

Climatological data of the Netherlands lightvessels over the period 1949-1980

C.G. Korevaar

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Abstract

A large number of tables with temperature-, wind-, wave-, visibility- and current data has been assembled revealing information about the climate of the North Sea. The tables are based upon meteorological and some oceanographic observations made on-board lightvessels during the period 1949-1980 and voluntary observing ships during the period 1961-1980.

In this report, which is the first of a series, a selection of these tables is given together with some characteristic data for the Netherlands lightvessels only.

This report can be regarded as a continuation of earlier work. On the other hand it also concludes the era of observations made by crews on board lightvessels, which gradually ended in the 1970's. The observations on fixed platforms which are now replacing the observations of the lightvessels are of a quite different character.

Next to giving data for the period mentioned, the observations have been compared with those published for earlier periods (1859-1883, 1884-1909 and 1910-1940).

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1. Introduction

The purpose of this publication is to present a number of frequency tabulations and some characteristic data on temperature-, wind-, wave- and visibility-observations made on board the Netherlands lightvessels during the period 1949-1980.

This data forms a selection from a large number of tables made with the purpose to be used to provide information about the climate of the North Sea. In compiling the tables it has been tried to make that data available for which the most demand exists.

The observations are preserved on magnetic tape. They have been subjected to a quality control programme. Among others it has been checked if the data in one observation is internally consistent (for example it is not allowed that at low wind speed a high sea is reported). Next to this it has been checked if certain limits have not been exceeded and if the differences between succeeding observations were not too large.

Because the hourly observations do not contain all elements and moreover started only in 1966 for this publication, the three-hourly observations (00, 03, 06, 09, 12, 15, 18 and 21 hours GMT) have been used. The computer programmes for the processing of the data have been written by J.M. Koopstra. As it is the case already for many years, the observations have been made and reported by the crew on board, particularly by the masters and the mates. This procedure has come to an end now because those lightvessels which are still on station have been automatized and are unmanned. Therefore, besides a continuation of earlier work, this publication can be regarded as the conclusion of an era.

1.1 Earlier publications

Comprehensive summaries of the meteorological observations of the Netherlands lightvessels can be found in year-books which were published regularly by the Royal Netherlands Meteorological Institute (KNMI) for the years 1949-1977. These year-books give chronological lists of the

six-hourly (00, 06, 12 and 18 hours GMT) observations and a number of monthly frequency tables.

In the past, reports of the meteorological and some oceanographic observations made on board the Netherlands lightvessels have been published by J.P. van der Stok (1912) for the period 1859-1910 and by G. Verploegh (1956-1959) for the period 1910-1939. Some data on the wind and wave frequencies were given by R. Dorrestein (1967), mainly for the period 1949-1957 and by E. Bouws (1978) for the period 1949-1975.

1.2 Positions and depths

The mean positions of the lightvessels are given in figure 1. In reality the positions of the lightvessels have varied somewhat over the years, but the deviations from the positions given below have never been more than 4 nautical miles (n.m.).

Name	Latitude North	Longitude East	Approx. shortest dis- tance from the coast	Approx. average water depth
Noord Hinder	51°39'	2°34'	28 n.m.	36 m
Goeree	51°55'	3°39'	10 n.m.	22 m
Texel				
until 11 Aug. 1954	53°06'	4°30'	10 n.m.	25 m
from 24 Sep. 1954	53°01'	4°22'	10 n.m.	25 m
Terschellingerbank				
until 30 Sep. 1970	53°29'	5°08'	6 n.m.	23 m
from 1 Oct. 1970	53°28'	4°46'	15 n.m.	27 m

1.3 Observers

The observations were made and reported by the following masters and mates:

J. van Aalst, A. Bakelaar, H.J. van Bokhorst, A. Boon, A. Brevet, J. Buis, J. Cupido, A. Dral, H.J. de Dreu, G. Drijver, N.H. Edcius, G.M. Felius, J.J. Fillerup, P. van der Gaag, A. Haarsma, S.A.A. Harms, J.C. van der Jagt, P. Jongeleen, Th.A. Jonkers, H.J. Kessler, J. Kuiper, L. Kuijper, K.J.G. Lampers, J. Lap, E. Lintveld, S. van der Meer, C. Mos, J. Pieterse, C.A. Reijtenbach, E. Roobol, L.G. van Saane, G. Schol, A.F.L. van der Steen, C. Swart, J.M. Vlaming, D.C. van der Velde, M.G.A. Vierling, K. de Vries, J. de Wit.

1.4 Period of observation

In climatology usually periods of 30 years are considered. The mean value of a certain quantity (for example the air temperature in January) for such a period is called the normal value for that 30 year period. Unfortunately this is practically impossible for the lightvessels, because of the gaps in the observational series, for example due to the both world wars and the changes in position.

To approximate a period of 30 years as much as possible, the period after the Second World War from the year 1949 up to and including the year 1980 has been chosen.

From 1949 onwards regular visual estimates of a number of wave parameters - direction, period and height - have been included into the observations. The lightvessels Goeree, Texel and Terschellingerbank were occupying their positions already in 1949. The position of Noord Hinder was unoccupied until February 1953.

With the exception of some periods - mostly during the summer months - in which the lightvessels were not on station due to survey, regular meteorological observations have been made on all four mentioned lightvessels until the year 1971. In 1971 the lightvessel Goeree has been replaced by an automatized lighttower which has changed the

character of the observations radically.

In 1975 lightvessel Terschellingerbank was taken out of service. In 1977 Texel was automatized, while the meteorological observations were terminated. In 1981 also Noord Hinder has been automatized, together with a part of the meteorological observations. Because of a large change in position finally also there the meteorological observations have been finished on 25 April 1983. Instead observations are being made on the new Europlatform near the "Eurogeul".

In order to have a homogeneous set of observations the following periods of time have been selected.

Noord Hinder	18 February 1953 - 31 December 1980: about 28 years.
Goeree	1 January 1949 - 31 December 1970: 22 years.
Texel	1 January 1949 - 21 July 1977: about 28½ years.
Terschellingerbank	1 January 1949 - 15 April 1975: about 26¼ years.

1.5 Processed parameters

Most questions which reach KNMI in relation to climatological data of the North Sea are about wind and waves, firstly for selecting workable periods, and secondly for determining design criteria of maritime structures. Next to wind and waves there is a main interest in visibility, air- and water temperature, humidity and currents. Data about other parameters are almost never requested. Therefore the processing has been restricted to the above-mentioned parameters. For information about other data, such as air pressure, clouds and precipitation, one must fall back on the basic data in log books, year books or on magnetic tapes. Also no salinity data have been included.

1.6 Methods of observation and reporting

The observations belong to the global observing network of the World Meteorological Organisation (WMO). In the first place they serve for the preparation of weather charts. Next to this they are collected, quality controlled, and stored for climatological purposes.

Some elements of an observation are measured, such as air pressure and air and water temperature. Some phenomena such as rain, snow, thunderstorms, cloud types are simply determined. Finally there are a number of elements of which the best possible estimates are made. To this category belong visibility, wind and waves.

In the following the method of observation of each of the processed elements will be described in brief.

1.6.1 Wind

Apart from some experimental wind measurements in the years 1950, 1951, 1957, 1958 and 1965 to compare them with estimated windspeeds (Verploegh 1956, 1967, Kamp 1966) on board the Netherlands lightvessels, the wind has always been estimated.

The wind direction (the direction from which the wind comes) is estimated by means of the compass from the direction of the crests of the sea waves (the wind direction is perpendicular to this) or from the direction of the foam streaks, which are blown in the direction of the wind.

The wind direction is reported in tens of degrees.

In the past (Verploegh 1967) it has been noticed that in reporting there is a bias to use even numbers. However, a sample from the now used observations does not confirm this. What does appear from this sample is a light preference to the numbers 09, 18, 27 and 36, especially in the earlier years (see figures 2 and 3). However, this does not cause problems when directional sectors of 30 degrees are considered.

The wind force is estimated using the Beaufort Scale. According to this scale the wind force can be given in 13 numbers from 0 to 12. The number 0 corresponds to calm (no wind at all), while the number 12 corresponds to the force of a hurricane.

This scale has been developed by the British admiral Sir Francis Beaufort in 1805 and is based on the speed a full-rigged frigate could make for the lower wind speeds and on the quantity of sails the ship could carry for the higher wind speeds. Later when the time of sailing vessels was over, the German captain P. Petersen has added to each scale number a description of the visible effect of the wind force on the sea surface. In this way it became possible to estimate the wind force from the appearance of the sea. Since 1946 there is an official WMO conversion scale in which to each scale number an interval of equivalent wind speeds (in knots and for a height of 10 metres above the sea surface) has been assigned. This scale is given in appendix 1.

Although it has appeared from several studies (Verploegh 1956, Dury 1970, Kaufeld 1981) that in reality the relation between Beaufort numbers and wind speed deviates considerably from the official WMO conversion table all efforts in the WMO Commission for Marine Meteorology to change it have been unsuccessful.

Only for scientific use, other equivalent wind speeds have been accepted. This so-called scientific scale can be found in appendix 2.

To avoid problems, in this study mainly Beaufort numbers have been used.

The accuracy of the estimates is influenced among others by the fact that the appearance of the sea is not only determined by the wind. Other phenomena which play a part are: the influence of the plankton content of sea water on the formation of foam; the influence of the current and bottom depth on the form of the waves; the influence of the air stability on the steepness of the waves; the influence of heavy rainfall or oil pollution; the influence of the fetch of the wind.

Nevertheless the accuracy of a wind estimate is still reasonable.

Verploegh (1967) found for the standard deviation $0.58 I$ (I being the width of the scale interval) for each of the steps one to ten of the Beaufort scale. This means that the standard deviation of an individual wind speed observation varies from 0.76 metres per second at step one (mean wind speed of 2.0 m/s) to 1.34 metres per second at step five (mean wind speed of 10.2 m/s) and 2.6 metres per second at step ten (mean wind speed of 24.2 m/s).

The averaging or representative time for these observations is not really known. In a study by Graham (1982) in which the winds estimated on board voluntary observing ships are compared with instrumental measurements at fixed positions it has been taken as equivalent to an hour. Owing to the relatively slow response of the sea to changes in wind speed this seems reasonable.

1.6.2 Waves

The waves are also observed visually. The parameters which are estimated are direction, period and height. In most cases there is only sea (wind waves) of which the direction is equal to the direction of the wind. If a separate swell can be distinguished this is also reported. In the period 1961-1970 for example this was the case in about 15% of the observations on lightvessel Goeree and in about 25% of the observations at lightvessel Texel.

The mean direction from which the waves are coming is reported in tens of degrees with respect to true North and can be estimated easily by means of the compass since the direction is perpendicular to the wave crests.

The average period is determined by counting the seconds between the passing of a number of well-developed wave crests. Until 1 January 1968 the period has been reported as a code figure P_w (WMO code 1955). $P_w = 2$ means a period of 5 seconds or less, $P_w = 3$ means a period of 6 or 7 seconds, $P_w = 4$: 8 or 9 seconds; $P_w = 5$: 10 or 11 seconds, $P_w = 6$: 12 or 13 seconds, $P_w = 7$: 14 or 15 seconds, $P_w = 8$: 16 or 17 seconds, $P_w = 9$: 18 or 19 seconds, $P_w = 0$: 20 or 21 seconds and $P_w = 1$: more than 21

seconds. From 1 January 1968 the meteorological code for ships' observations was changed. Starting from that date the period of the sea has been reported in seconds and the period of the swell according WMO code 3155. In this code means Pw = 0: 10 seconds, Pw = 1: 11 seconds, Pw = 2: 12 seconds, Pw = 3: 13 seconds, Pw = 4: 14 seconds or more, Pw = 5: 5 seconds or less, Pw = 6: 6 seconds, Pw = 7: 7 seconds, Pw = 8: 8 seconds and Pw = 9: 9 seconds.

For the reporting of the wave height an estimate in half metres is made of the average height of the higher, well-developed waves in the centres of the wave groups. Several studies have shown that this height is a fair approximation of the so-called significant wave height, which is defined as the average height of the highest one third part of the waves in the system (cf. section 2.5 and Nordenstrøm, 1969; Laing, 1985).

With respect to the accuracy of visual wave height observations Verploegh (1961) found that the standard error of an individual observation varies from 0.3 m at 1.5 m wave height to one metre at a 6 m wave height.

The visually estimated wave period is - unlike what applies to the wave height - not equal to the significant period (the period belonging to the significant height), but is generally smaller.

1.6.3 Visibility

Visibility describes the degree of transparency of the atmosphere and is defined as the maximum distance at which an object can be seen, for example: in normal daylight, the distance at which an object such as a ship can just be discerned as such by an observer with normal eyes and in darkness, the distance at which a light of certain intensity and color is just visible.

On board ships the horizontal visibility is almost always estimated. At sea a detailed determination of visibility is mostly not possible. For this reason a rather coarse scale is used for the reporting code (VV), which is as follows:

90	< 50 m	95	2- 4 km
91	50- 200 m	96	4-10 km
92	200- 500 m	97	10-20 km
93	500-1000 m	98	20-50 km
94	1- 2 km	99	>50 km

If the horizontal visibility is not the same in different directions with VV the smallest visibility is reported.

1.6.4 Air temperature (dry-bulb temperature), wet-bulb temperature, humidity

These were measured with a sling psychrometer. The instrument consists of a single frame on which two identical thermometers are mounted and which is attached to a handle in such a way that the thermometers can be whirled in a circle. The bulb of one of the thermometers is covered with muslin, which is saturated with distilled water prior to the observation. This thermometer is called the "wet-bulb". In contrast with this the other thermometer is called the "dry-bulb". When the psychrometer is whirled the dry-bulb will indicate the air temperature after some time. If the surrounding air is not saturated with water vapour the water will evaporate from the moistened muslin. The heat, needed for the evaporation, is derived from the reservoir of the wet-bulb thermometer. Accordingly the wet-bulb thermometer will gradually cool down until equilibrium is reached. The difference between the dry- and the wet-bulb temperatures is a measure for the humidity.

With the aid of psychrometric tables other humidity indicators, such as the dew-point temperature and the relative humidity can be determined.

The temperatures are reported in tenths of degrees Celcius.

1.6.5 Sea water temperature

The temperature of the sea-water at the surface was measured by means of the bucket method. Immediately after the sea-water has been drawn on board with the white painted canvas bucket, the thermometer is placed in

the bucket.

The sea thermometer has a small reservoir in order to retain a small quantity of water round the bulb, so that the thermometer can be removed from the bucket to read it.

The sea surface temperature is read and reported in tenths of degrees Celsius.

1.7 Summary of the tables and diagrams

For the preparation of the tables and diagrams which are given in appendix 7 together with a summary use has been made of the three-hourly meteorological observations made at respectively 00, 03, 06, 09, 12, 15, 18 and 21 hours GMT. Unless indicated otherwise, in most tables by frequency is meant relative frequency, that is, the ratio between two numbers of observations. For example in table 1 this is the number of all observations with certain wind conditions of direction and force made in a given time period (month, year) divided by the total number of observations (mentioned in the heading of the table) made in the same time period. Since the observations were made with short intervals of three hours and since phase-locked periodic fluctuations with a period of three hours can be assumed to be negligibly small it is permissible to interpret the relative frequencies as the estimated fractions of time in which these conditions have occurred.

Directions of winds, waves and currents mostly have been grouped into 12 sectors of 30 degrees, always taking three directions (reported in tens of degrees) together.

In the tables showing frequencies in parts per thousand a zero means: one or more observations, but less than 0.5 parts per thousand; a dash means: no observations.

It occurs that for example due to a survey, a lightvessel did not occupy its station for some time. Mostly no attention has been paid to this fact. For some tables the missing observations have been substituted by those of a neighbouring lightvessel. The table in appendix 3 gives for

each lightvessel the periods with observations lacking during one day at least, together with the name of the lightvessel whose observations were taken as a substitute.

2. Discussion of results

2.1 General remarks

All monthly and annual relative frequencies and other data presented refer to a specified set of years (Goeree: 1949-1970, Noord Hinder: 1953-1980, Texel: 1949-1977, Terschellingerbank: 1949-1975). It may be assumed that to a certain extent they are also applicable to any other period of a large number of years. In particular, for practical purposes, it may be claimed that all tables and diagrams have a certain predicting value. Herewith, however, it must be taken into account that the parameters characterising the weather in a certain month, for example January, may vary widely from year to year.

Some information on the differences between individual years can be found in tables 4, 10, 20 and 22, in which maxima and minima for each individual month are given. In the tables with mean exceedence percentages (tables 2, 3, 8, 9, 13) also the months with extreme values are given together with the year of occurrence.

It is obvious that mean relative frequencies or other parameters over a number of years will always depend on the years that were used in the averaging. An impression of this is given in tables A and B of appendix 5 in which for wind force and wind direction the differences can be seen in the frequencies of occurrence of a certain force or direction in the periods 1953-1960, 1961-1970, 1971-1980 on the lightvessel Noord Hinder. These differences are smaller for the percentages over the whole year than for an individual month, in this case January.

2.2 Wind climate

The positions of the Netherlands lightvessels in the southern North Sea with respect to the general weather circulation are such that during all months of the year all wind directions can occur. On further consideration the following can be noted:

- There are only small differences between the four lightvessels.
- On all Netherlands lightvessels the wind direction with the highest frequency is SW. This is the case in almost all months. The percentages of occurrence lie around 20%, at Goeree and Noord Hinder even around 25%.
- In February at Noord Hinder and Texel the most frequent occurring wind direction is East (about 16%), while at Texel and Terschellingerbank this is the case in March (about 18%). At Goeree and Noord Hinder, however, the most frequent wind direction in March is SW.
- In April, May and June the directions N and NE occur with a rather high frequency (around 16%), while these directions in October, November, December and January have only a low frequency (4-8%).
- The direction with the least frequent occurrence is SE; this is especially the case in the months April through August (4-7%).
- When we look at the wind force it appears that in almost all months force 4 has the highest frequency (around 30%). Exceptions are the month June at lightvessel Texel and the months June, July and August at Terschellingerbank, where force 3 is most frequent.
- June is the quietest month with at Noord Hinder and Goeree on average only about 6% of the time wind force 6 or more and during 0.2% of the time force 8 or more. For Texel and Terschellingerbank these numbers are respectively 4% and 0.3-0.4%.
- November is the windiest month with at lightvessels Noord Hinder, Goeree, Texel and Terschellingerbank on average in respectively 31%, 28%, 29% and 27% of the time wind force 6 or more and in respectively 7.2, 5.9, 7.1 and 5.5% of the time wind force 8 or more).
- Gales (wind force 8 Beaufort or more) occur most frequently from directions between SW and NW and least frequently from directions between SE and NE.
- Storms (wind force 10 or more) occur about ten times less than gales (wind force 8 or more). Yet practically no year passes without. Looking at table 4, in which the maximum reported wind force for each individual month of the period considered is given, it appears that only in June wind force 10 or more did occur on none of the lightvessels. In the months March, April, May, July, August and September it occurred only sporadically, while in the months February and October on an average about twice in ten years, in the months

January and December 3-4 times in ten years and in November 4-5 times in ten years.

The numbers and durations (persistence) of periods with certain wind conditions ($\geq 6, 7, 8, 9$ and 10 Beaufort and $\leq 2, 3, 4, 5$ Beaufort) are given for each lightvessel in four diagrams (5) both for the summer and the winter season. Examples illustrating the use of the diagrams have been given with the diagrams. From the diagrams several conclusions may be drawn, for instance that on average during the winter season about once a year a period occurs with wind force 8 or more and a duration of at least a day. Also in the summer season such a situation sometimes occurs but then only about once in ten years.

The diagrams do not show that it are not the winter months December, January and February that are the windiest, but actually November, December and January. In February the number of periods with wind force 8 or more is almost twice as small as in January.

The longest uninterrupted period with wind force 9 or more has been more than 1 day, but less than $1\frac{1}{2}$ day at Goeree and Terschellingbank and more than $1\frac{1}{2}$ days but less than 2 days at Noord Hinder and Texel.

The decrease of the numbers with the duration is fast, practically exponential for the shorter durations until about 24 hours and after that somewhat slower. Looking at light winds we see for example that in an average summer season only six times a year a period occurs with wind force 2 or less, persisting a day or longer. In an average winter season such a situation occurs still yet about two times a year.

2.3 Frequencies of extreme high wind speeds

A statistical value which in practice is often used for design and planning purposes as a measure of severe wind climate is the N-year return period of the exceedance of a certain wind speed value U_N , generally with N equal to 50 or 100. This return period is mostly determined as the probability of exceedance of U_N in one year equal to $\frac{1}{N}$.

The thus determined return period must be applied with some caution as it is the average value of the length of the time interval between two successive exceedances. This means that if the limit has been exceeded once the risk of another occurrence within the return period still is 63% and the risk of two occurrences 27%.

In the table below for the Netherlands lightvessels the 10, 50 and 100 year return periods are given for the hourly mean value of the wind speed.

return period in years	wind speed							
	Goeree		Noord Hinder		Texel		Terschellingerbank	
	m/s	kts	m/s	kts	m/s	kts	m/s	kts
10	29	56	29.5	57	30	58	30	58
50	32	62	32.5	63	33.5	65	33.5	65
100	33	64	33.5	65	34.5	67	34.5	67

The data have been determined from a cumulative frequency distribution of all three-hourly wind speeds during the observation periods considered, irrespective of direction or season.

These periods are for Goeree: 1949-1970; Noord Hinder: 1953-1980; Texel: 1949-1977; Terschellingerbank: 1949-1975. The equivalent values belonging to the so-called scientific scale have been assigned to the estimates according to the Beaufort scale, (see appendix 2). After this the return values have been estimated by extrapolation on Weibull diagram paper.

2.4 Wave climate

In main lines the directional distribution of the waves corresponds to that of the wind. However, there are some differences. This is caused by the fact that in making the wave tables always from each observation the highest system (either sea or swell) has been used. In the case of equal

heights the system with the longer period was chosen. On further consideration the following can be noted:

- During the months April, May and June obviously rather often a northerly swell occurs which is higher or longer than the locally generated sea. During these months, in more than 20% of the observations, waves from a northerly direction are reported, while for the wind this is the case in only about 15% of the observations. Also in July, August and September this phenomenon is observed, however, with some lower percentages. This greater amount of occurrences of northerly directions coincides with smaller amounts of the direction SE in the wave tables compared with the wind tables.
- When we look at the wave height it appears that in almost all months the wave height of half a metre (actually between $\frac{1}{4}$ and $\frac{3}{4}$ due to the code used) has the highest frequency (30-45% in summer and about 25% in winter). Exceptions are the months November, December and January at Goeree and Texel in which the wave height of 1 m ($\frac{3}{4}$ - $1\frac{1}{4}$ m) is most frequent.
- June is the quietest month with at Noord Hinder, Texel and Terschellingerbank on average wave height exceeding $1\frac{3}{4}$ m during only 4.5% of the time. At Goeree this percentage is 8.5.
- At Texel, Goeree and Noord Hinder November is the roughest month with a wave height of more than $1\frac{3}{4}$ m in about 30% of the time. At Terschellingerbank the roughest month is December with wave heights exceeding $1\frac{3}{4}$ m during about 24% of the time.
- The highest waves occur most frequently from directions between SW and NW and least frequently from direction SE. There are two causes for this. Apart from the higher wind forces from the westerly directions the fetch plays an important role. From direction SE the fetch is much shorter than from westerly directions. So about 25% of all waves from a NW-ly direction have a height greater than $1\frac{3}{4}$ m, while for waves from SE-ly direction this is the case in only 3%.
- Waves with a significant height greater than $4\frac{3}{4}$ m generally occur during the winter half year only. If we look in table 10, in which the maximum reported wave height for each individual month of the period considered is given it appears that on average a wave height greater than $4\frac{3}{4}$ m occurred at Noord Hinder and Terschellingerbank about 4

times in ten years. At Texel this is about 6 times and at Goeree about 7 times. Such a wave height occurs most frequently in the months November, December and January. In each of these months at Noord Hinder and Terschellingbank 1-2 times in 10 years and at Goeree and Texel 2-3 times in ten years.

- Furthermore from the same table 10 it appears that there is a great variability in the time of occurrence of high waves. Although of course the highest waves occur in the winter months, there are also winter months with lower maxima than certain summer months and so the other way around also summer months with higher maxima than in certain winter months.

The numbers and durations (persistence) of periods with certain wave conditions ($>3/4$, $1^{3/4}$, $2^{3/4}$, $3^{3/4}$, $4^{3/4}$ metres and $<1/4$, $3/4$, $1^{1/4}$, $1^{3/4}$ and $2^{1/4}$ metres) are given for each lightvessel in four diagrams (11) both for the summer and the winter season. Examples illustrating the use of the diagrams have been given with the diagrams. The diagrams have been compiled from monthly tables which for reasons of space are not given here.

The conclusions which may be drawn from the diagrams are similar to those for the wind conditions.

For instance in an average winter season about 2-3 times a year a period occurs with a wave height greater than $1^{3/4}$ m and a duration of at least two days. Also in the summer season such a situation sometimes occurs, but much less, namely at Noord Hinder about once in 5 years, at Texel and Terschellingbank about 2 times in 5 years and at Goeree about 4 times in 5 years.

During an average summer season about 7-9 times a year a period occurs with a wave height of less than $3/4$ and a duration of at least two days. In winter this situation occurs twice as less as in summer. It has occurred both in winter and in summer that this wave condition lasted more than two weeks.

2.5 Probabilities of extreme waves heights

In the table below 10, 50 and 100 year return periods of extreme wave heights are given based on visually estimated wave height (H_V) in metres.

return period in years	wave height in metres			
	Goeree	Noord Hinder	Texel	Terschellingerbank
10	6.5	6.6	6.5	6.5
50	7.3	7.5	7.3	7.4
100	7.7	7.8	7.7	7.8

The data have been determined from a cumulative frequency distribution of all three-hourly wave height observations during the observation periods considered, irrespective of direction or season.

These periods are for Goeree: 1949-1970; Noord Hinder: 1953-1980; Texel: 1949-1977; Terschellingerbank: 1949-1975. The return periods have been estimated by extrapolation on Weibull diagram paper.

In making the cumulative frequency distributions from each individual observation the highest of sea or swell has been used.

Of course measurements are more suitable than estimates for determining extreme wave heights. However, sufficiently long series of measurements are hardly available. In general it is the opinion that the statistics based on large enough numbers of visual observations are sufficiently reliable. In any case the results presented here are in agreement with Bouws (1978) who based his estimates for the area around lightships Texel and Terschellingerbank on a series of instrumental observations. Particularly related with estimating extreme waveheights a matter of concern is the relation between significant wave height H_S from measured records and the visually estimated waveheight H_V .

The relation between H_V and H_S has been studied by several authors. In case of low waves values for the ratio H_S/H_V are usually given between 1.0 and 1.1.

For higher waves the following relationships have been found, based on weathership data:

$$H_S = 1.68 H_V^{0.75} \text{ (Nordenstrøm, 1969)}$$

or

$$H_V = 0.98 H_S + 0.5 \text{ (Jardine, 1979)}$$

Such relations must be looked at with some caution. For example, in his discussion Jardine points at the possibility that the sensitivity of the Shipborne wave recorder may be at fault for small wave heights due to its frequency response.

Another source of deviations is the difference of the height of the observers eye above the water. At a weathership this usually is about 6 m or more, while at a lightship this may be 4 m or less. Bouws (private communication) suggests an alternative relation for lightship observations:

$$H_S = 1.4 H_V^{0.75},$$

implying an overestimation of extreme wave heights of about 1 meter.

2.6 Fog

For the year as a whole the chance of fog (visibility less than 1000 metres) is rather small, varying from 1.9% at Noord Hinder to 3.1% at Terschellingerbank. The highest frequencies occur in the months February and March, about 6% at the lightvessels Goeree, Texel and Terschellingerbank and about 3% at lightvessel Noord Hinder. At Goeree, Texel and Terschellingerbank the lowest frequency (about 0.5%) occurs in August. At Noord Hinder the frequency is lowest in November (also 0.5%).

In table 14 for each month the chance of fog is given versus the time of observation (00, 03, 06, 09, 12, 15, 18 and 21 hours GMT). It appears that diurnal variation hardly exists. It may be said that most of the fog occurs in the morning hours between 6 and 12 o'clock and the least fog between 18 and 24 o'clock. However, the differences are very small.

Table 15 shows for each month the relation between wind and fog. The chance of fog is strongly related to the wind force. For example, if we look at the month January at lightvessel Goeree the general chance of fog is 4.7%, however, at wind force 0 (calm): 28%, at wind force 1: 19%, at wind force 2: 10%, at wind force 3: 8%, at wind force 4: 3.5%, at wind force 5: 1.5% and at wind forces 6 and 7: 0.2%.

Generally it can be concluded that the chance of fog decreases with an increase of the wind force and lies above the average at forces 0-3 and below the average at higher wind forces. At wind force 6 and more practically no fog occurs any more.

The occurrence of fog is also dependent on the wind direction. If we consider again the month January at lightvessel Goeree it appears that at wind directions between SE and SW the percentages of observations with fog vary from 6-10%, while at wind from the North practically no fog occurs.

Generally it appears that during the winter half year fog by preference occurs at calm weather or at winds from directions between SW and East. In the summer half year, in which the frequency of occurrence is low, particularly at Goeree and Noord Hinder just northerly directions are slightly favorite.

Finally, the occurrence of fog is also dependent on the difference between the air- and sea surface temperature. From table 16 it appears that the chance of fog is above the average when the air temperature is some degrees or more below the water temperature. This applies less to lightvessel Noord Hinder of which the position is further from the coast.

The numbers and durations (persistence) of periods with certain visibility conditions (≤ 4000 m, ≤ 1000 m and ≤ 200 m) are given for each lightvessel in four diagrams (18) for each of the four seasons. Examples illustrating the use of the diagrams have been given with the diagrams.

From the diagrams the following conclusions may be drawn. The numbers of periods with a decreased visibility are largest during the winter months (December, January, February), smallest in summer, while they are larger in spring than in autumn.

Only a small percentage has a duration of more than 24 hours. For example, at lightvessel Goeree the percentage of periods with fog (visibility ≤ 1000 m) and a duration of more than 24 hours is 4.5% in winter, 4% in spring, 2% in summer and 3% in autumn.

The decrease of the numbers with the duration is rather fast, practically exponential for the shorter durations of 9-12 hours and after that somewhat slower. The mean durations decrease with decreasing visibility.

2.7 Air temperature (tables 19 and 20)

At the Netherlands lightvessels the air temperature averaged over the whole year is about $0.5-1^{\circ}\text{C}$ higher than that of the Netherlands land stations at the same latitude. It is highest (10.6°C) at Noord Hinder, which has the largest distance from the coast and the lowest (9.1°C) at Terschellingerbank.

The month with the highest mean temperature is August (16.7°C at Noord Hinder and Terschellingerbank, 17.2°C at Goeree and 17.0°C at Texel.) The highest observed temperature during the period considered (which is somewhat different for each lightvessel) was 25.4°C at Goeree (August 1967), 23.2°C at Noord Hinder (August 1967), 25.0°C at Texel (August 1975) and 25.4°C at Terschellingerbank (September 1949).

The month with the lowest mean temperature is February (3.9°C at Goeree, 5.1°C at Noord Hinder, 4.0°C at Texel and 3.7°C at Terschellingerbank). The lowest observed temperature in the period considered was -10.2°C at Goeree (February 1956), -8.0°C at Noord Hinder (February 1956), -8.0°C at Texel (January 1972) and -8.5°C at Terschellingerbank (February 1956). The monthly mean temperature in March is only a little bit higher than in February. The fastest rising of the monthly mean temperature (with more than 3°C per month) occurs from April to June. After reaching the maximum in August the fastest decrease of the monthly mean temperature (about 3°C per month) occurs from September to November.

2.8 Sea surface temperature (tables 21 and 22)

The sea surface temperature averaged over the whole year is $0.5\text{-}0.7^{\circ}\text{C}$ higher than the air temperature. The month with the highest mean temperature is August (17.8°C at Goeree, 16.8°C at Noord Hinder and 17.2°C at Texel and Terschellingerbank).

The highest observed temperature of the sea water at the surface in the period considered was at Goeree 21.0°C (August 1967), at Noord Hinder 19.6°C (August 1959), at Texel 21.5°C (August 1975) and at Terschellingerbank 19.8°C (August 1959).

The month with the lowest mean temperature is February at Goeree with 4.1°C , Texel with 4.5°C , and at Terschellingerbank with 4.3°C , and March at Noord Hinder with 4.5°C . The lowest observed sea surface temperature in the periods considered was at Goeree -1.2°C (January 1963), at Noord Hinder 0.0°C (February 1966), at Texel -1.2°C (February 1963) and at Terschellingerbank -1.5°C (February and March 1963).

After its minimum in February the mean sea surface temperature in March is only slightly higher (at Noord Hinder even a little lower) than in February. After March the sea surface temperature starts to rise with the fastest increase (more than 3°C per month) from April to June. The mean temperature in September is only slightly lower than in August.

After September the sea surface temperature starts to drop with the fastest decrease (about 3°C per month) from October to December. This occurs a month later than for the air temperature.

3. A comparison of the climatological data from different lightvessels and from different time periods

The periods to which the present and earlier treatises of the observations of the Netherlands lightvessels refer all have been determined by non-climatological factors. The first treatise of Dr. J.P. van der Stok bears upon the beginning period of the observations, in which he still made distinction between two sub-periods. The first one was 1859-1883, in which period observations were made at Noord Hinder only. Hereafter also observations were made at Schouwenbank, Haaks and Terschellingerbank. Van der Stok terminated his analysis with the year 1909.

For this reason G. Verploegh chose the year 1910 as a starting point for his study. In September 1939 the lightvessels were withdrawn temporarily because of the outbreak of the Second World War, terminating the period treated by Verploegh, which moreover had some interruptions due to the First World War (1914-1918).

Some years after the Second World War the lightvessels have been laid out again, some with different names and at different positions. Because from 1949 onwards visual estimates of wave direction, -period and -height have been incorporated in the observations that year has been chosen as the starting point of the treated period presented here. As last year 1980 has been chosen, because after that year the traditional lightvessel-observations all had come to an end.

In this way four periods have been created, all with a length of 25-30 years in which the observations have been made in about the same way.

3.1 Wind

In table A of Appendix 6 frequencies of wind force ≥ 4 , ≥ 6 , ≥ 8 and ≥ 10 Beaufort have been given for the periods mentioned and for the different lightvessels, regardless of direction. Only the lightvessels Noord Hinder and Terschellingerbank have occupied about the same position during the whole period. Because their positions are close enough

together, the data of Goeree may be compared with those of the former lightvessel Schouwenbank and of Texel with those of Haaks.

If we look at wind force 4 and more we see that obvious differences are existing between the periods considered. At lightvessel Noord Hinder for example the annual frequency was 61% in the first period (1859-1883). In the second period (1884-1908) this percentage was 50% only and in the third period (1910-1939) even 45%, while in the last period (1953-1980) the percentage was 59%, about as much as in the first period.

For the other lightvessel positions the first period is not available, but the other three periods give the same picture with lower frequencies in the second and the third period and a higher frequency in the fourth.

At higher wind forces this picture changes. The frequencies come closer together for all periods except for the first one.

Looking at the post war period only, it strikes that the mean annual frequency of wind force 4 or more is the same at all four positions. The differences for the greater wind forces are also small in the last period. Texel shows the highest annual percentage (2.7%) with wind force 8 or more. The annual frequency (0.2%) of wind force 10 or more is the same again on all positions.

For lightvessels Haaks (1891-1938) and Texel (1949-1980), which occupied about the same positions the numbers of storms (wind force 10 or more) in each year are given in figure 4 (due to the Second World War no data are known over the period 1939-1947). For some years the data have been substituted by those of other lightvessels, for example during the First World War by those of lightvessels Maas and after 1977 by those of lightvessel Noord Hinder.

From figure 4 it appears that there have been years, although only a few, without the occurrence of a storm (windforce ≥ 10). The highest number of storms was 7 (1908, 1909 and 1949). During the whole period of 81 years 217 storms (on an average 2.7 a year), have raged about with an average duration of 6-8 hours. The longest uninterrupted period with

wind force 10 or more had a duration of 30 hours, which occurred in February 1962 and January 1976.

The number of storms is not spread regularly over the years. It is striking that there are groups of years with obviously more storms than on average, while there are also periods in which only a few storms have occurred. It is not possible to discover a clear periodicity in this. When considering longer periods it can be remarked that during the period 1900-1930 about twice as many storms occurred as during the period 1951-1980. There are obvious differences in the various seasons. From the 217 storms 112 occurred in winter (47 in December, 42 in January and 23 in February), 84 in autumn (8 in September, 32 in October and 44 in November), 13 in spring (10 in March, 2 in April and 1 in May) and 8 in summer (0 in June, 4 in July and 4 in August).

As to the wind directions during storms 65% were westerly (SW to NW), 14% northerly (NNW, N, NNE) and 8% southerly (S, SSW). The directions E and ESE count together as 3%. From NE and ENE came only 0.4%, while no storm occurred with a wind direction of SSE or SE.

3.2 Air temperature

In figure 5 for lightvessel Noord Hinder the annual variations of the monthly mean air temperatures during the winter minimum and the summer maximum are given. As the annual minimum temperature may fall either in January or in February, the mean temperature of these two months have been given in the figure. For the maximum the mean value of July and August has been taken.

Further the mean temperature over the whole period 1859-1980 is given. This was 5.7°C for the winter months and 16.8°C for the summer months. It is a pity that due to both world wars some parts are missing of the series, so that the picture is not quite complete.

Although there are no periodicities or obvious trends to be discovered, which in itself is already an important conclusion, there are still some remarkable features. The first period lasting from 1859 to 1885 is

apparently warmer than the rest of the time, which is most pronounced in the winter temperatures, which during this period lie about one degree Celsius higher than the average over the whole period. Also the summer temperatures are somewhat higher in this period.

After 1885 this warm period ended rather abruptly. From 1886 to 1897 the mean winter temperature fluctuated around the much lower level of 4°C. After 1897 no pronounced cold or warm periods occurred any more in the winter temperature. What did occur were a few abnormally cold extremes, the first in 1929 with a mean winter temperature (January, February) of 2.1°C. The coldest winter in the record was that of the year 1963 with a mean temperature of 0°C. Also 1979 had a cold winter with a mean temperature of 2.8°C.

The summer temperatures do not show such large deviations. Here, however, the whole period 1953-1980 is characterised by a low mean summer temperature of about 0.6°C below the overall average.

About the same picture is found at the more northerly situated lightvessels, for example at Haaks/Texel (figure 6). However, here the data started not until 1890. For this reason it cannot be verified if in the time prior to that year there was also a warmer period here. The resemblance in the rest of the temperature series at these vessels suggests that this supposition may be correct.

A clear difference can be seen in the summer temperatures in the period after the Second World War. At Noord Hinder these were relatively low, while at Texel they were close to the average.

3.3 Sea Surface Temperature

In figures 7 and 8 for the lightvessels Noord Hinder and Haaks/Texel the annual variation of the monthly mean sea surface temperature for the winter months (mean of January and February) and for the summer months (mean of July and August) are given.

For the first period from 1859 to 1884 no temperatures of the sea water are available. For the rest of the time the annual variation of the sea surface temperature very much looks like that of the air temperature.

The large cold peaks as in the air temperature are not all found back in the water temperature. The cold peak of 1963, however, is also very pronounced in the variation of the water temperature.

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Figure captions

- Figure 1. Mean positions of Netherlands lightvessels (1949-1980).
- Figure 2. Frequency distribution of wind direction (in tens of degrees).
L.V. Texel, winter 1968-1969 (based on 4366 observations).
- Figure 3. Frequency distribution of wind direction (in tens of degrees).
L.V. Noord Hinder, winter 1980-1981 (based on 4366 observations).
- Figure 4. Yearly numbers of storms (wind force ≥ 10) at lightvessel
Texel (L.V. Haaks until 1939) for the years 1891-1980.
- Figure 5. Annual variation of mean air temperature (winter and summer
months) at Noord Hinder.
- Figure 6. Annual variation of mean air temperature (winter and summer
months) at Haaks/Texel.
- Figure 7. Annual variation of mean sea surface temperature (winter and
summer months) at Noord Hinder.
- Figure 8. Annual variation of mean sea surface temperature (winter and
summer months) at Haaks/Texel.

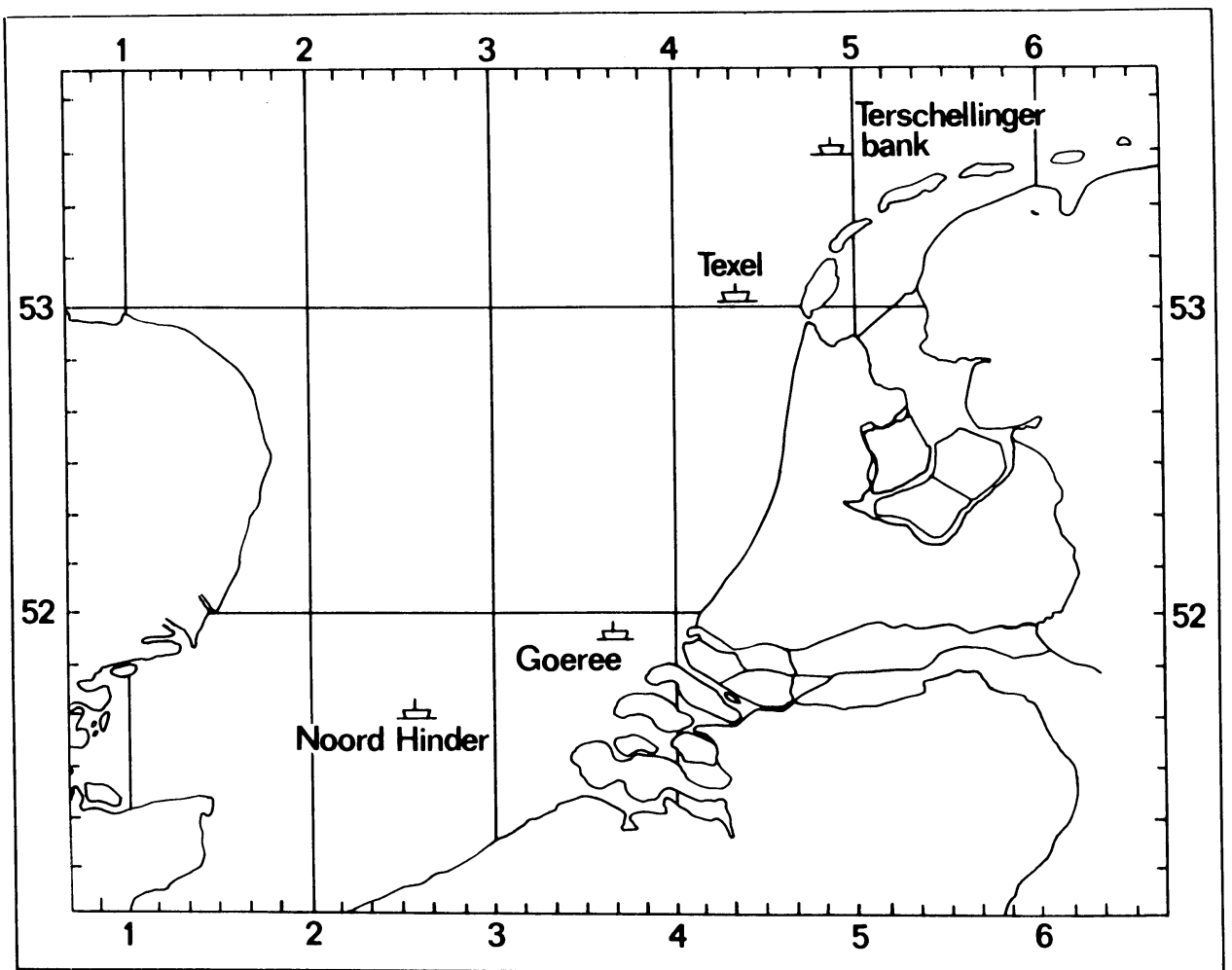


Figure 1. Mean positions of Netherlands lightvessels (1949 - 1980).

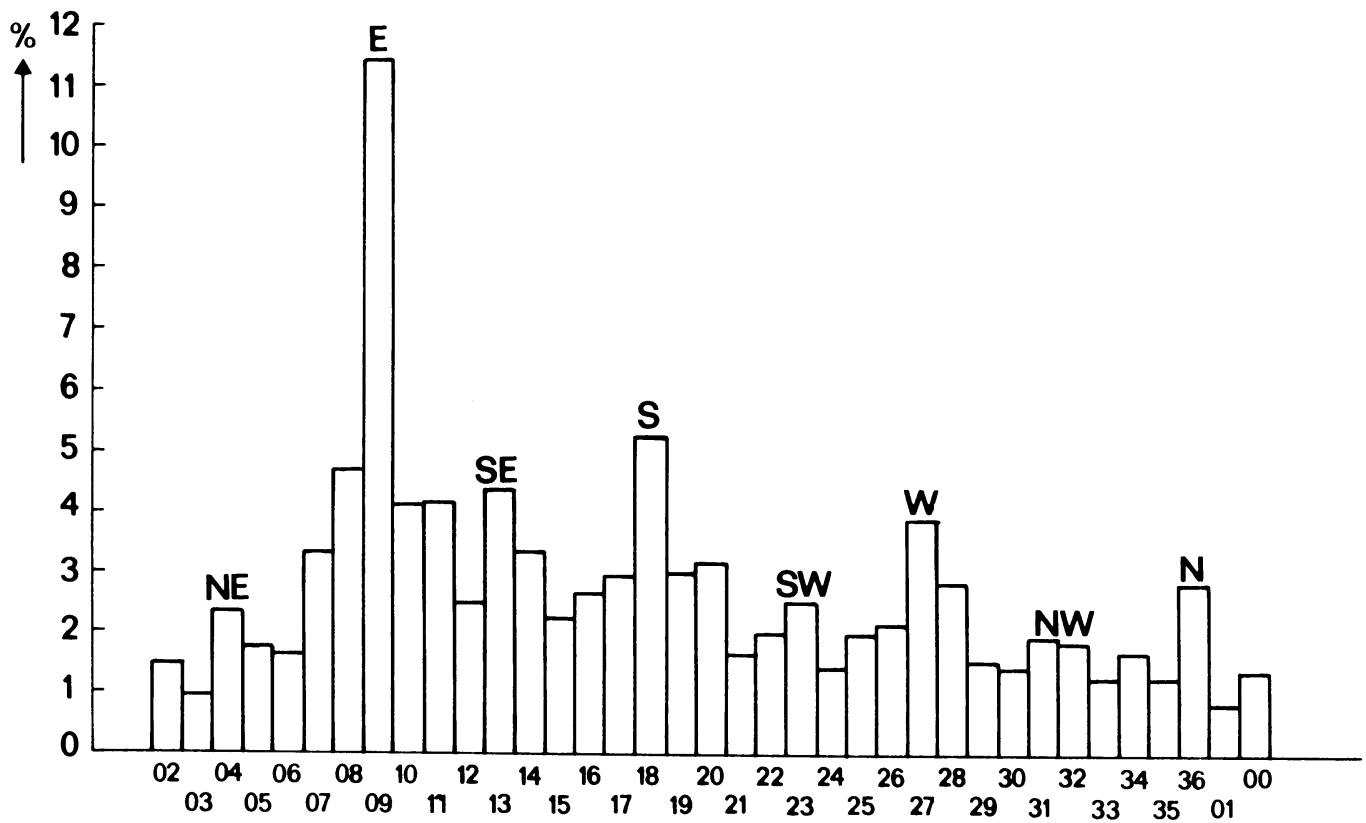


Figure 2. Frequency distribution of wind direction (in tens of degrees). L.V. Texel, winter 1968 - 1969 (based on 4366 observations).

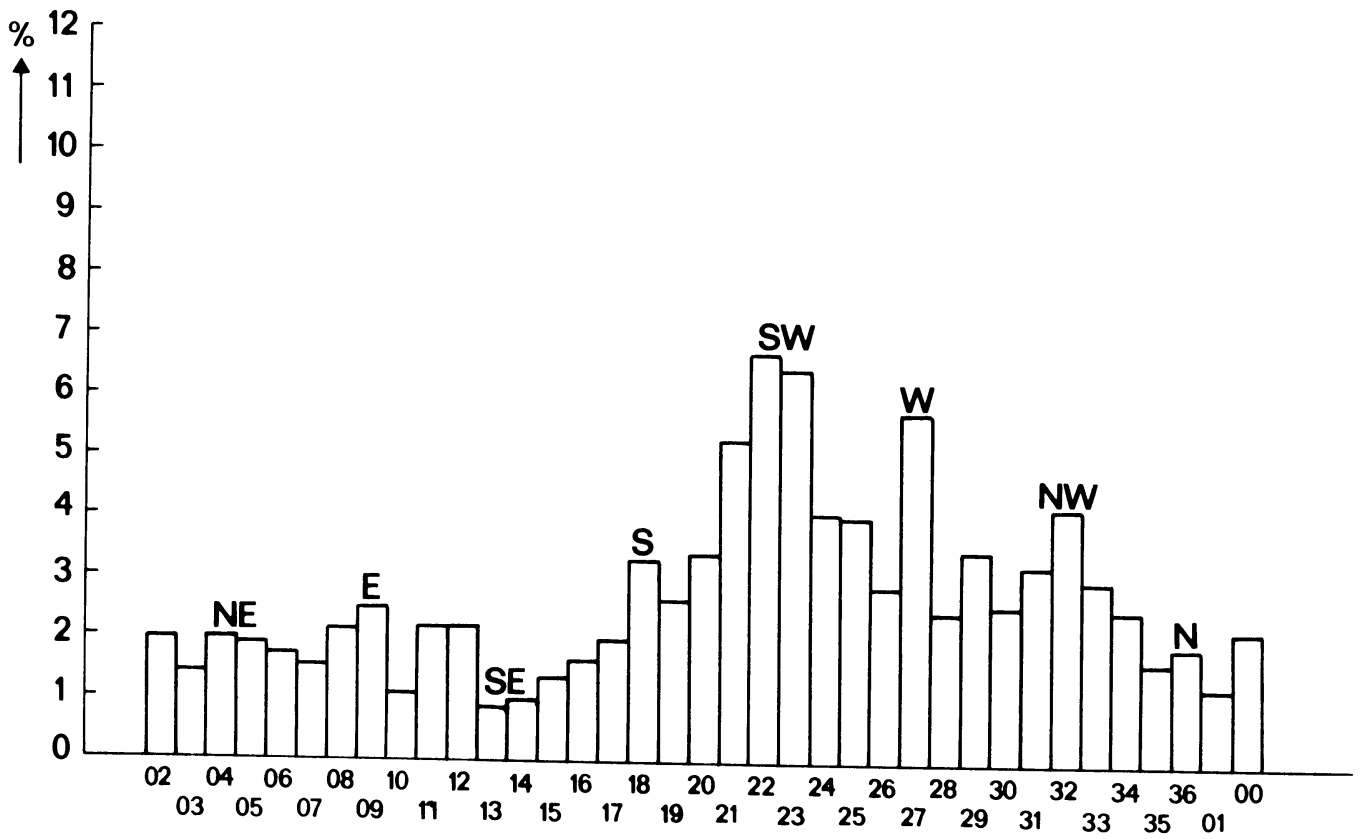


Figure 3. Frequency distribution of wind direction (in tens of degrees). L.V. Noord Hinder, winter 1980 - 1981 (based on 4366 observations).

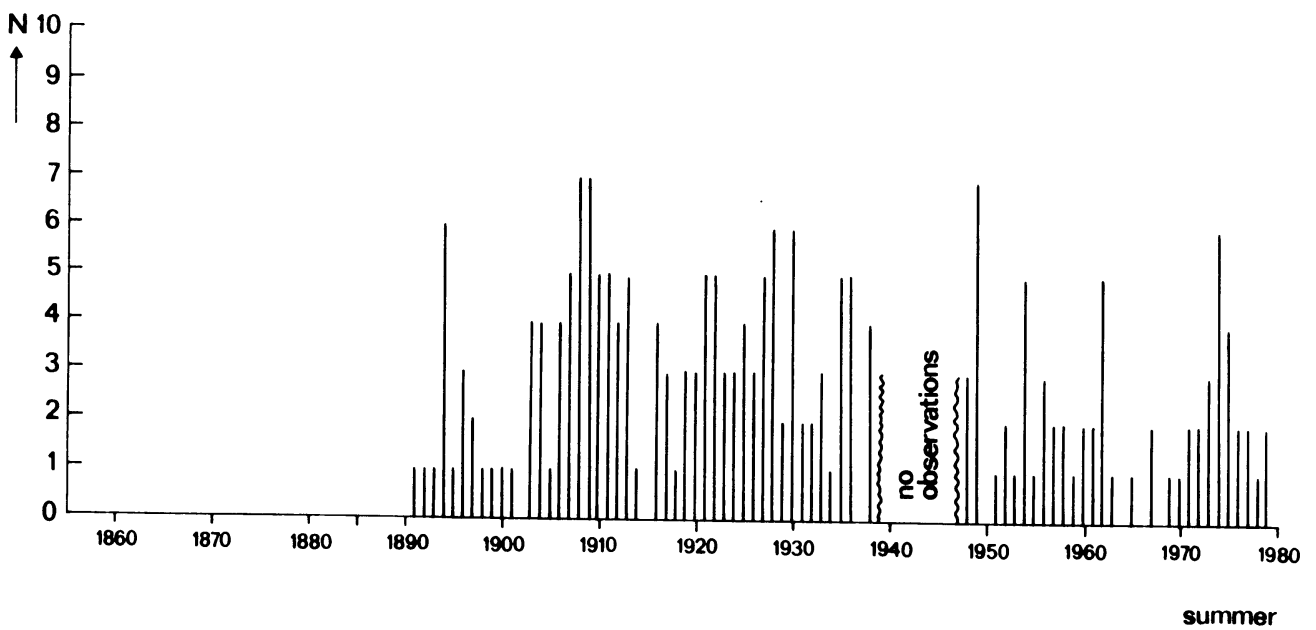


Figure 4. Yearly numbers of storm (wind force ≥ 10) at lightvessel Texel (L.V. Haaks until 1939) for the years 1891 - 1980.

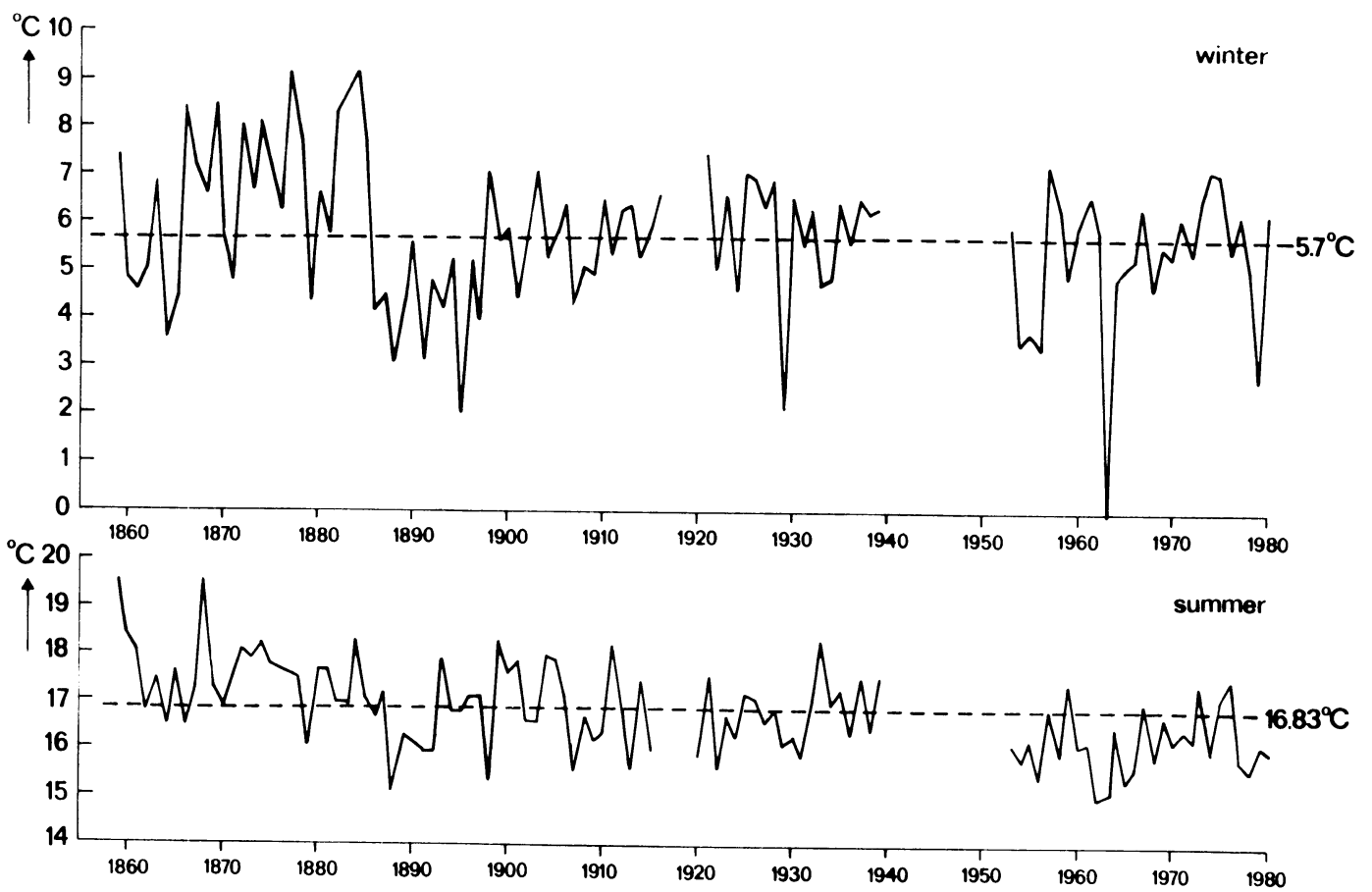


Figure 5. Annual variation of mean air temperature (winter and summer months) at Noord Hinder.

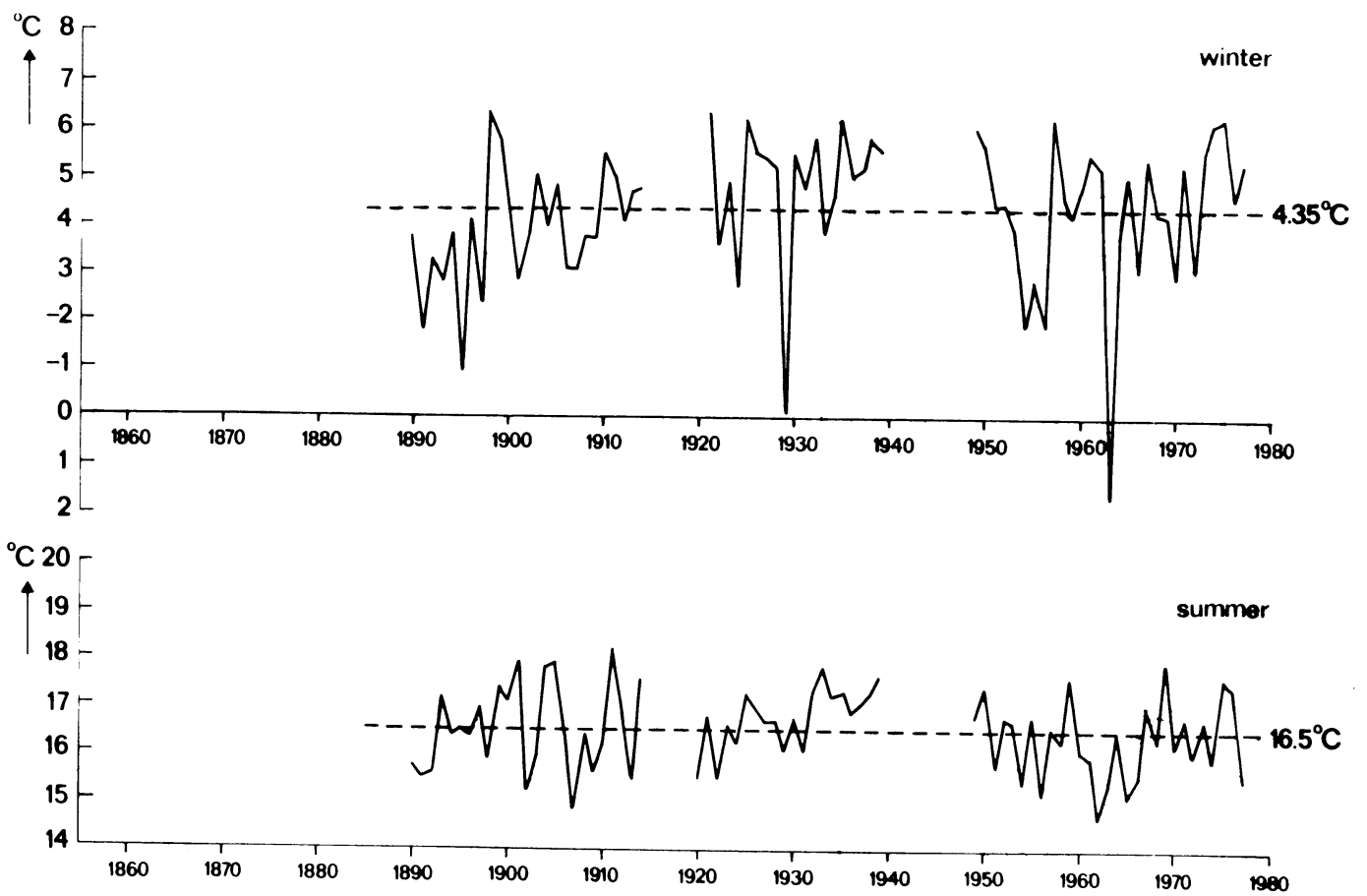


Figure 6. Annual variation of mean air temperature (winter and summer months) at Haaks/Texel.

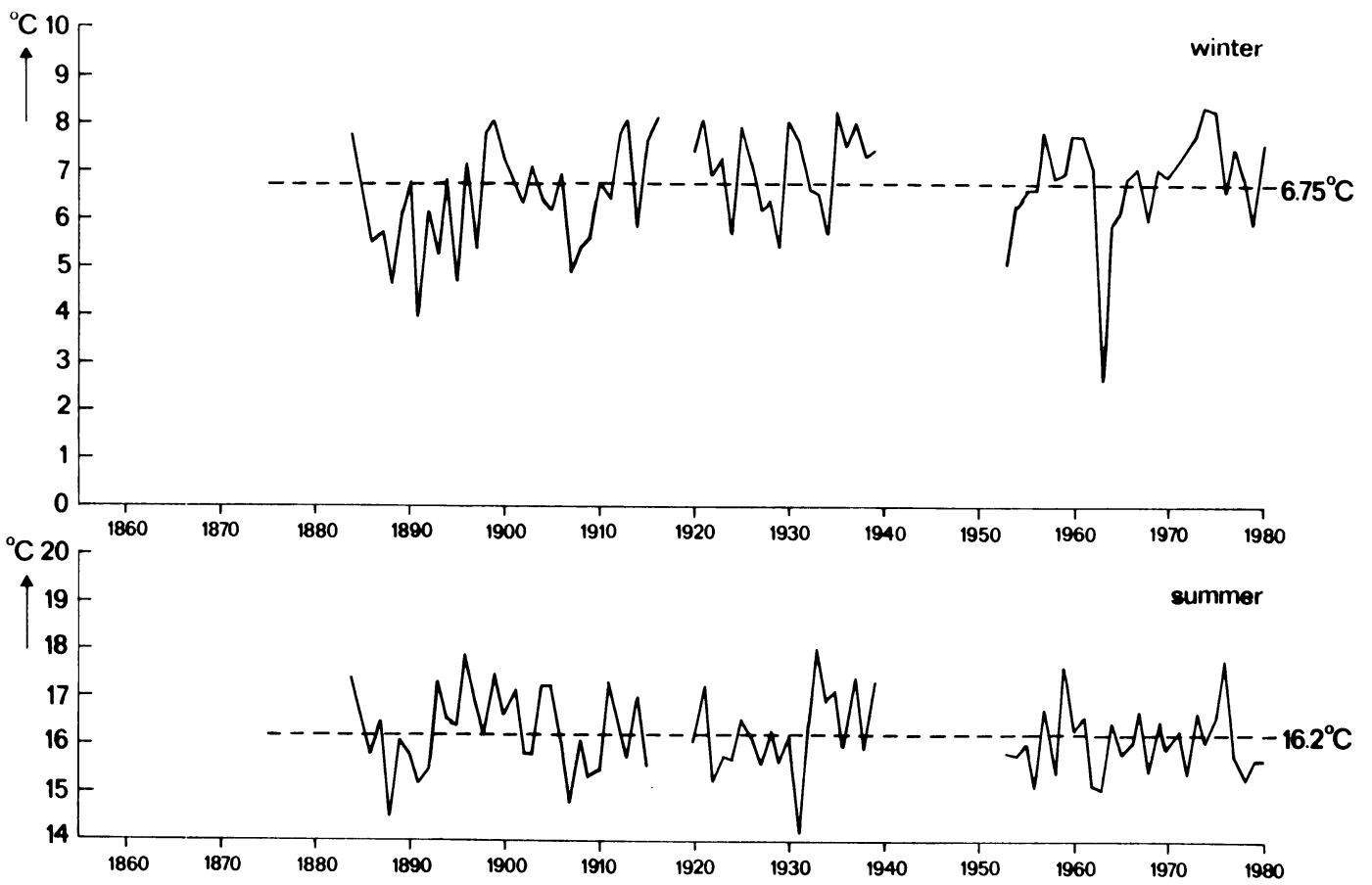


Figure 7. Annual variation of mean sea surface temperature (winter and summer months) at Noord Hinder.

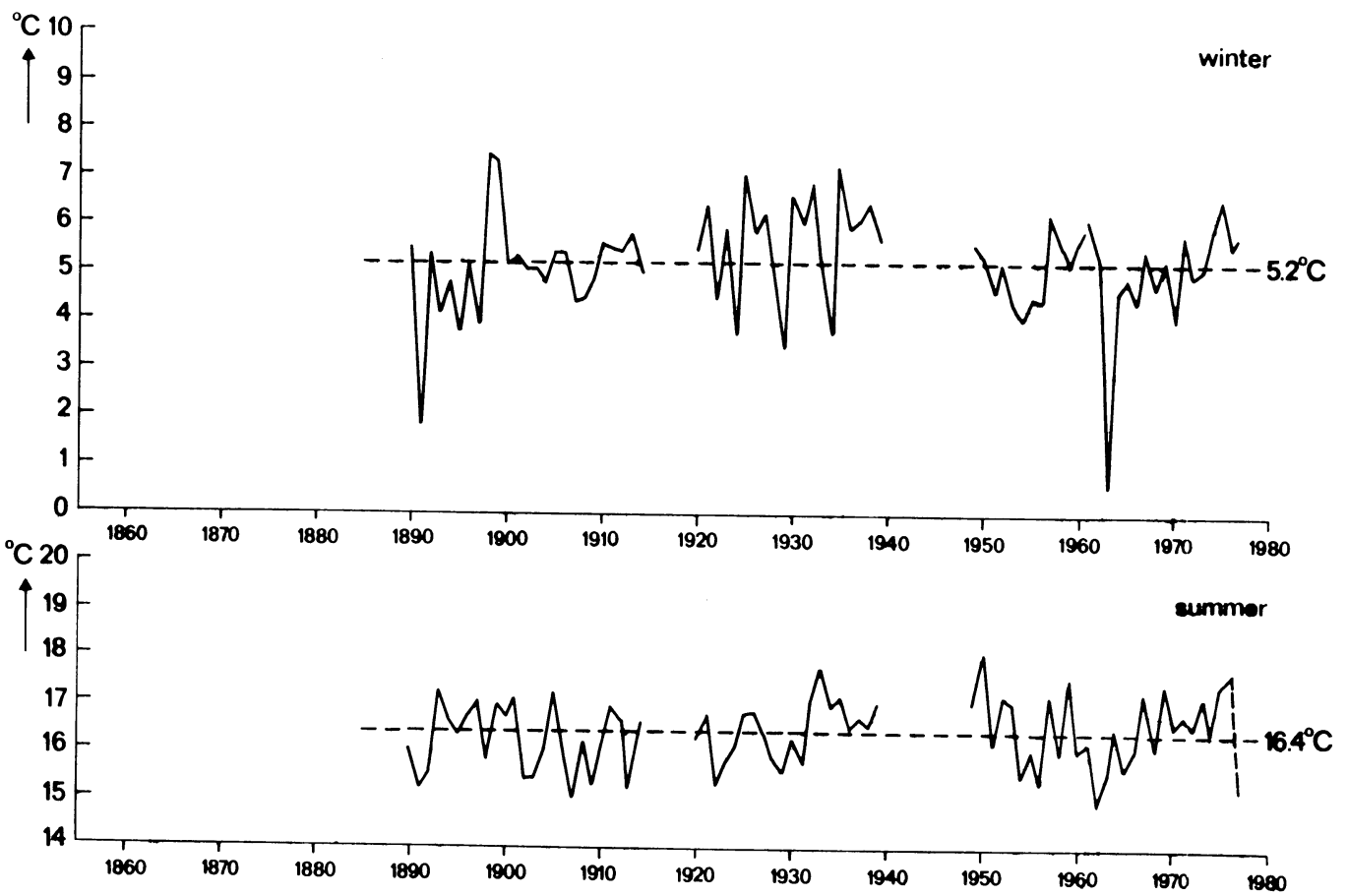


Figure 8. Annual variation of mean sea surface temperature (winter and summer months) at Haaks/Texel.

Appendix 1. Beaufort scale of wind force for reporting wind at sea.

Beaufort number	Descriptive term	Windspeed equivalents		Specifications
		metres/sec	knots	
0	Calm	0 - 0.2	<1	Sea like a mirror
1	Light air	0.3 - 1.5	1 - 3	Ripples with the appearance of scales are formed, but without foam crests
2	Light breeze	1.6 - 3.3	4 - 6	Small wavelets, still short but more pronounced; crests have a glassy appearance and do not break
3	Gentle breeze	3.4 - 5.4	7 - 10	Large wavelets; crests begin to break; foam of glassy appearance; perhaps scattered white horses
4	Moderate breeze	5.5 - 7.9	11 - 16	Small waves, becoming longer; fairly frequent white horses
5	Fresh breeze	8.0 - 10.7	17 - 21	Moderate waves, taking a more pronounced long form; many white horses are formed (chance of some spray)
6	Strong breeze	10.8 - 13.8	22 - 27	Large waves begin to form; the white foam crests are more extensive everywhere (probably some spray)
7	Near gale	13.9 - 17.1	28 - 33	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind
8	Gale	17.2 - 20.7	34 - 40	Moderately high waves of greater length; edges of crests begin to break into the spindrift; the foam is blown in wellmarked streaks along the direction of the wind
9	Strong gale	20.8 - 24.4	41 - 47	High waves; dense streaks of foam along the direction of the wind; crests of waves begin to topple, tumble and roll over, spray may effect visibility

10	Storm	24.5 -28.4	48 - 55	Very high waves with long overhanging crests; the resulting foam in great patches, is blown in dense white streaks along the direction of the wind; on the whole, the surface of the sea takes a white appearance; the tumbling of the sea becomes heavy and shock-like; visibility affected.
11	Violent storm	28.5 -32.6	56 - 63	Exceptionally high waves (small and medium -sized ships might be for a time lost to view behind the waves); the sea is completely covered with long white patches of foam lying along the direction of the wind; everywhere the edges of the wave crests are blown into froth; visibility affected.
12	Hurricane	32.7 and over	64 and over	The air is filled with foam and spray; sea completely white with driving spray; visibility very seriously affected.

