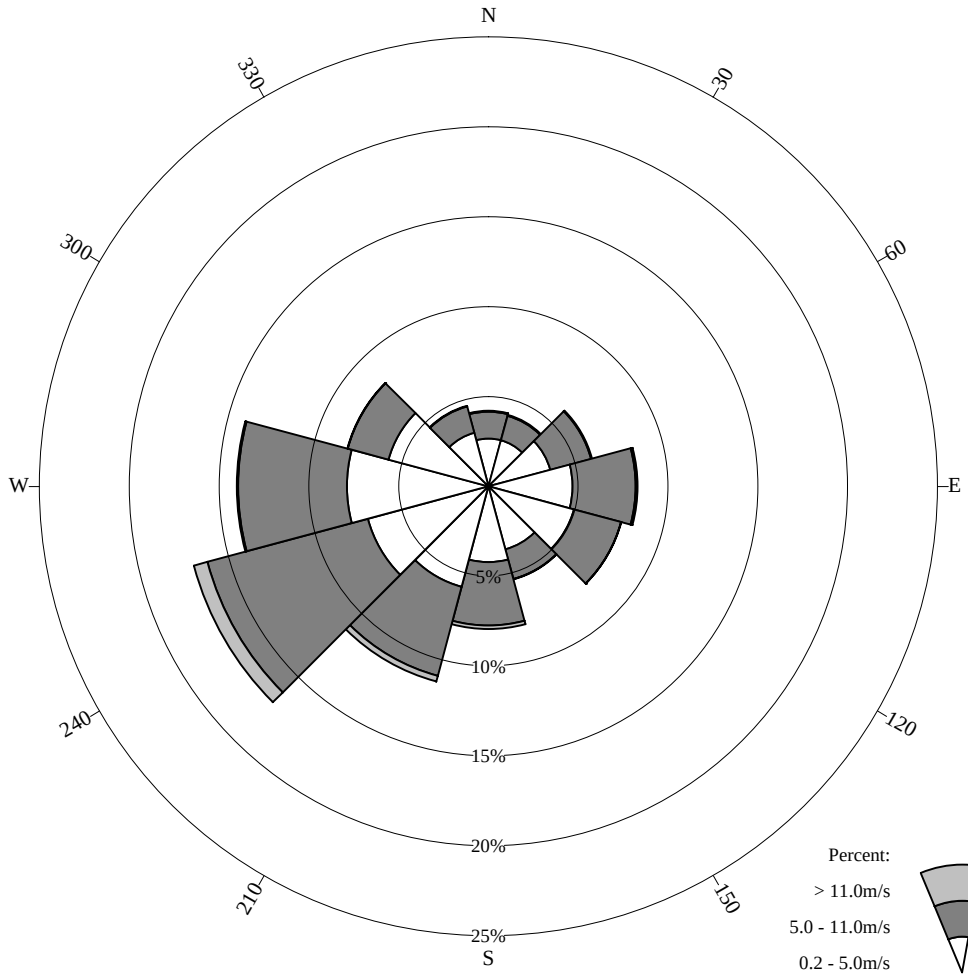
| | |
|---|---|
| **Position:** 54° 50’ N, 11° 20’ E<br>**UTM-koordinater:** 32U 6078.280N 649.690E<br>**Stationsbasis** (m.o.h.)**:** 7<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 54° 50’ N, long 11° 20’ E<br>**UTM-positions:** 32U 6078.280N 649.690E<br>**Elevation** (m.a.s.l.)**:** 7<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 31351
# ABED II

01-01-89 - 31-12-98

Hele perioden



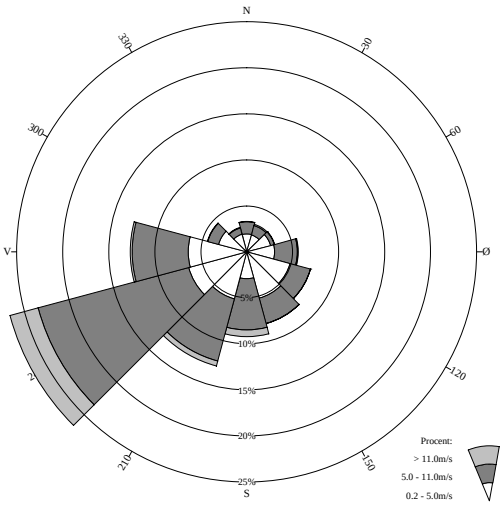

| | N | 30 | 60 | E | 120 | 150 | S | 210 | 240 | W | 300 | 330 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.2 | 4.1 | 6.0 | 8.3 | 7.7 | 5.4 | 7.9 | 11.2 | 17.0 | 14.0 | 8.1 | 4.6 | 98.6 |
| % 0.2-5.0m/s | 2.7 | 2.7 | 3.6 | 4.7 | 4.9 | 3.6 | 4.2 | 5.8 | 7.0 | 7.9 | 5.8 | 3.1 | 55.9 |
| % 5.0-11.0m/s | 1.5 | 1.4 | 2.4 | 3.5 | 2.7 | 1.7 | 3.5 | 5.1 | 9.2 | 6.1 | 2.4 | 1.5 | 41.0 |
| % > 11.0m/s | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 | 0.3 | 0.8 | 0.1 | 0.0 | 0.0 | 1.7 |
| Mean wind speed | 4.5 | 4.4 | 4.5 | 4.8 | 4.4 | 4.2 | 5.0 | 5.1 | 5.9 | 4.8 | 4.1 | 4.2 | 4.8 |
| Max wind speed | 15.8 | 16.0 | 15.2 | 19.3 | 13.1 | 11.6 | 15.9 | 18.0 | 24.8 | 18.5 | 13.2 | 14.0 | 24.8 |

