ROCKALL STUDIES GROUP / PORCUPINE STUDIES GROUP
(PETROLEUM INFRASTRUCTURE PROGRAMME)

WEST OF IRELAND DESCRIPTIVE REGIONAL CLIMATOLOGY

Marine Environment Desktop Study
Final
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Fugro Global Environmental & Ocean Sciences Ltd
Southampton Oceanography Centre, Empress Dock, Southampton, SO14 3ZH, UK
Tel: ++ (44) 023 8059 6009 , Fax: ++ (44) 023 8059 6509, e-mail: seadata@seadata.com

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			Signed:	*Ian P. Wade*	*Mark Calverley*

This report is not to be used for contractual or engineering purposes unless the above is signed where indicated by both the originator of the report and the checker / approver and the report is designated 'FINAL'.

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Acknowledgements

This work is an extension of, and makes use of, the Petroleum Infrastructure Programme summary report (Project 97/29) “Metocean Strategy for the Rockall Area” by Ian Leggett (Shell U.K. Exploration and Production) and Bronwyn Cahill (Irish Marine Data Centre) during 1999.

The literature review of the currents section of this report was compiled by Dr. Martin White (Amergen International Oceanographic Services Ltd.).

This publication uses data acquired on behalf of the Rockall Studies Group (RSG) and the Porcupine Studies Group of the Irish Petroleum Infrastructure Programme Group 2.

The RSG comprises: Agip (UK) Ltd, Anadarko Ireland Company, ARCO Ireland Offshore Inc, BG Exploration & Production Ltd, BP Exploration Operating Company Ltd, British-Borneo International Ltd, Elf Petroleum Ireland BV, Enterprise Energy Ireland Ltd, Mobil Oil North Sea Ltd, Murphy Ireland Offshore Ltd, Phillips Petroleum Exploration Ireland, Saga Petroleum Ireland Ltd, Shell EP Ireland B.V., Statoil Exploration (Ireland) Ltd, Total Oil Marine plc, Union Texas Petroleum Ltd and the Petroleum Affairs Division of the Department of the Marine and Natural Resources.

The PSG comprises: Agip (UK) Ltd, Elf Petroleum Ireland BV, Petroleum Affairs Division, Chevron, Enterprise Oil, Marathon, Phillips and Statoil Exploration (Ireland) Ltd.

1. EXECUTIVE SUMMARY

1.1 West of Ireland Descriptive Regional Climatology

These bullet point executive summaries are based on the two overlapping regions representing the areas of interest for the Rockall Studies Group (RSG) and the Porcupine Studies Group (PSG). The RSG summary covers the region 51°N to 57°N, 18°W to 8°W. The PSG summary extends further southward and covers the region 48°N to 54°N, 16°W to 9°W (see Figure 1-1). Some degree of repetition is present as the summaries are designed to be read independently of one another if required.

Although no measured current meter analyses were performed as part of the RSG work, we have included relevant results from the PSG work in this summary section where the two regions overlap and where measured results differ from those extracted from the literature alone. This includes current speed results from the Porcupine Bank and Porcupine Sea Bight Regions. At Porcupine Bank the measured data has validated the literature values. At the Porcupine Sea Bight the measured evidence has resulted in increasing the maximum values taken from the literature review. This has been done to ensure a consistency between RSG and PSG results.

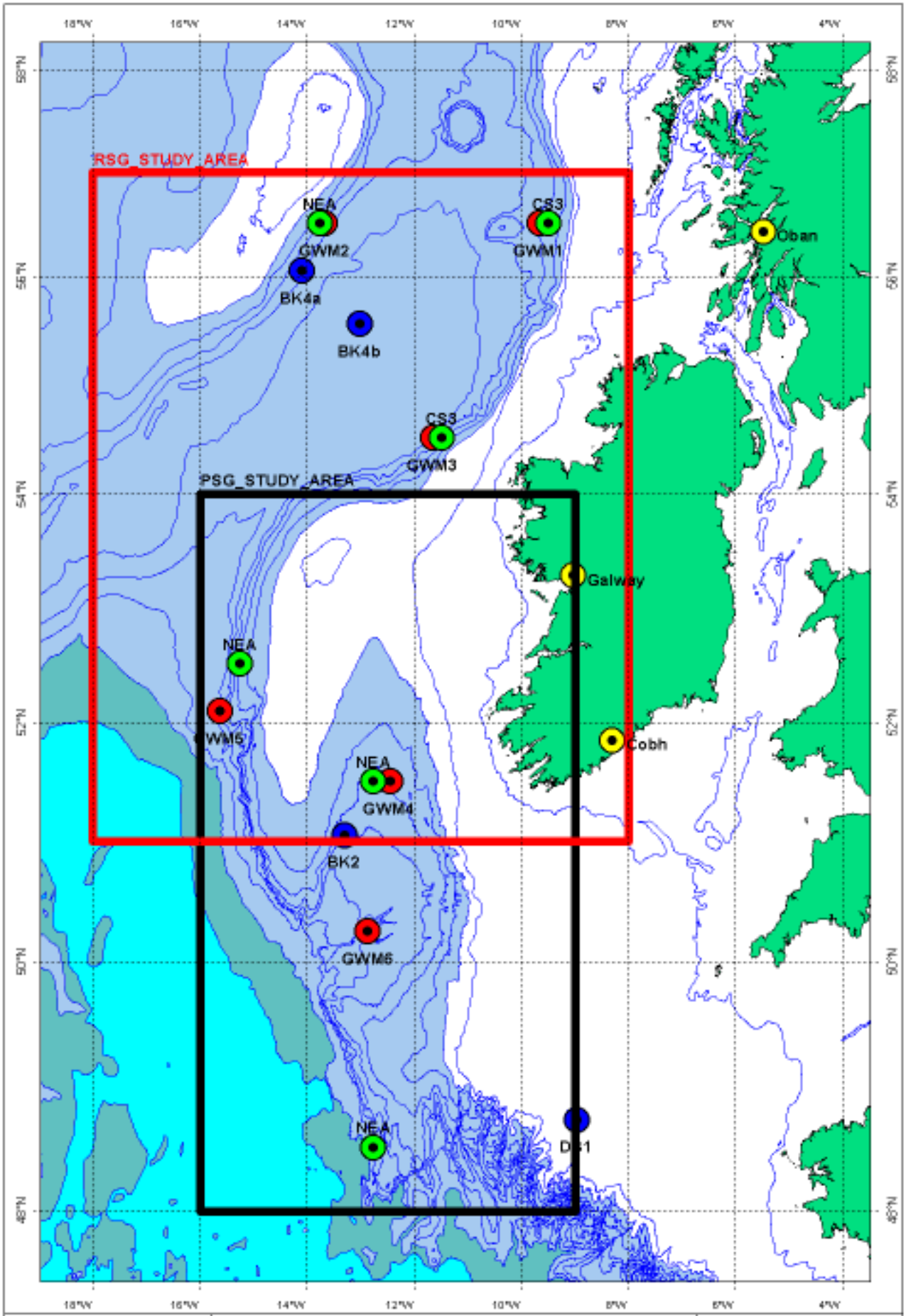
THIS REPORT CONTAINS NO EXTREME DESIGN CRITERIA.
REFERENCES TO MAXIMA REFER TO MAXIMUM OBSERVED AND/OR MODELLED VALUES.

1.2 Future and Related Work

The Atlantic Margin Metocean Project offers high quality design criteria based on the latest hindcast of wind and waves from Oceanweather Inc. (AES40) and a hindcast of currents from the Nansen Environmental and Remote Sensing Centre. The former has been validated against the ODAS buoy network and satellite data. The latter has been validated against concurrent year long measurements undertaken at six locations throughout the Rockall Trough. The locations of the mooring were designed to ensure the model is well tested in areas of interest to the offshore industry. Design criteria based on the actual measurements will also be presented to ensure confidence in the model criteria. Time series data from AMMP are presently available to participants of the project.

Fugro GEOS are actively involved in remote sensing to investigate mesoscale eddy activity. This is an ongoing area of work involving temporally corrected satellite altimetry data and, were available, concurrent buoy data. The eddy tracking methods derived at Fugro GEOS have been highly successfully utilised in the North Brazil / Trinidad region. Extensions of these and similar methods are being developed for use in the regions west of Ireland.

Running jointly between ACES (Atlantic Coral Ecosystem Study) and ECOMOUND (ECOlogy of carbonate MOUNDs) NUI, Galway have had moorings near 55°40'N, 15°28'W (Rockall Bank, 820 m water depth) and 53°45'N, 14°00'W (North Porcupine Bank, 930 m water depth) and ongoing moorings in the northern Porcupine Sea Bight at 51°45'N 12°55'W (~1220 m water depth) and 52°15'N, 12°30'W (~700 m water depth).



CS3 / NEA Tidal

GWM / EWWM

Buoys

Standard Ports

WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

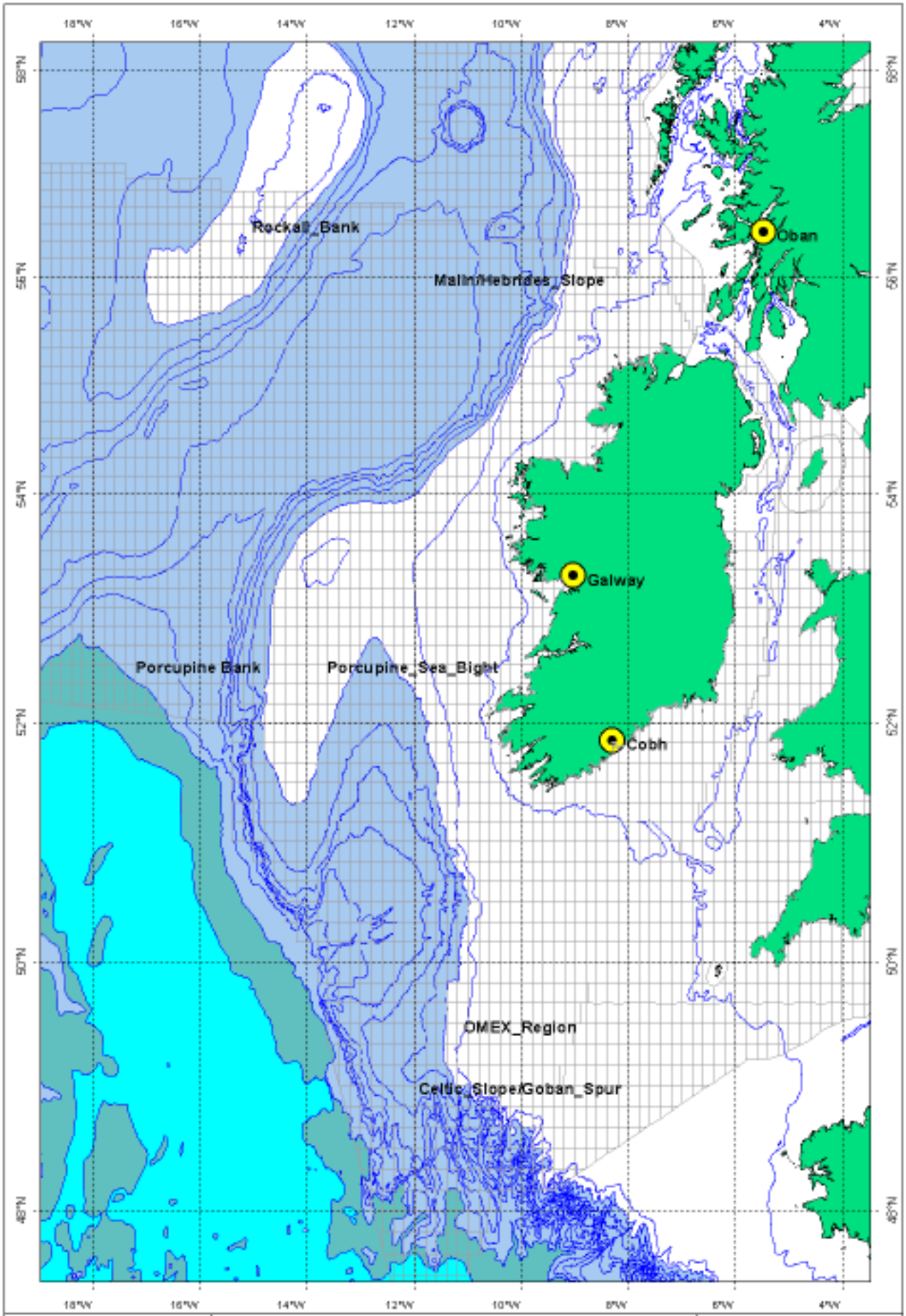
Data Sources and Standard Ports

Geos Ref : C50090/2054

Figure No : 1.1

Plot Date : 05-DEC-00

FUGRO



WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Licence Blocks

Geos Ref : C50090/2054

Figure No : 1.2

Plot Date : 29-MAY-01

1.3 Rockall Studies Group Summary (51°N - 57°N, 18°W - 8°W)

Hourly Mean Winds at 10 m asl	Observations	Notes
Periods of record	01/05/94 to 30/04/99 01/01/94 to 11/11/99 01/01/94 to 30/11/99 08/06/78 to 13/03/82	UKMO Global Wave Model. K2 Buoy. K4 Buoy. DB1 Buoy.
Dominant wind directions	From SW and W	Strong reversal of wind direction observed during May when dominant direction is from N or NE. Effect observed over entire study area.
Maximum observed wind speeds	Up to 32.9 m/s in north Up to 27.2 m/s in south	North of RSG study region at 57°N. South of RSG study region at 51°N.
Direction associated with maximum observed wind speeds	Mostly from W	Generally more variable than dominant wind directions.
Month of severest winds	February	On average, almost 5 days experiencing wind speeds in excess of 20 m/s.
Month of calmest winds	July	On average, no days per month experience wind speeds in excess of 20 m/s. Only 1 day per month experiencing wind speeds in excess of 15 m/s.

3 Hourly Waves	Observations	Notes
Periods of record	01/05/94 to 30/04/99 01/01/94 to 11/11/99 01/01/94 to 30/11/99	UKMO Global Wave Model. K2 Buoy. K4 Buoy.
Dominant wave directions	From SW and W	May reversal seen in wind data not evident in dominant wave direction (but often seen in second dominant direction).
Maximum observed significant wave heights	Up to 12.0 m in north Up to 14.6 m in south	North of RSG study region at 57°N. South of RSG study region at 51°N.
Direction associated with maximum observed significant wave heights	Mostly from W	Generally more variable than dominant wave directions.
Months of severest waves	December to February	On average, 10 days per month experience significant wave heights in excess of 6 m.
Months of calmest waves	July and August	On average, less than 1 day per month experiencing significant wave heights in excess of 6 m.

Currents	Observations	Notes
NO MEASURED CURRENT ANALYSES PERFORMED FOR THE ROCKALL STUDIES GROUP (Based on scientific literature although measured current data from the PSG data has been included where relevant)		
Porcupine Sea Bight	Maximum observed in upper 100 m (0.65 m/s) but typically ~0.40 m/s. No evidence of any intermediate maximum.	General Information for All Areas Flows strongly influenced by poleward flowing slope current that extends to all depths in the vicinity of the continental shelf break. The strongest component of the slope current is associated with the steepest part of the shelf break. The slope current flow is generally found to increase further north. **Flow is complicated by many other processes (mesoscale variability, internal waves, cascading etc. ; see Section 7 for more details)**
Porcupine Bank	Maximum of ~0.40 m/s at ~800 m. No measured data in upper 200 m.	
Rockall Bank	Highly variable means. Maximum up to 0.50 m/s	
Hebrides and Malin	Highest currents in region. Maximum up to 0.60 m/s	

Tidal Levels	Observations	Notes
Periods of record	01/01/99 to 31/12/99 01/01/99 to 31/12/99	Proudman Oceanographic Laboratory NEA Model. Proudman Oceanographic Laboratory CS3 Model.
Tidal range (HAT-LAT)	4.21 m in northeast 3.12 m in southwest	Tidal ranges generally decrease as one moves westward off the continental shelf and from north to south.
Tidal curves		No significant differences were detected in the tidal curves across the RSG study area. The tidal cycle consists of an approximately equal semi-diurnal tide with two high and two low waters each lunar day. This is typical of the Atlantic Ocean.

Sea Surface Temperature	Observations	Notes
Period of record	1900 to 1990	Full Available NODC Range.
Minimum observed SST	6.7°C	Block 4 (Malin Shelf) during December. Note this may be affected by the shallow water regions of that block. The minimum observed offshore SST was 7.4°C in Block 7 (Northern Rockall Trough) during February.
Maximum observed SST	18.3°C	Block 10 during July. Note this may be affected by the shallow water regions of that block. The maximum observed offshore SST was 18.0°C in Block 8 (Porcupine Bank) during August.

Sea Surface Salinity	Observations	Notes
Data generally more sparse than temperature and several blocks have no data at all for certain months. This has the effect of biasing the data towards summer months when more data are available.		
Period of record	1900 to 1990	Full Available NODC Range.
Minimum observed SSS	34.09	Block 4 (Malin Shelf) during August. Minima range from 34.09 in east to 35.32 in west of RSG study area.
Maximum observed SSS	35.84	Block 13 during May. Maxima have less than 0.24 variation over entire RSG study area.

1.4 Porcupine Studies Group Summary (48°N - 54°N, 16°W - 9°W)

Hourly Mean Winds at 10 m asl	Observations	Notes
Periods of record	01/05/94 to 30/04/99 01/01/94 to 11/11/99 01/01/94 to 30/11/99 08/06/78 to 13/03/82	UKMO Global Wave Model. K2 Buoy. K4 Buoy. DB1 Buoy.
Dominant wind directions	From SW and W	Strong reversal of wind direction observed during May when dominant direction is from N or NE. Effect observed over entire study area.
Maximum observed wind speeds	Up to 30.0 m/s in north Up to 32.0 m/s in south	North of PSG study region at 54°N. South of PSG study region at 48°N.
Direction associated with maximum observed wind speeds	Mostly from W	Generally more variable than dominant wind directions.
Month of severest winds	February	On average, almost 3 days experiencing wind speeds in excess of 20 m/s.
Month of calmest winds	July	On average, no days per month experience wind speeds in excess of 20 m/s. Only 1 day per month experiencing wind speeds in excess of 15 m/s.

3 Hourly Waves	Observations	Notes
Periods of record	01/05/94 to 30/04/99 01/01/94 to 11/11/99 01/01/94 to 30/11/99	UKMO Global Wave Model. K2 Buoy. K4 Buoy.
Dominant wave directions	From SW and W	May reversal seen in wind data not evident in dominant wave direction (but often seen in second dominant direction).
Maximum observed significant wave heights	Up to 12.5 m in north Up to 14.6 m in south	North of PSG study region at 54°N. South of PSG study region at 48°N.
Direction associated with maximum observed significant wave heights	Mostly from W	Generally more variable than dominant wave directions.
Months of severest waves	December to February	On average, 9 days per month experience significant wave heights in excess of 6 m.
Months of calmest waves	July and August	On average, no days day per month experience significant wave heights in excess of 6 m. Less than 2 days per month experience significant wave heights in excess 4 m.

Currents	Observations	Notes
OMEX (Celtic Slope and Goban Spur)	Maximum observed in Upper 100 m (0.60 m/s).	<u>General Information for All Areas</u> Flows strongly influenced by poleward flowing slope current that extends to all depths in the vicinity of the continental shelf break. The strongest component of the slope current is associated with the steepest part of the shelf break. The slope current flow is Generally found to increase further north. **Flow is complicated by many other processes (mesoscale variability, internal waves, cascading etc. ; see Section 7 for more details)**
Porcupine Sea Bight	Maximum observed in upper 100 m (0.65 m/s) but typically ~0.40 m/s. No evidence of any intermediate maximum.	
Porcupine Bank	Maximum of ~0.40 m/s at ~800 m. No measured data in upper 200 m.	

Tidal Levels	Observations	Notes
Periods of record	01/01/99 to 31/12/99 01/01/99 to 31/12/99	Proudman Oceanographic Laboratory NEA Model. Proudman Oceanographic Laboratory CS3 Model.
Tidal range (HAT-LAT)	4.00 m in northeast 3.21 m in southwest	Tidal ranges generally decrease as one moves westward off the continental shelf and from north to south. Minimum tidal range of 3.12 m observed on the western flank of the Porcupine Bank.
Tidal curves		No significant differences were detected in the tidal curves across the PSG study area. The tidal cycle consists of an approximately equal semi-diurnal tide with two high and two low waters each lunar day. This is typical of the Atlantic Ocean.

Sea Surface Temperature	Observations	Notes
Period of record	1900 to 1990	Full Available NODC Range.
Minimum observed SST	7.9°C	Block 12 (Porcupine Sea Bight) during January.
Maximum observed SST	19.0°C	Block 12 (Porcupine Sea Bight) during September.

Sea Surface Salinity	Observations	Notes
Data generally more sparse than temperature and several blocks have no data at all for certain months. This has the effect of biasing the data towards summer months when more data are available.		
Period of record	1900 to 1990	Full Available NODC Range.
Minimum observed SSS	34.06	Block 7 during April. Minima range from 34.09 in east to 35.42 in west of PSG study area.
Maximum observed SSS	35.84	Block 13 during May. Maxima have less than 0.29 variation over entire PSG study area.