Appendix 2. Beaufort scale of wind force for use in scientific projects.

Beaufort number	Wind speed equivalents	
	metres/sec	knots
0	0 - 1.3	0 - 2
1	1.4 - 2.7	3 - 5
2	2.8 - 4.5	6 - 8
3	4.6 - 6.6	9 - 12
4	6.7 - 8.9	13 - 16
5	9.0 - 11.3	17 - 21
6	11.4 - 13.8	22 - 26
7	13.9 - 16.4	27 - 31
8	16.5 - 19.2	32 - 37
9	19.3 - 22.4	38 - 43
10	22.5 - 26.0	44 - 50
11	26.1 - 30.0	51 - 57
12	30.1 and above	58 and above

Appendix 3

Periods with observations lacking during one day at least, together with the name of the lightvessels whose observations were taken as a substitute in tables 4 and 10.

<u>Lightvessel</u>	<u>Period with no observations</u>	<u>Lightvessel substituting</u>
Goeree	1949 June 20 - July 23	Texel
	1949 Oct. 5 - Oct. 10	Terschellingerbank
	1950 June 15 - July 13	Texel
	1953 May 16 - May 19	Texel
	1954 Aug. 31 - Sept. 24	Noord Hinder
	1954 Sept. 25 - Oct. 15	Texel
	1962 July 11 - Sept. 27	Texel
Noord Hinder	1953 Feb. 1 - Feb. 17	Goeree
	1954 July 1 - Aug. 14	Goeree
	1963 Oct. 14 - Oct. 18	Goeree
	1963 Dec. 7 - Dec. 10	Goeree
	1964 Mar. 23 - Mar. 30	Goeree
	1964 Sept. 10 - Sept. 19	Goeree
Texel	1949 Sept. 19 - Nov. 4	Terschellingerbank
	1950 Aug. 31 - Nov. 16	Terschellingerbank
	1951 July 10 - Aug. 1	Terschellingerbank
	1953 Feb. 1	Terschellingerbank
	1953 Apr. 8 - May 8	Terschellingerbank
	1954 Aug. 12 - Aug. 14	Goeree
	1954 Aug. 15 - Sept. 24	Terschellingerbank
	1955 June 3	Terschellingerbank
	1964 Dec. 14 - Dec. 17	Terschellingerbank
	1964 Dec. 2 - Dec. 3	Terschellingerbank
Terschellingerbank	1949 Nov. 18.- Dec. 22	Texel
	1950 Aug. 9 - Aug. 30	Texel
	1951 June 19 - July 10	Texel
	1954 June 1 - Aug. 11	Texel
	1954 Aug. 12 - Aug. 24	Borkumriff
	1962 Jan. 15 - Jan. 18	Texel

Terschellingerbank	1962 Feb. 15 - Apr. 18	Texel
	1963 June 4 - Oct. 11	Texel
	1964 Feb. 12 - Feb. 27	Texel
	1964 July 7 - Aug. 4	Texel
	1965 July 5 - Sept. 30	Texel
	1966 July 4 - Aug. 7	Texel
	1967 June 5 - Oct. 13	Texel
	1968 July 1 - Aug. 20	Texel
	1969 July 7 - Nov. 8	Texel
	1970 July 6 - Sept. 4	Texel
	1971 June 22 - Aug. 18	Texel
	1972 July 5 - Aug. 15	Texel
	1973 Apr. 24 - Oct. 16	Texel
	1974 May 6 - Oct. 16	Texel
	1975 Apr. 15 - Apr. 30	Texel

Appendix 4

The monthly numbers of periods at lightvessel Goeree (period 1961-1970) with wind force ≥ 6 and ≥ 7 and their duration according to two counting methods. Column A gives the numbers of really uninterrupted series of consecutive three-hourly observations with wind force N or more, while for column B two series with wind force N or more, only separated by one observation with wind force N-1 were counted as one.

Numbers of consecutive three-hourly observations with wind force ≥ 6																				
Month	≥ 1		≥ 2		≥ 3		≥ 4		≥ 8		≥ 12		≥ 16		≥ 24		≥ 32		≥ 56	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Jan	85	71	62	58	51	50	43	42	22	25	10	12	9	9	2	4	-	-	-	-
Feb	87	75	60	54	47	44	36	35	18	20	10	12	7	9	2	2	-	2	-	-
Mar	80	66	65	56	50	49	37	40	17	18	9	12	2	4	-	-	-	-	-	-
Apr	50	46	32	29	17	16	11	12	8	7	2	3	1	2	-	-	-	-	-	-
May	53	44	34	31	26	27	20	22	9	10	1	3	1	1	1	1	-	-	-	-
Jun	45	37	30	26	24	22	16	15	8	10	1	4	-	1	-	-	-	-	-	-
Jul	35	32	19	19	14	15	14	14	8	9	3	3	1	1	-	-	-	-	-	-
Aug	55	48	39	37	31	31	23	25	10	12	4	4	-	-	-	-	-	-	-	-
Sep	54	47	45	42	39	38	30	29	11	14	5	5	2	4	-	1	-	-	-	-
Oct	83	72	73	63	59	54	50	46	21	23	11	14	6	8	1	3	-	-	-	-
Nov	93	76	75	67	60	54	52	49	33	33	22	22	15	16	4	8	1	3	-	-
Dec	108	94	91	82	77	74	58	61	26	28	12	15	3	5	-	-	-	-	-	-
Year	828	708	625	564	495	474	390	390	191	209	90	109	47	60	10	19	1	5	-	-

Numbers of consecutive three-hourly observations with wind force ≥ 7

Month	≥ 1		≥ 2		≥ 3		≥ 4		≥ 8		≥ 12		≥ 16		≥ 24		≥ 32		≥ 56	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Jan	54	46	43	39	34	31	25	24	3	6	2	3	2	3	-	-	-	-	-	-
Feb	38	38	25	25	20	20	17	17	10	10	5	5	2	2	1	1	-	-	-	-
Mar	32	31	22	21	20	19	14	14	6	6	1	2	-	-	-	-	-	-	-	-
Apr	15	13	11	9	11	9	6	7	1	2	-	-	-	-	-	-	-	-	-	-
May	18	17	11	10	10	9	6	5	1	2	-	-	-	-	-	-	-	-	-	-
Jun	12	10	5	5	3	3	3	3	-	1	-	-	-	-	-	-	-	-	-	-
Jul	16	13	13	12	8	9	7	8	2	2	-	1	-	-	-	-	-	-	-	-
Aug	23	21	15	16	11	12	6	7	1	1	-	-	-	-	-	-	-	-	-	-
Sep	32	31	23	22	18	17	12	11	2	3	-	1	-	-	-	-	-	-	-	-
Oct	49	44	30	29	26	25	22	21	10	10	6	7	2	3	-	-	-	-	-	-
Nov	70	64	57	54	46	46	39	41	20	21	8	9	4	5	1	1	1	1	-	-
Dec	57	50	45	43	36	35	24	23	9	12	3	4	2	2	-	-	-	-	-	-
Year	416	378	300	285	243	235	181	181	65	76	25	32	12	15	2	2	1	1	-	-

Appendix 5

Comparison between wind force and direction conditions at lightvessel Noord Hinder during the periods 1953-1960, 1961-1970 and 1971-1980, both for one calendar month (January) and for all months together.

TABLE A

		L.S. Noord Hinder					
		Parts per hundred (fractions of time)					
Wind force	1953 - 1960		1961 - 1970		1971 - 1980		
	Jan.	Year	Jan.	Year	Jan.	Year	
0	0.6	1.0	1.6	1.9	0.9	2.8	
1	4.5	7.7	4.3	7.1	2.4	6.0	
2	6.2	12.8	7.3	11.8	7.6	11.3	
3	12.7	21.7	16.9	21.8	15.5	18.8	
4	21.5	25.4	31.7	29.0	28.4	30.7	
5	19.1	14.8	16.1	13.5	18.9	14.3	
6	16.6	10.4	12.3	8.6	13.5	8.9	
7	12.2	4.3	5.5	3.8	6.9	4.2	
8	4.5	1.4	3.5	1.9	4.2	2.2	
9	1.8	0.4	0.7	0.5	1.0	0.6	
10	0.3	0.1	0.08	0.1	0.4	0.2	
11	0.02	-	0.02	0.2	0.07		
12	- -	-	-	0.04	0.01		

TABLE B

L.S. Noord Hinder						
Wind direction (sectors of 30°)	Parts per hundred (fractions of time)					
	1953 - 1960		1961 - 1970		1971 - 1980	
	Jan.	Year	Jan.	Year	Jan.	Year
33	11.6	7.1	7.3	7.7	6.4	6.7
36	3.2	6.0	3.6	6.1	3.2	6.5
03	4.9	9.3	3.2	7.2	2.5	8.2
06	6.8	7.5	8.6	7.6	2.9	7.6
09	9.5	8.1	7.9	7.7	6.1	7.3
12	5.2	5.0	5.8	5.4	6.0	5.0
15	7.3	5.7	9.2	5.2	8.4	5.5
18	10.7	8.0	13.1	7.4	18.5	8.6
21	11.3	13.0	10.4	10.7	13.1	11.9
24	8.4	13.2	9.7	16.1	10.9	13.0
27	10.8	9.2	10.7	9.8	12.3	9.8
30	9.7	6.9	8.9	7.2	8.8	7.1
calm/var	0.6	1.0	1.6	1.9	0.9	2.8

TABLE A

Moderate and strong winds, gales and storms (Netherlands lightvessels).

Comparison of frequencies (parts per hundred/fraction of time)

Wind force	Season	Noord Hinder		Schouwen B		Goeree		Haaks		Texel		Terschellingerbank		
		1859- '83	1884- 1908	1910- '39	1953- '80	1882- 1906	1910- '34	1949- '70	1890- 1909	1910- '39	1949- '77	1884- 1908	1910- '39	1949- '75
4 and more	Winter	70	60	58	70	39	45	67	41	53	68	47	53	67
	Spring	57	45	37	54	30	32	52	24	33	53	33	35	53
	Summer	51	39	34	47	28	33	52	19	29	48	26	29	47
	Autumn	68	55	51	64	40	44	64	33	48	65	44	49	64
	Year	61	50	45	59	34	39	59	30	41	59	38	41	59
6 and more	Winter	34	27	23	25	13	15	24	15	19	24	17	17	22
	Spring	23	16	10	10	7	8	10	6	7	10	9	7	10
	Summer	18	10	7	7	6	7	9	4	5	6	5	5	7
	Autumn	34	23	19	21	13	15	20	12	18	21	17	16	19
	Year	27	19	15	16	10	11	16	9	12	15	12	11	15
8 and more	Winter	9.9	6.7	5.4	4.9	3.1	2.7	4.4	4.3	4.1	4.9	4.3	3.3	3.9
	Spring	4.6	2.4	1.1	0.8	1.1	0.7	0.8	1.1	1.0	1.0	1.1	0.6	1.0
	Summer	2.3	1.1	0.7	0.4	1.0	0.9	0.7	0.6	0.6	0.5	0.5	0.3	0.7
	Autumn	8.5	5.4	4.0	4.2	3.2	2.8	3.5	2.8	3.9	4.2	3.9	3.3	3.0
	Year	6.2	3.8	2.8	2.6	2.1	1.8	2.4	2.2	2.4	2.7	2.4	1.9	2.3
10 and more	Winter	2.0	0.8	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.5	0.9	0.2	0.5
	Spring	0.7	0.1	0	0	0.1	0.1	0	0.1	0.1	0	0.1	0.1	0
	Summer	0.1	0.1	0	0	0.1	0.1	0	0.1	0	0	-	-	0.1
	Autumn	1.6	0.4	0.3	0.4	0.4	0.3	0.2	0.4	0.6	0.3	0.5	0.5	0.2
	Year	1.0	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.4	0.2	0.2

Appendix 7

Tables and diagrams based on the meteorological and some oceanographic observations made on board the Netherlands lightvessels during the period 1949-1980.

- Table 1 Frequency distribution of wind force (according to the Beaufort-scale) and direction, per month and for all months together.
- Table 2 Mean frequencies of wind forces greater than force 5, 6, 7, 8 and 9 Beaufort per month and for the whole year. In order to give an indication of possible deviations from the mean, also always the highest occurred frequency has been given together with the year of occurrence.
- Table 3 Mean frequencies of wind forces less than force 3, 4, 5 and 6 per month and for the whole year. Next to the mean frequency also the lowest occurred frequency has been given together with the year of occurrence.
- Table 4 Maximum reported wind force per individual month with mean and standard deviation per calendar month. In the case of missing observations it has been checked if during that time on a neighbouring lightvessel greater wind forces have been observed. If so, then such a value has been placed in parentheses. Missing values of Goeree mostly have been substituted by Texel, of Texel by Terschellingerbank, of Terschellingerbank by Texel and of Noord Hinder by Goeree.
- Diagram 5 Persistence of wind force (cumulative distribution)
 ≥ 6 , ≥ 7 , ≥ 8 , ≥ 9 , ≥ 10 , ≤ 2 , ≤ 3 , ≤ 4 and ≤ 5 Beaufort for winter and summer. Missing values have not been substituted in making these diagrams. Series running from one season into the next season have been incorporated with the season in which the series started.

For the preparation of the diagrams only really uninterrupted series of three-hourly observations obeying a given criterion have been used. In previous publications sometimes other methods have been followed, for example if two series with wind force N or more were only separated by one observation with wind force $N-1$, then these two series were counted as one.

In appendix 4 a comparison between both methods has been given for the lightvessel Goeree during the period 1961-1970. It appears that in the earlier used method the number of periods with a short duration (less than 12 hours) is a little bit smaller and that with a longer duration (more than 24 hours) somewhat larger. The general picture, however, does not change drastically.

Table 6 Frequency distribution of wave height (in steps of half metres) and direction (in sectors of 30 degrees) per month and for all months together. For the preparation of table 6 and the other wave tables from each observation the highest of sea or swell has been used. With equal heights the system with the longest period has been chosen (0 indicates a fraction $< 0.05\%$).

Table 7 Frequency of wave height and wave period for two direction sectors for all months together.

Table 8 Mean frequencies of wave heights greater than 1.75 m, 2.75 m and 3.75 m per month and for all months together.

To indicate the year-to-year variability also the highest occurred frequency has been given together with the year of occurrence.

Wave heights are reported in steps of 0.5 m. When for example a wave height of 2 m is reported this actually means that the wave height is estimated to lie between 1.75 m and 2.25 m. This explains the maybe somewhat curiously looking limits.

Table 9 Mean frequencies of wave heights lower than 0.25 m, 0.75 m and 1.25 m per month and for all months together. Next to the mean frequency also always the lowest occurred frequency has been given together with the year of occurrence.

Table 10 Maximum reported wave height per individual month with mean and standard deviation per calendar month. In the case of missing observations it has been checked if during that time on a neighbouring lightvessel higher waves have been observed. If so, then such a value has been placed in parentheses. Missing values of Goeree mostly have been substituted by Texel, of Texel by Terschellingerbank, of Terschellingerbank by Texel and of Noord Hinder by Goeree.

Diagram 11 Persistence of wave heights

$>^{3/4}$, $>1^{3/4}$, $>2^{3/4}$, $>3^{3/4}$, $>4^{3/4}$, $>1^{1/4}$, $<1^{1/4}$, $<1^{3/4}$, $<2^{1/4}$ metres for winter and summer.

Missing values have not been substituted in making these diagrams. For the rest, the same remarks as for diagram 5 apply.

Table 12 Relation between wave height and wind force. The table gives numbers (no relative frequencies) of simultaneous observations of certain wave heights and wind forces for two selected wind direction sectors for the whole year.

Table 13 Mean frequencies of visibility less than 200 m, 500 m, 1000 m, 2 km, 4 km and 10 km per month and for all months together. To indicate the year-to-year variability the highest frequency has also been given together with the year of occurrence.

Table 14 Diurnal variation of visibility. The table gives frequencies of visibility values ≤ 200 m, ≤ 1000 m and ≤ 4000 m for the hours 00, 03, 06, 09, 12, 15, 18 and 21 (GMT) per month and for the whole year.

Table 15 The occurrence of fog (visibility ≤ 1000 m) versus force and direction of the wind for each month.

Table 16 Distribution of air-sea temperature difference and the occurrence of fog (visibility ≤ 1000 m) per month.

Diagram 18 Persistence of visibilities ≤ 4000 m, ≤ 1000 m and ≤ 200 m for spring, summer, autumn and winter. Missing values have not been substituted in making these tables. For the rest, the remarks as for diagram 5 apply.

Table 19 Frequency distribution of air temperature with mean and standard deviation per month and for all months together. In this table the observations are arranged into intervals of one degree Celsius, regardless of the subdivision in tenths of degrees. The temperature of 0.0°C is included in the interval $+ 0,0$ to $+ 0.9^{\circ}\text{C}$.

In this table no relative frequencies, but numbers of observations have been given.

Table 20 Minimum, mean and maximum air temperature per individual month. For this table three-hourly observations have been used. So the minimum and maximum temperatures mentioned are respectively the lowest and highest reported three-hourly temperatures. When for a month observations for one or more days were lacking an asterisk has been placed behind the value for that month. The means and standard deviations per calendar month have been calculated without the marked values.

Table 21 Frequency distribution of sea surface temperature with mean and standard deviation per month and for all months together. In this table the observations are arranged into intervals of one degree Celsius. No relative frequencies, but numbers of observations have been given.

Table 22 Minimum, mean and maximum sea surface temperature per individual month. For this table three-hourly observations have been used. So the minimum and maximum temperatures mentioned are respectively the lowest and highest reported three-hourly temperatures. When for a month observations for one or more days were lacking an asterisk has been placed behind the value for that month. The means and standard deviations per calendar month have been calculated without the marked values.

TABEL 1

GOEREE WINDDIRECTION AND FORCE J A N U A R Y 1949-1970 (5454 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H				E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	3.67	2.75	2.38	2.38	3.30	2.20	4.77	4.40	5.50	2.02	4.03	4.77	14.12	-	14.12	
02	6.78	3.12	3.48	2.93	5.32	7.88	10.63	10.45	12.83	5.50	6.05	4.22	-	-	42.17	
03	13.20	7.33	6.60	13.02	17.60	14.85	16.69	23.29	25.85	16.13	15.58	14.12	-	-	79.21	
04	13.93	7.70	12.65	19.07	22.19	17.24	29.70	35.57	37.04	21.27	23.10	22.00	-	-	184.27	
05	10.82	5.13	8.98	13.02	16.32	10.27	10.27	21.27	30.99	15.95	15.95	18.39	-	-	261.46	
06	10.45	3.85	4.22	10.27	13.93	6.42	2.38	8.25	22.37	17.79	13.20	13.75	-	-	177.05	
07	8.07	2.38	0.92	4.22	6.05	1.47	1.47	4.22	10.08	9.35	7.88	12.28	-	-	126.88	
08	2.38	1.83	0.18	1.65	2.93	0.55	0.37	2.38	4.40	3.30	7.52	4.77	-	-	68.39	
09	0.18	0.73	-	0.37	1.10	0.37	-	1.28	4.40	3.30	7.52	4.77	-	-	32.27	
10	-	-	-	0.37	-	-	-	-	1.47	0.73	2.93	1.10	-	-	10.27	
11	-	-	-	-	-	-	-	-	0.18	0.37	1.10	0.92	-	-	2.93	
12	-	-	-	-	-	-	-	-	-	-	-	0.18	-	-	0.18	
TOTAL	69.49	34.84	39.42	67.29	88.74	61.24	76.27	111.11	150.72	92.41	97.36	96.99	14.12	-	1000.00	

GOEREE WINDDIRECTION AND FORCE F E B R U A R Y 1949-1970 (4967 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H				E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	4.03	3.02	3.83	3.62	2.62	2.42	6.04	6.24	6.24	4.43	3.83	3.22	12.08	-	12.08	
02	8.46	5.44	5.44	8.25	8.05	7.25	10.47	12.48	8.66	8.66	7.45	4.43	-	-	49.53	
03	14.09	13.89	15.70	16.91	19.73	16.51	20.74	24.16	23.96	24.76	16.71	10.47	-	-	95.03	
04	20.94	10.27	17.52	31.21	33.62	23.56	19.93	27.18	23.76	36.84	18.92	13.49	-	-	217.64	
05	12.48	6.85	7.85	22.15	13.69	7.05	3.83	15.10	24.16	22.35	13.89	11.68	-	-	277.23	
06	8.46	5.44	5.44	15.10	10.67	3.62	1.61	8.05	17.52	13.89	13.09	9.26	-	-	161.06	
07	4.43	1.61	4.03	5.03	8.46	-	0.40	2.42	4.23	4.03	3.09	9.26	-	-	112.54	
08	4.03	1.01	1.21	0.20	1.61	-	0.20	1.61	1.01	4.03	7.25	6.04	-	-	47.92	
09	1.01	0.20	0.60	-	-	-	0.40	-	0.40	2.01	3.22	3.42	-	-	19.53	
10	1.01	-	-	-	-	-	-	-	0.60	0.60	1.01	0.60	-	-	4.83	
11	0.60	-	-	-	-	-	-	-	0.20	0.40	-	0.40	-	-	2.01	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.60	
TOTAL	79.93	47.71	61.61	102.48	98.45	60.40	63.62	97.24	110.13	117.98	85.36	63.02	12.08	-	1000.00	

TABEL 1

GOEREE WINDDIRECTION AND FORCE M A R C H 1949-1970 (5455 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H				E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	4.77	4.40	5.13	5.32	5.68	5.87	8.98	7.15	7.70	5.32	4.03	2.93	21.26	-	21.26	
02	8.25	10.63	12.65	11.73	8.62	12.28	15.40	13.38	11.00	11.55	8.80	5.32	-	-	67.26	
03	10.82	11.37	21.08	20.35	21.26	22.00	20.35	22.18	21.26	24.01	12.65	6.07	-	-	129.01	
04	17.78	14.30	27.86	32.45	31.71	28.96	19.80	20.35	27.68	36.64	19.80	17.23	-	-	215.40	
05	12.28	6.78	13.20	19.43	14.30	8.80	2.20	5.13	12.10	24.01	12.65	9.53	-	-	294.59	
06	10.08	3.12	5.50	9.35	9.90	3.30	-	2.02	10.08	14.48	5.13	11.73	-	-	140.60	
07	3.85	1.65	1.65	2.02	2.02	1.28	0.18	0.73	4.95	7.15	3.12	11.73	-	-	34.69	
08	1.10	0.92	0.92	1.65	-	-	-	-	1.65	2.75	1.10	3.12	-	-	31.71	
09	1.28	0.18	-	-	-	-	-	-	0.18	0.92	0.18	1.28	-	-	11.37	
10	0.18	-	-	-	-	-	-	-	-	-	-	-	-	-	2.75	
11	0.37	-	-	-	-	-	-	-	-	-	-	0.18	-	-	0.37	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37	
TOTAL	70.76	53.35	87.99	102.29	93.49	82.49	66.91	70.94	90.61	126.86	67.64	59.40	21.26	-	1000.00	

GOEREE WINDDIRECTION AND FORCE A P R I L 1949-1970 (5102 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H				E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	5.88	5.44	7.64	6.66	4.90	7.64	6.66	6.27	5.68	4.70	7.45	4.70	26.66	-	26.66	
02	11.17	9.21	14.90	8.62	7.64	8.23	13.13	11.96	14.70	15.68	11.56	7.45	-	-	73.70	
03	23.13	28.03	32.54	18.23	11.76	12.15	13.13	17.84	24.89	33.12	23.91	11.56	-	-	134.20	
04	23.52	39.40	47.24	16.86	10.58	8.43	7.25	18.42	27.64	48.22	19.60	11.56	-	-	250.29	
05	17.44	23.91	29.01	12.35	3.92	0.98	1.37	4.70	16.46	19.80	6.27	7.64	-	-	279.11	
06	5.60	8.82	11.56	5.10	1.18	-	-	2.16	9.02	13.52	6.27	3.53	-	-	143.87	
07	2.55	1.57	1.76	0.59	-	-	-	0.20	3.33	6.66	1.76	3.53	-	-	60.84	
08	0.59	0.59	0.39	-	-	-	-	-	-	0.59	0.98	0.39	-	-	21.36	
09	-	-	-	-	-	-	-	-	-	0.20	-	0.20	-	-	3.53	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	89.96	117.01	145.04	68.40	39.98	37.44	41.55	61.54	101.72	142.49	77.81	50.37	26.66	-	1000.00	

TABLE 1

GOEREE		WIND DIRECTION AND FORCE										M A Y		1949-1970		(5250 OBS.)
		PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE														
		N O R T H			E A S T			S O U T H			W E S T					
FORCE	BFT	320	350	020	050	080	110	140	170	200	230	260	290	CALM OR	TOTAL	
		340	010	040	070	100	130	160	190	220	250	280	310	VARIABLE		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	4.30	4.38	6.10	7.43	7.24	8.00	8.76	6.48	8.95	7.81	6.67	5.90	32.19	-	32.19	
02	9.14	7.81	16.76	11.05	9.71	10.29	12.57	11.43	13.33	16.57	12.38	9.33	-	-	81.71	
03	20.38	22.86	36.19	17.71	22.29	12.76	12.19	19.62	24.95	36.57	23.24	14.67	-	-	140.38	
04	27.35	41.90	48.95	19.43	17.90	5.52	6.29	12.95	24.00	49.90	18.48	12.57	-	-	263.43	
05	13.71	22.86	26.10	4.95	2.10	0.95	1.90	2.48	10.48	28.00	6.76	6.86	-	-	284.95	
06	5.71	7.43	5.71	1.52	0.57	-	0.19	1.90	4.38	16.76	3.24	2.67	-	-	129.14	
07	0.57	1.33	0.57	1.71	-	-	-	0.19	2.86	5.14	1.52	0.57	-	-	50.10	
08	-	-	-	-	-	-	-	-	0.38	0.95	0.76	0.57	-	-	14.46	
09	-	-	-	-	-	-	-	-	-	0.38	0.38	0.19	-	-	0.95	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	60.57	108.57	140.38	63.81	59.81	37.52	41.90	55.05	89.33	162.10	75.43	53.33	32.19	1000.00		

GOEREE		WIND DIRECTION AND FORCE										J U N E		1949-1970		(5071 OBS.)
		PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE														
		N O R T H			E A S T			S O U T H			W E S T					
FORCE	BFT	320	350	020	050	080	110	140	170	200	230	260	290	CALM OR	TOTAL	
		340	010	040	070	100	130	160	190	220	250	280	310	VARIABLE		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	6.51	4.93	10.45	7.30	4.34	3.94	6.51	8.09	5.52	7.89	8.09	5.52	36.68	-	36.68	
02	9.07	11.83	20.31	11.04	5.52	5.52	7.10	10.45	16.56	16.34	17.95	9.66	-	-	79.06	
03	24.26	27.21	34.12	16.76	12.82	9.07	8.09	12.82	24.45	41.21	25.04	12.62	-	-	143.36	
04	20.31	45.55	46.74	25.83	11.83	3.94	2.17	8.28	27.21	64.68	25.42	17.55	-	-	246.47	
05	12.33	19.52	22.68	7.10	1.38	0.59	0.59	1.77	10.06	38.06	10.45	6.90	-	-	300.53	
06	5.72	5.72	4.14	0.59	-	-	0.20	0.59	3.94	23.86	2.37	2.37	-	-	131.14	
07	1.38	0.20	-	-	-	-	-	-	0.99	4.54	1.36	0.20	-	-	49.50	
08	1.38	-	-	-	-	-	-	-	-	-	0.59	0.39	-	-	6.60	
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.37	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	80.35	114.97	138.43	68.63	35.89	23.07	24.65	42.00	88.74	198.58	92.29	55.22	36.68	1000.00		

TABLE 1

GOEREE		WIND DIRECTION AND FORCE										J U L Y		1949-1970		(5012 OBS.)
		PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE														
		N O R T H			E A S T			S O U T H			W E S T					
FORCE	BFT	320	350	020	050	080	110	140	170	200	230	260	290	CALM OR	TOTAL	
		340	010	040	070	100	130	160	190	220	250	280	310	VARIABLE		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	5.19	6.19	6.76	5.79	6.19	5.99	3.79	5.19	5.99	7.18	-	-	27.13	-	27.13	
02	11.77	6.58	12.17	9.78	6.38	6.38	8.58	4.79	11.97	18.75	13.17	6.36	-	-	73.42	
03	26.74	20.15	21.95	11.17	9.98	8.78	6.96	10.77	16.95	40.10	32.32	19.95	-	-	120.71	
04	42.10	30.13	31.72	10.57	8.38	6.58	3.99	7.58	22.75	69.23	40.70	27.33	-	-	227.65	
05	15.55	11.97	14.37	1.60	0.80	0.20	-	2.79	13.37	54.47	20.35	13.17	-	-	301.08	
06	3.58	1.00	0.80	0.20	-	-	-	1.00	7.58	32.12	10.77	5.19	-	-	152.04	
07	2.79	-	0.80	-	-	-	-	-	1.60	13.17	2.39	1.40	-	-	37.24	
08	0.40	-	-	-	-	-	-	-	1.00	3.79	1.20	0.80	-	-	22.15	
09	0.40	-	-	-	-	-	-	-	0.40	0.40	-	-	-	-	7.16	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.20	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	117.12	76.02	88.59	39.11	31.72	29.93	23.34	32.12	83.60	259.23	126.09	63.80	27.13	1000.00		

GOEREE		WIND DIRECTION AND FORCE										A U G U S T		1949-1970		(5196 OBS.)
		PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE														
		N O R T H			E A S T			S O U T H			W E S T					
FORCE	BFT	320	350	020	050	080	110	140	170	200	230	260	290	CALM OR	TOTAL	
		340	010	040	070	100	130	160	190	220	250	280	310	VARIABLE		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	7.70	5.19	3.56	4.81	7.70	4.81	4.23	6.16	5.19	5.39	5.58	4.42	25.59	-	25.59	
02	12.70	12.70	15.01	11.16	9.23	12.31	10.39	7.69	11.35	16.93	10.39	10.97	-	-	69.33	
03	24.82	20.78	27.90	16.35	15.78	15.58	15.39	10.39	25.97	31.17	20.39	16.54	-	-	141.02	
04	16.85	19.62	26.74	12.31	12.69	11.93	6.93	12.50	30.97	58.10	39.63	24.43	-	-	241.05	
05	11.74	9.43	7.50	2.89	0.77	0.19	1.54	6.73	16.74	36.94	25.59	15.39	-	-	274.91	
06	6.46	2.69	1.35	-	-	-	0.58	2.12	10.97	25.76	14.04	10.97	-	-	135.44	
07	1.54	-	0.19	-	-	-	-	0.77	4.23	9.61	5.39	2.50	-	-	76.95	
08	0.78	-	-	-	-	-	-	-	1.15	4.42	1.73	1.92	-	-	24.43	
09	-	-	-	-	-	-	-	-	-	0.58	-	0.38	-	-	9.62	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.96	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	66.19	70.41	87.34	47.52	46.36	44.82	39.05	46.56	106.58	189.11	122.93	87.53	25.59	1000.00		

GOEREE WINDDIRECTION AND FORCE S E P T E M B E R 1949-1970 (4817 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	26.57	-
01	3.32	5.61	5.61	3.94	6.85	5.81	6.44	6.02	5.40	3.74	2.91	2.70	-	26.57
02	9.34	5.19	9.76	11.00	12.66	9.55	14.74	13.49	9.55	9.96	7.47	7.89	-	58.34
03	9.76	11.21	23.67	22.01	23.87	19.93	22.21	21.59	24.70	21.59	16.19	13.91	-	120.61
04	14.74	14.12	23.67	22.42	27.61	15.78	14.32	22.42	25.53	39.65	30.10	21.80	-	250.64
05	12.04	5.19	7.89	9.96	7.89	6.23	3.94	8.72	17.65	31.55	26.78	19.51	-	272.16
06	7.27	2.28	0.83	1.45	3.53	1.25	0.42	3.32	17.23	19.31	14.74	17.65	-	157.36
07	2.28	0.42	-	0.42	0.21	-	-	1.04	4.77	7.89	7.27	6.02	-	89.27
08	0.62	-	-	-	-	-	-	-	2.49	6.23	1.25	1.45	-	30.51
09	-	-	-	-	-	-	-	0.21	0.42	1.66	0.42	-	-	12.04
10	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	59.37	44.01	71.41	71.21	82.62	58.54	62.07	76.61	107.74	141.58	107.12	90.93	26.57	1000.00

GOEREE WINDDIRECTION AND FORCE O C T O B E R 1949-1970 (5292 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	21.92	21.92
01	3.02	2.46	4.72	3.40	4.91	6.80	7.75	5.67	3.21	4.72	3.21	2.08	-	51.97
02	5.85	3.74	6.99	8.88	6.99	13.61	13.42	10.20	9.64	7.18	4.16	2.83	-	93.54
03	10.02	10.02	9.45	13.79	18.33	20.60	24.75	24.94	24.19	15.68	13.42	6.24	-	191.42
04	14.93	12.66	7.37	13.79	28.72	31.18	22.86	30.61	42.89	29.67	29.67	20.22	-	264.56
05	12.47	5.29	3.78	5.86	9.26	6.42	5.86	17.01	31.37	23.05	25.32	14.74	-	160.43
06	6.80	4.54	2.08	0.94	2.08	1.32	1.51	9.64	20.41	24.57	23.05	14.55	-	111.49
07	4.54	4.72	1.13	1.70	0.19	0.38	0.76	3.78	9.64	9.26	6.80	10.20	-	53.10
08	5.10	0.57	0.94	-	-	-	0.19	0.57	4.72	3.59	2.08	6.42	-	24.39
09	0.94	0.76	0.19	-	-	-	-	-	0.94	0.57	0.38	2.27	-	6.05
10	0.38	-	-	-	-	-	-	-	0.38	0.38	-	-	-	1.13
11	-	-	-	-	-	-	-	-	0.19	-	-	-	-	0.19
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	64.05	44.78	36.66	48.37	70.48	80.31	77.10	102.42	147.58	118.67	108.09	79.55	21.92	1000.00

TABEL 1

GOEREE WINDDIRECTION AND FORCE N O V E M B E R 1949-1970 (5278 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	10.23	10.23
01	1.71	0.76	2.08	2.65	3.03	2.46	6.06	1.69	3.41	1.71	0.95	1.52	-	28.23
02	2.65	3.41	5.49	4.93	8.34	7.20	13.26	6.63	6.06	2.46	4.55	2.54	-	67.55
03	7.96	6.82	10.99	8.72	20.46	17.43	24.44	24.06	17.62	7.96	15.35	8.90	-	170.71
04	14.59	12.50	9.47	12.13	31.26	22.17	21.03	39.22	43.20	16.95	21.93	19.14	-	265.63
05	14.02	9.28	7.39	6.44	19.51	8.53	10.23	28.61	26.53	17.24	13.07	14.21	-	176.01
06	7.56	9.09	4.55	7.39	7.77	6.63	6.25	19.33	27.85	20.84	13.45	12.88	-	142.67
07	7.01	4.17	1.89	2.65	1.52	4.55	2.65	12.69	14.78	10.04	11.75	6.44	-	80.14
08	3.22	1.33	0.19	1.89	-	2.46	0.76	3.79	6.25	9.09	4.17	7.39	-	40.55
09	1.71	0.57	-	0.76	-	-	-	0.19	0.76	2.65	2.64	3.60	-	13.07
10	0.19	0.57	-	0.38	-	-	-	-	0.19	0.57	0.95	1.14	-	3.96
11	-	-	-	-	-	-	-	-	-	0.19	0.19	0.57	-	0.95
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	60.63	48.50	42.06	47.93	91.89	71.43	84.69	136.42	146.65	91.70	89.24	78.63	10.23	1000.00

GOEREE WINDDIRECTION AND FORCE D E C E M B E R 1949-1970 (5456 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	11.00	11.00
01	2.75	1.10	1.47	1.83	3.85	3.30	6.60	5.13	4.40	3.67	2.38	2.57	-	39.04
02	3.35	2.38	3.35	2.93	4.58	6.60	8.80	8.61	12.10	6.96	4.58	3.85	-	69.10
03	9.16	7.70	8.25	9.35	15.76	14.85	17.23	23.46	24.56	14.48	12.28	8.98	-	166.06
04	14.48	11.18	13.56	13.38	28.41	27.13	15.40	32.81	35.92	23.83	20.71	22.91	-	259.71
05	10.08	4.95	3.48	8.80	16.31	7.88	9.53	22.18	29.51	23.28	23.28	17.96	-	177.24
06	13.75	5.68	3.67	10.85	9.16	2.20	4.77	16.86	28.59	21.08	17.23	16.86	-	150.29
07	5.87	1.28	2.20	2.20	2.57	0.37	2.57	2.93	18.15	12.65	8.98	9.53	-	89.28
08	2.93	-	0.18	0.55	1.47	1.65	0.37	2.93	10.26	5.32	9.35	4.58	-	39.59
09	2.02	-	-	-	-	0.37	0.18	-	2.02	2.38	2.57	3.12	-	12.65
10	0.18	-	-	-	-	-	-	-	0.18	0.37	0.55	2.93	-	4.22
11	0.73	-	-	-	-	-	-	-	-	0.37	-	-	-	1.83
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	65.80	34.27	36.66	49.49	82.11	64.33	65.43	114.92	165.69	114.37	101.91	94.02	11.00	1000.00

GOREE		WIND DIRECTION AND FORCE											ALL MONTHS		1949-1970 (62352 OBS.)	
		PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE														
		N O R T H			E A S T			S O U T H			W E S T					
FORCE	BFT	320	350	020	350	080	110	140	170	200	230	260	290	CALM OR	TOTAL	
		340	010	040	070	100	130	160	190	220	250	280	310	VARIABLE		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	22.00	22.00	
01	4.30	3.82	5.36	4.57	5.04	4.92	6.40	5.71	5.60	4.86	4.68	3.98	-	-	59.31	
02	8.20	6.82	10.50	8.47	7.71	9.11	11.55	10.14	11.48	11.47	8.98	6.38	-	-	110.81	
03	16.10	15.49	20.53	15.30	17.48	15.41	16.89	19.66	23.45	25.39	18.81	12.11	-	-	218.82	
04	20.16	21.46	25.95	19.09	22.18	17.03	14.29	22.50	30.87	41.09	25.66	19.23	-	-	279.51	
05	12.14	10.87	12.62	9.64	8.98	4.91	4.35	11.52	20.06	27.70	16.86	13.05	-	-	151.89	
06	8.29	4.99	4.17	5.18	4.99	2.10	1.52	6.37	15.11	20.30	11.40	10.17	-	-	94.59	
07	3.78	1.64	1.27	1.75	1.76	0.69	0.69	2.45	6.75	8.34	5.48	5.16	-	-	39.70	
08	1.86	0.53	0.34	0.51	0.51	0.40	0.16	0.96	2.84	3.51	2.89	2.82	-	-	17.34	
09	0.64	0.21	0.06	0.10	0.10	0.06	0.05	0.14	0.56	0.93	0.91	0.93	-	-	4.75	
10	0.16	0.05	-	0.06	-	-	-	-	0.10	0.18	0.24	0.48	-	-	1.27	
11	0.14	-	-	-	-	-	-	-	0.02	0.05	0.02	0.13	-	-	0.35	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	76.85	65.87	80.80	64.65	68.75	54.64	55.89	79.45	116.84	143.81	95.94	74.50	22.00	1000.00		

TABEL 1

NOORDHINDER WINDDIRECTION AND FORCE J A N U A R Y 1953-1980 (6693 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.84	1.20	2.54	0.75	2.69	3.74	4.48	4.63	3.44	2.84	3.59	3.68	10.76	10.76
02	4.48	3.59	2.09	2.84	6.87	7.02	11.21	8.07	6.72	5.53	7.47	5.53	-	36.61
03	8.22	7.02	7.17	9.41	13.00	14.79	17.03	21.66	16.44	11.35	14.64	12.25	-	71.42
04	22.26	9.11	10.01	14.94	21.22	13.90	30.48	51.25	27.79	24.80	29.58	23.16	-	153.00
05	16.88	5.83	4.63	11.80	12.55	7.47	10.16	25.10	22.41	21.07	23.61	17.33	-	276.50
06	15.69	4.03	2.09	12.70	8.22	4.63	7.02	18.53	19.57	18.23	15.09	12.70	-	178.04
07	6.87	1.64	2.99	5.98	7.32	3.74	2.24	10.16	11.50	7.17	10.61	7.17	-	138.50
08	2.39	0.60	1.49	1.79	4.48	1.79	0.75	3.88	6.13	5.95	5.63	5.23	-	77.39
09	1.65	0.30	0.45	0.45	0.15	-	-	1.05	1.79	1.05	2.39	1.79	-	40.34
10	0.15	0.15	0.30	-	-	-	-	0.30	0.15	0.15	0.15	1.79	-	11.00
11	-	-	-	-	-	-	-	-	0.30	0.15	0.15	1.79	-	2.69
12	-	-	-	-	-	-	-	-	-	0.30	0.15	0.30	-	0.75
TOTAL	80.83	33.47	33.77	60.66	76.50	57.07	83.97	144.33	116.09	98.46	113.10	90.99	10.76	1000.00

NOORDHINDER WINDDIRECTION AND FORCE F E B R U A R Y 1953-1980 (6191 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.42	3.55	4.36	2.91	5.01	4.04	5.81	5.01	4.85	3.88	2.58	3.23	12.00	12.00
02	5.33	3.88	7.75	7.59	10.82	10.18	10.66	10.34	11.79	7.43	10.50	9.53	-	47.05
03	13.73	9.05	14.86	12.28	30.21	17.61	21.16	21.97	17.93	17.77	17.12	14.54	-	165.00
04	20.35	11.31	16.31	25.04	38.44	27.14	23.26	26.97	23.56	28.43	23.91	17.61	-	206.21
05	11.15	11.31	8.08	14.86	21.32	9.21	9.37	13.41	15.99	21.00	16.96	11.79	-	262.35
06	8.24	4.68	5.81	15.34	14.05	3.88	3.23	10.66	12.28	15.51	10.18	6.46	-	104.43
07	3.88	1.78	1.62	6.14	5.33	0.32	0.16	3.88	3.55	7.11	5.81	4.20	-	110.32
08	2.58	1.29	1.62	1.62	0.48	0.32	-	1.29	1.13	2.10	2.26	3.72	-	43.77
09	0.48	0.65	0.48	0.16	-	-	-	0.48	0.48	0.97	1.29	0.48	-	18.41
10	0.32	0.16	-	-	-	-	-	0.16	0.16	-	-	-	-	5.45
11	-	-	-	-	-	-	-	-	0.16	0.16	-	-	-	0.61
12	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16
TOTAL	68.49	47.65	60.89	85.93	125.67	72.69	73.66	94.01	91.91	104.35	90.62	71.56	12.00	1000.00

TABEL 1

NOORDHINDER WINDDIRECTION AND FORCE M A R C H 1953-1980 (6886 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	3.34	3.19	4.65	4.36	6.53	6.39	7.26	6.53	7.41	5.66	2.76	3.92	12.05	12.05
02	5.37	7.26	9.73	7.26	12.49	12.34	16.41	8.28	10.02	9.58	6.71	5.81	-	62.01
03	12.34	12.20	12.78	20.19	29.48	21.20	19.46	20.48	18.88	25.56	14.09	13.51	-	113.27
04	18.01	15.68	25.70	33.98	40.52	22.07	20.04	23.82	31.80	37.47	25.27	17.28	-	220.16
05	9.06	6.97	10.31	14.67	17.57	6.39	3.19	9.00	15.83	26.87	12.92	10.02	-	311.85
06	5.95	5.08	5.37	15.39	9.29	4.79	1.02	4.79	6.86	15.10	8.86	6.39	-	142.75
07	3.67	1.16	2.03	3.34	2.90	0.87	0.15	2.18	6.39	6.97	2.76	1.31	-	90.91
08	0.29	1.16	0.44	0.87	1.02	-	-	-	1.74	1.60	1.74	1.60	-	33.69
09	0.15	-	-	0.58	0.44	-	-	-	0.73	0.29	0.44	0.15	-	10.46
10	-	-	-	-	-	-	-	-	-	-	-	-	-	2.70
11	-	-	-	-	-	-	-	-	-	-	-	-	-	0.29
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	58.09	52.72	71.01	100.64	120.24	74.06	67.53	75.06	101.66	129.10	77.55	60.27	12.05	1000.00

NOORDHINDER WINDDIRECTION AND FORCE A P R I L 1953-1980 (6714 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	6.55	5.21	10.13	5.81	7.60	8.04	6.85	7.60	7.45	4.32	5.51	4.47	22.04	22.04
02	6.85	8.79	15.19	9.38	14.30	13.11	11.02	12.36	13.70	15.04	7.89	8.19	-	75.54
03	14.60	17.58	31.13	22.79	16.25	11.62	13.26	11.92	23.53	25.77	17.28	11.92	-	155.04
04	22.64	37.28	56.60	37.98	17.43	7.30	8.79	9.38	55.81	40.81	18.92	14.45	-	217.61
05	12.96	23.09	30.68	22.19	4.92	0.89	0.74	2.53	12.81	17.28	9.68	5.66	-	305.46
06	7.00	8.79	11.62	11.77	2.09	-	-	0.45	10.45	11.62	5.06	2.23	-	143.43
07	1.34	2.09	1.94	2.23	0.30	-	-	0.15	3.72	4.02	1.94	1.49	-	71.05
08	1.04	0.45	0.45	-	-	-	-	-	1.04	0.30	0.45	0.60	-	19.21
09	0.45	-	-	-	-	-	-	-	0.15	0.15	-	-	-	4.32
10	-	-	-	-	-	-	-	-	-	-	-	-	-	0.74
11	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	73.43	102.37	157.73	112.15	62.85	40.96	40.66	44.38	106.64	119.30	60.88	49.00	22.04	1000.00

TABEL 1

NOORDHINDER

WINDDIRECTION AND FORCE

M A Y

1953-1980 (6945 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE KFT	N O R T H				E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	5.91	6.05	9.65	7.06	8.64	8.93	5.51	9.94	12.24	8.64	6.19	-	23.19	23.19		
02	8.21	8.35	15.41	14.55	15.70	12.67	15.99	13.39	22.90	15.84	12.82	6.91	-	99.67		
03	14.55	21.89	26.21	23.33	27.51	15.12	11.52	14.26	31.83	31.40	14.55	7.06	-	162.90		
04	19.01	32.26	42.78	33.13	20.45	7.35	8.07	13.54	42.78	43.06	17.00	10.37	-	242.55		
05	5.76	15.12	23.32	11.38	3.46	0.14	0.14	4.03	18.56	23.19	5.33	3.02	-	290.22		
06	2.74	6.34	9.51	6.77	1.15	-	0.29	0.58	8.50	11.52	3.46	0.86	-	113.50		
07	0.47	0.29	1.58	1.73	-	-	-	0.43	3.02	4.03	0.86	0.14	-	51.71		
08	-	-	0.29	-	-	-	-	-	5.02	1.58	0.86	0.14	-	12.53		
09	-	-	-	-	-	-	-	-	0.43	1.58	0.58	0.14	-	3.02		
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11	-	-	-	-	-	-	-	0.14	0.14	-	0.43	-	-	0.72		
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
TOTAL	56.60	90.31	128.76	97.94	76.91	44.22	45.51	56.32	140.43	139.26	61.21	39.32	23.19	1000.00		

NOORDHINDER

WINDDIRECTION AND FORCE

J U N E

1953-1980 (6719 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE KFT	N O R T H				E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	5.36	7.14	11.16	7.59	9.97	6.70	7.59	10.12	11.16	11.01	8.33	3.72	36.21	36.21		
02	8.93	9.82	20.09	17.71	13.99	10.57	9.23	12.06	24.11	24.56	13.39	8.78	-	99.67		
03	16.67	20.69	32.89	25.90	16.82	7.29	6.55	8.33	31.85	43.76	22.03	11.01	-	173.24		
04	17.86	34.08	44.05	27.98	8.04	1.93	1.79	8.93	47.18	65.49	23.22	12.50	-	243.74		
05	5.51	10.42	21.58	6.25	1.34	0.30	1.04	2.08	19.50	25.60	6.70	4.02	-	293.05		
06	3.13	4.46	3.13	2.53	0.15	-	0.30	0.30	8.33	13.39	2.68	1.93	-	104.53		
07	1.93	0.45	-	-	-	-	-	0.15	2.23	13.39	0.45	0.74	-	40.33		
08	0.30	-	-	-	-	-	-	-	0.15	1.49	0.45	0.74	-	7.44		
09	-	-	-	-	-	-	-	-	0.15	0.30	-	0.74	-	1.49		
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11	-	-	-	-	-	-	-	-	0.15	-	-	-	-	0.15		
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
TOTAL	59.66	87.07	132.91	87.96	50.31	26.79	26.49	41.97	144.66	185.59	76.30	43.46	36.21	1000.00		

TABEL 1

NOORDHINDER

WINDDIRECTION AND FORCE

J U L Y

1953-1980 (6693 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE KFT	N O R T H				E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	5.38	5.68	11.65	8.82	11.36	7.47	8.07	9.11	8.52	9.71	7.62	-	29.73	29.73		
02	11.36	9.71	15.69	11.65	11.80	10.76	5.98	7.02	17.03	16.68	13.15	7.02	-	100.40		
03	22.66	20.62	31.23	20.62	14.49	9.56	6.28	9.71	26.09	40.32	20.77	10.01	-	142.64		
04	21.52	33.02	35.11	20.92	6.72	1.05	1.79	5.83	37.20	60.66	27.94	21.22	-	249.22		
05	10.91	11.95	10.91	3.59	0.60	-	0.30	2.24	16.88	37.05	10.46	6.72	-	292.99		
06	2.49	3.44	1.20	0.45	-	-	-	0.90	10.76	23.61	5.68	1.94	-	111.61		
07	1.79	1.34	-	-	-	-	-	0.30	5.08	7.62	1.94	0.90	-	50.95		
08	0.30	-	-	-	-	-	-	-	1.20	1.94	-	0.90	-	18.96		
09	0.30	-	-	-	-	-	-	-	0.30	0.75	-	0.30	-	2.54		
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11	-	-	-	-	-	-	-	-	0.15	-	-	-	-	0.60		
12	-	-	-	-	-	-	-	-	-	-	-	-	-	0.15		
TOTAL	77.39	85.76	105.78	66.04	44.97	28.84	22.41	35.11	125.21	224.41	87.55	66.79	29.73	1000.00		

NOORDHINDER

WINDDIRECTION AND FORCE

A U G U S T

1953-1980 (6831 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE KFT	N O R T H				E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	6.44	5.56	9.95	9.22	8.20	6.88	4.98	8.49	8.20	6.00	7.61	5.56	24.69	24.69		
02	8.34	9.52	19.76	14.49	15.08	13.32	9.22	7.61	13.32	13.91	12.30	9.95	-	67.10		
03	17.86	16.54	26.06	29.57	22.40	13.47	8.93	8.78	24.30	33.23	26.94	16.69	-	146.63		
04	20.93	20.20	25.62	30.45	19.32	8.93	3.95	10.39	30.60	58.65	34.11	21.52	-	244.77		
05	7.07	7.91	3.66	3.51	4.54	1.46	0.24	4.25	19.32	40.26	17.57	9.61	-	264.66		
06	4.66	3.07	1.61	0.44	0.29	0.15	0.15	2.05	10.96	23.57	10.96	5.42	-	119.60		
07	1.45	1.17	-	-	-	-	-	0.29	3.95	7.32	3.07	2.34	-	63.60		
08	0.15	-	-	-	-	-	-	0.29	1.32	3.22	1.46	1.17	-	19.70		
09	0.15	-	-	-	-	-	-	-	0.44	0.44	0.15	0.15	-	6.61		
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
TOTAL	67.34	63.97	86.66	87.69	69.83	44.21	27.67	42.16	111.99	166.80	114.19	72.61	24.69	1000.00		

TABEL 1

NOORDHINDER WINDDIRECTION AND FORCE SEPTEMBER 1953-1960 (6642 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	24.64	24.64
01	3.46	6.02	9.94	7.68	7.53	6.93	6.62	8.13	8.28	5.57	5.72	4.97	-	80.65
02	7.68	6.78	13.55	13.10	13.55	14.30	12.65	9.33	16.11	12.95	8.13	6.62	-	134.75
03	11.74	11.59	22.28	18.22	21.23	14.60	18.37	14.75	20.63	23.79	18.97	13.85	-	210.03
04	16.26	13.85	19.57	25.90	26.05	13.40	10.24	17.16	27.40	44.41	32.67	23.49	-	270.46
05	10.09	4.82	6.17	5.87	7.53	5.87	4.82	9.18	18.07	30.26	21.08	13.10	-	136.86
06	6.78	2.41	2.26	1.20	1.20	1.20	0.90	4.97	14.75	24.54	15.81	11.74	-	87.77
07	2.11	0.75	1.05	0.15	-	-	0.60	1.66	7.98	9.03	6.47	5.87	-	35.66
08	1.05	-	0.15	-	-	-	-	1.66	3.16	3.16	1.20	1.81	-	12.20
09	1.20	0.15	-	-	-	-	-	0.60	1.96	0.60	0.90	0.45	-	5.87
10	-	-	-	-	-	-	-	-	0.15	0.45	-	0.15	-	0.75
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	60.37	46.37	74.98	72.12	77.09	56.31	54.20	67.45	118.49	154.77	110.96	82.05	24.64	1000.00

NOORDHINDER WINDDIRECTION AND FORCE OCTOBER 1953-1960 (6910 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	20.98	20.98
01	3.47	3.18	3.76	2.89	4.34	7.53	7.09	9.41	7.96	4.05	3.76	2.46	0.14	60.00
02	6.66	5.55	7.53	5.21	8.54	11.43	15.20	15.77	9.26	6.97	7.96	4.63	-	106.51
03	11.29	6.22	8.68	8.68	18.38	16.23	25.18	24.89	19.68	18.23	18.52	15.34	-	193.34
04	19.10	12.74	10.85	13.89	27.50	25.90	24.75	34.01	32.85	31.11	35.17	18.81	-	260.69
05	11.72	5.64	5.64	8.83	8.25	6.37	7.53	17.08	16.93	20.12	21.42	15.34	-	144.86
06	12.01	4.63	3.18	2.17	3.91	2.60	2.75	10.13	13.75	18.96	17.80	12.16	-	104.05
07	7.81	3.04	1.30	2.46	1.45	0.87	0.14	3.91	6.08	8.10	5.07	8.97	-	49.20
08	5.50	2.46	0.58	-	-	0.14	0.58	3.04	2.75	4.05	2.03	3.91	-	29.04
09	1.88	1.16	0.58	-	-	-	-	0.58	1.16	-	-	0.72	-	6.66
10	0.29	0.29	-	-	-	-	-	-	0.43	0.29	1.01	-	-	2.32
11	-	-	-	-	-	-	-	-	-	0.14	-	-	-	0.29
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	79.74	44.72	42.11	44.14	72.36	73.08	83.21	118.8	109.99	115.34	112.01	83.36	21.13	1000.00

TABEL 1

NOORDHINDER WINDDIRECTION AND FORCE NOVEMBER 1953-1960 (6717 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	3.04	3.04
01	1.79	2.23	3.13	2.68	2.83	2.53	2.98	4.17	3.42	2.68	1.79	1.94	-	6.04
02	5.21	2.23	4.02	4.17	5.96	8.19	7.69	7.15	7.44	5.96	7.29	2.83	-	52.16
03	9.83	7.15	8.85	5.81	15.33	12.06	17.12	19.35	11.31	11.02	14.74	15.10	-	86.55
04	28.44	10.12	12.06	13.40	27.24	14.59	18.46	38.86	29.18	27.99	31.26	22.33	-	143.07
05	17.42	7.74	6.70	8.19	14.29	4.47	2.88	22.63	21.14	21.44	19.95	15.04	-	273.93
06	15.93	6.70	7.59	9.23	8.78	2.23	6.40	17.87	23.82	23.08	20.69	9.97	-	161.66
07	9.38	5.66	3.13	3.28	2.98	1.19	1.64	11.17	15.48	12.80	12.36	9.23	-	152.30
08	4.91	3.72	2.08	1.04	0.74	0.89	0.30	4.91	8.49	7.89	6.40	8.19	-	80.20
09	1.64	0.74	0.45	0.74	0.15	-	-	0.74	1.79	2.68	2.08	3.42	-	49.56
10	0.15	0.45	-	0.30	-	-	-	0.45	0.45	1.34	1.34	1.49	-	14.44
11	-	-	-	-	-	-	-	-	-	-	-	-	-	6.10
12	0.15	0.15	-	-	-	-	-	-	-	-	0.45	0.74	-	1.19
TOTAL	94.83	46.90	46.00	48.63	78.31	46.15	57.62	127.29	122.52	116.87	118.36	68.26	3.04	1000.00

NOORDHINDER WINDDIRECTION AND FORCE DECEMBER 1953-1960 (6911 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	9.55	9.55
01	3.62	2.89	3.62	1.59	2.75	2.89	4.49	2.75	3.18	2.03	2.60	3.18	-	33.00
02	3.62	3.04	3.91	3.62	6.51	7.23	7.81	7.09	5.50	5.79	5.64	6.66	-	86.42
03	13.89	5.79	8.80	11.00	13.75	16.35	16.06	16.21	12.88	11.58	16.06	14.61	-	154.97
04	17.07	12.73	10.13	11.00	21.70	18.25	21.42	31.98	29.95	29.52	31.63	20.05	-	201.61
05	14.90	6.95	4.63	7.67	12.88	5.50	9.98	27.20	19.24	26.48	23.73	19.39	-	170.50
06	13.89	5.21	3.62	7.23	6.95	3.18	8.10	13.60	23.01	20.69	21.56	14.47	-	141.51
07	8.54	3.62	1.30	3.33	5.35	0.29	3.33	9.41	15.34	16.50	10.27	7.36	-	84.65
08	4.77	1.16	1.16	2.32	0.43	0.43	2.03	3.18	6.39	7.67	8.25	7.09	-	46.88
09	1.30	0.29	-	-	0.14	-	-	1.88	1.74	3.04	1.30	3.91	-	13.66
10	0.87	0.29	-	-	-	-	-	0.58	0.43	0.29	0.72	1.16	-	4.54
11	0.14	-	-	-	-	-	-	-	0.14	0.29	1.01	0.58	-	2.17
12	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14
TOTAL	82.62	41.96	35.16	47.75	70.47	54.12	73.22	113.88	119.81	123.86	125.14	104.47	9.55	1000.00

TABEL 1

NOONCHINDER

 WIND DIRECTION AND FORCE **66** A L L M O N T H S
 PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

1953-1980 (60650 OBS.)

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	19.65	19.65
01	4.23	4.33	7.05	5.12	6.46	6.02	6.32	7.17	7.20	5.54	4.65	4.26	0.01	66.56
02	6.84	6.54	11.24	9.30	11.30	10.93	11.13	9.88	13.16	12.03	9.60	7.11	-	119.06
03	13.56	13.05	18.90	17.35	19.86	14.34	15.05	16.00	21.47	25.01	17.97	13.62	-	206.79
04	20.27	20.26	25.78	24.04	22.82	13.43	14.38	22.66	32.93	42.76	27.59	19.10	-	266.02
05	11.09	9.80	11.38	9.87	9.03	3.97	4.16	11.56	18.07	25.91	15.77	10.93	-	141.55
06	3.27	4.91	4.75	7.05	4.61	1.88	2.51	7.04	13.75	18.32	11.50	7.20	-	91.60
07	4.11	1.92	1.41	2.36	2.12	0.61	0.71	3.64	7.05	7.69	5.12	4.14	-	40.67
08	1.94	0.90	0.68	0.63	0.59	0.30	0.31	1.52	3.01	3.23	2.52	2.87	-	18.50
09	0.72	0.27	0.16	0.16	0.07	-	0.05	0.46	0.82	0.87	0.74	0.93	-	5.24
10	0.15	0.11	0.02	0.02	-	-	0.01	0.09	0.14	0.24	0.22	0.47	-	1.47
11	0.01	-	-	-	-	-	-	-	0.04	0.06	0.14	0.14	-	0.56
12	0.01	0.01	-	-	-	-	-	-	-	-	0.01	0.01	-	0.05
TOTAL	71.61	62.10	81.37	75.92	76.67	51.48	54.63	80.02	117.63	141.66	96.04	71.00	19.67	1000.00

TABEL 1

TEXEL WINDDIRECTION AND FORCE J A N U A R Y 1949-1977 (7190 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.92	2.23	2.09	1.11	4.03	2.64	4.31	3.20	5.29	2.92	2.64	3.20	10.57	10.57
02	4.31	2.78	4.17	3.62	8.90	6.12	6.95	7.23	9.87	7.51	9.18	5.56	-	56.56
03	11.13	6.82	8.07	8.34	20.31	15.44	17.80	23.50	19.05	17.11	14.46	12.80	-	76.22
04	16.97	8.34	9.18	10.57	25.03	25.59	36.44	37.13	35.47	29.76	33.52	21.84	-	174.63
05	9.87	4.03	4.73	5.29	11.27	10.01	11.82	17.39	21.84	19.47	21.00	18.92	-	289.05
06	11.40	4.87	2.92	5.98	13.49	6.54	4.45	11.33	18.22	15.86	21.56	14.05	-	155.63
07	5.42	3.20	1.39	2.09	9.60	3.20	1.67	6.55	9.46	9.46	14.05	7.09	-	35.74
08	2.36	0.97	0.42	0.56	3.62	1.25	0.28	3.89	4.87	5.15	6.82	5.56	-	9.87
09	0.14	-	0.14	0.83	0.70	-	-	0.97	1.67	0.83	3.20	1.39	-	4.17
10	0.14	0.14	-	-	-	-	-	-	0.97	0.42	1.53	0.97	-	4.17
11	0.56	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	65.25	33.38	33.10	38.39	96.94	70.79	83.73	111.40	126.70	108.48	128.93	92.35	10.57	1000.00

TEXEL WINDDIRECTION AND FORCE F E B R U A R Y 1949-1977 (6540 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	3.06	2.14	5.65	3.21	5.04	4.58	3.21	3.82	2.60	1.99	3.21	3.51	15.12	15.12
02	7.33	4.89	5.35	4.89	8.71	8.71	10.24	11.15	10.24	8.25	6.42	9.47	-	42.01
03	11.32	9.17	10.69	14.97	22.61	25.97	22.76	24.14	25.97	22.00	21.85	12.22	-	93.54
04	22.00	12.07	15.89	19.86	42.01	27.04	19.71	28.26	32.08	35.75	27.34	24.29	-	224.26
05	10.59	5.81	4.58	12.68	18.64	11.92	6.26	11.92	14.97	16.96	16.96	9.93	-	306.29
06	7.64	5.35	3.82	5.81	13.44	6.42	2.29	9.47	15.28	9.62	13.75	8.25	-	141.51
07	3.21	2.29	2.44	2.29	7.64	0.61	0.61	2.29	6.26	5.04	9.01	5.50	-	161.15
08	2.90	0.15	1.07	0.31	1.83	-	-	1.37	1.99	1.99	5.19	3.97	-	47.20
09	0.92	0.31	-	-	0.15	-	-	0.61	0.31	0.92	1.37	1.07	-	20.70
10	0.15	-	-	-	-	-	-	-	-	0.15	1.07	0.31	-	5.65
11	-	-	-	-	-	-	-	-	-	-	1.07	0.31	-	1.06
12	-	-	-	-	-	-	-	-	-	-	-	1.22	-	1.22
TOTAL	69.81	42.16	49.50	64.16	119.92	86.77	65.99	92.12	107.70	100.82	109.23	76.69	15.12	1000.00

TABEL 1

TEXEL WINDDIRECTION AND FORCE M A R C H 1949-1977 (7190 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	3.20	3.76	4.17	3.62	5.42	5.29	5.56	5.01	6.54	4.73	3.76	2.92	18.76	18.76
02	8.07	7.09	8.07	8.21	11.13	13.21	10.15	11.40	12.10	7.65	7.93	5.98	-	53.50
03	14.46	13.91	20.72	20.86	28.93	19.75	23.23	21.28	28.37	19.33	15.99	15.86	-	110.99
04	18.36	15.30	16.83	25.17	47.01	23.50	21.56	21.97	33.80	29.62	28.79	21.28	-	242.70
05	10.15	4.59	6.26	13.64	23.09	10.15	5.15	5.98	13.91	13.07	13.77	10.99	-	303.20
06	9.74	4.17	3.20	6.54	11.96	8.21	2.64	2.50	7.37	12.80	9.74	7.79	-	150.74
07	2.50	1.39	1.25	2.36	5.15	3.06	0.28	0.83	3.62	3.34	3.34	4.73	-	86.65
08	2.23	1.11	1.11	0.70	4.73	0.83	-	0.42	0.56	0.97	2.92	1.67	-	31.85
09	0.56	0.14	0.14	0.56	0.14	0.83	-	0.14	0.28	0.14	0.28	0.42	-	17.25
10	0.14	-	-	-	-	-	-	-	-	-	-	-	-	5.62
11	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14
12	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14
TOTAL	69.40	51.46	61.75	81.64	137.55	84.84	68.57	69.54	106.54	91.66	86.65	71.63	18.76	1000.00

TEXEL WINDDIRECTION AND FORCE A P R I L 1949-1977 (6775 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	060 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.95	3.84	5.17	3.84	5.76	4.43	5.17	6.79	5.46	5.76	4.58	3.54	20.36	20.36
02	5.41	8.56	13.29	9.74	10.78	7.68	9.45	11.96	12.40	14.03	11.52	8.12	-	57.29
03	22.15	26.58	32.19	24.80	16.83	12.99	12.85	17.87	26.58	25.54	25.54	15.06	-	123.43
04	35.24	42.52	42.82	33.37	22.88	9.30	6.20	14.17	45.33	30.71	25.99	21.11	-	258.47
05	17.72	15.21	15.21	12.25	5.46	2.36	0.44	3.40	16.39	11.96	9.01	8.71	-	329.69
06	9.84	6.05	2.66	7.38	2.81	0.44	0.30	1.18	7.83	7.97	6.35	7.09	-	116.12
07	2.51	2.81	1.48	3.10	-	-	-	-	5.46	4.43	3.84	2.51	-	59.94
08	1.05	0.15	0.15	0.44	-	-	-	-	1.77	0.15	0.59	0.44	-	26.15
09	0.50	-	-	-	-	-	-	-	-	-	-	-	-	4.72
10	0.20	-	-	-	-	-	-	-	-	-	-	-	-	1.05
11	-	-	-	-	-	-	-	-	-	-	-	-	-	0.30
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	98.33	105.71	112.95	94.94	64.52	37.21	34.40	55.37	121.22	100.55	87.85	66.59	20.36	1000.00

TEXEL

WINDDIRECTION AND FORCE

M A Y

1949-1977 (7130 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H				E A S T			S O U T H				W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	3.51	5.05	5.19	4.77	6.31	4.35	-	4.21	6.59	5.61	4.91	-	-	27.07	27.07	
02	8.27	9.26	16.83	10.10	11.78	10.94	10.80	11.78	14.03	10.52	9.96	8.84	-	-	59.75	
03	19.35	21.32	29.87	28.33	31.70	21.60	12.62	25.67	40.81	26.61	24.40	17.95	-	-	133.10	
04	29.31	29.45	47.41	35.06	27.49	10.66	6.17	15.01	42.92	36.75	21.18	17.61	-	-	302.24	
05	14.03	15.01	12.62	11.22	5.05	0.98	1.12	2.66	15.57	13.60	6.59	6.03	-	-	319.21	
06	4.49	5.75	4.07	1.96	0.56	-	-	1.26	7.29	5.19	4.07	2.38	-	-	104.49	
07	2.52	0.84	0.14	1.54	0.42	-	-	0.70	1.82	2.24	1.82	1.54	-	-	37.03	
08	0.28	-	-	0.28	-	-	-	-	1.12	0.70	0.14	0.28	-	-	13.60	
09	-	-	-	-	-	-	-	-	-	0.28	0.14	0.14	-	-	2.81	
10	-	-	-	-	-	-	-	-	-	-	0.14	0.14	-	-	0.56	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	11.77	86.68	116.13	93.27	83.31	48.53	34.92	63.67	129.17	102.81	72.65	60.63	27.07	1000.00		

TEXEL

WINDDIRECTION AND FORCE

J U N E

1949-1977 (6952 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H				E A S T			S O U T H				W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	3.60	6.47	6.90	3.31	5.03	5.03	3.16	6.33	7.48	5.61	5.47	4.17	-	22.58	22.58	
02	10.64	13.23	21.29	12.66	10.07	7.34	9.78	14.10	16.11	15.97	12.37	8.77	-	-	82.97	
03	26.32	36.25	49.63	28.48	16.83	9.78	9.49	16.56	44.30	37.83	32.22	22.73	-	-	152.25	
04	27.62	35.53	41.86	23.01	13.09	3.31	2.45	9.93	48.19	49.77	30.21	22.01	-	-	352.42	
05	7.77	9.49	6.62	5.75	1.87	0.43	0.43	3.45	13.67	18.12	9.93	7.34	-	-	306.96	
06	2.30	1.73	1.87	2.01	0.29	-	0.14	0.72	6.90	6.76	3.74	3.31	-	-	64.87	
07	1.15	0.56	0.14	-	-	-	-	-	1.44	0.86	0.58	0.86	-	-	29.78	
08	1.15	-	-	-	-	-	-	-	-	0.29	0.43	0.72	-	-	5.81	
09	0.14	-	-	-	-	-	-	-	-	-	-	0.14	-	-	2.59	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.29	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	80.70	102.26	128.31	75.23	47.18	25.89	25.46	53.08	138.09	135.21	94.94	70.05	22.58	1000.00		

TABEL 1

TEXEL

WINDDIRECTION AND FORCE

J U L Y

1949-1977 (6952 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H				E A S T			S O U T H				W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	5.48	5.19	6.64	5.41	5.63	2.45	-	3.89	4.90	5.77	7.79	4.62	-	25.82	25.82	
02	8.51	12.55	13.42	9.52	9.52	4.47	7.05	8.51	12.41	15.87	16.01	10.82	-	-	83.91	
03	18.75	26.83	30.15	21.35	15.15	12.12	6.20	13.13	38.06	42.12	37.36	24.67	-	-	129.26	
04	36.32	28.13	30.01	18.61	8.37	5.63	5.77	8.66	44.72	57.85	46.31	39.53	-	-	285.42	
05	16.01	6.64	4.33	4.04	2.02	0.29	0.58	2.31	19.33	17.02	12.41	12.41	-	-	330.50	
06	8.08	0.72	1.30	1.30	0.29	-	0.29	1.01	5.91	12.55	7.36	7.50	-	-	97.37	
07	2.02	0.43	-	-	0.43	-	-	-	4.04	3.17	3.03	2.16	-	-	46.31	
08	0.29	0.14	-	-	-	-	-	-	1.44	1.44	0.58	0.86	-	-	15.24	
09	0.29	-	-	-	-	-	-	-	0.14	0.29	-	-	-	-	4.76	
10	-	-	-	-	-	-	-	-	0.14	0.29	-	-	-	-	0.72	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	96.16	80.64	85.83	60.73	41.40	24.96	26.11	37.51	131.13	156.09	130.84	102.57	25.82	1000.00		