Number of observations = 87345 Source: DMI

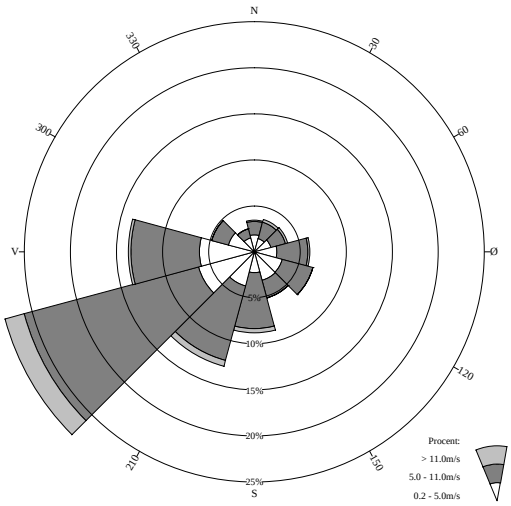
Calm defined as wind speed <= 0.2m/s

Number of observations with calm/varying wind direction: 1197 = 1.4%

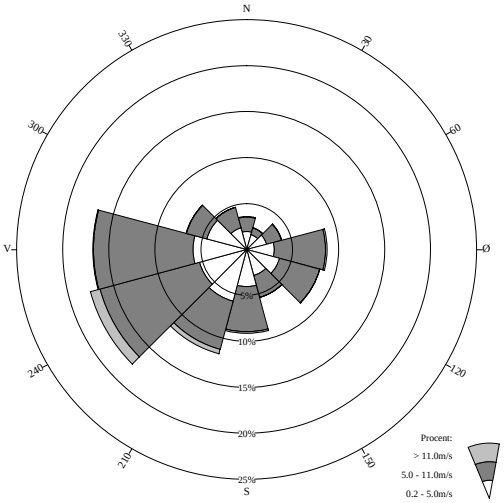
## JANUAR



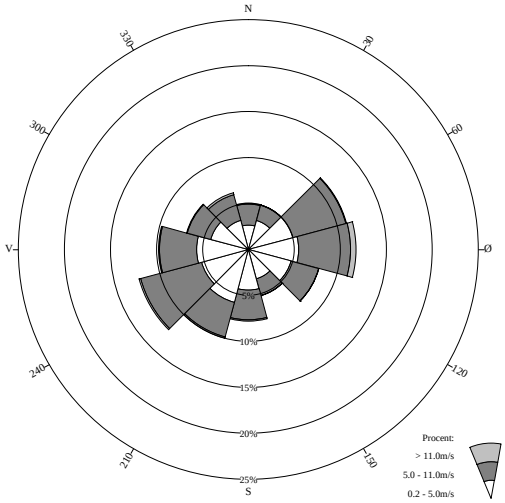

## FEBRUAR



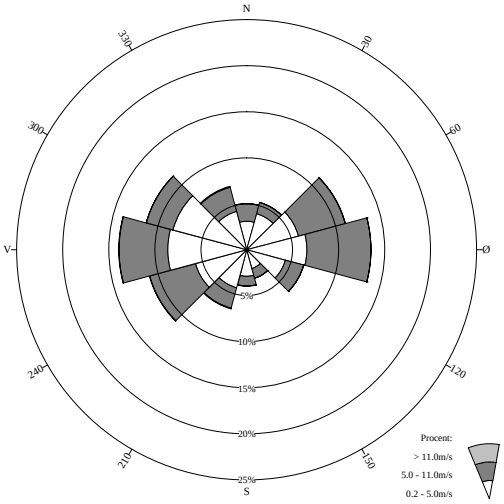

## MARTS



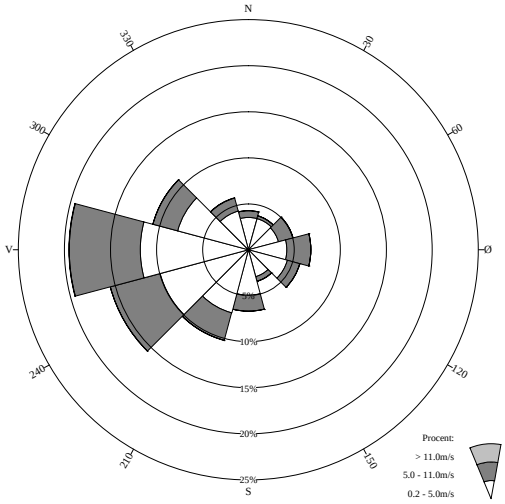

## APRIL



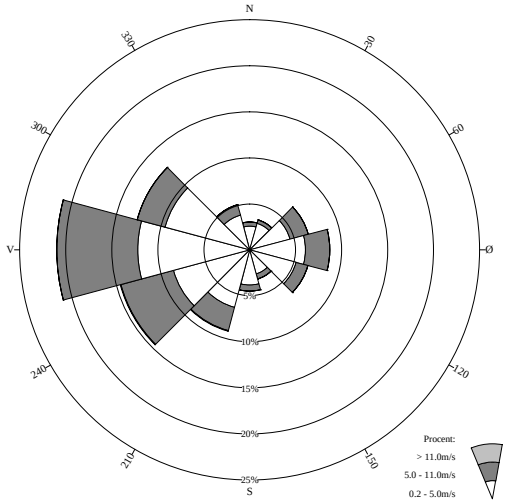

## MAJ



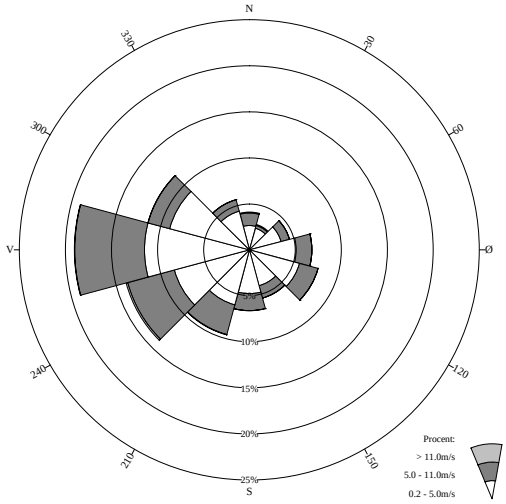

## JUNI



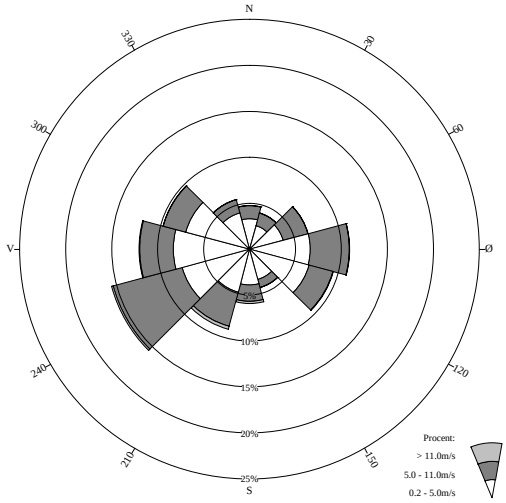
## JULI



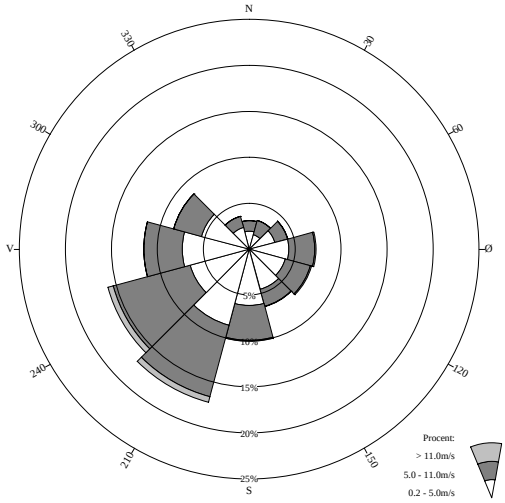

## AUGUST



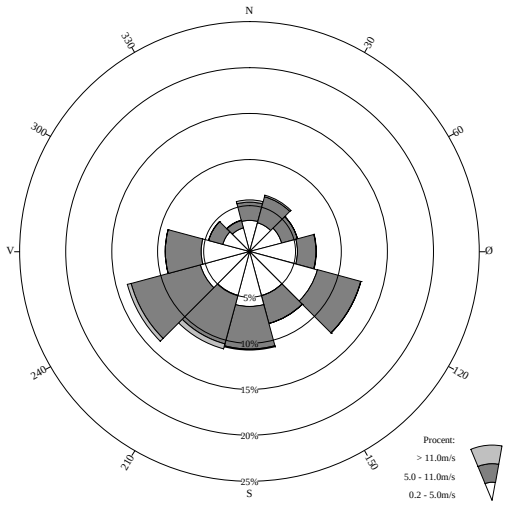

## SEPTEMBER



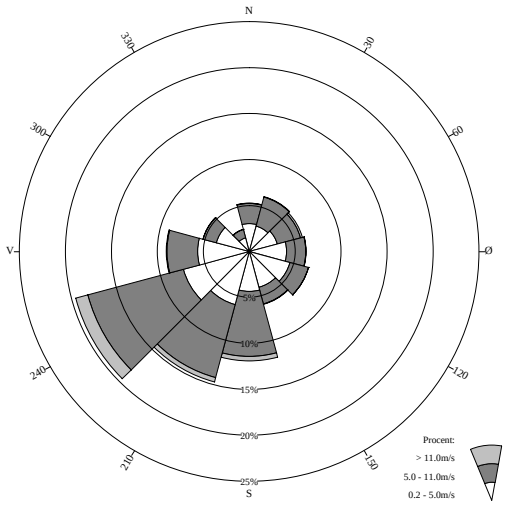

## OKTOBER




## NOVEMBER

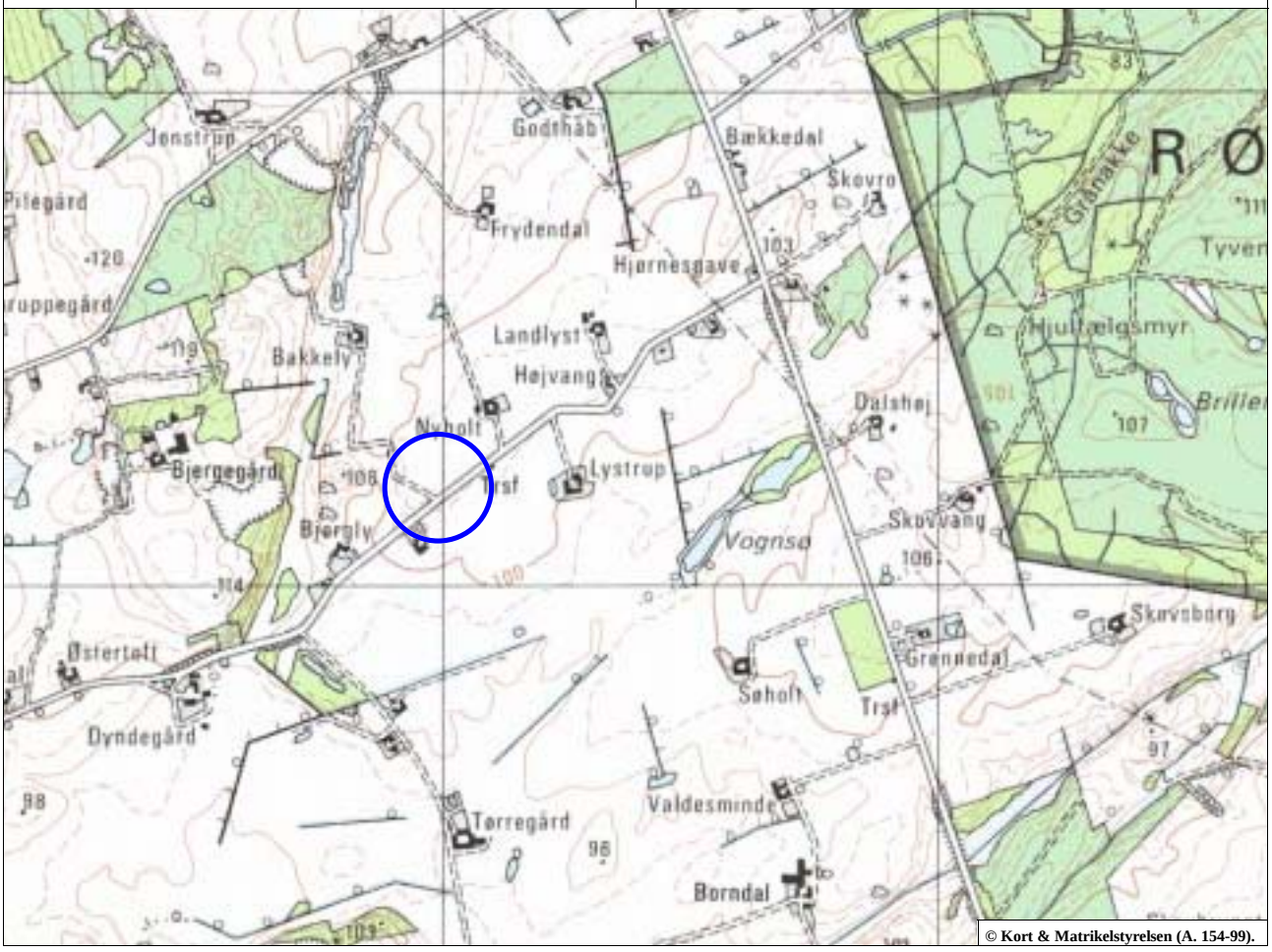



## DECEMBER



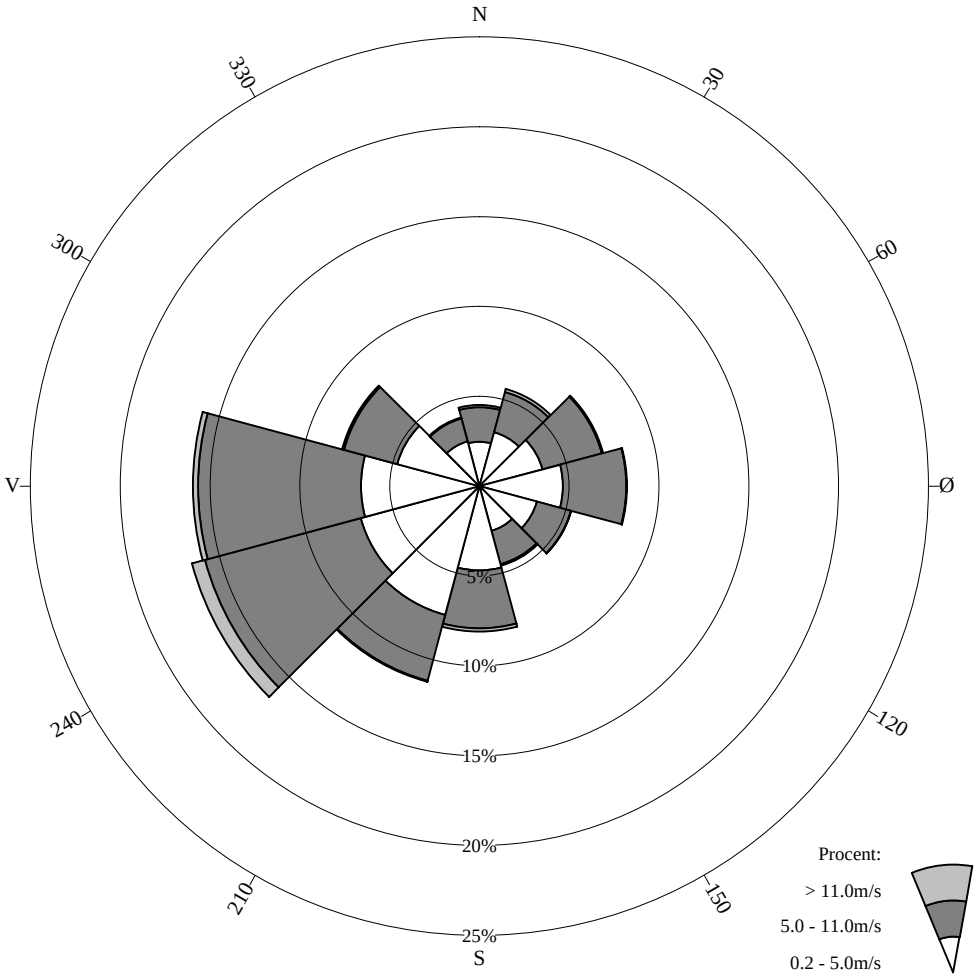
# 32082 Klemensker Ø

| | |
|---|---|
| **Position:** 55° 10’ N, 14° 52’ E<br>**UTM-koordinater:** 33U 6114.190N 490.980E<br>**Stationsbasis** (m.o.h.)**:** 103<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 10’ N, long 14° 52’ E<br>**UTM-positions:** 33U 6114.190N 490.980E<br>**Elevation** (m.a.s.l.)**:** 103<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 32082
# KLEMENSKER Ø

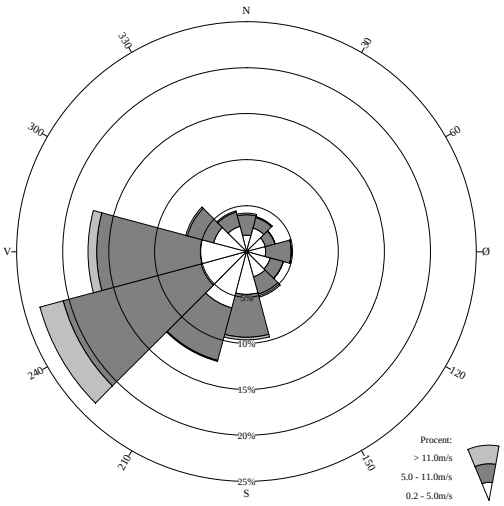
01-01-89 - 31-12-98



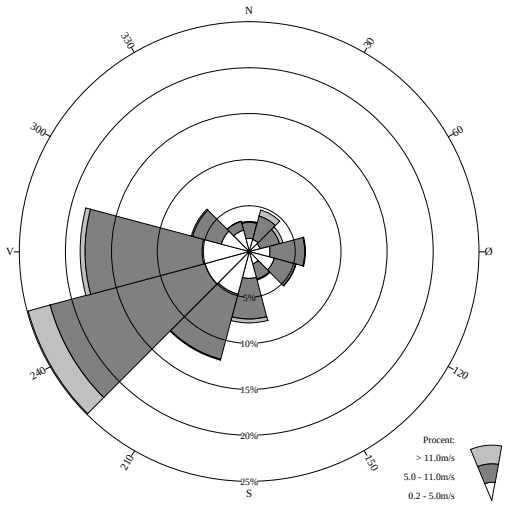

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.5 | 5.6 | 7.1 | 8.2 | 5.3 | 4.6 | 8.1 | 11.3 | 16.6 | 16.0 | 7.9 | 4.0 | 99.2 |
| % 0.2-5.0m/s | 2.5 | 3.1 | 3.6 | 4.7 | 3.3 | 2.6 | 4.7 | 7.4 | 6.8 | 6.6 | 4.7 | 2.6 | 52.7 |
| % 5.0-11.0m/s | 1.9 | 2.3 | 3.4 | 3.5 | 2.0 | 1.9 | 3.2 | 3.8 | 9.0 | 9.1 | 3.1 | 1.3 | 44.5 |
| % > 11.0m/s | 0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.8 | 0.3 | 0.1 | 0.1 | 1.9 |
| Middel hastighed | 4.9 | 5.0 | 5.1 | 4.7 | 4.4 | 4.7 | 4.7 | 4.2 | 5.9 | 5.6 | 4.7 | 4.4 | 5.0 |
| Største hastighed | 16.1 | 16.8 | 16.6 | 14.4 | 12.4 | 14.2 | 15.4 | 14.5 | 20.3 | 15.1 | 15.6 | 15.3 | 20.3 |

Totalt antal observationer = 86536 Kilde: DMI
Vindstille defineret som hastighed <= 0.2m/s
Antal observationer med vindstille/varierende vind: 729 = 0.8%