2. INTRODUCTION

2.1 Background

The Petroleum Infrastructure Programme (PIP) was established by the Petroleum Affairs Division (PAD) of the Department of the Marine and Natural Resources (DoMNR) on 4th June, 1997 in conjunction with the award of exploration licences under the Rockall Trough Frontier Licensing Round. The group identified the need for a metocean strategy for the Rockall and Porcupine regions as a priority in November 1997.

The Programme currently comprises three groups funded by all oil companies active in the Rockall Trough and South Porcupine basins. The overall aim is to promote hydrocarbon exploration activities in Ireland by strengthening local support structures, funding data gathering and research and by providing a forum for co-operation.

The Rockall Studies Group (RSG) and the Porcupine Studies Group (PSG) have been created under the umbrella of PIP, whose overall aim is to promote hydrocarbon exploration activities in Ireland. Their main objectives are to direct future metocean activities in the region by :

- Assessing the requirements of the hydrocarbon industry
- Reviewing the extent and availability of existing metocean data and information
- Identify gaps in the requirements for future activities

The hydrocarbon industry has a wide range of requirements for metocean data covering all phases of exploration and production activities. These requirements have expanded considerably in recent years with the industry moving into deeper oceanic waters where metocean processes are more complicated and conditions more onerous than in shallow seas.

2.2 Report Structure

This document provides a summary of the regional climatology of the Rockall Channel and Porcupine Bank / Sea Bight regions, west of Ireland. The approximate area of coverage is 48°N to 57°N, 18°W to 8°W (Figure 1.1).

Data has been obtained from the United Kingdom Meteorological Office (UKMO) European / Global Wave Model, UKMO Measured buoy data (K2 and K4), National Data Buoy DB-1, the Proudman Oceanographic Laboratory's North East Atlantic and Fine Resolution Continental Shelf Tidal Models and the National Oceanographic Data Centre (NODC) CDROM. Current information has been extracted and summarised from the available scientific literature and measured data from a number of sources. A full description of the data sources is given in Section 3.

Section 4 includes an overview of the main results of the wind, wave, currents, tidal levels and temperature / salinity analyses. This section is designed to give concise details of the principal processes of engineering significance.

Sections 5 to 9 contain details of the wind, wave, currents, tidal levels, and temperature / salinity analyses respectively.

The wind and wave analyses (Sections 5 and 6) contain details on wind / wave roses and frequency distributions, and exceedences. In these sections measured buoy data (K2, K4 and DB-1) are compared to the modelled (UKMO GWM) and recommendations made. The number of days that set wind and wave thresholds are exceeded in any given month are supplied for various locations across the study region. This monthly information is supplied in tabular and spatially mapped formats. Wind roses, frequency tables and percentage exceedence tables for the all year and monthly conditions are given in Appendix A at the end of this report. Comparable wave roses, frequency tables, percentage exceedences tables and wave height / period scatter plots are given in Appendix B.

Section 7 contains a general account of the principal flow regimes of the study area derived from available scientific literature. These results are compared to frequency distributions of total current speeds and direction (Appendix C) from the available measured data.

Section 8 includes details of tidal analyses. Tidal ranges for various locations have been determined using harmonically derived methods and by scaling M2 + S2 tidal constituents to those at standard ports (see Figure 1.1). Comparisons between the methods are discussed and recommendations made. A brief description of the tidal regime is given.

Temperature and salinity analyses (Section 9) have been based on data extracted from the National Oceanographic Data Centre (NODC) database. Sea Surface Temperature (SST) and Sea Surface Salinity (SSS) were extracted for 13 2° longitude × 2° latitude blocks across the study region (Figure 9.1). Monthly SSTs for the 13 blocks are supplied in tabular and spatially mapped formats. Comparable surface salinity information is tabulated where available.

Monthly temperature profiles between the surface and approximately 1500 metres have been extracted for 5 representative areas (Figure 9.27), including the Malin Shelf, Rockall Bank, Irish Shelf, Porcupine Bank and Sea Bight.

Where including large numbers of plots would adversely affect the continuity of the report these plots have been removed to the appendices section at the end of the report. This report contains 3 sets of appendices (A - Winds ; B - Waves ; C - Currents). Wherever practical, information has been kept in the main body of the report.

3. DATA SOURCES

3.1 United Kingdom Meteorological Office European / Global Wave Model

The U.K. Met. Office wave model archive consists of hindcast fields of winds and waves produced during the operation of the atmospheric and wave model forecast suite. It is based on the wave model first developed and described by Golding (1983). To produce the best possible analysis of surface wind, all available reports of surface pressure, wind speed and direction are checked and assimilated into the model. The resulting wind field is then used to modify the wave field. All numerical wave models depend crucially on the quality of the surface wind data used to generate the wave energy. Transfer of energy into the wave field is achieved through the surface stress applied by the wind. Winds are provided from a Numerical Weather Prediction (NWP) model.

Changes in wave energy are computed at each grid point for each of 16 directional and 13 frequency bands, using the local wind as energy input, and allowing for propagation, dissipation and transfer between spectral bands. The model is a 'second generation' model, where spectral shape is defined empirically. There are two versions of the wave model - one covers the Global oceans and the other European waters.

The Global Wave Model operates with an assumed fixed depth (200 m) on a lat / long grid. The spatial resolution was initially 150 km but this was improved to 85 km in June 1991. Nested within the Global Wave Model, and taking boundary conditions from it, is a European Waters Wave Model. This is a depth dependent second generation model operating on a lat / long grid with a spacing of approximately 25 km. The model covers West European waters to 14.0°W between 30.5°N and 66.70°N and the Mediterranean and Baltic Seas; the Black Sea was added in March 1993. Wind and wave hindcast data were archived initially at 6-hour intervals and since June 1988 at 3-hour intervals. As the wind values are taken from the lowest level of the atmospheric model, they arbitrarily represent conditions at 20 m above mean sea level, the mid height of the lowest bin of the model (see comments in Section 5.1).

The UKMO wave data assimilation scheme takes observations of wave height and surface wind speed and calculates the necessary changes to the model wave spectrum so that the model wave height is 'nudged' closer to the observed value. The observed wind speed value is used to decide whether to increment the model wind-sea energy or swell energy.

Observations of wave height and surface wind speed from the radar altimeter carried on the ERS-1 satellite are also assimilated into the global wave model. Before use the observations are grouped into a 20 second average, giving a value every 140 km (approximate to the model spacing). Each observation influences a region of radius 250 km. A strict quality control is carried out, both against climatological values and a 'buddy check' against neighbouring observations. This is necessary because unrealistic wave height values are measured as the satellite crosses the coasts or over islands. Wave model predictions of wave height and period are verified against observations from moored buoys, weather ships and the ERS-1 satellite on a monthly basis.

The UKMO produces verification statistics for significant wave height, wave period and wind speed (available from the UKMO Commercial Division[1]). Results include the magnitude of any bias (modelled minus observed) and RMS errors. Examples of significant wave height verifications are given below for July 2000 and January 2001:

July 2000					
STATION		Lat	Long	Bias (m)	RMS (m)
	62108	53.2°N	15.0°W	0.1	0.4
K1	62029	48.7°N	12.4°W	0.0	0.3
K2	62081	51.0°N	13.3°W	0.0	0.3
K4	62105	56.9°N	13.0°W	-0.1	0.4
		61.1°N	1.1°E	-0.1	0.3
		60.8°N	1.7°E	0.1	0.4
		58.7°N	1.3°E	0.2	0.4
		58.3°N	0.1°E	-0.4	0.6
January 2001					
STATION		Lat	Long	Bias (m)	RMS (m)
	62108	53.2°N	15.0°W	-0.5	0.9
K1	62029	48.7°N	12.4°W	-0.3	0.8
K2	62081	51.0°N	13.3°W	-0.3	0.7
K4	62105	56.9°N	13.0°W	-0.3	0.8
		61.1°N	1.1°E	-0.2	0.7
		60.8°N	1.7°E	0.2	0.6
		58.7°N	1.3°E	0.3	0.5
		58.3°N	0.1°E	-0.3	0.8

Data Supplied by UKMO Commercial Division

[1] Marine and Legal Consultancy
J14 Johnson House
London Road
Bracknell, Berkshire, UK.

For the purposes of this study, the U.K. Met. Office supplied wind and wave time series for the most recent 5 years available (1st May 1994 to 30th April 1999) for 6 locations in the study area. The 6 locations are summarised below along with their, arbitrarily chosen, reference codes for this study.

Latitude (°N)	Longitude (°W)	Model	Observations/Day	Reference Code
56.50	9.66	EWWM	8	GWM-1
56.50	13.66	EWWM	8	GWM-2
54.50	11.66	EWWM	8	GWM-3
51.50	12.46	EWWM	8	GWM-4
52.10	15.63	GWM	4	GWM-5
50.25	12.86	EWWM	8	GWM-6

Table 3-1 - Wind and Wave Data Sources

Note : As the European Waters Wave Model only extends to 14°W grid point GWM-5 has been taken from the Global Wave Model. The Global Wave Model data is only available at a 6-hourly sampling interval.

3.2 Measured Buoy Data (K2, K4 and DB1)

3.2.1 K-Buoys

The K2 and K4 buoys are ODAS buoys (see picture) and are part of the Marine Automatic Weather Station (MAWS) network deployed around the continental shelf to the west of Britain. Meteorological and oceanographic parameters are collected at regular intervals (usually hourly) and the data transmitted to the UKMO meteorological database. The meteorological instruments are situated at approximately 4 m above sea level.

Photo Meteo - France

Buoy K2 was deployed at 51.0°N, 13.3°W and has been operational since 00 UTC 9th September 1991. The data were recorded at three hourly intervals until 12 UTC 7th August 1994 and then became hourly.

Buoy K4 has moved location several times since 1st January 1992. From 1st January 1992 to 30th September 1993, K4 was located at 56.9°N, 13.0°W and recorded at three hourly intervals. From 1st October 1993 to 06 UTC 19th May 1994 its position was 56.0°N, 14.1°W (three hourly sampling). From 09 UTC 19th May 19 to 09 UTC 18th March 1995 its position was 55.9°N, 14.2°W (hourly sampling). There was then a period of missing data. From 08 UTC 7th August 1995 to 07 UTC 1st August 1996 its position was 55.5°N, 13.0°W. (hourly sampling). From 08 UTC 1st August 1996 to present its position is 55.6°N, 12.7°W (hourly sampling).

K-Buoy data used in this study is summarised in Table 3-2.

Buoy K2				
Latitude	**Longitude**	**Start Time**	**End Time**	**Sampling Interval**
51.0°N	13.3°W	1st January 1994	7th August 1994	3 hours
51.0°N	13.3°W	7th August 1994	11th November 1999	1 Hour
Buoy K4				
Latitude	**Longitude**	**Start Time**	**End Time**	**Sampling Interval**
56.0°N	14.1°W	1st January 1994	19th May 1994	3 Hours
55.9°N	14.2°W	19th May 1994	18th March 1995	1 Hour
55.5°N	13.0°W	7th August 1995	1st August 1996	1 Hour
55.6°N	12.7°W	8th August 1996	30th November 1999	1 Hour

Table 3-2 - K-Buoy Data Used in this Study

Files in various formats were appended to construct time series for K2 and K4 from January 1994 to November 1999. The following parameters were used in this study:

- Wind Speed
- Wind Direction (from)
- Significant Wave Height
- Mean Zero Crossing Wave Period
- Sea Surface Temperature

No wave direction data is available for K2 and K4 buoys.

3.2.2 DB-1 Buoy

The National Data Buoy DB-1 was deployed at position 48°72'N, 8°97'W, close to the continental shelf, and 170 miles southwest of Lands End in a water depth of 170 m. This report uses data gathered by Buoy DB-1 from 8th June 1978 to 13th March 1982.

DB-1 was operated for the sole purpose of collecting data on behalf of the United Kingdom Operators Association (UKOOA) Oceanographic Committee. The buoy was equipped with sensors to measure meteorological and oceanographic variables. The following are used in this report:

- Wind Speed (2)
- Wind Direction (2)
- Heave (for Wave Amplitude)
- Pitch, Roll and Compass (for Wave Direction)

The 2 meteorological sensors were mounted as high as possible on the buoy at an average height of approximately 7 m above sea level. The heave sensor was mounted in the middle of the buoy, close to the centre of gravity.

Important Note : Wave direction data from Buoy DB-1 has been found to be highly variable and largely inconsistent with all other data sources. Concerns over the quality of DB-1 wave directionality have been noted in previous studies and therefore references to DB-1 wave directionality have been omitted from this study. No adverse effects concerning other DB-1 data used in this report have been noted.

3.3 Representativeness of Wind Data (NAO Index)

The North Atlantic Oscillation (NAO) is a major disturbance of the atmospheric circulation and climate of the North Atlantic-European region, linked to a waxing and waning of the dominant middle latitude westerly wind flow during winter.

The NAO Index is based on the pressure difference between various stations to the north (Iceland) and south (Azores) of the middle latitude westerly flow. It is, therefore, a measure of the strength of these winds. When the NAO is positive, the westerly flows across the North Atlantic are enhanced. When the index is low the opposite occurs.

Table 3-3 shows the monthly NAO index from 1975 to 2000. The highlighted months are where wind data has been used in this study. NAO index data used here has been supplied by the Climatic Research Unit (CRU) at the University of East Anglia.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1975	2.43	0.40	-1.26	-0.84	-2.42	0.18	0.63	0.08	1.75	0.39	0.86	-1.57
1976	0.75	1.29	1.87	-1.53	1.20	1.76	-0.57	0.62	-3.46	-0.64	1.50	-3.63
1977	-2.36	0.28	1.33	1.07	-1.62	-0.89	-1.14	-1.42	1.64	0.45	0.37	-0.25
1978	0.46	-1.99	3.10	-3.12	0.37	**0.14**	**-0.33**	**0.05**	**1.96**	**0.02**	**3.91**	**-2.08**
1979	**-3.22**	**-0.62**	**0.54**	**-0.79**	**1.00**	**0.45**	**2.53**	**-0.85**	**1.12**	**-1.95**	**1.95**	**2.07**
1980	**-1.80**	**0.70**	**-0.68**	**0.03**	**-2.26**	**-0.20**	**-0.91**	**0.30**	**1.72**	**-0.87**	**-2.06**	**1.55**
1981	**1.00**	**1.04**	**0.01**	**-3.04**	**0.05**	**-1.57**	**1.74**	**1.01**	**0.27**	**-1.06**	**1.66**	**-2.20**
1982	**-0.72**	**2.25**	**1.66**	-0.99	1.10	-1.86	-0.65	1.45	1.08	0.32	1.71	2.64
1983	4.82	-1.25	1.79	-1.01	-0.57	0.54	-0.75	0.56	-0.65	2.06	-2.28	0.83
1984	2.53	1.73	-2.12	0.33	-2.34	0.33	0.93	1.00	-1.31	1.66	-1.16	1.52
1985	-2.87	-0.24	0.07	0.34	-2.13	-1.08	1.09	2.33	0.00	0.14	-2.85	-0.43
1986	1.46	-4.02	2.86	-0.93	2.16	-1.29	0.88	-2.21	-1.34	2.27	3.41	3.42
1987	-2.12	-0.24	0.29	2.59	-0.81	-0.58	-1.24	-2.99	1.27	-0.80	-0.67	-0.81
1988	0.53	-0.11	0.78	-2.39	-1.24	-2.75	1.46	0.73	0.80	-2.02	-1.47	1.85
1989	3.53	3.61	2.45	-0.48	1.16	-0.53	0.58	1.76	-0.96	0.88	-2.97	-2.23
1990	3.50	5.11	3.11	1.77	-1.19	0.42	1.43	3.31	-0.99	-0.59	-1.48	0.34
1991	1.87	-0.02	-1.37	1.48	-0.04	-0.31	-0.28	2.71	-1.12	-1.77	1.68	1.24
1992	0.64	3.18	1.66	1.32	0.80	-1.74	1.04	3.97	0.99	-3.33	4.52	0.21
1993	3.91	0.11	1.47	0.83	-2.59	0.16	0.64	0.75	-2.60	-4.13	0.77	2.17
1994	**1.28**	**0.07**	**3.68**	**1.38**	**-1.43**	**2.99**	**-0.09**	**-1.59**	**-2.85**	**-1.88**	**1.68**	**2.86**
1995	**2.70**	**3.13**	**1.06**	**-1.81**	**-0.36**	**-3.36**	**-0.96**	**-1.33**	**-1.55**	**1.22**	**-2.73**	**-3.33**
1996	**-3.27**	**-0.12**	**-2.57**	**-0.31**	**-1.50**	**1.43**	**1.47**	**-0.19**	**-2.23**	**-0.07**	**-0.05**	**-4.70**
1997	**-1.95**	**5.26**	**2.09**	**-0.97**	**-1.35**	**-4.05**	**1.18**	**1.78**	**-0.67**	**-2.26**	**-0.99**	**-0.20**
1998	**-0.28**	**2.44**	**1.24**	**-0.39**	**-1.26**	**-0.85**	**-0.57**	**1.80**	**-3.48**	**1.34**	**1.13**	**1.95**
1999	**0.90**	**1.80**	**-0.72**	**0.43**	**1.03**	**1.39**	**-1.85**	**-3.67**	**-0.51**	**-0.69**	**0.30**	2.13
2000	0.35	4.37	0.54	-3.34	0.31	0.89	-2.99	0.78	-1.10	2.26	-	-

Table 3-3 - Monthly NAO Index from 1975 to 2000 : (Data Supplied by Climatic Research Unit at UEA)

The NAO is a major indicator of interannual variability in wind speeds. During high NAO events the mean westerly wind speeds over Europe can be enhanced by up to 8 m/s relative to low NAO years (Hurrell 1995). The mean NAO of the months that we have used wind data for is -0.09. This suggests that our sampling is representative of the long term mean for the area. The variance of the NAO subset (highlighted) is also insignificantly different from the entire 26 years of NAO index at 5% significance (i.e. 95% chance that there is no significant difference in the variances). The variance of the NAO indices are

also insignificantly different from the variance of the contemporaneous measured and modelled wind speed fields (at 5% significance). Key results are given in Table 3-4. Measured and modelled wind speeds have been normalised by subtracting the means.

	NAO (26 Years)	NAO (Subset)
Mean	0.11	-0.09
Variance	3.442	3.430
Observations	310	117
Degrees of Freedom	309	116
F	1.004	-
Critical $F_{(0.025,v1,v2)}$	1.368	-
	K2 Buoy WS	**NAO Index**
Mean	0.00	0.00
Variance	4.246	2.898
Observations	67	67
Degrees of Freedom	66	66
F	1.465	-
Critical $F_{(0.025,v1,v2)}$	1.627	-
	K4 Buoy WS	**NAO Index**
Mean	0.00	0.00
Variance	4.169	4.082
Observations	66	66
Degrees of Freedom	65	65
F	1.021	-
Critical $F_{(0.025,v1,v2)}$	1.633	-
	GWM-5 WS	**NAO Index**
Mean	0.00	0.00
Variance	4.139	3.680
Observations	60	60
Degrees of Freedom	59	59
F	1.125	-
Critical $F_{(0.025,v1,v2)}$	1.674	-
	DB-1 WS	**NAO Index**
Mean	0.00	0.00
Variance	3.421	2.583
Observations	44	44
Degrees of Freedom	43	43
F	1.324	-
Critical $F_{(0.025,v1,v2)}$	1.833	-

Table 3-4 - F-Test Comparison of Variances Between NAO Index and Measured/Modelled Wind Speeds (5% Level)

3.4 Tidal Model Data

Tidal parameters have been taken from one of two Proudman Oceanographic Laboratory models, the North East Atlantic (NEA) Model and the Continental Shelf Model (Fine Grid CS3). In this study data has been analysed from one year of data (1st January 1999 to 1st December 1999). Data was supplied at hourly intervals.

3.4.1 North East Atlantic (NEA) Model

The NEA model has a spatial resolution of 1/3° latitude by 1/2° longitude (approx. 35 km) and covers the area approximately 37.0°N-71.5°N, 30.0°W-25.5°E. Tidal level and depth mean current predictions are based on 9 tidal harmonic constituents.

3.4.2 Fine Grid Continental Shelf (CS3) Model

The CS3 model has a spatial resolution of 1/9° latitude by 1/6° longitude (approx. 12 km) and covers the area approximately 48.0°N-63.0°N, 11.5°W-13.0°E. Tidal level and depth mean current predictions are based on 50 tidal constituents.

For the purposes of this study, the Proudman Oceanographic Laboratory supplied tidal time series for one year (1999) for 6 locations in the study area (4 NEA and 2 CS3). The 6 locations, 5 of which were selected to be adjacent to UKMO GWM grid points, are summarised below along with, where applicable, their GWM counterpart.

Latitude (°N)	Longitude (°W)	Model	Water Depth (m)	File Name	Adjacent GWM grid point
56.50	9.50	CS3	1469	CSLOC1	GWM-1
56.50	13.75	NEA	1590	NE034047	GWM-2
54.50	11.50	CS3	2213	CSLOC2	GWM-3
51.50	12.75	NEA	1024	NE036062	GWM-4
52.50	15.25	NEA	1865	NE031059	GWM-5
48.50	12.75	NEA	3072	NE036071	-

Table 3-5 - Tidal Elevation Data sources

3.5 Measured Current Meter Data

Measured current meter data has been collated from a number of sources (Table 3-6 and Table 3-7).