TEXEL

WINDDIRECTION AND FORCE

A U G U S T

1949-1977 (6707 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H				E A S T			S O U T H				W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
01	5.02	6.65	7.54	4.58	5.02	4.43	3.40	4.58	5.32	3.40	4.58	4.73	-	24.68	24.68	
02	7.98	11.53	16.40	11.23	14.19	8.26	5.91	10.64	12.71	9.90	7.39	7.98	-	-	53.26	
03	16.40	20.98	26.16	22.17	28.82	15.07	13.30	17.88	30.89	33.99	29.85	21.67	-	-	124.13	
04	25.71	18.32	22.17	24.97	29.70	11.82	7.54	15.07	39.01	55.12	45.22	26.01	-	-	277.38	
05	10.94	6.80	2.66	1.77	2.36	1.77	1.63	5.62	19.65	22.17	20.69	13.74	-	-	320.07	
06	6.65	2.07	1.18	1.77	0.15	0.59	0.89	2.36	11.23	11.67	10.34	7.24	-	-	109.80	
07	1.63	-	-	-	-	-	-	0.74	4.88	4.88	4.58	3.84	-	-	56.15	
08	0.30	-	-	-	-	-	-	0.15	1.63	1.18	1.77	1.18	-	-	20.54	
09	-	-	-	-	-	-	-	-	0.15	-	0.74	0.30	-	-	6.21	
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.18	
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	71.63	66.35	76.10	66.50	80.24	41.97	32.66	57.04	125.46	142.31	125.17	86.89	24.68	1000.00		

TABLE 1

TEXEL WIND DIRECTION AND FORCE S E P T E M B E R 1949-1977 (6193 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	4.04	3.07	3.07	3.07	4.68	5.17	4.52	5.17	3.39	5.17	2.75	-	21.31	21.31
02	7.43	6.94	8.24	8.24	12.92	12.27	8.56	9.85	10.50	11.63	9.69	8.88	0.16	47.47
03	20.02	18.08	18.25	19.05	27.45	20.02	19.54	21.48	23.74	25.51	23.25	17.26	-	115.13
04	23.09	21.96	23.25	18.25	23.58	20.02	17.92	22.77	31.65	39.08	35.36	28.42	-	253.07
05	12.73	5.49	2.91	5.33	4.84	5.33	4.84	9.59	14.05	20.99	18.41	12.76	-	305.34
06	8.56	2.91	0.81	2.26	1.94	2.42	0.81	4.36	14.05	20.99	18.41	12.76	-	116.36
07	2.91	0.97	-	0.16	0.65	0.32	1.13	1.94	13.40	18.89	14.37	12.27	-	83.00
08	0.32	-	-	-	-	-	0.16	0.48	10.50	7.43	5.65	5.49	-	37.14
09	-	-	-	-	-	-	-	0.32	4.04	5.81	1.78	1.13	-	13.73
10	-	-	-	-	-	-	-	-	0.65	0.48	2.26	0.48	-	4.20
11	-	-	-	-	-	-	-	-	-	0.65	-	-	-	0.65
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	80.09	59.42	56.52	56.35	76.05	65.56	57.48	76.05	111.90	135.64	113.52	69.94	21.46	1000.00

TEXEL WIND DIRECTION AND FORCE O C T O B E R 1949-1977 (6440 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.17	1.86	2.95	1.40	4.50	4.66	4.81	4.04	3.42	2.80	3.73	-	16.79	16.79
02	5.12	5.75	6.37	5.12	9.63	13.20	10.56	7.92	9.32	6.52	6.66	2.64	-	36.96
03	11.18	11.49	10.40	10.56	22.05	25.00	20.96	22.52	18.32	20.96	17.24	4.81	-	90.99
04	18.32	16.77	10.56	11.49	31.06	41.30	25.47	31.37	36.96	35.56	35.40	11.02	-	261.71
05	8.70	6.99	4.50	3.11	9.78	13.35	5.43	14.60	19.72	15.84	14.44	19.25	-	313.51
06	13.35	4.19	2.02	2.64	4.04	3.26	3.88	7.76	19.72	24.22	21.43	14.75	-	146.50
07	5.12	4.04	0.47	1.40	0.93	0.31	1.24	3.57	13.82	17.70	15.84	14.44	-	102.95
08	4.31	1.40	0.62	-	-	0.16	0.78	2.64	7.30	10.40	8.07	6.52	-	49.58
09	0.78	0.31	0.16	-	-	-	-	0.16	4.66	4.04	4.66	5.43	-	29.19
10	0.16	0.16	-	-	-	-	-	-	0.62	0.62	0.31	3.26	-	6.21
11	-	-	-	-	-	-	-	-	0.78	-	0.16	0.47	-	1.71
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	69.72	52.45	38.04	35.71	81.99	101.24	73.14	94.57	114.91	122.83	113.51	82.61	16.74	1000.00

TABLE 1

TEXEL WIND DIRECTION AND FORCE N O V E M B E R 1949-1977 (6566 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	1.07	1.37	2.13	2.59	2.89	2.44	2.89	2.74	1.67	2.26	1.37	1.98	10.81	10.81
02	4.42	5.65	3.81	3.50	9.14	8.68	6.39	7.76	4.72	5.18	5.33	3.81	-	25.43
03	9.14	8.83	6.70	7.61	16.44	15.38	23.60	20.10	14.62	12.94	14.46	9.14	-	66.36
04	21.92	16.90	10.05	9.59	26.34	19.34	24.36	38.22	29.23	29.69	35.04	24.51	-	158.95
05	11.11	8.37	4.26	4.42	16.14	7.92	12.33	23.45	21.16	17.05	21.62	15.23	-	283.19
06	11.11	8.53	3.35	4.26	7.76	4.87	6.85	18.88	16.44	17.05	21.62	15.23	-	163.06
07	7.46	4.42	1.83	2.44	3.81	1.98	4.26	11.57	12.18	21.01	22.23	11.72	-	137.03
08	4.72	2.28	0.15	1.83	1.52	1.22	1.52	2.55	5.94	9.74	12.79	9.59	-	84.50
09	0.61	0.76	-	1.22	0.46	-	-	0.91	1.52	2.59	3.20	8.37	-	49.46
10	0.76	0.46	-	-	-	-	-	0.15	0.30	1.07	1.37	3.50	-	14.77
11	0.30	-	-	-	-	-	-	-	-	-	1.37	1.52	-	5.03
12	-	-	-	-	-	-	-	-	-	-	0.30	0.15	-	0.76
TOTAL	72.62	55.57	32.28	37.45	84.50	61.61	82.22	126.37	107.80	113.73	125.30	89.52	10.81	1000.00

TEXEL WIND DIRECTION AND FORCE D E C E M B E R 1949-1977 (6698 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	1.59	1.01	1.16	1.59	3.77	4.64	2.61	4.06	2.03	3.04	2.17	-	8.26	8.26
02	3.43	3.48	2.46	2.17	7.68	8.41	8.84	6.38	7.25	6.09	7.39	1.59	-	29.20
03	9.28	6.38	5.22	7.54	18.27	19.57	22.62	18.41	15.80	16.38	15.95	4.93	-	68.43
04	20.44	14.79	8.70	8.55	23.49	23.34	22.04	30.44	28.85	26.82	28.27	11.45	-	166.86
05	12.32	8.55	4.35	3.77	13.48	7.25	11.45	19.72	20.73	36.97	35.95	23.92	-	277.47
06	11.31	6.96	1.74	2.90	6.81	2.90	6.67	13.34	22.04	20.73	20.15	18.85	-	171.79
07	4.64	2.75	1.59	2.90	4.20	1.16	2.46	6.81	16.67	20.73	20.15	18.85	-	134.39
08	5.51	0.87	0.87	0.72	1.88	0.58	0.43	3.04	9.71	12.76	12.61	6.96	-	75.53
09	0.87	0.29	-	-	0.14	-	-	0.87	1.45	7.54	9.42	7.39	-	47.96
10	0.14	-	-	-	-	-	-	-	2.46	4.64	3.04	3.04	-	13.77
11	0.29	-	0.14	-	-	-	-	-	0.29	1.74	2.03	1.74	-	4.76
12	-	-	-	-	-	-	-	-	-	0.14	1.01	-	-	1.45
TOTAL	69.73	45.09	26.24	30.15	79.73	67.85	77.12	103.07	124.96	133.08	136.45	96.26	8.26	1000.00

TABEL 1		WIND DIRECTION AND FORCE											ALL MONTHS		1949-1977		(81579 OBS.)	
TEXT:		PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE																
		N O R T H			E A S T			S O U T H			W E S T							
FORCE		020	350	020	050	080	110	140	170	200	230	260	290	CALM OR	TOTAL			
HFT		040	010	040	070	100	130	160	190	220	250	280	310	VARIABLE				
00	-	-	-	-	-	-	-	-	-	-	-	-	-	18.69	18.69			
01	3.22	3.58	4.40	3.26	4.85	4.17	4.13	4.69	4.52	4.05	3.87	3.44	0.01	48.21				
02	6.79	7.50	10.04	7.44	10.36	9.19	8.85	9.83	10.86	9.79	9.44	7.09	-	107.18				
03	15.86	17.27	20.83	17.42	22.13	17.65	17.00	20.37	27.37	25.24	22.73	16.06	-	240.43				
04	24.69	21.70	23.36	19.98	26.66	18.25	16.27	22.65	37.45	38.88	33.13	24.12	-	307.15				
05	11.47	8.10	6.14	6.99	9.52	5.93	5.11	9.93	17.59	18.39	16.59	12.14	-	128.34				
06	8.64	4.44	2.43	3.75	5.33	2.98	2.43	6.10	12.09	13.30	12.36	9.51	-	83.42				
07	3.41	1.96	0.89	1.53	2.77	0.91	0.96	2.93	6.90	6.29	6.58	4.69	-	39.83				
08	2.15	0.59	0.37	0.40	1.16	0.34	0.26	1.21	3.11	3.20	3.64	3.06	-	19.50				
09	0.40	0.15	0.04	0.23	0.12	0.07	-	0.33	0.56	0.71	1.37	1.13	-	5.12				
10	0.15	0.06	0.01	-	-	-	-	0.01	0.22	0.21	0.50	0.44	-	1.61				
11	0.10	-	-	-	-	-	-	-	-	-	0.13	0.28	-	0.51				
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
TOTAL	77.76	65.35	68.51	61.51	82.91	59.50	55.00	78.07	120.68	120.06	110.37	81.97	10.71	1000.00				

TABEL 1

TERSCHELLINGENBANK WINDDIRECTION AND FORCE J A N U A R Y 1949-1975 (6663 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALC OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.40	1.35	2.40	2.10	1.20	3.00	4.05	3.90	4.80	4.20	3.00	1.80	7.20	7.20
02	3.00	5.10	4.05	3.90	4.65	4.35	9.46	10.21	9.16	9.00	8.40	5.10	-	54.22
03	14.71	10.96	8.25	6.60	13.36	14.71	23.86	30.47	25.96	15.01	15.46	11.11	-	190.45
04	16.51	8.55	14.11	11.71	21.91	27.77	28.22	41.27	38.12	27.62	29.87	16.76	-	76.39
05	11.41	4.20	6.30	8.70	14.71	14.26	12.46	19.81	20.26	20.56	22.56	15.76	-	190.45
06	11.86	4.65	2.85	4.95	16.66	6.75	6.90	12.01	19.66	16.06	21.46	11.71	-	264.41
07	5.70	2.25	1.65	2.55	7.35	2.85	1.95	4.95	8.40	6.30	10.21	8.70	-	170.75
08	2.25	1.50	0.15	0.60	3.00	1.05	1.05	1.95	2.55	4.20	1.80	2.25	-	135.52
09	0.45	-	0.15	0.45	-	-	-	0.60	1.95	1.80	1.80	0.90	-	62.60
10	0.90	0.15	0.15	-	-	-	0.30	0.45	0.60	1.95	4.50	2.25	-	25.06
11	-	-	-	-	-	-	-	-	0.60	1.35	1.80	0.90	-	7.05
12	-	-	-	-	-	-	-	-	-	0.15	0.45	-	-	5.40
TOTAL	69.19	38.72	40.07	41.57	82.85	74.74	88.25	125.02	130.12	106.41	119.32	76.54	7.20	1000.00

TERSCHELLINGENBANK WINDDIRECTION AND FORCE F E B R U A R Y 1949-1975 (5666 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALC OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	3.41	3.75	3.24	2.04	5.28	4.09	3.58	5.96	4.09	2.56	3.75	1.19	14.66	14.66
02	7.33	6.13	5.96	5.28	6.13	7.33	9.03	12.10	10.22	8.18	7.33	5.96	-	42.94
03	19.26	10.05	8.69	14.31	22.15	19.26	22.84	28.80	30.16	26.93	20.28	15.85	-	91.00
04	21.64	13.80	15.68	25.90	33.74	25.05	17.55	28.29	27.95	34.76	26.93	20.62	-	230.50
05	11.25	7.84	8.69	12.78	18.06	13.63	8.66	13.63	13.29	15.34	17.38	8.69	-	291.92
06	10.57	5.62	3.07	3.56	10.05	6.99	3.24	8.16	13.46	10.74	16.40	10.40	-	149.45
07	3.75	1.19	2.90	1.36	5.45	2.22	1.02	3.24	4.43	3.24	7.50	4.60	-	104.29
08	1.67	1.19	1.36	0.17	1.02	0.66	0.34	1.19	1.70	1.70	3.92	3.41	-	40.90
09	0.17	-	-	-	-	-	-	0.51	1.02	0.51	1.67	0.85	-	16.50
10	-	0.34	-	-	-	-	-	-	0.34	-	0.66	0.51	-	4.94
11	-	-	-	-	-	-	-	-	-	-	0.34	-	-	1.87
12	0.51	-	-	-	-	-	-	-	-	-	-	-	-	0.34
TOTAL	79.75	49.93	49.59	65.44	101.91	79.24	66.46	101.91	106.68	103.95	106.38	72.09	14.66	1000.00

TABEL 1

TERSCHELLINGENBANK WINDDIRECTION AND FORCE M A R C H 1949-1975 (6446 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALC OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	3.25	3.26	3.26	4.03	5.43	4.34	5.12	4.03	5.58	5.43	2.64	-	15.05	15.05
02	6.98	4.03	7.76	6.22	15.20	9.62	11.32	9.77	10.86	7.76	6.38	3.26	-	49.64
03	16.75	13.34	16.75	21.10	30.87	20.94	22.03	25.29	32.66	16.29	16.13	14.74	-	105.49
04	19.86	15.51	17.84	29.32	38.47	21.41	21.56	19.55	32.42	30.56	32.11	17.69	-	247.91
05	10.70	8.53	4.34	13.65	25.75	10.86	6.21	5.27	13.34	17.38	11.79	12.26	-	296.31
06	9.31	3.10	4.65	8.07	13.03	7.14	1.40	1.71	8.38	11.79	10.86	11.79	-	140.09
07	3.26	0.93	2.02	2.79	6.67	2.02	-	0.16	4.19	3.72	5.43	3.41	-	91.22
08	2.17	0.31	1.24	2.17	6.05	0.62	-	0.16	4.02	1.09	2.02	1.24	-	34.60
09	0.47	-	-	-	0.16	-	-	-	-	-	-	-	-	17.69
10	-	0.16	-	-	-	-	-	-	-	0.16	0.16	0.31	-	1.24
11	0.16	-	-	-	-	-	-	-	-	-	0.16	-	-	0.31
12	0.16	-	-	-	-	-	-	-	-	-	0.16	-	-	0.31
TOTAL	73.07	49.16	57.87	89.36	141.64	76.95	67.64	65.93	109.06	94.17	69.82	70.26	15.05	1000.00

TERSCHELLINGENBANK WINDDIRECTION AND FORCE A P R I L 1949-1975 (6159 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALC OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	4.87	3.41	4.55	4.38	4.38	5.20	5.20	6.17	5.52	3.57	5.52	3.90	17.37	17.37
02	8.28	11.04	12.64	10.23	12.50	6.82	10.55	13.96	10.72	8.77	10.07	7.31	-	50.67
03	25.46	30.04	37.02	29.71	19.97	11.04	12.83	16.07	31.50	25.98	24.52	17.54	-	123.06
04	28.25	33.93	39.62	35.72	24.68	9.58	9.09	10.55	38.64	27.93	22.89	16.07	-	262.19
05	9.16	12.99	10.72	16.24	9.74	1.62	1.30	3.25	17.21	14.94	10.88	8.28	-	296.96
06	15.10	6.46	3.08	7.63	5.20	0.97	0.32	1.46	11.04	7.79	7.47	6.33	-	126.32
07	1.79	1.30	0.65	0.49	0.32	-	-	0.49	2.44	2.60	4.22	2.76	-	72.90
08	1.20	0.81	-	-	-	-	-	0.81	1.14	0.49	0.16	0.49	-	17.05
09	0.32	0.16	-	-	-	-	-	-	0.49	-	0.16	0.16	-	5.20
10	-	0.16	-	-	-	-	-	-	-	-	0.16	-	-	1.30
11	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16
12	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16
TOTAL	105.05	100.34	109.27	104.40	76.80	35.23	39.29	52.77	118.69	92.06	85.89	62.83	17.37	1000.00

TERSCHÉILINGERBANK WINDDIRECTION AND FORCE M A Y 1949-1975 (5995 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE KFT	N O R T H			E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310			
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	5.00	7.34	9.34	3.84	8.01	5.34	5.50	4.67	-	6.84	3.34	-	-	17.66	17.66
02	11.34	10.34	13.51	9.17	11.66	7.51	8.51	13.01	14.85	10.34	3.50	3.17	-	-	65.89
03	24.19	30.69	31.53	32.53	34.20	15.85	14.66	21.68	29.86	23.02	22.35	17.85	-	-	120.44
04	32.86	35.70	30.86	38.53	33.69	10.18	7.67	9.34	38.03	37.86	23.02	16.01	-	-	290.42
05	16.85	13.34	9.34	14.01	9.01	3.34	2.00	2.34	14.51	14.01	8.67	6.01	-	-	313.70
06	8.14	4.84	1.50	3.17	2.17	0.67	-	2.34	9.01	9.51	3.67	3.50	-	-	113.43
07	1.00	0.17	0.17	0.17	0.33	0.17	-	0.17	1.67	1.83	2.17	2.17	-	-	48.71
08	0.17	-	-	-	-	-	-	-	1.17	1.00	0.50	0.50	-	-	10.01
09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.17
10	-	-	-	-	-	-	-	-	-	-	0.50	-	-	-	0.50
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	100.25	102.42	96.25	101.42	99.08	43.04	38.37	53.54	115.93	100.92	74.40	56.71	17.66	-	1000.00

TERSCHÉILINGERBANK WINDDIRECTION AND FORCE J U N E 1949-1975 (4936 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE KFT	N O R T H			E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310			
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	4.67	5.88	5.88	6.48	9.12	3.44	4.86	5.27	5.06	7.29	6.28	2.63	-	18.04	18.04
02	13.17	14.18	16.00	13.57	9.12	5.88	9.52	8.71	13.57	15.40	13.78	7.29	-	-	67.07
03	24.38	37.88	36.06	28.36	24.51	8.71	7.90	16.00	35.25	39.91	30.59	24.92	-	-	140.19
04	31.00	27.76	22.08	36.87	21.88	6.28	3.85	7.50	43.76	51.26	33.23	22.89	-	-	319.49
05	16.41	10.52	5.47	11.95	2.03	0.61	0.41	2.03	17.02	16.21	14.38	7.50	-	-	308.55
06	4.46	3.65	0.81	1.22	0.61	0.20	-	-	5.67	6.28	4.46	2.23	-	-	104.54
07	1.42	0.20	-	-	-	-	-	-	1.62	1.82	0.81	1.62	-	-	29.58
08	2.03	-	-	-	-	-	-	-	-	-	0.81	1.62	-	-	7.50
09	0.20	-	-	-	-	-	-	-	-	-	0.41	0.81	-	-	3.24
10	-	-	-	-	-	-	-	-	-	-	-	0.20	-	-	0.41
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	103.73	100.08	86.30	98.46	67.26	25.12	26.54	39.51	121.96	136.17	103.93	70.10	18.04	-	1000.00

TABEL 1

TERSCHÉILINGERBANK WINDDIRECTION AND FORCE J U L Y 1949-1975 (3394 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE KFT	N O R T H			E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310			
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	7.61	6.48	7.66	4.71	8.84	3.85	5.01	6.19	7.66	5.30	6.76	9.72	-	14.73	14.73
02	17.04	14.14	10.90	7.96	9.43	5.60	5.89	7.66	12.37	15.62	13.55	12.06	-	-	79.85
03	40.61	33.88	25.34	18.27	17.68	10.90	10.61	16.79	27.70	42.13	36.24	26.61	-	-	152.29
04	43.61	25.92	14.44	14.14	14.14	5.30	7.66	9.13	30.94	43.02	38.30	30.64	-	-	307.61
05	18.27	11.54	2.36	4.71	2.06	0.88	1.77	3.54	17.97	26.52	15.91	13.55	-	-	277.25
06	2.08	0.59	2.65	-	0.59	-	0.29	0.88	8.25	11.49	11.20	7.07	-	-	110.09
07	1.11	-	-	0.59	0.29	-	-	-	4.12	0.88	3.24	1.77	-	-	50.10
08	0.59	-	-	-	-	-	-	-	0.29	-	0.59	1.11	-	-	12.08
09	-	-	-	-	-	-	-	-	-	-	0.59	1.11	-	-	2.06
10	-	-	-	-	-	-	-	-	-	1.47	0.29	-	-	-	1.77
11	-	-	-	-	-	-	-	-	0.88	-	-	-	-	-	1.77
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	141.11	89.57	63.35	50.38	53.03	26.52	31.23	44.20	110.19	147.32	126.10	102.24	14.73	-	1000.00

TERSCHÉILINGERBANK WINDDIRECTION AND FORCE A U G U S T 1949-1975 (3927 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE KFT	N O R T H			E A S T				S O U T H				W E S T		CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310			
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	4.58	5.35	6.11	3.31	5.09	5.35	5.35	7.38	6.37	5.09	5.09	6.11	-	10.70	10.70
02	14.26	10.44	11.20	9.17	10.70	8.40	8.15	10.95	10.95	11.20	11.46	8.15	-	-	65.19
03	31.82	25.46	22.66	23.94	22.15	14.51	17.83	20.12	26.48	35.91	32.36	25.72	-	-	125.03
04	32.85	20.12	13.50	22.41	18.84	8.66	8.40	17.85	34.12	47.67	45.33	26.74	-	-	294.97
05	14.51	9.42	3.06	4.84	3.57	1.27	1.53	3.82	15.53	25.21	21.39	13.75	-	-	117.90
06	5.86	0.76	1.27	2.55	1.53	0.25	0.25	1.53	9.93	14.77	10.95	9.17	-	-	296.60
07	2.04	-	-	-	-	-	0.25	0.25	2.80	3.57	5.09	2.04	-	-	50.82
08	0.51	-	-	-	-	-	-	-	0.25	-	3.57	2.04	-	-	16.04
09	0.51	-	-	-	-	-	-	-	-	3.31	2.29	1.02	-	-	7.30
10	-	-	-	-	-	-	-	-	0.25	0.51	1.02	-	-	-	2.29
11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	106.95	71.56	57.80	66.21	61.88	38.45	41.76	62.13	106.44	147.44	135.96	92.69	10.70	-	1000.00

TERSCHELLINGERBANK

WINDDIRECTION AND FORCE SEPTEMBER

1949-1975 (4774 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.51	2.93	6.91	3.98	4.19	2.72	2.93	4.40	4.82	3.56	-	-	9.43	9.43
02	6.91	6.70	9.64	5.87	11.73	8.38	12.15	7.33	14.66	9.84	2.72	2.30	-	43.94
03	28.28	21.58	23.46	17.60	20.32	20.95	26.18	22.41	26.81	21.99	7.12	5.45	-	105.76
04	34.98	24.09	20.11	9.43	21.58	18.43	24.51	20.53	33.31	24.93	14.48	14.48	-	273.98
05	21.37	3.98	3.77	5.03	4.40	5.03	6.07	11.10	33.31	32.05	27.65	27.65	-	300.17
06	13.20	1.47	0.21	0.63	2.72	3.56	1.47	4.19	14.66	21.58	26.18	18.01	-	141.16
07	3.14	0.84	-	-	0.63	0.21	0.21	1.47	11.10	17.80	18.43	13.41	-	86.19
08	1.26	-	-	-	-	-	0.21	0.63	2.51	5.87	6.26	6.07	-	27.23
09	-	-	-	-	-	-	-	-	1.05	2.72	2.09	0.63	-	6.99
10	-	-	-	-	-	-	-	-	-	0.64	0.42	-	-	1.26
11	-	-	-	-	-	-	-	-	-	0.21	-	-	-	0.21
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	111.65	61.58	64.10	42.52	65.56	59.28	73.73	72.06	108.92	117.93	120.23	93.00	9.43	1000.00

TERSCHELLINGERBANK

WINDDIRECTION AND FORCE OCTOBER

1949-1975 (5764 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.60	3.12	3.99	2.60	3.47	3.12	5.38	3.82	3.64	-	-	-	9.09	9.09
02	5.73	4.51	4.34	3.82	8.50	8.85	15.09	12.49	9.72	1.73	2.60	2.20	-	36.34
03	14.57	11.97	12.32	6.25	17.70	30.19	30.19	20.63	35.57	4.16	6.42	3.82	-	67.44
04	16.48	16.91	11.62	8.85	21.51	36.95	29.32	35.21	26.37	24.46	19.95	11.45	-	234.64
05	13.49	7.63	3.99	3.47	9.72	10.93	7.63	11.66	35.57	33.66	30.71	16.39	-	361.16
06	12.56	3.99	3.82	2.43	5.20	3.82	4.66	10.76	16.66	26.89	21.69	13.53	-	151.96
07	5.73	3.30	1.04	0.35	1.39	-	0.52	4.19	11.66	22.21	16.66	12.64	-	110.86
08	2.26	2.43	0.17	0.52	0.17	-	0.17	3.12	3.99	9.89	6.94	3.99	-	40.25
09	1.21	0.17	-	-	-	-	-	2.43	2.76	1.39	1.73	5.73	-	19.70
10	0.17	-	-	-	-	-	-	0.52	0.67	0.52	0.35	1.21	-	4.66
11	0.35	-	-	-	-	-	-	-	0.35	0.17	-	0.35	-	1.04
12	-	-	-	-	-	-	-	-	-	-	-	-	-	0.35
TOTAL	74.95	56.04	41.29	26.26	67.66	93.86	92.99	117.63	111.73	125.09	107.04	73.56	9.09	1000.00

TABEL 1

TERSCHELLINGERBANK

WINDDIRECTION AND FORCE NOVEMBER

1949-1975 (6075 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	1.32	1.96	1.81	0.82	0.82	1.15	3.13	2.96	2.14	1.65	1.81	1.98	5.43	5.43
02	4.44	3.62	2.96	1.32	3.29	4.94	7.90	10.86	6.26	4.26	3.79	3.62	-	21.56
03	6.88	13.50	8.07	4.94	13.83	20.91	29.56	32.92	23.54	9.55	12.84	6.40	-	57.26
04	20.08	15.47	13.50	7.90	22.22	22.72	26.34	50.70	28.64	25.00	31.77	18.60	-	186.31
05	18.11	6.09	5.60	7.90	10.64	7.41	11.85	24.36	19.26	21.23	22.88	15.64	-	283.62
06	13.83	7.90	1.81	4.94	5.93	8.40	10.53	18.27	15.31	20.41	26.46	13.83	-	170.37
07	6.75	3.62	2.30	1.81	3.79	2.96	4.61	7.74	7.24	9.22	10.86	8.23	-	149.63
08	3.79	1.32	0.33	1.15	2.47	1.15	1.32	2.63	1.48	2.96	2.96	2.47	-	69.14
09	0.66	0.49	0.16	0.82	0.16	-	0.49	0.16	3.46	6.75	6.42	9.05	-	39.84
10	0.66	0.49	-	0.33	-	-	-	-	0.49	1.48	2.96	2.47	-	16.37
11	0.16	-	-	-	-	-	-	-	0.49	0.16	0.66	1.32	-	4.12
12	-	-	-	-	-	-	-	-	-	-	-	0.16	-	0.33
TOTAL	79.67	54.49	36.54	31.93	62.55	69.63	96.13	150.62	106.65	100.41	122.47	83.29	5.43	1000.00

TERSCHELLINGERBANK

WINDDIRECTION AND FORCE DECEMBER

1949-1975 (6269 OBS.)

PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

FORCE BFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
01	2.71	1.60	1.75	0.96	2.71	2.87	2.71	3.35	3.19	-	-	-	7.16	7.16
02	4.94	2.71	2.39	2.55	2.87	7.66	10.53	12.76	10.53	3.51	2.71	2.55	-	30.63
03	11.17	6.38	5.90	5.90	12.12	22.81	30.31	30.95	23.54	5.74	5.56	4.15	-	124.42
04	16.91	12.92	7.62	6.70	18.50	29.67	25.52	41.00	25.68	15.95	14.36	13.24	-	194.77
05	12.92	9.89	4.15	4.94	11.96	8.77	15.15	17.07	33.98	30.95	26.16	18.34	-	267.67
06	15.46	4.63	3.19	3.03	6.70	5.58	7.02	10.21	18.82	19.14	24.88	15.15	-	162.66
07	5.56	2.07	1.28	2.07	4.94	1.44	1.91	5.10	18.50	27.92	29.35	13.24	-	142.77
08	4.79	0.80	0.48	0.96	2.71	0.96	0.48	3.51	12.44	10.37	13.56	7.02	-	67.79
09	0.48	0.32	0.64	0.32	-	-	-	-	6.86	4.15	6.22	4.63	-	36.53
10	0.48	0.16	-	-	-	-	-	-	2.07	1.44	3.51	2.39	-	11.17
11	-	-	-	-	-	-	-	0.16	0.32	0.44	2.07	1.12	-	4.63
12	-	-	-	-	-	-	-	-	-	-	0.48	1.12	-	1.60
TOTAL	73.36	41.47	26.80	27.44	62.53	79.76	93.64	124.10	132.40	119.46	128.89	82.95	7.16	1000.00

TERSCHELLINGERBANK

WINDDIRECTION AND FORCE ALL MONTHS
PARTS PER THOUSAND (FRACTIONS OF TIME) FOR EACH DIRECTION AND FORCE

1949-1975 (66270 OBS.)

FORCE FFT	N O R T H			E A S T			S O U T H			W E S T			CALM OR VARIABLE	TOTAL
	320 340	350 010	020 040	050 070	080 100	110 130	140 160	170 190	200 220	230 250	260 280	290 310		
00	-	-	-	-	-	-	-	-	-	-	-	-	12.21	12.21
01	3.64	3.67	4.48	3.14	4.62	3.67	4.36	4.69	4.83	3.82	-	-	-	47.66
02	8.04	7.27	8.16	6.52	8.66	7.11	10.00	11.03	10.99	8.75	3.68	3.09	-	101.09
03	20.84	19.36	18.91	16.98	20.72	17.96	21.40	24.82	28.61	23.33	21.40	16.37	-	250.69
04	24.59	20.58	18.56	20.73	24.96	19.59	18.35	25.88	34.69	34.33	30.21	20.27	-	293.13
05	15.07	8.59	5.90	9.39	10.99	7.14	6.78	10.88	16.58	19.48	18.11	12.27	-	141.16
06	11.08	4.27	2.52	3.83	6.50	4.06	3.32	6.46	12.24	14.95	15.59	9.82	-	94.64
07	3.64	1.45	1.12	1.13	2.93	1.12	0.97	2.44	4.89	5.19	6.67	4.60	-	36.14
08	2.04	0.77	0.35	0.53	1.48	0.42	0.33	1.24	1.98	2.34	2.73	2.69	-	16.89
09	0.39	0.11	0.09	0.15	0.03	-	0.08	0.15	0.53	0.74	1.16	0.76	-	4.21
10	0.21	0.14	0.02	0.03	-	-	-	0.02	0.24	0.26	0.51	0.35	-	1.77
11	0.06	-	-	-	-	-	-	-	-	0.02	0.14	0.12	-	0.33
12	0.06	-	-	-	-	-	-	-	-	-	-	-	-	0.06
TOTAL	90.05	66.20	60.10	62.43	80.88	61.05	65.58	87.61	115.57	113.20	108.69	76.41	12.21	1000.00

TABEL 2

WINDFORCE ALL DIRECTIONS 22 YEARS 1949-1970
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTHS	>5		>6		>7		>8		>9	
	A	B	A	B	A	B	A	B	A	B
JANUARY	241	516 (54)	114	262 (59)	46	113 (59)	13	52 (58)	3	16 (54)
FEBRUARY	187	571 (62)	75	130 (62)	27	174 (62)	7	67 (62)	3	31 (62)
MARCH	131	335 (67)	47	157 (51)	15	69 (67)	3	24 (49)	1	16 (49)
APRIL	92	261 (51)	25	98 (51)	4	29 (50)	0	4 (62)	-	- ()
MAY	68	202 (61)	18	89 (55)	4	36 (55)	1	16 (55)	-	- ()
JUNE	61	142 (60)	11	50 (60)	2	29 (60)	-	- ()	-	- ()
JULY	96	258 (54)	31	81 (56)	8	41 (56)	1	12 (56)	-	- ()
AUGUST	112	254 (61)	35	137 (57)	11	69 (57)	1	16 (57)	0	4 (57)
SEPTEMBER	134	275 (57)	45	108 (57)	15	35 (53)	3	13 (53)	-	- ()
OCTOBER	146	448 (67)	85	218 (67)	32	129 (70)	7	40 (61)	1	12 (59)
NOVEMBER	211	571 (64)	139	346 (69)	59	204 (65)	18	100 (65)	5	36 (65)
DECEMBER	278	576 (59)	128	266 (54)	58	177 (54)	19	89 (54)	6	65 (54)
YEAR	156	277 (62)	62	114 (62)	24	47 (62)	6	14 (62)	2	8 (54)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 2

WINDFORCE ALL DIRECTIONS 28 YEARS 1953-1980
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTHS	>5		>6		>7		>8		>9	
	A	B	A	B	A	B	A	B	A	B
JANUARY	271	524 (54)	132	342 (54)	55	149 (76)	15	48 (54)	4	24 (76)
FEBRUARY	179	527 (62)	69	290 (62)	25	138 (62)	6	63 (62)	1	13 (62)
MARCH	126	323 (79)	47	145 (78)	14	61 (66)	2	26 (66)	0	6 (66)
APRIL	95	267 (72)	24	92 (73)	5	46 (73)	1	25 (73)	0	4 (73)
MAY	64	190 (61)	16	81 (55)	4	32 (55)	1	16 (55)	-	- ()
JUNE	49	129 (53)	9	50 (66)	2	12 (65)	0	4 (65)	-	- ()
JULY	72	202 (60)	22	85 (60)	2	20 (56)	1	6 (56)	0	4 (56)
AUGUST	92	234 (61)	28	109 (57)	8	65 (57)	1	12 (61)	-	- ()
SEPTEMBER	142	362 (74)	55	242 (74)	19	154 (74)	7	75 (74)	1	12 (74)
OCTOBER	136	379 (74)	84	214 (70)	34	125 (61)	9	52 (74)	3	20 (74)
NOVEMBER	212	567 (77)	160	329 (77)	72	217 (77)	22	83 (77)	6	33 (77)
DECEMBER	292	552 (54)	152	382 (79)	67	226 (79)	20	137 (79)	7	69 (79)
YEAR	158	257 (54)	67	109 (54)	26	48 (74)	7	21 (74)	2	6 (79)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 2

WINDFORCE ALL DIRECTIONS 29 YEARS 1949-1977
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTHS	>5		>6		>7		>8		>9	
	A	B	A	B	A	B	A	B	A	B
JANUARY	256	504 (59)	126	342 (76)	52	198 (62)	17	75 (62)	7	46 (76)
FEBRUARY	176	536 (62)	77	266 (62)	29	201 (62)	9	107 (62)	3	49 (62)
MARCH	140	355 (67)	53	165 (67)	21	89 (67)	4	26 (49)	0	6 (49)
APRIL	92	236 (62)	32	138 (62)	6	46 (50)	1	21 (50)	0	6 (73)
MAY	54	210 (61)	17	97 (61)	4	40 (72)	1	12 (55)	0	4 (55)
JUNE	72	125 (63)	8	71 (60)	3	38 (60)	0	4 (60)	-	- ()
JULY	67	211 (61)	21	81 (56)	6	40 (56)	1	16 (56)	0	4 (56)
AUGUST	84	298 (62)	28	137 (62)	7	61 (62)	1	20 (57)	-	- ()
SEPTEMBER	139	312 (57)	56	175 (74)	19	75 (74)	5	29 (74)	1	6 (74)
OCTOBER	169	456 (67)	86	266 (67)	37	129 (67)	8	32 (58)	2	12 (67)
NOVEMBER	292	583 (64)	155	346 (64)	71	204 (64)	21	67 (71)	6	36 (73)
DECEMBER	272	597 (74)	144	327 (74)	66	202 (74)	20	89 (49)	6	48 (49)
YEAR	150	234 (62)	67	112 (62)	27	56 (62)	7	20 (49)	2	6 (54)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 2

WINDFORCE ALL DIRECTIONS 27 YEARS 1949-1975
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTHS	>5		>6		>7		>8		>9	
	A	B	A	B	A	B	A	B	A	B
JANUARY	277	427 (75)	101	238 (59)	38	117 (49)	13	45 (44)	6	26 (56)
FEBRUARY	171	470 (62)	67	248 (62)	26	162 (62)	8	51 (62)	3	31 (49)
MARCH	146	347 (67)	54	150 (49)	20	97 (69)	2	32 (49)	1	20 (49)
APRIL	97	232 (73)	24	134 (73)	7	64 (73)	1	32 (73)	0	5 (73)
MAY	62	226 (72)	14	73 (62)	4	32 (72)	1	12 (55)	-	- ()
JUNE	41	125 (60)	11	75 (60)	4	54 (60)	0	8 (60)	-	- ()
JULY	72	409 (70)	18	77 (56)	6	52 (56)	4	46 (56)	2	24 (56)
AUGUST	85	262 (62)	26	93 (62)	10	44 (57)	2	16 (56)	-	- ()
SEPTEMBER	125	296 (50)	37	104 (50)	10	42 (50)	1	25 (52)	0	4 (52)
OCTOBER	177	452 (67)	66	230 (74)	26	115 (74)	6	36 (58)	1	12 (58)
NOVEMBER	273	583 (73)	124	319 (69)	55	175 (73)	15	83 (72)	4	33 (73)
DECEMBER	264	673 (74)	122	315 (74)	54	157 (74)	17	77 (54)	6	52 (54)
YEAR	154	210 (74)	59	124 (73)	23	67 (73)	6	26 (73)	2	9 (73)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 3

WINDFORCE ALL DIRECTIONS 22 YEARS 1949-1970
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTHS	<3		<4		<5		<6	
	A	B	A	B	A	B	A	B
JANUARY	135	24 (61)	320	69 (61)	581	270 (54)	759	464 (54)
FEBRUARY	157	36 (55)	374	112 (55)	651	339 (62)	813	469 (62)
MARCH	218	81 (67)	434	202 (67)	728	472 (67)	869	665 (67)
APRIL	235	22 (51)	485	225 (57)	764	525 (58)	908	739 (51)
MAY	254	61 (55)	518	210 (55)	803	528 (61)	932	798 (61)
JUNE	259	100 (56)	508	317 (63)	808	633 (62)	939	858 (60)
JULY	221	77 (54)	449	218 (54)	750	492 (54)	902	742 (54)
AUGUST	226	20 (57)	477	113 (57)	752	480 (57)	888	746 (61)
SEPTEMBER	206	46 (62)	436	143 (62)	708	425 (57)	866	725 (57)
OCTOBER	167	0 (54)	359	31 (54)	643	359 (54)	804	552 (67)
NOVEMBER	106	38 (60)	277	121 (56)	543	275 (60)	719	429 (69)
DECEMBER	119	28 (66)	285	97 (59)	545	222 (59)	722	464 (59)
YEAR	192	118 (57)	409	284 (57)	686	585 (54)	842	764 (62)

A = MEAN FREQUENCY.
B = LOWEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 3

WINDFORCE ALL DIRECTIONS 24 YEARS 1953-1980
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTHS	<3		<4		<5		<6	
	A	B	A	B	A	B	A	B
JANUARY	119	20 (76)	272	89 (76)	550	250 (54)	729	476 (54)
FEBRUARY	166	63 (55)	374	192 (62)	657	321 (62)	821	473 (62)
MARCH	187	52 (79)	407	153 (79)	719	488 (79)	862	677 (79)
APRIL	238	106 (77)	456	246 (72)	761	488 (72)	905	733 (72)
MAY	286	125 (75)	528	282 (75)	819	625 (61)	932	811 (61)
JUNE	309	171 (56)	553	442 (54)	846	717 (53)	951	871 (53)
JULY	273	97 (65)	522	280 (53)	815	581 (53)	927	798 (60)
AUGUST	259	31 (65)	504	182 (65)	788	557 (65)	908	766 (61)
SEPTEMBER	240	104 (64)	450	271 (57)	721	479 (54)	858	617 (74)
OCTOBER	188	52 (67)	381	133 (67)	668	395 (74)	812	621 (74)
NOVEMBER	109	6 (80)	252	23 (80)	526	208 (80)	666	433 (77)
DECEMBER	112	0 (74)	267	12 (74)	528	238 (74)	707	448 (59)
YEAR	207	155 (54)	414	323 (74)	700	600 (54)	842	767 (54)

A = MEAN FREQUENCY.
B = LOWEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 3

WINDFORCE ALL DIRECTIONS 29 YEARS 1949-1977
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTHS	<3		<4		<5		<6	
	A	B	A	B	A	B	A	B
JANUARY	123	14 (54)	298	117 (61)	588	331 (76)	744	496 (59)
FEBRUARY	150	14 (58)	375	85 (62)	681	326 (62)	822	464 (62)
MARCH	184	12 (67)	426	81 (67)	730	456 (67)	860	645 (67)
APRIL	201	52 (53)	460	271 (77)	790	571 (62)	908	763 (62)
MAY	220	77 (59)	522	294 (62)	841	621 (61)	946	790 (61)
JUNE	237	113 (59)	570	350 (59)	877	729 (59)	962	815 (63)
JULY	210	69 (65)	505	332 (61)	835	673 (58)	933	790 (61)
AUGUST	184	93 (62)	485	274 (62)	806	569 (62)	916	762 (62)
SEPTEMBER	184	21 (64)	436	208 (54)	743	417 (54)	861	688 (57)
OCTOBER	149	44 (54)	350	105 (67)	664	371 (67)	811	544 (67)
NOVEMBER	107	23 (72)	262	104 (69)	545	271 (69)	706	417 (69)
DECEMBER	106	16 (74)	273	61 (74)	550	194 (74)	722	403 (74)
YEAR	174	129 (62)	415	324 (62)	722	633 (62)	850	766 (62)

A = MEAN FREQUENCY.
B = LOWEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 3

WINDFORCE ALL DIRECTIONS 27 YEARS 1949-1975
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTHS	<3		<4		<5		<6	
	A	B	A	B	A	B	A	B
JANUARY	118	24 (61)	306	109 (75)	593	296 (75)	763	573 (75)
FEBRUARY	149	9 (58)	387	60 (62)	679	333 (62)	829	530 (62)
MARCH	170	16 (68)	418	97 (67)	714	427 (67)	854	653 (67)
APRIL	198	70 (74)	480	219 (73)	777	523 (72)	903	666 (73)
MAY	212	0 (74)	510	114 (74)	824	641 (62)	938	774 (72)
JUNE	227	0 (63)	546	241 (63)	855	655 (63)	959	875 (60)
JULY	227	0 (64)	526	46 (70)	811	409 (70)	927	591 (70)
AUGUST	201	84 (72)	501	231 (66)	798	544 (62)	915	738 (62)
SEPTEMBER	150	0 (65)	433	0 (65)	733	500 (65)	875	704 (50)
OCTOBER	159	27 (67)	370	101 (67)	671	399 (67)	823	547 (67)
NOVEMBER	84	21 (72)	273	113 (72)	556	325 (73)	727	417 (73)
DECEMBER	110	20 (74)	305	46 (74)	573	186 (74)	736	327 (74)
YEAR	161	82 (74)	412	221 (74)	705	520 (74)	846	690 (74)

A = MEAN FREQUENCY.
B = LOWEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 4

GOEREE	MAXIMUM WINDFORCES											1949-1970
	ALL DIRECTIONS											
YEAR	MONTH OF THE YEAR											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1949	9	8	11	8	5	5	(7)	8	6	9	9	10
1950	7	7	7	8	6	(7)	7	7	8	7	8	8
1951	9	9	9	7	6	6	6	7	7	6	9	10
1952	9	8	8	6	6	7	8	8	9	8	10	9
1953	11	11	7	6	6	6	7	7	9	6	8	6
1954	10	8	7	6	7	7	8	8	(7)	(10)	9	11
1955	9	7	8	6	9	6	6	7	6	9	7	9
1956	9	7	8	6	6	7	9	9	8	9	8	8
1957	8	7	7	7	7	6	7	10	9	8	10	9
1958	10	9	7	7	7	7	9	7	9	9	7	8
1959	9	6	6	8	7	6	7	6	6	11	9	9
1960	10	7	8	7	6	8	8	6	8	8	9	11
1961	9	9	9	6	8	6	8	9	8	10	10	9
1962	10	10	7	9	8	7	7	(9)	(8)	8	9	11
1963	10	5	7	6	7	8	6	8	8	8	11	7
1964	6	8	7	6	6	6	8	7	8	9	8	9
1965	10	8	7	6	8	7	8	8	8	8	11	10
1966	8	7	9	6	9	8	6	8	9	7	10	10
1967	8	10	8	9	7	7	5	7	9	10	9	7
1968	8	8	9	8	7	6	9	6	8	7	8	8
1969	8	9	7	7	7	6	9	7	7	6	10	7
1970	8	8	7	8	6	6	7	7	8	9	10	8
MEAN	8.9	8.0	7.7	7.0	6.9	6.6	7.4	7.5	7.9	8.3	9.0	8.8
ST.DEV.	1.2	1.4	1.1	1.0	1.0	0.8	1.1	1.1	1.0	1.4	1.1	1.4

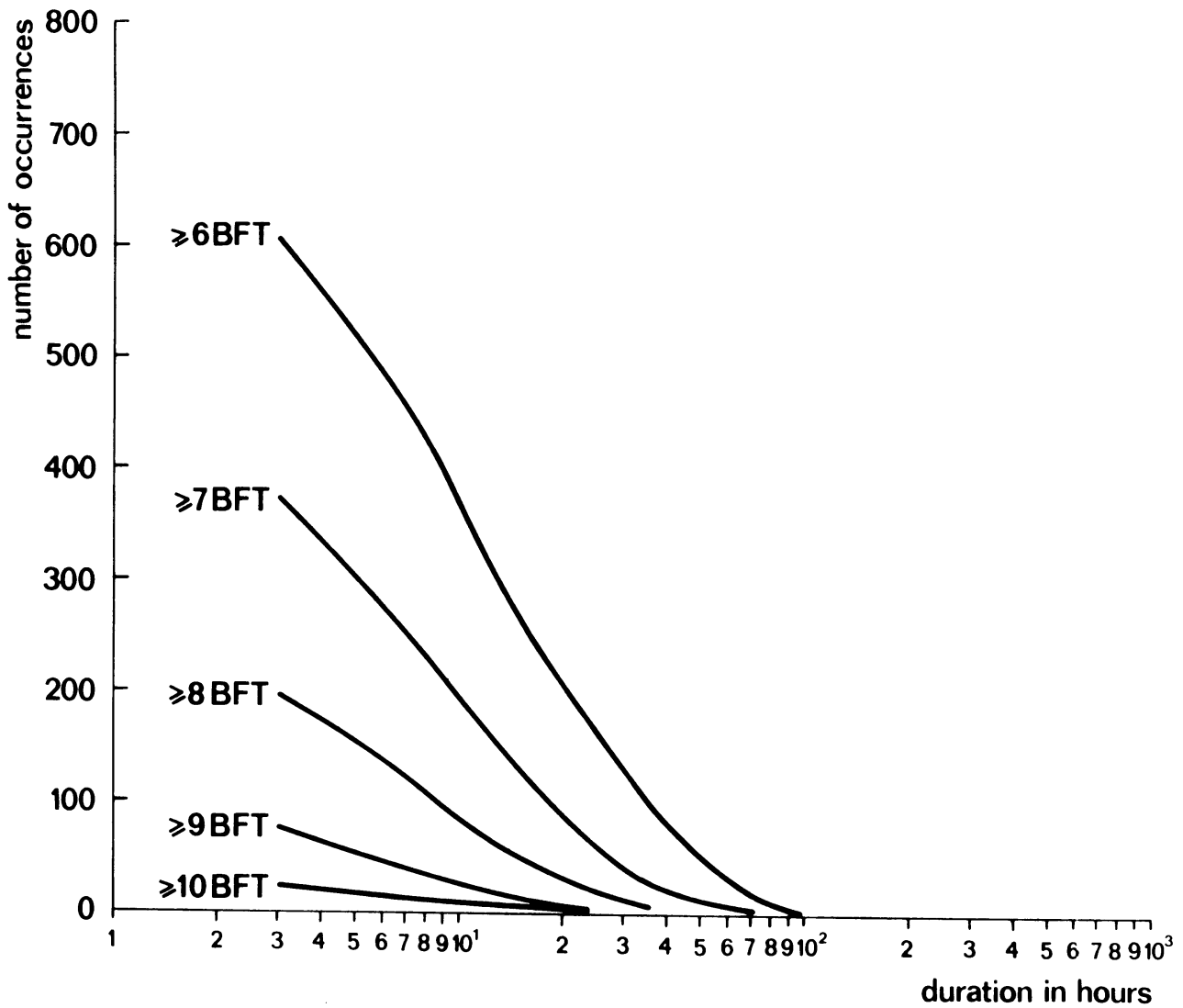
TABEL 4

NOORDHINDER	MAXIMUM WINDFORCES											1953-1980
	ALL DIRECTIONS											
YEAR	MONTH OF THE YEAR											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1953	(11)	(11)	7	6	7	7	7	7	9	7	8	6
1954	9	8	8	7	9	7	(8)	8	7	8	10	11
1955	10	7	7	5	9	6	6	6	6	8	7	9
1956	9	8	7	6	6	6	10	8	7	9	9	8
1957	8	7	8	7	7	6	7	9	9	8	10	8
1958	10	9	6	7	7	7	8	6	8	9	7	7
1959	9	6	6	8	6	7	7	6	6	11	10	9
1960	10	7	8	7	6	8	9	6	9	8	10	11
1961	9	9	8	5	8	6	8	9	7	10	10	9
1962	10	10	7	8	7	6	7	8	7	8	8	11
1963	9	6	7	7	6	7	5	8	8	8	10	7
1964	6	6	8	7	7	6	8	7	(8)	8	8	9
1965	9	8	7	6	8	9	7	8	9	8	11	9
1966	9	7	10	7	8	8	6	8	8	8	11	11
1967	7	9	8	8	7	7	6	7	9	10	8	8
1968	8	8	9	7	7	7	9	7	8	8	8	8
1969	9	8	7	8	7	6	9	7	6	6	10	8
1970	8	9	7	8	6	6	7	8	8	10	11	7
1971	9	9	7	6	6	7	5	7	7	9	12	8
1972	11	8	9	8	8	7	6	7	7	9	11	9
1973	7	9	7	10	7	5	6	7	10	10	9	10
1974	11	11	7	6	6	6	7	8	10	10	10	10
1975	9	8	9	8	7	8	8	6	10	8	9	10
1976	12	8	7	7	6	6	6	6	9	9	9	9
1977	9	8	8	8	7	8	7	7	7	8	11	9
1978	10	7	9	7	6	6	6	6	9	7	9	9
1979	10	8	9	6	8	7	7	8	7	8	9	12
1980	9	8	9	8	7	7	8	9	7	9	9	8
MEAN	9.2	8.1	7.7	7.1	7.0	6.8	7.1	7.3	7.9	8.5	9.4	8.9
ST.DEV.	1.3	1.3	1.0	1.1	0.9	0.9	1.2	1.0	1.2	1.1	1.3	1.4

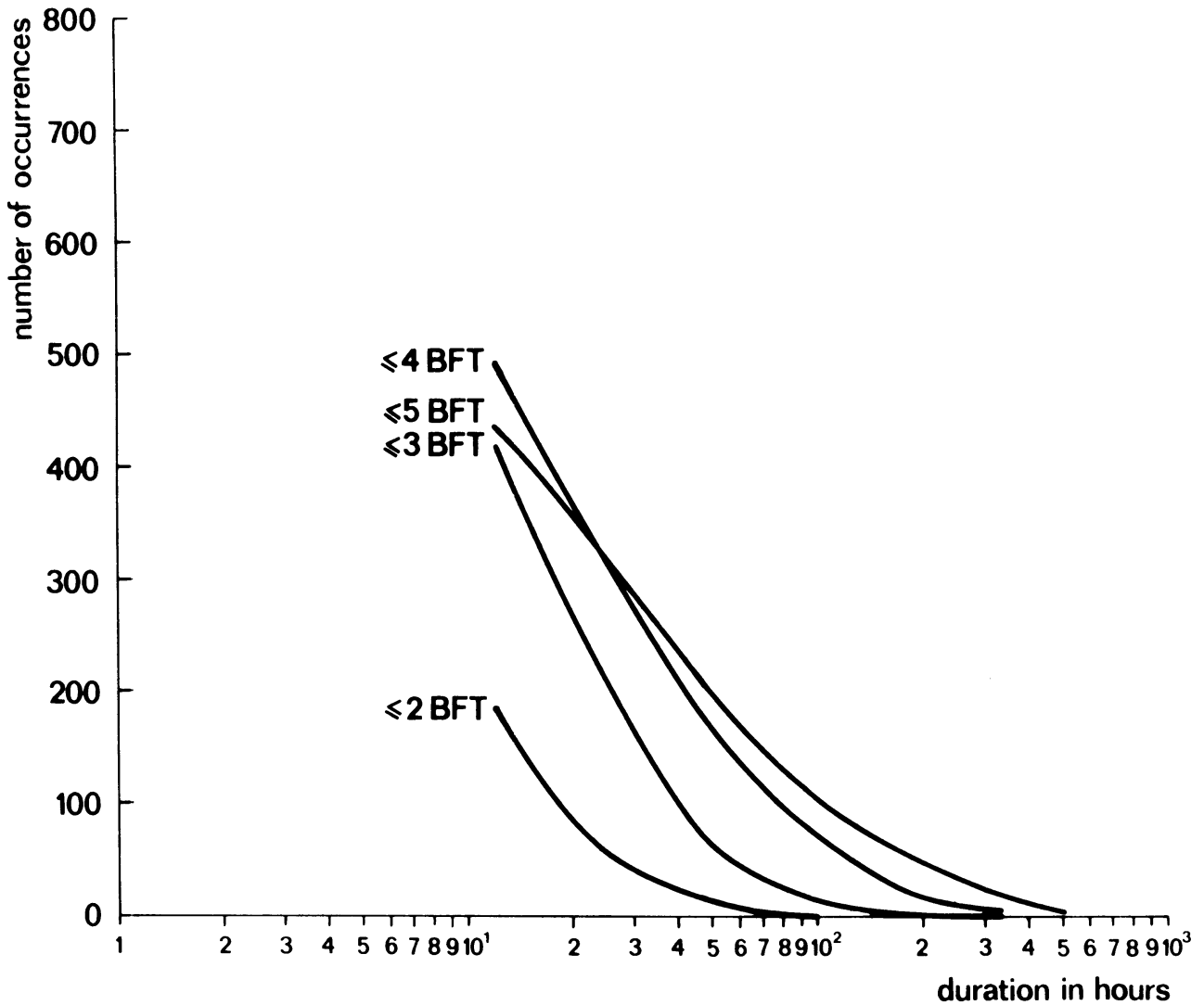
TEXEL	MAXIMUM WINDFORCES ALL DIRECTIONS											1949-1977
	MONTH OF THE YEAR											
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1949	10	10	11	8	6	6	7	8	6	(10)	9	11
1950	6	9	7	9	6	7	7	6	(8)	(7)	8	9
1951	9	8	8	7	6	7	(6)	7	7	7	10	9
1952	8	8	9	7	6	7	6	6	8	9	11	8
1953	11	11	7	6	5	5	6	7	8	6	8	8
1954	11	6	7	6	6	6	7	8	(8)	10	9	11
1955	8	8	7	6	10	6	5	7	6	9	9	9
1956	10	7	7	6	5	7	10	8	8	8	8	8
1957	9	7	7	7	8	6	6	9	9	8	10	10
1958	11	9	7	7	7	6	8	7	9	9	7	7
1959	9	7	7	7	7	8	7	6	6	10	8	9
1960	11	7	7	7	6	9	8	6	7	8	9	10
1961	10	10	9	7	9	7	9	9	9	9	9	11
1962	10	11	7	8	8	7	7	9	8	8	9	10
1963	9	6	7	7	7	8	6	8	9	8	10	8
1964	7	9	9	7	7	6	8	7	9	8	8	9
1965	9	9	7	7	7	6	7	7	9	8	11	9
1966	7	8	9	6	8	9	5	8	8	7	9	9
1967	8	10	9	8	7	7	6	6	9	10	8	8
1968	9	9	8	7	7	7	8	7	8	7	8	7
1969	8	9	8	8	7	6	8	8	8	7	10	8
1970	8	9	9	9	6	5	8	7	8	9	10	7
1971	9	9	8	6	6	6	6	7	6	10	11	8
1972	9	7	9	8	9	7	6	6	6	8	11	10
1973	6	8	7	10	6	5	6	7	8	7	10	10
1974	10	9	7	6	6	6	8	6	10	10	10	11
1975	11	6	9	8	7	6	8	6	10	8	9	10
1976	11	7	7	6	6	6	6	5	8	8	10	8
1977	8	8	8	8	7	6	6	-	-	-	-	-
MEAN	9.0	8.3	7.9	7.2	6.8	6.6	6.9	7.1	8.0	8.3	9.3	9.0
ST.DEV.	1.5	1.4	1.1	1.0	1.2	1.0	1.2	1.1	1.2	1.2	1.1	1.2

TABEL 4

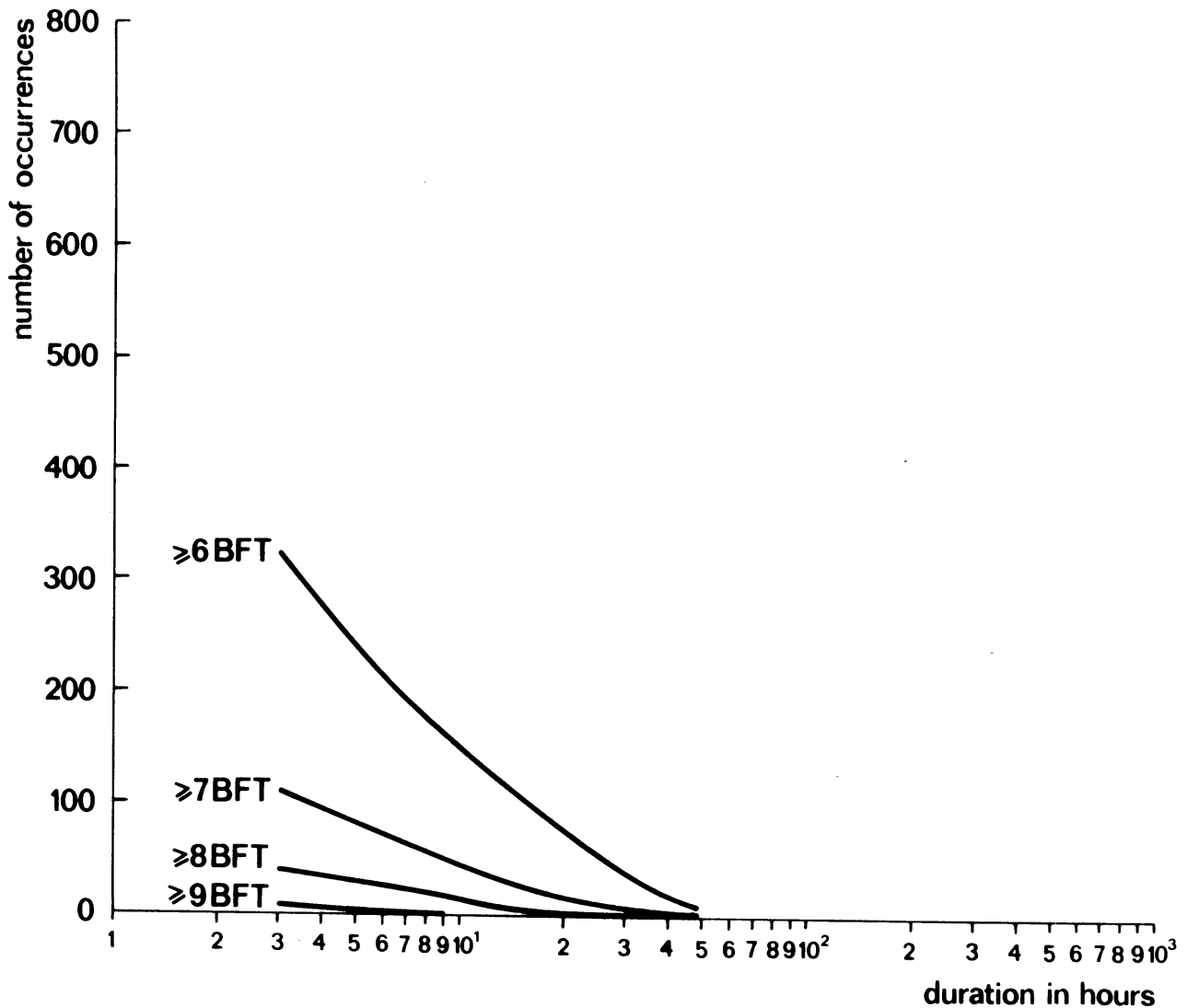
TERSCHELLINGERBANK	MAXIMUM WINDFORCES ALL DIRECTIONS											1949-1975
	MONTH OF THE YEAR											
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1949	10	11	12	8	6	5	8	8	6	10	9	(11)
1950	7	9	8	9	6	8	8	(6)	8	7	8	9
1951	10	9	8	7	6	(7)	6	7	7	6	9	9
1952	8	7	9	6	7	7	7	6	10	9	9	8
1953	11	12	9	6	6	6	6	7	8	6	8	6
1954	10	6	7	7	6	(6)	(7)	(8)	8	11	8	11
1955	9	8	7	6	9	6	6	7	6	8	8	9
1956	10	7	8	5	6	7	10	9	8	8	8	9
1957	9	7	7	6	7	6	6	9	8	9	10	10
1958	11	10	8	7	7	5	7	7	9	10	6	7
1959	10	7	7	7	7	7	7	5	5	9	9	10
1960	10	7	7	7	6	9	8	6	7	7	10	10
1961	9	9	9	6	8	6	8	9	8	9	10	11
1962	9	(11)	(7)	(8)	8	7	7	8	8	8	9	9
1963	8	6	6	7	7	(8)	(6)	(8)	(9)	8	10	7
1964	6	8	8	6	6	6	(8)	6	7	8	8	9
1965	9	9	7	7	7	6	(7)	(7)	(9)	7	9	9
1966	7	8	8	6	8	8	(5)	8	7	6	9	9
1967	8	10	8	7	7	(7)	(6)	(6)	(9)	10	8	8
1968	9	8	8	7	7	7	(8)	(7)	8	7	8	8
1969	8	9	8	8	7	6	(8)	(8)	(8)	(7)	10	8
1970	8	9	8	9	7	5	(8)	(7)	8	8	10	7
1971	8	9	8	7	7	6	(6)	7	6	9	10	8
1972	9	6	8	8	8	7	(6)	6	6	7	11	10
1973	6	8	7	10	(6)	(5)	(6)	(7)	(8)	8	11	10
1974	10	10	8	6	6	(6)	(8)	(6)	(10)	9	10	11
1975	11	7	8	8	-	-	-	-	-	-	-	-
MEAN	8.9	8.4	7.9	7.1	6.8	6.5	7.0	7.1	7.7	8.1	9.0	9.0
ST.DEV.	1.4	1.6	1.1	1.1	0.8	1.0	1.1	1.1	1.3	1.3	1.1	1.4



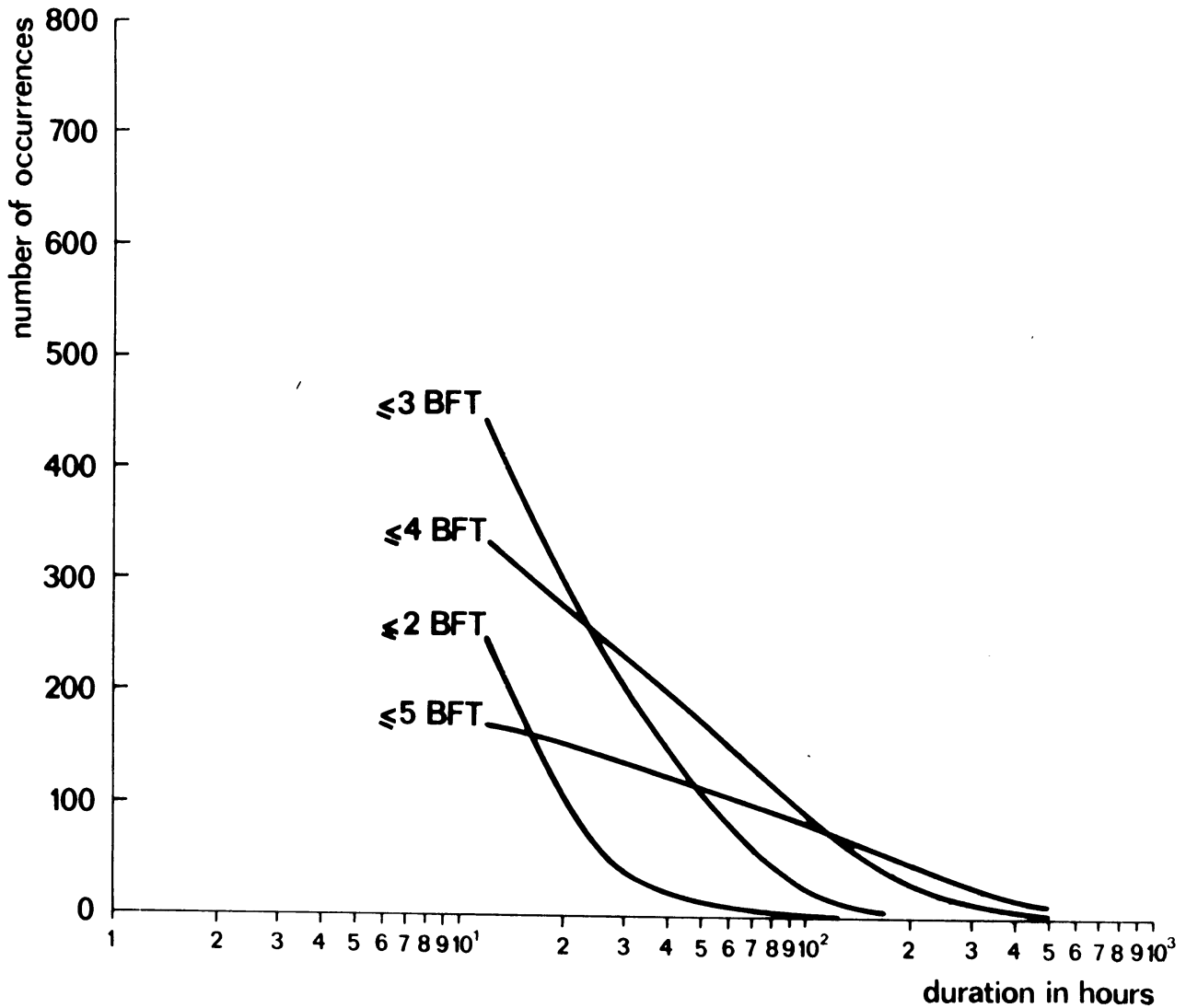
- 5.1. L.V. Goeree. Persistence diagram wind, 1949-1970 (22 years), winter (Dec. Jan. Feb).
 Example: Near L.V. Goeree in 22 winters 372 periods with wind force 7 or more occurred, that is on average 16.9 of such periods per winter.
 Of these 372 periods 276 lasted 6 hours or longer and 65 lasted 24 hours or longer.



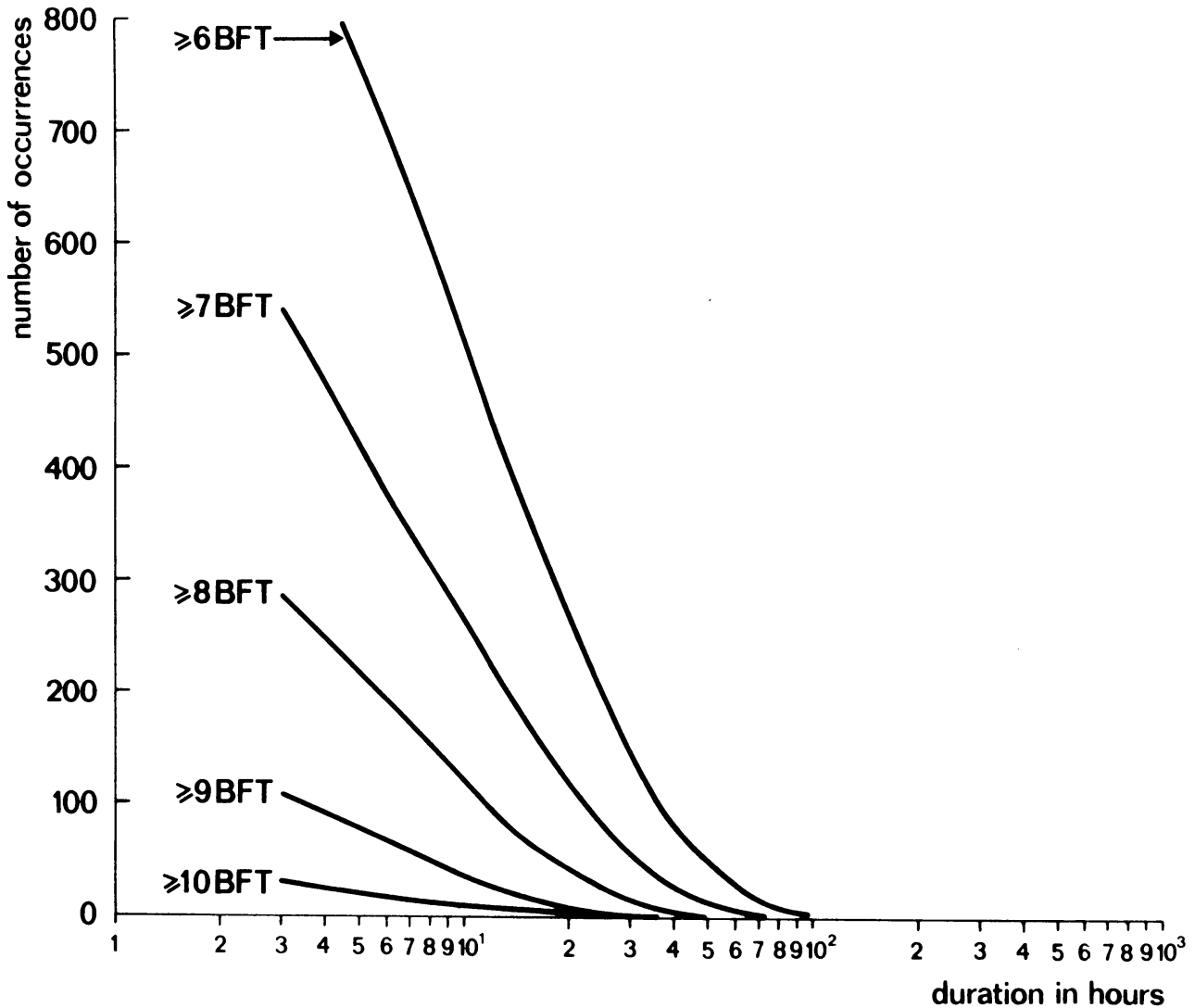
- 5.2. L.V. Goeree. Persistence diagram wind, 1949-1970 (22 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Goeree in 22 winters 495 periods with wind force 4 or less lasted 12 hours or longer, that is on average 22.5 of such periods per winter.
 Of these 495 periods 54 lasted 120 hours (5 days) or longer.