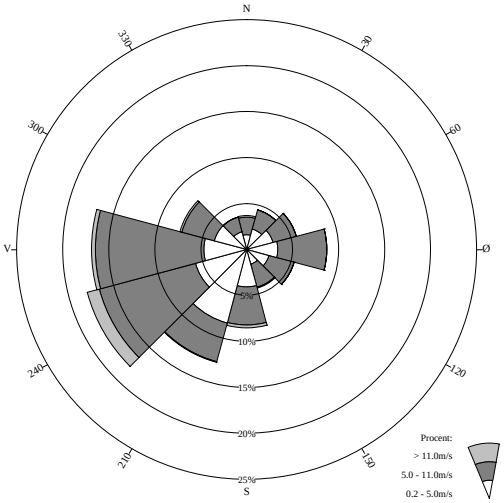
## JANUAR



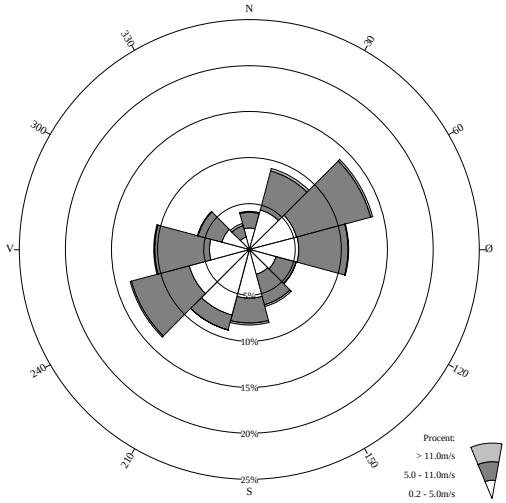

## FEBRUAR



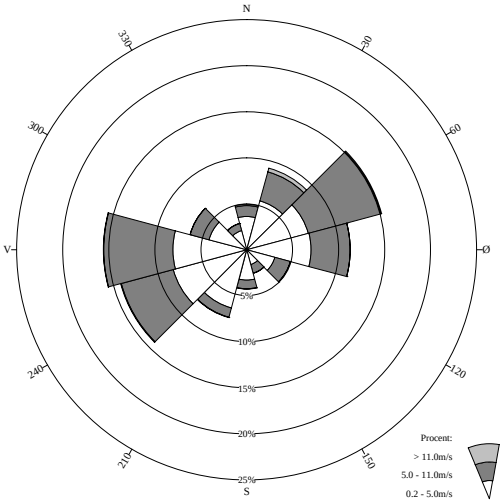

## MARTS



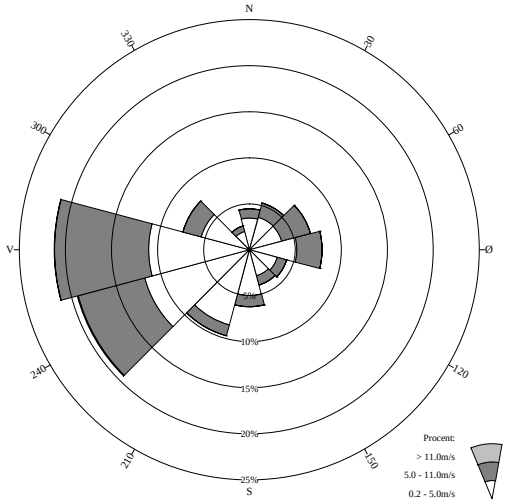

## APRIL



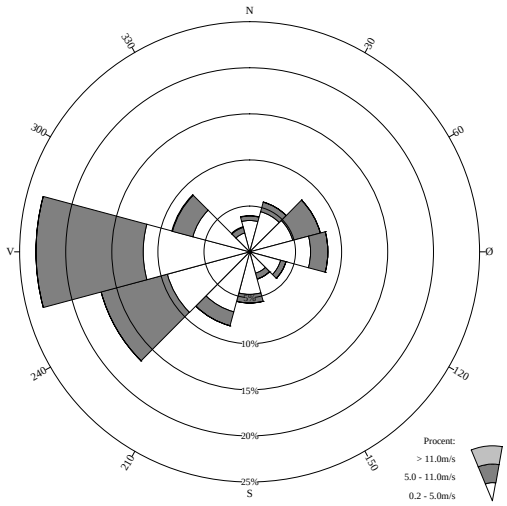

## MAJ



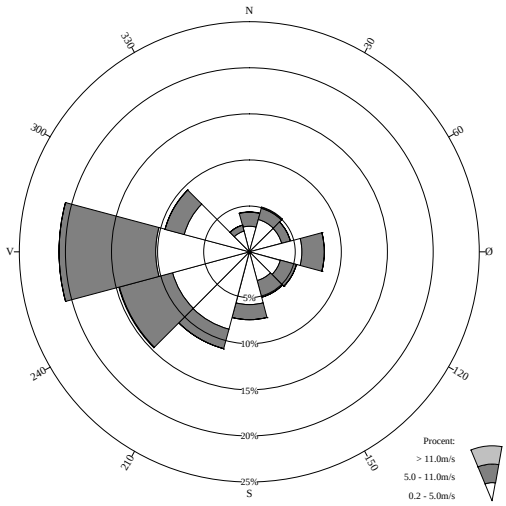

## JUNI



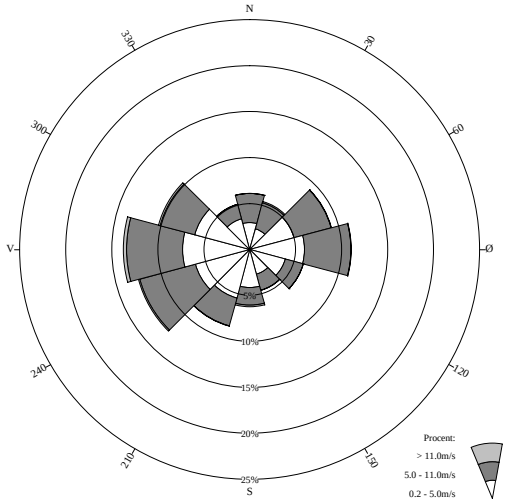
## JULI



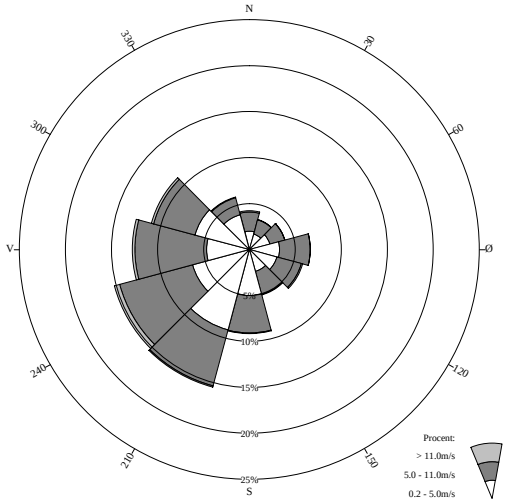

## AUGUST



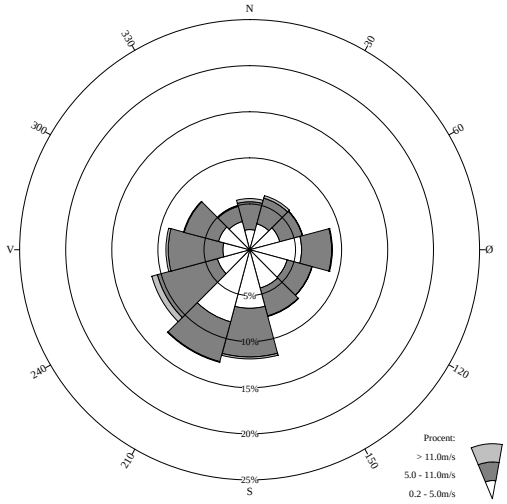

## SEPTEMBER



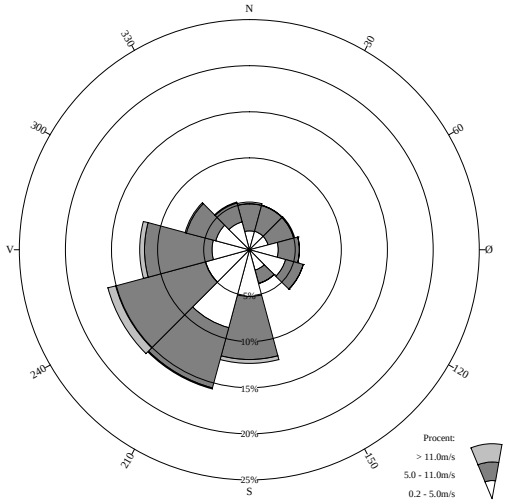

## OKTOBER




## NOVEMBER

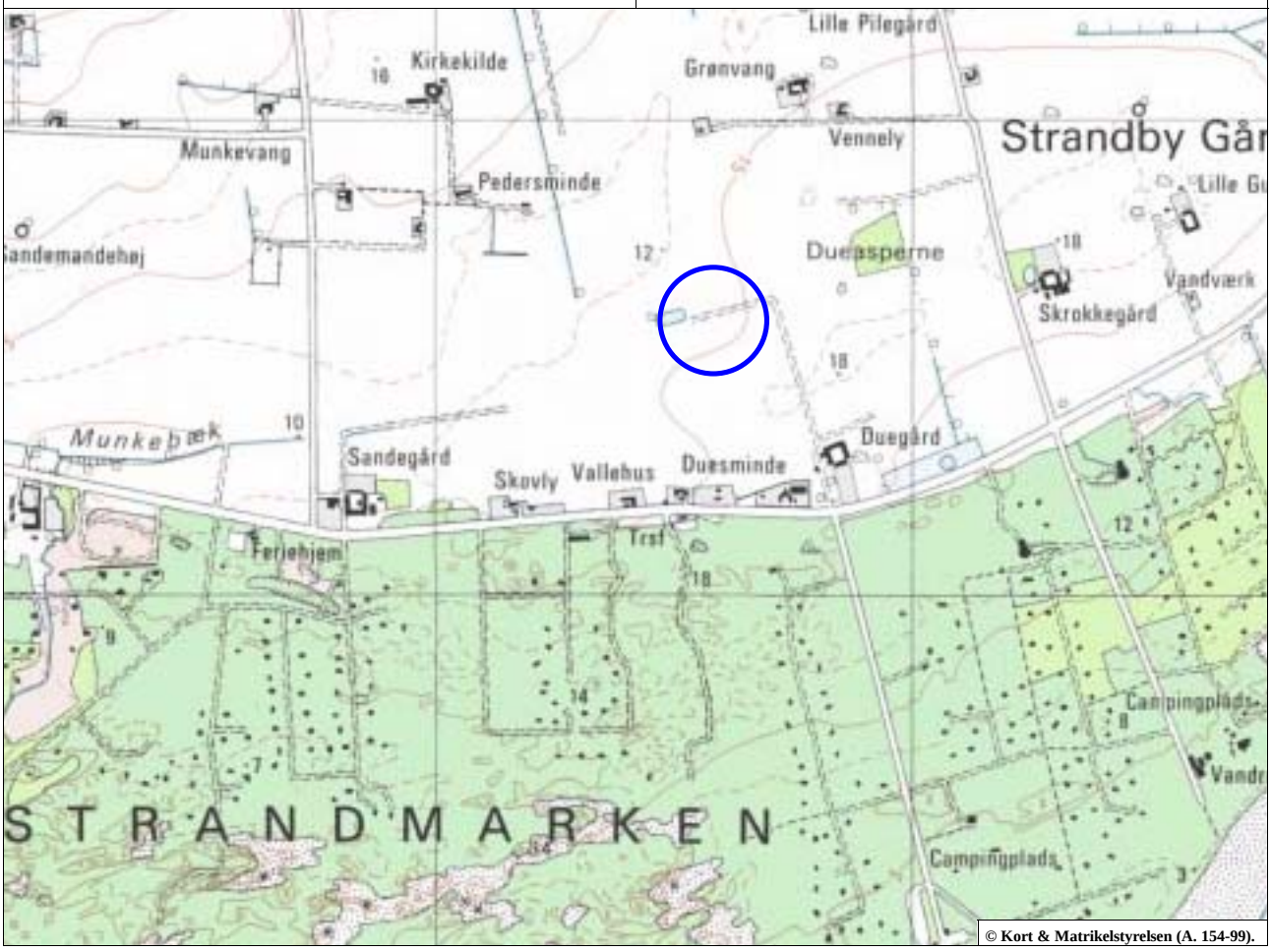



## DECEMBER



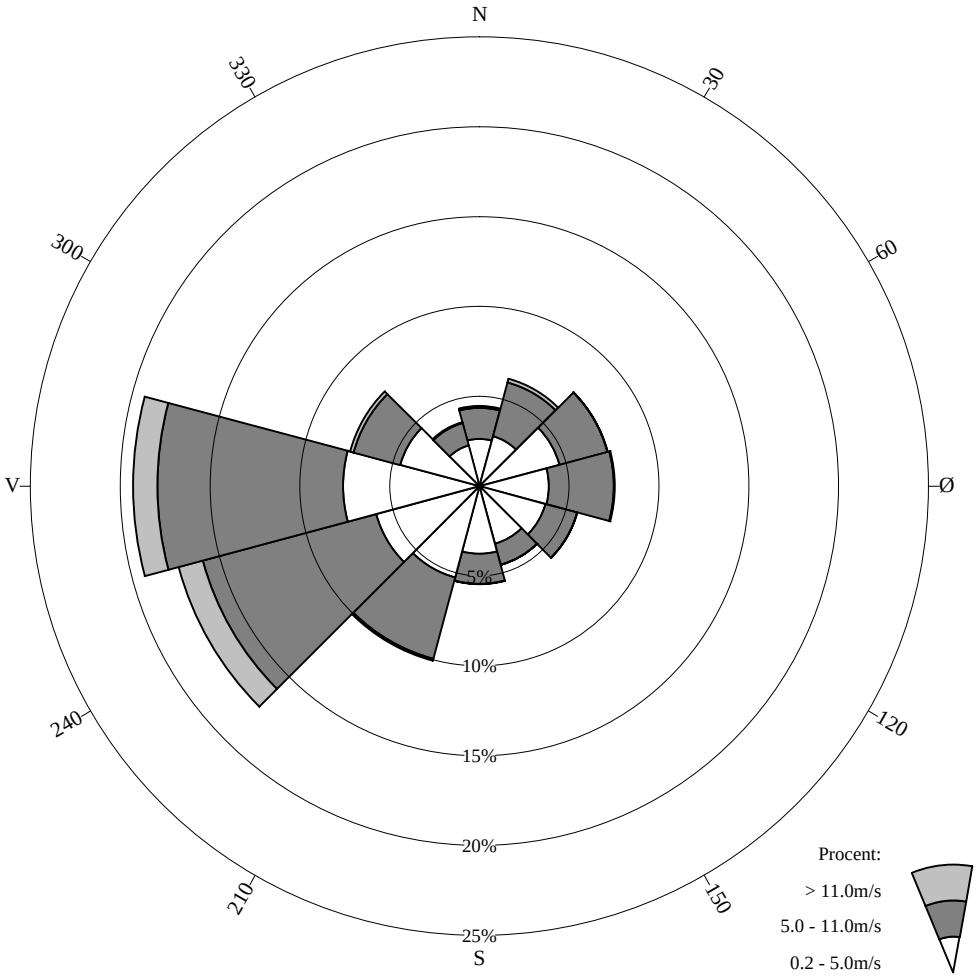
# 32299 Dueodde

| | |
|---|---|
| **Position:** 55° 00’ N, 15° 04’ E<br>**UTM-koordinater:** 33U 6095.580N 504.580E<br>**Stationsbasis** (m.o.h.)**:** 14<br>**Vindmålehøjde:** 10 m<br><br>**Bemærkninger:** | **Position:** lat 55° 00’ N, long 15° 04’ E<br>**UTM-positions:** 33U 6095.580N 504.580E<br>**Elevation** (m.a.s.l.)**:** 14<br>**Level of measurement:** 10 m<br><br>**Comments:** |



# Station 32299
# DUEODDE

01-01-89 - 31-12-98



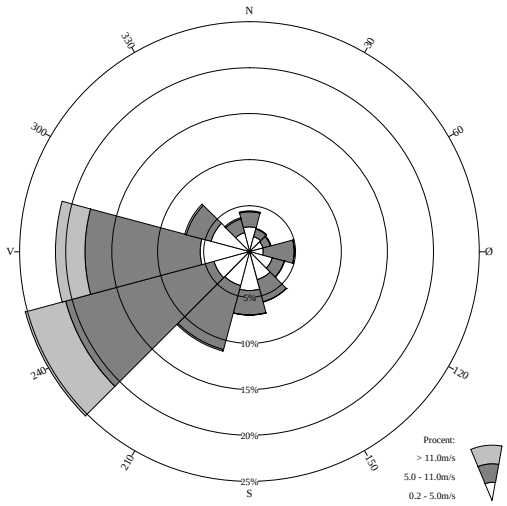

| | N | 30 | 60 | Ø | 120 | 150 | S | 210 | 240 | V | 300 | 330 | Ialt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| % | 4.5 | 6.2 | 7.4 | 7.6 | 5.6 | 4.5 | 5.5 | 10.1 | 17.3 | 19.3 | 7.5 | 3.7 | 99.1 |
| % 0.2-5.0m/s | 2.6 | 2.9 | 4.6 | 3.9 | 3.8 | 3.3 | 3.8 | 5.3 | 6.0 | 7.6 | 4.6 | 2.3 | 50.7 |
| % 5.0-11.0m/s | 1.7 | 3.1 | 2.8 | 3.6 | 1.8 | 1.2 | 1.7 | 4.7 | 10.0 | 10.3 | 2.7 | 1.3 | 44.9 |
| % > 11.0m/s | 0.1 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 1.4 | 1.4 | 0.2 | 0.1 | 3.5 |
| Middel hastighed | 4.6 | 5.4 | 4.6 | 5.1 | 4.3 | 4.0 | 4.3 | 5.1 | 6.4 | 6.1 | 4.6 | 4.4 | 5.3 |
| Største hastighed | 17.1 | 18.5 | 13.6 | 13.5 | 11.6 | 10.4 | 12.7 | 13.7 | 23.8 | 21.4 | 18.6 | 15.6 | 23.8 |

Totalt antal observationer = 86989 Kilde: DMI

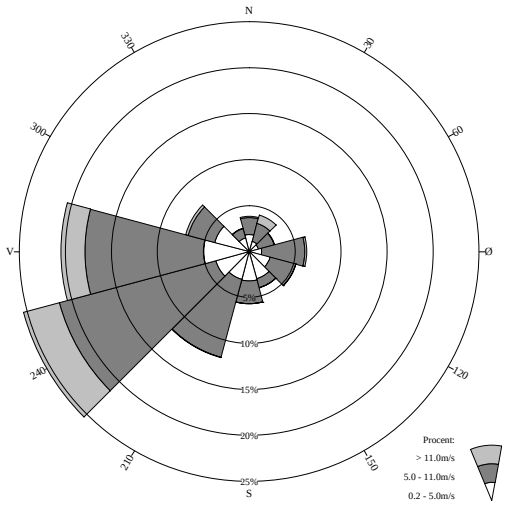
Vindstille defineret som hastighed <= 0.2m/s