Lat. (°N)	Long. (°W)	Water Depth (m)	Instrument Depth (m)	Instrument HASB (m)	Duration (days)	BODC Ref.	Dates	Comments
48.085	-9.835	2030	980	1050	346	5868	25/06/80-06/06/81	Held BODC
48.123	-9.283	1465	715	750	346	5873	25/06/80-07/06/81	Held BODC
48.123	-9.283	1465	1415	50	346	5874	25/06/80-07/06/81	Held BODC
48.138	-9.752	1640	790	850	345	5869	25/06/80-06/06/81	Held BODC
48.138	-9.752	1640	1590	50	345	5870	25/06/80-06/06/81	Held BODC
48.192	-9.663	640	330	310	288	5871	25/06/80-10/04/81	Held BODC
48.192	-9.663	640	590	50	288	5872	25/06/80-10/04/81	Held BODC
48.683	-9.607	208	23	185	75	3664	04/06/79-30/08/79	Held BODC
48.683	-9.607	208	74	134	60	3665	04/06/79-30/08/79	Held BODC
48.710	-8.962	165	50	115	46	3157	08/12/79-27/01/80	Held BODC
48.987	-12.875	2099	2049	50	365	4825	08/06/79-30/05/80	Held BODC
49.088	-13.390	3670	600	3070	380	9417	15/09/94-30/09/95	OMEX, Held BODC
49.088	-13.390	3670	1509	2161	380	9418	15/09/94-30/09/95	OMEX, Held BODC
49.088	-13.390	3670	3304	366	380	9419	15/09/94-30/09/95	OMEX, Held BODC
49.108	-12.181	996	196	800	503	9592	22/01/94-08/06/95	OMEX, Held BODC
49.108	-12.181	996	496	500	503	9593	22/01/94-08/06/95	OMEX, Held BODC
49.108	-12.181	996	946	50	503	9594	22/01/94-08/06/95	OMEX, Held BODC
49.146	-10.520	142	30	112	47	9591	03/09/95-20/10/95	OMEX, Held BODC
49.151	-10.514	142	30	112	81	9590	14/06/95-03/09/95	OMEX, Held BODC
49.151	-10.514	142	100	42	81	9589	14/06/95-03/09/95	OMEX, Held BODC
49.187	-12.819	1456	620	836	151	9627	18/04/94-16/09/94	OMEX, Held BODC
49.187	-12.819	1456	1070	386	151	9626	18/04/94-16/09/94	OMEX, Held BODC
49.187	-12.822	1453	1452	1	135	9634	18/04/94-16/09/94	OMEX, Held BODC
49.188	-12.795	1396	620	776	94	9632	11/01/94-15/05/94	OMEX, Held BODC
49.188	-12.795	1396	1070	326	94	9631	11/01/94-15/05/94	OMEX, Held BODC
49.189	-12.733	1296	1295	1	54	9633	24/06/93-18/08/93	OMEX, Held BODC
49.191	-12.800	1418	591	827	378	9415	16/09/94-30/09/95	OMEX, Held BODC
49.191	-12.800	1418	1049	369	378	9416	16/09/94-30/09/95	OMEX, Held BODC
49.287	-12.819	1445	620	825	192	9622	27/06/93-05/01/94	OMEX, Held BODC
49.287	-12.819	1445	1070	375	192	9621	27/06/93-05/01/94	OMEX, Held BODC
50.493	-14.620	3434	2934	500	243	6272	07/09/84-09/05/85	IOS now SOC, Held BODC
50.493	-14.620	3434	3134	300	141	6273	07/09/84-27/01/85	IOS now SOC, Held BODC
50.493	-14.620	3434	3284	150	115	6274	07/09/84-01/01/85	IOS now SOC, Held BODC
50.538	-14.722	3567	3064	503	243	6262	07/09/84-09/05/85	IOS now SOC, Held BODC
50.538	-14.722	3567	3265	302	218	6264	07/09/84-13/05/85	IOS now SOC, Held BODC
50.538	-14.722	3567	3286	281	243	6265	07/09/84-09/05/85	IOS now SOC, Held BODC
50.538	-14.722	3567	3517	50	243	6267	07/09/84-09/05/85	IOS now SOC, Held BODC
50.555	-14.697	3342	3142	200	344	7391	12/06/86-21/07/87	MAFF, Held BODC
50.555	-14.697	3342	3312	30	344	7392	12/06/86-21/07/87	MAFF, Held BODC
50.557	-14.690	3314	2813	501	242	6254	06/09/84-06/05/85	IOS now SOC, Held BODC
50.557	-14.690	3314	3224	90	244	6257	06/09/84-09/05/85	IOS now SOC, Held BODC
50.557	-14.690	3314	3244	70	244	6258	06/09/84-09/05/85	IOS now SOC, Held BODC
50.557	-14.690	3314	3264	50	244	6259	06/09/84-09/05/85	IOS now SOC, Held BODC
50.557	-14.690	3314	3284	30	244	6260	06/09/84-09/05/85	IOS now SOC, Held BODC
50.557	-14.690	3314	3304	10	100	6261	09/09/84-19/12/84	IOS now SOC, Held BODC
50.997	-15.093	2945	2745	200	344	7397	12/06/86-22/06/87	MAFF, Held BODC
50.997	-15.093	2945	2915	30	344	7398	12/06/86-22/06/87	MAFF, Held BODC

Table 3-6 - Current Meter Data Sources

Lat. (°N)	Long. (°W)	Water Depth (m)	Instrument Depth (m)	Instrument HASB (m)	Duration (days)	BODC Ref.	Dates	Comments
51.048	-15.165	2978	601	2377	344	7393	12/06/86-22/06/87	MAFF, Held BODC
51.048	-15.165	2978	1661	1317	344	7394	12/06/86-22/06/87	MAFF, Held BODC
51.048	-15.165	2978	2881	97	344	7395	12/06/86-22/06/87	MAFF, Held BODC
51.048	-15.165	2978	2948	30	344	7396	12/06/86-22/06/87	MAFF, Held BODC
51.052	-15.237	3220	2897	323	344	7399	13/07/86-22/06/87	MAFF, Held BODC
51.052	-15.237	3220	3190	30	344	7400	13/07/86-22/06/87	MAFF, Held BODC
51.685	-15.212	1537	789	748	90	5474	26/06/82-25/09/82	MAFF, Held BODC
51.685	-15.212	1537	1487	50	90	5475	26/06/82-25/09/82	MAFF, Held BODC
51.690	-14.938	786	352	434	204	5322	25/09/82-18/04/83	SMBA, Held BODC
51.690	-14.938	786	757	29	202	5323	25/09/82-15/04/83	SMBA, Held BODC
51.693	-14.738	500	293	207	187	5375	14/05/83-18/11/83	SMBA, Held BODC
51.693	-14.738	500	471	29	197	5376	14/05/83-28/11/83	SMBA, Held BODC
51.697	-14.955	778	332	446	90	5373	26/06/82-25/09/82	SMBA, Held BODC
51.697	-14.955	778	728	50	90	5374	26/06/82-25/09/82	SMBA, Held BODC
51.702	-15.313	2404	1299	1105	90	5476	26/06/82-25/09/82	MAFF, Held BODC
51.702	-15.313	2404	2354	50	90	5477	26/06/82-25/09/82	MAFF, Held BODC
51.707	-14.915	741	271	470	199	5377	15/05/83-01/12/83	SMBA, Held BODC
51.707	-14.915	741	711	30	195	5378	15/05/83-30/09/83	SMBA, Held BODC
51.712	-15.185	1709	979	730	171	5379	15/05/83-02/11/83	MAFF, Held BODC
51.712	-15.185	1709	1679	30	138	5380	15/05/83-30/09/83	MAFF, Held BODC
52.125	-12.645	830	30	800	36	-	17/08/76-22/10/76	MAREX -N Porcupine B
52.125	-12.645	830	300	530	36	-	17/08/76-22/10/76	MAREX -N Porcupine B
52.095	-12.123	700	83	613	107	-	23/07/97-07/11/97	Marathon, Jack Bates 35/30-1
52.095	-12.123	700	215	485	107	-	23/07/97-07/11/97	Marathon, Jack Bates 35/30-1
52.095	-12.123	700	359	341	107	-	23/07/97-07/11/97	Marathon, Jack Bates 35/30-1
52.095	-12.123	700	487	213	107	-	23/07/97-07/11/97	Marathon, Jack Bates 35/30-1
52.095	-12.123	700	631	69	107	-	23/07/97-07/11/97	Marathon, Jack Bates 35/30-1
52.507	-14.740	505	275	230	207	6335	10/10/81-06/05/82	SMBA, Held BODC
52.507	-14.740	505	451	54	206	6336	10/10/82-04/05/82	SMBA, Held BODC
52.598	-12.420	485	3	482	15	-	04/07/77-18/07/77	MAREX -N Porcupine SEDCO
52.598	-12.420	485	28	457	31	-	04/07/77-04/07/77	MAREX -N Porcupine SEDCO
52.598	-12.420	485	30	455	139	-	04/07/77-20/10/77	MAREX -N Porcupine SEDCO
52.598	-12.420	485	177	308	139	-	04/07/77-20/10/77	MAREX -N Porcupine SEDCO
52.598	-12.420	485	324	161	123	-	04/07/77-04/10/77	MAREX -N Porcupine SEDCO
52.598	-12.420	485	471	14	101	-	04/07/77-01/10/77	MAREX -N Porcupine SEDCO
52.662	-12.748	500	3	497	113	-	12/01/77-31/04/77	MAREX -N Porcupine C
52.662	-12.748	500	30	470	113	-	12/01/77-31/04/77	MAREX -N Porcupine C
52.662	-12.748	500	183	317	99	-	11/01/77-31/04/77	MAREX -N Porcupine C
52.662	-12.748	500	336	164	113	-	12/01/77-31/04/77	MAREX -N Porcupine C
52.662	-12.748	500	489	11	113	-	12/01/77-31/04/77	MAREX -N Porcupine C
53.135	-12.652	360	3	357	43	-	18/08/76-21/11/76	MAREX -N Porcupine A
53.135	-12.652	360	30	330	54	-	18/08/76-04/01/77	MAREX -N Porcupine A
53.135	-12.652	360	130	230	77	-	04/09/76-04/01/77	MAREX -N Porcupine A
53.135	-12.652	360	230	130	81	-	04/09/76-06/01/77	MAREX -N Porcupine A
53.135	-12.652	360	350	10	76	-	04/09/76-04/01/77	MAREX -N Porcupine A

Table 3-7 - Current Meter Data Sources (Continued)

After initial QC procedures , three current meter time series have been flagged as containing unreliable data throughout the majority of the series. These series (shaded in Table 3-6) have, therefore, been omitted from this study. (More details are given in Section 7.1.1).

3.6 NODC Data

The US National Oceanographic Data Centre have produced two CD-ROM's containing global ocean temperature-depth and salinity-depth profiles taken at hydrographic stations between 1900 and 1990. Measurements were made using IGOSS radio message (IBT), mechanical (MBT), selected-level (SBT) and expendable (XBT) bathythermographs and Nansen (SD2) casts. The database also includes the cruise information, position, date and time reported for each station. Except for the IBT profiles, most of the data have undergone some degree of NODC quality checking which includes: logical testing for valid positions; parameter values within normal temperature ranges; observed depths not exceeding bathymetric depth and reasonable ship speed of advance. In addition, SD2 data were screened by the NODC who set quality flags in the data record to denote questionable parameter values. The SBT data are usually from an XBT but the digitisation methods are unknown. The IBT data are the least accurate and have not been thoroughly quality evaluated. All selected data were passed through a gross range check (-3 to 46°C) and values that were outside these limits were eliminated. Hydrographic data were initially extracted from the CD-ROM for the area 50.0°N-60.0°N, 0.0°-20.0°W [World Meteorological Organisation Ten-Degree squares 7500 and 7501] before being subdivided into smaller sub-regions (see Section 9).

Further quality checks were performed by Fugro GEOS in the form of temperature / depth scatter plots. Data lying well outside the main body of data were identified and removed prior to further analyses. These 'outliers' were usually single data quite distinct from the remainder. Some data on the edge of the main body of data were considered 'questionable' but were not obviously in error. These data were flagged for possible comment in later analyses.

4. OVERVIEW

4.1 Hourly Mean Winds at 10 m asl

A summary of the data available from the wind roses and frequency tables (included in Appendix A) is given below. Dominant wind direction is the direction where most observations were recorded and is the direction from which it is blowing. Occasionally two directional sectors contain approximately equal numbers of observations. Where this has occurred two dominant directions are given.

Dominant Wind Direction (from)

	Dates	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AllYear
GWM-1	5/94-4/99	SW	SW,W	SW	SW	NE	SW	SW	SW	SW	SW	SW,W	SW	SW
GWM-2	5/94-4/99	SW	SW	SW	SW	NE	W	W	W	W	W	SW,W	SW	SW
GWM-3	5/94-4/99	S	W	SW	SW	NE	SW	W	W	W	W	SW,W	SW	SW,W
GWM-4	5/94-4/99	W	W	SW	SW,W	NE	SW	W	W	NW	SW	W	SW	SW
GWM-5	5/94-4/99	W	W	SW,W	SW	NE	SW,W	SW	W	W	SW	SW,W	SW	W
GWM-6	5/94-4/99	W	SW	SW	W	NE	SW	W	W	W	SW	S	SW	W
K2	1/94-11/99	W	W	SW,W	W	NE	SW,W	W	W,NW	W	W	W	SW	W
K4	1/94-11/99	W	W	W	N	N	W	W	W	W	W	W	W	W
DB1	6/78-3/82	W	SW	SW	N	N	N,W	W	NW	SW	NW	SW	W	SW,NW

Maximum Observed Hourly Mean Wind Speed [m/s]

	Dates	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AllYear
GWM-1	5/94-4/99	25.70	24.15	23.64	21.58	22.10	16.96	18.50	18.50	21.58	23.13	29.80	29.80	29.80
GWM-2	5/94-4/99	32.89	27.24	24.67	23.13	22.10	17.99	20.56	17.99	22.10	23.64	27.75	32.89	32.89
GWM-3	5/94-4/99	28.27	25.18	26.21	20.04	21.58	16.96	17.99	17.47	22.10	24.15	30.32	30.32	30.32
GWM-4	5/94-4/99	25.70	28.78	22.61	20.56	22.10	19.53	16.69	23.63	19.01	26.72	25.70	28.27	28.78
GWM-5	5/94-4/99	27.24	26.21	25.18	20.56	20.56	15.93	19.53	22.10	18.50	24.15	27.24	27.24	27.24
GWM-6	5/94-4/99	27.75	26.72	22.61	28.27	22.10	19.53	16.96	20.56	24.67	27.75	25.18	28.27	28.27
K2	1/94-11/99	27.45	26.83	23.76	22.54	22.54	20.11	15.93	23.76	20.72	21.93	26.83	28.70	28.70
K4	1/94-11/99	29.32	23.15	28.07	22.54	29.32	15.93	19.51	18.91	24.98	24.98	26.86	29.32	29.32
DB1	6/78-3/82	24.41	25.27	24.52	20.25	19.61	20.46	17.49	19.19	23.45	23.02	20.36	32.04	32.04

Direction Associated With Maximum Observed Hourly Mean Wind Speed (from)

	Dates	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AllYear
GWM-1	5/94-4/99	W	W	W	N	SW	S	W	SE	SW	N	W	W	W
GWM-2	5/94-4/99	NW	NW	S	N	NE	SW	W	S	S	S	W	W	NW
GWM-3	5/94-4/99	W	SW	SW	NW	N	SW	S	SE	SW	N	W	W	W
GWM-4	5/94-4/99	SW	W	W	N	N	W	S	NW	NE	W	SW	W	W
GWM-5	5/94-4/99	NW	W	SW	N	N	N	S	NW	SE	S	W	W	NW
GWM-6	5/94-4/99	W	SW	SW	SW	N	W	SW	NW	NE	W	NW	W	W
K2	1/94-11/99	W	W	W	N♦	S	W	SW	W	SE	SW	SW	W	W
K4	1/94-11/99	S	W	S	N	NE	W	W	S	S	SW	W	SW	SW
DB1	6/78-3/82	♦♦	♦♦	SW	N	S	SW	NW	W	SW	N	S	SW	SW

♦ No direction associated with maximum wind speed (direction associated with second greatest wind speed used)
♦♦ No directions associated with numerous upper wind speeds (first available direction not considered valid with this maximum)

Dominant wind directions are generally from the southwest and west. One notable exception is the month of May where the dominant wind direction is from the north or northeast (directions other than southwest or west are highlighted in the above table). This is seen at all UKMO GWM grid points and all three measured buoy datasets indicating little spatial variability across the study region. It should be

noted that buoy DB-1 (temporally independent of the other datasets as it finished in 1982) also shows this effect suggesting it to be a regular and not a individual event.

Note : dominant wind directions from directions other than southwest and west have been observed by Fugro GEOS in previous independent studies of the area for the month of May

The directions associated with the maximum observed wind speeds are, as expected, more variable than the dominant wind speed directions. However, for large parts of the year the predominant maximum wind speed direction is still southwesterly or westerly, with the exception of May where the predominant maximum observed wind speed direction is often (but not always) northerly.

The numbers of days each month that, on average, exceed the hourly mean wind speed thresholds of 10, 15 and 20 m/s are given in Section 5.4, Table 5-1. From the 5 years of modelled and varying lengths of measured observations that were used in the construction of this table the daily maximum wind speed rarely exceeded 20 m/s during the 'summer' months of April to September (typically less than 1 day per month). At no time was 20 m/s exceeded during July and August. January and February showed the greatest 'winter' occurrence of daily maxima greater than 20 m/s (up to 5 and 7 days respectively).

Daily maximum wind speeds greater than 10 m/s are observed for the vast majority of the time in the 'winter' months of October to March and for approximately half of the time during the 'summer'.

Based on this analysis, on average, February experiences the highest winds while July experiences the lowest. The table below gives the mean number of days (based on the average of 6 model and 3 buoy datasets) per month that the thresholds are exceeded on average for February and July.

Wind Speed Threshold	February Days Exceeded	% of Month	July Days Exceeded	% of Month
WS > 10 m/s	24	85%	13	42%
WS > 15 m/s	13	46%	1	3%
WS > 20 m/s	4	14%	0	0%

4.2 Waves

A summary of the data available from the wave roses and frequency tables (included in Appendix B) is given below. Dominant wave direction is the direction where most observations were recorded and is the direction from which the wave is coming. Occasionally two directional sectors contain approximately equal numbers of observations. Where this has occurred two dominant directions are given.

Note : Problems with wave direction data from buoy DB-1 have been encountered in previous studies. Fugro GEOS consider the wave direction data from this buoy to be unreliable and have omitted these results from the remainder of this report.

Note : No directional wave data is available for K2 and K4.

Dominant Wave Direction (from)

	Dates	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AllYear
GWM-1	5/94-4/99	W	W	W	W	SW	SW	SW	W	W	SW	W	SW	W
GWM-2	5/94-4/99	W	W	W	W	SW	SW	SW	W	W	W	SW	SW	W
GWM-3	5/94-4/99	W	W	W	W	W	W	SW	W	W	SW,W	W	SW	W
GWM-4	5/94-4/99	W	W	W	W	W	W	W	W	W	SW,W	W	W	W
GWM-5	5/94-4/99	W	W	W	SW	W	W	W	W	W	SW	W	W	W
GWM-6	5/94-4/99	W	W	W	W	W	W	W	W	W	W	W	W	W
K2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DB1	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Maximum Observed Significant Wave Height [m]

	Dates	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AllYear
GWM-1	5/94-4/99	10.2	12.0	9.5	7.5	7.6	5.3	7.9	5.6	7.4	8.1	11.1	11.9	12.0
GWM-2	5/94-4/99	10.6	12.1	11.4	8.5	7.7	6.0	8.9	5.6	8.9	9.2	10.2	12.4	12.4
GWM-3	5/94-4/99	12.3	12.3	10.2	7.7	7.6	5.4	7.2	5.0	7.1	8.7	11.6	12.5♣	12.5♣
GWM-4	5/94-4/99	10.9	14.1	10.3	9.3	8.5	6.2	5.5	8.2	8.6	10.5	10.3	12.6	14.1
GWM-5	5/94-4/99	12.5	13.7	10.8	7.4	7.8	5.6	5.7	7.7	7.2	9.6	9.9	12.7	13.7
GWM-6	5/94-4/99	10.4	14.6	9.9	11.9	8.4	6.3	5.5	7.6	9.0	10.8	9.8	11.2	14.6
K2	1/94-11/99	12.0	13.0	11.0	9.2	9.2	8.2	5.5	7.5	8.5	11.1	11.2	12.8	13.0
K4	1/94-11/99	12.5	12.5	11.0	8.0	9.0	6.5	8.0	5.6	8.0	10.5	12.0	12.0	12.5
DB1	6/78-3/82	10.2	10.0	12.2	5.5	6.2	5.8	3.7♦	6.0	6.3	8.4	6.6	11.9	12.2

Direction Associated With Maximum Observed Significant Wave Height (from)

	Dates	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AllYear
GWM-1	5/94-4/99	W	W	SW	N	SW	W	W	W	W	W	SW	W	W
GWM-2	5/94-4/99	W	W	SW	N	NE	NW	W	W	SW	W	W	W	W
GWM-3	5/94-4/99	SW	W	SW	NW	N	S	W	W	SW	SW	SW	W	W
GWM-4	5/94-4/99	W	W	W	SW	N	W	W	NW	S	SW	W	W	W
GWM-5	5/94-4/99	W	W	W	S	N	N	W	NW	SW	S	W	W	W
GWM-6	5/94-4/99	W	W	NW	SW	N	W	W	NW	SW	SW	SW	W	W
K2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
K4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DB1	-	-	-	-	-	-	-	-	-	-	-	-	-	-

♣ Single recorded maximum of 15.2m considered unrepresentative as 2nd largest = 12.5m (2nd value used). Values in excess of 14m at GWM-4 and GWM-6 are continuous with other observations and therefore considered real.