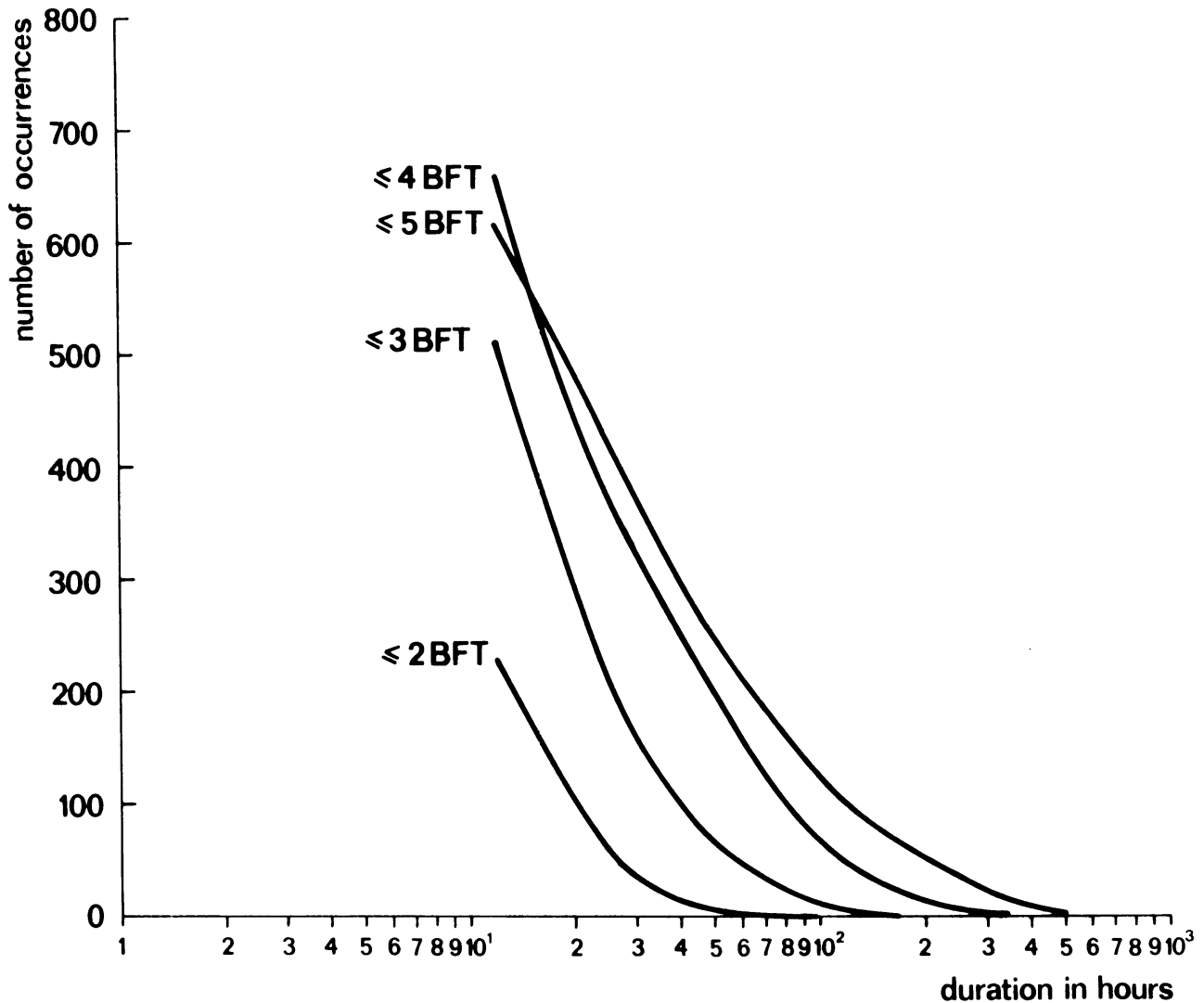
- 5.3. L.V. Goeree. Persistence diagram wind, 1949-1970 (22 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Goeree in 22 summers 322 periods with wind force 6 or more occurred, that is on average 14.6 of such periods per summer.
 Of these 322 periods 212 lasted 6 hours or longer and 58 lasted 24 hours or longer.



- 5.4. L.V. Goeree. Persistence diagram wind, 1949-1970 (22 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Goeree in 22 summers 432 periods with wind force 4 or less lasted 12 hours or longer, that is on average 19.6 of such periods per summer.
 Of these 432 periods 75 lasted 120 hours (5 days) or longer.



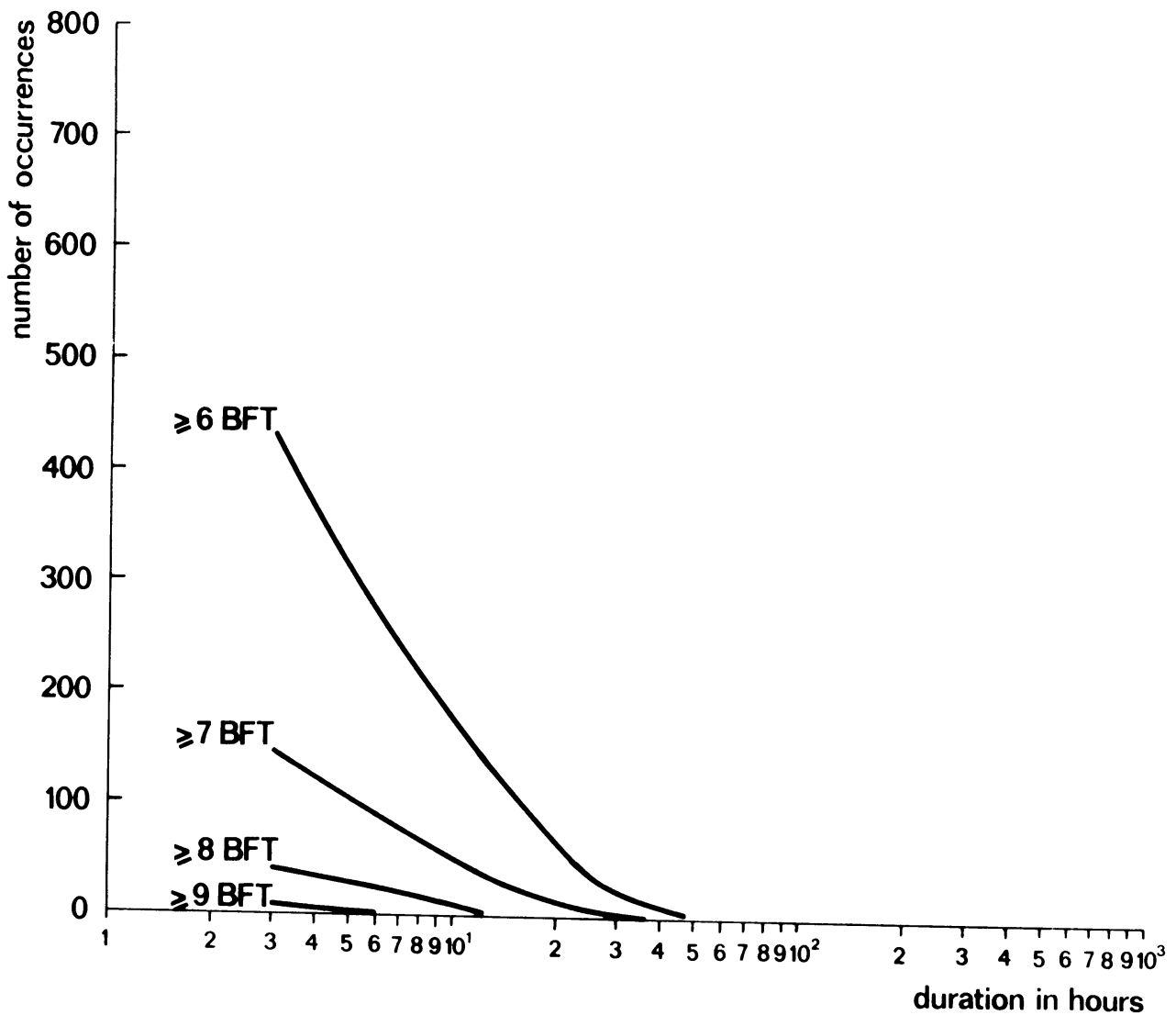
- 5.1. L.V. Noord Hinder. Persistence diagram wind, 1953-1980 (28 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Noord Hinder in 28 winters 543 periods with wind force 7 or more occurred, that is on average 19.4 of such periods per winter.
 Of these 543 periods 373 lasted 6 hours or longer and 87 lasted 24 hours or longer.



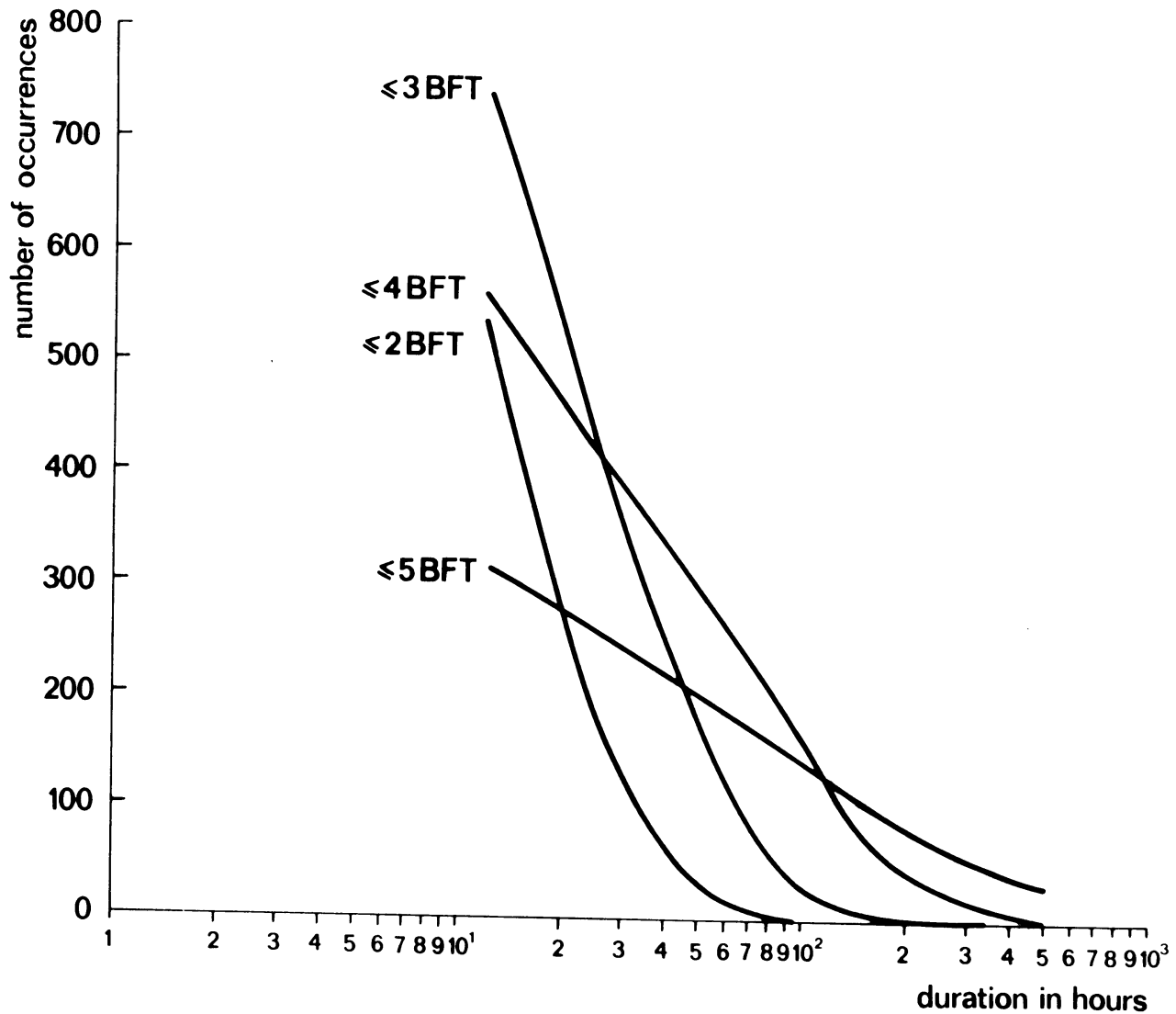
5.2. L.V. Noord Hinder. Persistence diagram wind, 1953-1980 (28 years), winter (Dec, Jan, Feb).

Example: Near L.V. Noord Hinder in 28 winters 664 periods with wind force 4 or less lasted 12 hours or longer, that is on average 23.7 of such periods per winter.

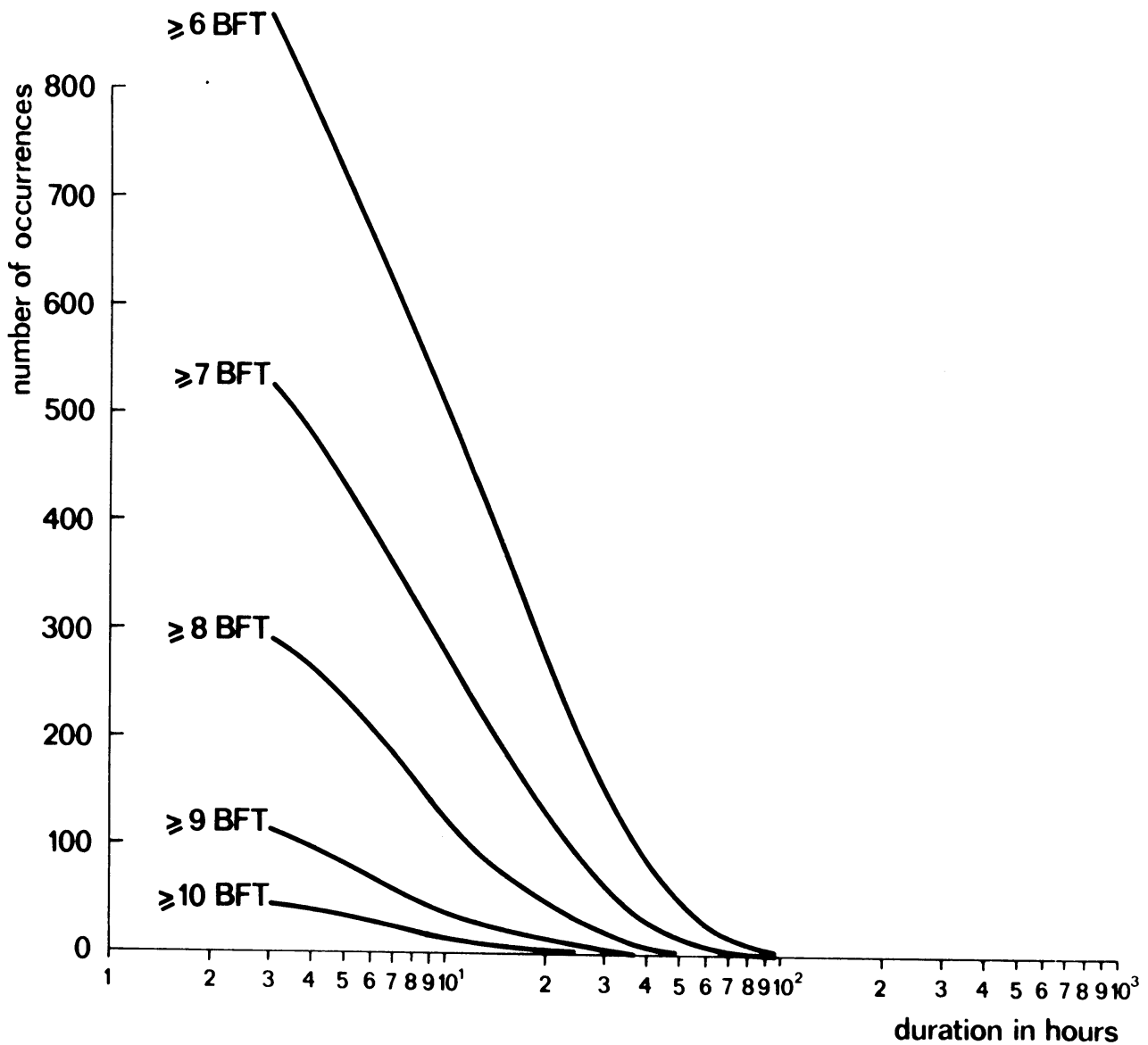
Of these 664 periods 48 lasted 120 hours (5 days) or longer.



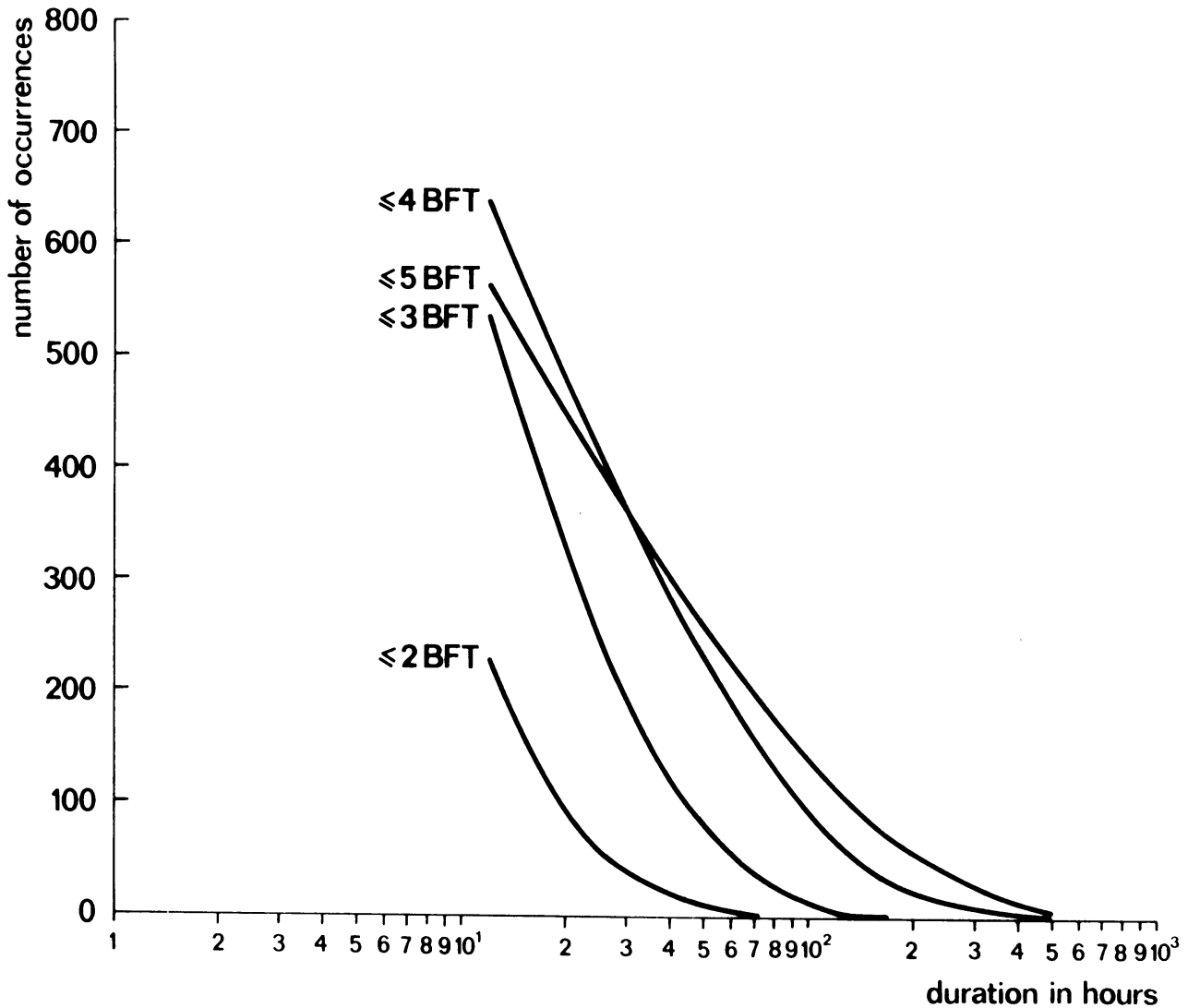
- 5.3. L.V. Noord Hinder. Persistence diagram wind, 1953 - 1980 (28 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Noord Hinder in 28 summers 433 periods with wind force 6 or more occurred, that is on average 15.4 of such periods per summer.
 Of these 433 periods 272 lasted 6 hours or longer and 43 lasted 24 hours or longer.



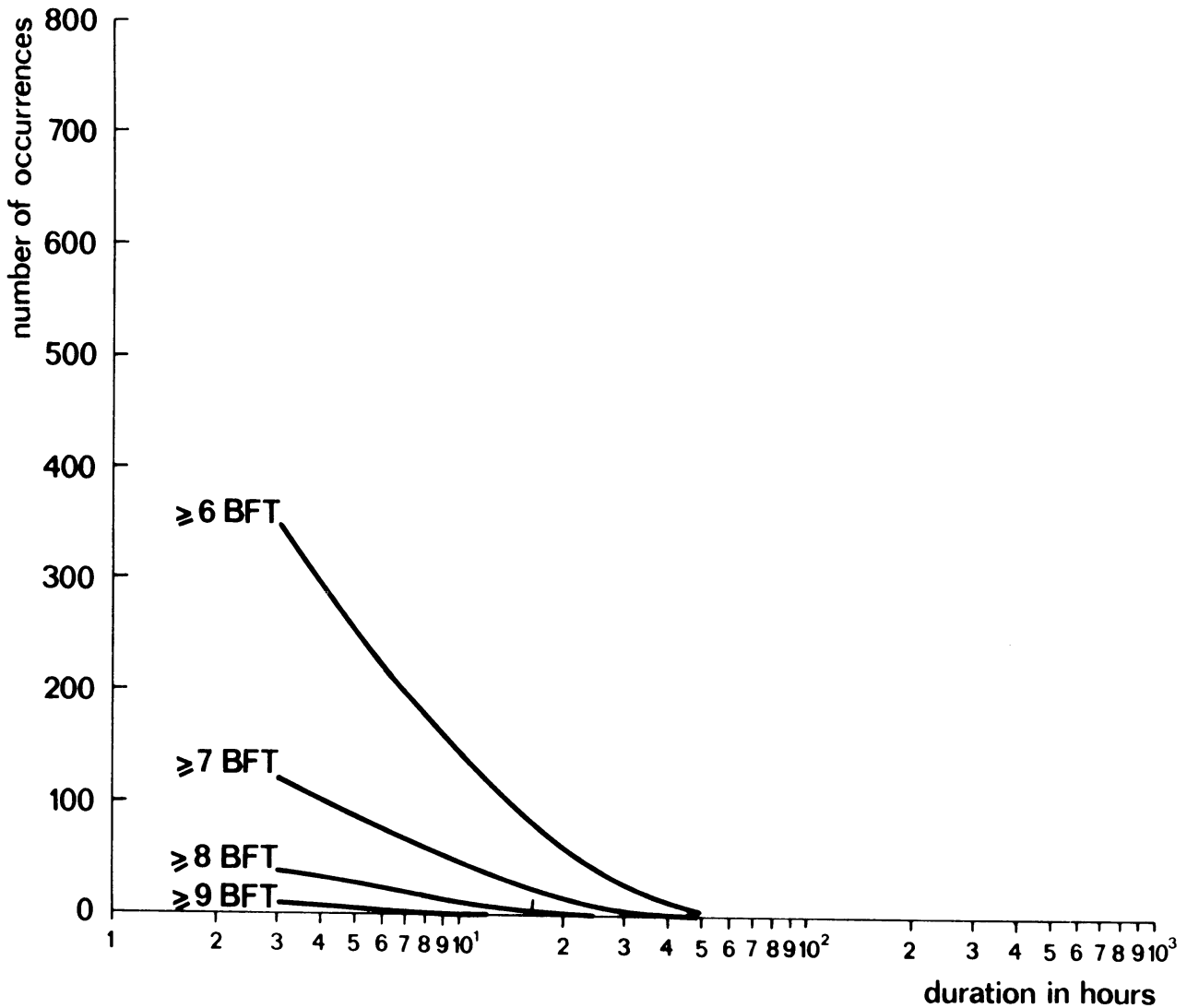
- 5.4. L.V. Noord Hinder. Persistence diagram wind, 1953 - 1980 (28 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Noord Hinder in 28 summers 562 periods with wind force 4 or less lasted 12 hours or longer, that is on average 20.1 of such periods per summer.
 Of these 562 periods 115 lasted 120 hours (5 days) or longer.



- 5.1. L.V. Texel. Persistence diagram wind, 1949 - 1977 (29 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Texel in 29 winters 530 periods with wind force 7 or more occurred, that is on average 18.3 of such periods per winter.
 Of these 530 periods 390 lasted 6 hours or longer and 93 lasted 24 hours or longer.



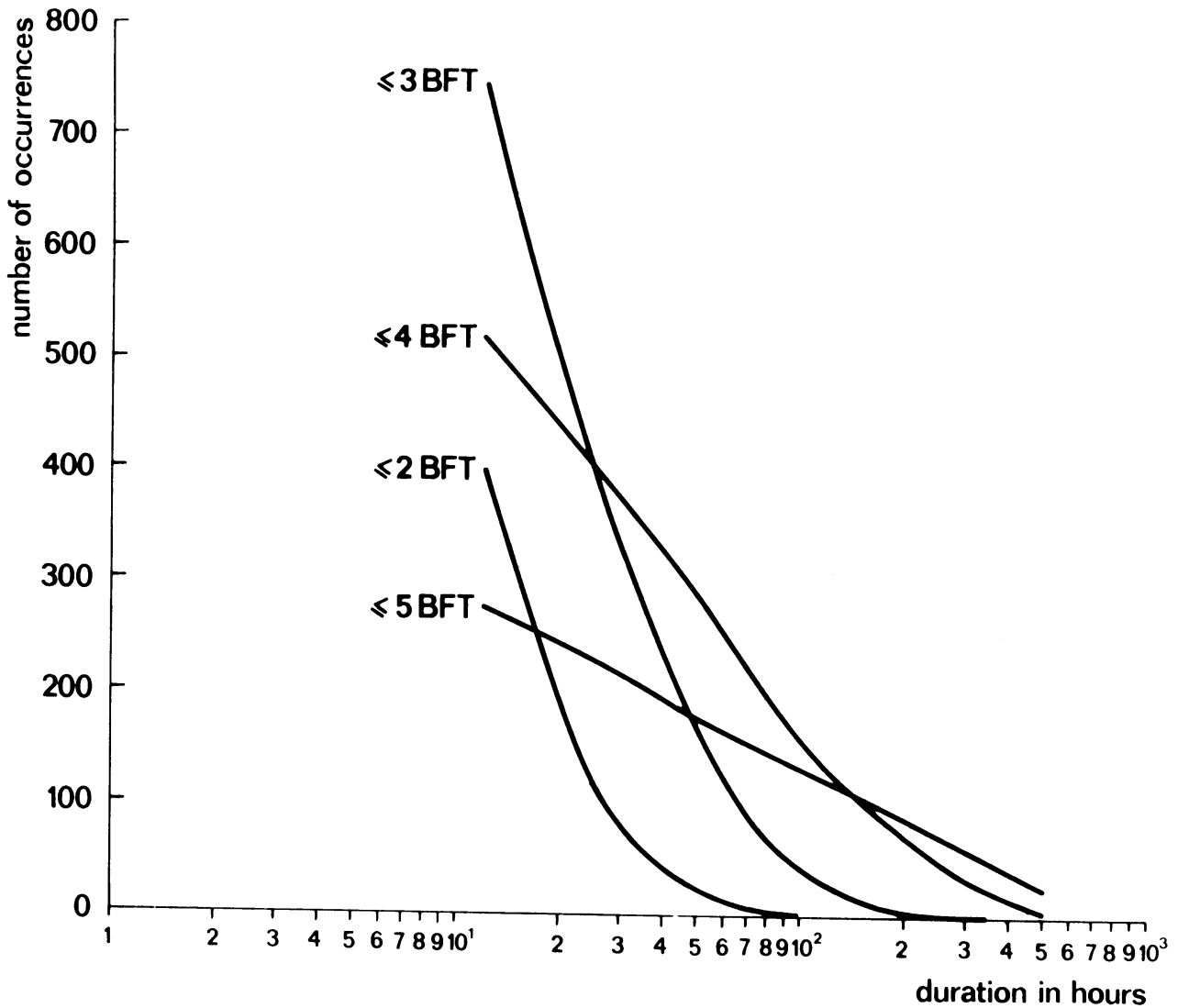
- 5.2. L.V. Texel. Persistence diagram wind, 1949 - 1977 (29 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Texel in 29 winters 644 periods with wind force 4 or less lasted 12 hours or longer, that is on average 22.2 of such periods per winter.
 Of these 644 periods 67 lasted 120 hours (5 days) or longer.



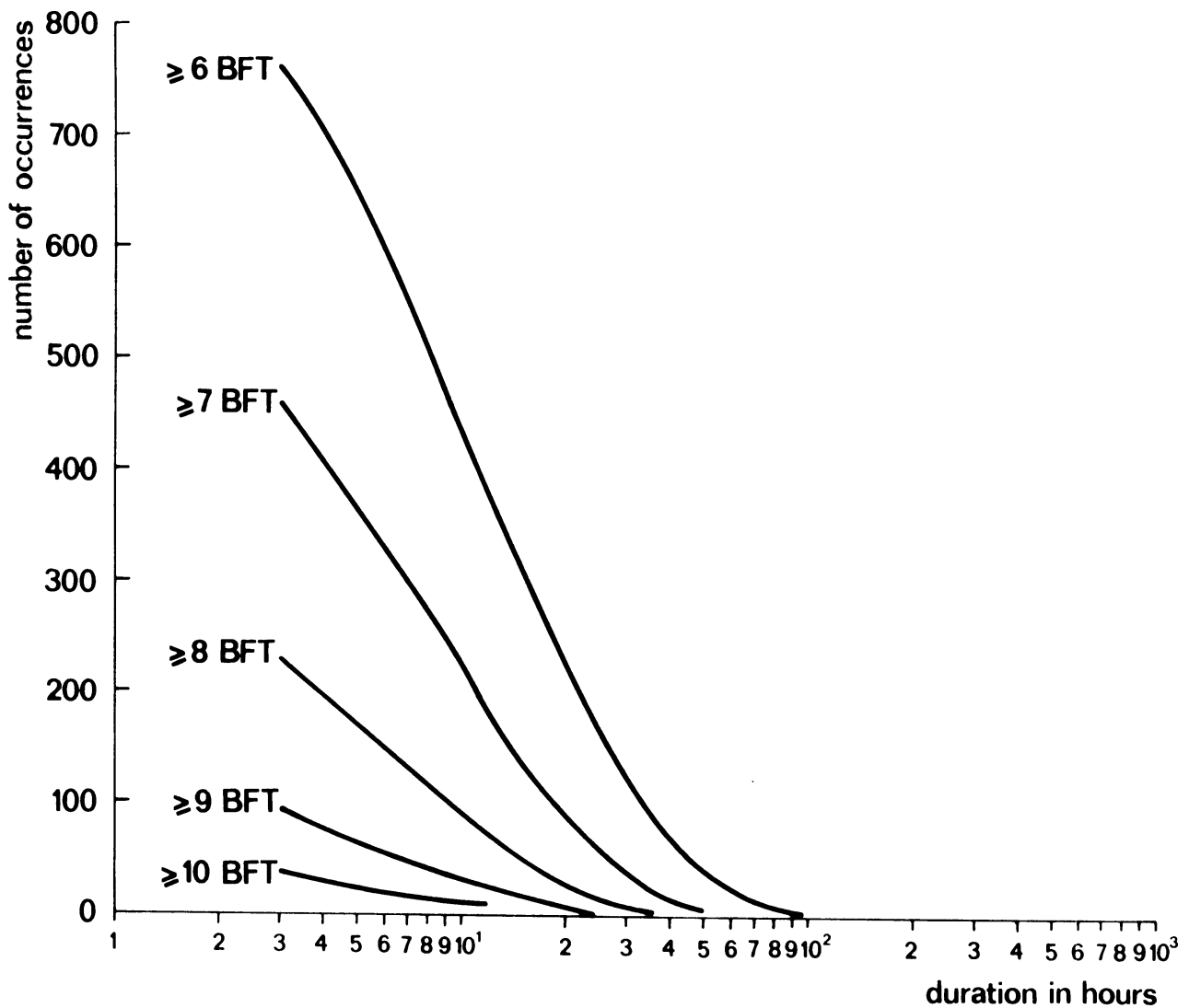
5.3. L.V. Texel. Persistence diagram wind, 1949- 1977 (29 years), summer (Jun, Jul, Aug).

Example: Near L.V. Texel in 29 summers 347 periods with force 6 or more occurred, that is on average 12.0 of such periods per summer.

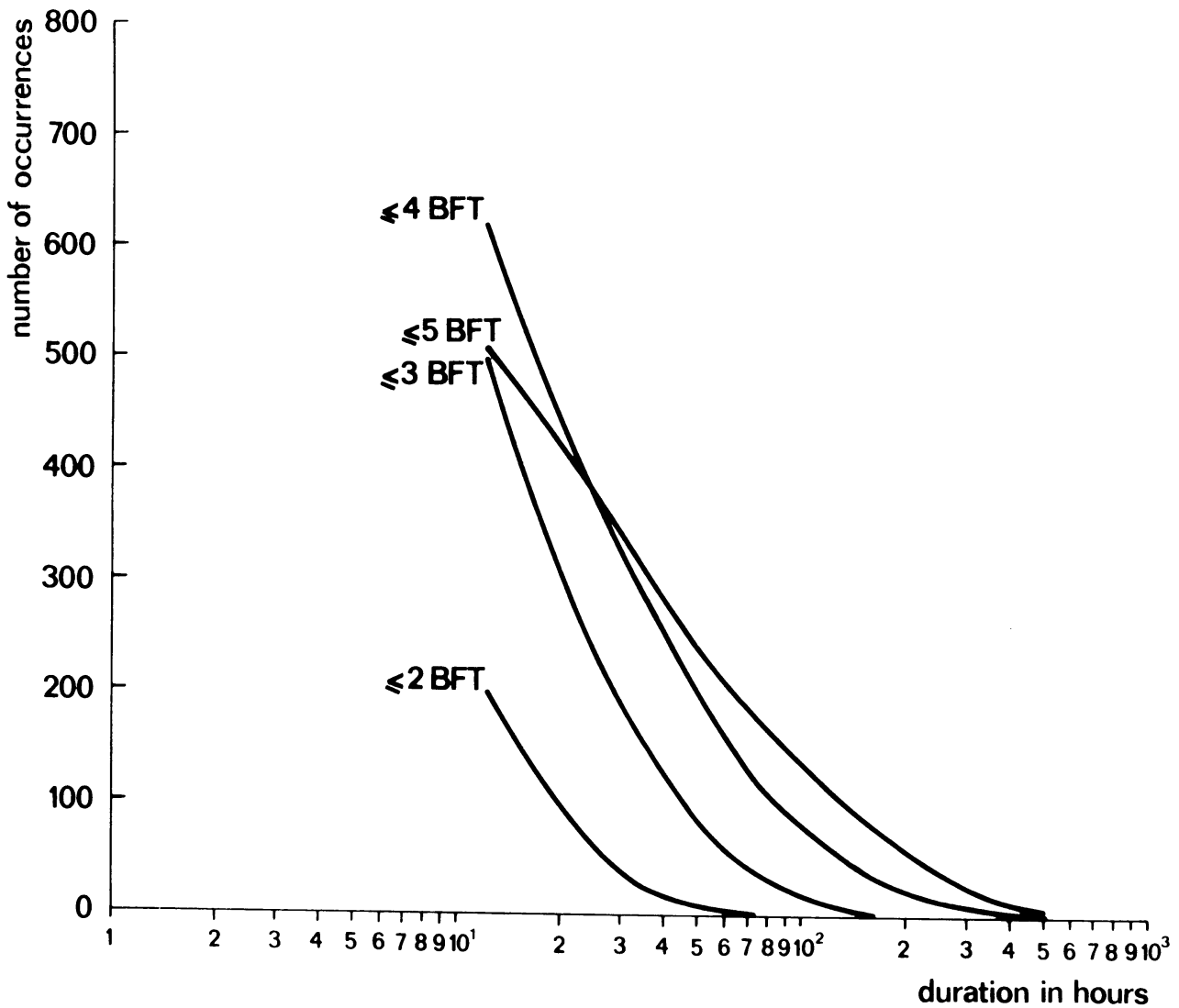
Of these 347 periods 219 lasted 6 hours or longer and 45 lasted 24 hours or longer.



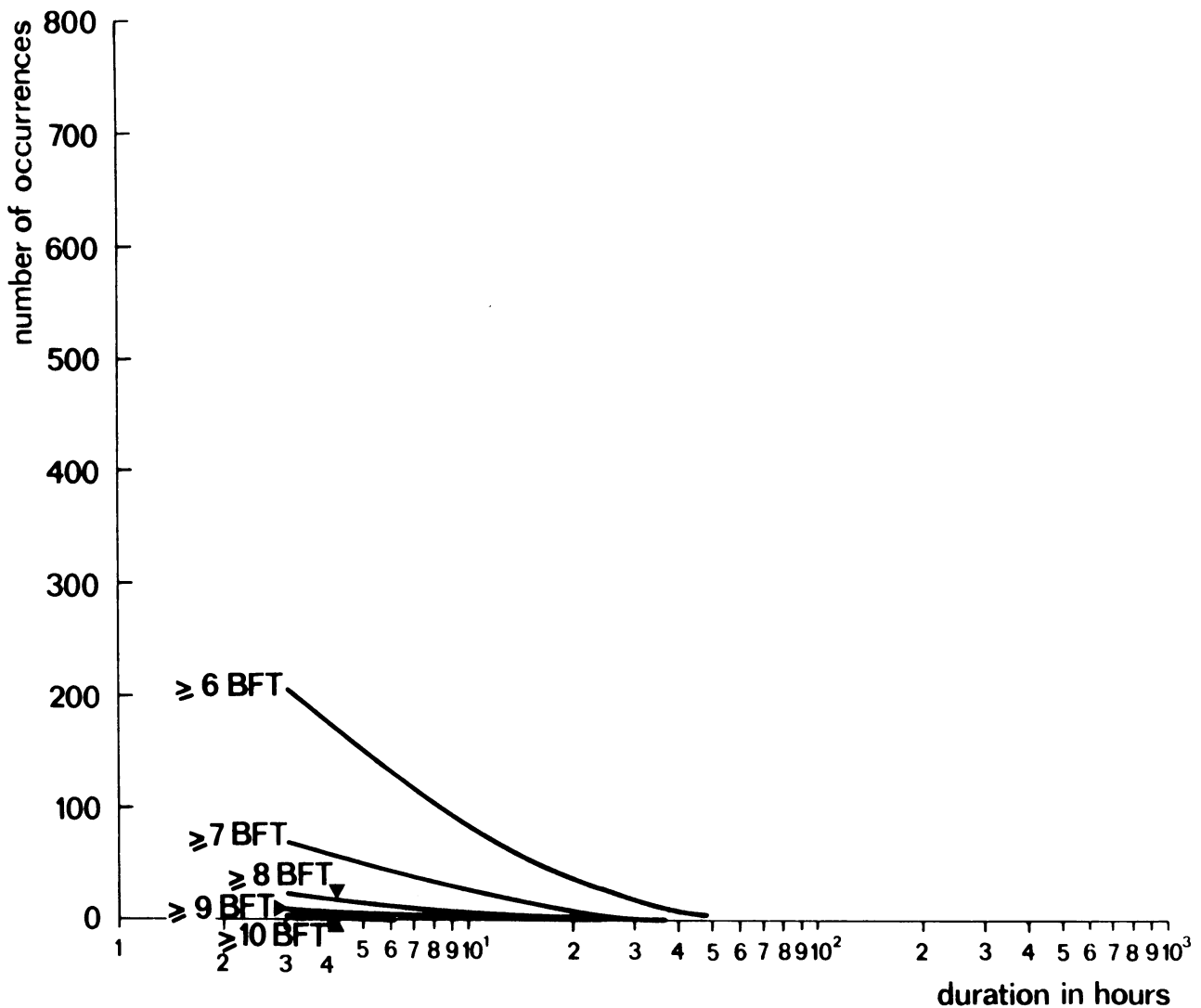
- 5.4. L.V. Texel. Persistence diagram wind, 1949 - 1977 (29 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Texel in 29 summers 520 periods with wind force 4 or less lasted 12 hours or longer, that is on average 17.9 of such periods per summer.
 Of these 520 periods 132 lasted 120 hours (5 days) or longer.



- 5.1. L.V. Terschellingerbank. Persistence diagram wind, 1949 - 1975 (27 years), winter (Dec, Jan, Feb).
 Example: near L.V. Terschellingerbank in 27 winters 458 periods with wind force 7 or more occurred, that is on average 17.0 of such periods per winter.
 Of these 458 periods 326 lasted 6 hours or longer and 68 lasted 24 hours or longer.



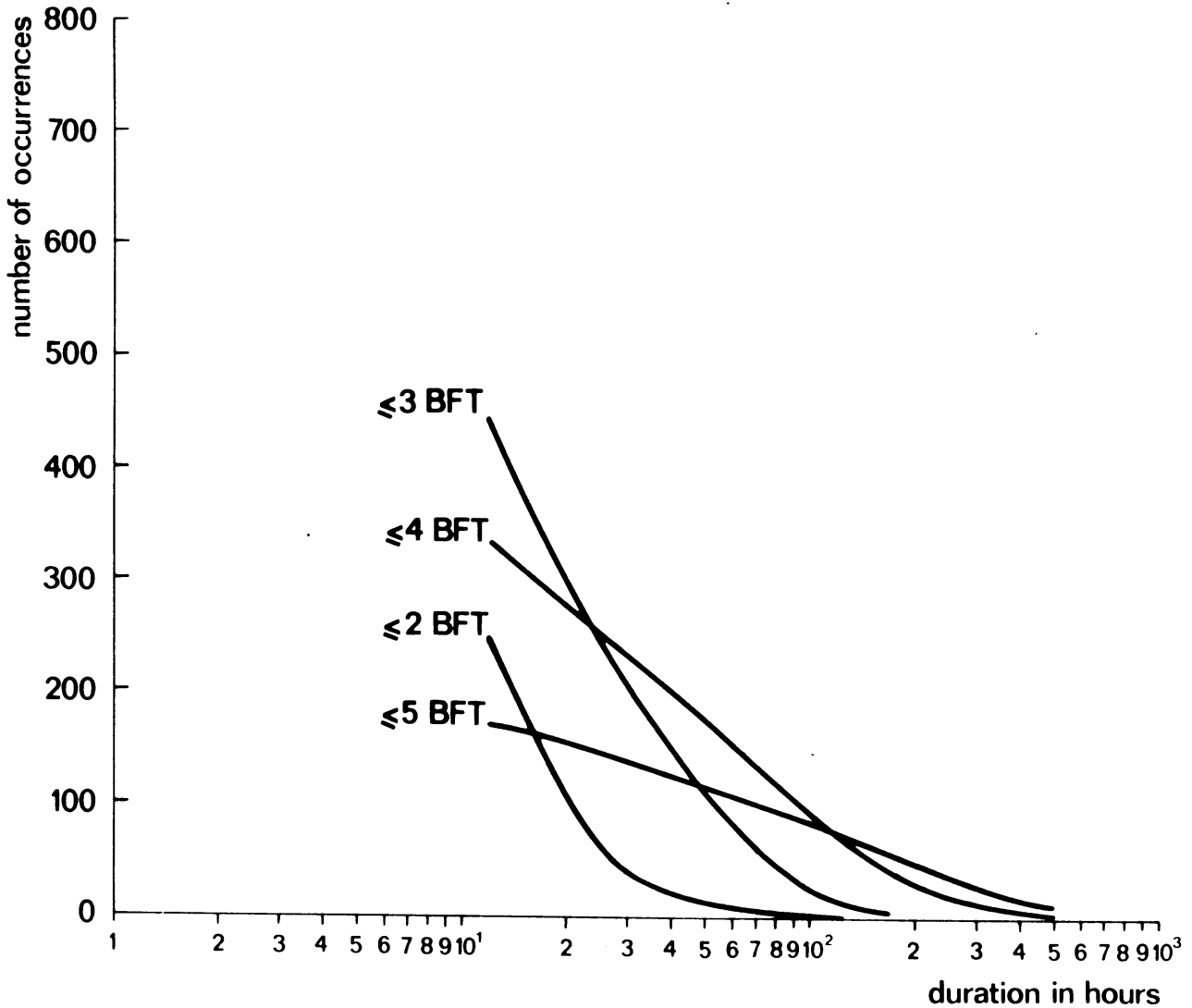
- 5.2. L.V. Terschellingerbank. Persistence diagram wind, 1949 - 1975 (27 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Terschellingerbank in 27 winters 622 periods with wind force 4 or less lasted 12 hours or longer, that is on average 23.0 of such periods per winter.
 Of these 622 periods 62 lasted 120 hours (5 days) or longer.



5.3. L.V. Terschellingerbank. Persistence diagram wind, 1949 - 1975 ("17 years"), summer (Jun, Jul, Aug).

Near L.V. Terschellingerbank in 17 summers 207 periods with wind force 6 or more occurred, that is on average 12.2 of such periods per summer.

Of these 207 periods 134 lasted 6 hours or longer and 29 lasted 24 hours or longer.



- 5.4. L.V. Terschellingerbank. Persistence diagram wind, 1949 -1975 ("17 years"), summer (Jun, Jul, Aug).
 Near L.V. Terschellingerbank in 17 summers 337 periods with wind force 4 or less lasted 12 hours or longer, that is on average 19.8 of such periods per summer.
 Of these 337 periods 71 lasted 120 hours (5 days) or longer.

TABLE 4
NOORDHINDER

WAVE DIRECTION AND HEIGHT DECEMBER 1953-1980 (6911 OBS)
PARTS PER THOUSAND (FRACTION OF TIME) FOR EACH DIRECTION AND HEIGHT

WAVE HEIGHT (M)	CALM OR VAR.	36	03	06	09	12	15	18	21	24	27	30	33	TOTAL
0	17	2	3	2	2	2	5	4	3	2	2	2	2	48
0.5	0	15	17	14	25	24	28	30	25	23	28	23	19	271
1	-	19	14	9	15	13	15	30	34	34	29	26	21	259
1.5	-	10	9	8	10	5	12	16	31	34	25	18	20	199
2	-	7	3	3	7	0	3	8	17	18	13	11	14	110
2.5	-	3	3	3	2	-	1	4	11	9	10	6	7	60
3	-	1	1	1	0	0	0	2	5	6	4	4	2	28
3.5	-	0	-	0	0	-	-	1	3	3	2	4	2	15
4	-	0	-	-	-	-	-	0	1	0	1	1	1	4
4.5	0	-	-	-	-	-	-	-	0	1	1	1	0	3
5	-	-	-	-	-	-	-	-	0	-	1	0	0	1
5.5	-	-	-	-	-	-	-	-	0	-	-	0	-	0
6	-	-	-	-	-	-	-	-	-	0	-	0	-	0
6.5	-	-	-	-	-	-	-	-	-	0	-	0	0	1
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>=7.5	-	-	-	-	-	-	-	-	-	0	0	0	-	0
									0	-	-	-	-	0

TABLE 5
NOORDHINDER

WAVE DIRECTION AND HEIGHT YEAR JAN 1953 - DEC 1980 (80850 OBS)
PARTS PER THOUSAND (FRACTION OF TIME) FOR EACH DIRECTION AND HEIGHT

WAVE HEIGHT (M)	CALM OR VAR.	36	03	06	09	12	15	18	21	24	27	30	33	TOTAL
0	37	7	8	5	7	6	7	7	8	7	4	3	4	110
0.5	1	36	37	27	32	22	25	29	39	44	28	20	23	363
1	0	27	26	17	15	7	9	18	29	40	22	15	19	245
1.5	0	14	14	10	8	3	4	9	21	30	15	11	13	151
2	-	7	6	5	3	1	1	4	11	14	8	6	8	74
2.5	-	2	2	2	2	0	0	1	5	6	4	4	4	33
3	-	1	1	1	1	0	0	1	2	2	2	2	2	15
3.5	-	0	0	0	0	-	-	0	1	1	1	1	1	6
4	-	0	0	0	-	-	-	0	0	0	0	0	1	2
4.5	0	0	0	-	-	-	-	-	0	0	0	0	0	1
5	-	0	-	-	-	-	-	-	0	0	0	0	0	0
5.5	-	0	-	-	-	-	-	-	0	0	-	0	-	0
6	-	0	-	-	-	-	-	-	0	0	-	0	-	0
6.5	-	0	-	-	-	-	-	-	-	-	0	-	-	0
7	-	0	-	-	-	-	-	-	-	-	0	-	-	0
>=7.5	0	0	-	-	-	-	-	-	0	0	0	0	0	0
									0	-	-	-	-	0

TABLE 6
 TERSCHELLINGERBANK WAVE DIRECTION AND HEIGHT YEAR JAN 1949 - DEC 1975 (66266 OBS)
 PARTS PER THOUSAND (FRACTION OF TIME) FOR EACH DIRECTION AND HEIGHT

WAVE HEIGHT (M)	CALM OR VAR.	36	03	06	09	12	15	18	21	24	27	30	33	TOTAL
0	14	4	5	3	5	4	5	6	6	4	3	2	3	65
0.5	0	35	26	22	29	22	27	34	40	31	25	19	31	342
1	0	34	18	19	23	13	12	16	34	34	28	22	36	289
1.5	0	16	8	10	11	5	4	7	17	23	21	15	24	161
2	0	6	3	3	5	1	1	2	8	11	16	10	13	80
2.5	-	3	1	1	2	0	0	1	3	6	8	6	6	37
3	-	1	0	0	1	0	-	0	1	2	3	3	3	15
3.5	-	0	0	0	-	-	-	0	0	1	1	1	1	6
4	-	0	0	-	-	-	-	-	0	0	1	1	1	3
4.5	-	0	-	-	-	-	-	-	0	0	0	0	0	1
5	-	-	-	-	-	-	-	-	-	-	0	0	0	0
5.5	-	0	-	-	-	-	-	-	-	-	0	0	0	0
6	-	-	-	-	-	-	-	-	-	0	0	0	0	0
6.5	-	-	-	-	-	-	-	-	-	-	0	-	0	0
7	-	-	-	-	-	-	-	-	-	-	0	0	0	0
>=7.5	-	-	-	-	-	-	-	-	-	-	-	0	0	0

TABLE 6
 TERSCHELLINGERBANK WAVE DIRECTION AND HEIGHT DECEMBER 1949-1975 (6269 OBS)
 PARTS PER THOUSAND (FRACTION OF TIME) FOR EACH DIRECTION AND HEIGHT

WAVE HEIGHT (M)	CALM OR VAR.	36	03	06	09	12	15	18	21	24	27	30	33	TOTAL
0	7	1	1	1	2	4	4	7	5	2	3	2	2	42
0.5	-	16	7	7	16	34	43	45	33	22	17	17	16	274
1	-	18	7	3	24	17	21	26	36	30	30	18	28	262
1.5	0	14	4	6	10	9	7	9	24	31	26	21	21	181
2	-	7	3	4	6	3	3	5	11	21	35	12	15	124
2.5	-	3	1	3	4	0	0	3	8	13	16	6	8	65
3	-	1	0	0	1	-	-	1	3	3	7	7	2	25
3.5	-	1	1	0	-	-	-	0	1	1	3	2	2	11
4	-	1	-	-	-	-	-	-	0	0	3	3	2	9
4.5	-	-	-	-	-	-	-	-	0	-	1	1	0	3
5	-	-	-	-	-	-	-	-	-	-	0	-	-	0
5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.5	-	-	-	-	-	-	-	-	-	-	-	0	-	0
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
>=7.5	-	-	-	-	-	-	-	-	-	-	-	0	-	0
												2	-	2

TABLE 7
GOEREE WAVES YEAR JAN-DEC 1949-1970
DIRECTION OF WAVES 200-280 21799 OBS

WAVE HEIGHT (M)	PARTS PER THOUSAND FOR EACH PERIOD (SECONDS) AND HEIGHT (M)					ALL PERIODS
	<=5	6-7	8-9	10-11	>=12	
<0.25	58	-	-	-	-	58
0.5	219	-	-	-	0	219
1	257	0	-	-	-	257
1.5	222	1	-	-	-	223
2	130	1	-	-	-	131
2.5	59	3	-	-	-	62
3	28	3	-	-	-	31
3.5	10	1	-	-	-	11
4	3	1	0	-	-	4
>=4.5	3	0	-	-	-	3

TABLE 7
GOEREE WAVES YEAR JAN-DEC 1949-1970
DIRECTION OF WAVES 290-010 18469 OBS

WAVE HEIGHT (M)	PARTS PER THOUSAND FOR EACH PERIOD (SECONDS) AND HEIGHT (M)					ALL PERIODS
	<=5	6-7	8-9	10-11	>=12	
<0.25	63	-	-	-	-	63
0.5	266	8	-	-	0	274
1	263	4	-	-	-	267
1.5	174	4	-	-	-	178
2	106	5	-	-	-	111
2.5	48	5	0	-	-	53
3	27	2	-	-	-	29
3.5	12	2	-	-	-	14
4	6	1	-	-	-	7
>=4.5	6	0	-	-	-	6

TABLE 7
NOORHINDER WAVES YEAR JAN-DEC 1953-1980
DIRECTION OF WAVES 200-280 28095 OBS

WAVE HEIGHT (M)	PARTS PER THOUSAND FOR EACH PERIOD (SECONDS) AND HEIGHT (M)					ALL PERIODS
	<=5	6-7	8-9	10-11	>=12	
<0.25	51	2	0	-	-	53
0.5	303	17	1	-	-	321
1	213	49	2	-	0	264
1.5	114	65	11	0	0	190
2	41	41	12	2	-	96
2.5	12	23	7	2	0	44
3	5	11	3	1	0	20
3.5	0	5	2	0	0	7
4	0	2	0	0	0	2
>=4.5	0	1	1	0	-	2

TABLE 7
NOORHINDER WAVES YEAR JAN-DEC 1953-1980
DIRECTION OF WAVES 290-010 16775 OBS

WAVE HEIGHT (M)	PARTS PER THOUSAND FOR EACH PERIOD (SECONDS) AND HEIGHT (M)					ALL PERIODS
	<=5	6-7	8-9	10-11	>=12	
<0.25	43	19	2	0	-	64
0.5	249	64	22	1	1	337
1	174	60	29	2	0	265
1.5	84	51	23	2	0	160
2	34	32	22	3	0	91
2.5	11	21	8	2	0	42
3	3	12	5	0	1	21
3.5	1	5	3	1	0	10
4	0	2	2	0	0	4
>=4.5	0	1	2	0	0	3

TABLE 7
TEXEL WAVES YEAR JAN-DEC 1949-1977
DIRECTION OF WAVES 200-280 27752 OBS

WAVE HEIGHT (M)	PARTS PER THOUSAND FOR EACH PERIOD (SECONDS) AND HEIGHT (M)					ALL PERIODS
	<=5	6-7	8-9	10-11	>=12	
<0.25	42	1	0	-	-	43
0.5	250	15	1	0	1	267
1	214	53	4	0	1	272
1.5	107	70	12	1	0	190
2	53	48	17	1	0	119
2.5	16	34	12	1	-	63
3	2	17	6	1	-	26
3.5	1	8	2	0	0	11
4	0	4	2	0	0	6
>=4.5	0	1	1	0	-	2

TABLE 7
TEXEL WAVES YEAR JAN-DEC 1949-1977
DIRECTION OF WAVES 290-010 24302 OBS

WAVE HEIGHT (M)	PARTS PER THOUSAND FOR EACH PERIOD (SECONDS) AND HEIGHT (M)					ALL PERIODS
	<=5	6-7	8-9	10-11	>=12	
<0.25	35	4	0	-	0	39
0.5	200	74	10	1	1	286
1	178	101	18	1	1	299
1.5	90	74	20	2	0	186
2	38	40	16	1	1	96
2.5	9	24	12	2	-	47
3	1	15	7	1	0	24
3.5	0	6	4	1	0	11
4	-	3	4	0	0	7
>=4.5	-	1	2	1	-	4

TABLE 7
TERSCHELLINGERBANK WAVES YEAR JAN-DEC 1949-1975
DIRECTION OF WAVES 200-280 21729 OBS

WAVE HEIGHT (M)	PARTS PER THOUSAND FOR EACH PERIOD (SECONDS) AND HEIGHT (M)					ALL PERIODS
	<=5	6-7	8-9	10-11	>=12	
<0.25	41	1	-	-	-	42
0.5	272	17	0	-	2	291
1	226	64	2	0	0	292
1.5	97	82	7	0	-	186
2	33	59	14	1	0	107
2.5	7	30	13	1	-	51
3	1	13	4	1	0	19
3.5	0	4	2	0	-	6
4	-	1	2	0	-	3
>=4.5	0	1	1	0	-	2

TABLE 7
TERSCHELLINGERBANK WAVES YEAR JAN-DEC 1949-1975
DIRECTION OF WAVES 290-010 19830 OBS

WAVE HEIGHT (M)	PARTS PER THOUSAND FOR EACH PERIOD (SECONDS) AND HEIGHT (M)					ALL PERIODS
	<=5	6-7	8-9	10-11	>=12	
<0.25	28	4	0	0	0	32
0.5	180	98	4	1	4	287
1	147	147	10	1	2	307
1.5	58	110	16	1	0	185
2	19	58	20	2	-	99
2.5	3	26	17	3	0	49
3	1	11	10	1	0	23
3.5	-	5	4	1	0	10
4	-	3	3	1	-	7
>=4.5	-	0	2	0	1	3

TABEL 8

GOEREE WAVE HEIGHT ALL DIRECTIONS 1949-1970
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTH	>1.75 M		>2.75 M		>3.75 M	
	A	B	A	B	A	B
JANUARY	246	536 (54)	68	226 (59)	12	44 (58)
FEBRUARY	190	455 (62)	35	179 (62)	7	89 (62)
MARCH	136	379 (51)	22	97 (51)	3	28 (49)
APRIL	121	337 (51)	13	67 (50)	0	8 (70)
MAY	94	311 (55)	10	93 (55)	1	20 (55)
JUNE	85	200 (54)	7	50 (63)	0	8 (50)
JULY	134	395 (54)	21	85 (56)	2	36 (56)
AUGUST	139	371 (56)	23	97 (57)	1	12 (57)
SEPTEMBER	165	525 (50)	28	146 (50)	2	17 (50)
OCTOBER	210	411 (70)	57	226 (56)	15	57 (70)
NOVEMBER	287	608 (69)	78	263 (69)	16	50 (52)
DECEMBER	271	528 (54)	68	206 (54)	19	97 (54)
YEAR	174	312 (54)	36	74 (56)	7	18 (49)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL c

HOORDHINDER WAVE HEIGHT ALL DIRECTIONS 1953-1980
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTH	>1.75 M		>2.75 M		>3.75 M	
	A	B	A	B	A	B
JANUARY	223	501 (54)	53	177 (62)	7	32 (62)
FEBRUARY	147	491 (62)	26	174 (62)	5	103 (62)
MARCH	102	355 (55)	11	57 (55)	0	12 (68)
APRIL	66	254 (72)	6	29 (73)	0	8 (59)
MAY	64	254 (55)	4	32 (55)	0	4 (69)
JUNE	46	208 (53)	2	38 (60)	-	- ()
JULY	64	296 (53)	6	40 (60)	1	8 (50)
AUGUST	74	246 (57)	10	61 (57)	0	4 (61)
SEPTEMBER	119	471 (54)	19	150 (74)	2	33 (74)
OCTOBER	163	383 (70)	40	149 (56)	9	52 (59)
NOVEMBER	273	492 (80)	68	142 (63)	10	46 (63)
DECEMBER	222	460 (59)	53	173 (74)	10	73 (79)
YEAR	142	283 (54)	25	51 (61)	4	15 (60)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 8

TEXFL WAVE HEIGHT ALL DIRECTIONS 1949-1977
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTH	>1.75 M		>2.75 M		>3.75 M	
	A	B	A	B	A	B
JANUARY	267	641 (76)	56	242 (76)	14	97 (62)
FEBRUARY	164	442 (73)	33	214 (62)	10	107 (62)
MARCH	150	323 (70)	18	133 (68)	3	52 (68)
APRIL	109	328 (73)	13	92 (73)	1	25 (73)
MAY	61	226 (72)	6	48 (62)	1	12 (55)
JUNE	50	142 (60)	4	67 (60)	0	8 (60)
JULY	76	219 (61)	10	69 (61)	0	12 (61)
AUGUST	76	294 (62)	14	81 (61)	2	20 (62)
SEPTEMBER	152	521 (54)	28	142 (70)	3	25 (63)
OCTOBER	204	444 (70)	47	169 (70)	10	101 (70)
NOVEMBER	303	604 (69)	93	308 (69)	19	108 (73)
DECEMBER	286	722 (74)	71	198 (74)	15	69 (49)
YEAR	157	232 (74)	32	70 (62)	7	23 (62)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 8

TERSCHELLINGERBANK WAVE HEIGHT ALL DIRECTIONS 1949-1975
PARTS PER THOUSAND (FRACTIONS OF TIME)

MONTH	>1.75 M		>2.75 M		>3.75 M	
	A	B	A	B	A	B
JANUARY	213	526 (75)	38	167 (54)	10	69 (54)
FEBRUARY	156	402 (62)	30	107 (55)	4	40 (49)
MARCH	125	315 (75)	18	97 (68)	2	32 (49)
APRIL	92	435 (73)	9	86 (73)	1	16 (73)
MAY	66	214 (72)	8	44 (62)	-	- ()
JUNE	40	89 (62)	5	58 (60)	0	4 (62)
JULY	74	568 (70)	5	61 (56)	-	- ()
AUGUST	69	254 (62)	14	88 (62)	1	12 (55)
SEPTEMBER	130	346 (54)	12	100 (54)	1	8 (54)
OCTOBER	174	464 (74)	31	154 (70)	4	45 (70)
NOVEMBER	232	635 (73)	61	292 (73)	10	100 (73)
DECEMBER	240	774 (74)	51	226 (74)	15	93 (54)
YEAR	142	331 (73)	25	101 (73)	4	32 (73)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 9

MONTH	GOEREE WAVE HEIGHT ALL DIRECTIONS PARTS PER THOUSAND (FRACTIONS OF TIME) 1949-1970					
	<0.25 M		<0.75 M		<1.25 M	
	A	B	A	B	A	B
JANUARY	85	8 (57)	313	44 (54)	552	254 (54)
FEBRUARY	86	0 (69)	358	89 (58)	624	286 (55)
MARCH	145	24 (51)	428	198 (55)	656	456 (57)
APRIL	168	0 (50)	466	22 (51)	715	359 (51)
MAY	169	28 (55)	498	97 (55)	766	488 (51)
JUNE	158	8 (56)	481	188 (56)	748	504 (54)
JULY	125	7 (50)	430	113 (53)	701	331 (54)
AUGUST	115	4 (57)	475	113 (57)	717	440 (56)
SEPTEMBER	146	0 (50)	423	71 (52)	676	267 (50)
OCTOBER	117	0 (52)	374	0 (54)	621	148 (54)
NOVEMBER	64	0 (52)	266	75 (60)	520	296 (59)
DECEMBER	65	0 (50)	267	28 (55)	520	230 (55)
YEAR	121	50 (55)	397	225 (55)	653	469 (54)

A = MEAN FREQUENCY.
B = LOWEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 9

MONTH	NOORDHINDER WAVE HEIGHT ALL DIRECTIONS PARTS PER THOUSAND (FRACTIONS OF TIME) 1953-1980					
	<0.25 M		<0.75 M		<1.25 M	
	A	B	A	B	A	B
JANUARY	66	0 (76)	341	65 (54)	588	226 (54)
FEBRUARY	84	0 (55)	442	54 (55)	688	263 (55)
MARCH	98	4 (69)	471	210 (55)	738	415 (55)
APRIL	130	17 (77)	506	271 (57)	752	483 (57)
MAY	156	8 (75)	584	262 (55)	825	544 (61)
JUNE	170	21 (56)	598	213 (56)	840	567 (54)
JULY	132	16 (74)	578	153 (53)	827	411 (53)
AUGUST	136	32 (57)	572	230 (54)	805	540 (56)
SEPTEMBER	126	17 (78)	496	213 (54)	741	388 (54)
OCTOBER	114	4 (54)	454	40 (54)	690	359 (54)
NOVEMBER	50	0 (60)	309	42 (80)	535	213 (80)
DECEMBER	48	0 (74)	320	28 (74)	578	266 (55)
YEAR	110	36 (77)	473	269 (54)	718	510 (54)

A = MEAN FREQUENCY.
B = LOWEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 9

MONTH	TEXEL WAVE HEIGHT ALL DIRECTIONS PARTS PER THOUSAND (FRACTIONS OF TIME) 1949-1977					
	<0.25 M		<0.75 M		<1.25 M	
	A	B	A	B	A	B
JANUARY	47	0 (50)	297	77 (76)	561	234 (76)
FEBRUARY	63	0 (50)	378	81 (58)	658	362 (73)
MARCH	81	0 (50)	430	186 (67)	703	448 (76)
APRIL	114	0 (53)	468	167 (77)	738	429 (77)
MAY	108	8 (50)	515	214 (75)	798	581 (75)
JUNE	104	0 (56)	518	304 (54)	821	679 (49)
JULY	95	0 (77)	459	165 (74)	777	540 (74)
AUGUST	103	8 (52)	495	254 (72)	767	540 (62)
SEPTEMBER	89	0 (52)	430	0 (54)	697	125 (54)
OCTOBER	82	0 (52)	362	81 (54)	637	359 (54)
NOVEMBER	45	0 (50)	268	79 (72)	506	175 (69)
DECEMBER	47	0 (49)	287	36 (74)	524	121 (74)
YEAR	62	24 (77)	410	288 (74)	683	570 (74)

A = MEAN FREQUENCY.
B = LOWEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 9

MONTH	TERSCHELLINGERBANK WAVE HEIGHT ALL DIRECTIONS PARTS PER THOUSAND (FRACTIONS OF TIME) 1949-1975					
	<0.25 M		<0.75 M		<1.25 M	
	A	B	A	B	A	B
JANUARY	43	0 (50)	335	65 (54)	602	207 (54)
FEBRUARY	71	0 (58)	378	98 (58)	654	308 (62)
MARCH	72	4 (70)	428	198 (69)	708	432 (69)
APRIL	88	0 (70)	473	102 (73)	759	293 (75)
MAY	87	0 (74)	506	136 (74)	815	523 (74)
JUNE	90	0 (51)	507	321 (56)	825	683 (56)
JULY	76	0 (51)	438	111 (65)	782	409 (70)
AUGUST	80	0 (72)	476	92 (72)	775	532 (62)
SEPTEMBER	57	0 (50)	409	171 (54)	719	396 (54)
OCTOBER	61	0 (52)	386	131 (74)	670	303 (74)
NOVEMBER	33	0 (50)	305	109 (72)	574	221 (73)
DECEMBER	42	0 (49)	316	8 (74)	578	77 (74)
YEAR	65	8 (69)	408	206 (74)	696	457 (75)

A = MEAN FREQUENCY.
B = LOWEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 10

GOEREE	MAXIMUM WAVE HEIGHTS(METERS)											ALL DIRECTIONS	1949-1970
	MONTH OF THE YEAR												
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	
1949	4.0	4.0	7.5	3.5	2.0	2.5	(2.5)	3.0	2.0	4.5	4.5	7.0	
1950	2.5	2.5	2.5	3.0	2.0	(2.0)	3.0	3.0	4.0	3.0	3.5	3.0	
1951	3.5	3.5	4.0	3.0	(2.0)	2.0	2.5	2.5	2.5	2.0	3.5	3.5	
1952	3.5	3.0	3.0	2.0	1.5	2.5	3.0	2.5	3.0	3.5	4.5	4.5	
1953	4.5	5.0	2.5	2.0	2.5	2.5	3.0	3.0	3.5	2.5	3.0	2.5	
1954	6.0	3.0	3.0	3.0	3.0	3.0	3.5	3.5	(3.0)	(4.0)	3.5	8.0	
1955	5.5	3.0	3.0	2.5	5.5	2.5	2.5	3.5	2.5	4.0	3.5	4.0	
1956	4.0	2.5	3.5	2.5	2.0	2.5	4.0	4.0	3.0	4.0	4.0	3.5	
1957	3.5	2.5	3.0	3.0	3.0	2.5	2.5	4.0	4.0	3.0	3.5	3.5	
1958	6.0	3.5	2.0	2.5	3.0	2.0	3.0	2.5	4.0	4.0	2.5	3.5	
1959	4.0	2.0	2.5	3.5	3.0	2.5	3.0	3.0	2.5	5.5	3.5	4.0	
1960	6.0	3.0	3.5	3.0	2.0	4.0	3.5	3.5	4.0	4.0	6.0	6.5	
1961	5.0	4.5	5.5	1.5	3.0	2.5	5.0	4.0	3.0	6.0	4.5	4.5	
1962	4.5	5.0	2.0	3.0	3.0	3.0	2.5	(4.0)	(4.0)	3.0	5.0	6.0	
1963	4.5	1.5	2.5	2.0	2.5	3.5	2.0	3.5	3.5	3.0	5.5	2.0	
1964	2.0	3.0	2.5	2.0	2.0	2.0	3.5	3.0	3.0	5.0	3.0	4.0	
1965	4.0	3.5	2.5	2.0	6.0	3.0	3.0	3.5	3.0	2.5	6.0	4.0	
1966	3.0	2.0	3.0	1.5	3.5	3.0	1.5	3.5	3.5	2.0	4.5	4.5	
1967	2.5	4.5	3.5	3.5	2.5	2.5	1.5	2.5	3.0	5.5	4.0	3.5	
1968	4.5	3.0	4.0	3.0	2.0	2.0	3.0	2.0	3.0	3.0	4.0	6.5	
1969	3.5	3.5	2.0	2.0	2.5	2.0	3.5	2.5	2.0	3.0	5.0	2.0	
1970	2.0	3.5	2.0	4.0	1.5	2.0	3.0	2.0	3.5	4.5	4.0	2.5	
MEAN	4.0	3.3	3.2	2.6	2.7	2.5	2.9	3.1	3.2	3.7	4.1	4.2	
ST.DEV.	1.2	0.9	1.3	0.7	1.1	0.6	0.8	0.6	0.6	1.1	0.9	1.6	