Antal observationer med vindstille/varierende vind: 768 = 0.9%

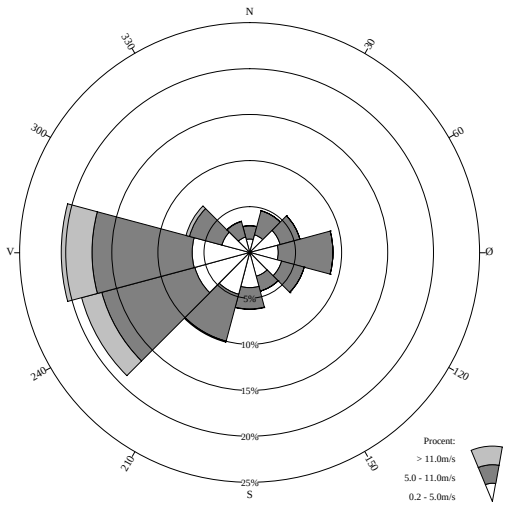
## JANUAR



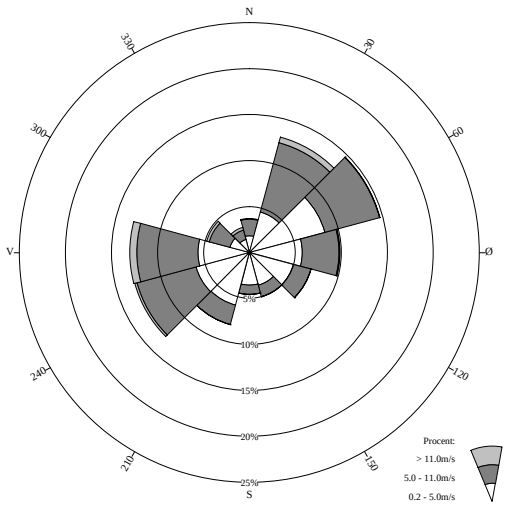

## FEBRUAR



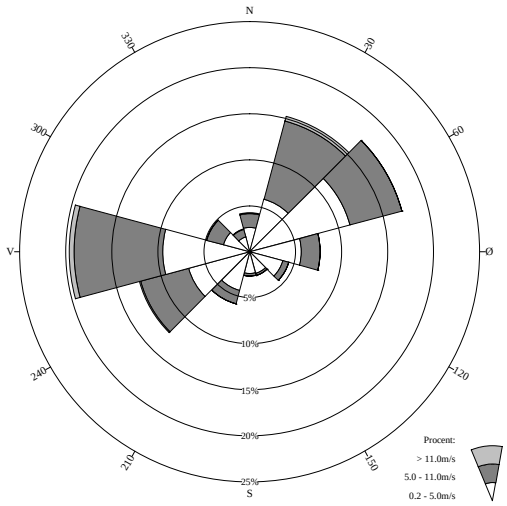

## MARTS



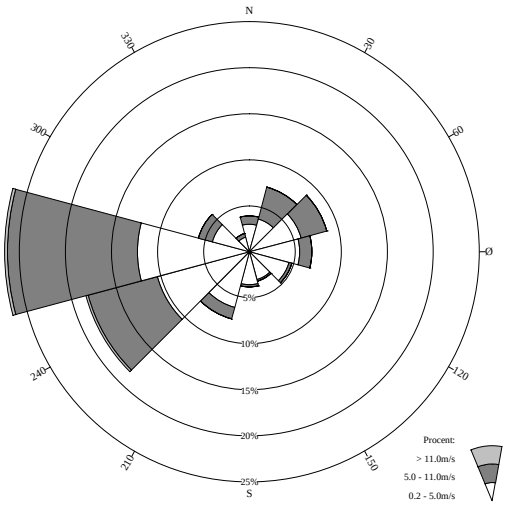

## APRIL



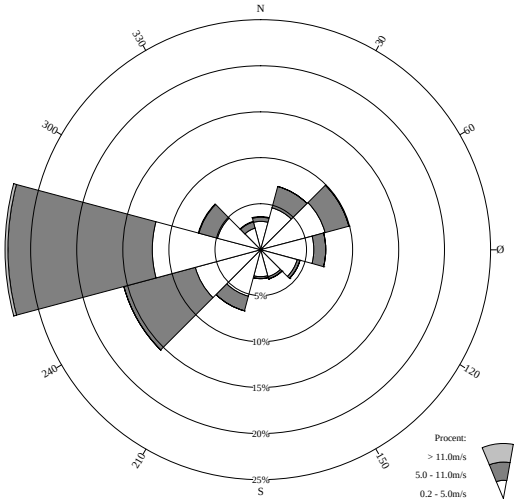

## MAJ



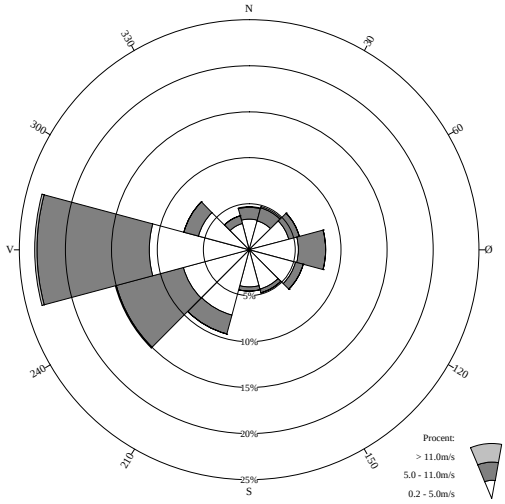

## JUNI



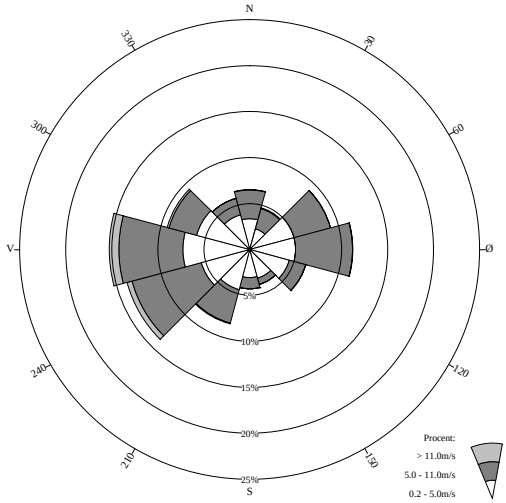
## JULI



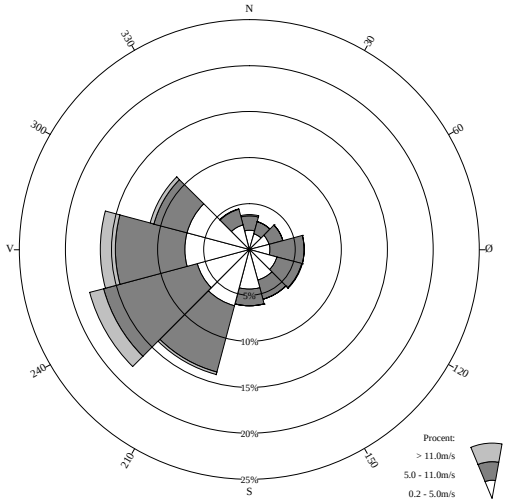

## AUGUST



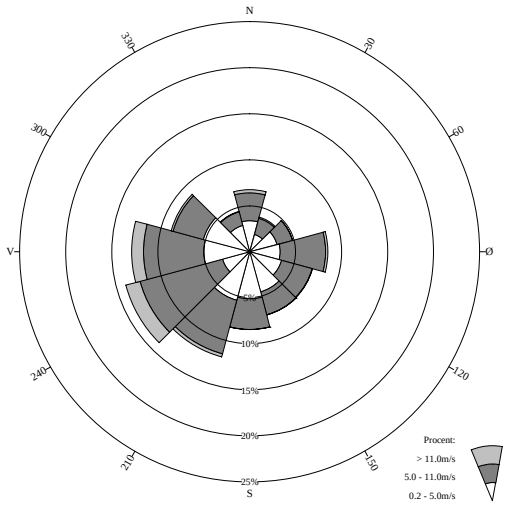

## SEPTEMBER



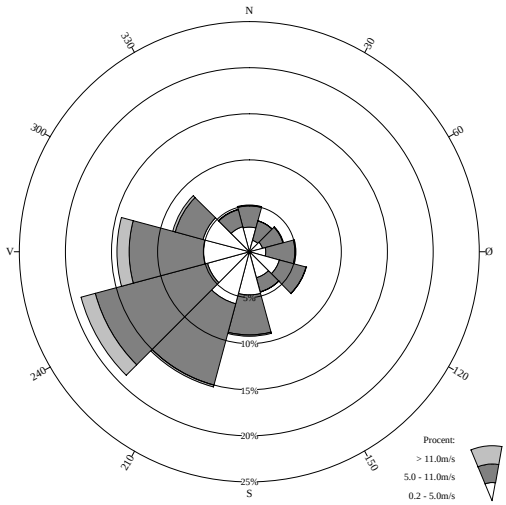

## OKTOBER

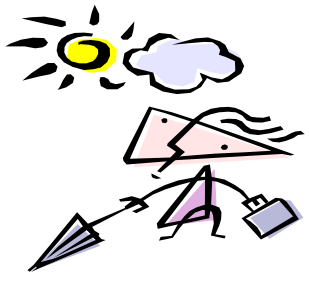



## NOVEMBER




## DECEMBER





# Klimanormaler 1961-90
## Provisoriske normaler 1989-98

# Climatological normals 1961-90
## Provisory normals 1989-98

# Klimanormaler 1961-90/Climatological normals 1961-90

## Klimanormaler

Tabellerne nedenfor indeholder klimanormaler (måneds- og årsværdier) af middelvindhastighed, hyppigste vindretning, højeste 10 - minutters vindhastighed, højeste vindstød samt antal dage med henh. hård vind, stormende kuling og fuld storm. Observationsstederne er vist på kortet side 16.
Normalerne for perioden 1961-1990 er synonyme med standardnormalerne for samme periode. Tidsserierne af månedsværdier og normalerne er inkluderet i denne rapport på den medfølgende CD-ROM, se appendix 2 for en formatbeskrivelse.

## Climatological normals

The tables below show normal statistics - monthly and yearly values - for mean wind speed, most frequent wind direction, maximum (10 - minutes average) wind speed, maximum gust and number of days with strong breeze, strong gale and whole gale respectively. The observation sites are shown on the map, p. 16.
The normals for the period 1961-1990 are synonymous with the climatological standard normals for the same period. The monthly sets of data and the calculated normals are available on the enclosed CD-ROM, see appendix 2 for record-layout.

## Middelvindhastighed i m/sek — Mean wind speed in m/sec

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06030 FSN ÅLBORG | 5,7 | 5,3 | 6,0 | 5,4 | 5,1 | 4,9 | 5,1 | 4,7 | 5,3 | 5,3 | 5,4 | 5,6 | 5,3 |
| 06041 SKAGEN FYR | 8,5 | 7,7 | 7,8 | 6,7 | 6,1 | 6,2 | 6,4 | 6,2 | 7,6 | 8,1 | 8,6 | 8,7 | 7,4 |
| 06052 THYBORØN | 7,1 | 6,6 | 6,8 | 6,0 | 5,5 | 5,6 | 6,1 | 5,8 | 6,9 | 7,0 | 7,5 | 7,3 | 6,5 |
| 06060 FSN KARUP | 5,6 | 5,4 | 5,9 | 5,3 | 5,1 | 4,9 | 5,1 | 4,7 | 5,1 | 5,1 | 5,3 | 5,4 | 5,2 |
| 06070 TIRSTRUP | 4,8 | 4,6 | 4,8 | 4,4 | 4,0 | 3,9 | 4,1 | 3,8 | 4,1 | 4,2 | 4,4 | 4,7 | 4,3 |
| 06071 FORNÆS FYR | 7,0 | 6,3 | 6,3 | 5,5 | 4,9 | 4,7 | 4,9 | 4,9 | 5,8 | 6,4 | 7,0 | 6,9 | 5,9 |
| 06089 SÆDENSTRAND FYR | 6,8 | 6,3 | 6,9 | 6,2 | 6,1 | 6,3 | 6,7 | 6,4 | 7,0 | 6,8 | 7,0 | 6,9 | 6,6 |
| 06110 FSN SKRYDSTRUP | 5,6 | 5,4 | 5,7 | 5,0 | 4,7 | 4,4 | 4,4 | 4,2 | 4,7 | 4,8 | 5,2 | 5,4 | 5,0 |
| 06119 KEGNÆS FYR | 8,1 | 7,4 | 7,3 | 6,3 | 6,0 | 5,5 | 5,6 | 5,9 | 6,7 | 7,5 | 8,5 | 8,4 | 6,9 |
| 06120 ODENSE LUFTHAVN | 5,4 | 5,3 | 5,6 | 5,0 | 4,7 | 4,3 | 4,4 | 4,2 | 4,6 | 4,7 | 5,3 | 5,5 | 4,9 |
| 06151 OMØ FYR | 7,1 | 6,4 | 6,3 | 5,4 | 4,9 | 4,9 | 5,4 | 5,3 | 6,3 | 6,8 | 7,7 | 7,5 | 6,2 |
| 06159 RØSNÆS FYR | 8,3 | 7,4 | 7,4 | 6,4 | 5,7 | 6,1 | 6,5 | 6,4 | 7,7 | 8,0 | 9,2 | 8,9 | 7,3 |
| 06160 FSN VÆRLØSE | 5,2 | 4,9 | 5,3 | 4,8 | 4,4 | 4,0 | 4,1 | 3,8 | 4,4 | 4,6 | 5,0 | 5,0 | 4,6 |
| 06179 MØNS FYR | 8,0 | 7,3 | 7,4 | 6,0 | 5,5 | 5,0 | 5,2 | 5,3 | 6,2 | 7,2 | 8,4 | 8,1 | 6,6 |
| 06180 KØBENHAVNS LUFTHAVN | 6,5 | 6,0 | 6,1 | 5,4 | 5,0 | 4,9 | 5,1 | 4,9 | 5,5 | 5,8 | 6,5 | 6,4 | 5,7 |
| 06191 CHRISTIANSØ FYR | 8,7 | 7,7 | 7,6 | 6,1 | 5,3 | 5,3 | 6,0 | 5,9 | 7,0 | 7,7 | 9,0 | 9,0 | 7,1 |

# Klimanormaler 1961-90/Climatological normals 1961-90

Højeste vindhastighed i m/sek (10-minutters middel)

Maximum wind speed in m/sec (10-minutes averages)

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **06030 FSN ÅLBORG** | **24,0** | **25,2** | **23,1** | **22,1** | **20,6** | **18,0** | **16,5** | **18,0** | **20,6** | **20,6** | **21,0** | **21,6** | **25,2** |
| Dato/Date | 14/01 | 7/02 | 9/03 | 5/04 | 21/05 | 23/06 | 17/07 | 15/08 | 23/09 | 19/10 | 25/11 | 9/12 | 7/02 |
| År/Year | 1984 | 1961 | 1969 | 1968 | 1966 | 1967 | 1971 | 1966 | 1969 | 1970 | 1981 | 1964 | 1961 |
| **06041 SKAGEN FYR** | **26,0** | **26,0** | **24,2** | **21,1** | **20,0** | **21,0** | **20,0** | **20,1** | **32,9** | **25,0** | **23,1** | **25,0** | **32,9** |
| Dato/Date | 6/01 | 9/02 | 11/03 | 4/04 | 2/05 | 13/06 | 2/07 | 27/08 | 23/09 | 20/10 | 6/11 | 20/12 | 23/09 |
| År/Year | 1975 | 1981 | 1971 | 1972 | 1982 | 1982 | 1981 | 1986 | 1969 | 1983 | 1985 | 1982 | 1969 |
| **06052 THYBORØN** | **31,0** | **30,9** | **23,0** | **23,0** | **20,0** | **23,0** | **22,6** | **22,6** | **23,0** | **26,8** | **30,9** | **30,0** | **31,0** |
| Dato/Date | 19/01 | 27/02 | 11/03 | 20/04 | 13/05 | 23/06 | 17/07 | 15/08 | 19/09 | 23/10 | 6/11 | 24,/12 | 19/01 |
| År/Year | 1983 | 1990 | 1983 | 1980 | 1983 | 1984 | 1971 | 1966 | 1978 | 1971 | 1985 | 1980 | 1983 |
| **06060 FSN KARUP** | **23,0** | **23,1** | **19,5** | **19,0** | **16,5** | **17,0** | **18,0** | **18,0** | **21,6** | **20,6** | **22,6** | **21,0** | **23,1** |
| Dato/Date | 14/01 | 27/02 | 4/03 | 18/04 | 21/05 | 6/06 | 17/07 | 5/08 | 23/09 | 30/10 | 26/11 | 1/01 | 27/02 |
| År/Year | 1984 | 1990 | 1967 | 1967 | 1965 | 1967 | 1971 | 1964 | 1969 | 1969 | 1964 | 1983 | 1990 |
| **06070 TIRSTRUP** | **24,0** | **16,5** | **18,0** | **18,0** | **13,9** | **14,9** | **18,0** | **14,0** | **18,0** | **17,0** | **23,0** | **21,6** | **24,0** |
| Dato/Date | 19/01 | 24,/02 | 26/03 | 7/04 | 29/05 | 16/06 | 17/07 | 27/08 | 22/09 | 30/10 | 25/11 | 2/12 | 19/01 |
| År/Year | 1983 | 1967 | 1989 | 1976 | 1975 | 1976 | 1971 | 1981 | 1969 | 1969 | 1981 | 1986 | 1983 |
| **06071 FORNÆS FYR** | **25,0** | **22,6** | **22,6** | **22,6** | **18,0** | **19,0** | **19,5** | **19,0** | **26,8** | **26,8** | **24,7** | **25,0** | **26,8** |
| Dato/Date | 19/01 | 21/02 | 24/03 | 18/04 | 22/05 | 26/06 | 18/07 | 21/08 | 23/09 | 18/10 | 29/11 | 20/12 | 23/09 |
| År/Year | 1983 | 1970 | 1989 | 1967 | 1975 | 1962 | 1987 | 1990 | 1969 | 1967 | 1988 | 1982 | 1969 |
| **06089 SÆDENSTRAND FYR** | **28,8** | **29,8** | **29,9** | **21,1** | **26,8** | **20,6** | **19,5** | **23,0** | **25,7** | **26,2** | **28,0** | **24,7** | **29,9** |
| Dato/Date | 26/01 | 27/02 | 2/03 | 21/04 | 16/05 | 29/06 | 30/07 | 22/08 | 22/09 | 18/10 | 25/11 | 6/12 | 2/03 |
| År/Year | 1990 | 1990 | 1976 | 1967 | 1986 | 1989 | 1988 | 1980 | 1990 | 1967 | 1981 | 1972 | 1976 |
| **06110 FSN SKRYDSTRUP** | **26,8** | **25,7** | **20,1** | **21,1** | **18,0** | **17,0** | **15,4** | **16,5** | **19,0** | **24,7** | **20,0** | **20,6** | **26,8** |
| Dato/Date | 16/01 | 24/02 | 18/03 | 21/04 | 24/05 | 28/06 | 8/07 | 15/08 | 23/09 | 18/10 | 25/11 | 14/12 | 16/01 |
| År/Year | 1968 | 1967 | 1968 | 1967 | 1966 | 1983 | 1968 | 1966 | 1969 | 1967 | 1981 | 1964 | 1968 |
| **06119 KEGNÆS FYR** | **31,0** | **31,9** | **26,8** | **23,7** | **20,6** | **19,5** | **18,5** | **23,6** | **23,9** | **31,4** | **26,0** | **27,0** | **31,9** |
| Dato/Date | 18/01 | 24/02 | 29/03 | 6/04 | 24/05 | 18/06 | 5/07 | 21/08 | 28/09 | 18/10 | 24/11 | 16/12 | 24/02 |
| År/Year | 1983 | 1967 | 1986 | 1989 | 1966 | 1987 | 1961 | 1990 | 1975 | 1967 | 1981 | 1982 | 1967 |
| **06120 ODENSE LUFTHAVN** | **21,0** | **22,6** | **18,0** | **19,5** | **15,4** | **14,4** | **14,9** | **15,4** | **18,0** | **18,0** | **20,0** | **20,0** | **22,6** |
| Dato/Date | 19/01 | 27/02 | 17/03 | 21/04 | 17/05 | 25/06 | 16/07 | 28/08 | 12/09 | 18/10 | 21/11 | 25/12 | 27/02 |
| År/Year | 1983 | 1990 | 1969 | 1967 | 1969 | 1962 | 1971 | 1962 | 1978 | 1967 | 1981 | 1977 | 1990 |
| **06151 OMØ FYR** | **28,0** | **27,7** | **25,7** | **24,0** | **18,5** | **22,0** | **18,5** | **20,1** | **25,7** | **29,8** | **25,7** | **25,0** | **29,8** |
| Dato/Date | 19/01 | 27/02 | 29/03 | 1/05 | 16/05 | 24/06 | 18/07 | 30/08 | 25/09 | 18/10 | 29/11 | 11/12 | 18/10 |
| År/Year | 1983 | 1990 | 1987 | 1979 | 1989 | 1984 | 1987 | 1987 | 1988 | 1967 | 1988 | 1982 | 1967 |
| **06159 RØSNÆS FYR** | **34,0** | **30,9** | **26,8** | **23,0** | **23,7** | **25,7** | **20,6** | **22,6** | **26,8** | **28,2** | **33,0** | **30,9** | **34,0** |
| Dato/Date | 14/01 | 27/02 | 11/03 | 9/04 | 24/05 | 9/06 | 1/08 | 15/08 | 6/09 | 7/10 | 25/11 | 2/12 | 14/01 |
| År/Year | 1984 | 1990 | 1971 | 1982 | 1966 | 1987 | 1989 | 1985 | 1985 | 1990 | 1981 | 1986 | 1984 |
| **06160 FSN VÆRLØSE** | **25,0** | **20,0** | **23,1** | **19,0** | **17,0** | **15,4** | **17,0** | **18,0** | **20,6** | **27,8** | **22,0** | **21,9** | **27,8** |
| Dato/Date | 19/01 | 9/02 | 27/03 | 4/04 | 17/05 | 18/06 | 17/07 | 22/08 | 23/09 | 18/10 | 25/11 | 25/12 | 18/10 |
| År/Year | 1983 | 1981 | 1961 | 1972 | 1986 | 1987 | 1971 | 1980 | 1969 | 1967 | 1981 | 1977 | 1967 |
| **06179 MØNS FYR** | **29,8** | **26,8** | **29,8** | **27,8** | **23,7** | **21,6** | **20,6** | **22,6** | **23,7** | **30,9** | **26,8** | **26,0** | **30,9** |
| Dato/Date | 16/01 | 9/02 | 15/03 | 6/04 | 24/05 | 26/06 | 8/07 | 28/08 | 27/09 | 18/10 | 30/11 | 25/12 | 18/10 |
| År/Year | 1968 | 1990 | 1969 | 1989 | 1971 | 1962 | 1969 | 1989 | 1963 | 1967 | 1988 | 1977 | 1967 |
| **06180 KØBENHAVNS LUFTHAVN** | **22,0** | **23,1** | **20,0** | **17,5** | **15,9** | **15,4** | **16,5** | **15,9** | **20,6** | **28,8** | **20,1** | **17,0** | **28,8** |
| Dato/Date | 19/01 | 24/02 | 29/03 | 14/04 | 17/05 | 26/06 | 17/07 | 29/08 | 23/09 | 18/10 | 29/11 | 24/12 | 18/10 |
| År/Year | 1983 | 1967 | 1985 | 1969 | 1986 | 1962 | 1971 | 1989 | 1969 | 1967 | 1988 | 1980 | 1967 |
| **06191 CHRISTIANSØ FYR** | **30,0** | **30,8** | **24,7** | **25,0** | **20,9** | **23,1** | **22,1** | **23,0** | **28,8** | **27,8** | **34,0** | **28,0** | **34,0** |
| Dato/Date | 19/01 | 27/02 | 6/03 | 20/04 | 6/05 | 15/06 | 1/08 | 22/08 | 25/09 | 8/10 | 25/11 | 16/12 | 25/11 |
| År/Year | 1983 | 1990 | 1990 | 1980 | 1974 | 1982 | 1989 | 1980 | 1988 | 1990 | 1981 | 1982 | 1981 |