♦ Low Value ?

Dominant wave directions for the majority of the year are from the south-west and west. The apparent non-comparability between the wind and wave directionality for April and May is not as obvious as the dominant wave direction tables first suggest. The wave frequency tables for the GWM (Appendix B) show that during April and May, the northerly direction was still significant, but not dominant.

Maximum observed significant wave heights across the study region vary from 12.0 m in the north to in excess of 14.5 m in the south of the study region. Seasonal variations in the maximum observed significant wave heights range from greater than 14.5 m in winter to approximately 5.5 m in summer (excluding questionable DB-1 July maxima). The highest maximum observed significant wave heights were observed in February and the lowest maxima in July. The directions associated with the maximum observed significant wave heights are predominantly south-westerly and westerly. Northerly and north-easterly associated directions are observed during April and May.

The numbers of days each month that, on average, exceed the significant wave height thresholds of 2, 4 and 6 m (daily exceedences) are given in Section 6.4, Table 6-1. From the 5 years of modelled and varying lengths of measured observations that were used in the construction of this table the maximum significant wave height rarely exceeded 6 m during the months of May to September. December and January showed the greatest 'winter' occurrence of daily maxima greater than 6 m (up to 10 and 12 days respectively)

Daily maximum observed significant wave heights greater than 2 m are observed for the majority of the time during the 'winter' months of October to March and for approximately half to two thirds of the time during the 'summer'.

Based on this analysis, on average, December to February experience the highest wave heights while July and August experience the lowest. The table below gives the mean number of days (based on the average of 6 model and 3 buoy datasets) per month that the thresholds are exceeded on average for December to February and for July and August.

Significant Wave Height Threshold	December-February Mean Days Exceeded	Mean % of Month	July-August Mean Days Exceeded	Mean % of Month
HS > 2 m	28	93%	17	55%
HS > 4 m	19	63%	2	6%
HS > 6 m	10	33%	<1	<3%

4.3 Currents

Summary of the boundary and deep ocean characteristics by region. These tables are based on data from the literature with modifications, where necessary, from measured current meter analyses performed during this study.

Location	Mean Speed	Max. Speed	Tidal Currents on slope	Slope current characteristics
Hebrides & Malin	0.10 to 0.20 m/s Mostly associated with slope current.	>= 0.60 m/s	0.10 to 0.25 m/s M2 and diurnal Internal tides & solitons.	Highly barotropic and increasing Northwards. Minimal seasonality. Weaker, more variable deep flow. Interannual variation in slope transport. 2-10 day modulation by low frequency waves.
Rockall Bank	0.05 m/s upper 0.10 m/s deep	0.50 m/s	0.10 to 0.20 m/s increased diurnal tides.	Southerly boundary flow below surface layer. Trapped diurnal waves present.
Porcupine Bank	♣ 0-200 m : No Data 200-500 m : 0.11 m/s 500-1000 m : 0.13 m/s 1000-2000 m : 0.08 m/s >2000 m : 0.07 m/s	♣ 0-200 m : No Data 200-500 m : 0.34 m/s 500-1000 m : 0.38 m/s 1000-2000 m : 0.32 m/s >2000 m : 0.23 m/s	0.05 to 0.15 m/s. Diurnal (trapped) Waves. Internal waves.	Broader slope current at all depths. Part SOMA response. Discontinuity at northern end? 2-10 day Modulation by low frequency trapped slope waves.
Porcupine Sea Bight	♣ 0-200 m : 0.15 m/s 200-500 m : 0.09 m/s 500-1000 m : 0.08 m/s	♣ 0-200 m : 0.65 m/s 200-500 m : 0.41 m/s 500-1000 m : 0.25 m/s	0.05 to 0.20 m/s Increase near sea bed at diurnal frequency.	Strong seasonal slope current along eastern margin, with weaker flow at northern end.
Goban Spur Celtic Sea OMEX Region	♣ 0-200 m : 0.26 m/s 200-500 m : 0.11 m/s 500-1000 m : 0.12 m/s 1000-2000 m : 0.10 m/s >2000 m : 0.08 m/s	♣ 0-200 m : 0.60 m/s 200-500 m : 0.46 m/s 500-1000 m : 0.56 m/s 1000-2000 m : 0.55 m/s >2000 m : 0.26 m/s	Relatively low energy at Spur. Higher to south. Internal tides.	Slope current increasing poleward. Seasonal (SOMA). Inertial overshoot at Goban Spur.
Deep Ocean Upper layer	0.01 to 0.02 m/s	0.50 m/s	Small.	Currents dominated by mesoscale variability (Eddies). Wind driven maximums.
Deep Ocean Lower layer	0.01 to 0.02 m/s	0.30 m/s	Small some local increased currents	Cyclonic in Trough and Biscay / Porcupine basins. Penetration of eddy kinetic energy to depths. Overflows from the Wyville-Thomson Ridge.

♣ modified from literature results - based on measured observations from this report.

Summary of the physical processes occurring in the Rockall Trough - Porcupine Region

Process	Character	Mean velocities & Max. Speeds	Variability Scales
Deep Currents	Below 1200m depth Essentially anticlockwise around Trough	Mean = 0.05 m/s Max up to 0.20 m/s	Months/years 1000s km
Slope current	Poleward (N/NE) mean flow along eastern flank of Rockall Trough Some seasonality, movement of current core across slope onto shelf, discontinuities ?	Means 0.05 to 0.30 cm/s Max 0.30 to 0.60 m/s Means and Max increase northwards	1000km along slope 20-30km across seasonal, and variable from days - month
Tides	Elliptical currents (equal semi-diurnal). Max strength on shelf, Min in deep ocean	Shelf 0.20 to 0.50 m/s Slope 0.10 to 0.30 m/s Deep 0.05 to 0.10 m/s	Principally 12.42 hrs also 23.93, 25.82 hrs spring-neap cycles
Eddies	Across Rockall Slope regions, in deep ocean up to and impinging on continental slope.	0.30 to 0.60 m/s	10-100 km up to a month
Internal Waves	Periodic oscillations in water column with periods from several minutes to inertial period. Max baroclinic tidal energy at shelf edge/slope Packets of non linear waves or solitons	up to 0.30 m/s greater for solitons or near seabed	20 mins - 13 hrs Spring-neap cycles
Long period waves	Waves trapped along continental slope or on by coast on the continental shelf. Energy propagates with shallow water to right Can, at times, reverse slope current	up to 0.10 m/s	10-20 km across slope 100s km along slope
Cascading	Downslope flows of dense water off shelf in late winter and early spring	0.20 to 0.30 m/s ??	Unknown but a 'burst' event. 20-40 km down the continental slope

4.4 Tidal Levels

Tidal levels have been scaled to one or more of the following standard ports:

- Oban 56.42°N 5.48°W
- Galway 53.27°N 9.03°W
- Cobh 51.85°N 8.30°W

Note : The following levels represent only tidally induced signals and therefore exclude any meteorologically induced fluctuations in level.

Levels in metres

Level *(Relative to LAT)*	CSLOC1 GWM-1	NE034047 GWM-2	CSLOC2 GWM-3	NE036062 GWM-4	NE031059 GWM-5	NE036071 -
Water Depth (m)	1469 m	1590 m	2213 m	1024 m	1865 m	3072 m
HAT	4.21	3.44	4.04	3.59	3.12	3.21
MHWS	3.74	3.10	3.69	3.28	2.85	2.93
MHWN	2.71	2.32	2.86	2.55	2.22	2.30
MSL	2.25	1.84	2.16	1.86	1.61	1.60
MLWN	1.68	1.34	1.53	1.24	1.07	0.98
MLWS	0.66	0.51	0.56	0.44	0.39	0.35
LAT	0.00	0.00	0.00	0.00	0.00	0.00

The tidal levels given here (scaled to standard ports in the UK or Ireland) are generally the more conservative of the two estimates used (see Section 8.3.3).

Water depths are considered insignificant in these tidal analyses as all grid points are considered to be in 'deep water', where deep water is defined as water depths greater than half of the wavelength. Typical maximum mean zero crossing periods from the modelled and measured data are less than 14 s corresponding to a wavelength of approximately 300 m. Even a maximum mean zero crossing period of 19 s, observed at Buoy K4 and considered unrepresentatively high, corresponded to a wavelength of only 560 m. Therefore, all grid points are in water depths that easily fall into the 'deep water' category.

4.5 Temperature

Sea Surface Temperatures show the expected seasonal patterns with typical maxima in August / September and minima in February / March.

Mean August / September SSTs range from 13.7°C in the north to 17.2°C in the south. Mean February / March SSTs range from 9.2°C in the north to 11.0°C in the south.

Maximum recorded SSTs of 18.9°C were recorded in the southeast of the study area during September. Minimum SSTs of 7.0°C were recorded in the northeast during March.

4.6 Salinity

Monthly mean Sea Surface Salinity (SSS) across the entire study area averaged 35.38, with a minimum of 34.63 and a maximum of 35.63.

	RSG Area (Blocks 1 to 10)	PSG Area (Blocks 5 to 13)	All Areas
Minimum	35.02	34.63	34.63
Mean	35.36	35.40	35.38
Maximum	35.53	35.63	35.63

Sea Surface Salinity was generally lower on the continental shelf (<35.00) and increased towards to south and west. Extremely fresh water surface samples (<20.00) were omitted from these measurements. The lowest remaining salinity was 34.01 although this was on the continental shelf adjacent to southwestern Ireland and may still be influenced, in part, by fresh terrestrial input. The maximum recorded salinity was 35.84 in the southern half of the PSG area.

5. WINDS

5.1 General

Wind criteria have been generated from the analyses of modelled (UKMO GWM) and measured (K2, K4 and DB-1 Buoys) data.

Modelled wind data has been supplied at 3 hourly sampling intervals but is taken to represent the hourly mean wind speed. The measured buoy data has been supplied in a combination of 1 and 3 hourly sampling intervals. The buoy data was generated from a 10 minute sample taken every hour. It has not been taken from the maximum 10 minute sample in the hour and therefore can also be taken to represent the hourly mean wind speed (pers. comm. K. Barfoot, Marine Consultant, UKMO). Modelled and measured wind speeds are therefore directly comparable once height differences are taken into account.

Model wind speed data is extracted from the bottom layer of the UKMO GWM. UKMO suggests the depth that the modelled wind speeds represent is the mid height of this bottom layer, namely 20 m asl (above sea level). In practice, however, the output wind speed from this bottom layer of the model is a height invariant 'slab' profile and thus could be taken to represent wind speeds anywhere in this layer.

Note : In Fugro GEOS's experience the wind speeds from this bottom layer of the model correspond well to the wind speeds at the standard height of 10 m asl and, therefore, have not been corrected further.

Wind speed data from the K-buoys were supplied as measured. This has been taken by Fugro GEOS to represent wind speed conditions at 4 m asl (see picture in Section 3.2.1). Direct comparisons between the buoy data and the UKMO GWM output show the buoys to underestimate wind speeds, relative to the model, particularly during winter periods when sea states are on average higher. High sea states may result in a sheltering effect by adjacent waves. Height adjustments to low height buoy data should be treated with caution due to turbulent effects close to the sea surface. However, in this report the K-buoy wind speeds have been adjusted upwards to represent conditions at 10 m asl using a theoretical wind profile (Section 5.5.2). Comparisons between the GWM and the corrected buoy (K2 and K4 only) wind speeds are encouraging and this is seen in the plots of wind speed exceedences expressed in days per month (Figure 5-1 and Figure 5-2). The comparative results between the model and corrected K-buoy data validate the use of the height correction. Wind Speeds at buoy DB-1 have been taken to represent conditions at 7 m asl (mean height of the two sensors). These wind speeds have been corrected using the same method as for that of the K-buoys but using the relationship given in Section 5.5.3.

Wind roses, frequency distribution tables and percentage exceedence tables for the 3 measured and all 6 modelled data sets are shown in Appendix A. The percentage exceedence tables also include the mean, minimum and maximum observed wind speeds for each month and direction.

Spatial plots, by month, of the mean number of days when wind speeds can be expected to exceed the thresholds of 10, 15 and 20 m/s are given at the end of this section (Figures 5.3 to 5.14).

5.2 Wind Roses and Frequency Distributions

Average annual and monthly wind roses and frequency distributions have been derived by sorting wind speed into eight directional sectors centred on the cardinal points of the compass. The sector boundaries (relative to true north) are as follows:

N	≥ 337.50°	or	< 22.50°	S	≥ 157.50° and < 202.50°
NE	≥ 22.50°	and	< 67.50°	SW	≥ 202.50° and < 247.50°
E	≥ 67.50°	and	< 112.50°	W	≥ 247.50° and < 292.50°
SE	≥ 112.50°	and	< 157.50°	NW	≥ 292.50° and < 337.50°

The roses show the percentage frequency of occurrence by direction. The irregular wind speed intervals correspond to the Beaufort Scale (Section 5.6). The frequency distributions show the joint frequency occurrence of mean wind speed and mean wind direction.

5.3 Exceedences

5.3.1 Percentage Exceedences

These tables are created by classifying the data by time (monthly and annually) and directionally (on all year data) using Beaufort intervals of wind speed and then producing a cumulative distribution of occurrences. The results are expressed as percentages, that is the percentage exceedence of the given speed. The percentage exceedence table may therefore be used to determine the proportion of time the wind speed exceeded any given value.

5.3.2 Exceedences (Number of Days per Month)

These values are created by calculating daily statistics of wind speed and determining the percentage of the days when the maximum daily wind speed exceeded given thresholds. These percentage exceedences were then applied to the mean number of days in any given month (January = 31.00, February = 28.25 etc.) to generate a mean number of days that a given wind speed would, on average, be expected to exceed.

5.4 Comparison of Modelled and Measured Hourly Mean Wind Speed Exceedences

A comparison of the hourly mean wind speed exceedences in days per month / year between the measured K2, K4 and DB-1 buoy wind speeds and all 6 UKMO GWM grid points are shown in Table 5-1.

♣ Incomplete Year of Data ; ? Considered High - Treat with Caution

		Average Days per month (all available data)												Days per year				
WS > 10m/s	**Date**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		**1995**	**1996**	**1997**	**1998**
GWM-1	5/94-4/99	23	24	24	20	11	14	11	12	15	23	22	23		223	206	199	222
GWM-2	5/94-4/99	24	25	25	20	12	17	15	16	16	23	22	26		245	228	226	247
GWM-3	5/94-4/99	23	25	23	19	14	16	14	15	17	24	23	24		236	233	218	234
GWM-4	5/94-4/99	25	23	18	16	13	15	13	12	15	24	22	24		209	212	221	224
GWM-5	5/94-4/99	24	24	21	16	12	14	11	12	16	22	22	24		216	218	212	229
GWM-6	5/94-4/99	25	23	17	16	13	14	12	10	16	22	22	24		198	211	209	226
														1994	**1995**	**1996**	**1997**	**1998**
BUOY K2	1/94-11/99	26	24	20	17	15	14	14	16	18	17	19	22	228	218	160♣	226	253
BUOY K4	1/94-11/99	26	26	25	20	10	18	17	18	20	27	25	27	269	181♣	226	216♣	261♣
														1979	**1980**	**1981**		
BUOY DB-1	6/78-3/82	22	22	26	16	20?	16	20?	9	20	26	25	27	141♣	241	252		
WS > 15m/s	**Date**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		**1995**	**1996**	**1997**	**1998**
GWM-1	5/94-4/99	11	15	10	4	1	2	2	1	3	8	10	11		82	60	76	81
GWM-2	5/94-4/99	12	16	12	5	2	2	1	2	4	8	11	12		93	72	80	94
GWM-3	5/94-4/99	12	16	9	5	2	2	1	2	3	9	9	12		92	71	70	85
GWM-4	5/94-4/99	13	12	5	3	3	1	1	2	3	8	8	12		78	75	65	71
GWM-5	5/94-4/99	12	13	6	4	2	2	1	1	3	7	8	13		84	61	75	74
GWM-6	5/94-4/99	13	10	5	3	2	1	1	2	3	8	9	12		74	73	66	73
														1994	**1995**	**1996**	**1997**	**1998**
BUOY K2	1/94-11/99	11	11	7	4	2	2	1	2	3	5	7	11	66	79	42♣	59	77
BUOY K4	1/94-11/99	14	15	12	6	2	1	2	2	5	10	10	14	104	70♣	70	67♣	100♣
														1979	**1980**	**1981**		
BUOY DB-1	6/78-3/82	10	10	16	3	7	2	2	0	4	12	6	18	42♣	72	102		
WS > 20m/s	**Date**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		**1995**	**1996**	**1997**	**1998**
GWM-1	5/94-4/99	4	5	1	0	0	0	0	0	0	2	1	3		16	15	20	17
GWM-2	5/94-4/99	5	7	2	1	1	0	0	0	0	1	2	3		18	21	23	24
GWM-3	5/94-4/99	4	5	1	0	1	0	0	0	0	2	2	4		17	19	21	25
GWM-4	5/94-4/99	3	5	1	0	0	0	0	0	0	2	2	2		12	12	21	15
GWM-5	5/94-4/99	3	4	1	0	0	0	0	0	0	2	2	3		17	11	18	19
GWM-6	5/94-4/99	4	3	1	1	0	0	0	0	0	2	1	3		15	13	18	16
														1994	**1995**	**1996**	**1997**	**1998**
BUOY K2	1/94-11/99	1	3	1	1	1	0	0	0	0	0	1	3	12	12	5♣	14	14
BUOY K4	1/94-11/99	4	5	2	1	1	0	0	0	0	3	2	3	26	16♣	12	20♣	21♣
														1979	**1980**	**1981**		
BUOY DB-1	6/78-3/82	3	1	4	1	0	1	0	0	1	2	0	4	6♣	14	14		

Table 5-1 - Average Number of Days Per Month / Year That Wind Speed Exceeded Given Threshold

A comparison of the measured K2 and K4 hourly mean wind speed exceedences (days per month) and their corresponding UKMO GWM data (GWM-4 and GWM-2 respectively) at each of the wind speed thresholds are shown in Figure 5-1 and Figure 5-2.

Figure 5-1 and Figure 5-2 show that the general patterns between measured and modelled hourly mean wind speed exceedences are very close at the 15 and 20 m/s exceedences. At 10 m/s exceedence the comparison is still reasonable but begins to deviate, especially in the later part of the year. It should be noted, however, that a more variable signal is expected at the lower thresholds.

Note : differences between modelled and measured results may be due to both spatial and/or temporal variation. However, the data used in these wind analyses is considered to be representative of the longer term average (last 25 years) over the study area based on the North Atlantic Oscillation Index data available (Section 3.3)

The buoy and modelled hourly mean wind speed results have been shown to compare well once height adjustments have been made. Generally the buoy data is expected to be more variable, with increased chances of obtaining anomalous results due to problems with missing data biasing the monthly and annual averages. Where inconsistencies arise between the two data sources we recommend the use of the modelled results. This is because the modelled data has been shown to compare well to measured data but has the advantage of containing complete months and / or years of data.