TABEL 10

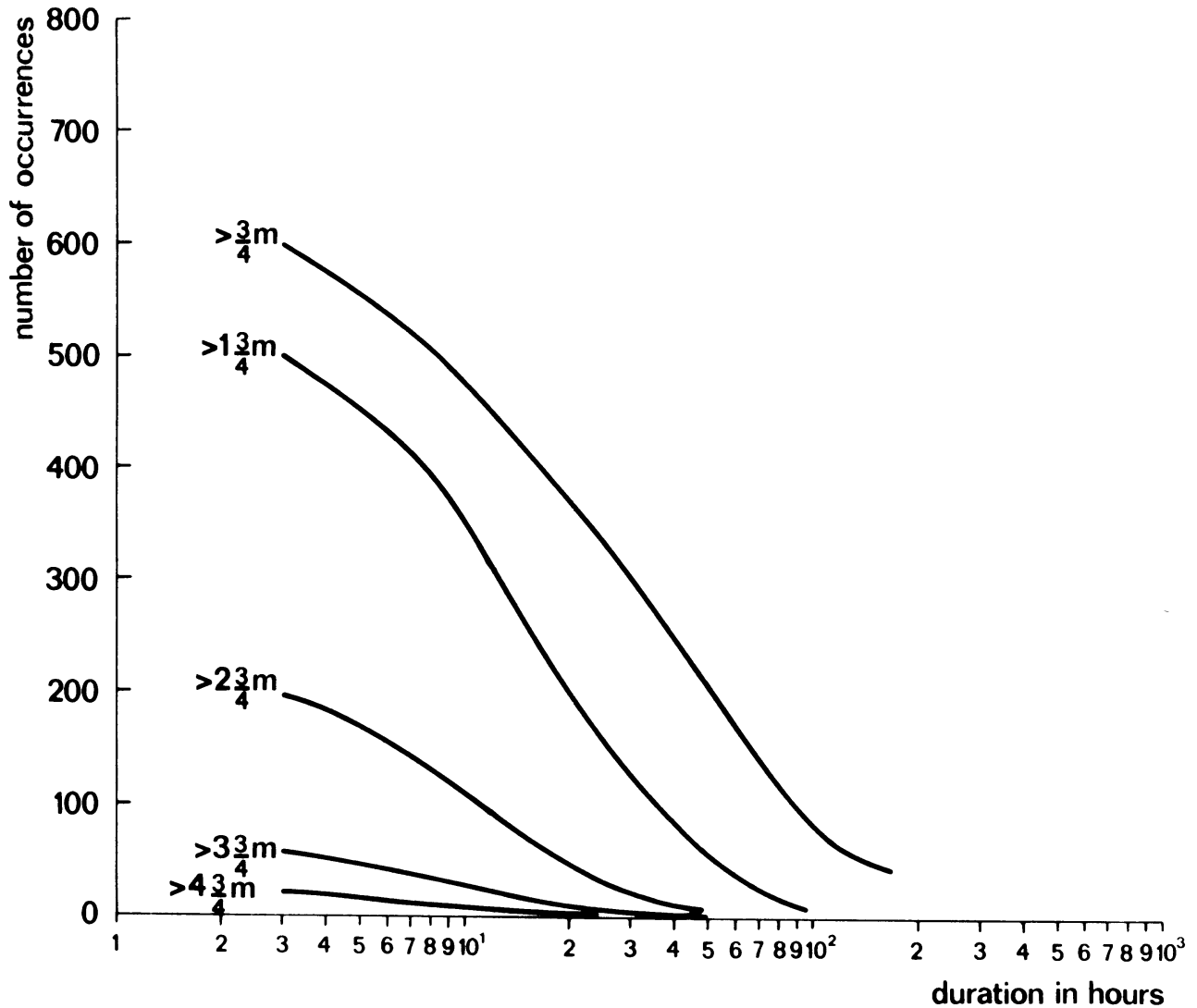
NOORDHINDER	MAXIMUM WAVE HEIGHTS(METERS)											ALL DIRECTIONS	1953-1980
	MONTH OF THE YEAR												
YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	
1953	(4.5)	(5.0)	2.5	2.5	2.5	2.5	3.0	3.0	3.5	2.5	2.5	2.5	
1954	3.5	3.5	2.0	2.5	3.0	2.5	(3.5)	(3.5)	3.0	3.0	3.0	5.5	
1955	4.0	3.0	3.0	2.0	3.5	2.5	2.0	3.0	2.5	3.5	3.0	3.5	
1956	3.5	3.0	3.0	2.5	2.0	2.5	4.0	3.0	2.5	4.0	4.0	3.5	
1957	3.0	3.0	3.0	3.0	3.0	2.0	2.5	3.5	3.5	2.5	3.5	3.0	
1958	4.0	4.0	2.0	2.5	3.0	2.0	3.0	2.0	3.0	4.0	2.0	2.5	
1959	4.0	2.0	2.0	4.0	2.5	2.0	2.0	1.5	2.0	4.0	2.0	2.5	
1960	6.0	3.0	2.0	3.5	1.5	3.0	4.0	3.0	4.5	4.5	4.5	7.5	
1961	5.0	5.0	3.0	1.5	3.0	2.0	3.5	4.0	2.5	4.5	4.5	4.0	
1962	5.0	6.0	2.0	2.5	3.0	2.0	2.5	3.5	2.0	3.0	4.0	6.0	
1963	4.0	2.0	2.5	3.0	2.5	3.0	1.5	3.0	3.0	3.0	6.0	2.5	
1964	3.0	2.5	2.5	3.0	2.5	2.0	3.0	2.5	(3.0)	3.5	3.0	4.0	
1965	3.5	3.0	2.0	1.5	3.0	3.0	2.5	2.5	3.5	2.0	5.0	4.0	
1966	3.0	2.5	3.0	2.0	2.5	2.5	1.5	2.0	2.5	2.0	6.5	7.0	
1967	1.5	3.0	2.0	2.0	2.0	1.5	1.5	2.0	3.0	4.5	2.0	3.0	
1968	2.5	2.5	4.0	2.0	2.5	2.0	3.5	2.0	2.5	2.0	3.0	3.0	
1969	3.0	3.5	2.0	2.5	4.5	2.0	3.0	2.5	2.0	2.0	4.5	2.5	
1970	2.0	4.0	2.0	2.5	1.5	2.0	2.5	2.0	3.0	4.0	5.0	2.0	
1971	2.5	3.0	3.0	2.0	2.0	2.0	1.5	2.5	2.5	3.5	4.0	2.5	
1972	5.0	2.5	3.5	3.0	3.0	2.0	1.5	2.0	2.0	3.5	4.0	3.5	
1973	2.5	3.0	1.5	3.5	2.0	1.5	2.0	2.5	3.0	4.0	3.5	3.5	
1974	4.0	4.0	2.5	2.5	1.5	2.0	2.0	3.0	4.0	4.0	4.0	4.5	
1975	3.5	2.5	3.5	3.0	2.5	2.5	2.5	1.5	3.5	3.0	3.5	4.0	
1976	4.5	3.0	2.0	2.5	1.5	1.5	1.5	4.0	3.0	4.5	4.5	3.0	
1977	3.0	3.0	2.5	3.0	2.0	2.0	2.0	2.5	2.5	2.5	4.5	3.5	
1978	4.0	2.0	3.0	2.5	1.5	2.0	1.5	2.0	2.5	2.5	3.0	3.0	
1979	3.5	3.0	3.0	1.5	3.0	2.0	1.5	2.5	2.0	3.0	3.5	5.0	
1980	3.0	2.0	3.5	3.0	2.0	2.0	2.5	3.5	2.0	4.0	3.5	3.0	
MEAN	3.6	3.2	2.6	2.6	2.5	2.2	2.4	2.6	2.8	3.4	3.8	3.8	
ST.DEV.	1.0	1.0	0.6	0.6	0.7	0.4	0.8	0.7	0.7	1.2	1.0	1.4	

TABEL 10

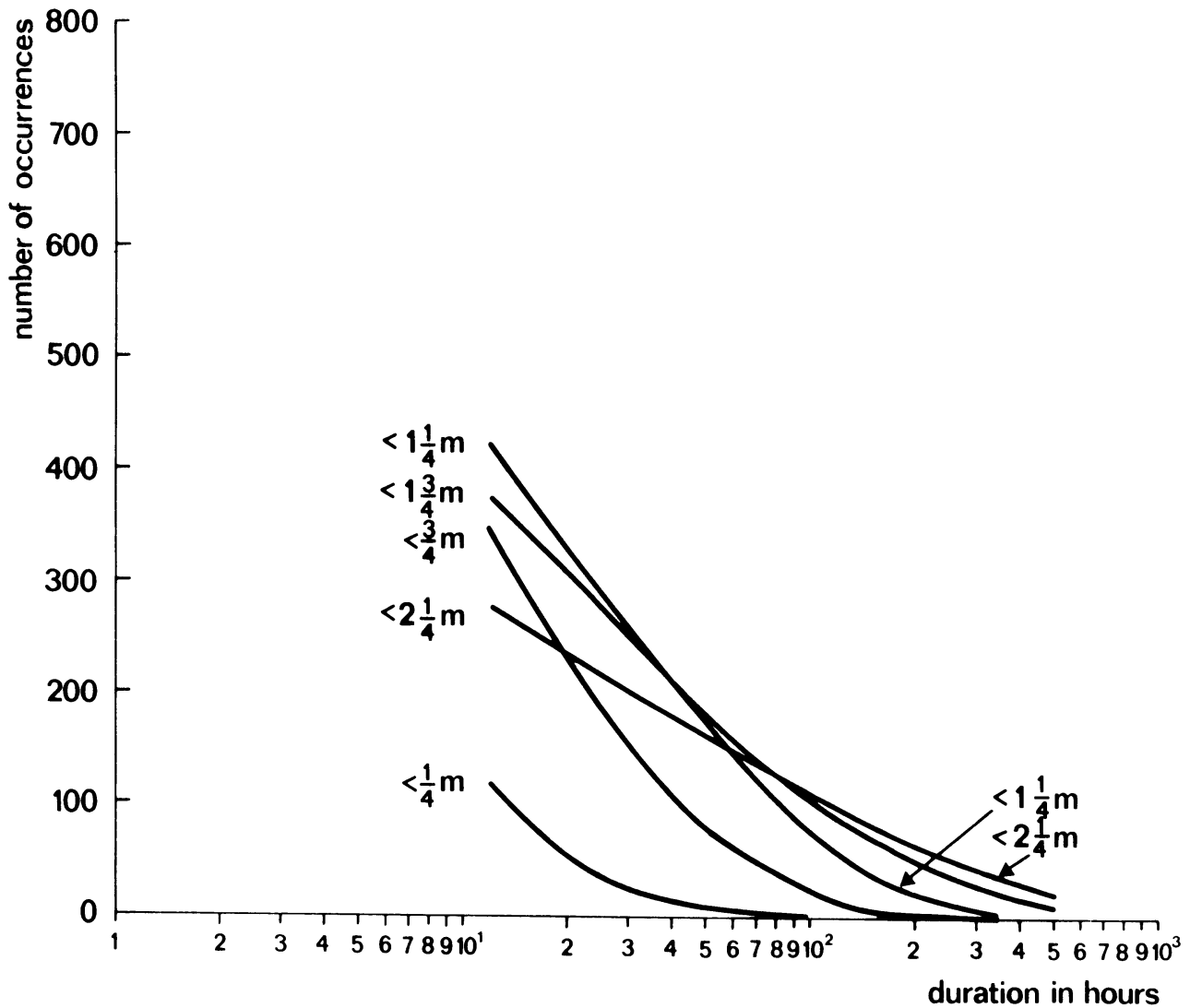
YEAR	TERSHELLINGERBANK MAXIMUM WAVE HEIGHTS(METERS) ALL DIRECTIONS 1949-1975											
	MONTH OF THE YEAR											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1949	7.0	4.0	7.5	3.0	2.0	2.0	2.0	3.0	1.5	3.0	3.0	(5.5)
1950	2.5	3.0	4.0	3.5	2.5	3.0	3.0	(2.0)	2.5	2.5	2.5	3.0
1951	4.5	3.0	4.0	3.0	2.5	(2.5)	2.0	3.0	2.5	2.0	4.0	3.0
1952	3.5	3.0	2.5	2.0	2.0	2.0	2.5	2.5	3.5	4.0	4.0	3.5
1953	4.0	6.5	3.0	1.5	2.5	1.5	2.5	2.5	3.5	2.5	2.5	2.5
1954	6.5	2.0	2.5	2.5	3.0	(2.0)	(3.0)	(3.0)	4.0	4.5	3.0	9.0
1955	4.0	3.0	2.5	2.5	3.5	2.5	2.0	4.0	2.0	3.5	3.5	4.0
1956	4.5	2.5	3.5	1.5	2.0	2.5	3.0	3.0	2.5	3.0	4.0	3.0
1957	3.5	2.5	2.0	2.0	2.5	2.0	1.5	3.0	3.0	2.5	2.5	3.0
1958	4.0	3.5	2.5	2.5	2.0	1.5	2.5	2.0	3.0	4.0	1.5	2.0
1959	3.0	2.5	2.0	2.0	2.0	2.0	1.5	1.5	1.5	3.0	2.0	3.5
1960	5.5	2.0	2.0	2.0	2.0	3.5	2.5	2.0	1.5	3.0	3.5	4.0
1961	3.0	3.5	4.0	1.5	2.5	2.0	2.5	4.0	4.5	4.0	4.0	5.0
1962	3.5	(6.5)	(2.5)	(3.5)	3.5	4.0	3.0	3.5	3.0	2.0	3.0	3.5
1963	3.0	1.5	1.5	2.0	1.5	(3.0)	(2.0)	(2.5)	(4.5)	(4.0)	3.5	1.5
1964	2.0	2.5	3.0	2.0	2.0	2.0	(3.0)	1.5	2.5	2.0	2.5	4.0
1965	3.0	3.5	2.0	2.0	1.5	1.5	(2.0)	(3.0)	(3.0)	2.0	3.0	3.0
1966	2.0	2.5	2.5	1.5	2.0	3.0	(1.5)	3.0	2.5	1.5	2.5	4.0
1967	3.0	4.0	3.0	2.0	2.0	(1.5)	(1.5)	(2.0)	(4.5)	3.5	2.0	2.5
1968	5.5	2.0	4.0	4.5	2.0	2.5	(3.0)	(3.0)	3.0	3.0	3.0	3.0
1969	3.0	3.5	3.0	2.5	3.5	2.5	(3.5)	(3.5)	(3.0)	(3.0)	4.5	3.0
1970	3.0	4.0	3.0	4.0	2.5	2.0	(3.5)	(4.0)	2.5	4.5	4.0	3.0
1971	3.0	3.0	2.5	2.5	2.0	2.0	(2.5)	2.5	2.0	3.0	4.0	2.5
1972	3.0	2.0	3.0	3.0	3.0	2.5	(2.5)	2.5	2.0	3.0	5.0	4.5
1973	2.5	3.5	2.5	4.5	(2.0)	(2.0)	(3.5)	(2.5)	(3.0)	3.5	5.0	4.5
1974	4.5	4.0	3.0	2.5	2.0	(2.5)	(3.5)	(2.0)	(3.5)	4.0	4.0	5.0
1975	4.5	2.5	3.0	3.0	-	-	-	-	-	-	-	-
MEAN	3.7	3.2	3.0	2.6	2.3	2.3	2.5	2.7	2.9	3.1	3.3	3.5
ST. DEV.	1.3	1.2	1.1	0.9	0.7	0.6	0.7	0.7	0.9	0.8	0.9	1.6

TABEL 10

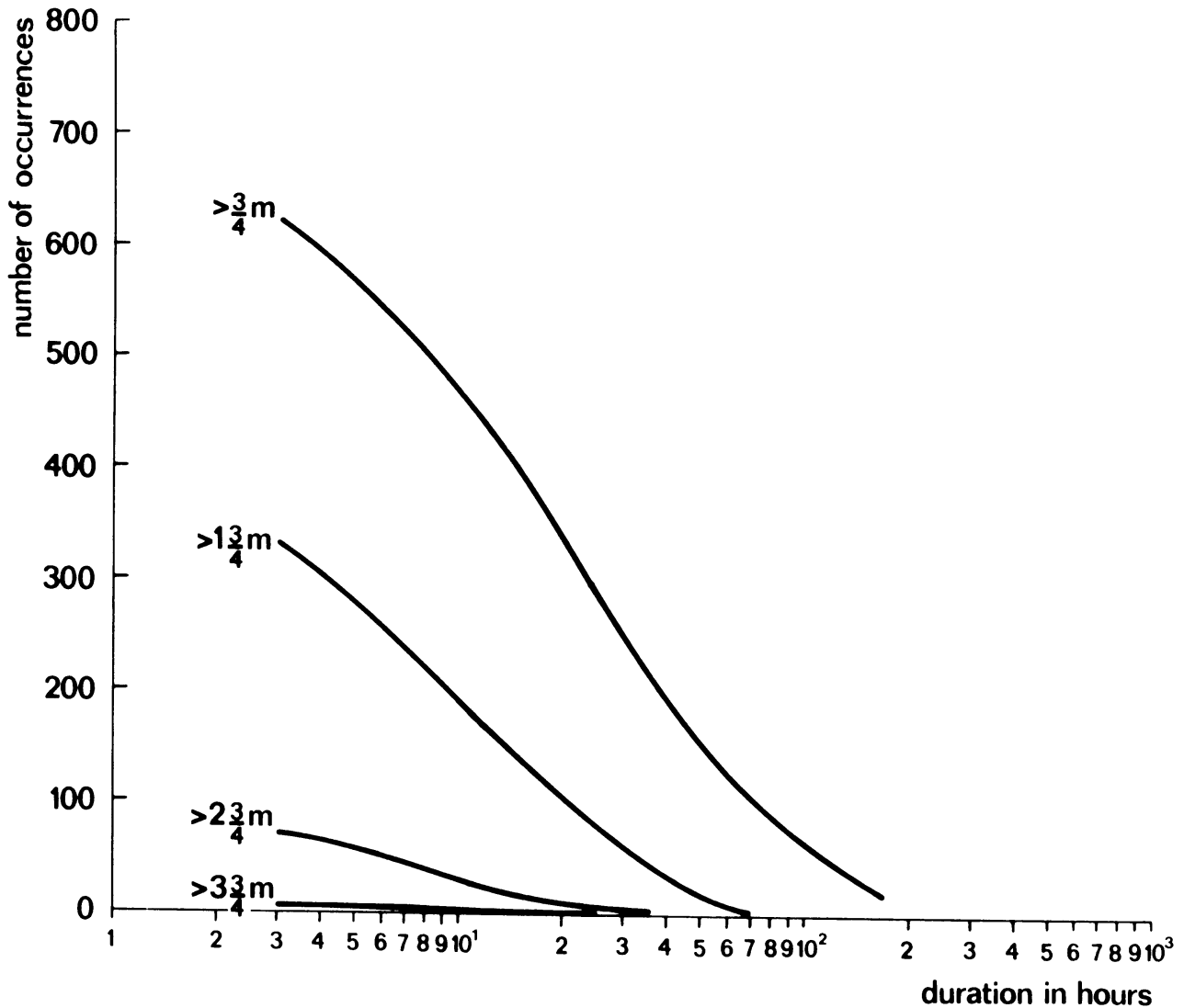
YEAR	TEXEL MAXIMUM WAVE HEIGHTS(METERS) ALL DIRECTIONS 1949-1977											
	MONTH OF THE YEAR											
	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1949	5.0	6.0	6.5	3.5	2.5	2.0	2.5	3.0	2.0	(3.0)	4.0	5.5
1950	2.5	2.5	3.0	3.0	2.0	2.5	2.5	2.0	(2.5)	(2.5)	3.5	3.0
1951	4.0	3.0	2.5	3.0	2.0	2.5	2.0	2.5	2.0	2.0	3.5	3.5
1952	3.5	3.0	2.5	2.5	2.0	2.5	2.0	2.5	3.0	4.0	4.0	3.0
1953	4.0	4.5	2.5	1.5	2.0	1.5	1.5	2.5	3.0	2.5	3.0	3.0
1954	6.0	2.5	2.5	2.0	2.5	2.0	3.0	3.5	(4.0)	4.0	3.5	8.0
1955	4.0	2.5	2.5	2.0	4.0	2.5	2.0	2.5	2.0	3.5	3.0	4.0
1956	5.0	2.5	3.0	2.0	1.5	2.0	3.0	3.5	3.5	3.5	4.0	3.5
1957	3.0	2.5	2.5	2.0	2.5	2.5	2.0	4.0	3.0	2.5	5.0	4.0
1958	7.5	3.0	2.5	2.5	1.5	1.5	3.0	2.0	3.5	4.0	1.5	2.0
1959	4.0	2.0	2.5	2.5	2.0	2.5	2.5	1.5	1.5	4.0	3.0	4.5
1960	6.0	2.5	2.5	2.5	1.5	4.0	3.5	2.0	2.5	4.0	4.5	5.5
1961	4.0	5.0	3.5	1.5	3.5	2.0	4.5	4.0	4.0	4.5	4.0	6.0
1962	6.0	6.5	2.5	3.5	4.5	2.0	2.5	4.0	4.0	3.0	4.0	6.0
1963	2.5	1.5	2.0	2.0	2.0	3.0	2.0	2.5	4.5	4.5	4.5	2.5
1964	2.0	2.5	2.5	2.0	2.5	2.0	3.0	2.5	3.0	3.0	3.0	4.0
1965	3.0	4.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	5.5	4.5
1966	2.0	2.0	2.5	1.5	3.0	3.0	1.5	4.5	3.0	2.0	3.5	5.5
1967	3.0	6.0	3.5	2.5	2.5	1.5	1.5	2.0	4.5	4.0	3.0	3.5
1968	6.0	3.0	4.5	2.5	2.5	2.5	3.0	3.0	3.5	3.5	3.5	3.0
1969	4.0	4.5	2.5	2.5	3.0	2.0	3.5	3.5	3.0	3.0	5.5	3.0
1970	2.5	5.0	3.5	4.0	2.0	2.0	3.5	4.0	4.5	5.0	4.5	4.5
1971	3.0	3.0	3.0	2.5	1.5	2.5	2.0	2.5	2.5	3.5	4.5	2.5
1972	3.0	3.5	3.5	3.5	3.5	3.0	2.5	2.5	2.5	3.0	5.5	4.0
1973	2.5	3.5	2.5	4.5	2.0	2.0	3.5	2.5	3.0	4.0	4.5	4.5
1974	4.0	3.5	2.0	2.0	2.0	2.5	3.5	2.0	3.5	3.5	4.0	5.0
1975	4.5	2.5	3.5	3.0	2.5	2.0	3.0	2.0	4.5	4.5	3.5	4.0
1976	5.0	2.5	2.5	2.0	2.5	2.0	2.0	2.0	3.0	3.0	3.0	3.0
1977	3.0	3.0	3.5	3.5	2.5	2.5	2.0	-	-	-	-	-
MEAN	3.9	3.4	2.9	2.6	2.4	2.3	2.6	2.8	3.2	3.4	3.9	4.1
ST. DEV.	1.4	1.3	0.9	0.8	0.7	0.5	0.7	0.8	0.8	0.8	0.9	1.3



- 11.1. L.V. Goeree. Persistence diagram waves, 1949 - 1970 (22 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Goeree in 22 winters 196 periods with wave height $> 2\frac{3}{4} \text{ m}$ occurred, that is on average 8.9 of such periods per winter.
 Of these 196 periods 92 lasted 12 hours or longer and 7 lasted 48 hours or longer.



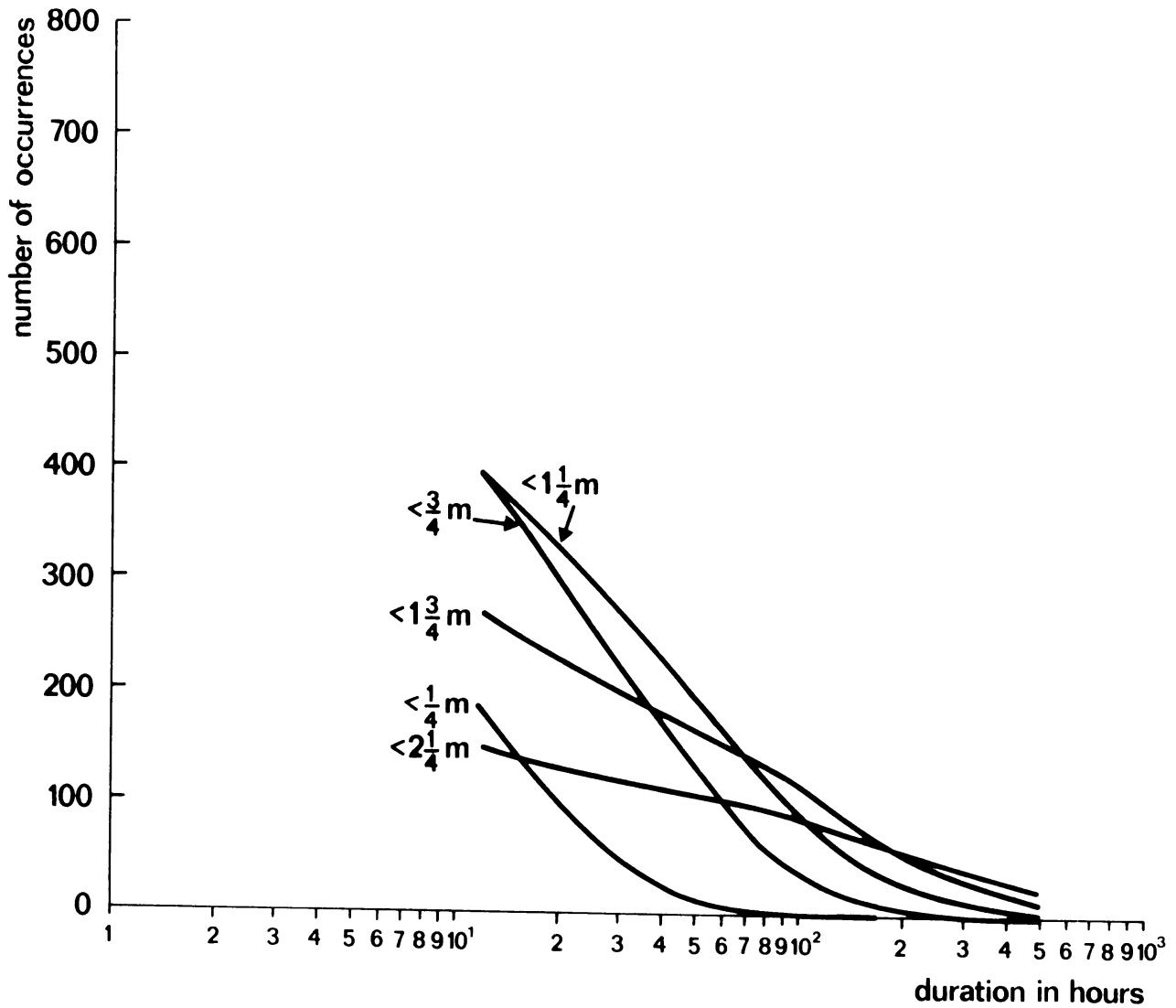
- 11.2. L.V. Goeree. Persistence diagram waves, 1949 - 1970 (22 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Goeree in 22 winters 425 periods with wave height $< 1\frac{1}{4}$ m lasted 12 hours or longer, that is on average 19.3 of such periods per winter.
 Of these 425 periods 59 lasted 120 hours (5 days) or longer.



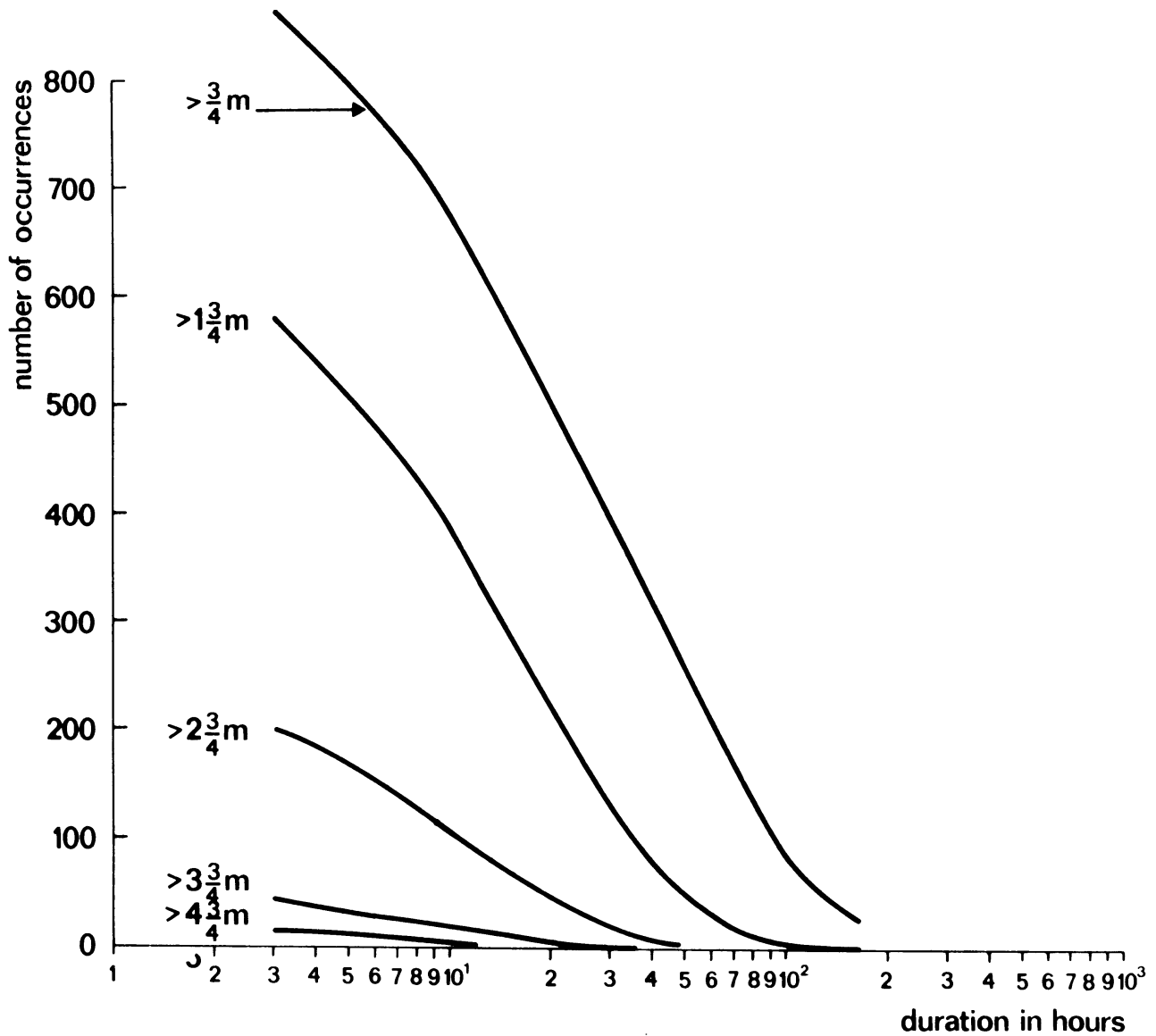
11.3. L.V. Goeree. Persistence diagram waves, 1949 - 1970 (22 years), summer (Jun, Jul, Aug).

Example: Near L.V. Goeree in 22 summers 333 periods with wave height $> 1\frac{3}{4} \text{ m}$ occurred, that is on average 15.1 of such periods per summer.

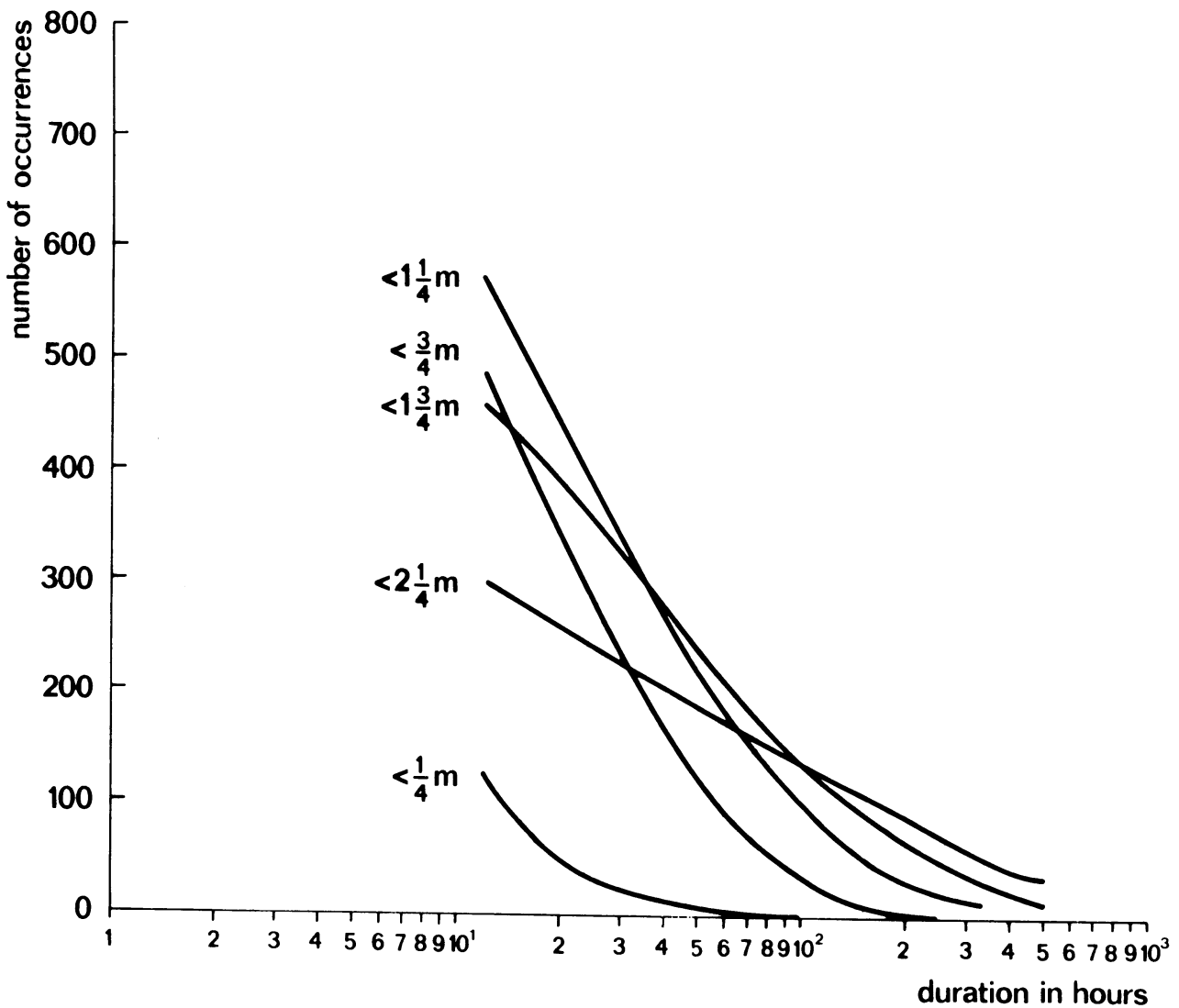
Of these 333 periods 164 lasted 12 hours or longer and 18 lasted 48 hours or longer.



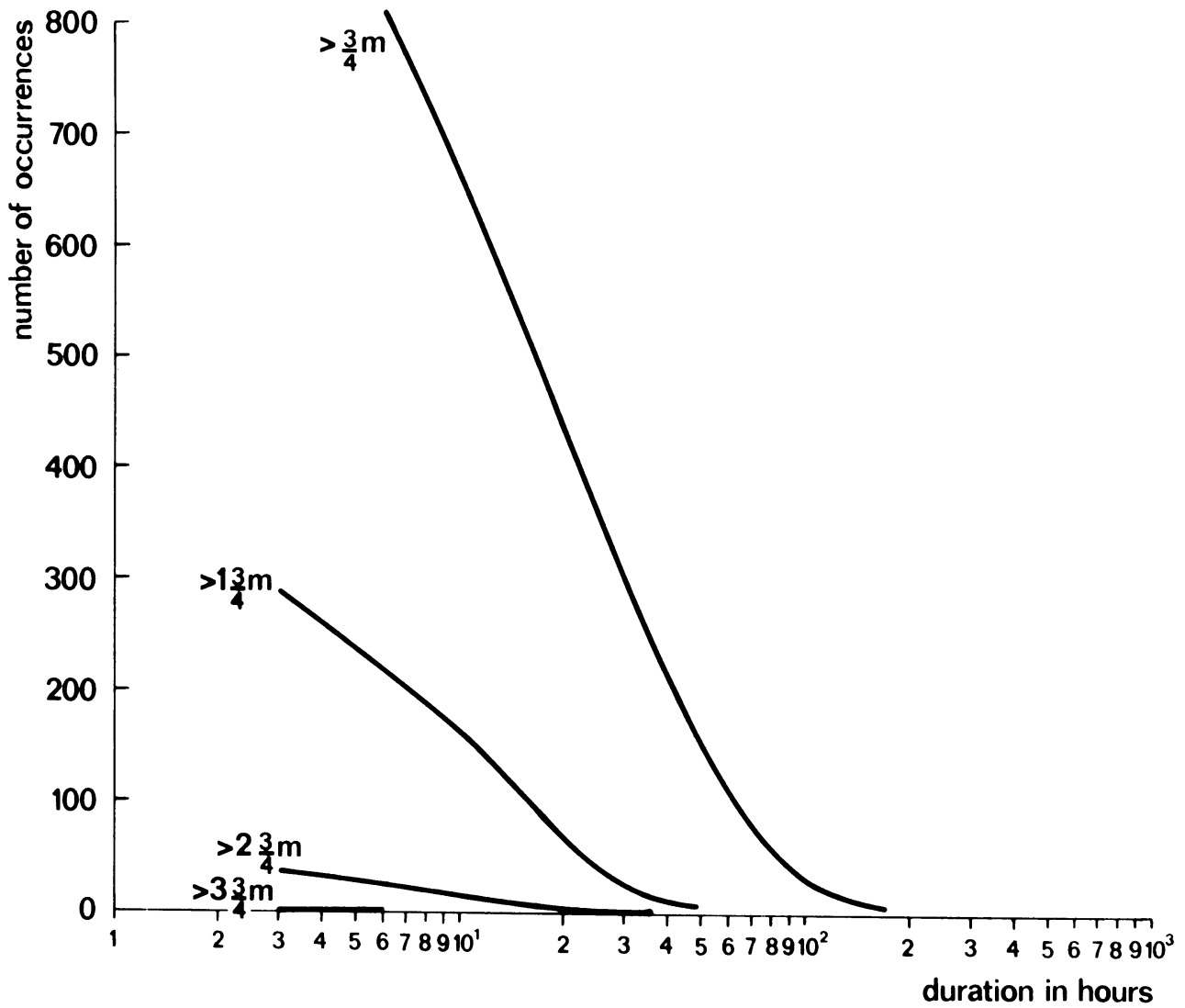
- 11.4. L.V. Goeree. Persistence diagram waves, 1949 - 1970 (22 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Goeree in 22 summers 397 periods with wave height $< 1 \frac{1}{4} \text{ m}$ lasted 12 hours or longer, that is on average 18.0 of such periods per summer.
 Of these 397 periods 69 lasted 120 hours (5 days) or longer and 22 lasted 240 hours (10 days) or longer.



- 11.1. L.V. Noord Hinder. Persistence diagram waves, 1953 - 1980 (28 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Noora Hinder in 28 winters 201 periods with wave height $> 2 \frac{3}{4} \text{ m}$ occurred, that is on average 7.2 of such periods per winter.
 Of these 201 periods 90 lasted 12 hours or longer and 5 lasted 48 hours or longer.



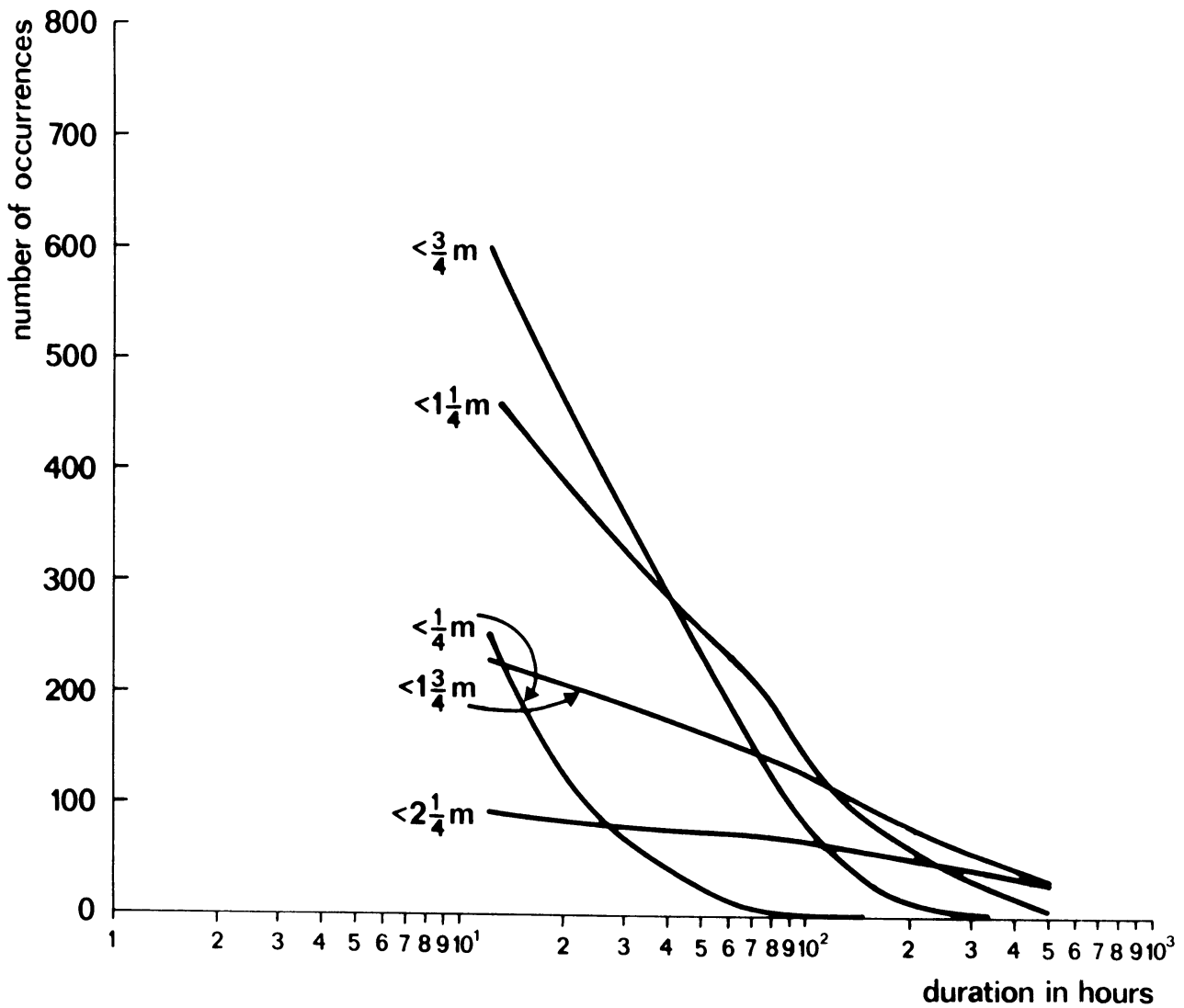
- 11.2. L.V. Noord Hinder. persistence diagram waves, 1953 - 1980 (28 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Noord Hinder in 28 winters 574 periods with wave height $< 1\frac{1}{4}$ m lasted 12 hours or longer, that is on average 20.5 of such periods per winter.
 Of these 574 periods 79 lasted 120 hours (5 days) or longer and 24 lasted 240 hours (10 days) or longer.



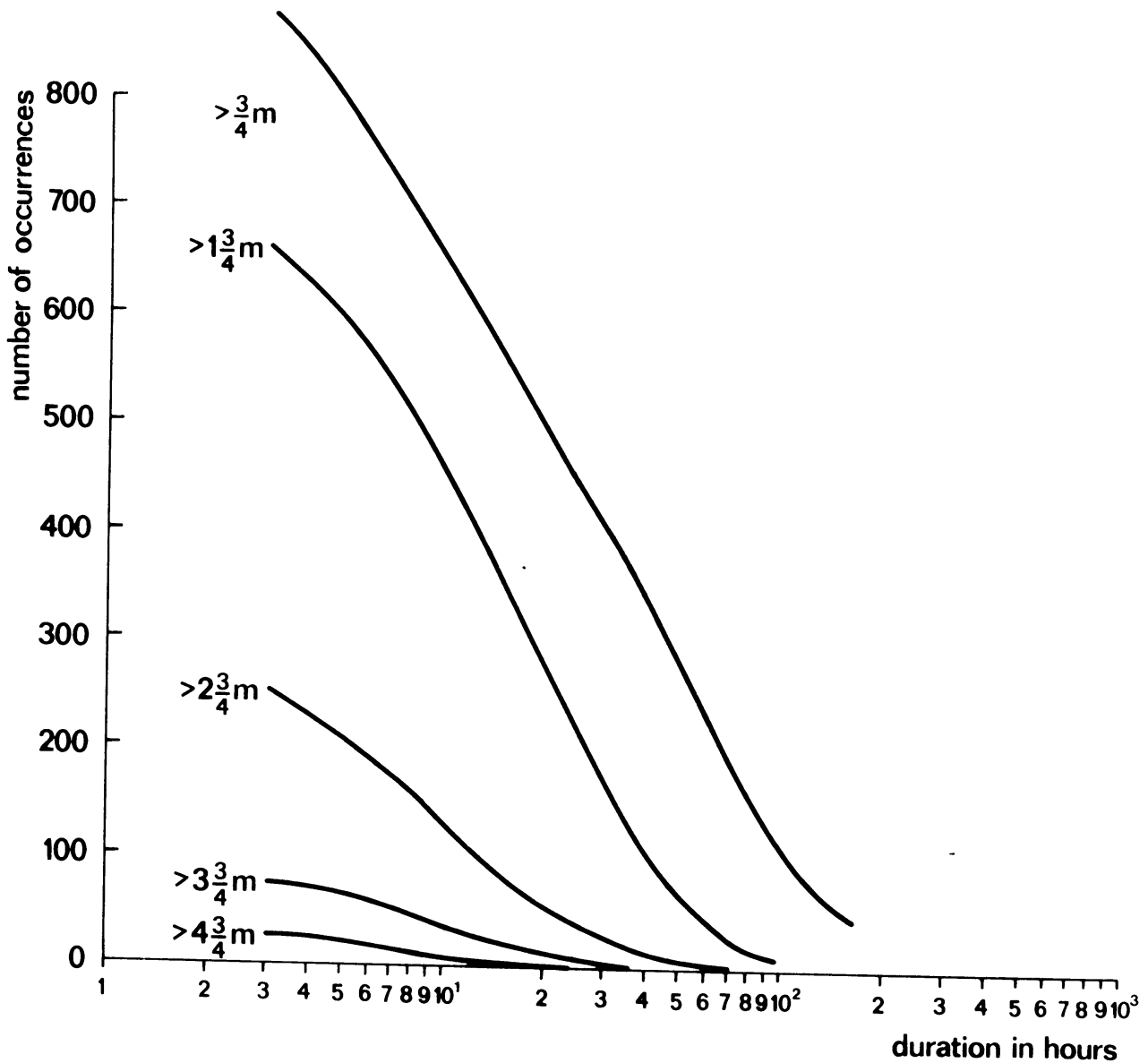
11.3. L.V. Noord Hinder. Persistence diagram waves, 1953 - 1980 (28 years), summer (Jun, Jul, Aug).

Example: Near L.V. Noord Hinder in 28 summers 292 periods with wave height $> 1\frac{3}{4}m$ occurred, that is on average 10.4 of such periods per summer.

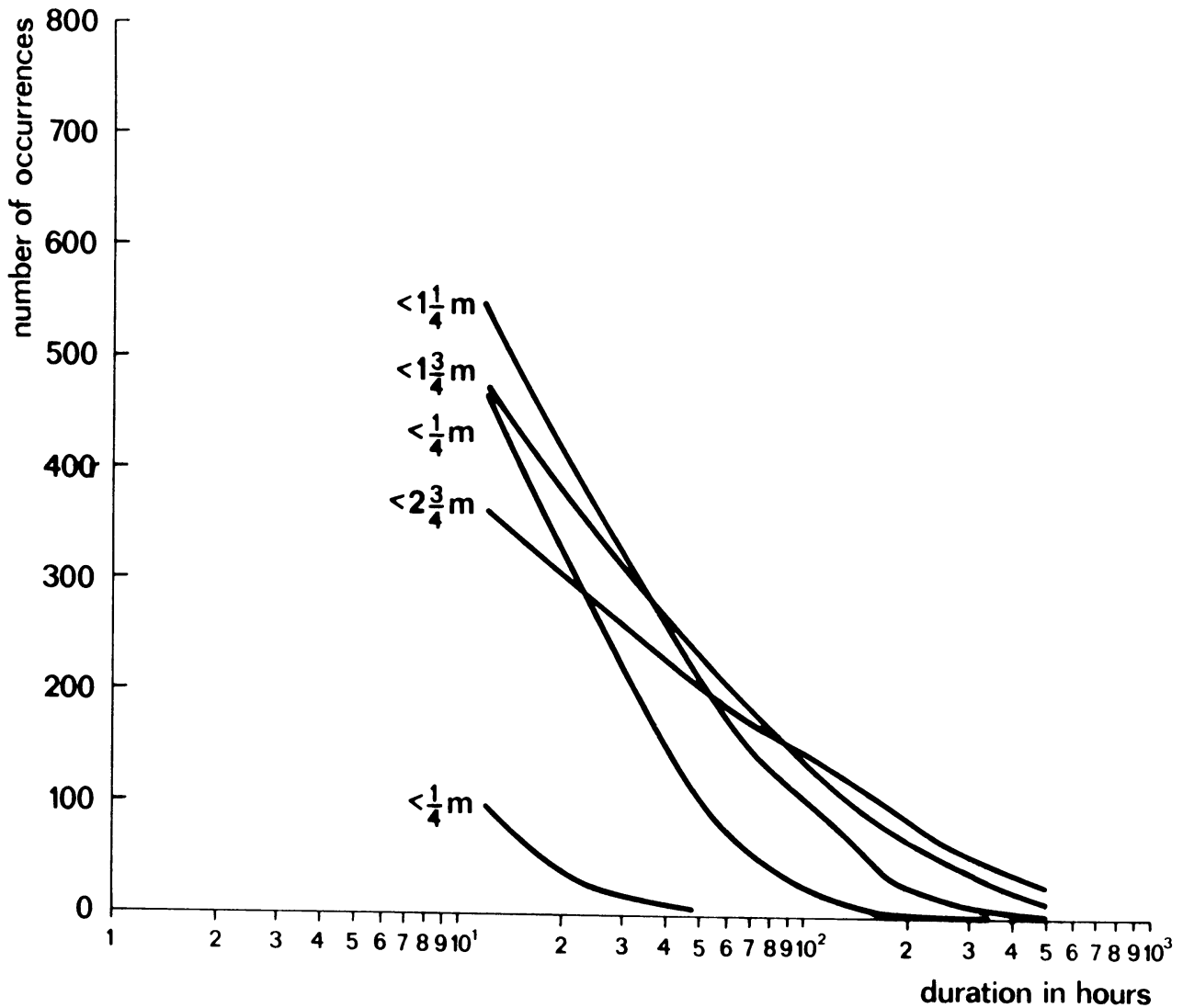
Of these 292 periods 138 lasted 12 hours or longer and 6 lasted 48 hours or longer.



11.4. L.V. Noord Hinder. Persistence diagram waves, 1953 - 1980 (28 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Noord Hinder in 28 summers 463 periods with wave height $< 1\frac{1}{4} \text{ m}$ lasted 12 hours or longer, that is on average 16.5 of such periods per summer.
 Of these 463 periods 111 lasted 120 hours (5 days) or longer.



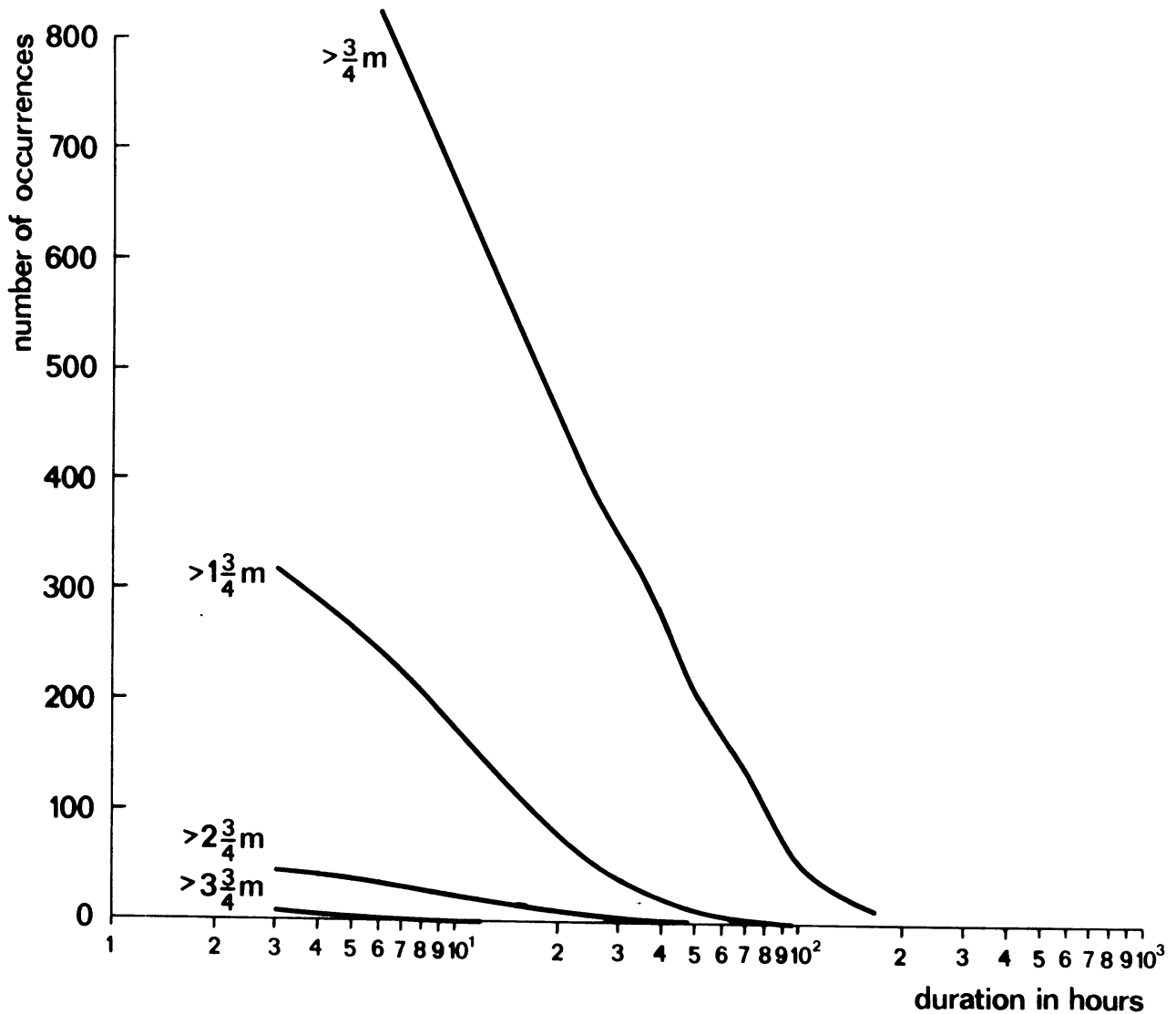
- 11.1. L.V. Texel. Persistence diagram waves, 1949 - 1977 (29 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Texel in 29 winters 251 periods with wave height $> 2\frac{3}{4}m$ occurred, that is on average 8.7 of such periods per winter.
 Of these 251 periods 103 lasted 12 hours or longer and 7 lasted 48 hours or longer.



11.2. L.V. Texel. Persistence diagram waves, 1949 - 1977 (29 years), winter (Dec, Jan, Feb).

Example: Near L.V. Texel in 29 winters 549 periods, with wave height $< 1\frac{1}{4}$ m lasted 12 hours or longer, that is on average 18.9 of such periods per winter.

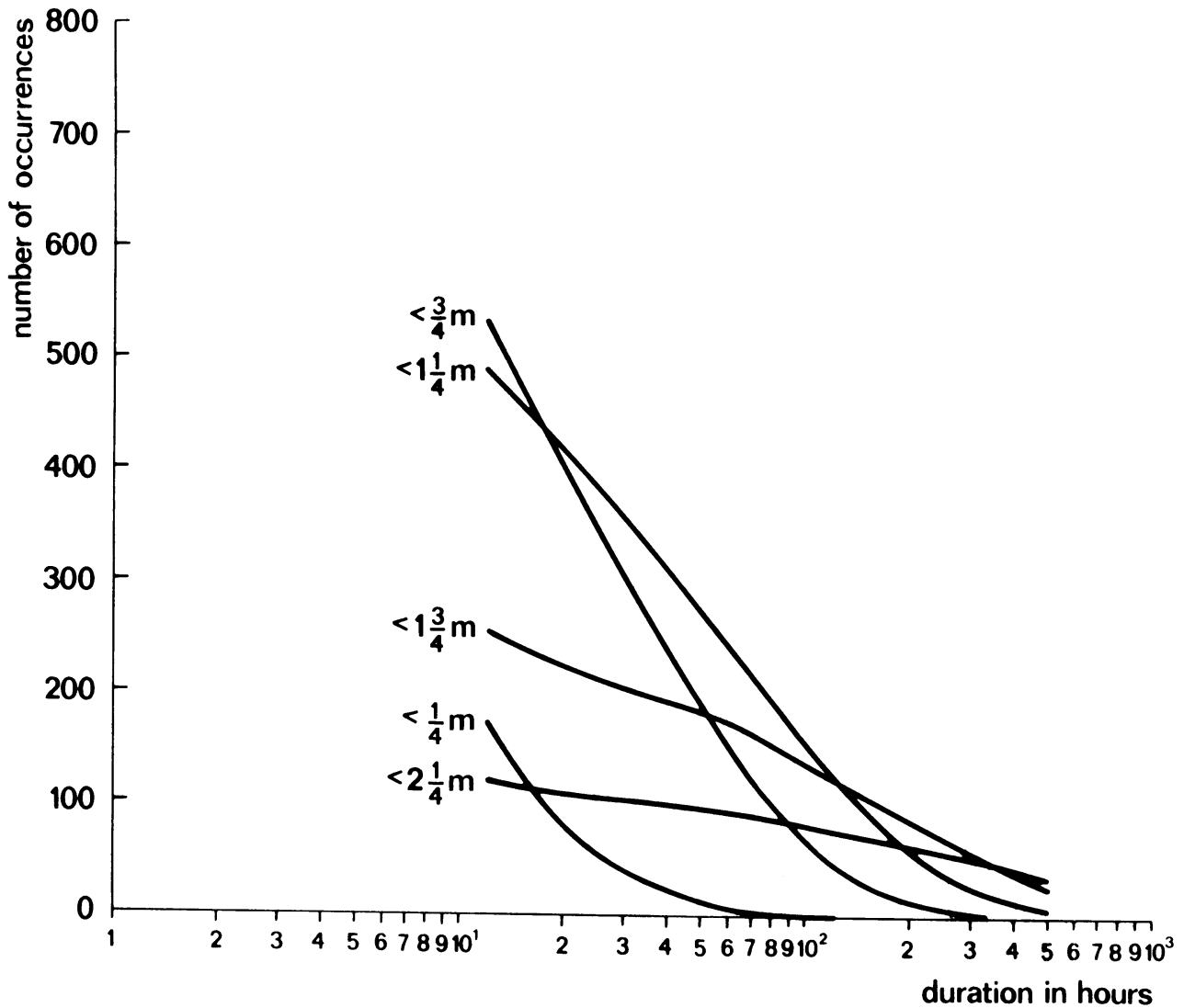
Of these 549 periods 86 lasted 120 hours (5 days) or longer.



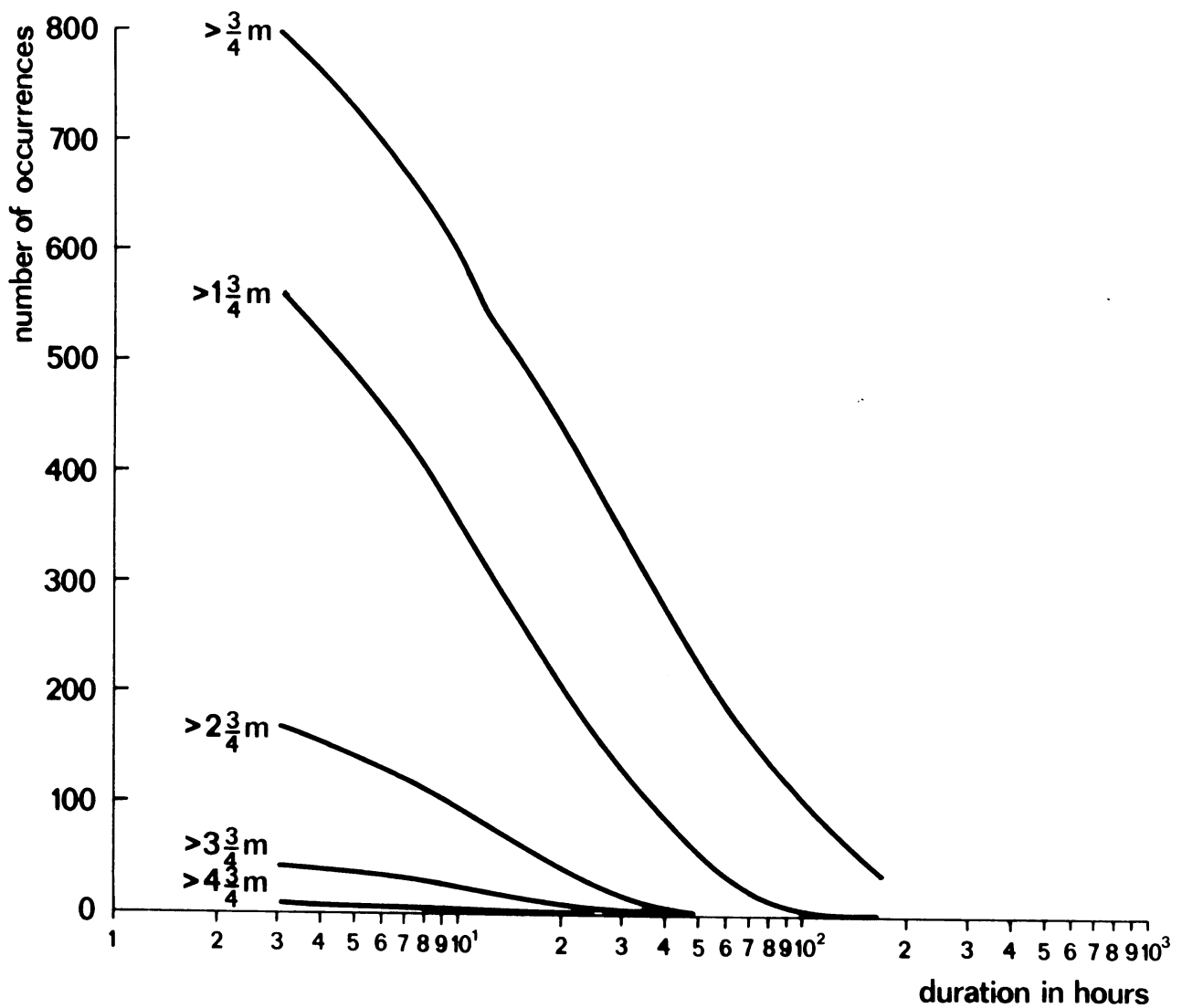
11.3. L.V. Texel. Persistence diagram waves, 1949 - 1977 (29 years), summer (Jun, Jul, Aug).

Example: Near L.V. Texel in 29 summers 315 periods with wave height $> 1 \frac{3}{4} \text{ m}$ occurred, that is on average 10.9 of such periods per summer.

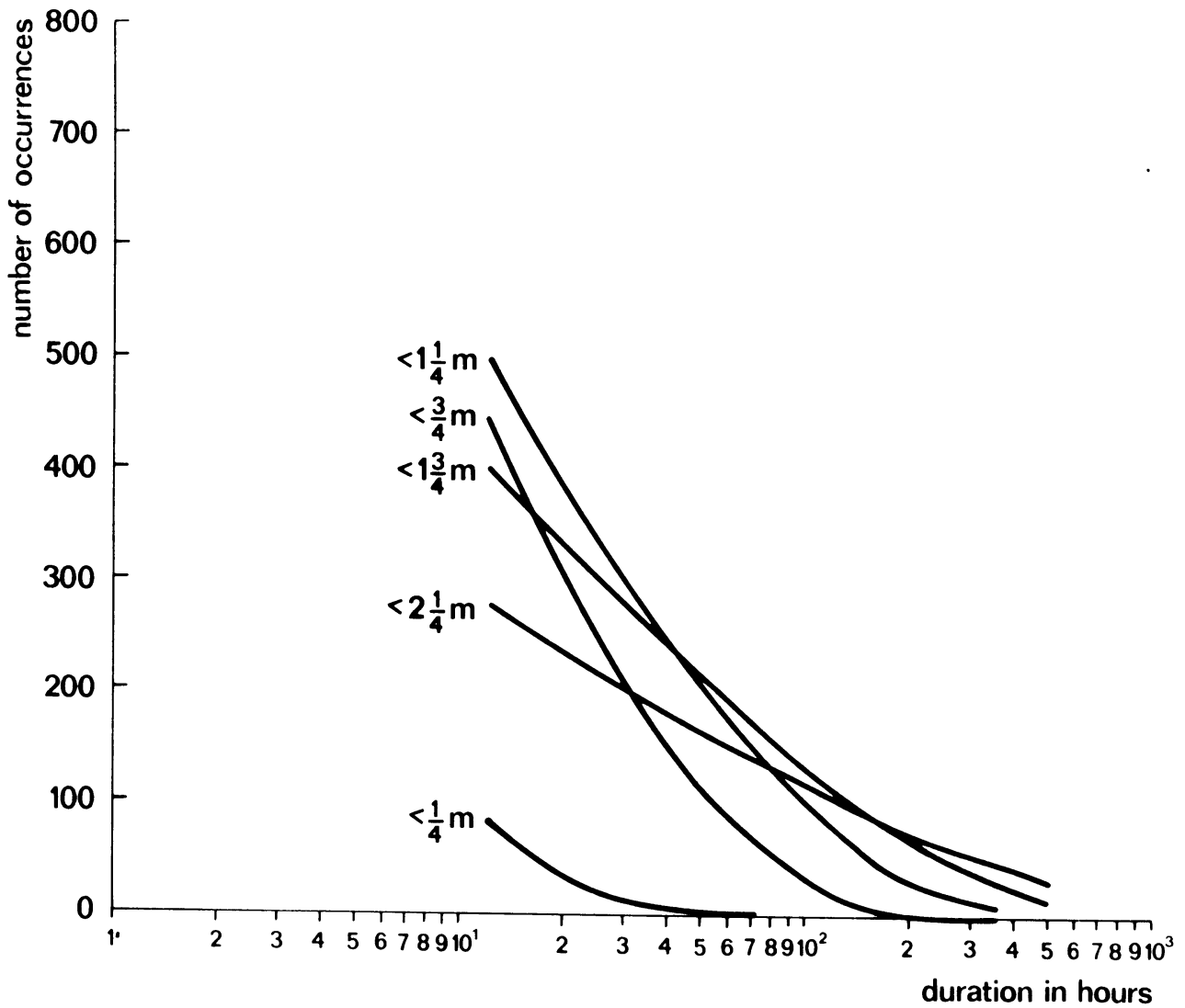
Of these 315 periods 150 lasted 12 hours or longer and 13 lasted 48 hours or longer.



- 11.4 L.V. Noord Hinder. Persistence diagram waves, 1953-1980 (28 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Texel in 29 summers 492 periods with wave height $< 1\frac{1}{4} \text{ m}$ lasted 12 hours or longer, that is on average 17.0 of such periods per summer.
 Of these 492 periods 121 lasted 120 hours (5 days) or longer and 41 lasted 240 hours (10 days) or longer.