# Klimanormaler 1961-90/Climatological normals 1961-90

## Antal dage med hård vind (vindhastighed ≥ 10,8 m/sek)

## Number of days with strong breeze (wind speed ≥ 10,8 m/sec)

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06030 FSN ÅLBORG | 8,1 | 5,8 | 8,1 | 5,8 | 5,0 | 4,2 | 3,8 | 3,5 | 5,8 | 5,5 | 6,7 | 7,6 | 69,8 |
| 06041 SKAGEN FYR | 18,3 | 13,6 | 15,8 | 11,7 | 9,0 | 9,6 | 10,3 | 10,1 | 15,2 | 17,2 | 18,3 | 19,3 | 168,5 |
| 06052 THYBORØN | 14,0 | 10,8 | 11,9 | 8,5 | 7,6 | 7,4 | 9,1 | 8,3 | 12,0 | 12,7 | 14,9 | 14,8 | 132,0 |
| 06060 FSN KARUP | 6,9 | 6,0 | 8,1 | 5,6 | 4,2 | 3,9 | 4,6 | 3,0 | 4,6 | 4,5 | 6,5 | 6,2 | 64,1 |
| 06070 TIRSTRUP | 4,1 | 3,3 | 3,9 | 2,5 | 1,3 | 1,5 | 1,6 | 1,1 | 2,3 | 2,6 | 3,4 | 3,9 | 31,5 |
| 06071 FORNÆS FYR | 11,5 | 9,0 | 9,2 | 6,1 | 3,5 | 2,8 | 3,5 | 3,8 | 7,2 | 10,1 | 11,6 | 12,0 | 90,3 |
| 06089 SÆDENSTRAND FYR | 11,3 | 8,2 | 10,6 | 8,1 | 7,1 | 7,5 | 9,4 | 8,7 | 10,9 | 10,3 | 11,9 | 11,9 | 115,9 |
| 06110 FSN SKRYDSTRUP | 6,6 | 5,5 | 7,4 | 4,7 | 3,7 | 3,0 | 1,9 | 3,0 | 4,2 | 4,5 | 6,1 | 7,0 | 57,6 |
| 06119 KEGNÆS FYR | 15,8 | 12,2 | 13,1 | 9,3 | 7,6 | 5,9 | 5,8 | 7,4 | 10,8 | 14,0 | 17,7 | 18,3 | 137,8 |
| 06120 ODENSE LUFTHAVN | 6,4 | 4,8 | 6,1 | 4,3 | 2,9 | 1,7 | 1,9 | 1,9 | 3,5 | 3,8 | 5,7 | 6,2 | 49,2 |
| 06151 OMØ FYR | 12,0 | 9,5 | 9,6 | 6,1 | 4,6 | 4,2 | 5,9 | 5,6 | 8,5 | 11,3 | 14,3 | 14,0 | 105,7 |
| 06159 RØSNÆS FYR | 15,6 | 11,1 | 12,6 | 10,0 | 7,5 | 8,9 | 10,0 | 9,4 | 13,1 | 14,3 | 18,0 | 18,6 | 149,2 |
| 06160 FSN VÆRLØSE | 5,4 | 4,2 | 5,9 | 4,3 | 3,2 | 2,2 | 1,7 | 1,9 | 3,5 | 3,9 | 5,1 | 5,4 | 46,7 |
| 06179 MØNS FYR | 16,3 | 12,6 | 14,6 | 9,4 | 6,9 | 5,2 | 5,6 | 6,8 | 9,5 | 13,5 | 16,6 | 16,3 | 133,3 |
| 06180 KØBENHAVNS LUFTHAVN | 8,8 | 6,0 | 6,2 | 4,6 | 3,0 | 2,2 | 2,0 | 2,0 | 4,2 | 5,7 | 8,4 | 8,2 | 61,2 |
| 06191 CHRISTIANSØ FYR | 16,7 | 12,8 | 14,0 | 9,2 | 6,6 | 6,2 | 9,1 | 9,1 | 11,4 | 14,5 | 18,4 | 18,5 | 146,5 |

## Antal dage med stormende kuling (vindhastighed ≥ 20,8 m/sek)

## Number of days with strong gale (wind speed ≥ 20,8 m/sec)

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06030 FSN ÅLBORG | 0,1 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,3 |
| 06041 SKAGEN FYR | 0,7 | 0,3 | 0,2 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,5 | 0,5 | 0,5 | 0,8 | 3,6 |
| 06052 THYBORØN | 0,7 | 0,4 | 0,3 | 0,1 | 0,0 | 0,2 | 0,1 | 0,1 | 0,7 | 0,8 | 1,2 | 0,7 | 5,3 |
| 06060 FSN KARUP | 0,1 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,0 | 0,3 |
| 06070 TIRSTRUP | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 |
| 06071 FORNÆS FYR | 0,3 | 0,1 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,1 | 0,3 | 0,3 | 1,4 |
| 06089 SÆDENSTRAND FYR | 0,6 | 0,7 | 0,4 | 0,1 | 0,1 | 0,0 | 0,0 | 0,1 | 0,4 | 0,7 | 1,0 | 0,5 | 4,5 |
| 06110 FSN SKRYDSTRUP | 0,2 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,3 |
| 06119 KEGNÆS FYR | 1,1 | 0,4 | 0,2 | 0,1 | 0,0 | 0,0 | 0,0 | 0,1 | 0,2 | 0,4 | 0,9 | 0,9 | 4,4 |
| 06120 ODENSE LUFTHAVN | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 |
| 06151 OMØ FYR | 0,5 | 0,3 | 0,1 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,3 | 0,2 | 0,5 | 0,5 | 2,4 |
| 06159 RØSNÆS FYR | 1,1 | 0,8 | 0,5 | 0,3 | 0,1 | 0,2 | 0,0 | 0,0 | 0,6 | 0,8 | 1,4 | 0,9 | 6,7 |
| 06160 FSN VÆRLØSE | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,0 | 0,2 |
| 06179 MØNS FYR | 0,8 | 0,6 | 0,5 | 0,2 | 0,1 | 0,0 | 0,0 | 0,0 | 0,3 | 0,4 | 1,2 | 0,8 | 5,1 |
| 06180 KØBENHAVNS LUFTHAVN | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 |
| 06191 CHRISTIANSØ FYR | 1,7 | 0,9 | 0,7 | 0,2 | 0,0 | 0,2 | 0,1 | 0,1 | 0,6 | 1,0 | 1,7 | 1,8 | 9,0 |

# Klimanormaler 1961-90/Climatological normals 1961-90

## Antal dage med fuld storm (vindhastighed ≥ 24,5 m/sek)

## Number of days with whole gale (wind speed ≥ 24,5 m/sec)

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 06030 FSN ÅLBORG | 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 |
| 06041 SKAGEN FYR | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,1 | 0,0 | 0,0 | 0,3 |
| 06052 THYBORØN | 0,3 | 0,2 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,3 | 0,2 | 1,0 |
| 06060 FSN KARUP | 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 |
| 06070 TIRSTRUP | 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 |
| 06071 FORNÆS FYR | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,2 |
| 06089 SÆDENSTRAND FYR | 0,2 | 0,2 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,1 | 0,3 | 0,1 | 1,1 |
| 06110 FSN SKRYDSTRUP | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 |
| 06119 KEGNÆS FYR | 0,4 | 0,1 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,2 | 0,2 | 1,1 |
| 06120 ODENSE LUFTHAVN | 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 |
| 06151 OMØ FYR | 0,2 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,1 | 0,1 | 0,1 | 0,6 |
| 06159 RØSNÆS FYR | 0,3 | 0,1 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,3 | 0,3 | 0,2 | 1,6 |
| 06160 FSN VÆRLØSE | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 |
| 06179 MØNS FYR | 0,2 | 0,1 | 0,2 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,2 | 0,1 | 1,0 |
| 06180 KØBENHAVNS LUFTHAVN | 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 |
| 06191 CHRISTIANSØ FYR | 0,3 | 0,2 | 0,0 | 0,1 | 0,0 | 0,0 | 0,0 | 0,0 | 0,1 | 0,2 | 0,3 | 0,4 | 1,5 |

## Hyppigste vindretning i %

## Most frequent wind direction in %

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **06030 FSN ÅLBORG** | **SW** | **SW/E** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **SW/S** | **SW** | **W** |
| Frequency (%) | 18 | 16 | 19 | 20 | 22 | 32 | 39 | 31 | 28 | 21 | 19 | 21 | 23 |
| **06041 SKAGEN FYR** | **SW** | **E/S/W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **SW** | **SW** | **W** |
| Frequency (%) | 17 | 15 | 20 | 20 | 21 | 31 | 35 | 28 | 27 | 21 | 20 | 20 | 22 |
| **06052 THYBORØN** | **E** | **E** | **E** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** |
| Frequency (%) | 22 | 26 | 25 | 24 | 25 | 37 | 39 | 33 | 32 | 28 | 26 | 25 | 28 |
| **06060 FSN KARUP** | **SW** | **E/SW** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **S** | **S** | **SW** | **W** |
| Frequency (%) | 17 | 15 | 18 | 18 | 19 | 28 | 36 | 26 | 24 | 20 | 22 | 20 | 21 |
| **06070 TIRSTRUP** | **W/SW** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **SW/W** | **W** | **W** |
| Frequency (%) | 17 | 16 | 21 | 19 | 19 | 28 | 39 | 27 | 28 | 22 | 20 | 21 | 23 |
| **06071 FORNÆS FYR** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** |
| Frequency (%) | 22 | 19 | 22 | 20 | 20 | 28 | 35 | 30 | 31 | 26 | 24 | 28 | 25 |
| **06089 SÆDENSTRAND FYR** | **S** | **E** | **W** | **W** | **W/E** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** |
| Frequency (%) | 19 | 21 | 22 | 19 | 20 | 29 | 33 | 27 | 28 | 21 | 22 | 21 | 23 |
| **06110 FSN SKRYDSTRUP** | **W** | **E** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** |
| Frequency (%) | 20 | 18 | 23 | 20 | 21 | 27 | 33 | 25 | 26 | 19 | 20 | 22 | 23 |
| **06119 KEGNÆS FYR** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** |
| Frequency (%) | 27 | 24 | 28 | 24 | 22 | 30 | 36 | 30 | 31 | 26 | 28 | 31 | 28 |
| **06120 ODENSE LUFTHAVN** | **SW** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **SW** | **SW** | **SW** | **W** |
| Frequency (%) | 20 | 17 | 21 | 20 | 19 | 29 | 35 | 27 | 26 | 21 | 23 | 24 | 23 |
| **06151 OMØ FYR** | **W** | **E** | **E** | **E** | **E** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** |
| Frequency (%) | 19 | 20 | 22 | 21 | 24 | 25 | 31 | 24 | 28 | 22 | 22 | 23 | 22 |
| **06159 RØSNÆS FYR** | **S** | **E** | **E** | **E/S/W** | **S/W** | **W** | **W** | **W** | **W** | **S** | **S** | **S** | **W** |
| Frequency (%) | 24 | 21 | 22 | 17 | 18 | 28 | 35 | 26 | 26 | 26 | 26 | 22 | 22 |
| **06160 FSN VÆRLØSE** | **W** | **E** | **W** | **W/E** | **E** | **W** | **W** | **W** | **W** | **W** | **W/SW** | **W** | **W** |
| Frequency (%) | 19 | 19 | 22 | 18 | 19 | 26 | 32 | 25 | 26 | 20 | 19 | 21 | 22 |
| **06179 MØNS FYR** | **W** | **W** | **W** | **W** | **E** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** |
| Frequency (%) | 28 | 24 | 27 | 23 | 26 | 28 | 36 | 30 | 33 | 30 | 31 | 32 | 29 |
| **06180 KØBENHAVNS LUFTHAVN** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **SW/W** | **W** | **W** |
| Frequency (%) | 22 | 18 | 18 | 17 | 16 | 26 | 33 | 28 | 30 | 25 | 24 | 26 | 24 |
| **06191 CHRISTIANSØ FYR** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** | **W** |
| Frequency (%) | 26 | 24 | 27 | 27 | 26 | 35 | 45 | 38 | 37 | 31 | 27 | 31 | 31 |