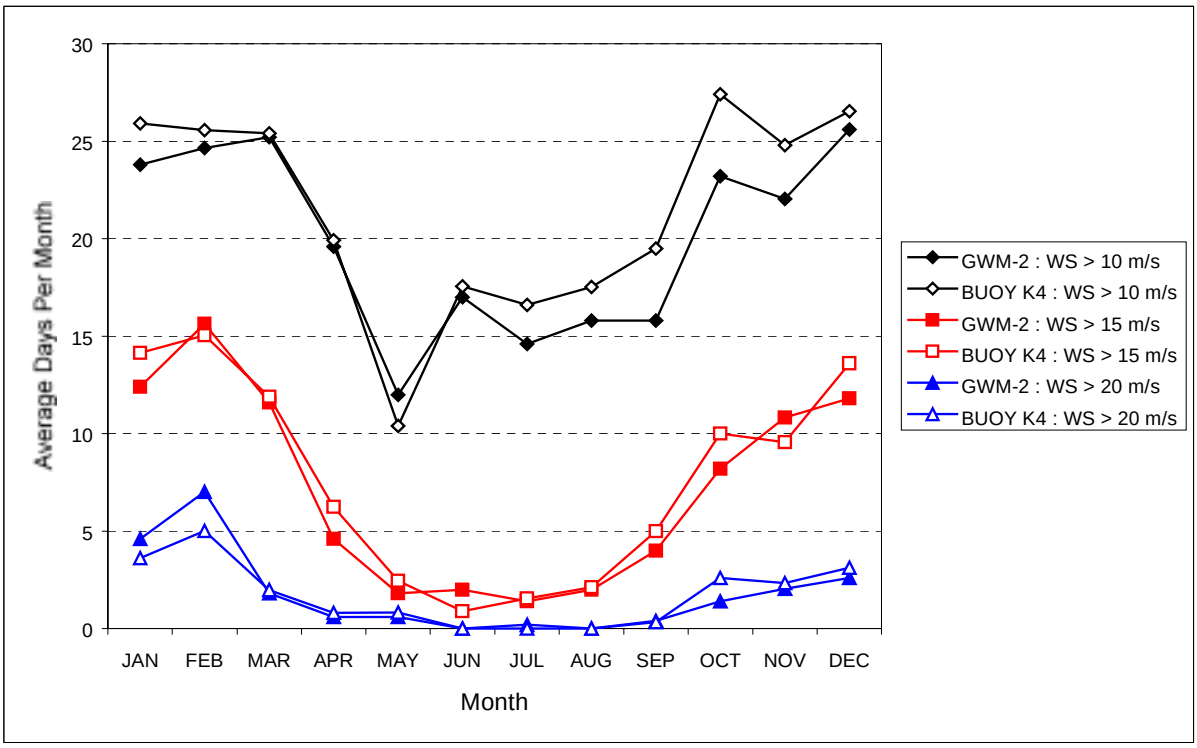


Figure 5-1 - Global Wave Model Grid Point GWM-2 vs. Height Corrected K4 Buoy Wind Speed Exceedences

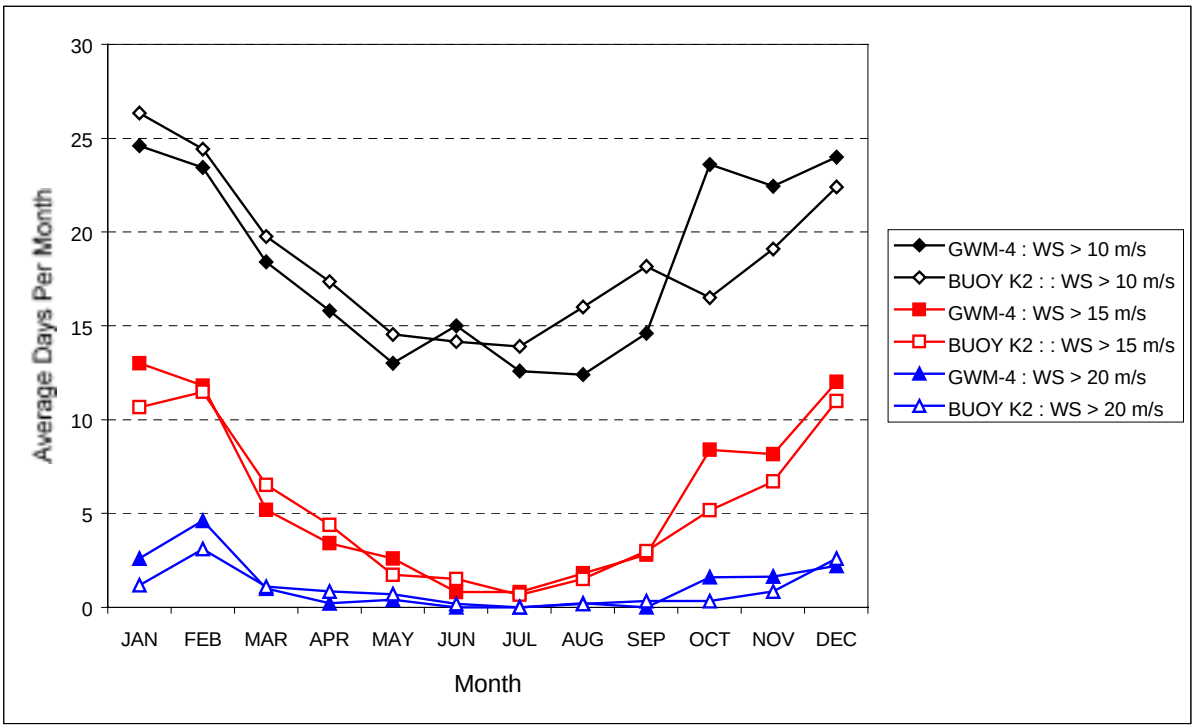


Figure 5-2 - Global Wave Model Grid Point GWM-4 vs. Height Corrected K2 Buoy Wind Speed Exceedences

5.5 Norwegian Petroleum Directorate (NPD) Wind Speed Profiles

5.5.1 NPD Equations

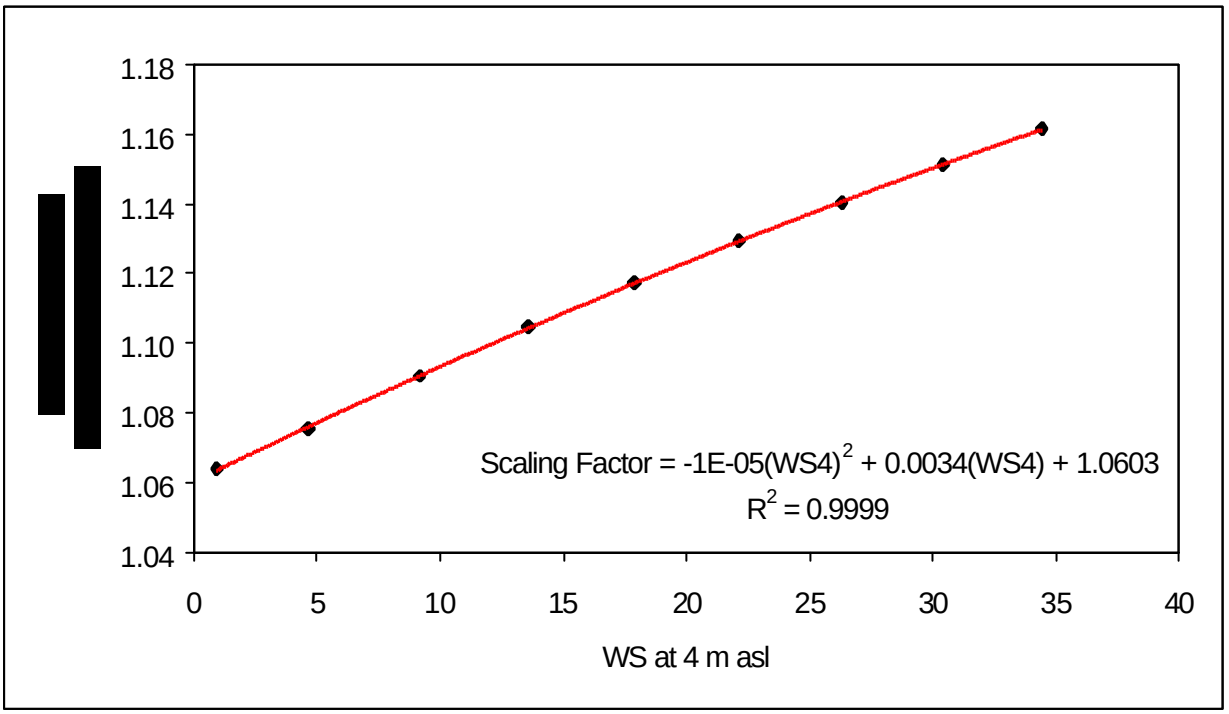
The NPD (1994) supply equations for converting hourly mean wind speeds at 10 m asl to other heights asl. The hourly mean wind speed U at height z above sea level U_z is given by

$$U_z = U_o[1 + C \,.\, \ln(z/10)],$$

$$\text{where } C = 5.73 \,.\, 10^{-2} \,.\, (1 + 0.15\, U_o)^{0.5}$$

5.5.2 Scaling K-Buoy Hourly Mean Wind Speeds from 4m asl to 10 m asl

To scale the K-buoy hourly mean wind speed at 4 m asl we empirically generated an equation relating the increase required to scale hourly mean wind speed at 4 m asl to 10 m asl as a function of hourly mean wind speed at 4 m asl.

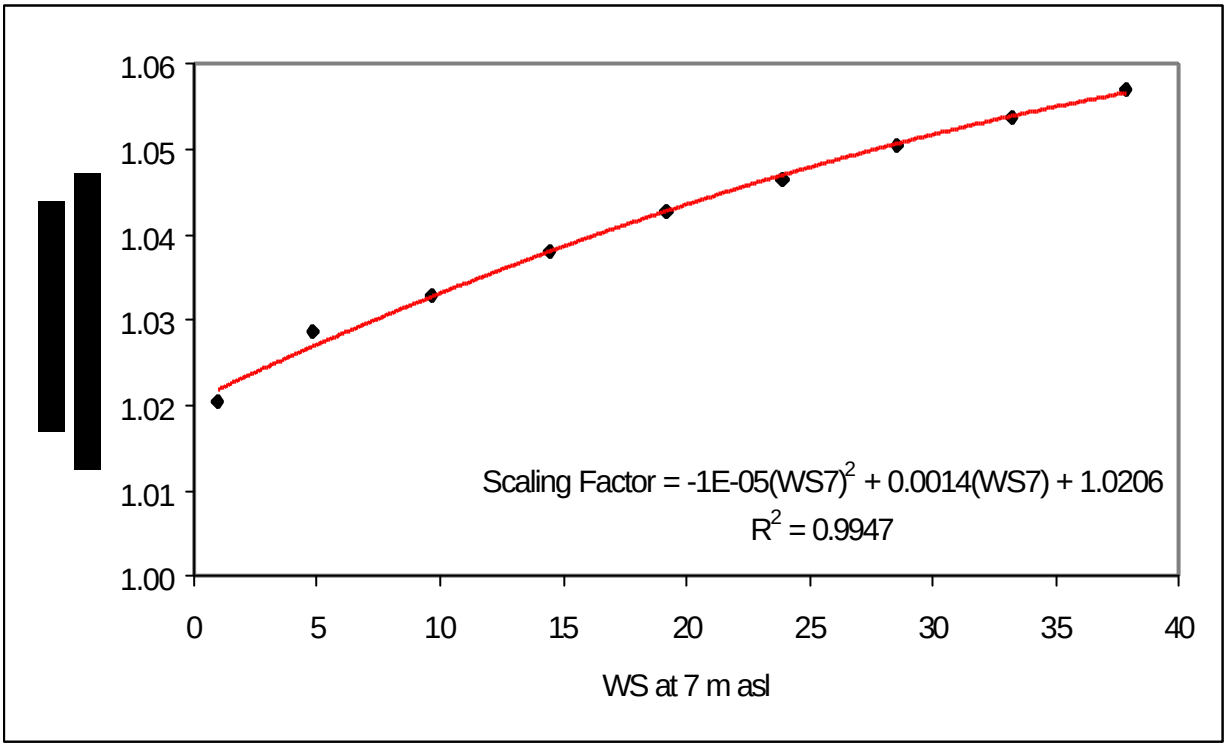


The following relationship was, therefore, used to calculate the hourly mean wind speed at 10 m asl

$$WS_{10m} = WS_{4m} \,.\, [-1e^{-5}.(\, WS_{4m})^2 + 3.4(WS_{4m}) + 1.0603]$$

5.5.3 Scaling DB-1-Buoy Hourly Mean Wind Speeds from 7m asl to 10 m asl

To scale the DB-1 buoy hourly mean wind speed at 7 m asl we empirically generated an equation relating the increase required to scale hourly mean wind speed at 7 m asl to 10 m asl as a function of hourly mean wind speed at 7 m asl.



The following relationship was, therefore, used to calculate the hourly mean wind speed at 10 m asl

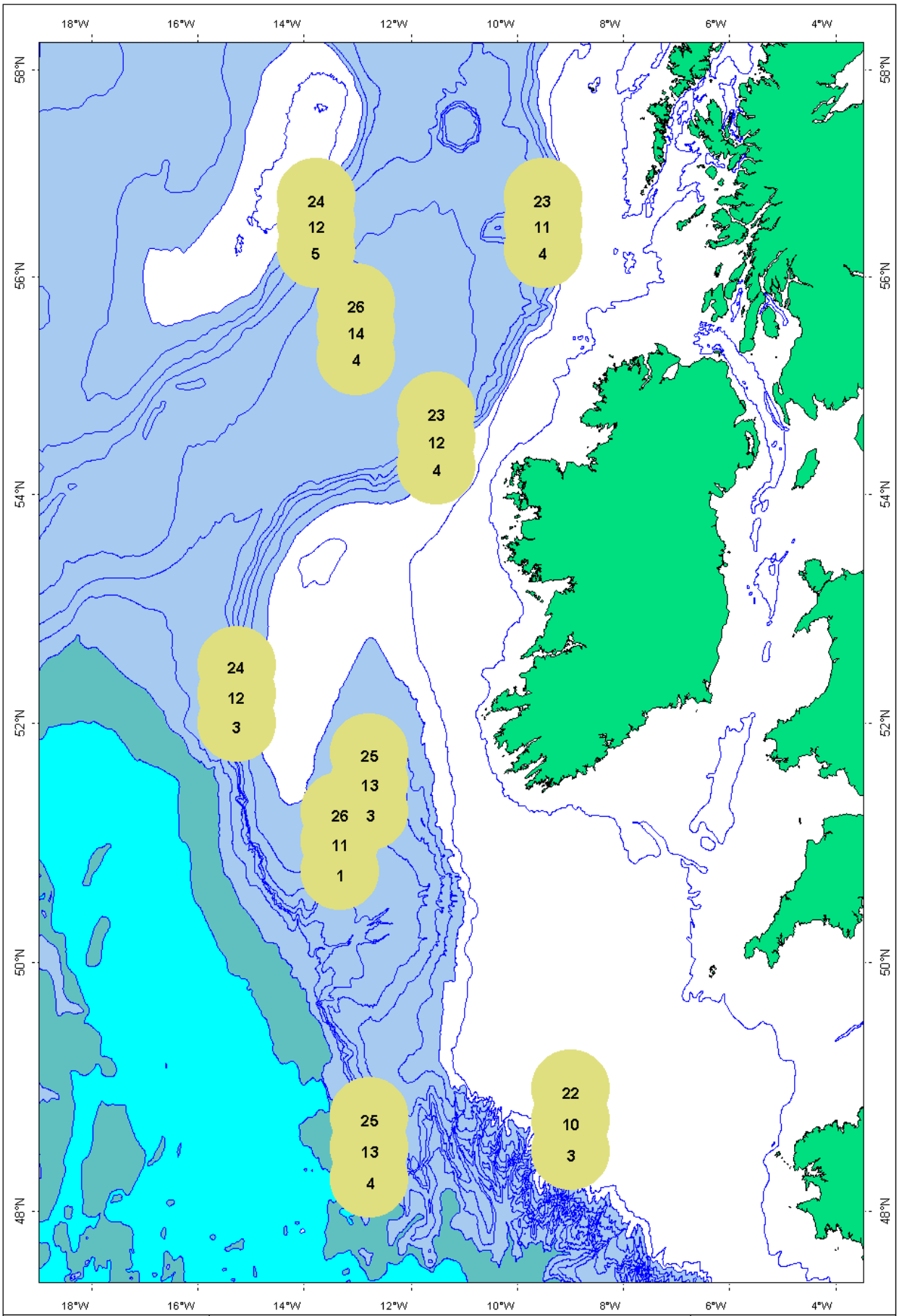
$$WS_{10m} = WS_{7m} \,.\, [-1e^{-5}.(\,WS_{7m})^2 + 0.0014(WS_{7m}) + 1.0206]$$

5.6 Beaufort Scale

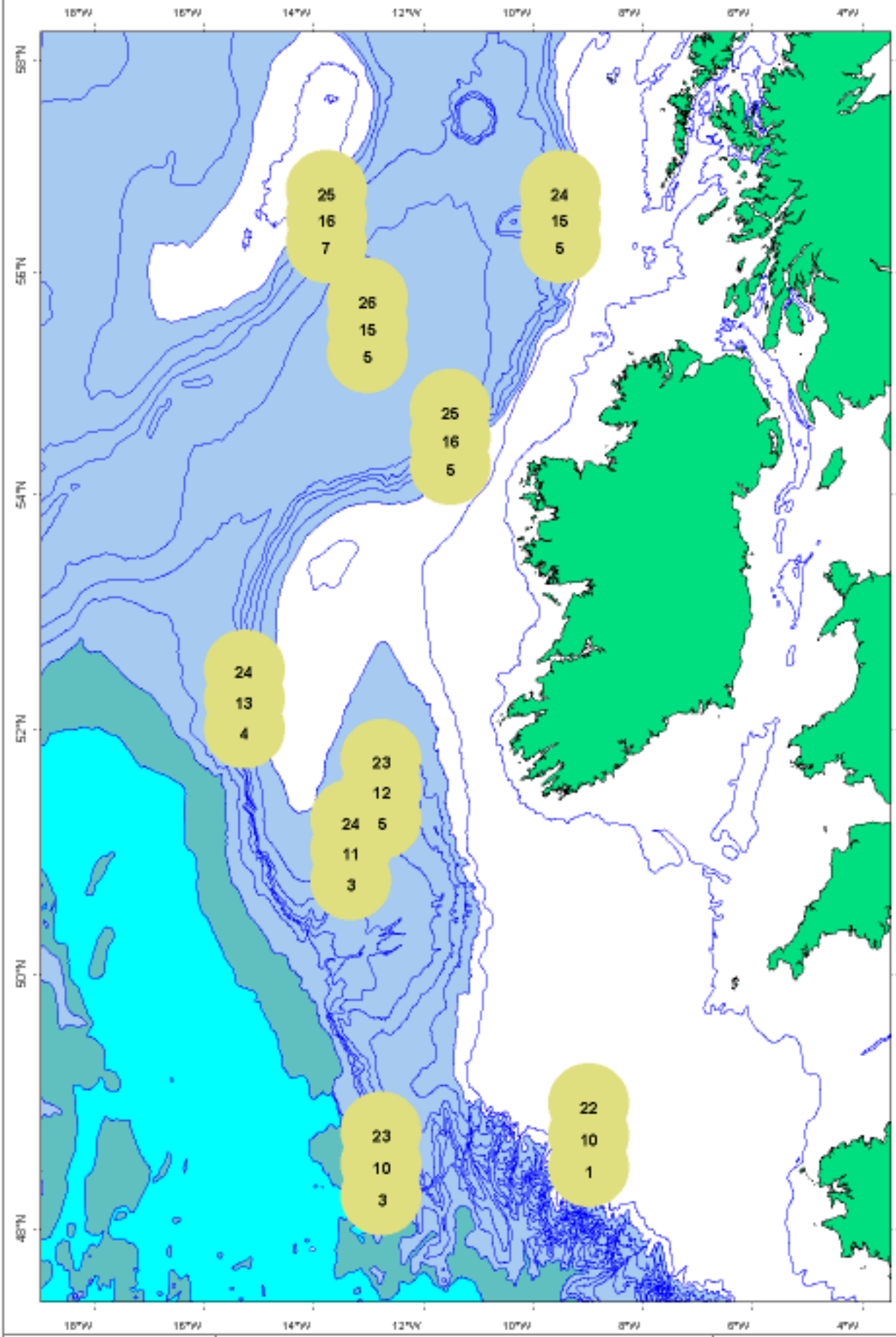
The following table, reproduced from the Meteorological Office Observer's Handbook (1982), presents equivalent mean wind speeds at the standard height of 10 metres above ground / sea level.