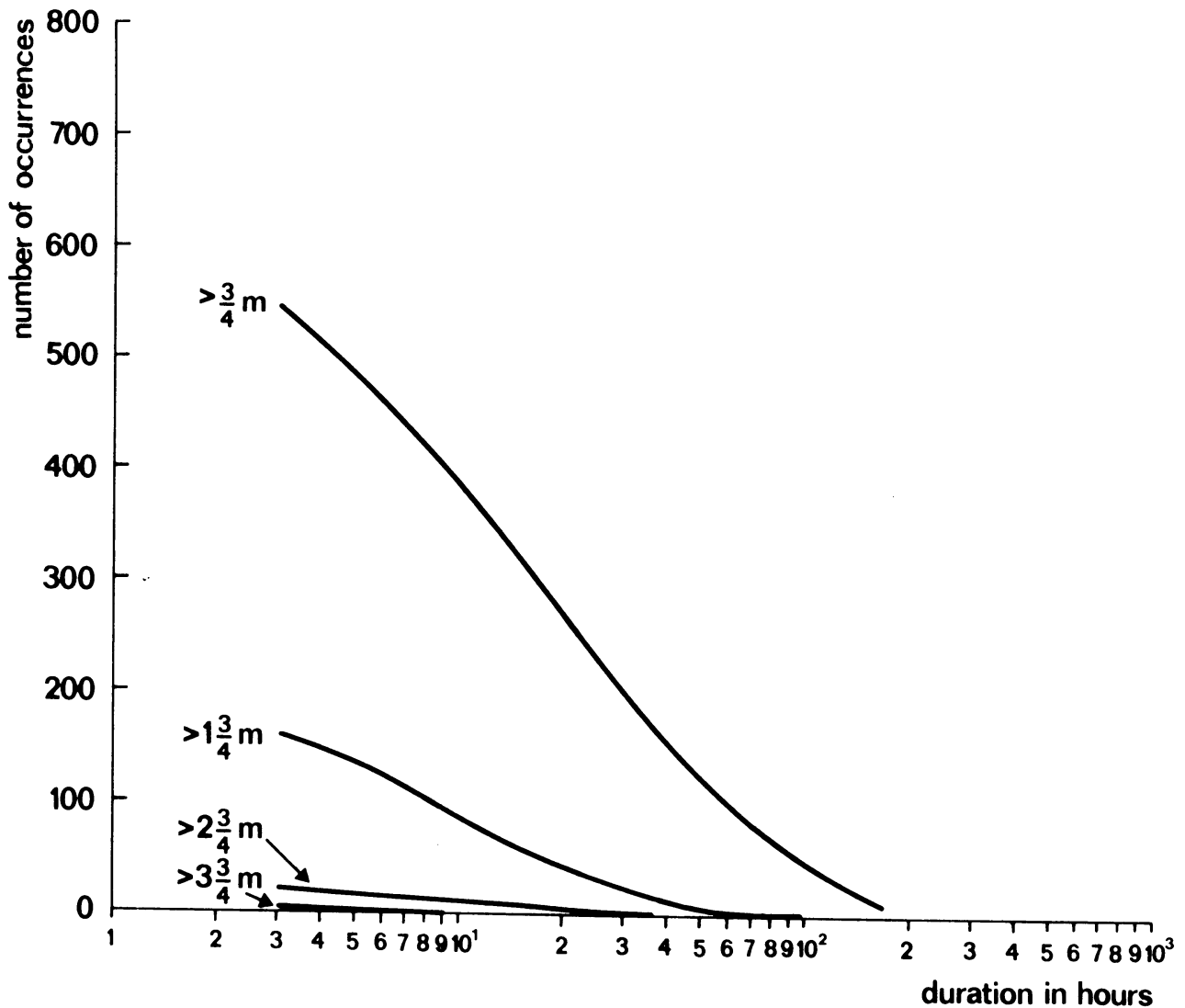
- 11.1. L.V. Terschellingerbank. Persistence diagram waves, 1949 - 1975 (27 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Terschellingerbank in 27 winters 168 periods with wave height $> 2\frac{3}{4} m$ occurred, that is on average 6.2 of such periods per winter.
 Of these 168 periods 83 lasted 12 hours or longer and 4 lasted 48 hours or longer.



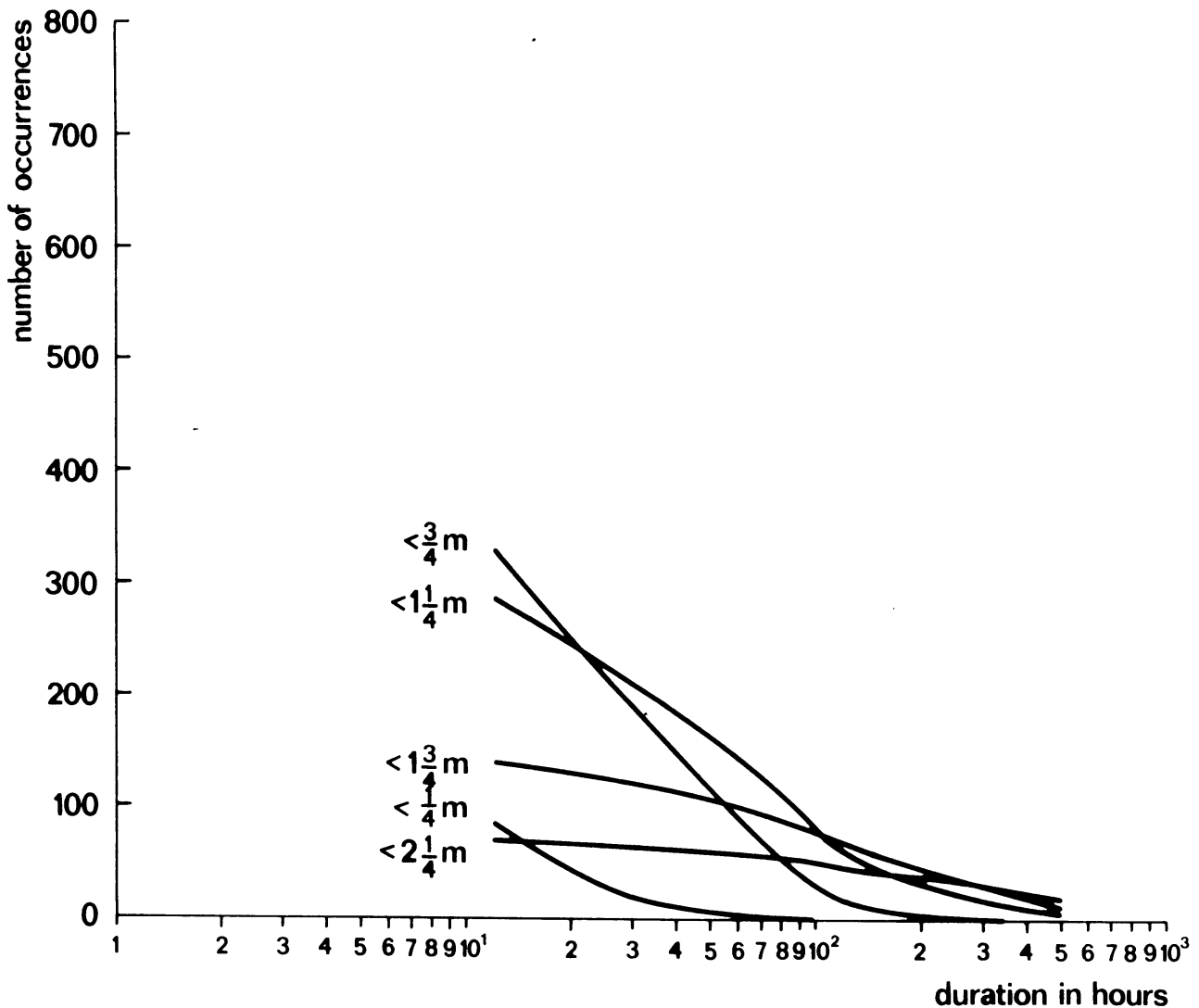
11.2. L.V. Terschellingerbank. Persistence diagram waves, 1949 - 1975 (27 years), winter (Dec, Jan, Feb).

Example: Near L.V. Terschellingerbank in 27 winters 501 periods with wave height $< 1\frac{1}{4} \text{ m}$ lasted 12 hours or longer, that is on average 18.6 of such periods per winter.

Of these 501 periods 82 lasted 120 hours (5 days) or longer.



- 11.3. L.V. Terschellingerbank. Persistence diagram waves, 1949 - 1975 ("17 years"), summer (Jun, Jul, Aug).
 Example: Near L.V. Terschellingerbank in 17 summers 162 periods with wave height $> 1\frac{3}{4} \text{ m}$ occurred, that is on average 9.5 of such periods per summer.
 Of these 162 periods 71 lasted 12 hours or longer and 7 lasted 48 hours or longer.



- 11.4. L.V. Terschellingerbank. Persistence diagram waves, 1949 - 1975 ("17 years"), summer (Jun, Jul, Aug).
 Example: Near L.V. Terschellingerbank in 17 summers 286 periods with wave height $< 1\frac{1}{4} \text{ m}$ lasted 12 hours or longer, that is on average 16.8 of such periods per summer.
 Of these 286 periods 63 lasted 120 hours (5 days) or longer and 26 lasted 240 hours (10 days) or longer.

TABEL 12

GOEREE												
V I S I B I L I T Y												
PARTS PER THOUSAND (FRACTIONS OF TIME)												
1949-1970												
MONTH	<=200 M		<=500 M		<=1000 M		<=2 KM		<=4 KM		<=10 KM	
	A	B	A	B	A	B	A	B	A	B	A	B
JANUARY	19	89 (70)	33	117 (70)	47	145 (70)	75	186 (53)	115	266 (53)	382	718 (70)
FEBRUARY	26	183 (59)	40	250 (59)	58	295 (59)	89	388 (59)	131	469 (59)	355	723 (59)
MARCH	29	153 (53)	41	169 (53)	60	246 (53)	96	290 (53)	149	363 (53)	390	597 (54)
APRIL	15	38 (57)	23	63 (57)	31	83 (63)	48	142 (63)	71	200 (63)	230	446 (63)
MAY	9	57 (56)	19	69 (56)	26	85 (56)	36	121 (56)	52	145 (56)	185	361 (60)
JUNE	8	25 (53)	14	33 (53)	18	50 (58)	24	67 (53)	39	142 (53)	153	263 (53)
JULY	5	36 (55)	8	57 (55)	12	73 (55)	19	89 (55)	34	150 (56)	126	290 (69)
AUGUST	2	16 (70)	4	24 (70)	6	36 (70)	11	44 (70)	27	81 (55)	139	343 (68)
SEPTEMBER	5	80 (61)	8	121 (61)	12	155 (61)	20	163 (61)	38	180 (61)	171	325 (69)
OCTOBER	7	32 (63)	13	52 (63)	16	52 (63)	28	85 (57)	53	186 (57)	247	528 (69)
NOVEMBER	7	25 (67)	13	38 (57)	18	42 (67)	29	71 (59)	61	175 (59)	267	423 (58)
DECEMBER	17	48 (62)	29	93 (53)	39	101 (53)	63	186 (53)	106	266 (53)	356	605 (69)
YEAR	12	25 (61)	21	35 (59)	29	56 (53)	45	86 (53)	74	130 (53)	252	320 (69)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 13

HOORDHINDER												
V I S I B I L I T Y												
PARTS PER THOUSAND (FRACTIONS OF TIME)												
1953-1980												
MONTH	<=200 M		<=500 M		<=1000 M		<=2 KM		<=4 KM		<=10 KM	
	A	B	A	B	A	B	A	B	A	B	A	B
JANUARY	6	28 (64)	11	57 (64)	17	81 (64)	30	117 (64)	68	295 (64)	288	706 (64)
FEBRUARY	9	85 (61)	21	112 (61)	29	138 (53)	50	259 (59)	91	371 (59)	335	728 (63)
MARCH	11	77 (53)	22	177 (53)	33	218 (53)	52	258 (53)	101	351 (53)	341	641 (60)
APRIL	10	50 (76)	19	75 (63)	27	104 (63)	40	146 (63)	69	204 (63)	265	571 (63)
MAY	9	57 (64)	18	69 (56)	26	89 (56)	38	117 (70)	67	246 (70)	230	536 (78)
JUNE	10	46 (68)	20	88 (79)	30	92 (79)	38	113 (79)	63	175 (53)	217	350 (60)
JULY	7	69 (55)	16	121 (55)	24	141 (55)	30	149 (55)	51	165 (55)	185	379 (64)
AUGUST	3	20 (80)	8	40 (88)	11	57 (68)	18	65 (68)	38	157 (68)	173	399 (55)
SEPTEMBER	4	79 (61)	7	108 (61)	12	142 (61)	21	167 (61)	39	175 (61)	174	379 (56)
OCTOBER	4	36 (72)	6	36 (72)	10	36 (62)	15	57 (62)	43	202 (69)	218	452 (69)
NOVEMBER	2	21 (68)	3	33 (67)	5	33 (67)	8	33 (67)	25	96 (65)	205	433 (57)
DECEMBER	2	42 (63)	6	57 (53)	11	70 (63)	17	98 (63)	43	205 (63)	246	524 (53)
YEAR	6	18 (61)	13	34 (53)	19	45 (53)	30	64 (53)	58	110 (69)	239	395 (64)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 13

TEXEL												
V I S I B I L I T Y												
PARTS PER THOUSAND (FRACTIONS OF TIME)												
1949-1977												
MONTH	<=200 M		<=500 M		<=1000 M		<=2 KM		<=4 KM		<=10 KM	
	A	B	A	B	A	B	A	B	A	B	A	B
JANUARY	14	52 (68)	24	113 (70)	38	161 (70)	57	218 (70)	104	319 (70)	342	666 (70)
FEBRUARY	24	156 (59)	37	210 (59)	53	308 (59)	72	393 (59)	118	467 (59)	340	714 (59)
MARCH	26	125 (52)	41	190 (53)	62	286 (53)	82	363 (53)	123	407 (53)	339	617 (53)
APRIL	12	50 (65)	23	83 (63)	33	138 (63)	45	167 (63)	70	213 (63)	215	379 (63)
MAY	11	52 (56)	18	81 (56)	25	101 (56)	32	125 (69)	50	177 (69)	175	399 (69)
JUNE	7	42 (58)	14	54 (65)	20	71 (58)	25	83 (58)	41	108 (58)	162	313 (76)
JULY	7	57 (55)	11	65 (55)	14	69 (55)	18	73 (55)	31	117 (56)	123	270 (51)
AUGUST	2	12 (55)	3	12 (55)	5	16 (53)	8	32 (55)	20	73 (55)	115	282 (68)
SEPTEMBER	4	50 (61)	5	50 (61)	9	54 (61)	12	63 (61)	30	92 (51)	154	288 (69)
OCTOBER	7	65 (69)	11	101 (69)	15	113 (69)	25	154 (69)	51	186 (69)	239	453 (69)
NOVEMBER	5	42 (57)	8	46 (57)	14	54 (65)	20	79 (57)	46	163 (53)	211	358 (53)
DECEMBER	7	48 (53)	14	61 (53)	26	93 (52)	39	149 (53)	78	250 (53)	293	516 (69)
YEAR	11	22 (53)	18	38 (63)	26	57 (53)	37	85 (53)	64	141 (53)	227	298 (69)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

TABEL 12

TERSCHELLINGERBANK												
V I S I B I L I T Y												
PARTS PER THOUSAND (FRACTIONS OF TIME)												
1949-1975												
MONTH	<=200 M		<=500 M		<=1000 M		<=2 KM		<=4 KM		<=10 KM	
	A	B	A	B	A	B	A	B	A	B	A	B
JANUARY	15	77 (70)	32	109 (70)	49	133 (70)	67	157 (70)	124	290 (53)	298	601 (70)
FEBRUARY	24	152 (59)	39	201 (59)	58	290 (59)	78	357 (59)	126	496 (59)	281	683 (59)
MARCH	24	105 (53)	45	182 (53)	60	296 (53)	80	340 (53)	129	373 (53)	284	561 (63)
APRIL	16	81 (62)	30	111 (62)	40	125 (65)	47	142 (65)	71	253 (62)	184	434 (62)
MAY	7	48 (69)	13	61 (65)	20	77 (69)	26	101 (69)	41	121 (69)	133	319 (69)
JUNE	4	29 (65)	9	46 (65)	13	71 (49)	8	32 (49)	8	32 (49)	108	278 (67)
JULY	3	16 (58)	5	20 (55)	5	36 (55)	8	32 (55)	20	77 (55)	80	324 (71)
AUGUST	2	16 (55)	3	24 (55)	5	36 (55)	8	32 (55)	20	77 (55)	102	250 (65)
SEPTEMBER	4	54 (61)	6	67 (61)	7	71 (61)	9	71 (61)	25	133 (61)	184	457 (63)
OCTOBER	7	37 (63)	15	92 (63)	22	146 (63)	29	146 (63)	55	183 (63)	212	375 (59)
NOVEMBER	12	88 (55)	18	92 (55)	25	108 (55)	32	108 (55)	65	163 (55)	212	375 (59)
DECEMBER	12	52 (69)	25	118 (49)	39	171 (49)	56	224 (49)	99	329 (49)	270	526 (49)
YEAR	12	24 (63)	22	62 (63)	31	93 (63)	42	104 (63)	72	178 (63)	197	355 (63)

A = MEAN FREQUENCY.
B = HIGHEST FREQUENCY, WITH YEAR OF OCCURRENCE IN PARENTHESES.

MONTH	DIURNAL VARIATION OF VISIBILITY <= 200 M								ALL HOURS
	PARTS PER THOUSAND (FRACTIONS OF TIME)								
	00H	03H	06H	09H	12H	15H	18H	21H	
JAN	2	2	2	2	3	3	3	2	19
FEB	3	3	3	5	3	3	2	4	26
MAR	4	4	4	4	2	3	3	4	29
APR	2	2	2	3	1	2	1	1	15
MAY	1	1	2	1	1	1	1	1	9
JUN	1	1	2	1	1	1	1	1	8
JUL	1	1	0	0	0	0	1	1	5
AUG	-	0	0	1	0	-	0	-	2
SEP	1	1	1	1	0	1	0	1	5
OCT	1	1	2	2	1	1	1	0	7
NOV	0	1	1	2	1	1	1	0	7
DEC	2	2	3	2	2	2	2	2	17
YEAR	1	2	2	2	1	1	1	1	12

TABEL 14

MONTH	DIURNAL VARIATION OF VISIBILITY <=1000 M								ALL HOURS
	PARTS PER THOUSAND (FRACTIONS OF TIME)								
	00H	03H	06H	09H	12H	15H	18H	21H	
JAN	6	5	6	5	7	8	5	4	47
FEB	6	5	7	12	9	8	5	6	58
MAR	7	7	8	9	9	7	7	7	60
APR	4	4	5	5	3	3	4	3	31
MAY	3	3	5	5	3	2	2	2	26
JUN	2	2	3	3	3	2	2	2	16
JUL	1	2	1	2	1	1	1	2	12
AUG	0	1	0	2	1	1	1	1	6
SEP	1	1	2	2	1	2	1	1	12
OCT	1	2	3	4	2	2	1	1	16
NOV	2	3	3	3	2	2	2	2	16
DEC	4	5	5	7	5	5	4	4	39
YEAR	3	3	4	5	4	4	3	3	29

TABEL 14

MONTH	DIURNAL VARIATION OF VISIBILITY <=4000 M								ALL HOURS
	PARTS PER THOUSAND (FRACTIONS OF TIME)								
	00H	03H	06H	09H	12H	15H	18H	21H	
JAN	12	10	12	17	20	21	14	10	115
FEB	12	12	15	23	24	20	13	11	121
MAR	12	15	19	25	25	21	19	12	149
APR	6	7	9	12	12	11	8	5	71
MAY	4	5	8	11	9	5	6	3	52
JUN	4	4	6	7	6	4	4	3	39
JUL	2	3	6	7	5	5	4	2	34
AUG	1	2	4	6	5	4	3	2	27
SEP	2	3	6	7	8	7	4	1	36
OCT	3	5	6	12	10	9	5	4	53
NOV	6	6	6	10	12	9	6	5	61
DEC	10	10	12	17	19	19	11	9	106
YEAR	6	7	9	13	13	11	8	6	74

NOORDHINDER MONTH	DIURNAL VARIATION OF VISIBILITY <= 200 M						28 YEARS 1953-1980		
	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT		
	00H	03H	06H	09H	12H	15H	18H	21H	ALL HOURS
JAN	1	1	1	0	1	0	1	1	6
FEB	1	1	1	1	1	1	1	1	9
MAR	1	2	1	1	1	1	1	2	11
APR	1	2	1	1	2	2	1	0	10
MAY	1	1	1	1	1	1	2	1	9
JUN	1	1	1	2	1	1	1	1	10
JUL	2	1	1	0	0	0	1	0	7
AUG	0	-	-	0	1	1	1	0	3
SEP	1	0	1	0	1	0	0	1	4
OCT	1	1	0	0	0	0	0	1	4
NOV	-	0	0	0	0	0	0	-	2
DEC	0	-	0	1	0	1	0	0	2
YEAR	1	1	1	1	1	1	1	1	6

TABEL 14

NOORDHINDER MONTH	DIURNAL VARIATION OF VISIBILITY <=1000 M						28 YEARS 1953-1980		
	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT		
	00H	03H	06H	09H	12H	15H	18H	21H	ALL HOURS
JAN	2	2	2	3	3	2	1	2	17
FEB	3	3	4	5	4	4	3	3	29
MAR	3	4	4	6	5	5	3	3	33
APR	3	4	4	4	3	3	3	3	27
MAY	2	3	4	4	4	3	3	2	26
JUN	4	3	4	5	4	3	4	3	30
JUL	3	3	4	4	3	2	3	2	24
AUG	1	1	1	2	2	2	1	2	11
SEP	1	1	2	2	2	2	2	1	12
OCT	2	2	1	1	1	1	1	1	10
NOV	0	1	1	1	1	0	1	0	5
DEC	1	1	1	2	2	2	1	1	11
YEAR	2	2	3	3	3	2	2	2	19

TABEL 14

NOORDHINDER MONTH	DIURNAL VARIATION OF VISIBILITY <=4000 M						28 YEARS 1953-1980		
	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT		
	00H	03H	06H	09H	12H	15H	18H	21H	ALL HOURS
JAN	6	6	8	11	12	11	6	7	66
FEB	8	9	9	16	17	15	9	8	91
MAR	7	9	10	18	19	17	13	7	101
APR	6	7	10	12	11	11	7	6	69
MAY	5	5	10	13	12	10	6	5	67
JUN	6	6	10	12	12	8	6	5	63
JUL	5	5	8	10	10	6	5	3	51
AUG	2	2	5	7	7	6	5	3	36
SEP	2	3	6	7	7	6	5	2	39
OCT	4	4	5	9	7	7	4	3	43
NOV	2	2	2	5	5	5	2	2	25
DEC	4	4	4	9	9	7	3	3	43
YEAR	5	5	7	11	11	9	6	4	58

TEXEL MONTH	DIURNAL VARIATION OF VISIBILITY <= 200 M								29 YEARS 1949-1977	
	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT			ALL HOURS
	00H	03H	06H	09H	12H	15H	18H	21H		
JAN	2	2	2	2	1	1	2	2	14	
FEB	2	3	4	4	3	2	3	3	24	
MAR	4	4	3	4	3	3	3	3	26	
APR	2	1	2	2	2	1	1	2	12	
MAY	2	1	2	1	1	1	1	1	11	
JUN	1	1	1	1	0	0	1	1	7	
JUL	1	0	1	1	1	1	0	1	7	
AUG	1	0	0	0	0	0	-	0	2	
SEP	0	1	1	0	1	1	0	0	4	
OCT	1	1	2	1	1	1	0	0	7	
NOV	0	1	1	1	1	0	0	0	5	
DEC	1	1	0	1	1	1	1	1	7	
YEAR	1	1	1	2	1	1	1	1	11	

TABEL 14

TEXEL MONTH	DIURNAL VARIATION OF VISIBILITY <=1000 M								29 YEARS 1949-1977	
	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT			ALL HOURS
	00H	03H	06H	09H	12H	15H	18H	21H		
JAN	5	5	4	5	5	5	5	5	38	
FEB	6	6	7	8	7	8	5	6	53	
MAR	8	8	8	10	8	8	7	7	62	
APR	4	4	5	5	4	3	3	4	33	
MAY	2	2	4	4	3	2	3	4	25	
JUN	3	3	3	3	2	2	3	3	20	
JUL	2	2	3	3	1	1	1	1	14	
AUG	1	1	1	1	0	1	-	0	5	
SEP	1	1	2	1	1	1	1	1	9	
OCT	1	2	2	3	2	2	2	1	15	
NOV	2	2	1	3	2	1	1	1	14	
DEC	2	2	2	4	3	4	3	3	26	
YEAR	3	3	4	4	3	3	3	3	26	

TABEL 14

TEXEL MONTH	DIURNAL VARIATION OF VISIBILITY <=4000 M								29 YEARS 1949-1977	
	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT			ALL HOURS
	00H	03H	06H	09H	12H	15H	18H	21H		
JAN	12	10	11	16	16	16	12	11	104	
FEB	12	12	15	19	18	17	13	12	116	
MAR	13	13	15	20	18	17	16	11	123	
APR	6	7	11	11	10	9	8	7	70	
MAY	5	4	9	8	7	5	7	5	50	
JUN	4	4	6	6	6	5	5	4	41	
JUL	3	3	6	6	4	4	2	2	31	
AUG	1	2	4	4	3	3	1	1	20	
SEP	2	3	5	5	4	4	4	2	30	
OCT	4	5	7	10	8	7	5	5	51	
NOV	5	4	5	8	9	6	4	5	46	
DEC	8	7	9	13	11	12	9	8	76	
YEAR	6	6	9	11	10	9	7	6	64	

TERSCHELLINGERBANK DIURNAL VARIATION OF VISIBILITY ≤ 200 M 27 YEARS 1949-1975

MONTH	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT		ALL HOURS
	00H	03H	06H	09H	12H	15H	18H	21H	
JAN	1	2	2	3	2	2	1	1	15
FEB	2	3	3	5	4	3	3	3	24
MAR	3	3	4	4	2	3	4	2	24
APR	2	2	3	2	2	1	2	1	16
MAY	1	1	1	2	1	0	1	1	7
JUN	1	1	0	0	0	-	1	1	4
JUL	1	-	1	1	0	-	-	0	3
AUG	-	1	1	0	-	-	0	-	2
SEP	0	0	0	1	0	0	1	0	4
OCT	1	1	1	2	1	1	1	0	7
NOV	1	1	2	2	2	1	1	1	12
DEC	1	1	1	1	2	2	2	2	12
YEAR	1	1	2	2	2	1	1	1	12

TABEL 14

TERSCHELLINGERBANK DIURNAL VARIATION OF VISIBILITY ≤ 1000 M 27 YEARS 1949-1975

MONTH	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT		ALL HOURS
	00H	03H	06H	09H	12H	15H	18H	21H	
JAN	5	6	6	9	8	7	5	5	49
FEB	6	6	8	10	9	7	5	7	58
MAR	7	7	8	9	8	7	7	6	60
APR	5	6	6	6	5	4	4	4	40
MAY	2	4	3	3	2	2	2	2	20
JUN	2	2	1	2	2	1	1	2	13
JUL	1	1	1	1	1	1	0	1	6
AUG	0	1	2	1	1	-	1	0	5
SEP	0	1	1	2	1	1	1	0	7
OCT	2	3	3	5	3	3	2	1	22
NOV	4	3	3	4	4	2	2	2	25
DEC	4	4	6	6	5	6	4	4	39
YEAR	3	4	4	5	4	4	3	3	31

TABEL 14

TERSCHELLINGERBANK DIURNAL VARIATION OF VISIBILITY ≤ 4000 M 27 YEARS 1949-1975

MONTH	PARTS PER THOUSAND (FRACTIONS OF TIME)						TIMES IN GMT		ALL HOURS
	00H	03H	06H	09H	12H	15H	18H	21H	
JAN	11	13	14	21	21	19	14	11	124
FEB	13	13	13	22	20	18	13	12	126
MAR	12	14	16	19	20	19	18	12	129
APR	7	8	12	10	10	9	8	6	71
MAY	4	5	7	7	5	6	4	3	41
JUN	2	3	3	3	5	4	3	3	26
JUL	2	2	3	2	3	2	1	3	18
AUG	1	2	4	3	5	2	2	1	20
SEP	3	2	4	5	4	3	3	1	25
OCT	4	5	8	12	10	7	5	4	55
NOV	7	6	8	12	11	8	6	7	65
DEC	10	10	11	16	15	15	11	10	99
YEAR	7	8	9	12	12	10	8	7	72

GOEREE		FOG/AIR-SEA TEMPERATURE DIFFERENCE													1949-1970
		AIR-SEA TEMPERATURE DIFFERENCE IN DEGREES CELSIUS													
MONTH	<=-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	>=7
JAN	28 0	29 -	35 0	45 2	65 4	91 6	144 7	185 9	226 11	127 6	24 0	1 -	- -	- -	- -
FEB	19 -	12 1	19 2	36 4	52 2	101 7	144 9	173 12	240 15	149 5	48 1	6 -	1 -	- -	- -
MAR	- -	0 -	4 -	14 0	37 1	67 6	148 13	188 14	277 14	161 10	68 2	13 -	3 -	1 -	0 -
APR	- -	0 -	1 -	2 -	8 1	35 3	148 6	242 6	306 9	182 4	53 1	16 -	5 -	1 -	1 -
MAY	- -	- -	- -	3 -	11 0	60 3	175 13	234 5	278 2	156 1	56 0	17 -	7 -	2 -	1 -
JUN	- -	- -	0 -	2 -	17 -	78 2	202 5	296 8	255 3	101 -	34 -	12 -	3 -	0 -	0 -
JUL	- -	- -	0 -	3 -	26 1	118 1	300 7	318 2	164 0	49 0	15 0	4 -	1 -	1 -	0 -
AUG	- -	- -	1 -	6 -	50 0	168 1	328 2	279 1	123 1	33 -	9 -	3 -	0 -	- -	- -
SEP	0 -	1 -	5 -	20 1	75 1	208 1	322 4	232 5	105 1	26 -	5 -	2 -	- -	- -	- -
OCT	5 1	9 1	27 2	54 1	115 3	202 2	266 3	212 2	95 1	14 0	1 0	0 -	- -	- -	- -
NOV	24 2	31 2	56 4	79 3	113 2	175 3	220 1	188 1	93 1	19 -	1 -	- -	- -	- -	- -
DEC	35 3	40 2	52 3	72 4	88 6	129 5	173 7	183 6	151 3	68 0	7 0	2 -	0 -	- -	- -

THE FIRST LINE OF EACH MONTH GIVES:
PARTS PER THOUSAND OF ALL OBSERVATIONS WITH THE AIR-SEA TEMPERATURE DIFFERENCE MENTIONED IN THE HEADING.

THE SECOND LINE GIVES:
FRACTIONS OF OBSERVATIONS (PARTS PER THOUSAND) MENTIONED IN THE FIRST LINE, ACCOMPANIED BY FOG.

TABEL 16

NOORDHINDER		FOG/AIR-SEA TEMPERATURE DIFFERENCE													1953-1980
		AIR-SEA TEMPERATURE DIFFERENCE IN DEGREES CELSIUS													
MONTH	<=-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	>=7
JAN	55 0	38 0	55 0	85 1	123 3	146 3	176 3	158 2	126 3	34 0	3 0	- -	- -	- -	- -
FEB	24 -	24 2	45 1	69 2	117 4	135 6	167 5	179 6	163 4	67 0	11 -	1 -	- -	- -	- -
MAR	1 -	3 -	14 -	31 1	69 2	112 6	156 6	222 6	229 7	120 4	35 1	6 -	1 -	0 -	- -
APR	- -	0 -	1 -	5 -	19 1	90 3	192 7	236 7	264 7	143 2	39 0	8 0	2 -	0 -	1 -
MAY	- -	- -	0 -	3 -	7 -	44 2	119 8	227 7	316 6	191 2	66 0	18 -	5 -	1 -	0 -
JUN	- -	- -	0 -	0 -	4 0	26 1	130 7	288 13	331 6	163 2	44 0	10 -	3 -	1 -	0 -
JUL	- -	0 -	- -	1 -	7 -	44 0	153 7	348 10	303 6	108 1	29 -	7 -	1 -	0 -	- -
AUG	- -	- -	0 -	3 -	22 -	79 1	231 3	369 5	214 2	67 1	11 0	2 -	1 -	0 -	- -
SEP	1 -	1 -	5 -	20 -	61 -	170 2	265 5	285 3	137 1	30 0	4 0	1 -	0 -	- -	- -
OCT	4 0	14 -	37 1	71 0	129 1	218 3	239 3	195 1	81 0	10 -	0 -	0 -	- -	- -	- -
NOV	40 1	43 0	80 1	131 1	166 0	202 0	166 1	111 0	50 -	7 -	3 -	1 -	- -	- -	- -
DEC	61 1	51 1	70 1	100 2	136 2	158 1	157 1	126 1	108 0	29 0	3 0	0 -	- -	- -	- -

THE FIRST LINE OF EACH MONTH GIVES:
PARTS PER THOUSAND OF ALL OBSERVATIONS WITH THE AIR-SEA TEMPERATURE DIFFERENCE MENTIONED IN THE HEADING.

THE SECOND LINE GIVES:
FRACTIONS OF OBSERVATIONS (PARTS PER THOUSAND) MENTIONED IN THE FIRST LINE, ACCOMPANIED BY FOG.

MONTH	FOG/AIR-SEA TEMPERATURE DIFFERENCE															1944-1977
	AIR-SEA TEMPERATURE DIFFERENCE IN DEGREES CELSIUS															
	<=-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	>=7	
JAN	21 0	24 1	37 2	58 4	77 4	95 3	147 7	206 7	222 7	222 7	88 2	14 0	1	-	0	-
FEB	15 1	16 2	24 2	42 4	71 4	105 6	152 7	190 10	239 13	116 3	28 0	2	-	-	-	-
MAR	2 -	5 0	7 -	24 1	40 4	96 6	156 12	209 10	253 16	157 10	41 2	10	2	0	0	0
APR	0 0	0 -	1 -	3 -	16 2	60 5	174 5	254 6	267 9	159 5	47 0	14	3	1	0	0
MAY	- -	0 -	0 -	1 -	10 1	51 3	151 7	220 6	291 5	179 2	62 0	16 0	5	2	1	1
JUN	- -	- -	0 -	1 -	10 0	71 3	191 7	300 7	264 3	115 0	34	8	4	1	0	0
JUL	- -	- -	- -	1 -	11 0	87 1	255 6	332 4	220 1	66 1	21 0	5	2	0	0	0
AUG	- -	- -	0 -	3 -	20 -	134 1	287 1	311 2	183 1	47 0	12	3	0	-	-	-
SEP	0 -	0 -	5 -	22 -	75 -	202 1	286 3	263 3	113 2	26	7	1	0	-	-	-
OCT	4 0	11 0	27 0	55 2	122 2	199 5	267 3	201 2	99 1	14	1	-	0	0	-	-
NOV	22 1	29 2	51 2	72 2	119 2	198 1	230 1	185 1	82 1	11	0	-	-	-	-	-
DEC	42 2	29 1	48 1	70 4	96 5	127 3	177 3	194 4	164 3	46 0	7	-	-	-	-	-

THE FIRST LINE OF EACH MONTH GIVES:
PARTS PER THOUSAND OF ALL OBSERVATIONS WITH THE AIR-SEA TEMPERATURE DIFFERENCE MENTIONED IN THE HEADING.

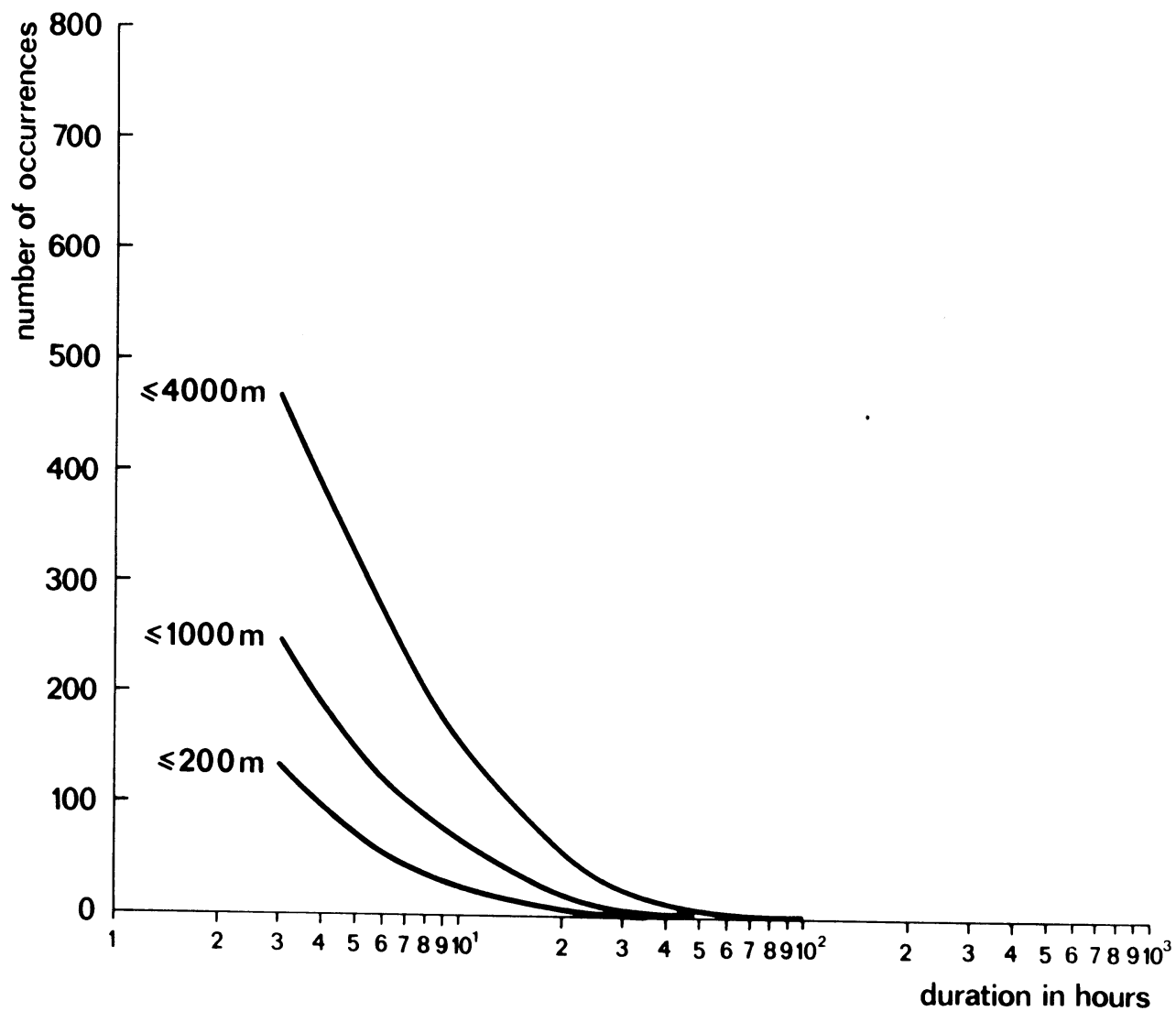
THE SECOND LINE GIVES:
FRACTIONS OF OBSERVATIONS (PARTS PER THOUSAND) MENTIONED IN THE FIRST LINE, ACCOMPANIED BY FOG.

TABEL 16

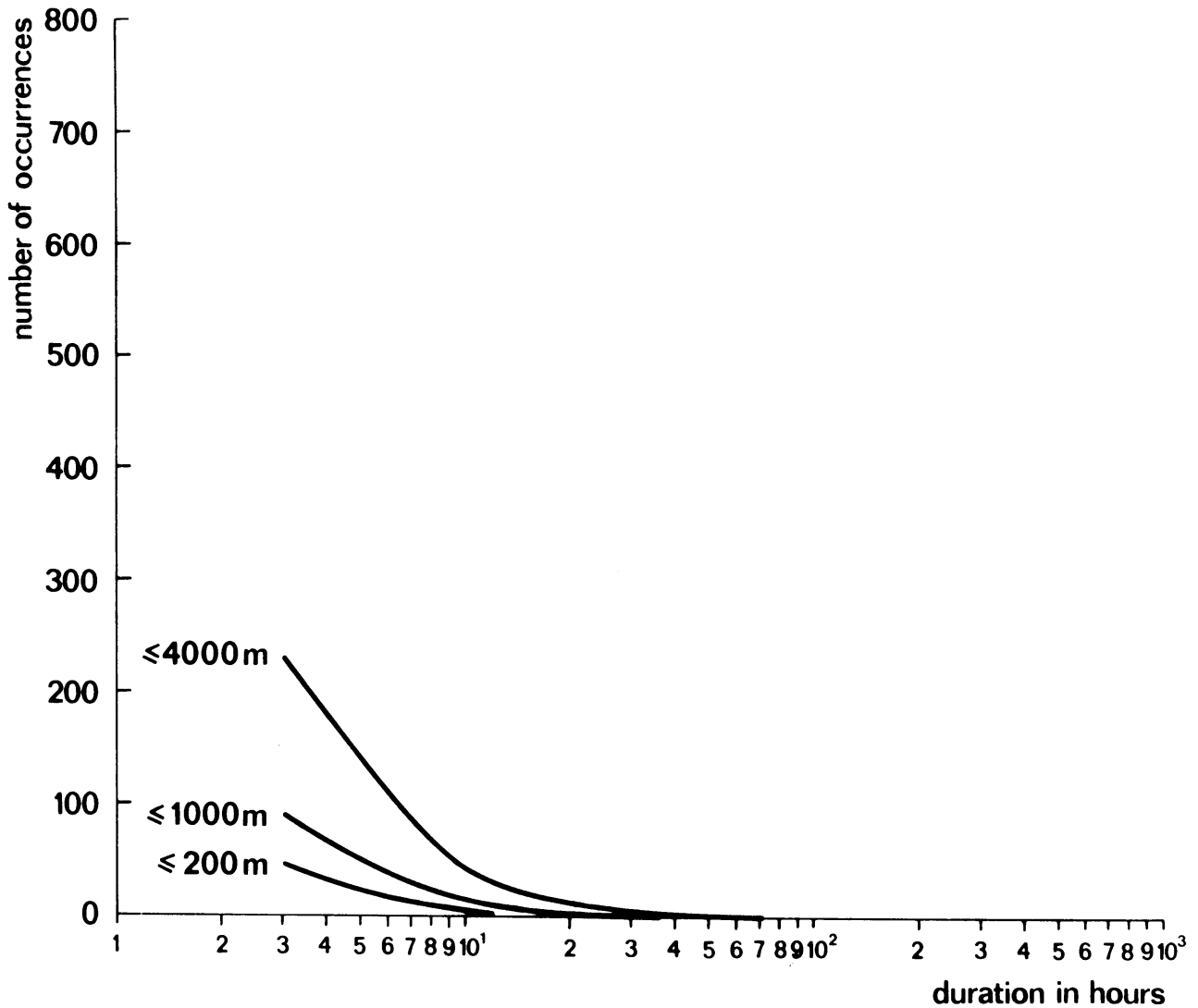
MONTH	FOG/AIR-SEA TEMPERATURE DIFFERENCE															1949-1977
	AIR-SEA TEMPERATURE DIFFERENCE IN DEGREES CELSIUS															
	<=-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	>=7	
JAN	24 1	22 2	37 2	56 3	90 6	106 5	156 9	218 9	214 11	66 2	11 0	1	-	-	-	-
FEB	12 1	12 1	25 4	45 5	67 4	107 7	174 8	234 12	218 11	88 2	16 0	1	-	-	-	-
MAR	1 -	3 -	8 0	17 0	40 4	91 9	167 11	246 12	263 17	126 5	31 1	6	1	1	-	-
APR	- -	- -	0 -	4 0	13 2	61 5	193 10	288 11	262 10	126 2	36 0	11	4	1	0	0
MAY	- -	- -	0 -	1 0	17 2	84 4	197 5	264 4	266 3	122 0	37 0	7	4	1	1	1
JUN	- -	- -	0 -	2 -	18 0	110 2	216 4	276 5	245 1	102 0	23	5	1	1	0	0
JUL	- -	- -	0 -	3 0	29 0	159 1	287 2	290 2	167 1	50 0	11	2	1	-	0	0
AUG	- -	- -	- -	4 -	41 -	170 1	318 2	299 1	140 1	22 0	5	1	-	-	-	-
SEP	- -	0 -	4 -	21 -	88 -	250 1	299 3	222 3	84 0	18	3	1	0	0	-	-
OCT	3 2	8 1	31 2	63 2	127 4	204 5	281 3	199 2	75 1	9	0	0	-	-	-	-
NOV	24 4	28 2	54 2	76 3	123 4	200 3	230 2	185 3	69 0	12 0	0	-	-	-	-	-
DEC	46 5	31 3	50 4	81 5	100 5	142 6	166 6	180 3	155 3	44 0	5	-	-	-	-	-

THE FIRST LINE OF EACH MONTH GIVES:
PARTS PER THOUSAND OF ALL OBSERVATIONS WITH THE AIR-SEA TEMPERATURE DIFFERENCE MENTIONED IN THE HEADING.

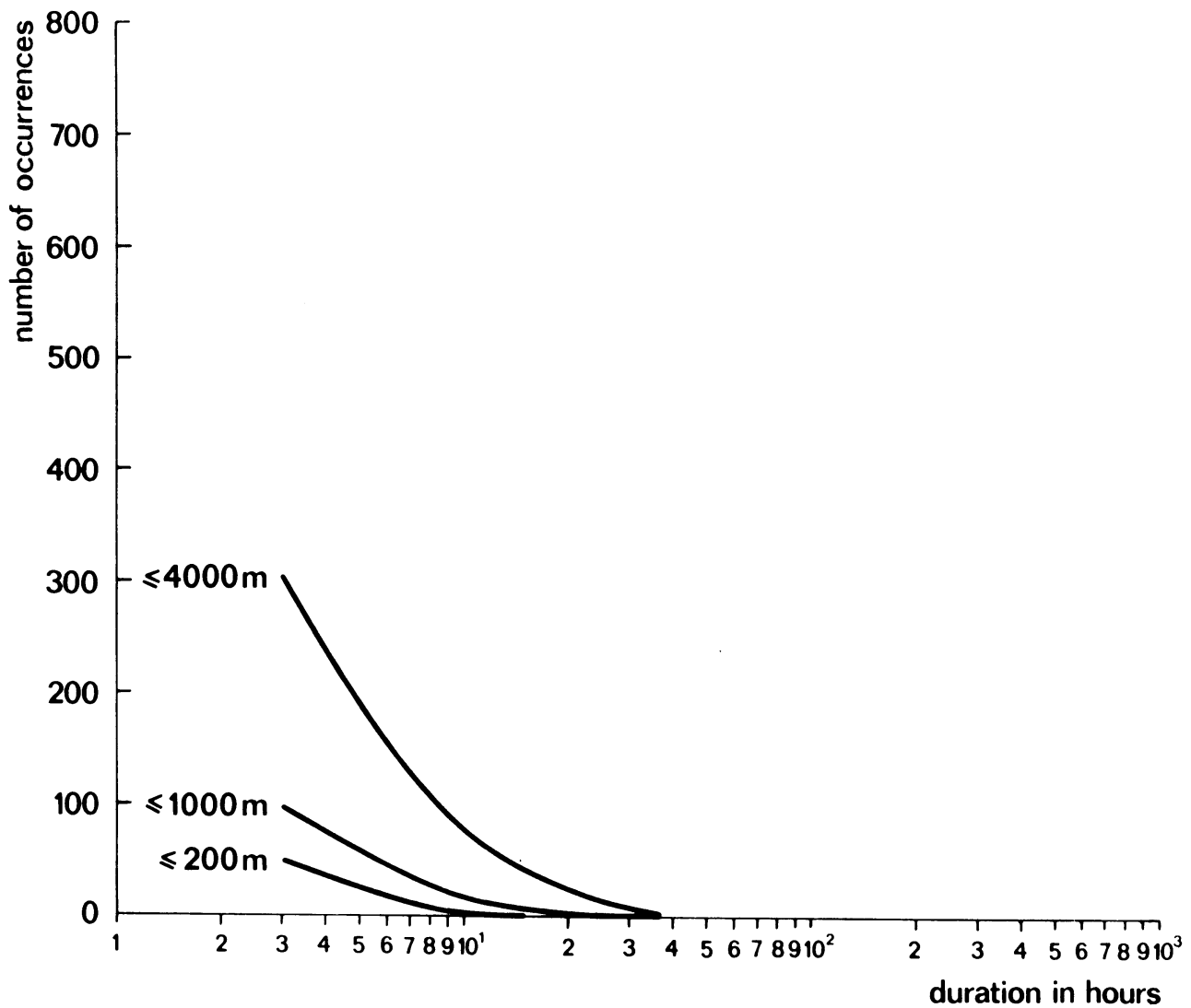
THE SECOND LINE GIVES:
FRACTIONS OF OBSERVATIONS (PARTS PER THOUSAND) MENTIONED IN THE FIRST LINE, ACCOMPANIED BY FOG.



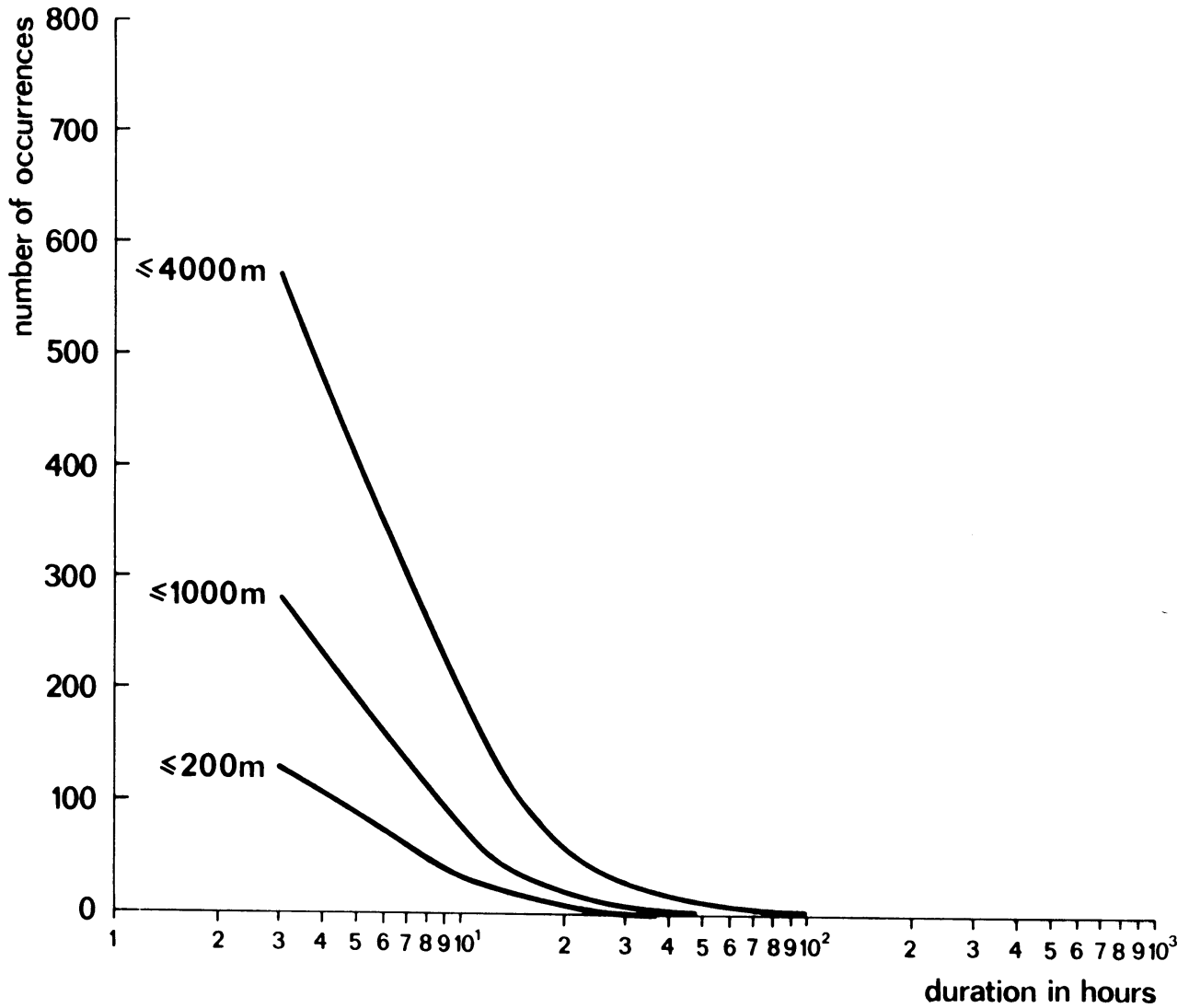
- 18.1. L.V. Goeree. Persistence diagram visibility, 1949 - 1970 ("21 years"), spring (Mar, Apr, May).
 Example: Near L.V. Goeree in 21 springs 249 periods with visibility F 1000 m occurred, that is on average 11.9 of such periods per spring.
 Of these 249 periods 123 lasted 6 hours or longer and 10 lasted 24 hours or longer.



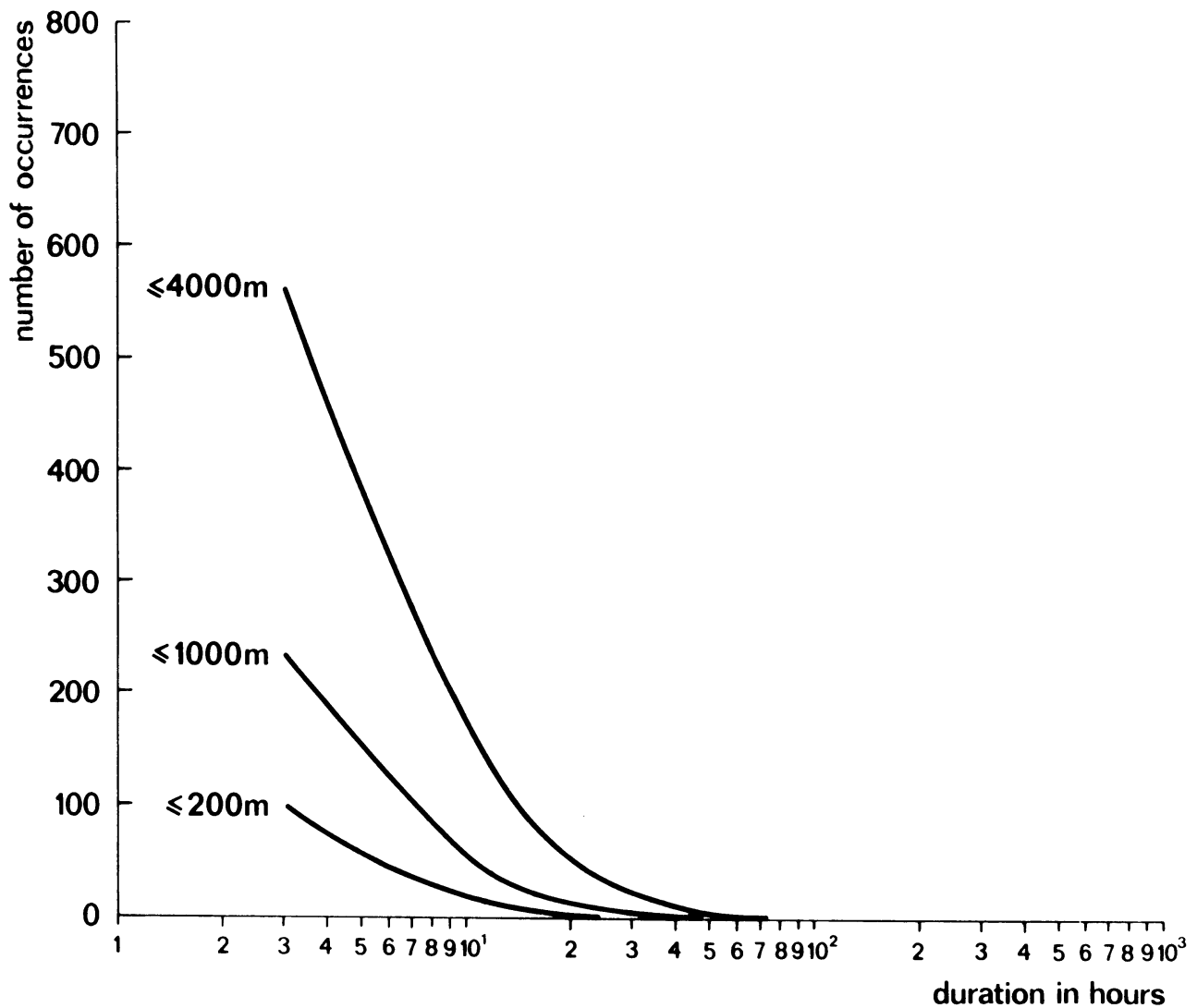
- 18.2. L.V. Goeree. Persistence diagram visibility, 1949 - 1970 ("21 years"), summer (Jun, Jul, Aug).
 Example: Near L.V. Goeree in 21 summers 91 periods with visibility F 1000 m occurred, that is on average 4.3 of such periods per summer.
 Of these 91 periods 38 lasted 6 hours or longer and 2 lasted 24 hours or longer.



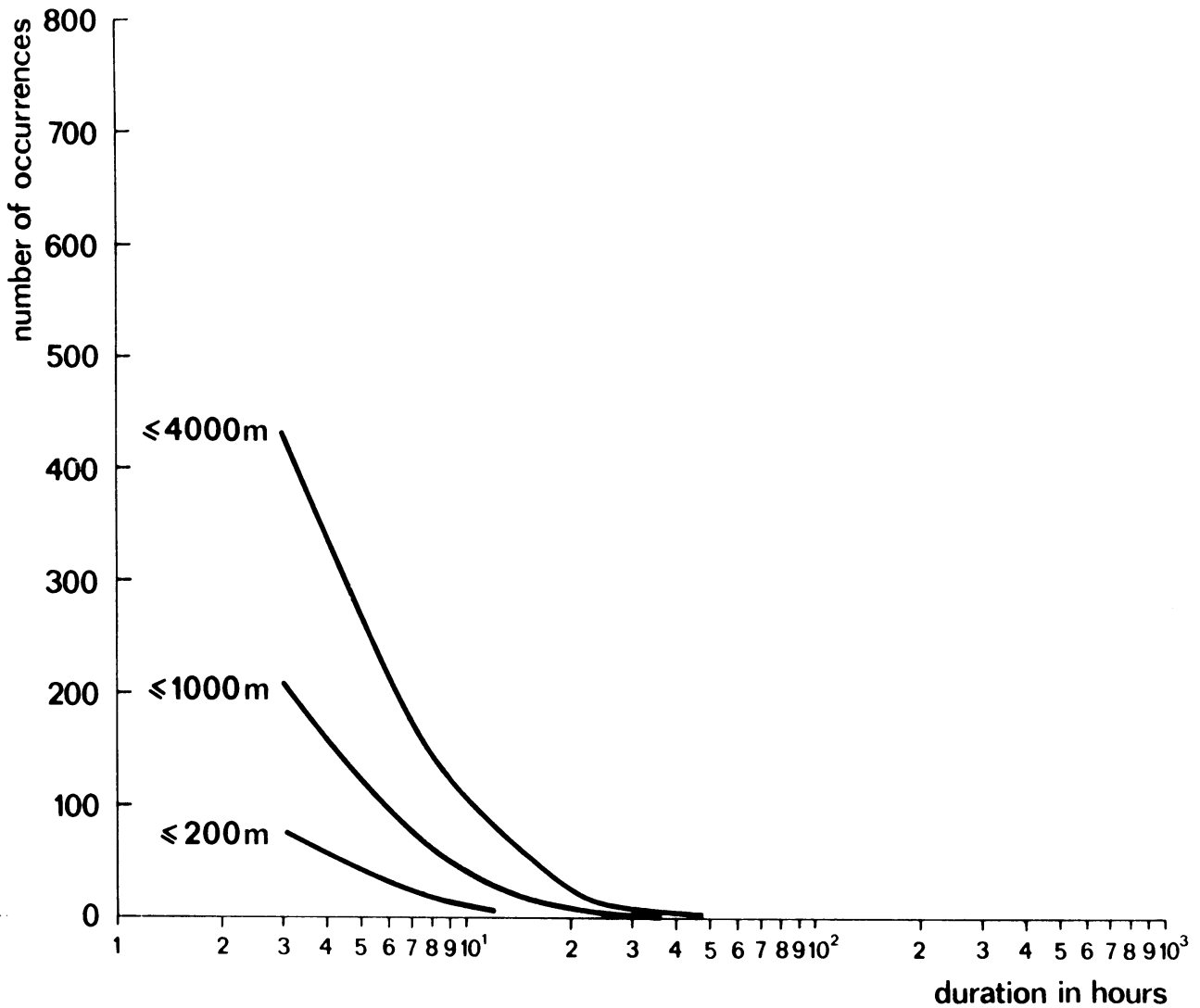
- 18.3. L.V. Goeree. Persistence diagram visibility, 1949 - 1970 ("21 years"), autumn (Sep, Oct, Nov).
 Example: Near L.V. Goeree in 21 autumns 100 periods with visibility F 1000 m occurred, that is on average 4.8 of such periods per autumn. Of these 100 periods 48 lasted 6 hours or longer and 3 lasted 24 hours or longer.



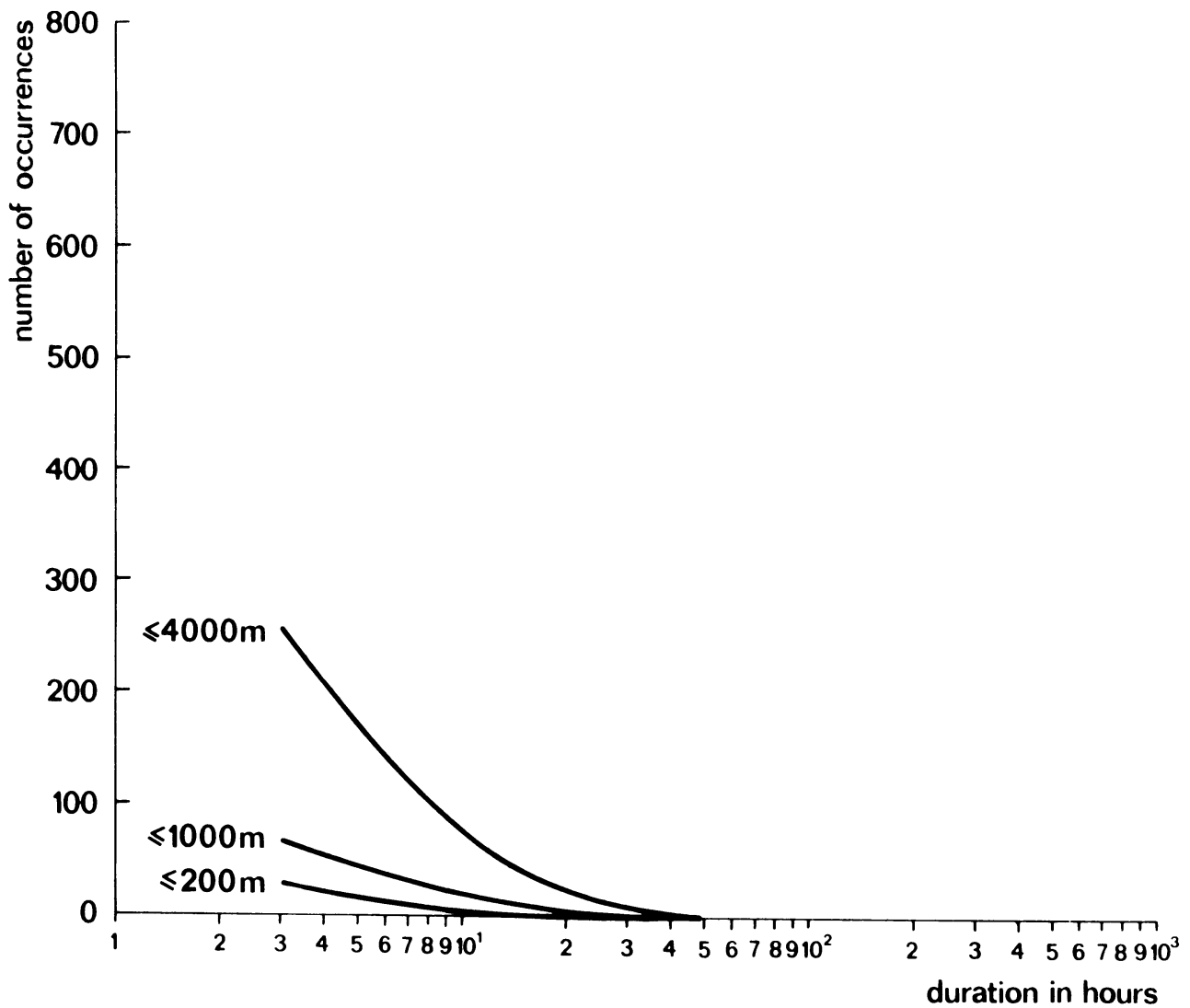
- 18.4. L.V. Goeree. Persistence diagram visibility, 1949 - 1970 (22 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Goeree in 22 winters 285 periods with visibility F 1000 m occurred, that is on average 13.0 of such periods per winter.
 Of these 285 periods 158 lasted 6 hours or longer and 13 lasted 24 hours or longer.



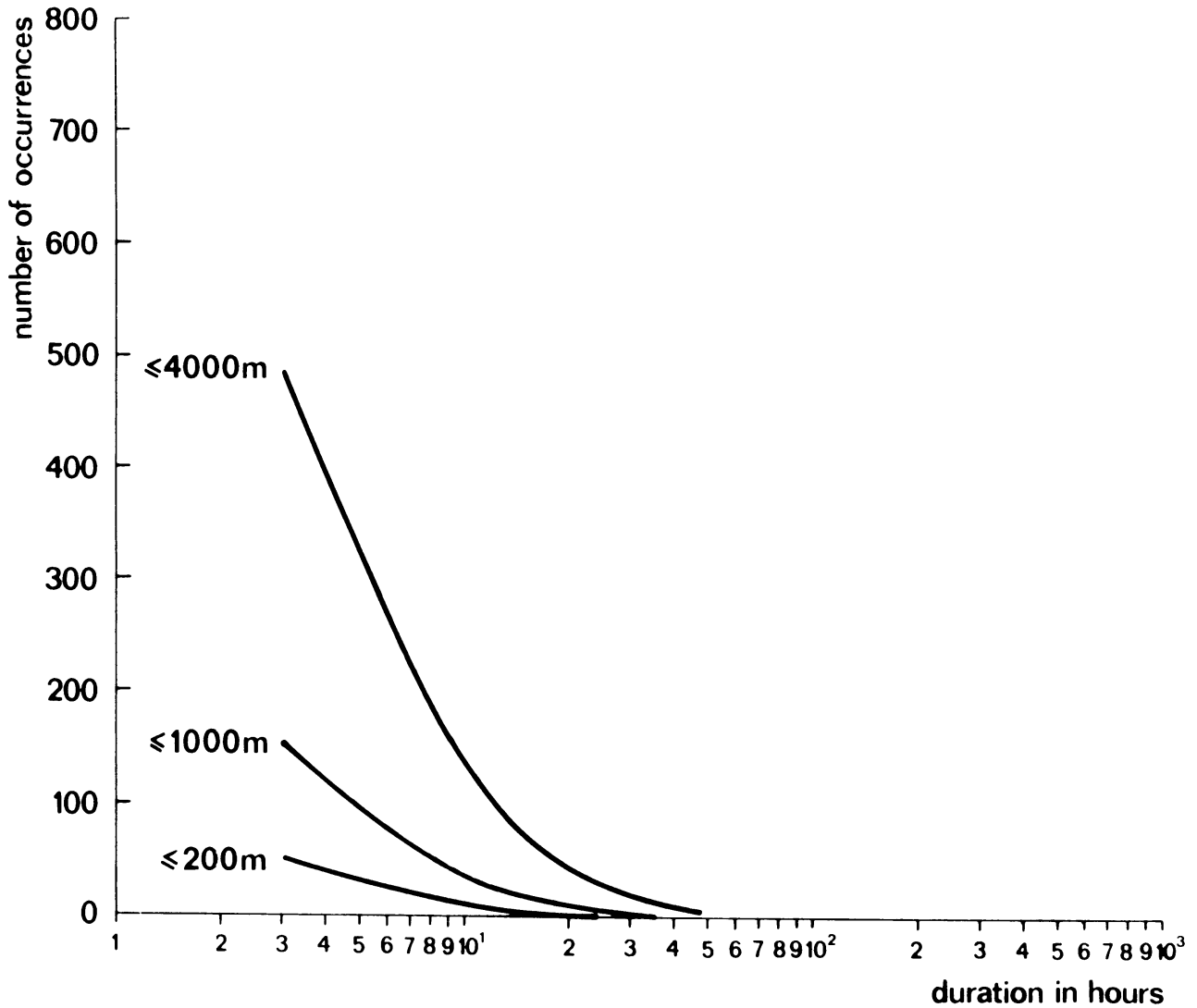
- 18.1. L.V. Noord Hinder. Persistence diagram visibility, 1953 - 1980 (28 years), spring (Mar, Apr, May).
 Example: Near L.V. Noord Hinder in 26 springs 238 periods with visibility F 1000 m occurred, that is on average 8.5 of such periods per spring.
 Of these 238 periods 125 lasted 6 hours or longer and 10 lasted 24 hours or longer.



- 18.2. L.V. Noord Hinder. Persistence diagram visibility, 1953 - 1980 (28 years), summer (Jun, Jul, Aug).
 Example: Near L.V. Noord Hinder in 28 summers 210 periods with visibility ≤ 1000 m occurred, that is on average 7.5 of such periods per summer.
 Of these 210 periods 94 lasted 6 hours or longer and 4 lasted 24 hours or longer.



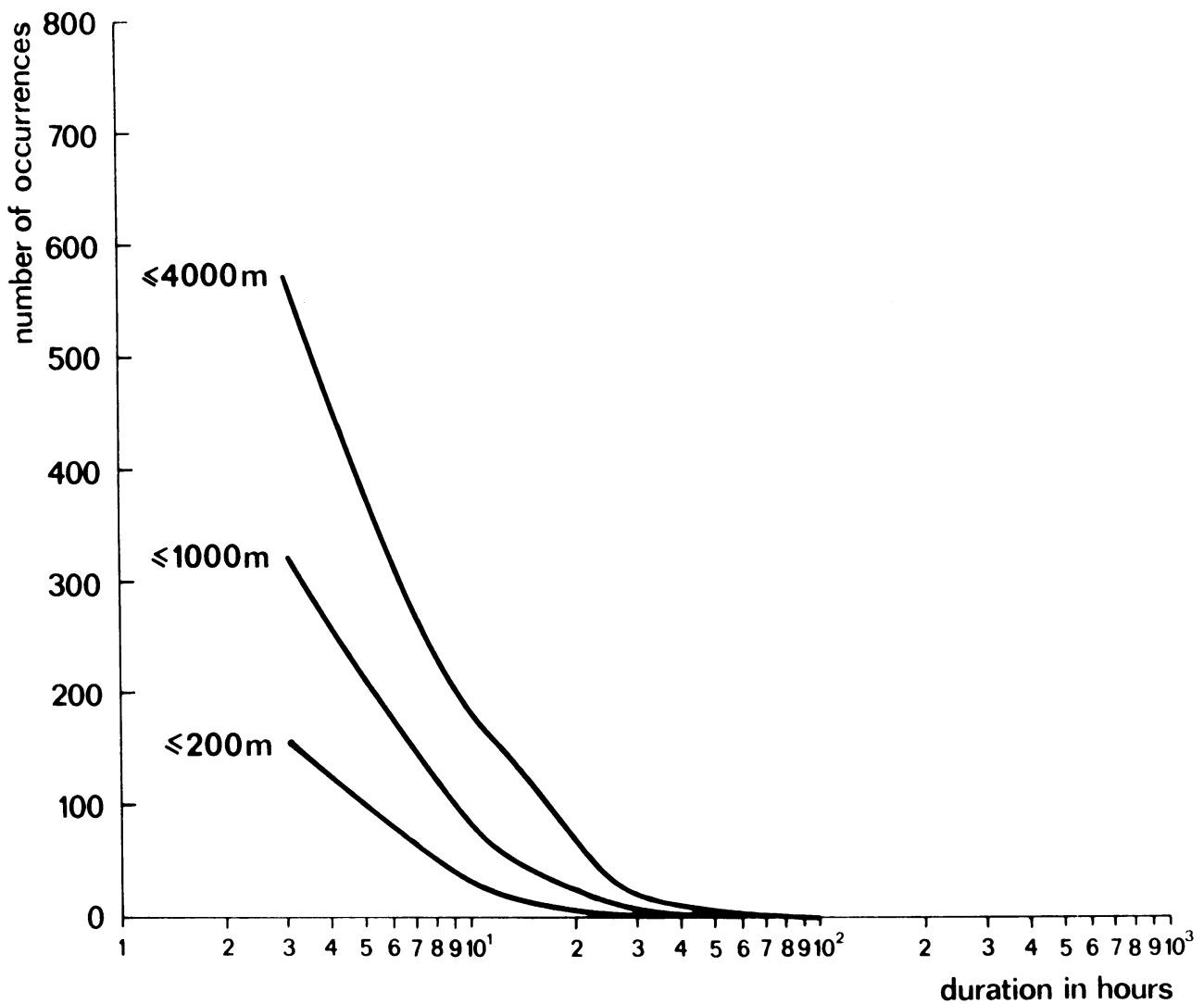
- 18.3. L.V. Noord Hinder. Persistence diagram visibility, 1953 - 1980 (28 years), autumn (Sep, Oct, Nov).
 Example: Near L.V. Noord Hinder in 28 autumns 66 periods with visibility F 1000 m occurred, that is on average 2.4 of such periods per autumn.
 Of these 66 periods 37 lasted 6 hours or longer and 3 lasted 24 hours or longer.