# *Provisoriske normaler 1989-98/Provisory normals 1989-98*

## Højeste vindstød i m/sek — Maximum gust in m/sec

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **06030 FSN ÅLBORG** | **32,4** | **34,5** | **30,9** | **27,3** | **29,3** | **24,7** | **21,6** | **23,1** | **26,8** | **24,7** | **29,3** | **29,3** | **34,5** |
| Dato/Date | 22/01 | 26/02 | 28/03 | 19/04 | 23/05 | 18/06 | 29/07 | 6/08 | 10/09 | 2/10 | 6/11 | 20/12 | 26/02 |
| År/Year | 1993 | 1997 | 1997 | 1992 | 1991 | 1998 | 1992 | 1998 | 1994 | 1997 | 1996 | 1993 | 1997 |
| **06060 FSN KARUP** | **33,4** | **35,5** | **29,8** | **32,4** | **24,2** | **29,8** | **24,2** | **26,2** | **28,8** | **28,3** | **32,4** | **26,2** | **35,5** |
| Dato/Date | 10/01 | 27/02 | 25/03 | 8/04 | 23/05 | 23/06 | 1/08 | 14/08 | 10/09 | 26/10 | 7/11 | 28/12 | 27/02 |
| År/Year | 1991 | 1990 | 1994 | 1995 | 1991 | 1994 | 1989 | 1994 | 1997 | 1998 | 1996 | 1998 | 1990 |
| **06070 TIRSTRUP** | **30,3** | **34,5** | **27,8** | **30,4** | **26,2** | **25,2** | **22,1** | **20,6** | **24,2** | **23,7** | **25,7** | **29,3** | **34,5** |
| Dato/Date | 22/01 | 27/02 | 28/03 | 8/04 | 23/05 | 24/06 | 6/07 | 14/08 | 10/09 | 2/10 | 17/11 | 20/12 | 27/02 |
| År/Year | 1993 | 1990 | 1997 | 1995 | 1991 | 1994 | 1995 | 1994 | 1997 | 1997 | 1995 | 1993 | 1990 |
| **06080 ESBJERG LUFTHAVN** | **37,6** | **36,5** | **30,4** | **30,9** | **24,7** | **22,6** | **24,7** | **22,1** | **30,3** | **30,9** | **31,9** | **29,3** | **37,6** |
| Dato/Date | 27/01 | 27/02 | 14/03 | 8/04 | 23/05 | 9/06 | 15/07 | 15/08 | 22/09 | 26/10 | 7/11 | 20/12 | 27/01 |
| År/Year | 1990 | 1990 | 1994 | 1995 | 1991 | 1995 | 1998 | 1994 | 1990 | 1998 | 1996 | 1993 | 1990 |
| **06104 BILLUND LUFTHAVN** | **32,4** | **34,0** | **26,2** | **25,2** | **23,1** | **19,5** | **21,6** | **20,1** | **24,7** | **26,2** | **27,3** | **29,3** | **34,0** |
| Dato/Date | 9/01 | 27/02 | 22/03 | 8/04 | 23/05 | 18/06 | 15/07 | 26/08 | 29/09 | 26/10 | 7/11 | 20/12 | 27/02 |
| År/Year | 1991 | 1990 | 1991 | 1995 | 1991 | 1998 | 1998 | 1995 | 1995 | 1998 | 1996 | 1993 | 1990 |
| **06110 FSN SKRYDSTRUP** | **36,0** | **36,0** | **28,8** | **29,8** | **24,7** | **22,1** | **22,1** | **23,7** | **28,8** | **27,3** | **32,9** | **30,9** | **36,0** |
| Dato/Date | 26/01 | 27/02 | 26/03 | 8/04 | 24/05 | 23/06 | 1/08 | 15/08 | 29/09 | 11/10 | 7/11 | 20/12 | 27/02 |
| År/Year | 1990 | 1990 | 1995 | 1995 | 1991 | 1994 | 1989 | 1994 | 1995 | 1997 | 1996 | 1993 | 1990 |
| **06120 ODENSE LUFTHAVN** | **35,0** | **35,0** | **28,3** | **30,4** | **24,7** | **21,6** | **21,6** | **21,6** | **28,3** | **26,2** | **34,0** | **31,4** | **35,0** |
| Dato/Date | 22/01 | 27/02 | 3/03 | 8/04 | 23/05 | 18/06 | 15/07 | 15/08 | 10/09 | 26/10 | 7/11 | 20/12 | 22/01 |
| År/Year | 1993 | 1990 | 1998 | 1995 | 1991 | 1998 | 1998 | 1994 | 1997 | 1998 | 1996 | 1993 | 1993 |
| **06160 FSN VÆRLØSE** | **37,0** | **32,9** | **27,3** | **29,3** | **28,8** | **24,2** | **22,1** | **22,1** | **27,8** | **25,7** | **29,3** | **28,3** | **37,0** |
| Dato/Date | 14/01 | 27/02 | 10/03 | 12/04 | 23/05 | 18/06 | 29/07 | 15/08 | 30/09 | 3/10 | 17/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1990 | 1997 | 1991 | 1998 | 1997 | 1994 | 1994 | 1997 | 1995 | 1993 | 1993 |
| **06180 KØBENHAVNS LUFTHAVN** | **37,0** | **31,8** | **28,3** | **31,4** | **27,8** | **25,7** | **23,7** | **24,7** | **29,8** | **25,2** | **28,3** | **29,3** | **37,0** |
| Dato/Date | 14/01 | 27/02 | 20/03 | 12/04 | 23/05 | 18/06 | 13/07 | 29/08 | 29/09 | 8/10 | 7/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1993 | 1997 | 1991 | 1998 | 1990 | 1989 | 1995 | 1990 | 1996 | 1993 | 1993 |
| **06190 BORNHOLMS LUFTHAVN** | **39,6** | **30,4** | **28,3** | **29,3** | **27,8** | **25,2** | **22,1** | **24,7** | **31,4** | **33,4** | **34,0** | **35,0** | **39,6** |
| Dato/Date | 23/01 | 21/02 | 15/03 | 12/04 | 3/05 | 17/06 | 15/07 | 30/08 | 29/09 | 29/10 | 18/11 | 20/12 | 23/01 |
| År/Year | 1995 | 1995 | 1992 | 1997 | 1998 | 1998 | 1998 | 1994 | 1995 | 1998 | 1995 | 1993 | 1995 |
| **20012 KANDESTEDERNE** | **33,9** | **30,9** | **28,2** | **26,5** | **24,0** | **25,3** | **24,1** | **20,5** | **27,0** | **27,8** | **28,1** | **27,1** | **33,9** |
| Dato/Date | 23/01 | 27/02 | 27/03 | 19/04 | 1/06 | 13/06 | 1/08 | 12/08 | 16/09 | 2/10 | 6/11 | 28/12 | 23/01 |
| År/Year | 1993 | 1990 | 1995 | 1992 | 1994 | 1996 | 1989 | 1992 | 1994 | 1997 | 1996 | 1998 | 1993 |
| **20155 ÅHOLM** | **33,3** | **36,1** | **30,8** | **27,5** | **29,0** | **24,8** | **21,9** | **22,4** | **26,1** | **27,2** | **30,2** | **28,6** | **36,1** |
| Dato/Date | 18/01 | 27/02 | 10/03 | 11/04 | 23/05 | 18/06 | 7/07 | 6/08 | 16/09 | 15/10 | 3/11 | 20/12 | 27/02 |
| År/Year | 1990 | 1990 | 1990 | 1997 | 1991 | 1998 | 1993 | 1998 | 1994 | 1998 | 1992 | 1993 | 1990 |
| **20209 TYLSTRUP** | **31,3** | **30,2** | **30,5** | **25,4** | **24,3** | **22,0** | **18,9** | **19,8** | **22,4** | **23,4** | **27,4** | **24,9** | **31,3** |
| Dato/Date | 10/01 | 27/02 | 28/03 | 11/04 | 23/05 | 18/06 | 7/07 | 6/08 | 28/09 | 30/10 | 6/11 | 20/12 | 10/01 |
| År/Year | 1991 | 1990 | 1997 | 1997 | 1991 | 1998 | 1993 | 1998 | 1994 | 1990 | 1996 | 1993 | 1991 |
| **20501 HORNUM** | **26,3** | **32,1** | **24,7** | **24,6** | **23,6** | **20,4** | **19,9** | **18,3** | **21,0** | **22,3** | **23,6** | **23,4** | **32,1** |
| Dato/Date | 23/01 | 28/02 | 27/03 | 8/04 | 23/05 | 18/06 | 13/07 | 5/08 | 10/09 | 3/10 | 7/11 | 28/12 | 28/02 |
| År/Year | 1993 | 1998 | 1995 | 1995 | 1991 | 1998 | 1993 | 1989 | 1994 | 1989 | 1996 | 1994 | 1998 |
| **21061 SILSTRUP** | **34,6** | **37,1** | **31,9** | **31,9** | **28,8** | **26,9** | **25,6** | **26,0** | **30,4** | **28,5** | **32,3** | **31,0** | **37,1** |
| Dato/Date | 10/01 | 27/02 | 23/03 | 8/04 | 23/05 | 18/06 | 1/08 | 14/08 | 16/09 | 3/10 | 7/11 | 28/12 | 27/02 |
| År/Year | 1991 | 1990 | 1989 | 1995 | 1991 | 1998 | 1989 | 1994 | 1994 | 1997 | 1996 | 1998 | 1990 |
| **21075 KLITMØLLER HUSE** | **36,3** | **41,3** | **32,0** | **34,1** | **29,0** | **31,3** | **29,4** | **28,8** | **30,9** | **31,2** | **35,2** | **32,9** | **41,3** |
| Dato/Date | 10/01 | 27/02 | 27/03 | 8/04 | 23/05 | 23/06 | 13/07 | 14/08 | 28/09 | 16/10 | 6/11 | 28/12 | 27/02 |
| År/Year | 1995 | 1990 | 1995 | 1995 | 1991 | 1994 | 1993 | 1994 | 1995 | 1998 | 1996 | 1998 | 1990 |
| **21108 HØRSTED** | **36,1** | **36,5** | **30,4** | **30,8** | **29,1** | **25,2** | **25,1** | **25,3** | **29,5** | **28,0** | **31,5** | **29,3** | **36,5** |
| Dato/Date | 10/01 | 27/02 | 23/03 | 8/04 | 23/05 | 18/06 | 1/08 | 14/08 | 20/09 | 24/10 | 6/11 | 27/12 | 27/02 |
| År/Year | 1991 | 1990 | 1989 | 1995 | 1991 | 1998 | 1989 | 1994 | 1990 | 1998 | 1996 | 1998 | 1990 |
| **22022 HALD V** | **35,1** | **35,2** | **27,7** | **28,1** | **27,9** | **24,1** | **21,6** | **21,9** | **24,4** | **24,4** | **27,5** | **26,3** | **35,2** |
| Dato/Date | 10/01 | 27/02 | 28/03 | 8/04 | 23/05 | 18/06 | 1/08 | 5/08 | 16/09 | 2/10 | 6/11 | 21/12 | 27/02 |
| År/Year | 1991 | 1990 | 1997 | 1995 | 1991 | 1998 | 1989 | 1989 | 1994 | 1997 | 1996 | 1991 | 1990 |

# *Provisoriske normaler 1989-98/Provisory normals 1989-98*

Højeste vindstød i m/sek — Maximum gust in m/sec

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **22231 ØDUM** | **31,9** | **33,4** | **27,3** | **28,7** | **24,0** | **21,4** | **20,2** | **21,4** | **21,4** | **22,9** | **26,2** | **27,2** | **33,4** |
| Dato/Date | 10/01 | 27/02 | 10/03 | 8/04 | 22/05 | 24/06 | 15/07 | 5/08 | 29/09 | 4/10 | 7/11 | 7/12 | 27/02 |
| År/Year | 1991 | 1990 | 1990 | 1995 | 1991 | 1994 | 1998 | 1989 | 1995 | 1996 | 1996 | 1989 | 1990 |
| **23155 BÅSTRUP** | **32,9** | **34,8** | **25,4** | **27,2** | **23,0** | **20,5** | **21,6** | **21,3** | **25,5** | **26,6** | **31,3** | **27,4** | **34,8** |
| Dato/Date | 26/01 | 27/02 | 14/03 | 8/04 | 23/05 | 18/06 | 15/07 | 13/08 | 29/09 | 26/10 | 7/11 | 28/12 | 27/02 |
| År/Year | 1990 | 1990 | 1994 | 1995 | 1991 | 1998 | 1998 | 1991 | 1995 | 1998 | 1996 | 1998 | 1990 |
| **24025 FJALTRING** | **39,6** | **41,6** | **32,6** | **30,5** | **26,8** | **25,3** | **26,1** | **28,0** | **35,1** | **31,8** | **35,6** | **30,5** | **41,6** |
| Dato/Date | 27/01 | 27/02 | 15/03 | 8/04 | 23/05 | 23/06 | 16/07 | 2/08 | 22/09 | 26/10 | 7/11 | 21/12 | 27/02 |
| År/Year | 1990 | 1990 | 1992 | 1995 | 1991 | 1994 | 1989 | 1989 | 1990 | 1998 | 1996 | 1991 | 1990 |
| **24099 MEJRUP** | **37,0** | **38,9** | **27,0** | **34,1** | **25,6** | **21,9** | **23,3** | **26,2** | **27,5** | **28,0** | **31,9** | **29,5** | **38,9** |
| Dato/Date | 27/01 | 27/02 | 3/03 | 11/04 | 23/05 | 23/06 | 1/08 | 26/08 | 29/09 | 26/10 | 7/11 | 28/12 | 27/02 |
| År/Year | 1990 | 1990 | 1997 | 1997 | 1991 | 1994 | 1989 | 1997 | 1995 | 1998 | 1996 | 1998 | 1990 |
| **24381 BORRIS** | **33,1** | **32,1** | **25,4** | **33,6** | **25,0** | **19,3** | **22,6** | **23,9** | **27,0** | **24,4** | **26,0** | **30,6** | **33,6** |
| Dato/Date | 11/01 | 15/02 | 23/03 | 8/04 | 23/05 | 23/06 | 1/08 | 2/08 | 28/09 | 12/10 | 7/11 | 20/12 | 8/04 |
| År/Year | 1995 | 1989 | 1989 | 1995 | 1991 | 1994 | 1989 | 1994 | 1995 | 1998 | 1996 | 1993 | 1995 |
| **24427 KØLKÆR** | **33,2** | **36,1** | **27,8** | **30,0** | **23,0** | **23,9** | **20,7** | **22,2** | **25,3** | **25,8** | **30,0** | **29,1** | **36,1** |
| Dato/Date | 26/01 | 27/02 | 25/03 | 8/04 | 23/05 | 28/06 | 8/07 | 14/08 | 10/09 | 3/10 | 7/11 | 20/12 | 27/02 |
| År/Year | 1990 | 1990 | 1989 | 1995 | 1991 | 1989 | 1993 | 1994 | 1997 | 1989 | 1996 | 1993 | 1990 |
| **25192 FIRHØJE** | **37,3** | **34,5** | **26,5** | **30,1** | **23,4** | **21,7** | **22,1** | **21,5** | **27,5** | **27,0** | **32,0** | **28,5** | **37,3** |
| Dato/Date | 26/01 | 27/02 | 25/03 | 12/04 | 23/05 | 9/06 | 15/07 | 15/08 | 10/09 | 26/10 | 7/11 | 20/12 | 26/01 |
| År/Year | 1990 | 1990 | 1989 | 1997 | 1991 | 1996 | 1998 | 1994 | 1997 | 1998 | 1996 | 1993 | 1990 |
| **25271 ASKOV** | **31,3** | **27,2** | **23,2** | **27,6** | **17,4** | **18,9** | **18,3** | **20,4** | **18,8** | **24,9** | **25,9** | **25,2** | **31,3** |
| Dato/Date | 26/01 | 15/02 | 3/03 | 12/04 | 13/05 | 9/06 | 15/07 | 24/08 | 10/09 | 26/10 | 7/11 | 20/12 | 26/01 |
| År/Year | 1990 | 1989 | 1997 | 1997 | 1992 | 1995 | 1998 | 1995 | 1997 | 1998 | 1996 | 1993 | 1990 |
| **25348 VESTER VEDSTED** | **36,6** | **36,9** | **32,7** | **33,0** | **27,4** | **23,4** | **28,5** | **29,9** | **34,5** | **33,1** | **33,8** | **34,6** | **36,9** |
| Dato/Date | 26/01 | 27/02 | 14/03 | 8/04 | 9/05 | 9/06 | 15/07 | 21/08 | 21/09 | 2/10 | 7/11 | 20/12 | 27/02 |
| År/Year | 1990 | 1990 | 1994 | 1995 | 1992 | 1995 | 1998 | 1990 | 1990 | 1991 | 1996 | 1993 | 1990 |
| **26401 STORE JYNDEVAD** | **32,4** | **35,5** | **25,9** | **27,9** | **21,3** | **20,8** | **19,8** | **28,0** | **27,3** | **25,6** | **26,0** | **31,0** | **35,5** |
| Dato/Date | 14/01 | 27/02 | 5/03 | 8/04 | 23/05 | 9/06 | 1/08 | 21/08 | 22/09 | 30/10 | 20/11 | 20/12 | 27/02 |
| År/Year | 1993 | 1990 | 1998 | 1995 | 1991 | 1995 | 1989 | 1990 | 1990 | 1996 | 1992 | 1993 | 1990 |
| **26471 RØNHAVE** | **35,8** | **34,2** | **27,1** | **28,6** | **20,0** | **20,2** | **22,4** | **25,0** | **26,4** | **28,3** | **27,3** | **28,9** | **35,8** |
| Dato/Date | 14/01 | 27/02 | 5/03 | 2/04 | 9/05 | 23/06 | 15/07 | 21/08 | 29/09 | 28/10 | 7/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1998 | 1994 | 1992 | 1994 | 1998 | 1990 | 1995 | 1998 | 1996 | 1993 | 1993 |
| **28281 ÅRSLEV** | **33,0** | **32,0** | **25,4** | **28,0** | **23,9** | **19,4** | **23,1** | **22,7** | **23,7** | **24,2** | **27,9** | **30,5** | **33,0** |
| Dato/Date | 14/01 | 27/02 | 14/03 | 12/04 | 23/05 | 18/06 | 15/07 | 26/08 | 16/09 | 2/10 | 7/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1994 | 1997 | 1991 | 1998 | 1998 | 1995 | 1994 | 1997 | 1996 | 1993 | 1993 |
| **29271 ALSTEDGÅRD** | **33,8** | **28,4** | **25,0** | **27,6** | **24,2** | **23,6** | **19,7** | **21,9** | **25,0** | **26,5** | **25,5** | **26,3** | **33,8** |
| Dato/Date | 14/01 | 27/02 | 26/03 | 2/04 | 23/05 | 24/06 | 15/07 | 13/08 | 29/09 | 8/10 | 7/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1989 | 1994 | 1991 | 1994 | 1998 | 1992 | 1995 | 1990 | 1996 | 1993 | 1993 |
| **29439 TYSTOFTE** | **33,1** | **31,1** | **25,8** | **25,9** | **19,5** | **18,2** | **20,2** | **20,0** | **24,1** | **27,5** | **29,3** | **26,6** | **33,1** |
| Dato/Date | 14/01 | 27/02 | 14/03 | 6/04 | 23/05 | 24/06 | 15/07 | 21/08 | 16/09 | 8/10 | 7/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1994 | 1989 | 1991 | 1994 | 1998 | 1990 | 1994 | 1990 | 1996 | 1993 | 1993 |
| **29451 FLAKKEBJERG** | **35,0** | **31,2** | **26,4** | **27,0** | **22,6** | **24,2** | **20,7** | **21,9** | **26,6** | **26,3** | **31,0** | **27,2** | **35,0** |
| Dato/Date | 14/01 | 27/02 | 3/03 | 11/04 | 23/05 | 28/06 | 27/07 | 15/08 | 29/09 | 8/10 | 7/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1998 | 1997 | 1991 | 1989 | 1993 | 1994 | 1995 | 1990 | 1996 | 1993 | 1993 |
| **30188 SJÆLSMARK** | **31,6** | **34,8** | **26,0** | **26,7** | **28,6** | **23,1** | **20,9** | **20,0** | **24,0** | **26,5** | **27,9** | **24,9** | **34,8** |
| Dato/Date | 16/01 | 27/02 | 20/03 | 11/04 | 23/05 | 1/07 | 28/07 | 13/08 | 29/09 | 13/10 | 7/11 | 20/12 | 27/02 |
| År/Year | 1993 | 1990 | 1993 | 1997 | 1991 | 1997 | 1997 | 1991 | 1995 | 1993 | 1996 | 1993 | 1990 |
| **30383 AVEDØRE** | **28,8** | **27,0** | **25,5** | **28,0** | **23,4** | **21,5** | **19,6** | **18,5** | **24,6** | **23,8** | **24,0** | **23,9** | **28,8** |
| Dato/Date | 26/01 | 9/02 | 10/03 | 12/04 | 23/05 | 24/06 | 10/07 | 14/08 | 16/09 | 3/10 | 7/11 | 27/12 | 26/01 |
| År/Year | 1990 | 1990 | 1990 | 1997 | 1991 | 1994 | 1996 | 1994 | 1994 | 1997 | 1996 | 1990 | 1990 |
| **30421 LEDREBORG ALLE** | **34,6** | **31,1** | **26,9** | **26,9** | **25,5** | **22,9** | **19,4** | **19,7** | **23,6** | **23,9** | **32,7** | **28,3** | **34,6** |
| Dato/Date | 14/01 | 27/02 | 20/03 | 8/04 | 23/05 | 24/06 | 15/07 | 14/08 | 29/09 | 8/10 | 7/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1993 | 1995 | 1991 | 1994 | 1998 | 1996 | 1995 | 1990 | 1996 | 1993 | 1993 |