Beaufort Force	EQUIVALENT WIND SPEED AT 10 METRES ABOVE GROUND / SEA LEVEL						Description
	Knots		Miles per Hour		Metres per Second		
	Mean	Limits	Mean	Limits	Mean	Limits	
0	0	< 1	0	< 1	0.0	< 0.2	Calm
1	2	1-3	2	1-3	0.8	0.3-1.5	Light Air
2	5	4-6	5	4-7	2.4	1.6-3.3	Light Breeze
3	9	7-10	10	8-12	4.3	3.4-5.4	Gentle Breeze
4	13	11-16	15	13-18	6.7	5.5-7.9	Moderate Breeze
5	19	17-21	21	19-24	9.3	8.0-10.7	Fresh Breeze
6	24	22-27	28	25-31	12.3	10.8-13.8	Strong Breeze
7	30	28-33	35	32-38	15.5	13.9-17.1	Near Gale
8	37	34-40	42	39-46	18.9	17.2-20.7	Gale
9	44	41-47	50	47-54	22.6	20.8-24.4	Strong Gale
10	52	48-55	59	55-63	26.4	24.5-28.4	Storm
11	60	56-63	68	64-72	30.5	28.5-32.6	Violent Storm
12	-	≥ 64	-	≥ 73	-	≥ 32.7	Hurricane

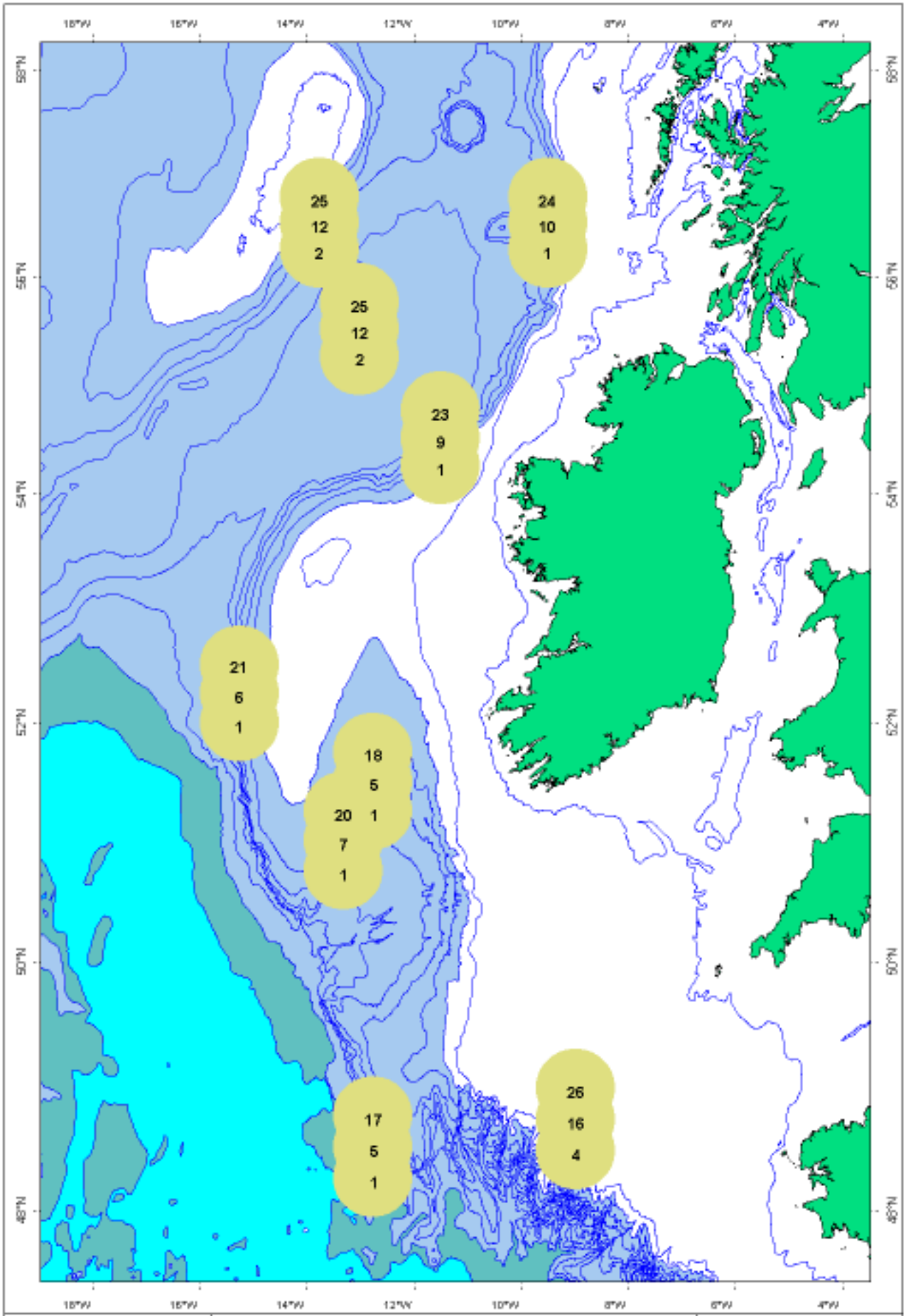
Table 5-2 - Beaufort Scale



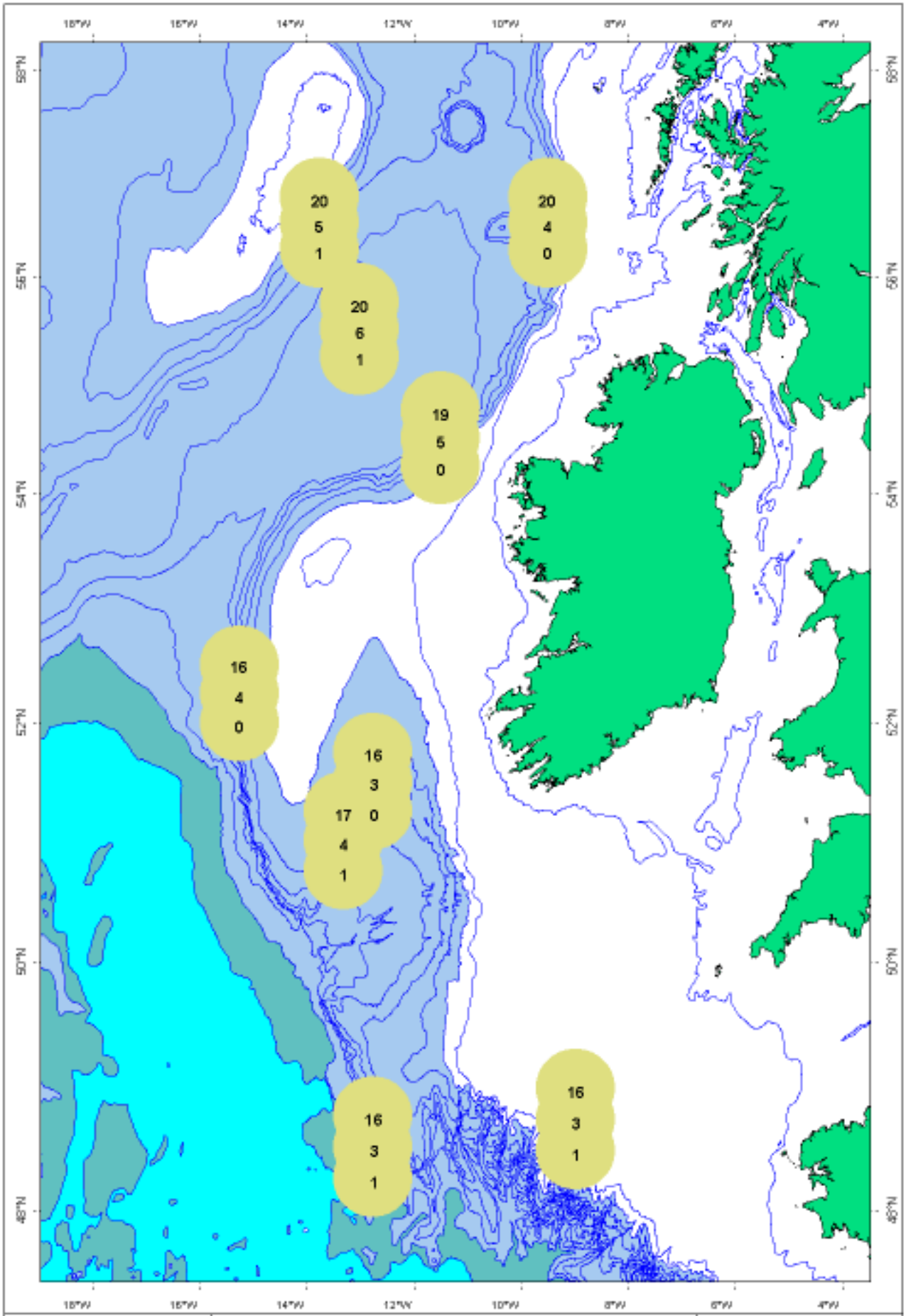
Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (January)	Geos Ref : C50090/2054 Figure No : 5.3 Plot Date : 20-DEC-00 FUGRO



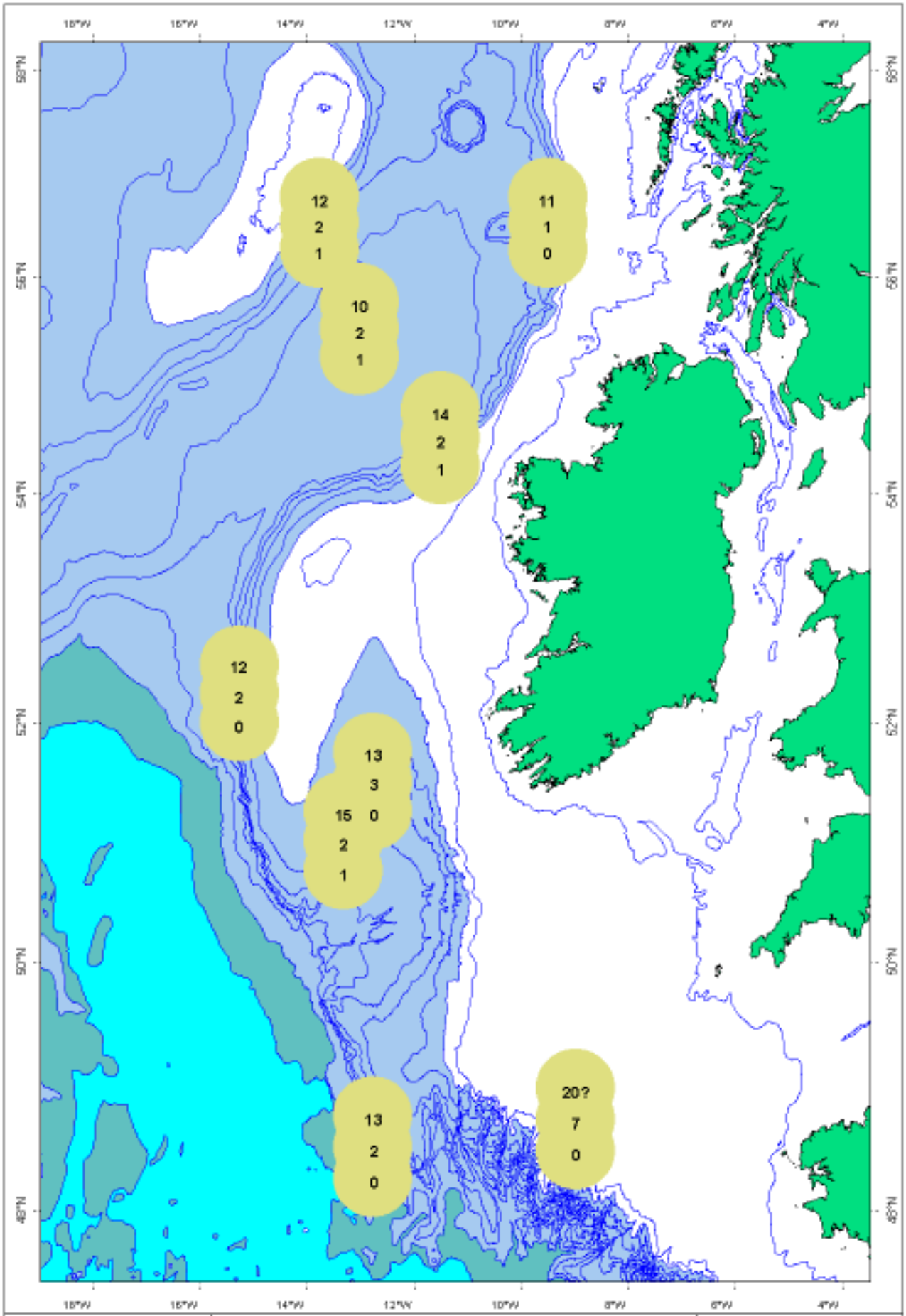
Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (February)	Geos Ref : C50090/2054 Figure No : 5.4 Plot Date : 20-DEC-00 FUGRO



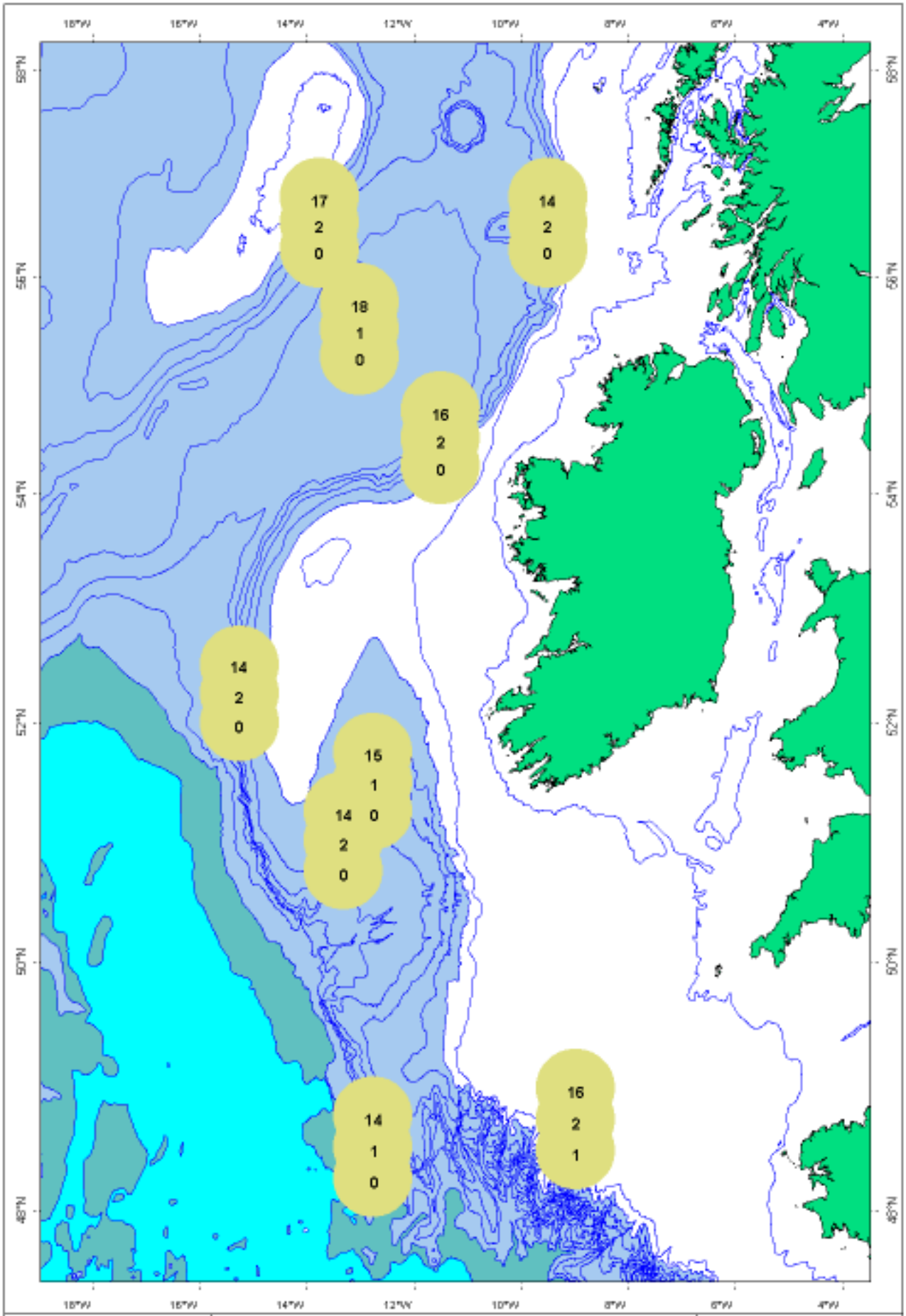
Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (March)	Geos Ref : C50090/2054 Figure No : 5.5 Plot Date : 20-DEC-00 FUGRO



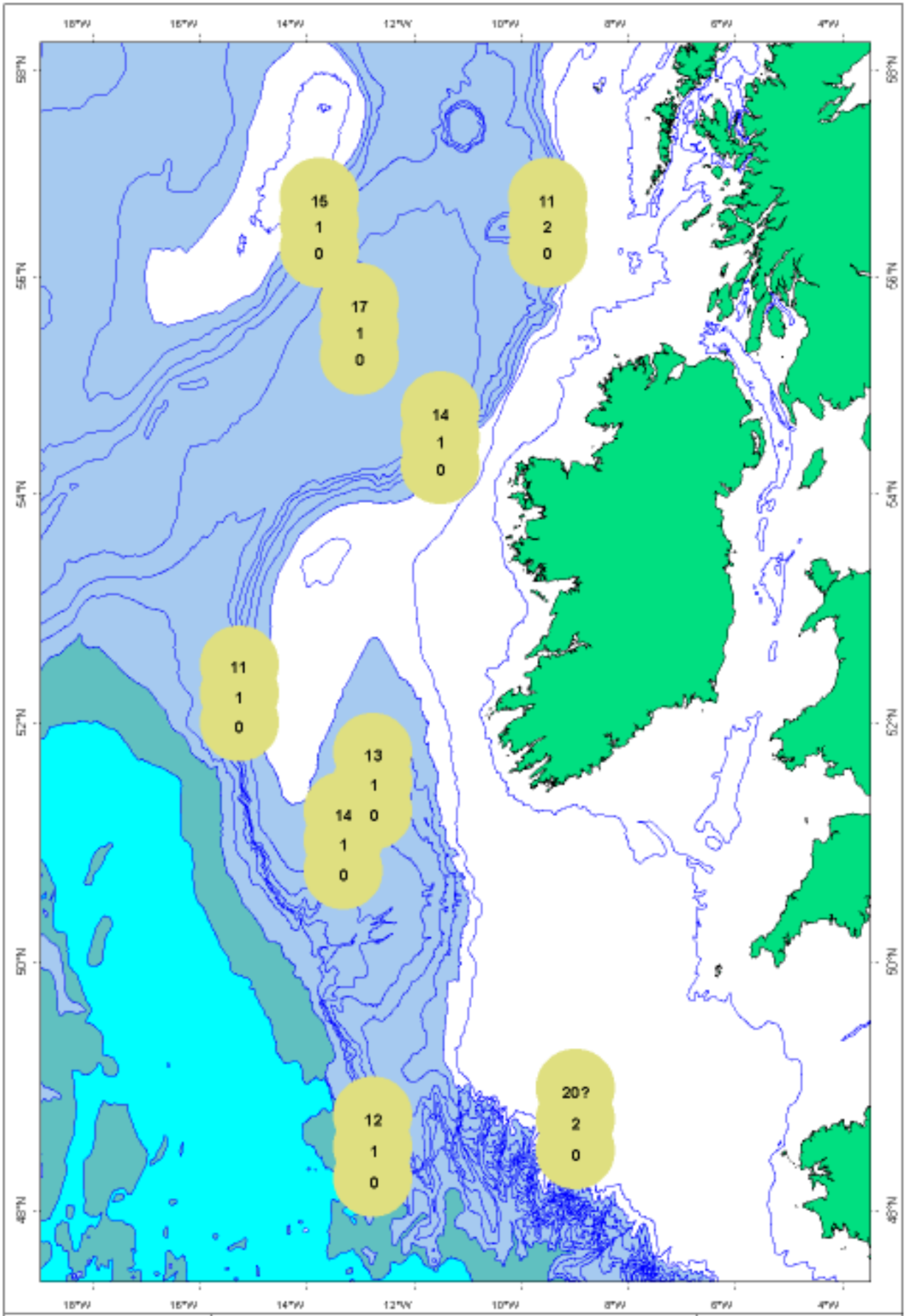
Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (April)	Geos Ref : C50090/2054 Figure No : 5.6 Plot Date : 20-DEC-00 FUGRO



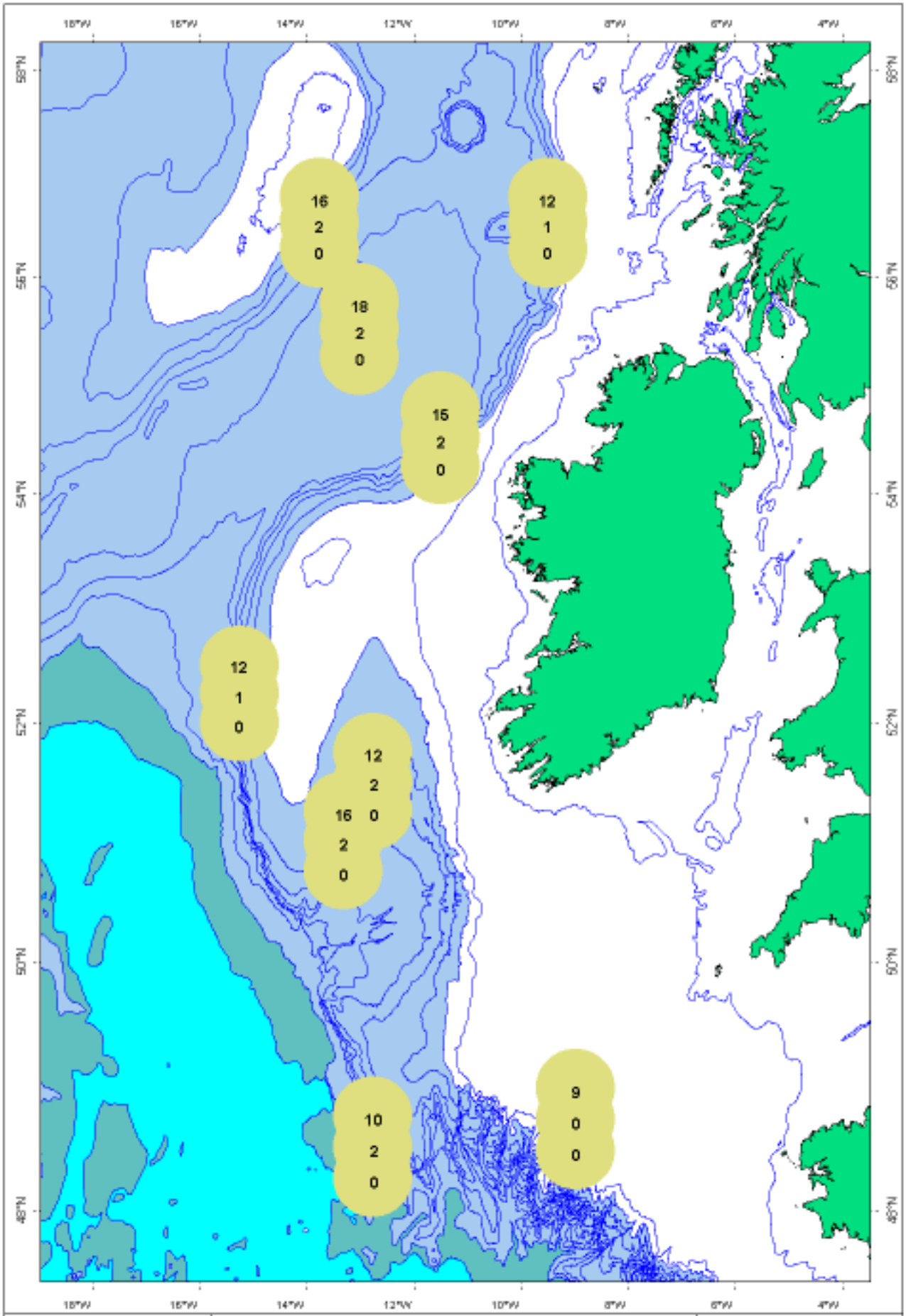
Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (May)	Geos Ref : C50090/2054 Figure No : 5.7 Plot Date : 20-DEC-00 FUGRO



Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (June)	Geos Ref : C50090/2054 Figure No : 5.8 Plot Date : 20-DEC-00 FUGRO



Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (July)	Geos Ref : C50090/2054 Figure No : 5.9 Plot Date : 20-DEC-00 FUGRO



Days WS > 10m/s

Days WS > 15m/s

Days WS > 20m/s

WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

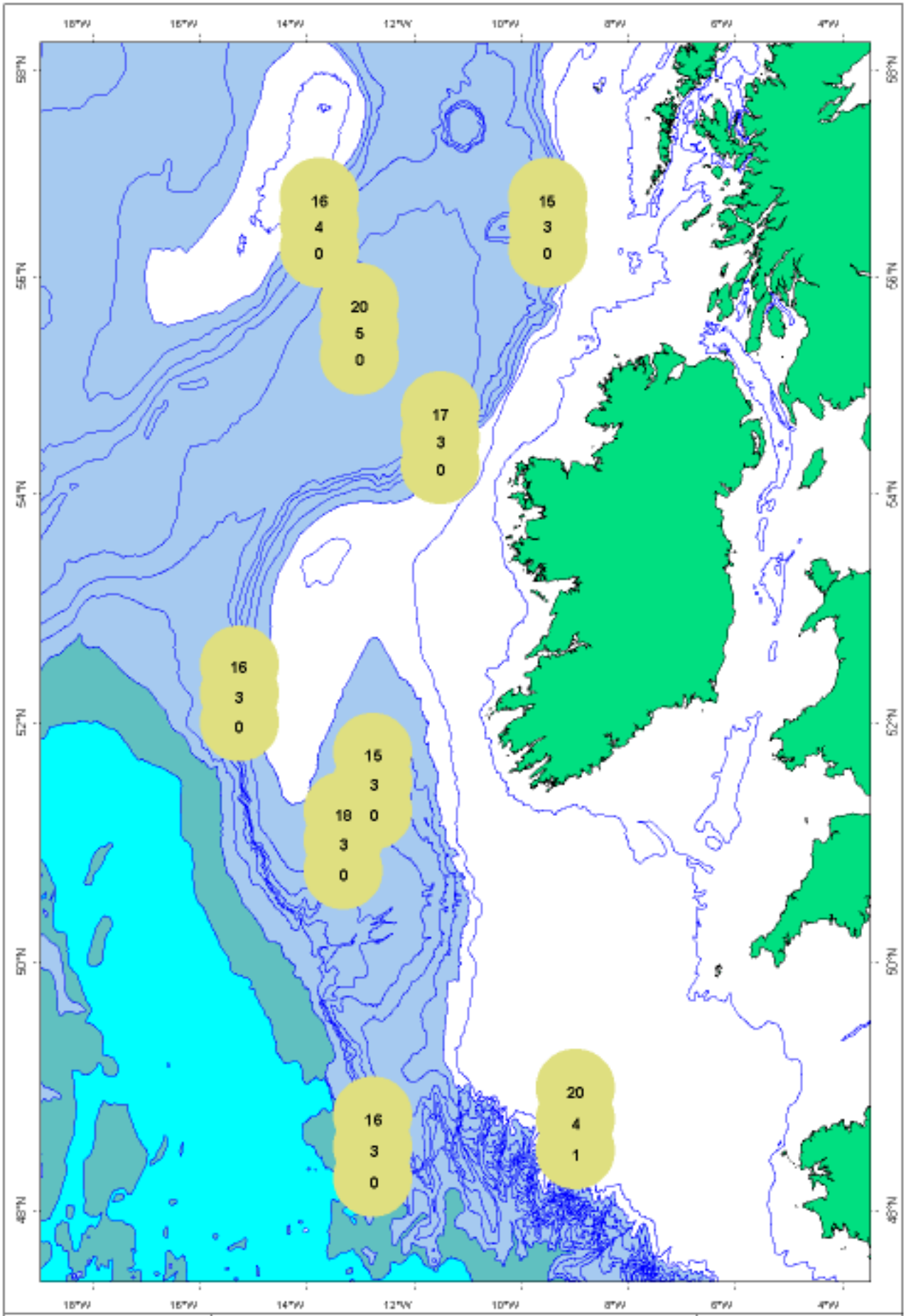
Wind Speed Exceedences in Days (August)

Geos Ref : C50090/2054

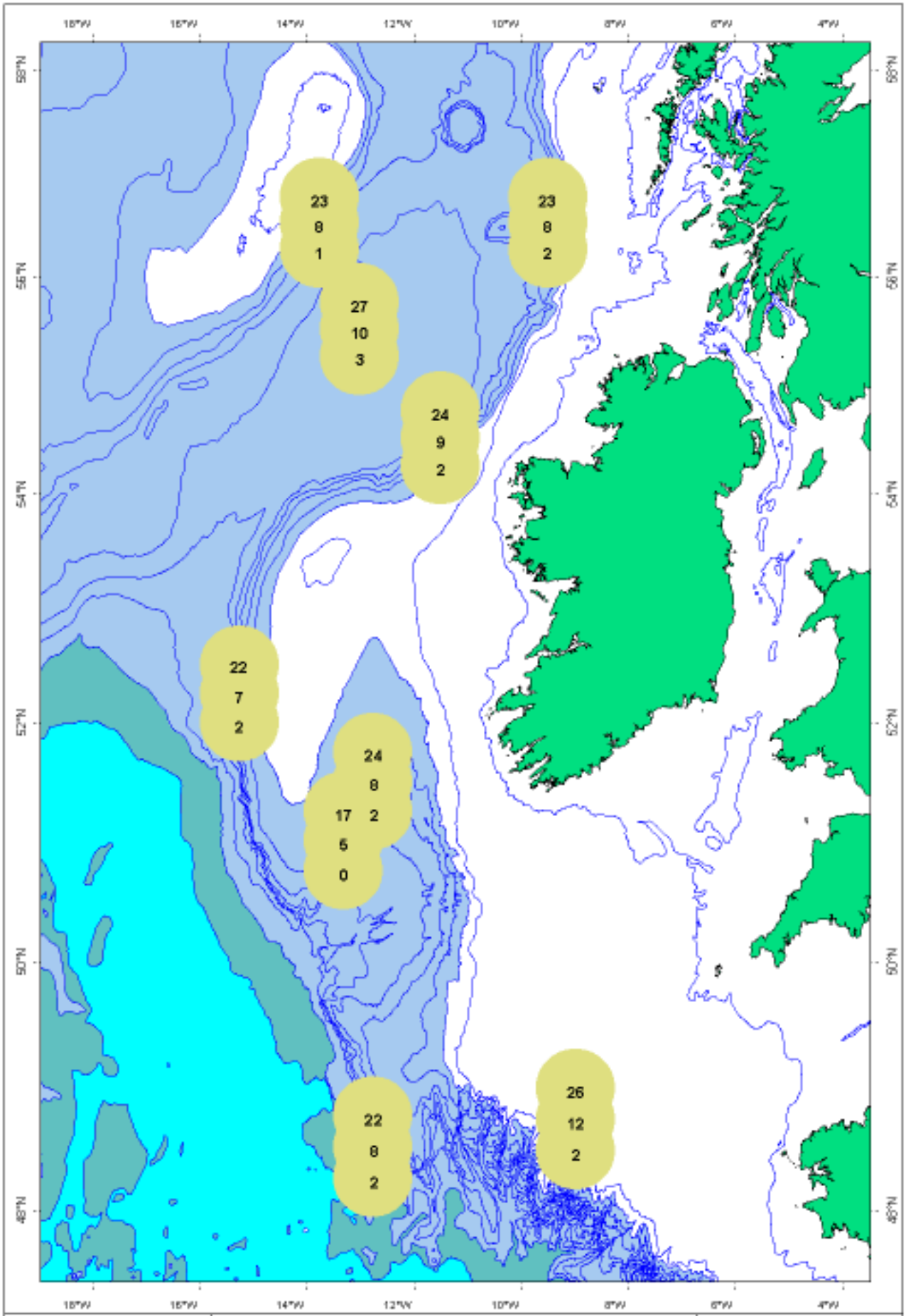
Figure No : 5.10

Plot Date : 20-DEC-00

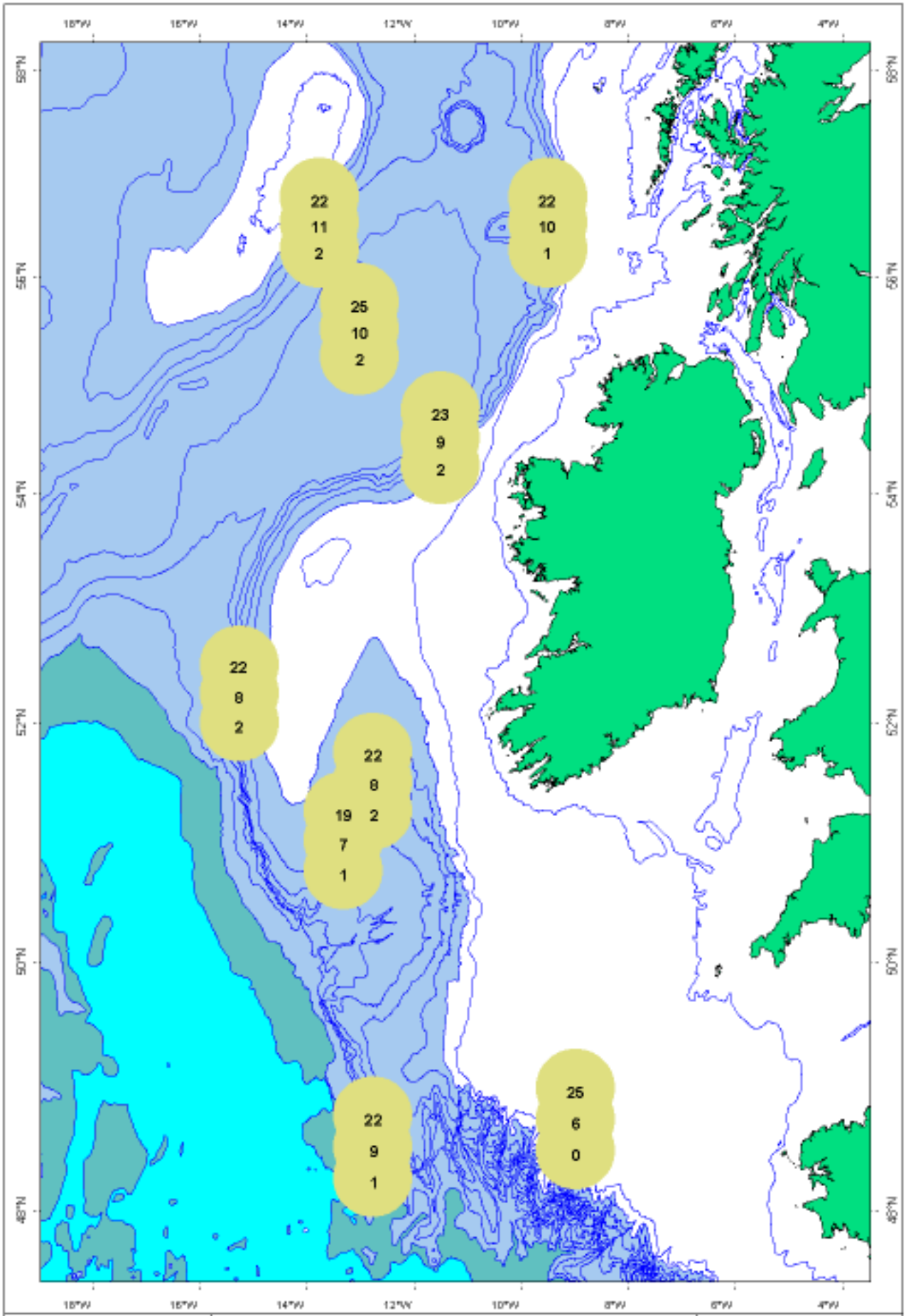
FUGRO



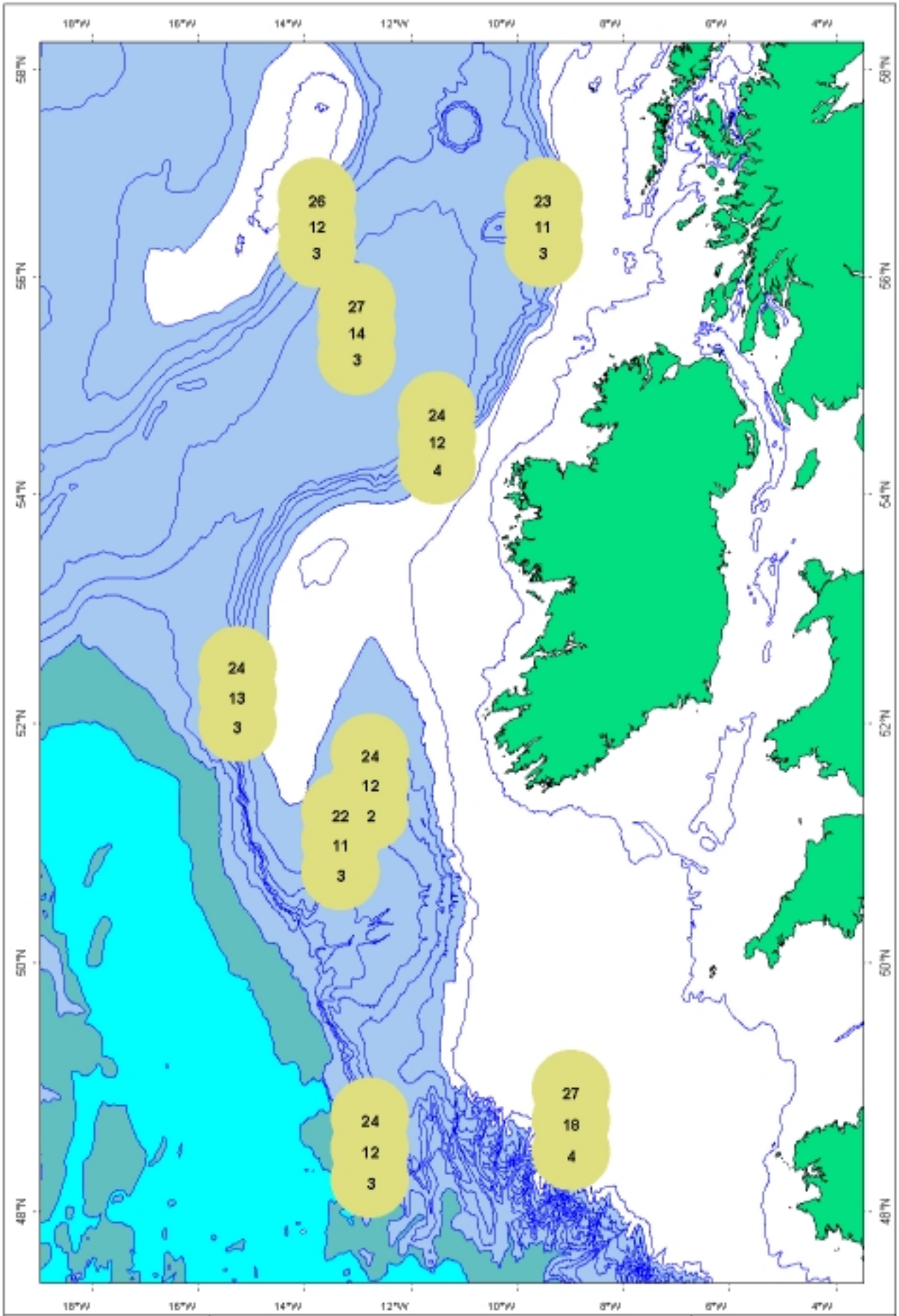
Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (September)	Geos Ref : C50090/2054 Figure No : 5.11 Plot Date : 20-DEC-00 FUGRO



Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (October)	Geos Ref : C50090/2054 Figure No : 5.12 Plot Date : 20-DEC-00 FUGRO



Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (November)	Geos Ref : C50090/2054 Figure No : 5.13 Plot Date : 20-DEC-00 FUGRO



Days WS > 10m/s **Days WS > 15m/s** **Days WS > 20m/s**	WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY Wind Speed Exceedences in Days (December)	Geos Ref : C50090/2054 Figure No : 5.14 Plot Date : 20-DEC-00 FUGRO

6. WAVES

6.1 General

Wave criteria have been generated from the analyses of modelled (UKMO GWM) and measured (K2, K4 and DB-1 Buoys) data.

Wave roses, frequency distribution tables for the 6 modelled data sets only plus percentage exceedence tables and significant wave height / mean zero crossing period scatter plots (including wave steepness curves) for all measured and all 6 modelled data sets are shown in Appendix B.

Note : Due to the problem with DB-1 wave directionality and absent wave directions for K2 and K4, only omnidirectional plots have been produced for buoy data, and these are included in Appendix B. The remaining figure numbering scheme has been left consistent with other data sets (i.e. only Figures 27, 29 and 30 to 41 included).

The percentage exceedence tables also include the mean, minimum and maximum significant wave heights for each month and direction.

Spatial plots, by month, of the mean number of days when significant wave height can, on average, be expected to exceed the thresholds of 2, 4 and 6 metes are given at the end of this section (Figures 6.3 to 6.14).

6.2 Wave Roses

Average annual and monthly wave roses and frequency distributions have been derived by sorting significant wave height into eight directional sectors centred on the cardinal points of the compass. The sector boundaries (relative to true north) are as follows:

N	≥ 337.50°	or	< 22.50°	S	≥ 157.50° and < 202.50°
NE	≥ 22.50°	and	< 67.50°	SW	≥ 202.50° and < 247.50°
E	≥ 67.50°	and	< 112.50°	W	≥ 247.50° and < 292.50°
SE	≥ 112.50°	and	< 157.50°	NW	≥ 292.50° and < 337.50°

The roses show the percentage frequency of occurrence by direction. The frequency distributions show the joint frequency of significant wave height and wave direction.

6.3 Exceedences

6.3.1 Percentage Exceedences

These tables are created by classifying the data by time (monthly and annually) and directionally (on all year data) using suitable intervals of significant wave height and then producing a cumulative distribution of occurrences. The results are expressed as percentages, that is the percentage exceedence of the given wave height. The percentage exceedence table may therefore be used to determine the proportion of time the significant wave height exceeded any given value.

6.3.2 Exceedences (Number of Days per Month)

These values are created by calculating daily statistics of significant wave height and determining the percentage of the days when the maximum daily significant wave height exceeded given thresholds. These percentage exceedences where then applied to the mean number of days in any given month (January = 31.00, February = 28.25 etc.) to generate a mean number of days that a given significant wave height would be expected to be exceeded.

6.4 Comparison of Modelled and Measured Significant Wave Height Exceedences

A comparison of the significant wave height exceedences in days per month / year between the measured K2, K4 and DB-1 buoy significant wave heights and all 6 UKMO GWM grid points are shown in Table 6-1.