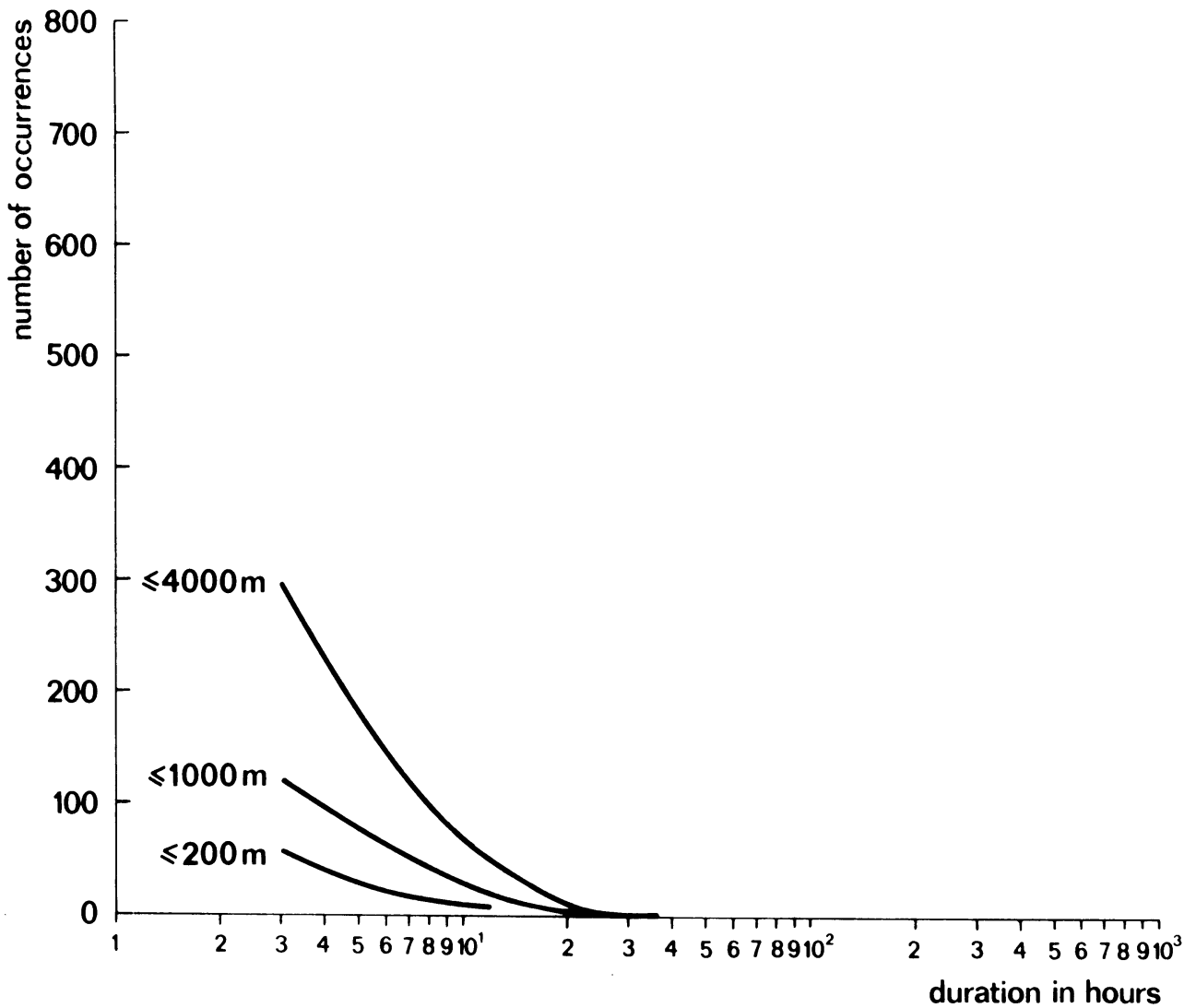
18.4. L.V. Noord Hinder. Persistence diagram visibility, 1953 - 1980 (28 years), winter (Dec, Jan, Feb).

Example: Near L.V. Noord Hinder in 28 winters 159 periods with visibility F 1000 m occurred, that is on average 5.7 of such periods per winter.

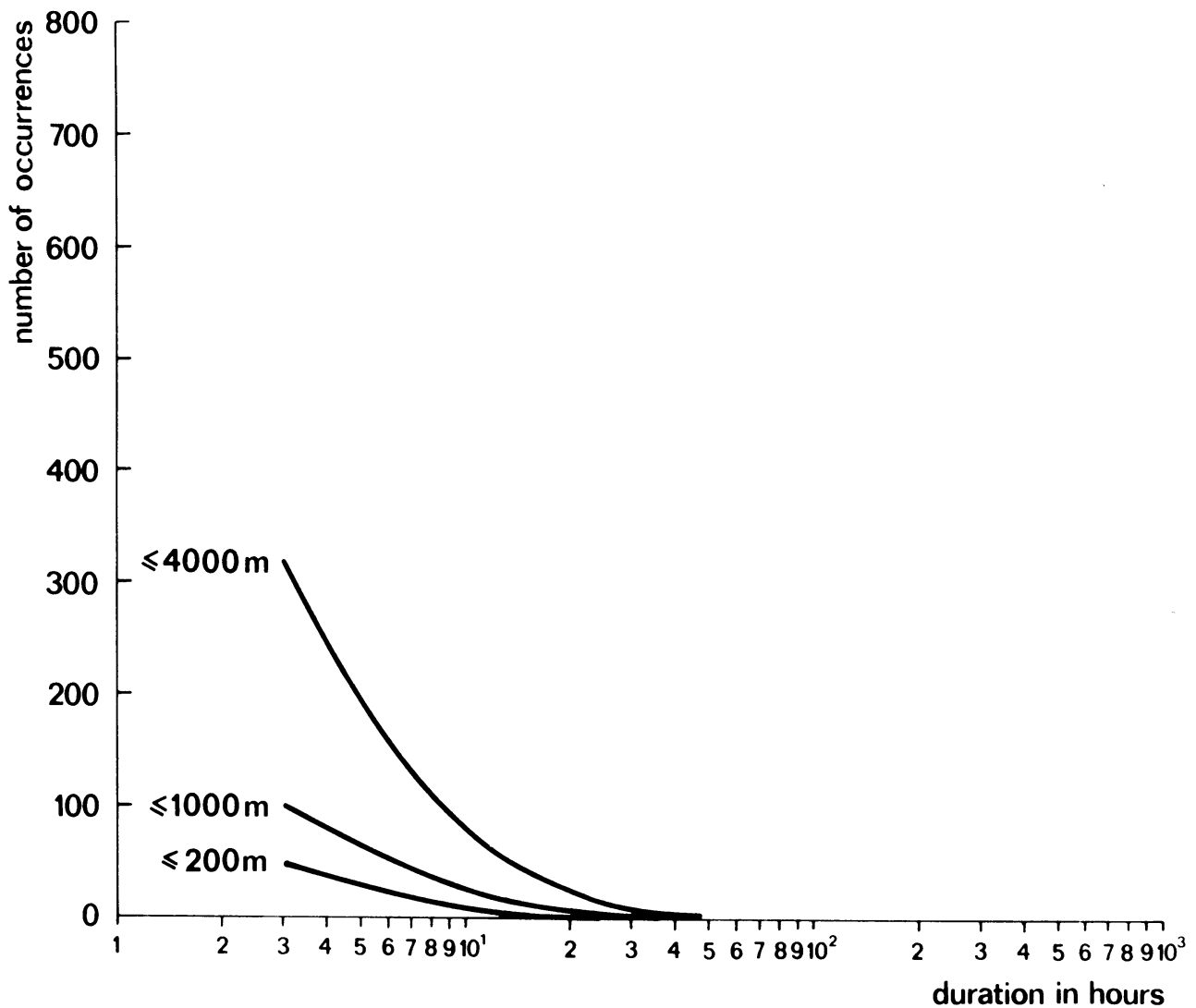
Of these 159 periods 78 lasted 6 hours or longer and 7 lasted 24 hours or longer.



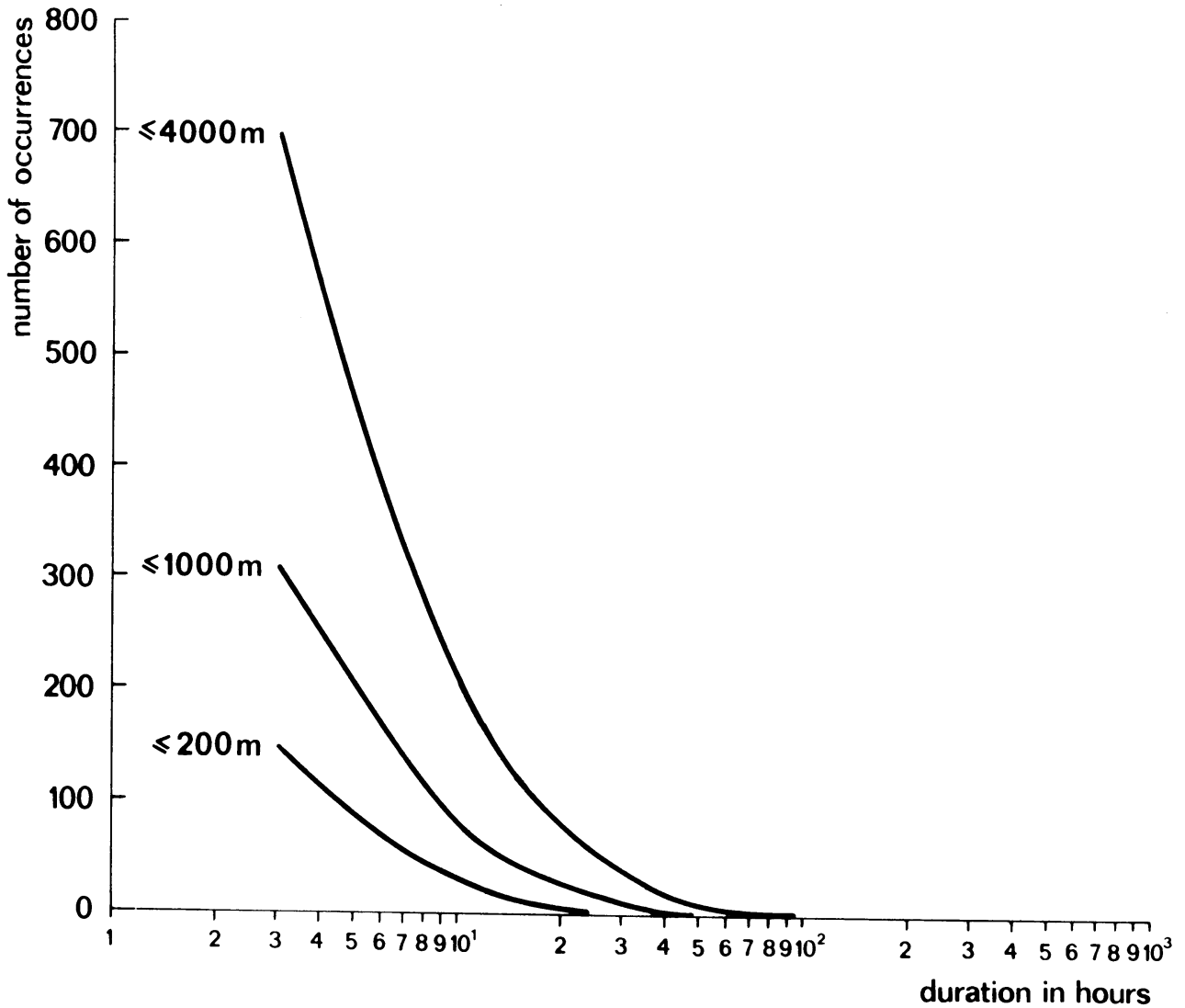
- 18.1. L.V. Texel. Persistence diagram visibility, 1949 - 1977 (29 years), spring (Mar, Apr, May).
 Example: Near L.V. Texel in 29 springs 323 periods with visibility F 1000 m occurred, that is on average 11.2 of such periods per spring.
 Of these 323 periods 178 lasted 6 hours or longer and 16 lasted 24 hours or longer.



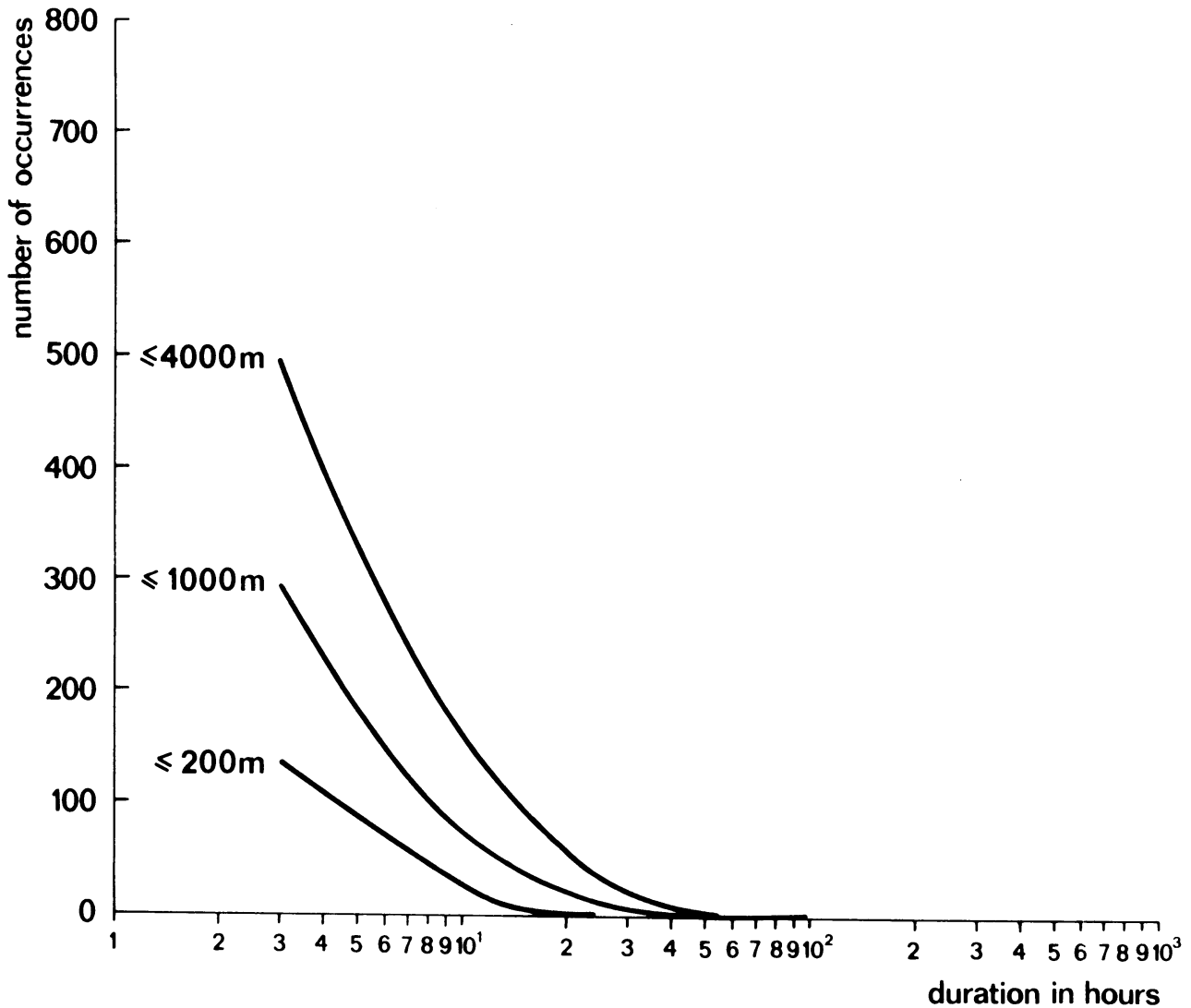
- 18.2. L.V. Texel. Persistence diagram visibility, 1949 - 1977 ("26 years"), summer (Jun, Jul, Aug).
 Example: Near L.V. Texel in 28 summers 122 periods with visibility F 1000 m occurred, that is on average 4.4 of such periods per summer.
 Of these 122 periods 66 lasted 6 hours or longer and 2 lasted 24 hours or longer.



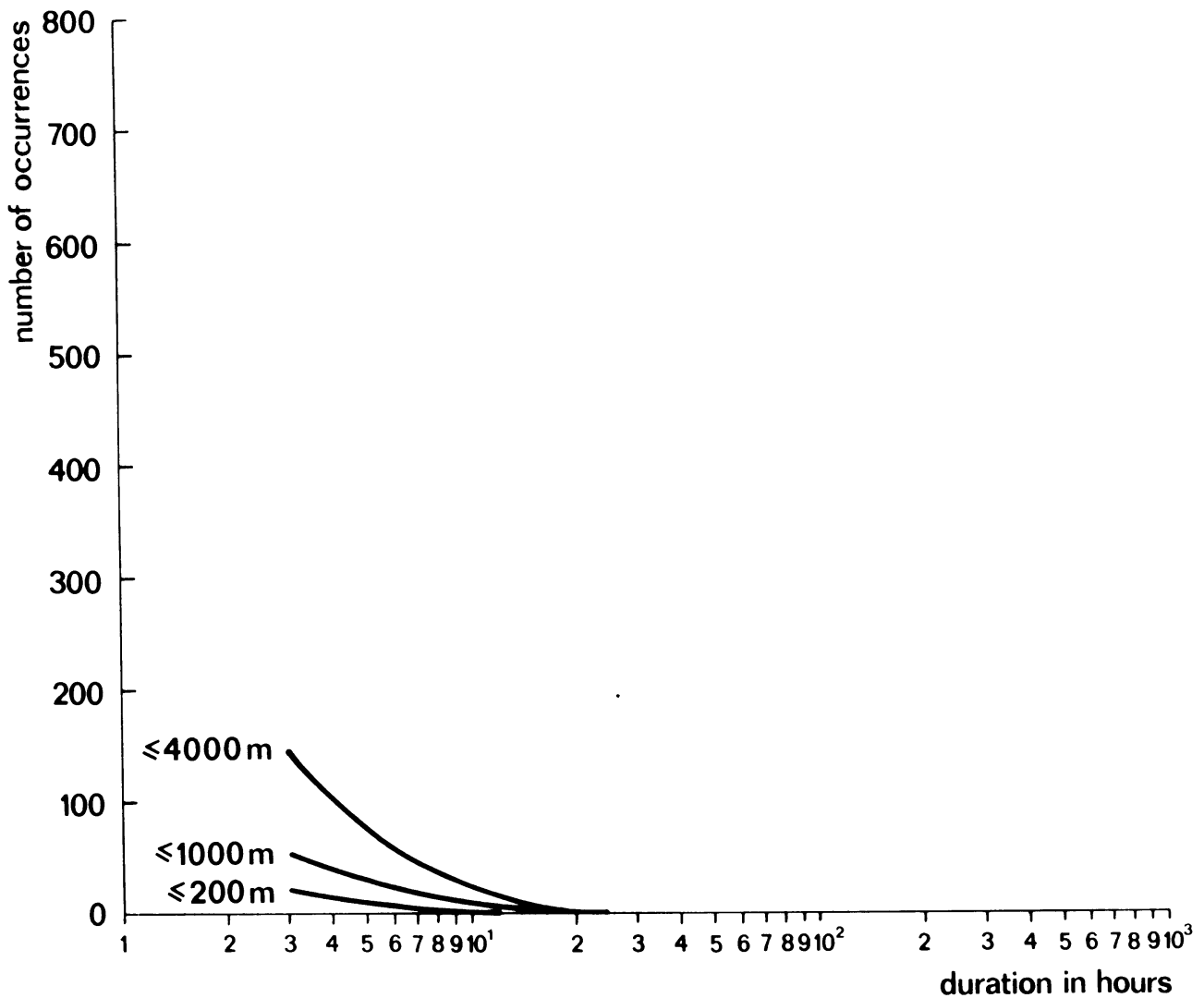
- 18.3. L.V. Texel. Persistence diagram visibility, 1949 - 1977 ("26 years"), autumn (Sep. Oct, Nov).
 Example: Near L.V. Texel in 26 autumns 102 periods with visibility F 1000 m occurred, that is on average 3.9 of such periods per autumn.
 Of these 102 periods 53 lasted 6 hours or longer and 3 lasted 24 hours or longer.



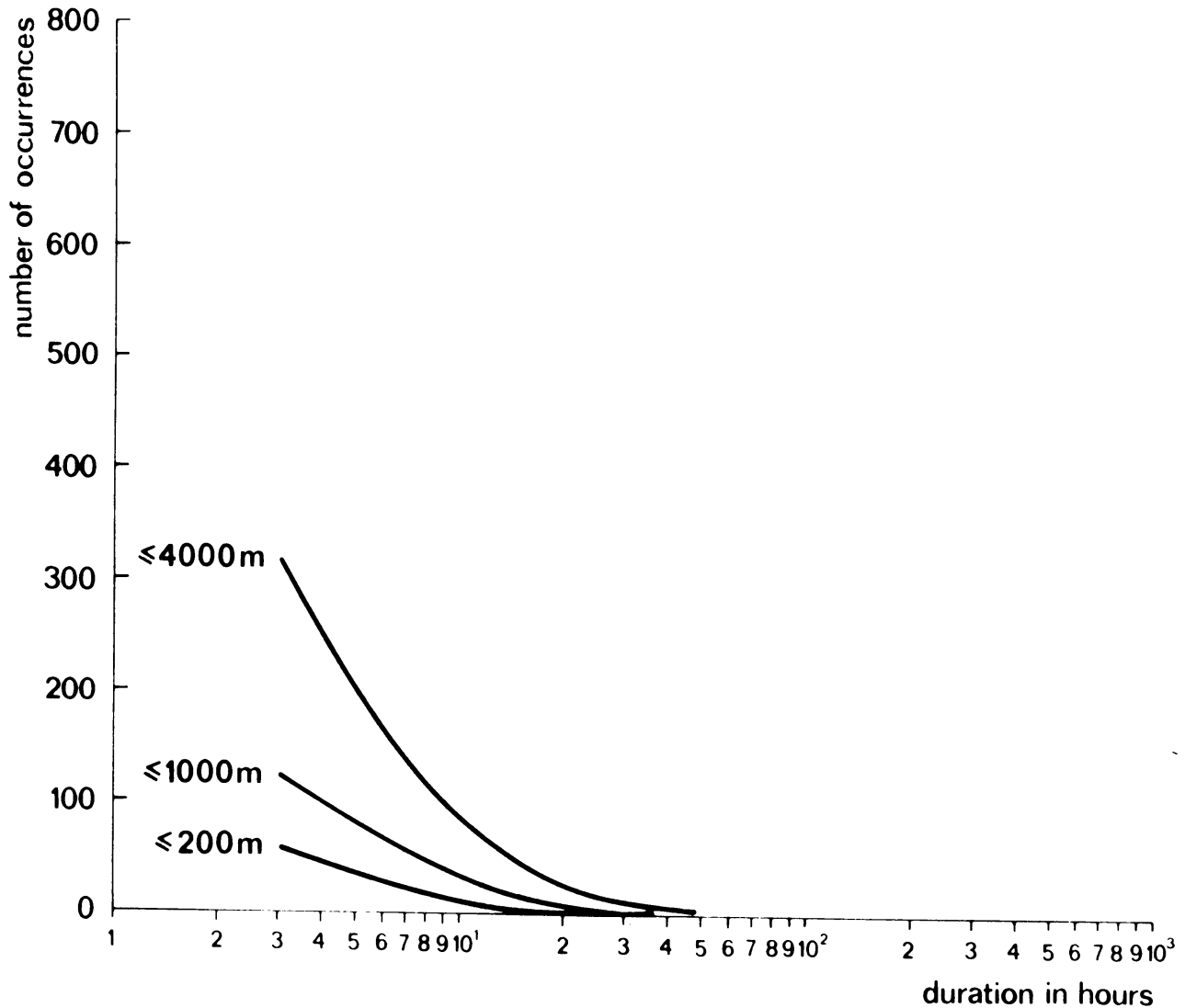
- 18.4. L.V. Texel. Persistence diagram visibility, 1949 - 1977 (29 years), winter (Dec, Jan, Feb).
 Example: Near L.V. Texel in 29 winters 314 periods with visibility F 1000 m occurred, that is on average 10.9 of such periods per winter.
 Of these 314 periods 168 lasted 6 hours or longer and 21 lasted 24 hours or longer.



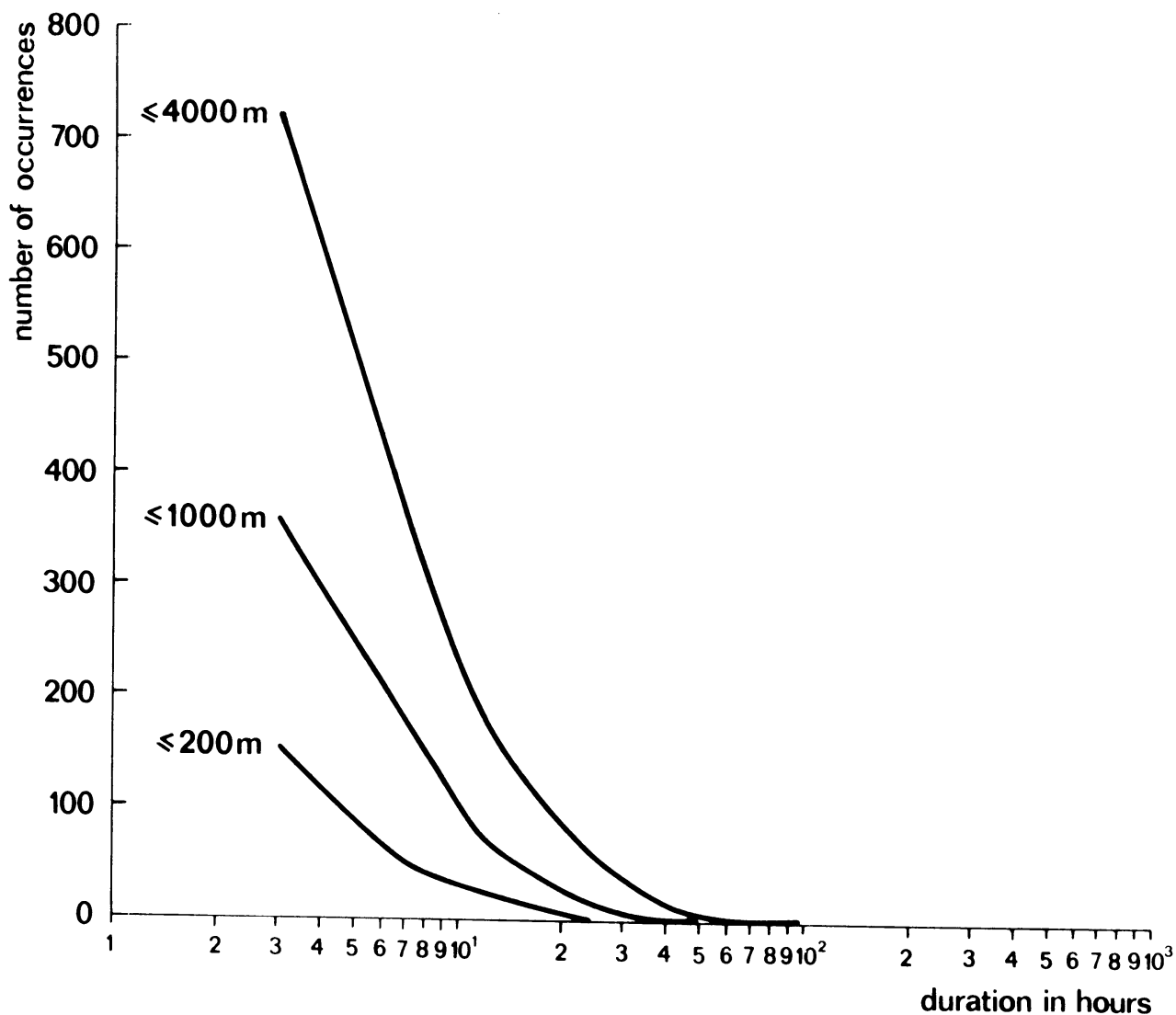
- 18.1. L.V. Terschellingerbank. Persistence diagram visibility, 1949 - 1975 ("25 years"), spring (Mar, Apr, May).
 Example: Near L.V. Terschellingerbank in 25 springs 297 periods with visibility F 1000 m occurred, that is on average 11.9 of such periods per spring.
 Of these 297 periods 150 lasted 6 hours or longer and 14 lasted 24 hours or longer.



- 18.2. L.V. Terschellingerbank. Persistence diagram visibility, 1949 - 1975 ("17 years"), summer (Jun, Jul, Aug).
 Example: Near L.V. Terschellingerbank in 17 summers 53 periods with visibility F 1000 m occurred, that is on average 3.1 of such periods per summer.
 Of these 53 periods 23 lasted 6 hours or longer and 1 lasted 24 hours or longer.



- 18.3. L.V. Terschellingerbank. Persistence diagram visibility, 1949 - 1975 ("23 years"), autumn (Sep, Oct, Nov).
 Example: Near L.V. Terschellingerbank in 23 autumns 125 periods with visibility F 1000 m occurred, that is on average 5.4 of such periods per autumn.
 Of these 125 periods 66 lasted 6 hours or longer and 6 lasted 24 hours or longer.



- 18.4. L.V. Terschellingerbank. Persistence diagram visibility, 1949 - 1975 ("26 years"), winter (Dec, Jan, Feb).
 Example: Near L.V. Terschellingerbank in 26 winters 362 periods with visibility F 1000 m occurred, that is on average 13.9 of such periods per winter.
 Of these 362 periods 212 lasted 6 hours or longer and 17 lasted 24 hours or longer.

TABEL 19

GCEREE		AIR TEMPERATURE											1949-1970	
TEMP C	NUMBERS OF OBSERVATIONS FOR EACH TEMPERATURE INTERVAL OF 1 DEGREE CELSIUS											YEAR		
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV		DEC	
>=24.0	-	-	-	-	-	-	2	2	-	-	-	-	4	
23.0-23.9	-	-	-	-	-	-	3	10	3	-	-	-	16	
22.0-22.9	-	-	-	-	-	1	8	25	6	-	-	-	40	
21.0-21.9	-	-	-	-	-	2	31	56	18	-	-	-	107	
20.0-20.9	-	-	-	-	-	12	71	169	81	1	-	-	335	
19.0-19.9	-	-	-	-	-	39	196	429	171	8	-	-	645	
18.0-18.9	-	-	-	-	4	79	566	959	501	40	-	-	2149	
17.0-17.9	-	-	-	2	15	219	1019	1360	886	166	-	-	3669	
16.0-16.9	-	-	-	3	29	452	1172	1175	1055	322	5	-	4213	
15.0-15.9	-	-	-	2	100	842	1028	729	1028	644	13	-	4366	
14.0-14.9	-	-	-	4	179	1129	565	210	626	931	34	-	3696	
13.0-13.9	-	-	-	1	29	455	993	225	43	296	1092	126	1	5265
12.0-12.9	-	-	2	57	808	732	85	8	106	759	329	13	2699	
11.0-11.9	-	-	8	133	1125	393	15	1	30	521	619	61	2906	
10.0-10.9	7	5	34	345	951	122	2	-	7	365	900	210	2948	
9.0- 9.9	49	23	147	671	851	33	-	-	-	196	906	509	3389	
8.0- 8.9	191	160	490	933	476	19	-	-	1	133	752	762	3917	
7.0- 7.9	556	409	689	951	181	2	-	-	-	61	497	839	4185	
6.0- 6.9	938	700	879	980	63	-	-	-	-	27	356	815	4756	
5.0- 5.9	1049	940	780	541	12	-	-	-	-	15	294	600	4231	
4.0- 4.9	700	678	751	293	1	-	-	-	-	4	199	438	3064	
3.0- 3.9	547	539	693	125	-	-	-	-	-	1	118	357	2360	
2.0- 2.9	461	388	461	29	-	-	-	-	-	-	56	254	1651	
1.0- 1.9	301	339	274	3	-	-	-	-	-	-	40	193	1150	
0.0- 0.9	161	254	159	-	-	-	-	-	-	-	22	146	742	
-1.0--0.1	139	159	67	-	-	-	-	-	-	-	4	108	477	
-2.0--1.1	121	147	16	-	-	-	-	-	-	-	1	100	365	
-3.0--2.1	91	80	2	-	-	-	-	-	-	-	-	34	207	
-4.0--3.1	65	54	-	-	-	-	-	-	-	-	-	7	126	
-5.0--4.1	47	34	-	-	-	-	-	-	-	-	-	2	83	
-6.0--5.1	19	22	-	-	-	-	-	-	-	-	-	-	41	
-7.0--6.1	8	15	-	-	-	-	-	-	-	-	-	-	23	
-8.0--7.1	1	8	-	-	-	-	-	-	-	-	-	-	9	
-9.0--8.1	-	7	-	-	-	-	-	-	-	-	-	-	7	
<=-9.1	-	3	-	-	-	-	-	-	-	-	-	-	3	
TOTAL	5451	4964	5453	5101	5250	5070	5010	5196	4817	5290	5277	5449	62328	
MEAN	4.3	3.9	5.1	7.5	11.0	14.1	16.4	17.2	16.2	13.2	8.9	6.0	10.2	
ST.DEV.	2.9	3.0	2.4	2.0	1.9	1.9	1.7	1.6	1.8	2.3	2.6	3.0	5.3	

TABEL 19

NOORDHINDER		AIR TEMPERATURE											1953-1960	
TEMP C	NUMBERS OF OBSERVATIONS FOR EACH TEMPERATURE INTERVAL OF 1 DEGREE CELSIUS											YEAR		
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV		DEC	
>=24.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
23.0-23.9	-	-	-	-	-	-	-	2	-	-	-	-	2	
22.0-22.9	-	-	-	-	-	-	-	5	2	-	-	-	7	
21.0-21.9	-	-	-	-	-	-	3	6	7	-	-	-	16	
20.0-20.9	-	-	-	-	-	1	24	102	26	-	-	-	153	
19.0-19.9	-	-	-	-	-	8	79	315	104	2	-	-	503	
18.0-18.9	-	-	-	-	-	24	260	823	474	44	-	-	1625	
17.0-17.9	-	-	-	-	2	82	652	1724	1237	175	-	-	4673	
16.0-16.9	-	-	-	2	6	252	1039	2057	1803	619	2	-	6360	
15.0-15.9	-	-	-	2	36	716	1994	1321	1510	1042	36	-	6659	
14.0-14.9	-	-	-	1	113	1309	1219	402	672	1345	150	5	5413	
13.0-13.9	-	-	-	7	357	1606	505	63	404	1311	444	25	4922	
12.0-12.9	-	-	-	39	889	1548	107	9	130	956	675	115	4468	
11.0-11.9	20	2	20	136	1442	650	11	-	55	635	905	260	4158	
10.0-10.9	79	38	84	443	1834	250	-	-	15	409	1165	722	4979	
9.0- 9.9	361	265	424	1064	1272	47	-	-	1	240	1136	911	5741	
8.0- 8.9	785	730	939	1336	679	17	-	-	1	93	860	1160	6660	
7.0- 7.9	1219	863	1285	1495	222	6	-	-	-	25	581	963	6659	
6.0- 6.9	986	979	1080	1170	71	2	-	-	-	15	373	640	5516	
5.0- 5.9	865	796	1017	652	15	-	-	-	-	1	205	704	4256	
4.0- 4.9	738	667	760	268	5	-	-	-	-	-	152	462	3052	
3.0- 3.9	534	542	566	75	-	-	-	-	-	-	66	256	2061	
2.0- 2.9	337	402	390	18	-	-	-	-	-	-	20	170	1337	
1.0- 1.9	249	314	190	3	-	-	-	-	-	-	3	127	886	
0.0- 0.9	158	220	82	-	-	-	-	-	-	-	1	85	546	
-1.0--0.1	124	193	26	-	-	-	-	-	-	-	-	58	401	
-2.0--1.1	117	91	3	-	-	-	-	-	-	-	-	20	231	
-3.0--2.1	69	46	-	-	-	-	-	-	-	-	-	9	124	
-4.0--3.1	28	19	-	-	-	-	-	-	-	-	-	1	46	
-5.0--4.1	3	13	-	-	-	-	-	-	-	-	-	-	16	
-6.0--5.1	-	6	-	-	-	-	-	-	-	-	-	-	6	
-7.0--6.1	-	3	-	-	-	-	-	-	-	-	-	-	3	
-8.0--7.1	-	2	-	-	-	-	-	-	-	-	-	-	2	
-9.0--8.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
<=-9.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	6692	6191	6886	6714	6943	6719	6693	6831	6642	6910	6718	6911	60850	
MEAN	5.5	5.1	6.0	7.7	10.6	13.4	15.7	16.7	16.0	13.5	9.7	7.3	10.6	
ST.DEV.	2.8	2.9	2.2	1.7	1.6	1.5	1.4	1.3	1.5	2.1	2.4	2.7	4.6	

TEXFL

AIR TEMPERATURE

1949-1977

TEMP C	NUMBERS OF OBSERVATIONS FOR EACH TEMPERATURE INTERVAL OF 1 DEGREE CELSIUS												YEAR
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
>=24.0	-	-	-	-	-	-	1	2	2	-	-	-	5
23.0-23.9	-	-	-	-	-	-	1	14	2	-	-	-	17
22.0-22.9	-	-	-	-	-	4	9	22	3	-	-	-	46
21.0-21.9	-	-	-	-	-	-	21	66	10	-	-	-	127
20.0-20.9	-	-	-	-	-	17	60	173	46	1	-	-	297
19.0-19.9	-	-	-	-	1	23	150	424	140	5	-	-	743
18.0-18.9	-	-	-	-	2	74	423	931	457	14	-	-	1901
17.0-17.9	-	-	-	-	9	209	1024	1659	920	104	-	-	3925
16.0-16.9	-	-	-	1	24	285	1503	1631	1361	328	-	-	5243
15.0-15.9	-	-	-	-	57	759	1821	1277	1390	676	15	-	5995
14.0-14.9	-	-	-	3	147	1274	1198	465	982	1023	39	-	5151
13.0-13.9	-	-	-	6	375	1641	507	68	539	1221	159	-	4516
12.0-12.9	-	-	-	27	797	1378	145	3	234	1016	457	20	4077
11.0-11.9	-	-	5	96	1337	775	58	2	74	839	796	60	4062
10.0-10.9	10	1	12	329	1610	304	1	-	25	589	1233	366	4480
9.0- 9.9	115	21	89	591	1385	60	-	-	9	314	1229	787	4600
8.0- 8.9	436	192	435	1052	903	37	-	-	-	156	917	1078	5206
7.0- 7.9	1030	555	872	1496	336	7	-	-	-	80	593	1072	6641
6.0- 6.9	1358	1051	1219	1422	127	2	-	-	-	60	396	990	6625
5.0- 5.9	1147	1232	1256	1034	17	-	-	-	-	4	288	705	5683
4.0- 4.9	786	987	1015	450	2	-	-	-	-	-	197	503	3940
3.0- 3.9	627	654	859	206	-	-	-	-	-	-	119	429	2894
2.0- 2.9	463	466	619	55	-	-	-	-	-	-	63	283	1949
1.0- 1.9	246	383	401	5	-	-	-	-	-	-	37	200	1372
0.0- 0.9	226	275	240	2	-	-	-	-	-	-	21	152	916
-1.0--0.1	175	245	107	-	-	-	-	-	-	-	3	97	627
-2.0--1.1	159	190	46	-	-	-	-	-	-	-	2	75	472
-3.0--2.1	92	125	13	-	-	-	-	-	-	-	-	38	268
-4.0--3.1	52	69	1	-	-	-	-	-	-	-	-	14	136
-5.0--4.1	53	52	-	-	-	-	-	-	-	-	-	2	107
-6.0--5.1	35	15	-	-	-	-	-	-	-	-	-	-	50
-7.0--6.1	14	17	-	-	-	-	-	-	-	-	-	-	31
-8.0--7.1	1	8	-	-	-	-	-	-	-	-	-	-	9
-9.0--8.1	-	-	-	-	-	-	-	-	-	-	-	-	-
<=-9.1	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	7125	6538	7189	6775	7129	6949	6932	6767	6194	6440	6564	6691	61493
MEAN	4.7	4.0	4.9	7.1	10.4	13.5	15.8	17.0	15.7	12.8	9.1	6.4	10.6
ST.DEV.	2.9	2.9	2.3	1.8	1.8	1.8	1.6	1.6	1.8	2.2	2.5	2.9	5.1

TABEL 10

TERSCHELLINGERBANK

AIR TEMPERATURE

1949-1975

TEMP C	NUMBERS OF OBSERVATIONS FOR EACH TEMPERATURE INTERVAL OF 1 DEGREE CELSIUS												YEAR
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
>=24.0	-	-	-	-	-	-	1	-	2	-	-	-	3
23.0-23.9	-	-	-	-	-	-	-	-	1	-	-	-	1
22.0-22.9	-	-	-	-	-	-	4	4	4	-	-	-	12
21.0-21.9	-	-	-	-	-	2	4	17	6	-	-	-	31
20.0-20.9	-	-	-	-	-	4	27	62	44	-	-	-	157
19.0-19.9	-	-	-	-	1	14	62	187	96	1	-	-	361
18.0-18.9	-	-	-	-	2	41	174	511	212	16	-	-	1056
17.0-17.9	-	-	-	-	6	141	554	900	650	55	-	-	2306
16.0-16.9	-	-	-	-	8	332	818	956	914	196	-	-	3229
15.0-15.9	-	-	-	1	29	615	749	741	1010	444	-	-	3589
14.0-14.9	-	-	-	3	111	853	501	433	817	893	16	-	3627
13.0-13.9	-	-	-	12	261	1001	300	86	576	1076	68	-	3364
12.0-12.9	-	-	1	35	641	964	130	5	222	1016	305	4	3323
11.0-11.9	2	-	6	99	1129	545	61	2	63	777	561	40	3307
10.0-10.9	9	-	8	266	1283	317	10	-	26	573	984	220	3698
9.0- 9.9	84	11	68	520	1116	67	-	-	5	368	1186	651	4076
8.0- 8.9	279	108	299	926	846	26	-	-	-	194	936	815	4429
7.0- 7.9	725	294	696	1279	378	13	-	-	-	89	680	851	5105
6.0- 6.9	1058	812	1000	1166	161	-	-	-	-	42	435	681	5555
5.0- 5.9	1117	1100	1107	964	22	-	-	-	-	12	324	769	5415
4.0- 4.9	854	980	951	517	1	-	-	-	-	9	205	523	4040
3.0- 3.9	668	690	771	238	-	-	-	-	-	-	173	421	2961
2.0- 2.9	514	431	575	104	-	-	-	-	-	-	92	347	2063
1.0- 1.9	390	327	472	27	-	-	-	-	-	-	51	250	1517
0.0- 0.9	289	240	306	3	-	-	-	-	-	-	24	179	1041
-1.0--0.1	197	238	99	-	-	-	-	-	-	-	6	125	667
-2.0--1.1	163	230	60	-	-	-	-	-	-	-	-	90	543
-3.0--2.1	135	133	18	-	-	-	-	-	-	-	-	59	345
-4.0--3.1	89	79	5	-	-	-	-	-	-	-	-	25	198
-5.0--4.1	39	35	1	-	-	-	-	-	-	-	-	13	88
-6.0--5.1	29	28	-	-	-	-	-	-	-	-	-	1	58
-7.0--6.1	13	16	-	-	-	-	-	-	-	-	-	-	30
-8.0--7.1	2	15	-	-	-	-	-	-	-	-	-	-	17
-9.0--8.1	-	2	-	-	-	-	-	-	-	-	-	-	2
<=-9.1	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	6656	5869	6445	6160	5995	4936	3395	3926	4772	5765	6048	6265	66234
MEAN	4.2	3.7	4.6	6.9	10.3	13.5	15.7	16.7	15.5	12.5	6.6	5.8	9.1
ST.DEV.	3.0	3.0	2.4	2.0	1.8	1.9	1.7	1.5	1.9	2.2	2.5	3.0	5.0

YEAR	MINIMUM AIR TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	2.1	0.5	-1.6	3.1	5.9	9.9*	16.2*	14.6	14.3	5.5*	4.2	2.0
1950	-4.6	2.0	2.7	1.6	8.0	12.0*	15.3*	15.2	12.2	3.4	3.2	-4.4
1951	1.0	1.9	0.0	4.1*	10.0*	10.2	12.8	14.2	12.3	7.9	6.5	3.2
1952	1.2	1.0	0.1	2.0	10.0	11.0	13.8	14.8	8.4	5.9	0.9	-0.9
1953	-1.4	-2.1	0.4	4.0	5.4*	8.8	14.1	14.9	12.0	9.4	3.1	1.8
1954	-6.4	-8.4	0.0	4.6	7.3	10.3	10.7	13.2	-*	9.9*	2.6	2.0
1955	-2.3	-3.8	-2.2	3.4	6.2	9.0	12.4	13.0	12.1	5.8	3.0	0.0
1956	-7.6	-10.2	-0.8	2.8	5.8	9.2	12.3	11.9	12.8	5.1	0.3	-0.3
1957	1.2	0.9	3.7	5.0	4.6	10.4	14.0	14.2	11.2	10.3	2.9	-2.0
1958	0.9	0.8	-1.0	1.0	6.4	11.2	13.2	14.8	13.8	7.8	4.0	3.2
1959	1.2	-2.2	3.8	6.1	7.6	11.9	14.3	15.0	13.9	9.4	3.9	1.8
1960	-4.0	-1.0	-0.6	4.6	5.8	11.6	12.1	13.4	10.0	9.8	4.8	2.0
1961	-5.0	4.0	4.6	6.0	8.1	11.3	12.3	13.9	13.9	10.0	4.0	-2.8
1962	-1.2	-2.0	-0.1	4.2	6.0	7.4	10.9*	-*	14.0*	8.0	1.0	-4.4
1963	-7.0	-5.4	-1.6	2.0	6.4	9.9	12.7	12.0	11.2	5.0	4.0	-2.0
1964	-1.2	-2.0	-1.8	2.8	8.4	9.8	11.7	14.2	11.6	7.0	4.2	-2.6
1965	-1.6	0.4	-1.5	3.0	7.4	10.0	11.8	13.0	12.0	8.0	-0.2	2.0
1966	-3.8	-1.0	3.2	2.6	8.0	9.6	13.6	13.0	11.2	7.3	2.0	2.1
1967	-3.6	-1.1	4.0	5.0	5.4	10.5	13.6	14.8	13.0	8.2	2.9	0.8
1968	-2.6	-0.4	0.2	1.8	7.2	11.0	12.3	13.8	13.0	9.4	-1.2	-2.6
1969	0.8	-2.8	0.0	3.0	7.6	9.6	12.0	12.8	11.8	11.6	3.6	-2.8
1970	-3.2	-2.2	1.2	2.0	6.6	12.0	12.2	14.3	12.5	8.8	5.8	-2.6
MEAN	-2.1	-1.5	0.6	3.4	6.9	10.2	12.7	13.9	12.2	7.9	3.0	-0.3
ST. DEV.	2.9	3.3	2.1	1.5	1.7	1.7	1.0	1.0	1.4	2.1	1.9	2.5

TABEL 20

YEAR	MEAN AIR TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	5.7	5.3	4.3	8.3	10.2	12.7*	18.1*	17.8	18.4	14.0*	8.1	6.6
1950	3.7	5.9	6.9	7.8	10.9	15.0*	17.9*	18.1	15.4	11.9	8.5	3.3
1951	4.6	4.9	4.9	6.7*	12.0*	13.5	16.3	17.1	16.3	12.2	10.3	7.4
1952	5.1	4.3	5.1	8.3	12.1	14.8	17.0	17.7	14.2	11.0	6.5	4.6
1953	3.6	3.6	5.0	7.6	10.8*	13.8	16.6	17.5	16.0	13.7	10.5	8.7
1954	2.8	1.0	4.8	6.8	10.8	13.8	14.9	16.2	-*	13.3*	9.8	8.1
1955	2.9	2.2	2.8	6.6	9.4	13.1	15.6	17.6	16.5	12.6	9.6	7.4
1956	4.8	-1.7	3.9	5.5	9.8	12.2	15.3	15.3	15.4	12.5	8.4	7.4
1957	5.9	6.3	8.2	8.7	10.6	14.7	17.4	17.3	15.0	13.3	9.0	6.3
1958	4.9	5.1	3.8	6.3	10.9	14.0	16.6	17.4	17.3	13.4	8.9	7.9
1959	5.1	3.3	6.8	9.2	12.0	14.9	17.8	18.6	17.8	14.9	8.9	7.0
1960	5.5	5.0	5.9	8.4	11.6	15.1	16.3	17.2	16.1	13.0	10.1	6.4
1961	4.7	6.8	8.1	10.2	11.7	14.8	16.3	17.1	17.3	14.3	8.7	4.8
1962	5.0	4.5	3.3	6.6	9.2	12.5	13.3*	-*	15.0*	13.3	7.7	3.9
1963	-1.3	-0.9	3.0	6.4	9.9	13.8	16.0	16.3	15.4	12.3	10.4	3.5
1964	3.5	4.2	3.2	7.0	11.9	14.8	16.8	17.3	16.5	11.7	9.2	5.7
1965	4.8	4.2	4.6	7.3	11.1	13.9	15.3	16.6	15.2	13.2	6.5	6.8
1966	2.9	4.9	6.8	8.3	11.6	15.2	16.0	16.6	16.1	13.6	7.9	6.8
1967	5.0	6.0	7.5	7.8	11.6	13.7	17.6	17.8	16.2	13.6	8.5	6.4
1968	4.5	3.4	5.8	7.9	10.7	14.4	15.9	17.1	16.1	14.0	7.8	3.4
1969	5.5	2.9	3.6	6.9	11.5	14.3	17.2	18.2	16.9	15.6	9.9	3.4
1970	3.7	4.1	4.7	6.7	11.7	15.5	16.0	17.4	16.2	13.3	10.0	6.2
MEAN	4.3	3.9	5.1	7.7	11.0	14.1	16.4	17.2	16.2	13.2	8.9	6.0
ST. DEV.	1.5	2.2	1.7	1.1	0.9	0.9	0.7	1.0	1.0	1.0	1.2	1.7

TABEL 20

YEAR	MAXIMUM AIR TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	8.0	8.1	9.2	16.0	14.1	17.2*	19.7*	22.2	23.3	18.6*	12.1	11.2
1950	6.4	9.8	10.0	11.6	15.7	18.4*	20.3*	24.0	18.8	16.3	12.8	10.0
1951	7.1	8.2	9.2	8.9*	14.4*	17.2	20.2	21.0	20.4	16.3	12.8	11.1
1952	9.4	6.3	8.1	15.3	18.4	20.2	21.3	20.1	18.7	14.0	12.1	7.9
1953	7.3	7.1	11.0	10.9	18.9*	20.8	21.9	23.7	19.4	17.1	13.6	12.5
1954	10.4	5.8	9.7	10.2	17.7	18.0	17.6	19.7	-*	16.3*	15.6	13.0
1955	8.4	7.0	8.8	17.4	12.3	18.8	20.3	21.1	20.2	16.2	13.8	11.0
1956	8.9	5.6	8.6	8.2	16.2	15.4	20.3	18.6	18.6	16.0	12.0	10.8
1957	10.4	10.0	11.3	13.0	15.0	21.0	23.2	20.8	18.4	16.0	13.2	11.2
1958	8.9	9.3	9.0	12.4	14.8	17.6	21.3	21.4	22.1	17.2	13.4	10.4
1959	9.0	8.8	10.7	14.2	18.8	19.4	23.1	23.0	22.6	20.4	13.8	11.1
1960	10.3	9.9	10.4	12.0	17.0	20.0	20.2	21.9	20.6	18.0	15.2	12.0
1961	8.0	10.6	11.3	14.7	14.7	22.0	24.4	22.1	21.0	18.7	14.4	12.0
1962	8.5	9.4	6.8	12.6	12.0	17.9	17.4*	-*	17.0*	17.6	12.5	10.6
1963	3.8	3.0	5.8	12.4	17.2	18.3	19.1	19.8	19.0	15.0	14.0	8.6
1964	7.4	8.0	7.3	13.4	17.2	18.8	23.7	22.1	22.2	17.0	12.9	10.4
1965	8.1	6.8	9.2	11.1	17.2	19.0	19.3	19.8	20.0	19.0	14.4	10.8
1966	9.0	9.0	9.2	14.8	16.4	20.6	20.1	21.6	21.0	18.3	13.6	9.1
1967	7.9	9.2	10.6	10.0	17.8	18.4	21.4	25.4	20.2	16.9	12.6	10.3
1968	8.3	6.6	13.7	13.7	16.4	19.8	22.4	19.6	20.8	17.0	14.8	8.8
1969	8.2	7.0	7.6	11.3	16.8	19.2	22.3	23.2	21.3	19.1	16.0	10.2
1970	6.8	7.8	8.6	10.4	17.2	21.8	24.2	22.5	20.0	19.0	14.6	11.8
MEAN	8.3	7.9	9.4	12.6	16.1	19.2	21.4	21.6	20.4	17.3	13.6	10.7
ST. DEV.	1.4	1.8	1.7	2.1	1.8	1.6	1.8	1.7	1.5	1.5	1.1	1.3

NOORDHINDER												
MINIMUM AIR TEMPERATURE												
1953-1980												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	-	3.0*	1.0	3.8	6.2	7.2	13.7	13.8	13.1	11.0	4.2	2.4
1954	-4.4	-5.6	0.5	5.0	6.2	9.8	-*	13.0*	10.5	9.2	3.8	3.2
1955	-0.3	-1.2	-0.3	3.4	4.9	8.6	12.2	13.8	13.0	7.2	5.2	2.2
1956	-4.6	-8.0	1.0	3.4	6.3	10.0	13.2	12.0	14.0	6.9	2.0	1.0
1957	2.4	3.0	4.2	4.8	5.8	11.6	14.0	14.0	10.2	9.0	4.0	1.0
1958	1.8	1.0	0.0	3.0	6.8	11.0	13.2	13.6	13.4	7.2	5.0	5.4
1959	1.1	0.0	3.9	5.8	7.8	11.2	13.0	15.0	14.9	9.0	5.2	3.7
1960	-3.0	1.8	1.2	4.9	6.9	10.4	11.8	14.0	11.8	9.8	6.3	3.8
1961	-1.8	4.8	4.0	6.2	7.5	10.9	12.8	14.1	12.8	9.8	5.6	-1.4
1962	-0.8	-1.2	1.1	4.2	6.2	7.8	11.4	12.2	11.0	8.7	3.1	-2.0
1963	-4.0	-3.4	-0.4	1.2	6.2	9.0	12.1	13.4	11.8	5.4*	5.6	-3.0*
1964	0.0	-0.2	-1.0*	3.4	8.6	8.8	12.2	13.8	12.6*	8.0	6.2	0.2
1965	0.4	1.0	-0.6	3.4	8.0	9.6	11.2	13.4	11.6	10.6	1.6	3.6
1966	-3.0	1.2	2.0	2.4	8.2	9.0	12.9	13.0	13.3	8.7	4.4	2.8
1967	-1.8	2.8	4.6	4.2	4.4	10.6	13.8	14.4	13.4	8.6	3.8	2.4
1968	-1.2	1.0	0.8	1.7	7.4	11.0	13.0	14.0	13.8	11.0	0.8	-2.0
1969	1.8	-1.8	1.8	3.2	7.3	9.5	11.0	13.2	12.4	11.2	3.2	-0.8
1970	-1.2	-2.8	1.2	2.4	6.8	11.4	11.8	14.2	12.6	8.8	6.8	-1.8
1971	-2.8	1.2	-1.8	5.6	7.2	10.0	13.0	15.0	12.0	9.0	3.8	3.8
1972	-3.2	2.2	1.0	5.8	8.6	11.0	13.6	14.2	12.6	8.2	5.6	1.2
1973	1.0	2.5	5.0	4.0	7.8	10.8	13.0	15.2	11.4	7.8	3.0	2.0
1974	1.0	2.2	2.4	6.2	7.0	9.8	13.0	13.6	8.2	6.0	6.4	4.0
1975	4.0	1.8	1.8	2.0	7.0	6.8	12.2	15.4	12.2	6.6	4.6	3.6
1976	-2.8	-1.2	0.0	4.1	7.2	9.8	12.2	14.0	11.6	8.8	6.4	-1.0
1977	1.4	2.6	3.6	3.2	7.8	10.2	12.2	14.4	12.6	11.6	3.2	3.0
1978	2.6	-2.0	3.8	2.0	7.0	10.6	11.4	12.2	10.8	10.8	2.8	-3.2
1979	-2.8	-2.8	2.6	2.2	4.6	10.9	13.0	13.2	11.8	8.4	6.2	2.0
1980	-0.2	3.0	1.0	4.8	6.1	10.4	11.8	12.0	13.4	9.0	2.2	3.0
MEAN	-0.8	2.0	1.7	3.8	6.9	9.9	12.5	13.7	12.2	8.0	4.3	1.7
ST. DEV.	2.3	2.8	1.8	1.4	1.1	1.2	0.8	0.9	1.4	1.5	1.6	2.7

TABEL 20

NOORDHINDER												
MEAN AIR TEMPERATURE												
1953-1980												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	-	5.9*	4.9	7.3	10.5	13.0	15.4	16.8	15.9	14.0	10.9	9.3
1954	4.4	2.6	5.9	7.2	10.3	12.9	-*	15.7*	15.0	14.0	10.5	9.0
1955	4.0	3.4	3.6	6.5	9.0	12.6	15.0	17.4	16.7	12.9	10.6	8.6
1956	6.3	3.4	5.0	6.2	10.0	12.3	15.3	15.6	15.9	12.8	8.9	8.2
1957	7.1	7.4	8.9	9.0	10.6	14.3	16.8	16.9	15.0	13.7	9.8	7.3
1958	6.0	3.5	4.6	6.7	10.7	13.5	15.6	16.3	16.5	13.4	9.5	8.4
1959	5.5	4.3	6.9	9.1	11.3	14.0	16.8	18.0	17.5	15.0	9.9	8.3
1960	6.1	5.8	6.5	8.5	11.0	14.0	15.4	16.8	16.0	13.3	10.9	7.2
1961	5.6	7.6	8.1	9.8	11.2	14.1	15.8	16.5	16.8	14.3	9.4	6.0
1962	6.3	5.3	3.8	6.8	9.4	12.5	14.4	15.6	14.9	13.4	8.4	5.1
1963	0.0	0.0	3.9	6.8	9.4	12.6	14.8	15.6	15.1	12.6*	11.2	4.9**
1964	4.5	5.2	3.5*	7.4	11.3	14.0	16.0	17.0	16.4*	12.1	10.1	6.6
1965	5.7	4.5	4.9	7.3	10.6	13.1	14.7	16.0	15.1	13.8	7.6	7.5
1966	4.1	6.4	7.3	8.0	11.1	14.2	15.3	16.0	16.1	14.1	8.7	7.4
1967	5.7	6.9	8.0	8.0	11.0	13.2	16.8	17.2	16.2	13.9	9.2	7.0
1968	5.2	4.2	6.1	7.8	10.3	13.5	15.3	16.4	16.1	14.6	9.1	4.9
1969	7.2	3.8	4.7	7.4	11.2	13.6	16.2	17.2	16.6	15.4	9.9	4.8
1970	5.4	5.2	5.0	6.7	10.6	14.3	15.6	16.8	16.2	13.7	10.5	6.7
1971	5.5	6.6	5.9	7.9	11.0	12.6	15.9	16.9	16.1	13.8	9.4	8.3
1972	5.1	5.8	6.9	8.4	10.8	13.2	15.8	16.6	15.1	12.9	10.0	8.6
1973	6.8	6.4	7.6	7.7	11.1	14.4	16.7	18.1	16.9	13.5	9.6	6.7
1974	7.3	7.0	6.7	8.6	10.6	13.0	15.2	16.7	14.4	10.3	8.9	8.7
1975	8.0	6.2	5.8	6.8	9.6	12.6	15.9	18.2	16.4	12.0	9.3	7.4
1976	6.5	4.4	5.0	7.1	10.7	14.2	17.1	17.9	16.0	14.0	10.1	5.5
1977	5.6	7.0	7.2	7.8	10.8	12.6	15.3	16.3	15.6	14.2	10.1	8.1
1978	6.2	4.1	7.2	7.3	10.1	13.2	15.0	16.1	15.7	13.9	10.7	6.6
1979	2.8	2.8	5.8	7.9	10.5	13.3	15.9	16.4	15.8	14.1	10.4	8.9
1980	5.2	7.3	6.7	8.3	10.8	13.8	15.1	16.9	17.0	12.7	8.6	7.3
MEAN	5.5	5.1	6.1	7.7	10.6	13.4	15.7	16.7	16.0	13.5	9.7	7.3
ST. DEV.	1.6	2.0	1.4	0.9	0.6	0.7	0.7	0.7	0.7	1.0	0.9	1.3

TABEL 20

NOORDHINDER												
MAXIMUM AIR TEMPERATURE												
1953-1980												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	-	7.2*	9.6	10.8	15.8	17.3	19.8	19.8	18.4	17.2	13.6	13.2
1954	10.3	7.8	9.9	10.2	15.5	15.6	-*	18.4*	19.0	16.8	14.8	13.7
1955	9.8	9.0	9.2	13.8	11.7	16.9	18.2	20.4	20.0	17.0	14.3	12.0
1956	10.0	7.6	8.7	8.8	14.8	15.3	18.0	20.4	18.6	16.8	12.4	11.8
1957	11.3	10.8	11.8	12.8	14.4	20.0	20.2	19.4	19.2	16.5	13.8	12.2
1958	10.4	10.7	9.2	16.8	15.0	16.6	18.4	19.4	19.2	16.8	13.6	11.6
1959	10.6	8.3	9.4	12.4	17.8	17.8	21.0	20.7	21.4	19.4	13.1	11.9
1960	11.4	10.6	10.0	13.2	16.8	19.8	18.6	19.8	19.2	17.6	15.7	12.2
1961	9.1	10.6	11.6	13.1	14.0	19.6	19.6	20.1	20.9	18.4	15.2	12.8
1962	9.8	9.4	7.0	10.4	11.8	16.0	17.4	17.6	18.6	17.2	13.7	11.1
1963	5.1	2.9	6.4	10.6	13.9	16.2	18.8	18.4	20.0	15.4*	16.0	10.0*
1964	8.6	9.0	7.8*	11.0	15.4	17.8	20.8	21.2	21.0*	17.4	13.1	12.2
1965	10.0	7.2	11.0	10.2	15.2	16.2	17.0	18.9	18.4	17.4	14.8	11.5
1966	10.3	11.0	10.1	12.4	15.5	18.2	17.7	19.2	20.2	18.4	14.0	10.2
1967	9.1	11.0	11.6	10.8	17.6	17.4	20.4	23.2	19.0	17.6	13.7	11.2
1968	9.0	7.8	11.7	16.4	14.2	17.2	18.6	20.4	19.2	18.6	15.4	10.8
1969	10.0	8.0	8.8	12.0	15.4	17.5	20.0	21.6	21.6	18.4	16.0	10.8
1970	9.3	9.8	9.4	10.0	15.5	18.0	21.6	22.5	19.2	19.0	14.8	12.6
1971	9.6	5.6	9.8	12.4	16.0	16.4	19.4	21.0	19.4	18.2	14.2	11.2
1972	9.2	5.2	10.8	11.2	15.2	16.6	19.8	19.8	19.0	15.8	14.4	12.6
1973	9.8	5.4	11.0	12.6	15.0	18.8	20.9	23.0	22.6	18.6	14.2	10.2
1974	10.2	10.8	10.0	12.6	14.4	16.0	17.8	20.8	19.2	13.8	12.6	11.4
1975	11.0	5.4	9.0	11.2	14.2	17.0	20.8	21.2	19.2	15.8	13.6	10.2
1976	10.5	8.4	8.8	10.2	15.0	19.0	21.8	20.8	19.6	18.0	13.0	10.0
1977	10.0	5.6	11.2	12.0	15.2	16.2	18.0	19.4	17.8	16.4	15.2	13.5
1978	9.8	8.8	10.8	12.2	16.0	17.2	19.0	20.8	18.2	18.0	15.0	12.4
1979	8.0	6.6	9.8	12.2	16.8	16.4	20.8	19.2	20.4	17.6	14.9	14.4
1980	9.4	9.8	10.8	15.0	15.4	17.8	20.6	20.0	20.2	17.4	13.8	10.4
MEAN	9.7	7.2	9.2	12.0	15.1	17.3	19.4	20.3	19.5	17.1	14.2	11.9
ST. DEV.	1.2	1.7	1.7	1.9	1.4	1.3	1.4	1.3	1.1	1.2	1.0	1.2

YEAR	MINIMUM AIR TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	1.6	1.6	-2.4	3.4	6.7	10.8	12.9	13.8	14.6*	-*	5.0*	2.3
1950	-2.2	1.3	2.6	3.3	7.0	10.8	13.6	14.2	-*	-*	2.7*	-2.8
1951	-1.2	1.3	-0.6	3.6	6.3	10.3	11.6*	13.5	12.1	8.0	6.4	4.2
1952	-1.0	1.0	-0.9	2.2	7.6	10.6	12.8	14.2	9.1	5.2	-0.3	0.1
1953	-1.0	-2.8	3.3	5.3*	6.9*	7.7	13.9	12.8	13.3	10.1	3.5	2.4
1954	-6.7	-7.2	0.8	4.5	7.1	11.2	11.4	14.2*	9.7*	8.4	3.3	1.8
1955	-2.6	-3.2	-2.6	3.6	3.4	3.3	12.5	13.6	13.1	6.4	3.5	0.3
1956	-6.8	-7.6	-0.2	3.0	3.1	9.8	12.8	11.2	13.0	6.2	0.9	-0.2
1957	0.6	1.2	3.0	4.3	4.3	9.8	13.5	12.9	10.7	10.4	2.6	-1.9
1958	0.6	-0.9	-0.9	3.3	5.9	9.8	12.4	14.0	13.4	8.3	3.7	3.0
1959	0.8	-2.6	2.8	4.3	7.3	11.3	13.8	14.6	14.2	9.4	3.8	0.0
1960	-2.4	-0.4	-1.0	4.1	5.3	11.0	11.8	13.5	9.7	9.3	5.0	2.8
1961	-5.3	3.6	3.8	4.3	5.9	10.7	11.8	14.0	12.4	10.8	4.8	-4.0
1962	-2.5	-2.2	-0.9	4.0	6.0	7.9	11.0	13.6	11.0	8.8	3.0	-4.0
1963	-7.0	-5.7	-3.0	2.0	6.3	10.1	11.0	13.0	11.2	5.0	5.0	-2.0
1964	-3.4	-2.4	-1.8	2.4	7.8	3.6	12.0	13.0	11.9	7.8	4.0	-2.0*
1965	-0.6	0.8	-2.0	2.4	6.6	8.3	11.2	13.0	12.1	7.0	-0.4	3.4
1966	-2.6	-3.6	3.0	1.8	7.6	8.6	13.3	12.2	11.8	8.4	2.8	2.1
1967	-3.0	-0.8	4.6	4.2	5.6	10.1	13.8	14.8	13.8	6.0	4.0	2.2
1968	-3.8	0.6	0.7	2.4	7.3	11.2	12.2	13.0	13.0	10.8	-1.2	-1.9
1969	1.0	-4.6	-1.2	2.8	6.0	9.6	12.4	14.4	12.4	11.1	4.0	-4.4
1970	-3.2	-4.6	1.2	1.8	6.0	10.4	11.8	14.2	12.2	8.8	4.4	-3.4
1971	-2.6	0.2	-3.8	4.8	6.0	10.0	12.6	14.1	12.4	8.2	3.0	2.4
1972	-8.0	-2.2	-0.8	5.0	7.8	9.8	10.8	13.0	10.0	7.9	4.0	-0.1
1973	1.2	2.2	3.2	3.8	6.4	9.5	14.0	13.2	11.8	6.8	2.2	0.8
1974	-0.1	1.2	1.8	4.0	6.2	9.8	11.6	14.4	9.8	6.0	5.5	3.8
1975	5.2	0.6	2.0	3.0	6.0	6.4	12.8	15.2	12.2	5.6	4.1	3.0
1976	-4.1	-3.8	-0.8	4.2	7.0	9.8	14.0	13.4	12.0	6.2	6.8	-1.0
1977	0.0	2.2	1.4	2.8	7.0	10.0	13.0	-	-	-	-	-
MEAN	-2.0	-1.3	0.3	3.0	6.5	9.7	12.5	13.6	11.9	8.0	3.4	0.3
ST. DEV.	3.0	2.9	2.2	1.2	1.0	1.2	1.0	0.8	1.7	1.8	1.9	2.6