# *Provisoriske normaler 1989-98/Provisory normals 1989-98*

Højeste vindstød i m/sek — Maximum gust in m/sec

| STATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | ANNUAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **31215 BØNSVIG STRAND** | **31,1** | **27,7** | **24,0** | **26,7** | **21,7** | **25,3** | **20,2** | **23,0** | **27,1** | **23,4** | **22,7** | **26,5** | **31,1** |
| Dato/Date | 14/01 | 27/02 | 14/03 | 6/04 | 23/05 | 28/06 | 31/07 | 28/08 | 16/09 | 8/10 | 12/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1994 | 1989 | 1991 | 1989 | 1989 | 1989 | 1994 | 1990 | 1992 | 1993 | 1993 |
| **31351 ABED** | **38,8** | **30,5** | **24,9** | **28,1** | **24,2** | **22,5** | **22,0** | **24,9** | **26,0** | **27,9** | **25,6** | **27,0** | **38,8** |
| Dato/Date | 14/01 | 21/02 | 18/03 | 6/04 | 23/05 | 18/06 | 27/07 | 28/08 | 16/09 | 13/10 | 7/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1995 | 1995 | 1989 | 1991 | 1998 | 1993 | 1989 | 1994 | 1993 | 1996 | 1993 | 1993 |
| **32082 KLEMENSKER Ø** | **34,5** | **33,2** | **27,0** | **26,7** | **25,6** | **22,9** | **24,9** | **22,0** | **25,6** | **26,4** | **29,5** | **29,3** | **34,5** |
| Dato/Date | 23/01 | 27/02 | 10/03 | 12/04 | 10/05 | 23/06 | 10/07 | 1/09 | 29/09 | 28/10 | 18/11 | 20/12 | 23/01 |
| År/Year | 1995 | 1990 | 1990 | 1997 | 1996 | 1994 | 1996 | 1995 | 1995 | 1998 | 1995 | 1993 | 1995 |
| **32299 DUEODDE** | **36,1** | **33,3** | **27,5** | **27,3** | **24,1** | **23,6** | **26,9** | **25,4** | **29,1** | **30,5** | **31,1** | **29,7** | **36,1** |
| Dato/Date | 14/01 | 27/02 | 10/03 | 12/04 | 23/05 | 23/06 | 10/07 | 1/09 | 29/09 | 29/10 | 18/11 | 20/12 | 14/01 |
| År/Year | 1993 | 1990 | 1990 | 1997 | 1991 | 1994 | 1996 | 1995 | 1995 | 1998 | 1995 | 1993 | 1993 |

# Geostrofisk vind 1961-98

# The Geostrophic wind 1961-98

# Geostrofisk vind 1961-98

Direkte observation af vinden er altid meget afhængig af den nøjagtige placering af måleinstrumenter og af det omgivende terræn. Af den årsag er 3-timers værdier af geostrofisk vind, beregnet vha. 3 lufttrykserier i perioden 1961-98 (111.032 værdier), benyttet til at skabe et overblik over ændringer i den generelle vind samt stormhyppighed i Danmark. Barometre, brugt til at måle lufttrykket er lette at kalibrere og betjene og samtidig er de ikke sensitive overfor omgivelserne på samme måde som et anemometer. Det giver højkvalitetsdata set over længere tidsperspektiv - mao. trykserier må formodes at være mere homogene end vindserier. De tre observationssteder, der er benyttet i denne rapport er 06030 FSN Ålborg, 06110 FSN Skrydstrup og 06180 Københavns Lufthavn (se kort side 16) - tre af de bedste vejrstationer i Danmark.

Den beregnede geostrofiske vind er en middelværdi af trekantsområdet mellem de tre observationssteder og denne vind er ikke et perfekt mål på den "sande" vind. Stabilitet, friktion, katabatiske vinde, gradientvinde osv. influerer på relationerne mellem den beregnede geostrofiske vind og de sande vinde nær jordoverfladen. Det følgende er derfor en diskussion af trends og variationer i den geostrofiske vind og ikke den sande vind.

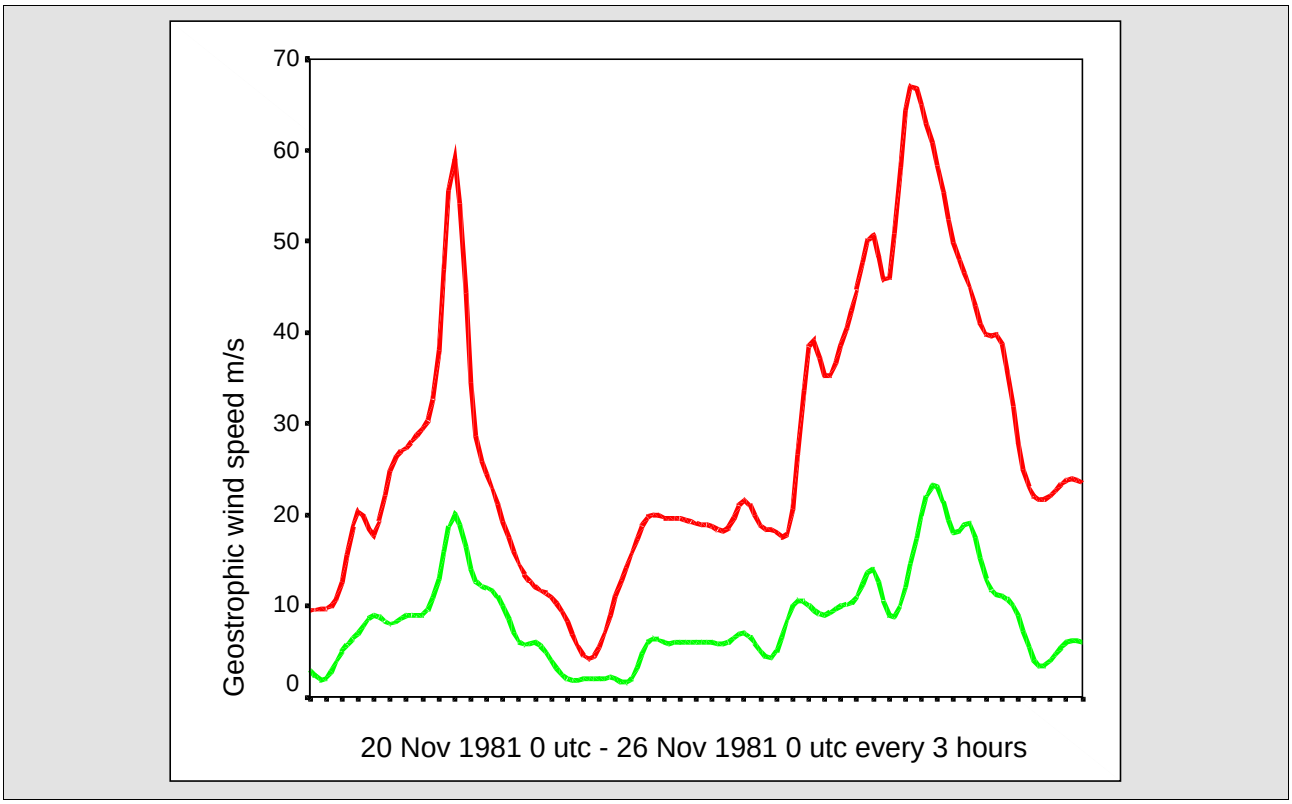
For at checke at de beregnede vinde fra 1961-98 nu også "fanger" alle de signifikante variationer i den sande vind er der udført nogle kvalitative checks. For det første er de beregnede geostrofiske vinde sammenlignet med data fra 06071 Fornæs Fyr, beliggende ca. midt i trekanten. For det andet er alle signifikante storme i hele perioden identificeret. Begge checks viste en stor overensstemmelse. Som et eksempel viser figuren nedenfor udviklingen af den mest destruktive orkan i perioden, 24. - 25. november 1981 sammenlignet med den observerede vindhastighed målt på 06071 Fornæs Fyr i samme periode. Stormen 3 dage forinden fremgår ligeledes af figuren.

# The geostrophic wind 1961-98

Direct observations of winds are extremely sensitive to the exact location of the instruments and to changes in the surrounding terrain. Consequently, geostrophic winds calculated at 3-hour intervals from 3 air pressure observations in the period 1961-98 (111.032 values) have been used to obtain an overview of recent changes in winds and storminess in the Danish area. Barometers, the instruments used for compiling these data, are easy to utilise and are less sensitive to the surroundings than an anemometer. This produces high quality air pressure data over time - in other words, the pressure series are more likely to be homogeneous than the wind series. The three observation sites used are 06030 FSN Ålborg, 06110 FSN Skrydstrup and 06180 Københavns Lufthavn (see map, p. 16) - three of the best weather stations in Denmark.

The geostrophic wind obtained is a mean value of the triangular area between the three observation sites, and the wind is not a perfect measure of the true wind. Stability, friction, catabatic winds, gradient winds, etc. influence the relations between the geostrophic wind and true winds near the ground. So stricktly speaking, the following is a discussion of trends and variations in the geostrophic winds, not the true winds.

A qualitative comparison, to check that the calculated winds from 1961-98 really capture the most significant patterns in the true wind (i.e. the storms), has been performed for the entire period. Two checks were performed - a comparision with data from 06071 Fornæs Fyr (in the middle of the triangle), which shows the same main features and trend, and an identification of all significants storms for the entire period. Both checks produced an almost perfect match. As an example, the below figure plots the development of the most destructive hurricane in the period 24 - 25 November 1981, compared to the wind speed from 06071 Fornæs Fyr. The figure also includes the storm from 3 days earlier.




*3-timers geostrofisk vind i m/s (øverst) i perioden 20. november - 26. november 1981. Den nederste linie viser 3-timers observationer af vindhastighed fra 06071 Fornæs Fyr. Orkanen 24. - 25. november 1981 var langt den mest voldsomme i dette århundrede i Danmark. Stormen 3 dage forinden var en slags forvarsel.*

*Geostrophic wind speed in m/s (upper) at 3-hour intervals in the period 20 November - 26 November 1981. The lower line represents observations of wind speed at 3-hour intervals from 06071 Fornæs Fyr. The hurricane 24 - 25 November 1981 was by far the most destructive hurricane in this century over the Danish area. The storm 3 days before could be interpreted as a sort of a warning.*

## Beregning af den geostrofiske vind

Lufttryk fra tre stationer (06030 FSN Ålborg, 06010 FSN Skrydstrup and 06180 Københavns Lufthavn) definerer et trykplan som en funktion af de kartesiske koordinater $x$ (positiv fra øst til vest) og $y$ (positiv fra syd to nord). En af stationerne bliver udvalgt som origo. Hvis de to øvrige stationer benævnes med index 2 og 3 gælder følgende:

$p = ax + by + c$

hvor $p$ er lufttrykket og $a$, $b$ og $c$ er konstanter defineret som følger:

## Calculation of the geostrophic wind

Air pressure data from three stations (06030 FSN Ålborg, 06010 FSN Skrydstrup and 06180 Københavns Lufthavn) define a surface pressure field as a function of the cartesian coordinates $x$ (positive from west to east) and $y$ (positive from south to north). One of the stations is chosen as origin. Then with index 2 and 3 for the other two stations:

$p = ax + by + c$

where $p$ is the air pressure and $a$, $b$ and $c$ are constants defined by:

$a = ((p_3 - p_1) - y_3 (p_2 - p_1) / y_2 ) / (x_3 - x_2 \cdot y_3 / y_2)$
$b = (p_2 - p_1 - a \cdot x_2) / y_2$
$c = p_1$

Hvis breddegrad ($\lambda$) og længdegrad ($\varphi$) i grader indføres kan $x$ - og $y$ -koordinaterne gives ved:

$x = R_e \cdot \pi \cdot cos ((\lambda_i + \lambda_1) \pi / 180) \cdot (\varphi_i + \varphi_1) / 180$
$y = R_e \cdot \pi (\lambda_i - \lambda_1) / 180$

hvor $R_e$ er Jordens radius. Fra de geostrofiske vindligninger fås herefter:

$u_g = -b / (f \cdot \rho)$

$v_g = a / (f \cdot \rho)$

hvor $u_g$ er øst-vest og $v_g$ nord-syd komponenter af den geostrofiske vind, $f$ er Coriolis parametren (gennemsnit for de tre stationer) og $\rho$ lufttætheden (fra idealgasloven og taget som et middel). Herefter kan størrelse og retning af den geostrofiske vind beregnes.

## Resultater

I det følgende vises resultaterne af den geostrofiske vindanalyse i tre forskellige præsentationer.

I den første figur vises det årlige middel af den geostrofiske vindhastighed 1961-98. Der er ikke nogen trend i dette datasæt, men det lokale minimum i 1970'erne skal nævnes. 70'erne var netop en dekade med få storme.

$a = ((p_3 - p_1) - y_3 (p_2 - p_1) / y_2 ) / (x_3 - x_2 \cdot y_3 / y_2)$
$b = (p_2 - p_1 - a \cdot x_2) / y_2$
$c = p_1$

The $x$ - and $y$ -coordinates are, using latitudes ($\lambda$) and longitudes ($\varphi$) in degrees, given by:

$x = R_e \cdot \pi \cdot cos ((\lambda_i + \lambda_1) \pi / 180) \cdot (\varphi_i + \varphi_1) / 180$
$y = R_e \cdot \pi (\lambda_i - \lambda_1) / 180$

where $R_e$ is the radius of the Earth. From the geostrophic wind equations we then obtain:

$u_g = -b / (f \cdot \rho)$

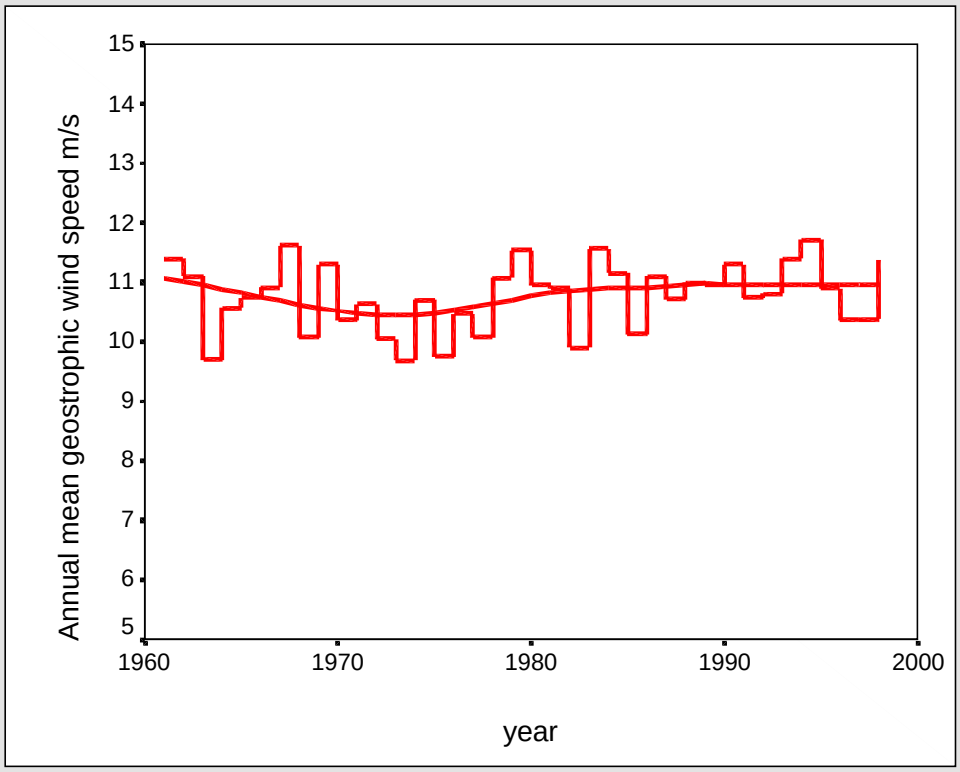
$v_g = a / (f \cdot \rho)$

where $u_g$ is the east-west and $v_g$ is the north-south component of the geostrophic wind, $f$ is the Coriolis parameter (average for the three stations) and $\rho$ is the air density (from the gas law and as an average). Subsequently, the magnitude and the direction of the geostrophic wind can be calculated.

## Results

Three different kinds of presentations of the results can be seen in the following.

The first plot shows the annual mean of the geostrophic wind speed 1961-98. No real trend can be discerned in the set of data. The local minimum in the 1970s should be mentioned. The 1970s was a decade with fewer than normal storm situations.

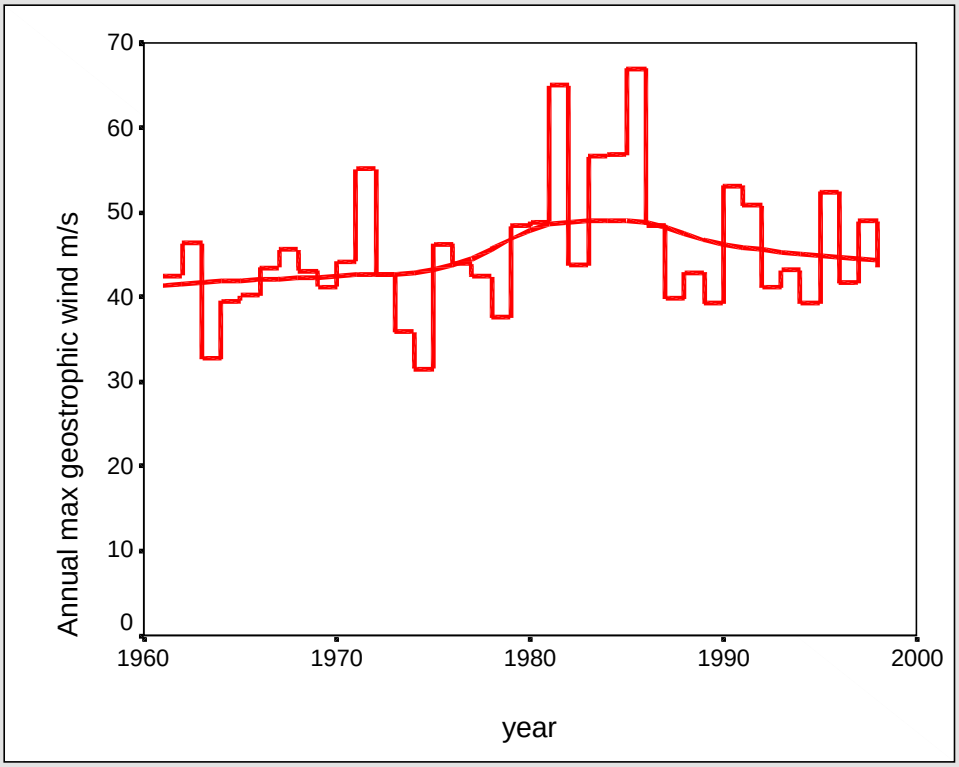



*Årligt middel af geostrofisk vind i m/s 1961-98. Den bløde linie er et "low pass" filter. Filterkurven er ført ud i begge ender, selvom den er mindre godt bestemt her.*

*Annual mean of the geostrophic wind speed in m/s 1961-98. The smoothed line is a low pass filter which helps the eye to dampen out fluctuations. The filter curve is drawn to the ends, although it is less determined there.*

Den næste figur viser det årlige maximum af den beregnede geostrofiske vind 1961-98. Det ses at maximum, 67 m/s, over hele perioden optrådte i 1985, helt præcist i en stærk vestenstorm 6. november. Den næsthøjeste beregnede geostrofiske vind var den 24. november 1981. Figuren indikerer at 80'erne var dekaden med de højeste geostrofiske vinde og at 90'erne kom til at ligge på et lidt højere niveau end 60'erne og 70'erne. Ydermere viser figuren en svag stigende tendens i den maksimale geostrofiske vind over hele perioden, selvom den første halvdel af 80'erne dominerer meget.

The second plot shows the annual maximum calculated geostrophic winds 1961-98. The figure shows that the overall maximum, 67 m/s, was obtained 6 November 1985 in connection with a very strong storm from the west. On 24 November 1981 the calculated geostrophic wind speed was 65 m/s. The figure indicates that the 1980s were the stormiest decade, and that the 1990s have been stormier than the 1960s and the 1970s. Furthermore, the figure demonstrates an overall slight increase in maximum geostrophic winds, but the first half of 1980s dominates the picture.

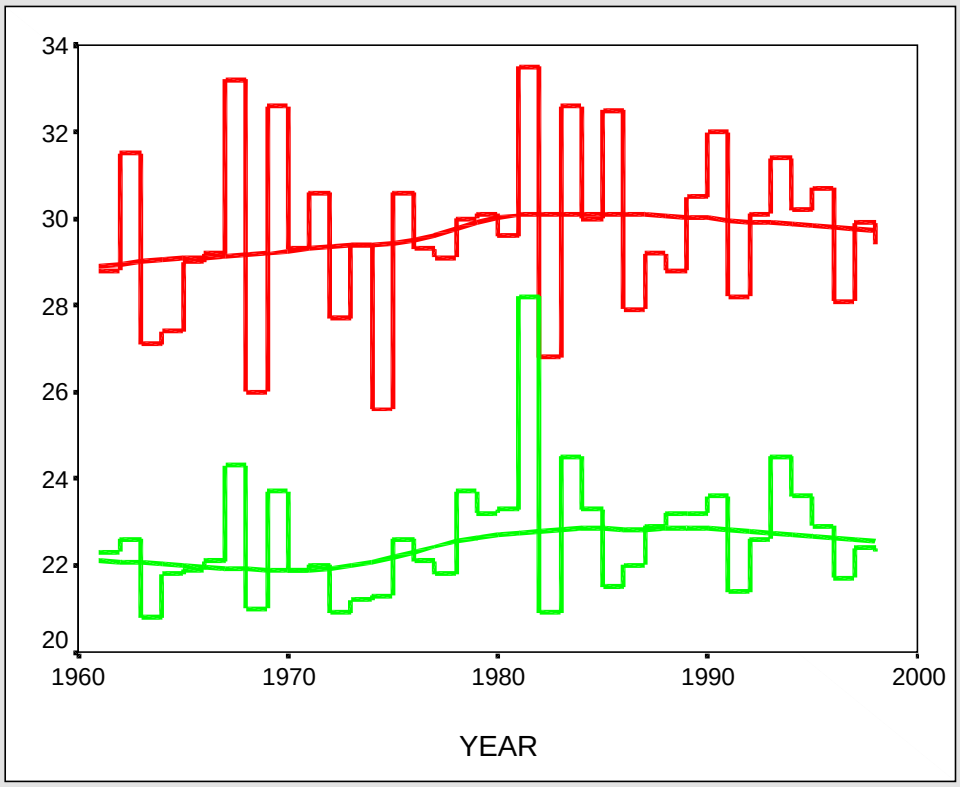



*Årlig maximum geostrofisk vind 1961-98.*

*The annual maximum geostrophic winds 1961-98.*

Et andet og bedre mål for stormhyppighed er at benytte 95- og 99 % fraktilerne af den geostrofiske vind, se figuren på næste side. 95 % fraktilen er den værdi der afskærer de øverste 5 % af datamaterialet, mens 99 % fraktilen afskærer de øverste 1 %.
På denne måde opnås det samme generelle billede som sås på forrige figur. Der ses et maksimum i 80'erne og et højere niveau i 90'erne end i både 60'erne og 70'erne. Ydermere ses en svag stigning over hele perioden, selvom 1981 dominerer billedet meget.

Another (and better) measure of storminess has been obtained using 95- and 99-percentiles of the distributions of geostrophic winds; see the figure on the next page. The 95-percentile is the value which cuts off the top 5 % of wind speeds, and the 99-percentile cuts off the top 1% of wind speeds.
This provides the same general picture as we obtain from the maximum geostrophic wind - a peak in the 1980s and a higher level in the 1990s than in the 1960s and 1970s. Furthermore, a slight increase can be seen, although 1981 stands out.




*Årlig geostrofisk vindhastighed, 95 % - (nederst) og 99 % fraktil, 1961-98.*

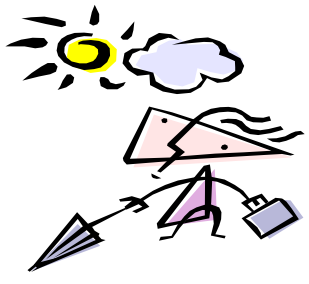
*Annual geostrophic wind speed, 95- (lower) and 99-percentiles, 1961-98.*

## Konklusion

Konklusionen, set i lyset af den benyttede metode (geostrofisk vindanalyse), må være at der mht. middelvind *ikke* synes at være signifikante ændringer i Danmark i perioden 1961-1998, men at variabilitet fra dekade til dekade forekommer.
Ydermere viser de sidste to datasæt - og specielt det sidste - at hvis de bruges som stormindex, synes der at være en svag stigning i stormhyppighed (som ikke er særlig signifikant) henover perioden. Det svarer også til den generelle opfattelse blandt mange fagfolk. Samtidig skal det påpeges at første halvdel af 80'erne dominerer perioden kraftigt.
Det kan også nævnes at der stort set ikke har været en kraftig storm fra januar 1993 til og med december 1998.

## Conclusion

The conclusion based on the method used (geostrophic wind calculations) must be that there have been *no* significant overall changes in the mean wind speed in Denmark in the period 1961-1998, but some variability can be seen from decade to decade.
Furthermore, the last two sets of data - especially the last - if used as storm indices, show a slight (not very significant) increase in storminess in Denmark in the same period, but it is evident that storms in the first half of the 1980s dominate the general picture. This corresponds with the general opinion held by many professionals.
What is more, no severe storm situation has been registered since january 1993 up to december 1998.



# Appendix

# Appendix 1.

# Klimaparametre/Climate elements

Tabellen nedenfor beskriver de klimaparametre, der indgår i denne rapport. Elementnummeret indgår i de forskellige datafiler på den CD-ROM, der følger med rapporten.
Enheden der er knyttet til de forskellige parametre er den enhed der er brugt i alle datafiler indeholdende månedværdier. Bemærk at enheden i de datafiler der indeholder normaltal *alle* er 0,1, undtagen for elementnummer 360 (se appendix 2).
Metoden angiver, hvordan de forkellige klimaværdier er beregnet udfra de enkelte observationer.

The table below lists the climate elements described in this report. The element no. is the number by which the climate element is identified in the normal and monthly data files on the CD-ROM.
The units in the table are the units used in the monthly data files on the CD-ROM. The units of the normals in the normal.dat data file are *all* 0.1, except for element no. 360 (see appendix 2).
The method is the method applied to the daily values to obtain the monthly values.

## Beskrivelse af klimaparametre/Climate element description

| Element no. | Description | Unit | Method |
|---|---|---|---|
| 301 | Mean wind speed (10 minutes average) | 0.1 m/s | Mean |
| 302 | Maximum wind speed (10 minutes average) + date | 0.1 m/s | Max |
| 304 | Maximum gust + date | 0.1 m/s | Max |
| 311 | No. of days with strong breeze (wind speed ≥ 10,8 m/s) | days | |
| 321 | No. of days with strong gale (wind speed ≥ 20,8 m/s) | days | |
| 326 | No. of days with whole gale (wind speed ≥ 24,5 m/s) | days | |
| 360 | Most frequent wind direction + frequency | 1-9* | |

* 1 = N, 2 = NE, 3 = E, 4 = SE, 5 = S, 6 = SW, 7 = W, 8 = NW, 9 = calm and varying wind

# Appendix 2.

# Indhold af CD-ROM/Contents of CD-ROM

CD-ROM'en består af:

- 806 grafikfiler **<stationsnummer_måned>.wmf** (WMF - Windows Meta File), der indeholder vindroser med tilhørende statistik
- 7 ASCII datafiler med fast format **<elementnummer>.dat** indeholdende tidserier af månedsværdier (1961-1998)
- 1 ASCII datafil med fast format **normal.dat** med normalværdier
- 1 ASCII datafil med fast format **station.dat** med oplysninger om stationerne
- 1 ASCII datafil med fast format **geo_wind.dat** indeholdende 3 timers værdier af geostrofisk vind, både retning og størrelse samt
- 1 ASCII tekstfil **readme.txt.**

Data på CD-ROM'en må kun benyttes, hvis der samtidig anføres reference til rapporten (Cappelen, John og Bent Jørgensen, 1999. Observeret vindhastighed og -retning i Danmark - med klimanormaler 1961. DMI Teknisk Rapport 99-13).

The CD-ROM contains:

- 806 graphic files named **<station number_month>.wmf** (WMF - Windows Meta File) containing the wind rose statistics
- 7 fixed ASCII format data files named **<element number>.dat** containing the monthly data (1961-1998)
- 1 fixed ASCII format file **normal.dat** containing the climatological normals
- 1 fixed ASCII format file named **station.dat** containing a station catalogue
- 1 fixed ASCII format file named **geo_wind.dat** containing geostrophic wind at 3-hour intervals - magnitude and direction and,
- finally, an ASCII text format file named **readme.txt**.

Data from the CD-ROM may only be used with proper reference to the accompanying report (Cappelen, John and Bent Jørgensen, 1999. Observed wind direction and speed in Denmark - with Climatological Standard Normals, 1961-1990. DMI Technical Report No. 99-13).

## Filer med vindrose statistik/Files with wind rose statistics: <station number_month>.wmf

Vindroser for 62 stationer i perioden 1989-1998, en for hver måned og en for hele perioden er indeholdt i grafikfilerne **<stationsnummer_måned>.wmf** (WMF - Windows Meta File).

Wind roses for 62 stations in the period 1989-1998, for every month and the entire period are contained in the graphic files **<station number_month>.wmf** (WMF - Windows Meta File).

## Stationsfil/Station file: station.dat

Stationskataloget i filen **station.dat** beskriver stationsnummer, elementnummer, position, højde over havet samt det første og det sidste år i den periode, der er medtaget for hver klimaparameter i denne rapport. Hver linie i filen repræsenterer en station/et element. Filen er sorteret efter stationsnummer/elementnummer og har følgende layout:

The station catalogue contained in the file **station.dat** describes the station no., element no., name, position, elevation and first and last year of the climate element series in this report. Each record in the file contains information about one station/element. The file is sorted by station no./element no. and has the following layout:

| Position | Format | Description |
|---|---|---|
| 1-6 | F6.0 | Station no. |
| 7-12 | F6.0 | Element no. |
| 13-42 | A30 | Station name |
| 43-44 | F2.0 | Latitude (degrees) |
| 45-46 | F2.0 | Latitude (minutes) |
| 47-47 | A1 | Northern (N) or Southern (S) hemisphere |
| 48-49 | F2.0 | Longitude (degrees) |
| 50-51 | F2.0 | Longitude (minutes) |
| 52-52 | A1 | East (E) or West (W) of Greenwich |
| 53-56 | F4.0 | Elevation (metres above mean sea level) |
| 57-62 | F6.0 | First year in the data series |
| 63-68 | F6.0 | Last year in the data series |

## Normalfil/Normal file: normal.dat

Normalværdier for standardperioden 1961-1990 og andre perioder findes i filen **normal.dat**.
Filen indeholder normalværdier for alle stationer beskrevet i stationskataloget. Filen er sorteret efter stationsnummer/elementnummer.
Hver linie i filen indeholder månedsværdier og årsværdi - alle med enhed 0,1 - fra en station/et element.
*Bemærk at eneste undtagelse er elementnummer 360 - hyppigste vindretning - som har enheden 1 og skalaen 1-9 (se appendix 1)*:

Normal values for the standard normal period 1961-1990 and other periods are contained in the file **normal.dat**. The file contains normal values for all stations described in the station catalogue. The file is sorted by station no./element no.
Each record in the file contains the mean monthly and annual values - all in units of 0.1 - from one station/element no. in the following format.
*Please note that the unit is 1 and the scale is 1-9 (see appendix 1) for the element number 360 - Most frequent wind direction*:

| Position | Format | Description |
|---|---|---|
| 1-6 | F6.0 | Station no. |
| 7-12 | F6.0 | Element no. |
| 13-18 | F6.0 | First year in normal period |
| 19-24 | F6.0 | Last year in normal period |
| 25-30 | F6.0 | January normal value |
| 31-36 | F6.0 | February normal value |
| 37-42 | F6.0 | March normal value |
| 43-48 | F6.0 | April normal value |
| 49-54 | F6.0 | May normal value |
| 55-60 | F6.0 | June normal value |
| 61-66 | F6.0 | July normal value |
| 67-72 | F6.0 | August normal value |
| 73-78 | F6.0 | September normal value |
| 79-84 | F6.0 | October normal value |
| 85-90 | F6.0 | November normal value |
| 91-96 | F6.0 | December normal value |
| 97-102 | F6.0 | Annual normal value |

## Månedsfiler/Monthly files: <element number>.dat

Tidsserier af månedsværdier (1961-98) for alle stationer, der er beregnet normaler på i afsnit 8 ”Klimanormaler 1961-90”, findes i filerne **<elementnummer>.dat**. Filerne er sorteret efter stationsnummer/elementnummer, år og måned (måned 13 er årsværdien). Hver linie i filerne indeholder 1 måneds- eller årsværdi i nedenstående format. Enheden på de enkelte klimaparametre kan ses af appendix 1. Bemærk at ”Date” - datoen for en hændelse - kun findes i filerne med ekstremværdier (formatet er [måned][dag] fx 825 for 25. august). Bemærk yderligere at ”Frequency” - frekvensen af de enkelte vindretninger - kun findes i filen med elementnummer 360 (enheden er %):

Time series (1961-98) for all the stations presented in section 8 ’Climatological Normals 1961-90’ are contained in the files **<element number>.dat**. The files are sorted by station no./element no., year and month (month 13 gives the annual total). Each record in the files contains one monthly or annual value for one station/element no. in the following format. The units of the values can be seen in the table in Appendix 1. Please also note that the ’Date’ variable only exists in the files concerned with extreme values (format is [month][day], e.g., 825 for 25 August). Furthermore, the ’Frequency’ variable only exists in the file concerned with element number 360 - Most frequent wind direction (unit is %):

| Position | Format | Description |
|---|---|---|
| 1-6 | F6.0 | Station no. |
| 7-12 | F6.0 | Element no. |
| 13-18 | F6.0 | Year |
| 19-24 | F6.0 | Month (1-12 and 13 for annual) |
| 25-30 | F6.0 | Value |
| 31-36 | F6.0 | Date/Frequency. |

## Geostrofisk vindfil/Geostrophic wind file: geo_wind.dat

3 timers geostrofisk vind, både størrelse og retning, findes i filen **geo_wind.dat**. Filen er sorteret efter år, måned, dag og time. Hvordan værdierne er beregnet er beskrevet i kapitel 9 i denne rapport:

Geostrophic wind at 3-hour intervals - magnitude and direction - is contained in the file **geo_wind.dat**. The files are sorted by year, month, day and hour. How the values have been obtained is described in section 9 of the report:

| Position | Format | Description |
|---|---|---|
| 1-6 | F6.0 | Year |
| 7-10 | F4.0 | Month |
| 11-14 | F4.0 | Day |
| 15-18 | F4.0 | Hour (UTC) |
| 19-26 | F8.2 | The east-west component of the geostrophic wind |
| 27-34 | F8.2 | The north-south component of the geostrophic wind |
| 35-42 | F8.2 | The magnitude of the geostrophic wind |
| 43-50 | F8.2 | The direction of the geostrophic wind. |