TABLE 21

YEAR	MEAN AIR TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	6.2	5.9	4.3	3.4	10.5	13.4	16.2	17.4	18.7*	-*	9.1*	7.9
1950	6.1	5.4	6.4	7.6	10.4	14.9	16.7	18.0	-*	-*	7.9*	3.6
1951	4.5	4.4	4.2	5.3	10.0	13.3	14.7*	16.8	15.8	12.0	10.2	8.2
1952	4.9	4.1	4.6	7.7	11.5	13.8	16.3	17.2	13.8	10.6	6.5	4.8
1953	4.4	3.6	4.7	7.3*	11.3*	14.1	16.4	16.9	15.8	13.8	11.0	8.4
1954	3.7	0.2	4.4	6.6	11.0	13.8	14.7	16.2*	12.6*	13.7	10.0	8.5
1955	3.0	2.6	2.8	6.2	8.9	12.2	15.6	18.0	16.8	12.7	10.2	7.8
1956	5.1	-1.2	4.1	5.3	9.9	12.4	15.3	15.1	15.5	12.5	8.3	7.1
1957	6.3	6.2	7.6	3.2	10.1	13.8	16.6	16.5	14.3	12.9	8.6	6.2
1958	4.7	4.6	2.9	5.5	9.9	12.9	15.6	17.0	16.9	13.4	9.0	7.9
1959	5.2	3.2	6.3	3.7	11.4	14.3	17.2	18.1	17.0	14.2	9.1	6.6
1960	5.1	4.5	5.0	7.7	10.9	14.2	15.5	16.7	15.5	12.7	10.2	6.6
1961	4.6	6.5	7.6	9.3	13.7	14.2	15.5	16.3	16.9	14.5	8.9	4.7
1962	5.8	4.7	3.4	3.6	9.0	12.0	13.9	15.5	14.6	13.1	7.8	4.2
1963	-1.7	-1.6	2.7	5.0	9.2	13.3	15.1	15.9	15.1	12.0	10.4	3.9
1964	3.6	4.0	2.7	6.3	11.2	13.9	16.0	16.9	16.0	11.7	9.6	6.3*
1965	5.5	4.6	4.3	5.7	9.9	12.6	14.4	15.8	15.0	13.0	6.1	6.6
1966	2.6	3.5	6.0	6.6	10.9	14.3	15.3	15.9	15.4	13.4	8.4	6.7
1967	5.1	5.7	7.1	7.3	11.0	13.1	16.8	17.3	16.3	13.7	9.1	6.8
1968	4.6	4.0	6.0	3.1	10.5	13.9	15.6	16.9	16.3	14.2	8.4	3.6
1969	6.0	2.5	2.4	6.0	10.4	14.2	17.3	18.6	17.1	15.0	9.9	3.7
1970	2.5	3.4	4.2	6.0	13.9	14.8	15.3	17.0	15.8	12.9	10.1	6.5
1971	5.0	5.6	4.3	6.8	11.0	12.7	16.3	17.3	15.8	13.5	9.2	7.8
1972	2.7	3.7	5.4	7.3	10.5	12.9	15.8	16.2	14.2	11.9	9.1	6.7
1973	5.6	5.6	6.2	6.7	10.5	13.9	16.3	17.2	16.1	11.6	8.5	5.7
1974	6.1	6.2	5.7	7.9	10.6	13.3	15.0	16.8	14.7	10.4	8.9	8.2
1975	7.6	5.0	5.3	6.9	9.6	13.3	16.3	19.0	16.5	11.6	9.2	7.6
1976	5.8	3.3	3.8	6.7	13.6	14.4	17.2	17.7	15.4	13.0	10.0	5.4
1977	5.0	5.6	7.0	7.3	10.6	12.9	15.5	-	-	-	-	-
MEAN	4.7	4.0	4.9	6.9	10.4	13.5	15.8	17.0	15.7	12.8	9.1	6.4
ST. DEV.	1.7	2.0	1.5	1.1	0.7	0.8	0.7	0.9	0.9	1.1	1.1	1.6

TABLE 22

YEAR	MAXIMUM AIR TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	8.8	8.8	11.2	14.0	17.7	17.9	21.7	21.2	24.4*	-*	12.2*	11.5
1950	9.3	9.3	11.6	16.1	20.1	21.8	23.0	-*	-*	-*	11.1*	10.2
1951	7.1	8.0	8.2	14.4	13.3	17.5	16.9*	20.4	19.7	16.9	12.4	11.3
1952	9.0	6.2	8.0	12.0	15.2	13.4	21.8	19.8	18.2	13.5	11.4	8.0
1953	8.0	8.1	7.3	9.7*	17.7*	23.3	21.8	22.0	19.9	17.1	13.7	12.9
1954	10.7	5.2	3.2	3.3	12.2	13.2	18.7	18.5*	15.7*	17.4	13.5	12.5
1955	7.4	8.2	8.2	14.2	12.2	17.9	24.3	21.6	20.2	16.3	13.7	11.4
1956	8.7	6.6	8.6	10.7	15.2	13.2	18.3	18.9	18.8	16.7	11.9	10.8
1957	10.6	9.8	10.1	12.3	13.6	20.6	20.3	19.1	18.1	15.0	13.1	11.3
1958	8.3	8.7	3.1	3.9	15.2	19.1	19.2	20.6	21.7	16.5	13.3	11.0
1959	9.7	7.7	9.4	12.2	17.1	13.3	21.7	22.2	20.7	19.3	13.6	10.4
1960	9.8	9.5	8.7	10.8	15.2	23.2	18.1	19.9	19.5	17.0	14.9	11.7
1961	8.3	9.8	11.3	15.4	14.0	20.9	22.9	19.8	20.2	19.1	14.8	11.3
1962	8.4	8.1	6.8	10.9	12.5	17.3	13.0	18.3	19.2	18.2	12.2	10.0
1963	3.0	1.0	3.4	10.0	15.0	16.3	18.0	18.6	18.6	15.0	13.2	8.3
1964	8.0	8.0	6.9	12.0	16.3	19.2	21.4	23.6	19.6	15.3	13.0	11.6*
1965	9.0	7.2	3.0	11.2	15.9	16.2	19.3	19.4	18.2	16.6	14.2	10.0
1966	8.8	8.6	3.4	12.3	17.3	19.0	19.2	18.8	18.8	17.6	14.0	10.0
1967	8.2	9.4	10.1	11.1	16.4	17.4	19.8	22.6	18.8	17.0	12.6	10.8
1968	8.8	7.1	11.3	16.3	14.6	17.1	21.0	20.0	21.0	17.2	15.2	9.6
1969	9.0	7.0	6.3	11.4	17.6	18.9	22.8	23.6	21.0	18.8	15.2	10.0
1970	7.0	7.0	7.4	9.4	15.3	22.0	19.8	20.2	18.7	16.4	14.8	11.0
1971	9.0	8.2	8.2	11.9	16.1	15.4	21.0	22.0	19.8	19.2	14.2	11.0
1972	7.2	6.8	10.2	13.0	13.9	17.8	21.0	19.4	19.2	20.6	12.8	10.8
1973	8.0	8.8	9.4	10.4	16.3	23.0	21.7	22.5	21.4	16.8	13.4	9.7
1974	9.2	9.4	9.2	11.2	16.3	19.0	17.0	20.2	19.0	13.8	11.8	11.0
1975	10.2	10.2	8.2	11.6	15.0	17.4	23.8	25.0	20.2	16.6	13.2	10.4
1976	9.4	7.2	7.2	11.0	13.0	22.3	20.0	22.8	18.6	17.2	13.0	10.0
1977	8.6	9.2	10.0	10.2	15.0	13.3	13.8	-	-	-	-	-
MEAN	8.5	7.9	8.3	11.7	15.5	18.6	20.5	20.9	19.5	17.0	13.4	10.6
ST. DEV.	1.4	1.8	1.3	1.5	1.6	1.3	1.9	1.8	1.0	1.5	1.0	1.0

TERSCHELLINGERBANK												
MINIMUM AIR TEMPERATURE												
1949-1975												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	0.3	0.4	-2.8	2.5	5.5	10.0	12.0	13.4	15.0	7.2	4.2*	1.2*
1950	-5.8	-1.1	1.8	2.8	6.8	10.4	12.8	14.2*	11.5	4.6	2.5	-4.3
1951	-1.5	-0.2	0.0	3.9	6.5	10.1*	11.4*	14.0	12.1	7.9	6.3	3.9
1952	-0.8	1.2	0.4	1.6	8.9	10.6	12.9	14.2	10.0	6.2	0.4	-0.7
1953	-0.6	-4.0	0.2	4.2	6.8	7.6	14.2	13.7	12.2	9.0	4.2	2.4
1954	-5.9	-6.7	0.0	3.2	7.0	-	*	14.3*	9.5	9.1	1.0	1.4
1955	-2.8	-2.9	-3.5	3.0	5.4	7.4	12.2	13.2	13.2	6.4	0.6	-1.0
1956	-6.6	-8.5	-0.1	0.9	5.6	10.0	12.9	11.1	13.0	6.8	0.7	-1.8
1957	-0.8	2.0	2.0	3.8	4.8	10.3	14.0	13.0	11.2	10.2	2.2	-3.0
1958	-0.8	-1.4	-1.2	0.6	6.2	10.0	13.2	14.1	13.0	8.0	1.8	2.6
1959	1.1	-2.2	2.4	5.4	7.8	11.4	14.4	14.8	14.1	9.0	2.0	-1.9
1960	-2.4	0.0	-1.3	4.3	5.4	10.0	10.9	12.8	10.0	8.0	3.8	1.2
1961	-3.7	1.0	3.1	3.2	7.3	11.0	12.5	12.1	11.1	9.2	2.1	-6.2
1962	-3.0*	0.3*	-	*	3.9*	5.5	7.2	10.0	13.0	10.4	7.0	1.5
1963	-7.1	-6.8	-4.8	1.6	5.3	10.9*	-	*	-	4.0*	5.0	-3.2
1964	-4.0	1.2*	-1.4	1.4	8.0	9.0	12.2*	13.3*	11.8	7.4	2.2	-2.2
1965	-0.6	0.4	-1.8	1.0	6.2	9.2	11.2*	-	*	14.1*	4.9	-0.9
1966	-4.0	-5.4	2.8	1.8	7.4	8.3	13.4*	13.0*	11.6	7.6	3.0	1.0
1967	-2.9	-1.9	5.0	4.2	6.1	10.1*	-	*	-	8.8*	3.9	1.8
1968	-3.9	1.0	0.2	2.0	7.4	11.0	-	*	14.8*	13.1	9.0	-1.0
1969	0.4	-2.8	-2.2	1.0	5.8	9.1	12.2*	-	*	-	3.1*	-5.0
1970	-4.0	-5.1	1.0	1.8	5.8	10.1	12.1*	-	*	12.2*	8.9	5.4
1971	-2.8	0.2	-3.0	3.9	6.4	9.9*	-	*	15.0*	10.4	8.0	3.2
1972	-7.1	-3.0	0.0	5.4	7.4	9.6	10.2*	13.6*	9.1	8.0	4.6	0.0
1973	1.6	2.2	4.0	3.8*	-	*	-	*	-	6.0*	2.8	0.2
1974	0.0	1.4	2.2	4.6	8.0*	-	*	-	*	6.8*	6.5	4.0
1975	5.0	1.1	2.2	3.0*	-	-	-	-	-	-	-	-
MEAN	-2.3	-1.7	0.2	2.8	6.5	9.0	12.7	13.3	11.7	7.6	2.7	-0.6
ST.DEV.	2.9	3.0	2.4	1.5	1.0	1.2	1.0	1.0	1.6	1.6	2.0	2.9

TABEL 20

TERSCHELLINGERBANK												
MEAN AIR TEMPERATURE												
1949-1975												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	5.9	5.6	4.2	8.4	10.0	12.8	15.3	16.9	18.0	14.0	8.5*	6.8*
1950	3.5	4.9	6.2	7.5	10.1	14.5	16.5	17.7*	15.0	11.5	7.9	3.5
1951	4.3	4.2	4.0	6.6	10.1	12.9*	16.1*	17.0	15.8	11.7	9.8	7.8
1952	4.8	4.1	4.2	7.4	11.2	13.3	15.7	17.0	13.8	10.5	6.6	4.6
1953	4.1	3.2	4.5	7.4	10.6	14.1	16.5	16.9	15.6	13.6	10.0	7.8
1954	3.6	-0.4	3.7	6.2	10.3	-	*	16.1*	14.9	13.2	8.8	7.5
1955	2.6	1.9	2.3	5.7	8.5	12.0	15.7	17.7	16.6	12.3	9.5	6.9
1956	4.4	-1.9	3.3	5.0	9.6	12.4	15.6	15.0	15.3	12.5	8.2	6.0
1957	5.8	6.0	7.3	8.2	10.1	13.9	16.9	16.7	14.4	13.0	8.5	5.8
1958	4.5	4.4	2.9	5.6	10.5	13.3	16.0	17.3	17.1	13.4	9.0	7.5
1959	5.1	3.5	6.2	9.0	11.4	14.6	17.6	18.4	17.2	13.8	8.1	5.6
1960	5.1	4.1	4.8	7.7	10.4	14.0	15.3	16.4	15.2	11.9	9.2	5.6
1961	3.7	5.6	7.0	9.1	10.7	14.7	15.3	15.8	16.3	13.5	8.1	3.6
1962	4.9*	5.2*	-	*	6.9*	8.7	12.0	13.6	15.2	14.1	12.5	7.0
1963	-1.4	-2.0	2.1	5.9	9.1	12.2*	-	*	-	11.0*	9.7	3.4
1964	3.0	4.9*	1.8	6.3	11.2	13.9	13.5*	16.7*	15.5	11.0	9.1	5.6
1965	4.8	4.1	3.7	6.5	10.2	13.0	12.5*	-	*	14.5*	12.5	5.8
1966	2.1	2.7	5.7	6.3	11.1	14.3	15.5*	15.8*	15.2	13.0	7.5	5.7
1967	4.2	4.8	7.3	7.7	11.6	12.3*	-	*	-	12.7*	9.1	7.2
1968	4.5	4.0	5.9	8.1	10.4	14.3	-	*	17.6*	16.2	13.6	7.5
1969	5.0	2.3	1.6	5.5	9.9	13.7	15.6*	-	*	-	8.5*	2.1
1970	1.2	2.5	4.0	5.8	10.4	14.6	14.2*	-	*	15.3*	12.7	9.8
1971	4.7	5.4	3.8	6.1	10.3	12.0*	-	*	17.2*	15.3	13.2	8.9
1972	2.2	3.7	4.9	7.2	10.2	12.7	13.7*	15.6*	14.0	11.9	9.1	6.7
1973	6.1	6.0	6.5	6.7*	-	*	-	*	-	11.1*	8.7	6.0
1974	6.4	6.5	5.9	7.6	8.7*	-	*	-	*	10.1*	9.1	8.4
1975	7.9	5.3	5.4	5.7*	-	*	-	*	-	-	-	-
MEAN	4.2	3.7	4.6	7.0	10.7	13.0	15.0	16.7	15.0	12.0	6.6	5.8
ST.DEV.	1.8	2.3	1.7	1.1	0.8	0.9	1.0	1.0	1.1	1.0	1.1	1.8

TERSCHELLINGERBANK												
MAXIMUM AIR TEMPERATURE												
1949-1975												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	8.8	8.4	8.8	15.3	14.0	18.0	19.7	20.8	25.4	18.3	11.9*	10.3*
1950	9.0	9.5	9.2	11.7	15.0	21.0	20.8	21.6*	18.6	16.4	11.1	10.0
1951	7.2	7.7	9.2	12.4	13.3	16.5*	22.8*	20.5	20.2	17.5	12.9	11.0
1952	9.0	6.8	8.4	10.6	14.9	17.7	20.2	19.5	18.2	13.8	11.6	8.0
1953	8.1	7.0	8.6	11.8	15.4	19.4	20.6	21.5	18.5	17.7	13.8	12.4
1954	9.9	3.8	8.4	9.0	16.7	-	*	18.6*	20.2	18.3	13.0	11.4
1955	6.2	6.9	6.6	12.8	11.4	18.2	20.8	20.5	20.0	16.6	13.5	11.2
1956	8.2	4.6	7.2	8.1	17.0	16.4	18.2	18.0	19.2	16.2	12.0	11.0
1957	10.0	9.0	11.0	12.4	14.3	19.6	20.8	20.3	18.2	15.0	13.1	11.2
1958	8.1	8.6	7.2	10.0	15.8	17.0	19.2	22.2	22.2	16.5	13.2	10.6
1959	9.6	7.4	11.8	14.8	17.2	20.0	25.0	22.5	21.0	19.0	13.0	10.1
1960	9.7	9.0	9.9	13.8	15.0	18.9	18.4	19.8	19.0	16.0	13.0	11.1
1961	7.8	8.8	10.8	13.9	12.9	20.0	21.5	20.6	20.4	18.8	13.9	10.2
1962	7.6*	8.2*	-	*	11.6*	12.0	17.8	18.6	18.2	19.8	18.0	11.1
1963	3.3	1.8	6.0	12.4	15.2	13.6*	-	*	-	14.8*	13.0	7.4
1964	7.9	7.3*	6.2	11.6	15.2	20.8	15.4*	22.1*	20.2	15.6	12.2	10.3
1965	8.2	6.8	8.4	10.4	15.0	17.8	14.4*	-	*	15.0*	16.4	9.8
1966	8.5	8.0	8.1	12.0	19.8	20.8	19.4*	20.0*	19.0	17.0	12.6	8.8
1967	7.0	8.6	11.0	11.2	18.0	14.1*	-	*	-	16.6*	12.6	11.2
1968	8.2	7.0	12.2	14.0	14.0	19.8	-	*	21.3*	20.4	16.8	14.8
1969	8.6	8.2	5.5	11.0	15.0	17.4	17.4*	-	*	-	14.0*	9.0
1970	5.4	6.5	7.0	9.3	14.0	18.4	16.2*	-	*	19.1*	16.2	14.4
1971	9.0	8.6	8.2	10.0	14.8	15.1*	-	*	20.0*	18.0	13.8	10.8
1972	6.2	6.4	8.9	10.0	17.4	21.0	16.7*	17.6*	17.2	17.3	13.0	10.7
1973	8.6	9.0	9.6	9.1*	-	*	-	*	-	13.0*	12.9	9.2
1974	9.2	9.8	9.0	10.2	11.0*	-	*	-	*	12.2*	12.0	11.0
1975	11.1	9.0	8.2	8.8*	-	-	-	-	-	-	-	-
MEAN	8.2	7.5	8.7	11.6	15.2	18.9	20.0	20.4	19.0	16.0	13.0	10.2
ST.DEV.	1.6	1.9	1.7	1.9	1.0	1.4	1.8	1.4	1.0	1.0	1.0	1.2

TABLE 21

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TEMP C	SEA SURFACE TEMPERATURE												YEAR
	NUMBERS OF OBSERVATIONS FOR EACH TEMPERATURE INTERVAL OF 1 DEGREE CELSIUS												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
>=22.0	-	-	-	-	-	-	-	-	-	-	-	-	-
21.0-21.9	-	-	-	-	-	-	-	-	-	-	-	-	-
20.0-20.9	-	-	-	-	-	-	-	1	-	-	-	-	1
19.0-19.9	-	-	-	-	-	-	-	15	-	-	-	-	15
18.0-18.9	-	-	-	-	-	-	12	424	228	-	-	-	674
17.0-17.9	-	-	-	-	-	2	641	1961	609	40	-	-	3273
16.0-16.9	-	-	-	-	-	18	1237	1691	1647	163	-	-	5156
15.0-15.9	-	-	-	-	-	181	1945	856	1466	668	-	-	5166
14.0-14.9	-	-	-	-	1	1012	657	20	566	1144	-	-	3600
13.0-13.9	-	-	-	-	2	1346	209	-	97	1273	33	-	3060
12.0-12.9	-	-	-	-	86	1232	61	-	4	1228	192	-	2664
11.0-11.9	-	-	-	6	1174	233	-	-	-	494	725	-	3014
10.0-10.9	-	-	-	70	1204	28	-	-	-	160	1144	3	2720
9.0- 9.9	1	-	-	276	1116	11	-	-	-	13	1403	121	2649
8.0- 8.9	70	-	38	1048	649	-	-	-	-	-	1163	615	3182
7.0- 7.9	199	1	536	1050	209	-	-	-	-	-	421	1141	3367
6.0- 6.9	867	247	651	1279	11	-	-	-	-	-	143	1604	3742
5.0- 5.9	1679	1034	1160	874	-	-	-	-	-	-	41	1195	4291
4.0- 4.9	1716	2043	1258	403	-	-	-	-	-	-	-	537	5264
3.0- 3.9	702	992	1168	76	-	-	-	-	-	-	-	221	5641
2.0- 2.9	95	201	396	20	-	-	-	-	-	-	-	17	2955
1.0- 1.9	28	215	135	-	-	-	-	-	-	-	-	-	712
0.0- 0.9	66	131	106	-	-	-	-	-	-	-	-	1	379
-1.0--0.1	25	103	7	-	-	-	-	-	-	-	-	-	303
-2.0--1.1	1	-	-	-	-	-	-	-	-	-	-	-	135
<=-2.1	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL	5449	4967	5455	5102	5249	5071	5012	5198	4817	5283	5266	5455	62324
MEAN	5.0	4.1	4.7	6.9	10.4	13.9	16.7	17.8	17.1	14.5	10.6	7.4	10.7
ST.DEV.	1.3	1.4	1.6	1.5	1.4	1.3	1.0	0.8	1.0	1.4	1.4	1.4	5.1

TABLE 21

TEMP C	SEA SURFACE TEMPERATURE												YEAR
	NUMBERS OF OBSERVATIONS FOR EACH TEMPERATURE INTERVAL OF 1 DEGREE CELSIUS												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
>=22.0	-	-	-	-	-	-	-	-	-	-	-	-	-
21.0-21.9	-	-	-	-	-	-	-	-	-	-	-	-	-
20.0-20.9	-	-	-	-	-	-	-	-	-	-	-	-	-
19.0-19.9	-	-	-	-	-	-	-	-	-	-	-	-	-
18.0-18.9	-	-	-	-	-	-	1	63	9	-	-	-	93
17.0-17.9	-	-	-	-	-	-	62	604	512	-	-	-	1198
16.0-16.9	-	-	-	-	-	-	301	1979	1852	282	-	-	4414
15.0-15.9	-	-	-	-	-	-	1262	3007	2662	1023	-	-	8174
14.0-14.9	-	-	-	-	-	100	2632	1146	1190	2193	20	-	7261
13.0-13.9	-	-	-	-	-	845	1835	1	32	2491	367	-	5571
12.0-12.9	-	-	-	-	160	2007	555	-	-	743	1634	-	4939
11.0-11.9	-	-	-	1	1174	1306	5	1	-	79	2002	68	4550
10.0-10.9	54	-	-	76	1915	221	-	-	-	30	1502	695	4706
9.0- 9.9	319	-	65	746	1974	23	-	-	-	-	1017	1610	4893
8.0- 8.9	1678	434	826	1477	1346	-	-	-	-	-	168	2462	5779
7.0- 7.9	2823	2345	1727	2049	328	-	-	-	-	-	8	1477	7246
6.0- 6.9	1324	1242	1400	1475	26	-	-	-	-	-	-	520	9792
5.0- 5.9	288	1359	1235	775	-	-	-	-	-	-	-	52	5519
4.0- 4.9	66	426	1296	113	-	-	-	-	-	-	-	6	3663
3.0- 3.9	36	158	219	-	-	-	-	-	-	-	-	-	1901
2.0- 2.9	17	2	24	-	-	-	-	-	-	-	-	-	414
1.0- 1.9	10	147	52	-	-	-	-	-	-	-	-	-	43
0.0- 0.9	-	77	42	-	-	-	-	-	-	-	-	-	209
-1.0--0.1	-	-	-	-	-	-	-	-	-	-	-	-	119
-2.0--1.1	-	-	-	-	-	-	-	-	-	-	-	-	-
<=-2.1	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	6615	6190	6886	6714	6943	6717	6693	6821	6457	6841	6718	6911	80506
MEAN	7.5	6.4	6.2	7.4	9.8	12.8	15.3	16.8	16.7	15.1	12.2	9.5	11.3
ST.DEV.	1.1	1.5	1.5	1.2	1.2	1.1	1.0	0.8	0.8	1.0	1.2	1.1	4.0

TEMP C	SEA SURFACE TEMPERATURE												YEAR
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
>=22.0	-	-	-	-	-	-	-	-	-	-	-	-	-
21.0-21.9	-	-	-	-	-	-	1	-	-	-	-	-	-
20.0-20.9	-	-	-	-	-	-	5	23	-	-	-	-	6
19.0-19.9	-	-	-	-	-	2	29	251	57	-	-	-	26
18.0-18.9	-	-	-	-	-	5	223	1178	429	-	-	-	339
17.0-17.9	-	-	-	-	-	20	1000	2755	1676	26	-	-	1635
16.0-16.9	-	-	-	-	-	124	1986	1949	2421	515	-	-	5477
15.0-15.9	-	-	-	-	-	644	2141	591	1340	1405	-	-	6995
14.0-14.9	-	-	-	-	-	1367	1209	-	264	1591	-	-	6121
13.0-13.9	-	-	-	-	24	1996	271	-	6	1865	298	-	4457
12.0-12.9	-	-	-	-	309	1696	60	-	-	784	1154	-	4460
11.0-11.9	-	-	-	2	1417	794	-	-	-	177	1605	22	4003
10.0-10.9	-	-	-	19	1640	282	-	-	-	70	1781	270	4017
9.0- 9.9	-	-	-	240	1645	20	-	-	-	3	1205	1109	4062
8.0- 8.9	88	-	30	971	1370	-	-	-	-	3	368	1912	4222
7.0- 7.9	926	20	417	1624	571	-	-	-	-	-	101	1840	4742
6.0- 6.9	2149	892	1120	1915	146	-	-	-	-	-	30	1085	5499
5.0- 5.9	2082	1845	1915	1101	7	-	-	-	-	-	-	133	7337
4.0- 4.9	1388	2278	1708	721	-	-	-	-	-	-	-	-	7462
3.0- 3.9	300	800	1262	172	-	-	-	-	-	-	-	-	6228
2.0- 2.9	103	232	514	9	-	-	-	-	-	-	-	13	2547
1.0- 1.9	44	195	110	-	-	-	-	-	-	-	-	-	856
0.0- 0.9	70	175	104	-	-	-	-	-	-	-	-	-	349
-1.0--0.1	39	105	9	-	-	-	-	-	-	-	-	-	349
-2.0--1.1	-	2	-	-	-	-	-	-	-	-	-	-	153
<=-2.1	-	-	-	-	-	-	-	-	-	-	-	-	2
TOTAL	7189	6544	7189	6774	7129	6950	6925	6752	6193	6439	6568	6896	81548
MEAN	5.6	4.5	4.8	6.6	9.8	13.3	15.9	17.2	16.6	14.2	10.8	7.8	10.5
ST. DEV.	1.4	1.5	1.5	1.4	1.4	1.4	1.2	0.9	1.0	1.3	1.3	1.3	4.7

TABLE 21

TEMP C	SEA SURFACE TEMPERATURE												YEAR
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
>=22.0	-	-	-	-	-	-	-	-	-	-	-	-	-
21.0-21.9	-	-	-	-	-	-	-	-	-	-	-	-	-
20.0-20.9	-	-	-	-	-	-	-	-	-	-	-	-	-
19.0-19.9	-	-	-	-	-	-	16	107	46	-	-	-	169
18.0-18.9	-	-	-	-	-	1	180	667	521	7	-	-	1376
17.0-17.9	-	-	-	-	-	11	636	1766	1069	113	-	-	3617
16.0-16.9	-	-	-	-	-	139	1165	1017	1671	298	-	-	4290
15.0-15.9	-	-	-	-	-	581	782	370	1152	854	-	-	3739
14.0-14.9	-	-	-	-	3	1074	431	1	284	1474	2	-	3269
13.0-13.9	-	-	-	-	19	1247	140	-	9	1694	111	-	3220
12.0-12.9	-	-	-	-	417	1177	36	-	-	986	711	-	3327
11.0-11.9	-	-	-	3	1334	594	-	-	-	219	1405	3	3556
10.0-10.9	-	-	-	40	1269	101	-	-	-	117	1612	149	3286
9.0- 9.9	-	-	-	200	1467	8	-	-	-	3	1408	696	3762
8.0- 8.9	26	-	4	812	1019	-	-	-	-	-	549	1372	3762
7.0- 7.9	624	70	276	1704	369	-	-	-	-	-	174	1765	4902
6.0- 6.9	1478	649	1035	1555	92	-	-	-	-	-	96	1253	6156
5.0- 5.9	2030	1499	1678	947	-	-	-	-	-	-	6	745	6905
4.0- 4.9	1464	2018	1503	578	-	-	-	-	-	-	2	250	5815
3.0- 3.9	597	697	757	249	-	-	-	-	-	-	-	28	2328
2.0- 2.9	197	318	663	69	-	-	-	-	-	-	-	4	1251
1.0- 1.9	28	214	394	-	-	-	-	-	-	-	-	-	626
0.0- 0.9	94	200	63	-	-	-	-	-	-	-	-	-	357
-1.0--0.1	120	117	30	-	-	-	-	-	-	-	-	-	267
-2.0--1.1	4	80	36	-	-	-	-	-	-	-	-	-	120
<=-2.1	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	6662	5862	6439	6157	5989	4933	3388	3928	4772	5765	6076	6267	66238
MEAN	5.2	4.3	4.6	6.6	10.0	13.4	16.1	17.2	16.5	13.9	10.4	7.4	9.8
ST. DEV.	1.6	1.7	1.7	1.5	1.4	1.4	1.2	0.9	1.1	1.4	1.4	1.4	4.7

GOEREE												
MINIMUM SEA SURFACE TEMPERATURE												
1949-1970												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	4.2	4.4	3.8	5.8	8.5	11.9*	17.4*	18.0	18.4	12.2*	8.0	5.9
1950	3.2	3.6	4.3	7.0	8.8	12.5*	17.8*	18.2	15.0	11.2	8.2	4.2
1951	3.4	4.2	4.5	5.9*	10.7*	11.6	14.7	17.3	16.0	11.6	9.4	6.5
1952	4.0	3.1	4.1	4.2	9.4	13.0	16.5	17.8	13.8	10.7	6.4	4.0
1953	3.1	2.3	3.8	5.6	8.2*	11.0	15.8	16.9	15.7	13.6	10.3	6.7
1954	2.6	0.8	1.4	5.1	7.4	11.0	14.4	16.0	- *	12.4*	9.0	6.7
1955	2.8	2.3	2.0	4.0	7.3	10.4	14.2	16.2	16.3	12.2	9.2	6.9
1956	2.2	0.5	1.6	3.6	6.5	10.4	13.8	15.6	14.6	11.3	7.0	5.9
1957	4.7	4.5	5.2	7.6	8.7	11.6	15.3	16.6	14.2	12.8	8.2	5.5
1958	3.5	3.7	3.2	4.3	7.4	11.8	15.0	16.8	16.6	13.1	9.5	6.6
1959	3.7	3.4	4.6	6.3	9.2	12.5	15.7	17.8	16.8	12.7	6.3	6.2
1960	4.4	3.9	3.7	5.9	7.8	12.0	15.1	17.0	15.0	12.1	9.2	6.3
1961	3.5	4.2	6.4	7.2	10.5	12.0	15.5	16.0	16.6	12.0	8.6	4.0
1962	3.7	2.9	2.5	4.0	6.4	9.6	13.3*	- *	14.4*	12.0	8.4	3.5
1963	-1.2	-0.9	-0.3	2.4	7.0	11.9	15.0	16.5	15.5	12.7	9.4	5.3
1964	3.8	3.4	2.8	3.8	7.8	12.6	15.3	16.8	15.6	11.3	8.8	3.6
1965	2.9	3.1	2.5	4.9	7.2	11.4	14.0	15.6	13.8	11.9	6.5	4.5
1966	3.2	3.1	5.4	6.5	8.5	12.1	15.5	16.2	15.9	13.1	8.6	5.2
1967	3.4	4.2	6.1	7.0	8.8	12.5	15.5	18.0	16.4	12.0	8.9	5.6
1968	3.8	3.2	0.8	5.4	8.5	12.1	15.3	16.4	15.8	13.5	8.5	1.4
1969	4.2	2.7	3.0	4.0	7.5	12.0	14.8	17.0	16.2	14.6	6.6	3.6
1970	2.0	2.3	3.4	3.9	7.5	11.8	15.4	16.8	15.7	12.5	8.6	5.6
MEAN	3.2	3.0	3.4	5.2	8.0	11.7	15.1	16.8	15.7	12.3	8.5	5.2
ST. DEV.	1.2	1.4	1.7	1.4	1.0	0.8	0.7	0.8	1.1	0.9	0.9	1.4

TABEL 22

GOEREE												
MEAN SEA SURFACE TEMPERATURE												
1949-1970												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	5.3	5.0	5.0	7.4	10.4	13.4*	18.1*	18.5	19.1	16.4*	10.1	7.4
1950	5.6	5.0	6.3	8.1	10.7	14.0*	18.4*	18.8	16.9	13.5	9.7	6.6
1951	4.0	5.0	5.4	6.6*	11.3*	13.8	16.8	18.1	17.2	14.3	10.9	6.2
1952	6.0	4.3	5.1	7.3	11.7	15.2	17.8	18.4	16.5	12.4	8.8	5.4
1953	4.1	3.7	4.8	7.0	10.3*	13.5	16.9	18.1	16.8	15.1	11.9	9.5
1954	6.2	1.7	3.4	6.6	9.8	13.6	15.8	16.6	- *	13.4*	11.0	6.6
1955	4.7	3.7	3.1	5.9	9.5	12.7	16.0	17.9	18.0	14.9	11.2	8.3
1956	5.9	2.6	2.6	5.3	9.1	12.6	15.6	16.7	16.0	14.2	9.9	7.5
1957	5.8	5.4	6.8	8.6	10.5	14.0	17.5	17.9	15.9	13.7	10.6	7.5
1958	5.3	4.5	4.3	5.8	9.7	13.8	16.5	17.4	17.7	14.7	11.3	8.3
1959	5.6	4.3	5.4	8.0	11.5	14.5	17.6	18.9	18.3	15.9	10.8	7.8
1960	6.4	5.1	5.4	7.6	10.5	14.2	16.4	17.7	17.0	14.0	10.7	8.0
1961	5.5	5.6	7.3	9.2	12.2	14.5	16.7	17.2	17.3	15.4	10.4	6.9
1962	4.6	4.4	3.5	5.7	8.9	12.5	13.9*	- *	15.0*	14.3	10.3	6.6
1963	1.7	0.0	1.2	5.0	9.4	13.9	16.6	17.8	16.6	14.4	11.6	7.3
1964	5.0	4.4	3.7	6.0	10.8	15.0	17.0	18.0	17.0	13.7	10.2	7.1
1965	4.6	4.0	3.9	6.4	10.1	13.4	15.6	16.7	15.6	13.8	9.3	6.2
1966	4.3	4.4	6.4	7.7	11.3	14.7	16.5	17.0	16.9	15.4	10.7	6.9
1967	5.3	5.8	7.1	8.2	11.0	14.0	17.4	18.7	17.2	14.5	10.6	7.4
1968	4.9	4.2	4.6	7.0	10.6	13.8	16.4	17.5	17.2	14.8	10.7	6.8
1969	5.0	4.2	3.7	6.0	10.3	14.0	16.8	18.7	17.5	16.0	11.3	6.4
1970	3.6	3.7	4.4	6.0	10.5	14.6	16.4	17.9	16.9	14.3	10.7	8.3
MEAN	5.0	4.1	4.7	6.9	10.1	13.9	16.7	17.8	17.1	14.5	10.6	7.4
ST. DEV.	1.0	1.3	1.5	1.1	0.9	0.7	0.6	0.7	0.8	0.9	0.7	0.9

TABEL 22

GOEREE												
MAXIMUM SEA SURFACE TEMPERATURE												
1949-1970												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	6.0	5.4	6.0	9.8	12.4	14.6*	18.7*	19.4	19.6	18.5*	12.4	9.0
1950	6.8	6.8	7.6	9.2	12.5	15.4*	19.1*	19.6	18.9	15.2	11.6	9.9
1951	4.6	5.8	6.1	7.1*	12.2*	16.0	18.8	18.9	18.9	16.2	12.9	9.7
1952	7.5	4.9	6.8	10.8	13.8	18.0	19.6	19.6	18.7	14.2	11.0	6.7
1953	5.0	4.6	6.2	8.7	12.8*	18.2	18.5	19.8	18.9	16.4	13.6	11.0
1954	8.6	3.4	5.5	8.3	12.2	15.2	17.1	17.7	- *	14.2*	14.5	10.2
1955	7.3	4.6	5.2	10.2	11.5	16.1	18.5	20.5	19.3	17.0	12.4	10.0
1956	7.3	4.4	4.2	7.2	13.2	15.0	17.3	18.1	16.8	16.3	11.7	8.7
1957	7.0	6.0	8.4	10.2	12.1	16.4	19.4	19.4	17.4	15.0	12.8	9.1
1958	7.2	5.1	5.6	8.3	12.6	15.8	18.1	18.3	18.6	16.9	13.5	10.4
1959	7.7	5.4	7.1	10.2	13.9	16.2	19.0	20.0	19.7	18.0	13.8	9.3
1960	9.0	5.9	6.4	9.0	12.4	16.4	17.9	18.7	18.5	16.0	13.0	9.6
1961	6.6	7.0	8.2	11.7	13.8	17.4	18.5	18.6	18.0	17.6	13.1	9.3
1962	5.5	5.2	4.5	9.3	11.6	14.3	15.4*	- *	15.4*	15.6	12.6	9.0
1963	3.9	1.0	3.2	8.0	15.0	15.9	18.6	19.1	17.5	15.9	13.3	10.6
1964	6.4	5.4	4.5	8.3	14.2	16.7	19.3	19.1	18.8	16.0	12.4	9.3
1965	5.7	4.8	6.5	9.3	12.6	15.9	18.0	18.1	16.3	15.6	12.4	7.4
1966	6.6	5.6	7.4	9.9	13.6	16.4	17.9	18.1	18.0	16.4	13.6	8.7
1967	6.4	6.6	7.9	9.5	13.4	17.4	19.7	21.0	18.7	16.6	12.4	9.5
1968	6.5	5.2	7.4	9.2	14.0	16.2	17.6	18.7	18.2	16.1	14.0	9.2
1969	5.9	5.7	4.6	8.6	12.9	16.0	19.0	20.6	18.6	16.9	14.7	9.5
1970	4.4	4.6	5.7	8.1	12.7	16.6	18.2	19.3	18.3	16.6	13.2	10.2
MEAN	6.5	5.2	6.1	9.1	13.0	16.1	18.4	19.2	18.1	16.2	13.0	9.4
ST. DEV.	1.3	1.2	1.4	1.1	0.9	0.8	1.0	0.9	0.9	0.9	0.9	1.0

NOORDHINDER												
MINIMUM SEA SURFACE TEMPERATURE												
1953-1980												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	-	4.8*	4.3	5.4	8.0	11.3	14.2	15.9	16.0	14.4	12.0	9.7
1954	5.3	3.2	5.8	6.5	7.7	10.9	-*	15.4*	14.8	13.9	11.3	9.2
1955	6.0	4.9	3.7	4.5	6.5	9.7	13.2	16.1	16.8	13.1	10.5	8.7
1956	6.6	3.1	3.0	4.9	6.9	10.7	13.2	15.3	15.4	12.8	9.5	8.5
1957	6.8	7.0	7.2	9.0	9.9	11.9	15.1	16.5	15.0	13.8	10.8	7.9
1958	6.4	6.0	5.1	5.8	7.4	10.9	13.4	15.4	16.3	14.0	11.0	8.0
1959	7.1	5.4	5.9	7.1	9.6	12.2	15.0	17.5	17.8	14.5	12.1	10.1
1960	7.3	6.4	6.7	7.5	9.0	11.5	14.5	16.3	15.9	13.7	11.7	8.9
1961	6.8	7.2	7.8	8.2	10.8	12.6	15.4	16.6	17.0	14.5	10.3	7.3
1962	6.0	4.8	4.2	4.8	6.9	9.8	13.2	15.0	15.9	13.5	9.7	5.8
1963	1.8	0.1	0.6	4.4	7.2	10.2	12.9	15.6	14.7	13.3*	11.9	7.4*
1964	5.3	4.6	3.8*	4.8	8.0	12.0	14.6	16.6	16.2*	13.0	10.5	7.4
1965	6.2	4.1	4.0	5.2	7.8	11.0	13.8	15.4	15.1	13.4	8.7	8.3
1966	5.8	0.0	7.2	7.2	9.1	11.7	14.6	15.8	15.8	13.8	8.4	3.6
1967	5.5	6.4	7.7	7.9	9.0	12.0	14.2	17.0	16.1	13.7	10.4	7.4
1968	5.6	4.6	0.8	5.9	8.2	10.9	13.6	15.6	15.5	14.4	10.1	7.6
1969	7.1	5.1	4.4	5.6	8.0	11.4	14.3	16.6	16.2	15.2	10.4	6.9
1970	5.8	6.1	3.8	5.6	7.7	11.0	14.5	15.8	15.6	13.4	11.2	7.2
1971	6.9	6.5	6.0	6.6	7.2	11.4	13.4	16.6	16.6	14.1	9.0	8.6
1972	7.1	6.8	6.0	7.0	7.6	11.1	14.2	16.5	16.5	13.4	9.5	7.3
1973	7.0	7.9	7.1	8.2	9.4	11.2	14.3	16.1	14.7	11.2	9.7	8.0
1974	8.0	7.2	6.6	6.5	8.1	9.9	13.6	16.7	14.7	12.6	10.7	8.3
1975	6.1	5.0	5.0	6.4	7.6	11.0	15.1	17.6	16.0	14.7	10.0	7.7
1976	6.7	7.2	7.9	7.9	8.9	11.4	13.2	15.8	15.8	14.4	10.2	8.9
1977	6.7	5.3	5.4	7.0	8.2	10.8	13.6	14.2	16.0	14.3	11.8	8.9
1978	5.2	4.1	4.3	6.0	8.1	11.2	13.5	12.6	15.4	13.7	11.6	8.9
1979	6.2	6.3	7.0	7.6	8.4	11.2	13.7	16.0	16.7	13.4	9.4	7.6
MEAN	6.2	5.2	5.3	6.5	8.2	11.1	14.0	15.9	15.8	13.6	10.4	8.0
ST.DEV.	1.1	1.4	1.9	1.3	1.0	0.7	0.7	1.0	0.6	0.9	1.0	1.2

TABEL 22

NOORDHINDER												
MEAN SEA SURFACE TEMPERATURE												
1953-1980												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	-	5.1*	5.2	6.8	9.8	12.7	15.0	16.7	16.6	15.4	13.1	11.2
1954	7.9	4.3	6.2	7.4	9.5	12.4	-*	15.8*	15.9	14.5	12.6	10.7
1955	7.1	6.1	4.4	5.5	8.4	11.6	14.8	17.2	17.7	15.2	12.2	9.6
1956	8.0	5.2	4.2	5.9	8.9	12.1	14.6	15.7	15.7	14.6	11.3	9.2
1957	8.0	7.8	8.3	9.5	10.8	13.6	16.4	17.1	16.0	14.4	12.4	9.2
1958	7.1	6.7	6.1	6.4	9.1	12.5	14.8	16.1	16.9	15.1	12.5	10.0
1959	8.0	6.0	6.4	8.6	11.1	13.7	16.7	18.5	18.5	16.7	13.0	11.0
1960	8.6	7.0	7.4	8.5	10.4	13.5	15.6	17.0	16.8	14.7	12.6	10.4
1961	7.9	7.7	8.1	9.4	11.9	13.9	16.3	16.9	17.3	16.2	12.2	9.3
1962	7.4	6.8	4.7	6.0	8.5	11.7	14.5	15.8	16.0	14.7	11.7	8.2
1963	4.1	1.3	2.6	5.9	8.7	11.6	14.2	16.0	15.5	14.2*	12.8	9.1*
1964	6.4	5.4	4.4*	6.2	10.1	13.4	15.7	17.2	16.9*	14.7	11.7	9.3
1965	7.2	5.2	4.6	6.6	9.7	12.4	14.7	16.1	15.8	14.8	11.2	9.0
1966	7.0	6.8	7.9	8.2	10.8	13.6	15.5	16.6	16.8	15.7	11.9	8.8
1967	6.9	7.3	8.0	8.4	10.5	13.1	16.1	17.4	16.7	15.0	11.8	8.9
1968	6.4	5.6	5.0	6.9	9.6	12.4	14.8	16.1	16.5	15.3	12.3	9.4
1969	7.8	6.4	5.5	6.7	9.9	12.9	15.5	17.6	17.2	16.2	13.0	8.8
1970	7.0	6.9	5.8	6.6	9.6	13.3	15.2	16.7	16.3	14.7	12.3	10.0
1971	7.1	7.4	6.4	7.3	9.7	12.6	15.7	16.9	17.0	15.6	12.3	9.7
1972	7.9	7.2	7.0	8.8	10.3	12.4	14.8	16.1	16.1	14.2	11.8	9.9
1973	8.2	7.4	7.1	7.5	9.6	13.0	16.1	17.3	17.5	15.0	11.7	8.2
1974	8.2	8.6	7.8	8.9	10.5	13.2	15.4	16.8	16.0	13.2	10.6	9.2
1975	8.8	7.9	7.2	7.0	9.3	12.1	15.3	17.9	17.6	14.9	12.2	9.4
1976	7.8	5.4	5.6	7.3	9.5	13.1	17.1	18.5	17.7	16.0	12.9	9.3
1977	7.4	7.7	8.2	8.3	10.2	12.5	15.0	16.6	16.5	15.0	12.7	9.4
1978	7.6	6.2	6.6	7.5	9.4	12.5	14.4	16.2	16.4	15.1	13.4	10.4
1979	7.0	4.9	5.3	7.3	9.5	12.5	15.0	16.4	16.2	15.2	12.5	10.6
1980	7.6	7.6	7.4	8.2	9.8	13.0	14.8	16.6	16.9	15.1	11.0	8.3
MEAN	7.4	6.4	6.2	7.4	9.8	12.6	15.3	16.8	16.7	15.1	12.2	9.5
ST.DEV.	0.9	1.5	1.5	1.1	0.8	0.6	0.7	0.7	0.7	0.7	0.7	0.6

TABEL 22

NOORDHINDER												
MAXIMUM SEA SURFACE TEMPERATURE												
1953-1980												
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1953	-	5.6*	5.6	8.4	11.9	14.4	16.4	17.4	17.2	16.2	14.4	12.1
1954	9.9	6.2	6.7	7.9	11.2	13.9	-*	16.2*	16.5	14.9	13.9	12.0
1955	9.2	6.9	5.0	6.8	9.8	13.8	17.0	18.6	18.4	17.0	13.2	10.7
1956	8.8	7.4	5.2	7.1	11.2	13.6	16.0	16.1	16.0	15.9	12.8	9.6
1957	9.5	8.1	9.6	10.1	12.1	15.9	17.4	17.8	16.7	15.1	13.9	10.8
1958	8.0	7.4	6.8	8.0	11.4	14.2	16.0	17.0	17.3	16.4	14.1	11.2
1959	9.8	7.1	7.3	9.9	12.5	15.7	18.6	19.6	19.2	17.9	14.7	12.1
1960	10.3	8.0	7.7	9.2	11.7	14.9	16.4	17.3	17.2	15.9	13.8	11.7
1961	8.9	8.1	8.4	11.0	12.8	15.6	17.4	17.3	17.7	17.6	14.6	10.7
1962	8.2	7.6	5.1	7.2	10.3	13.5	16.0	16.1	16.3	15.6	13.5	9.9
1963	5.8	2.1	4.8	7.5	12.0	13.3	16.6	16.7	16.0	15.0*	13.5	12.0*
1964	7.8	6.0	5.4*	8.2	12.7	14.7	17.0	17.7	17.7*	16.4	13.2	10.7
1965	7.9	6.4	6.2	7.9	11.2	14.0	15.6	16.6	16.3	15.6	13.7	9.6
1966	8.9	7.9	8.3	9.5	11.9	15.0	16.1	17.2	17.7	16.6	14.1	10.3
1967	8.2	7.9	8.3	9.2	12.4	14.8	17.4	18.8	17.5	16.4	13.9	10.7
1968	7.7	6.3	6.2	8.2	11.1	13.8	16.0	16.9	17.2	15.9	14.8	11.0
1969	8.6	8.3	6.5	8.4	11.6	14.4	16.9	18.9	17.5	16.8	15.3	10.7
1970	8.0	7.8	6.5	7.9	11.3	15.0	16.1	17.6	17.0	16.0	13.7	11.4
1971	8.1	7.8	6.9	8.1	12.0	14.0	17.3	17.7	17.2	16.8	14.3	10.4
1972	8.6	7.6	7.9	9.6	11.7	14.2	16.0	16.9	17.0	15.4	13.6	10.6
1973	9.2	7.8	8.0	8.4	11.6	15.4	16.9	17.9	18.5	16.6	13.4	9.6
1974	8.8	8.9	8.2	9.6	11.9	14.5	16.3	17.4	17.3	14.9	11.4	8.9
1975	9.2	8.8	7.8	8.2	10.8	14.0	17.3	18.6	18.6	16.5	13.7	10.8
1976	8.7	6.1	6.3	8.0	11.4	15.4	18.3	19.2	18.9	17.4	14.8	10.8
1977	8.1	8.2	8.7	9.0	11.5	13.4	15.9	17.0	17.0	15.8	14.4	10.4
1978	9.1	7.4	7.4	8.6	11.6	13.7	17.3	17.0	16.8	16.1	14.3	11.7
1979	9.2	5.8	6.2	8.2	11.3	13.6	19.0	16.7	16.8	15.8	14.0	11.8
1980	9.1	7.9	7.8	8.6	11.5	14.1	16.2	17.4	17.1	17.2	13.6	9.6
MEAN	8.7	7.2	7.0	8.5	11.6	14.4	16.8	17.5	17.3	16.2	13.9	10.8
ST.DEV.	0.9	1.3	1.3	1.0	0.7	0.7	0.9	0.9	0.8	0.8	0.7	0.6

YEAR	MINIMUM SEA SURFACE TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	4.9	4.1	4.1	5.8	8.8	11.6	14.2	16.4	17.7*	-	9.3*	6.0
1950	3.4	3.2	4.5	6.8	8.3	11.7	15.6	17.5	-	*	8.0*	3.4
1951	3.8	4.0	3.6	5.4	7.7	11.2	14.2*	16.5	15.6	11.7	9.6	6.4
1952	4.5	3.4	3.8	4.2	8.9	11.9	15.1	17.1	14.4	10.1	6.3	4.1
1953	3.0	2.8	3.9	5.4*	7.9*	11.2	14.8	16.4	15.5	13.8	10.9	8.5
1954	2.6	0.3	1.7	4.3	7.0	11.3	14.0	15.2*	13.8*	12.9	9.0	7.6
1955	2.7	2.2	1.7	3.2	6.3	9.8	12.6	15.6	16.1	11.6	8.2	6.8
1956	4.3	0.4	1.2	3.8	6.4	10.6	13.0	15.1	14.7	11.4	7.0	6.4
1957	4.8	5.1	5.1	7.4	8.8	11.0	15.4	16.4	14.1	12.8	9.5	6.2
1958	5.0	3.8	3.1	3.9	6.5	10.1	13.3	15.6	15.6	13.0	9.7	6.5
1959	3.7	3.4	4.0	6.2	9.3	12.4	15.0	17.4	16.4	12.4	9.4	6.2
1960	4.2	3.8	4.7	5.1	7.7	11.3	14.0	16.2	15.0	12.3	10.0	7.1
1961	4.0	4.7	6.1	6.8	9.4	12.0	14.4	15.9	16.0	13.1	8.3	4.6
1962	3.4	2.5	2.7	4.2	6.8	9.2	12.1	15.1	14.3	12.8	7.9	3.0
1963	-0.7	-1.2	-0.6	2.3	5.8	10.3	13.2	15.5	14.6	11.2	8.8	4.8
1964	2.5	3.2	2.4	3.6	7.0	11.5	13.9	16.2	14.9	11.3	8.7	5.3*
1965	3.4	3.5	3.1	5.2	7.8	10.1	13.5	15.1	14.8	12.2	7.0	5.9
1966	3.0	2.4	0.2	5.6	7.9	11.1	14.8	15.7	14.3	12.7	8.8	5.7
1967	2.0	4.7	5.4	6.4	8.3	11.6	14.2	17.0	15.1	12.4	8.9	5.7
1968	1.0	3.0	3.6	4.9	7.9	11.0	14.0	15.6	15.2	13.3	8.0	3.9
1969	4.8	2.3	0.0	3.4	6.6	10.0	14.2	16.4	15.5	14.2	8.5	4.3
1970	3.2	2.6	3.3	4.0	6.9	11.2	14.3	15.8	13.7	12.6	8.9	7.1
1971	3.5	4.6	3.9	5.8	7.8	11.6	14.9	16.7	13.7	12.6	8.9	7.1
1972	3.2	3.5	4.0	5.8	7.8	11.2	13.6	15.9	14.4	12.1	8.1	6.6
1973	5.0	4.6	4.7	6.0	7.4	11.4	15.4	16.3	15.7	11.8	6.9	5.0
1974	4.8	5.1	5.1	6.9	8.1	11.6	14.1	15.8	13.8	8.8	7.8	5.8
1975	6.4	4.8	5.0	5.4	7.8	9.9	13.6	17.1	15.7	11.6	9.0	6.0
1976	3.8	3.0	3.4	4.8	6.8	10.9	15.8	17.2	16.0	13.4	10.2	5.4
1977	4.2	5.0	5.1	6.0	7.6	10.8	13.5	-	-	-	-	-
MEAN	3.6	3.3	3.4	5.1	7.6	11.0	14.2	16.2	15.0	12.3	8.7	5.7
ST. DEV.	1.4	1.5	1.7	1.3	0.9	0.7	0.9	0.7	0.7	1.1	1.1	1.3

TABLE 22

YEAR	MEAN SEA SURFACE TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	5.8	5.3	5.2	7.6	10.5	13.5	16.2	17.8	18.8*	-	11.0*	8.1
1950	6.0	4.7	6.0	7.8	10.4	14.8	17.3	18.7	-	*	9.0*	6.4
1951	4.5	4.6	4.8	6.7	9.7	13.4	15.0*	17.3	16.8	14.0	11.2	8.4
1952	6.3	4.2	5.0	6.7	10.8	13.9	16.7	17.6	16.3	12.2	9.1	5.7
1953	4.5	4.2	4.7	5.9*	10.6*	13.5	16.4	17.6	16.5	14.9	12.4	10.0
1954	6.5	1.5	3.4	6.0	9.5	13.5	14.9	16.0*	14.7*	13.8	11.1	9.1
1955	5.0	4.0	2.5	5.0	8.3	11.4	14.7	17.3	17.5	14.6	11.1	8.4
1956	6.5	2.4	2.7	5.3	8.8	12.2	14.8	15.7	15.4	14.0	10.0	7.7
1957	6.4	6.2	6.7	8.6	10.4	13.7	17.0	17.4	15.7	13.6	11.1	7.6
1958	6.1	5.1	3.9	5.1	8.7	12.5	15.2	16.7	16.9	14.4	11.2	8.5
1959	6.2	4.2	5.3	7.8	11.1	14.1	17.1	18.1	17.6	15.1	11.0	7.8
1960	6.4	5.0	5.5	6.9	9.8	13.6	15.2	16.9	16.3	13.8	11.1	8.8
1961	6.1	6.1	7.0	8.5	11.3	14.0	15.9	16.5	16.8	15.6	10.9	7.5
1962	5.5	5.0	3.6	5.7	8.6	11.9	14.2	15.7	15.5	14.2	10.3	7.0
1963	1.2	-0.1	1.4	4.4	8.0	12.4	14.8	16.4	15.8	13.2	11.3	7.0
1964	4.9	4.5	3.4	5.4	9.4	13.4	15.7	17.3	16.5	13.4	10.6	7.8*
1965	5.5	4.4	4.1	6.6	9.6	12.3	15.0	16.3	15.5	14.1	9.8	7.1
1966	4.5	4.2	5.8	6.7	10.5	13.9	15.9	16.4	16.3	14.8	10.9	7.5
1967	5.6	5.4	6.4	7.6	10.4	13.3	16.6	17.8	16.9	14.7	10.9	7.9
1968	5.1	4.3	4.4	6.6	9.5	13.1	15.5	16.6	16.6	14.5	10.5	6.9
1969	6.0	4.6	3.3	5.4	9.2	13.1	16.5	16.3	17.0	15.3	11.8	7.1
1970	4.2	3.9	4.3	5.9	10.2	14.2	15.6	17.4	16.6	14.4	11.4	8.9
1971	5.8	5.8	5.2	7.0	10.4	13.2	16.2	17.4	17.2	15.2	11.3	8.5
1972	5.7	4.2	5.1	7.2	10.0	12.9	16.0	17.1	15.9	13.2	10.4	8.2
1973	6.4	5.9	6.1	7.1	10.0	13.7	16.7	17.6	17.4	13.8	10.3	6.4
1974	5.8	6.1	6.1	8.1	10.4	13.7	15.5	17.4	16.0	12.5	9.7	7.9
1975	7.2	5.9	5.8	6.7	9.4	13.1	16.1	18.8	17.4	13.9	10.9	7.9
1976	7.0	4.0	4.3	6.4	9.4	13.6	17.2	18.2	16.8	15.4	12.0	6.2
1977	5.9	5.6	6.8	7.2	9.9	12.7	15.3	-	-	-	-	-
MEAN	5.6	4.5	4.8	6.6	9.8	13.3	15.8	17.1	16.5	14.2	10.9	7.8
ST. DEV.	1.1	1.4	1.4	1.1	0.8	0.7	0.8	0.8	0.7	0.9	0.7	0.9

TABLE 22

YEAR	MAXIMUM SEA SURFACE TEMPERATURE											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	6.8	6.0	6.4	9.3	12.5	14.8	19.0	19.1	19.7*	-	13.2*	9.8
1950	7.4	5.8	7.6	8.6	13.0	16.6	19.2	20.4	-	*	9.7*	9.4
1951	5.4	5.3	5.7	9.1	12.1	15.8	16.2*	19.2	18.3	16.4	12.8	10.3
1952	7.9	5.0	6.1	9.4	13.0	16.1	18.0	18.4	18.2	14.4	11.0	6.7
1953	5.6	5.2	6.4	6.3*	13.7*	17.8	18.4	19.1	17.8	16.0	13.9	11.2
1954	8.8	2.9	4.7	7.4	12.4	15.4	16.4	17.2*	15.1*	14.5	13.0	10.2
1955	7.9	5.3	3.6	7.3	10.5	13.4	19.2	19.5	18.8	16.7	12.4	9.9
1956	7.7	4.2	4.3	6.8	12.1	13.5	17.4	16.8	16.4	15.8	11.8	9.8
1957	7.9	7.0	8.3	9.9	11.9	17.2	18.8	18.6	16.8	14.3	13.0	9.5
1958	7.0	5.8	4.5	7.0	12.0	15.4	17.1	17.9	18.2	16.0	13.1	10.0
1959	8.5	4.7	6.3	9.6	13.0	15.6	18.6	19.3	19.1	17.2	12.7	9.8
1960	8.2	5.8	6.2	8.1	11.6	17.1	16.7	18.2	17.2	15.3	13.0	10.2
1961	7.8	6.8	7.6	11.3	13.7	16.6	18.8	17.9	17.6	17.3	13.7	9.3
1962	6.5	5.9	4.3	8.2	11.4	14.2	16.8	17.2	16.5	15.3	12.9	8.9
1963	3.1	0.6	3.7	6.6	11.8	14.2	17.2	17.9	16.9	14.8	12.4	10.2
1964	6.5	5.5	4.2	9.5	13.6	16.0	17.3	18.4	18.2	15.6	12.3	9.3*
1965	6.4	5.1	6.0	9.4	12.5	15.7	17.3	17.8	16.6	15.6	12.9	8.0
1966	6.5	6.1	6.6	10.5	13.7	16.4	17.1	17.7	17.4	15.9	13.3	9.2
1967	7.1	6.2	7.1	9.1	12.6	16.0	18.4	19.8	18.4	16.4	12.6	10.0
1968	6.8	5.3	6.1	9.1	12.3	15.5	16.8	18.0	18.7	15.8	12.8	9.0
1969	6.8	6.5	4.2	8.0	11.8	16.0	21.0	21.3	18.4	16.7	14.3	9.5
1970	5.2	4.8	5.1	7.7	13.1	16.7	17.9	19.4	17.5	16.2	13.2	10.6
1971	6.8	6.6	6.6	8.4	12.8	14.7	18.6	20.1	18.4	17.1	13.7	9.4
1972	7.2	5.4	6.6	8.3	11.6	15.3	19.2	18.4	17.4	15.0	12.5	9.0
1973	7.8	6.8	7.5	8.4	12.6	17.2	18.0	19.6	19.0	16.3	12.2	7.8
1974	6.9	7.0	7.6	9.9	13.7	18.2	17.1	19.0	17.6	14.4	11.3	9.6
1975	8.0	7.8	7.2	9.8	12.0	15.7	18.6	21.5	19.5	16.5	13.1	9.7
1976	7.8	4.8	5.8	8.5	12.8	19.6	18.6	19.2	18.4	16.6	13.8	10.4
1977	6.8	6.8	8.0	7.9	12.8	14.4	16.9	-	-	-	-	-
MEAN	7.0	5.6	6.0	8.7	12.5	15.9	18.0	18.8	17.9	15.9	12.9	9.5
ST. DEV.	1.2	1.4	1.4	1.1	0.8	1.4	1.1	1.2	1.1	0.9	0.9	0.9

TERSCHELLINGERBANK

MINIMUM SEA SURFACE TEMPERATURE

1949-1975

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	4.9	4.2	3.8	5.6	8.8	12.0	14.1	16.9	17.0	12.6	9.8*	6.4**
1950	1.4	1.8	4.6	6.2	8.7	11.2	16.0	17.5*	14.5	9.9	7.5	3.7
1951	3.7	4.0	3.6	5.2	7.7	10.8*	15.6*	16.6	15.0	11.2	8.5	6.6
1952	4.0	3.8	3.8	3.8	8.2	12.1	15.5	17.0	13.8	9.7	6.0	4.0
1953	3.6	3.3	3.8	5.5	8.2	11.4	15.4	16.4	14.7	13.2	10.1	7.7
1954	2.2	-0.5	0.7	4.3	7.1	-*	-*	16.1*	13.6	12.4	8.0	7.3
1955	2.9	1.6	1.3	3.1	6.5	9.7	13.5	16.0	16.2	11.7	8.4	6.6
1956	3.3	0.4	1.0	3.7	6.1	10.7	13.3	15.0	14.8	10.8	6.4	4.9
1957	4.1	5.0	4.6	7.2	8.1	11.4	15.4	16.6	14.2	12.5	8.2	5.2
1958	3.8	3.1	2.8	3.6	6.8	11.2	14.6	14.8	15.3	12.6	8.9	7.2
1959	4.2	3.4	4.0	6.6	9.2	12.5	15.0	17.7	16.6	13.0	8.7	3.9
1960	3.6	3.7	3.6	4.7	7.9	11.8	14.0	16.8	14.3	12.2	9.3	5.9
1961	2.4	3.8	5.4	6.8	9.9	12.3	15.2	15.7	16.2	13.1	7.3	4.2
1962	3.6*	4.2*	-*	5.7*	6.3	9.7	12.6	15.0	14.2	12.0	7.7	2.5
1963	-1.2	-1.5	-1.5	2.7	6.0	10.3*	-*	-*	-*	11.4*	8.9	4.5
1964	2.8	2.8*	1.2	2.7	7.4	11.9	14.7*	16.2*	14.8	11.2	8.7	4.4
1965	3.9	3.9	2.9	4.4	7.8	10.7	13.7*	-*	15.0*	12.0	4.6	5.6
1966	1.9	0.4	4.4	5.4	7.9	11.3	14.6*	15.5*	14.9	12.4	8.2	5.2
1967	3.8	4.0	5.3	6.6	8.1	12.1*	-*	-*	-*	11.6*	8.0	5.8
1968	2.8	2.8	2.2	5.5	8.5	11.3	-*	16.6*	15.2	12.5	7.9	4.2
1969	4.2	2.1	0.9	2.0	7.2	10.2	14.5*	-*	-*	-*	8.0*	1.6
1970	1.4	1.2	2.7	4.1	7.0	11.3	14.2*	-*	14.6*	11.2	10.0	5.4
1971	4.2	4.6	3.4	4.9	6.7	10.8*	-*	16.7*	15.9	12.9	5.3	6.8
1972	3.1	3.4	3.8	6.0	8.0	10.1	13.6*	16.0*	14.4	12.0	9.0	6.0
1973	5.8	5.3	4.9	5.8*	-*	-*	-*	-*	-*	11.0*	7.0	4.3
1974	4.7	5.4	5.3	6.5	7.8*	-*	-*	-*	-*	10.6*	8.0	7.3
1975	6.8	4.6	4.8	5.3*	-	-	-	-	-	-	-	-
MEAN	3.4	3.0	3.2	4.9	7.7	11.2	14.6	16.2	15.0	12.0	8.0	5.7
ST. DEV.	1.5	1.8	1.7	1.5	1.0	0.8	1.0	0.9	1.0	1.0	1.3	1.5

TABLE 22

TERSCHELLINGERBANK

MEAN SEA SURFACE TEMPERATURE

1949-1975

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	6.0	5.5	5.1	7.6	10.5	13.6	15.9	17.7	16.5	16.2	11.8*	7.3**
1950	5.7	4.6	6.1	7.8	10.5	14.5	17.3	18.3*	16.5	13.3	9.3	6.2
1951	4.6	4.6	4.8	6.8	10.0	12.9*	16.6*	17.7	16.9	13.8	10.9	8.5
1952	6.1	4.4	4.9	6.7	11.1	14.0	16.7	17.7	16.0	11.9	8.8	5.3
1953	4.3	4.2	4.8	7.0	10.1	13.6	16.6	17.4	16.2	14.6	12.0	9.5
1954	5.9	1.0	3.1	5.8	9.4	-*	-*	16.6*	15.9	13.5	10.6	8.4
1955	4.6	3.5	2.4	5.0	8.6	11.8	15.5	17.4	17.6	14.2	10.6	7.9
1956	5.8	1.7	2.3	5.1	9.1	12.5	15.1	15.7	15.4	13.8	9.5	7.2
1957	5.5	5.7	6.4	8.4	10.0	13.6	17.3	17.7	15.6	13.4	10.5	6.9
1958	5.4	4.6	3.7	5.0	9.5	13.0	15.9	17.4	17.4	14.4	10.9	8.2
1959	6.1	4.5	5.3	8.1	11.4	14.4	17.4	18.7	18.0	15.0	10.5	6.9
1960	5.9	4.6	4.8	7.2	10.4	14.4	16.0	17.4	16.7	13.9	10.8	7.9
1961	5.3	5.4	6.9	8.6	11.5	14.3	16.2	16.5	16.9	15.3	10.2	6.7
1962	5.2*	5.2*	-*	6.6*	8.7	12.3	14.1	15.9	15.4	13.9	9.7	6.4
1963	0.2	-0.7	0.7	4.8	8.6	11.4*	-*	-*	-*	12.8*	10.9	6.8
1964	4.1	4.0*	2.5	5.2	10.0	13.9	15.0*	17.4*	16.4	13.3	10.2	7.5
1965	5.3	4.5	4.0	6.6	10.0	12.8	14.4*	-*	15.1*	13.9	9.2	6.5
1966	4.0	3.2	5.7	6.5	10.9	14.3	15.5*	16.5*	16.2	14.5	10.5	7.7
1967	5.3	5.3	6.4	7.7	10.7	12.6*	-*	-*	-*	13.6*	10.3	7.7
1968	4.9	4.2	4.5	6.8	9.9	13.5	-*	17.3*	16.7	14.3	10.0	6.2
1969	5.3	4.2	2.1	4.7	9.7	13.4	15.5*	-*	-*	-*	10.7*	6.3
1970	2.8	3.1	4.1	5.9	9.9	14.1	15.3*	-*	16.1*	13.9	11.2	8.7
1971	5.6	5.8	4.9	6.5	9.9	12.6*	-*	17.5*	16.6	14.9	11.0	8.5
1972	5.5	4.6	5.0	7.3	9.9	12.7	14.0*	16.8*	15.8	13.1	10.6	8.2
1973	6.7	6.5	6.2	7.0*	-*	-*	-*	-*	-*	12.7*	10.1	6.5
1974	6.1	6.3	6.1	7.4	8.2*	-*	-*	-*	-*	11.9*	9.9	8.3
1975	7.4	5.9	5.7	5.9*	-	-	-	-	-	-	-	-
MEAN	5.2	4.3	4.6	6.6	10.0	13.6	16.0	17.1	16.0	14.1	10.0	7.4
ST. DEV.	1.3	1.7	1.6	1.2	0.7	0.9	1.0	0.6	0.9	0.9	0.7	1.0

TABLE 22

TERSCHELLINGERBANK

MAXIMUM SEA SURFACE TEMPERATURE

1949-1975

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1949	7.0	6.2	6.8	10.1	12.6	15.2	18.6	19.6	19.4	18.2	15.2*	7.9**
1950	7.8	6.1	8.0	9.2	12.4	17.8	19.8	19.4*	18.0	15.0	11.0	9.0
1951	5.4	5.2	5.8	8.5	12.2	14.9*	18.0*	19.2	18.3	16.4	12.3	10.3
1952	7.6	5.2	6.0	9.2	13.1	17.0	18.5	19.3	17.9	14.4	11.6	6.6
1953	5.2	5.6	5.8	8.8	12.8	16.5	18.6	18.7	17.6	16.1	14.2	11.0
1954	8.2	2.8	5.0	7.5	12.3	-*	-*	17.8*	18.1	14.7	12.8	9.8
1955	7.6	4.6	3.6	6.9	10.5	14.2	17.6	19.5	18.9	16.4	11.9	9.4
1956	7.1	3.5	4.1	6.5	12.0	14.0	16.3	16.9	15.9	15.6	11.6	8.2
1957	6.8	6.1	8.0	9.4	11.8	16.4	19.0	18.4	16.8	14.4	13.0	8.6
1958	6.9	5.6	4.4	7.1	12.7	15.4	17.0	18.7	18.8	16.1	12.9	9.7
1959	8.4	5.6	7.7	10.1	14.5	16.2	19.0	19.6	19.4	17.0	13.9	9.6
1960	7.8	5.4	5.9	8.7	12.7	16.4	17.8	18.8	18.1	15.6	12.8	10.1
1961	6.8	6.4	8.0	11.4	13.0	18.0	18.5	18.3	18.0	17.2	13.4	8.9
1962	6.0*	5.6*	-*	7.6*	10.8	14.7	16.7	16.8	17.0	15.5	12.2	8.2
1963	3.4	1.0	2.9	7.2	12.4	12.4*	-*	-*	-*	13.6*	11.9	9.2
1964	5.9	4.6*	3.5	8.2	13.1	15.7	15.1*	18.1*	17.8	15.3	11.6	9.0
1965	6.5	5.3	5.2	8.7	13.9	15.9	15.4*	-*	15.1*	15.4	12.7	7.6
1966	6.5	4.9	6.6	9.8	14.8	17.5	16.5*	18.8*	17.3	15.8	12.9	9.0
1967	6.6	6.2	7.3	8.8	13.2	13.1*	-*	-*	-*	15.7*	12.2	9.9
1968	6.2	5.2	6.8	9.5	12.0	16.1	-*	18.2*	18.0	15.6	13.9	8.8
1969	6.1	6.3	3.8	8.3	12.7	16.4	16.3*	-*	-*	-*	14.0*	9.2
1970	3.8	4.1	5.2	8.0	12.0	17.4	16.0*	-*	17.0*	15.9	12.9	10.4
1971	6.8	6.8	6.2	8.4	12.6	14.1*	-*	19.4*	18.7	17.0	13.4	9.2
1972	6.8	5.6	6.7	8.5	12.1	15.2	14.4*	17.8*	17.9	14.6	12.4	9.3
1973	7.6	7.2	7.2	8.2*	-*	-*	-*	-*	-*	13.9*	12.1	7.9
1974	6.8	6.8	7.8	8.5	8.6*	-*	-*	-*	-*	12.8*	11.2	9.5
1975	7.9	7.6	7.0	6.9*	-	-	-	-	-	-	-	-
MEAN	6.6	5.4	6.0	8.5	12.6	16.4	18.1	18.7	18.1	15.7	12.6	9.1
ST. DEV.	1.2	1.4	1.5	1.1	1.0	1.1	1.0	1.0	1.0	1.0	0.9	1.5