♣ Incomplete Year of Data

		Average Days per month (all available data)												Days per year				
HS > 2m	**Date**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		**1995**	**1996**	**1997**	**1998**
GWM-1	5/94-4/99	27	27	28	27	16	18	16	16	20	27	28	29		287	278	265	280
GWM-2	5/94-4/99	29	27	28	28	19	20	21	19	22	29	29	30		299	292	297	311
GWM-3	5/94-4/99	28	27	27	27	18	18	17	19	21	27	28	30		283	283	276	305
GWM-4	5/94-4/99	29	26	26	26	18	19	17	17	20	27	28	30		274	273	290	298
GWM-5	5/94-4/99	30	27	28	26	19	19	17	19	21	27	29	30		282	290	289	304
GWM-6	5/94-4/99	30	26	26	25	18	18	15	16	19	26	29	29		264	269	289	289
														1994	**1995**	**1996**	**1997**	**1998**
BUOY K2	1/94-11/99	24	21	23	22	23	21	18	16	22	24	28	30	142♣	351	248♣	288	307
BUOY K4	1/94-11/99	26	23	22	28	27	21	22	21	23	28	29	30	278♣	203♣	267	257♣	306♣
														1979	**1980**	**1981**		
BUOY DB-1	6/78-3/82	29	28	29	20	19	12	12	13	21	25	29	30	226♣	259	273		
HS > 4m	**Date**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		**1995**	**1996**	**1997**	**1998**
GWM-1	5/94-4/99	20	21	18	7	2	4	1	2	8	14	14	17		132	108	127	138
GWM-2	5/94-4/99	21	22	20	9	3	5	2	4	9	16	17	19		157	128	140	161
GWM-3	5/94-4/99	20	22	15	7	3	4	2	2	7	16	14	17		133	121	125	140
GWM-4	5/94-4/99	20	19	12	7	4	2	2	2	5	14	14	18		123	118	113	127
GWM-5	5/94-4/99	21	20	14	8	5	3	3	1	6	11	16	18		136	125	124	121
GWM-6	5/94-4/99	20	17	12	7	4	2	1	2	5	13	14	19		115	119	117	122
														1994	**1995**	**1996**	**1997**	**1998**
BUOY K2	1/94-11/99	17	19	14	11	8	6	2	3	2	7	12	19	75♣	168	110♣	125	142
BUOY K4	1/94-11/99	20	20	17	13	6	6	3	2	8	14	17	22	99♣	127♣	125	122♣	156♣
														1979	**1980**	**1981**		
BUOY DB-1	6/78-3/82	14	16	20	3	3	1	0	0	3	7	8	19	73♣	81	101		
HS > 6m	**Date**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**		**1995**	**1996**	**1997**	**1998**
GWM-1	5/94-4/99	8	13	4	1	0	0	0	0	1	3	4	7		42	26	42	55
GWM-2	5/94-4/99	11	14	7	1	1	0	1	0	2	4	7	10		58	45	53	74
GWM-3	5/94-4/99	9	12	6	1	1	0	0	0	1	4	6	9		54	34	50	59
GWM-4	5/94-4/99	9	10	4	1	0	0	0	0	1	4	5	9		45	38	38	54
GWM-5	5/94-4/99	8	9	5	1	0	0	0	0	1	4	5	9		44	33	46	49
GWM-6	5/94-4/99	9	8	4	2	0	0	0	0	1	4	5	9		48	39	39	49
														1994	**1995**	**1996**	**1997**	**1998**
BUOY K2	1/94-11/99	7	11	6	2	2	0	0	0	0	1	2	6	25♣	55	29♣	40	55
BUOY K4	1/94-11/99	12	12	10	3	3	2	0	0	1	4	5	12	49♣	63♣	40	49♣	67♣
														1979	**1980**	**1981**		
BUOY DB-1	6/78-3/82	3	2	8	0	0	0	0	0	0	2	0	10	26♣	19	23		

Table 6-1 - Average Number of Days Per Month / Year That Significant Wave Height Exceeded Given Threshold

A comparison of the measured K2 and K4 significant wave height exceedences and their corresponding UKMO GWM data (GWM-4 and GWM-2 respectively) at each of the wave height thresholds are shown in Figure 6-1 and Figure 6-2.

Figure 6-1 and Figure 6-2 show that the general patterns between measured and modelled significant wave height exceedences are reasonably close at the 4 and 6 m exceedences. At the 2 m exceedence the comparison is still reasonable but begins to deviate, especially in the early part of the year. As with the wind speeds however, it should be noted that a more variable signal is expected at the lower thresholds.

Note : differences between modelled and measured results may be due to both spatial and / or temporal variation.

Generally the buoy data is expected to be more variable, with increased chances of obtaining anomalous results due to problems with missing data biasing the monthly and annual averages. As with the wind speed results, where inconsistencies arise between the two data sources we recommend the use of the modelled results. This is because the modelled data has the advantage of containing complete months and / or years of data.

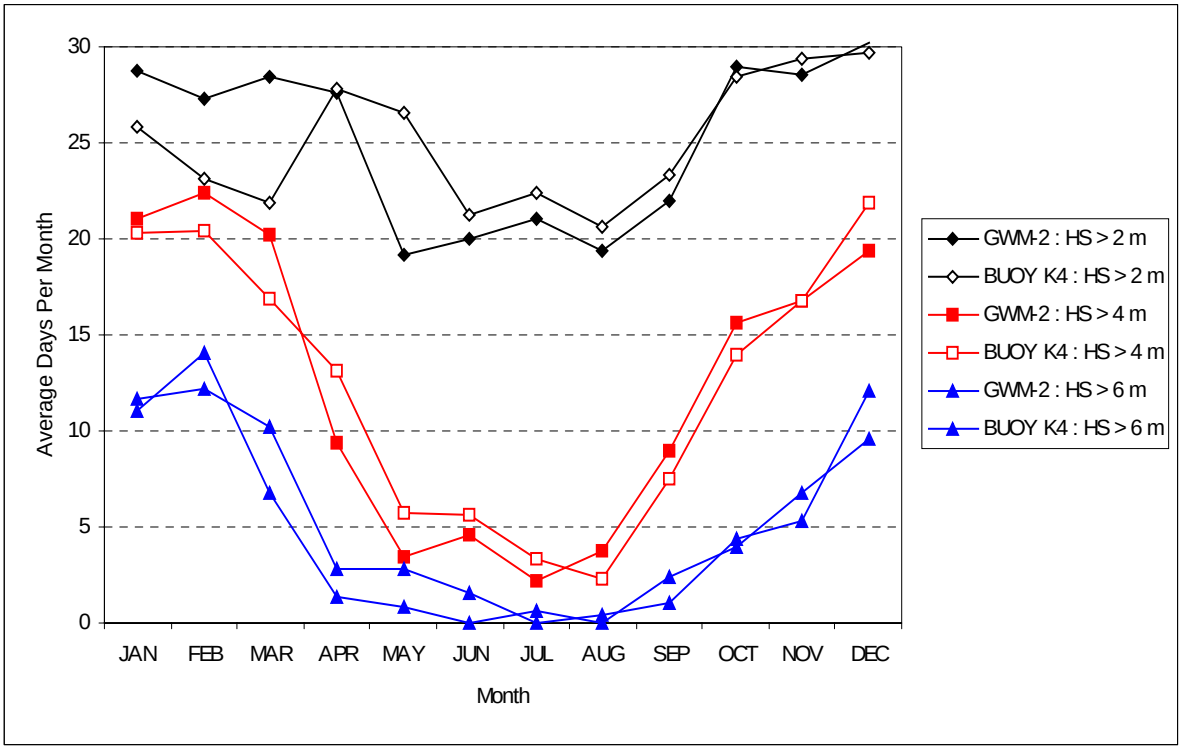


Figure 6-1 - Global wave Model Grid Point GWM-2 vs. K4 Buoy Significant Wave Height Exceedence

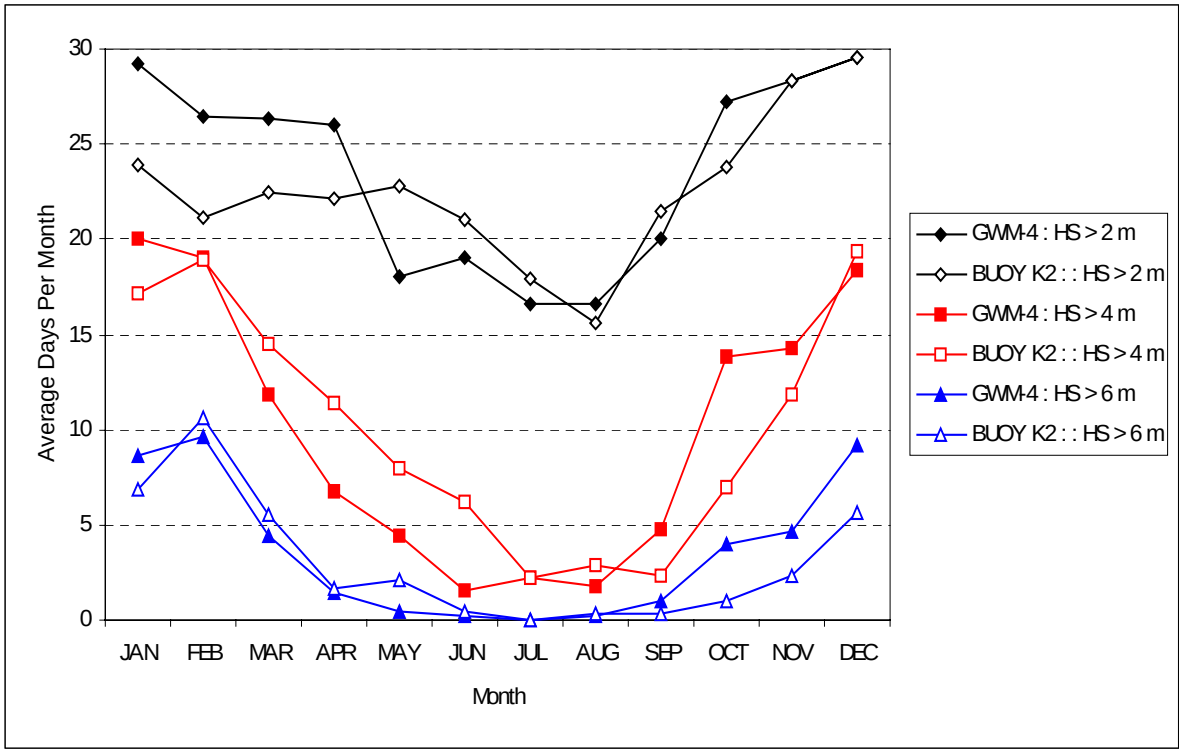
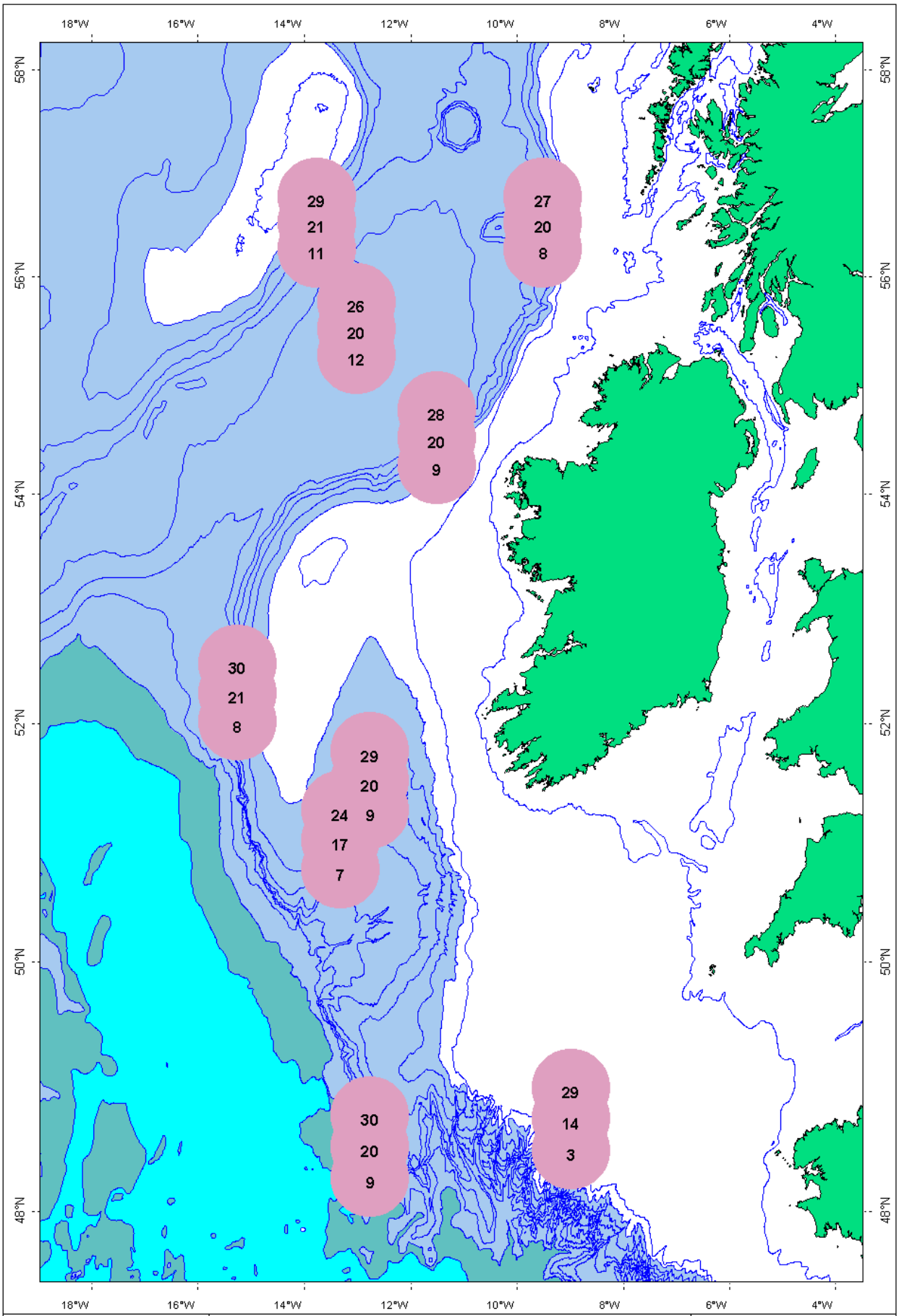


Figure 6-2 - Global wave Model Grid Point GWM-4 vs. K2 Buoy Significant Wave Height Exceedence



Days HS > 2m

Days HS > 4m

Days HS > 6m

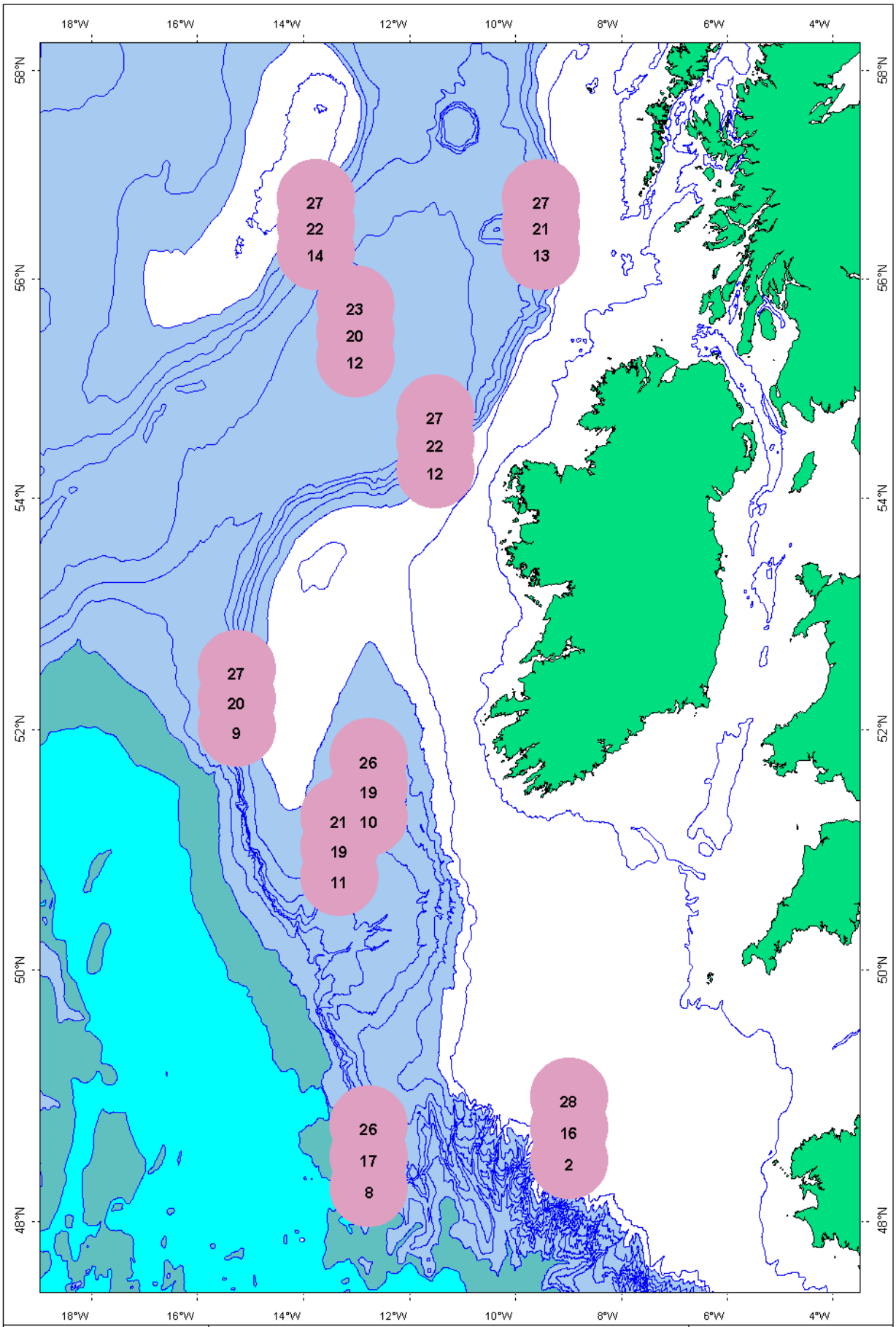
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (January)

Geos Ref : C50090/2054

Figure No : 6.3

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

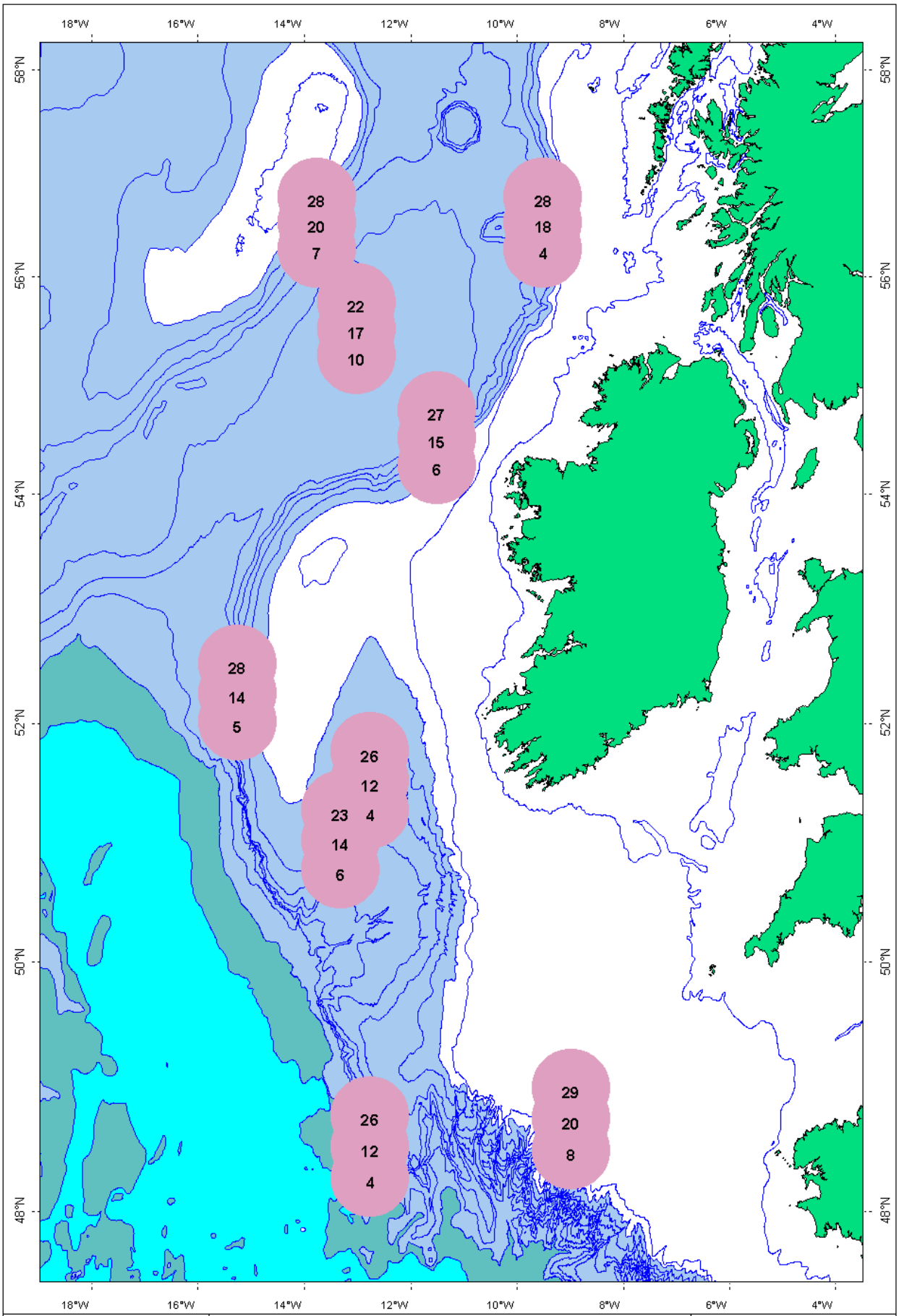
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (February)

Geos Ref : C50090/2054

Figure No : 6.4

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

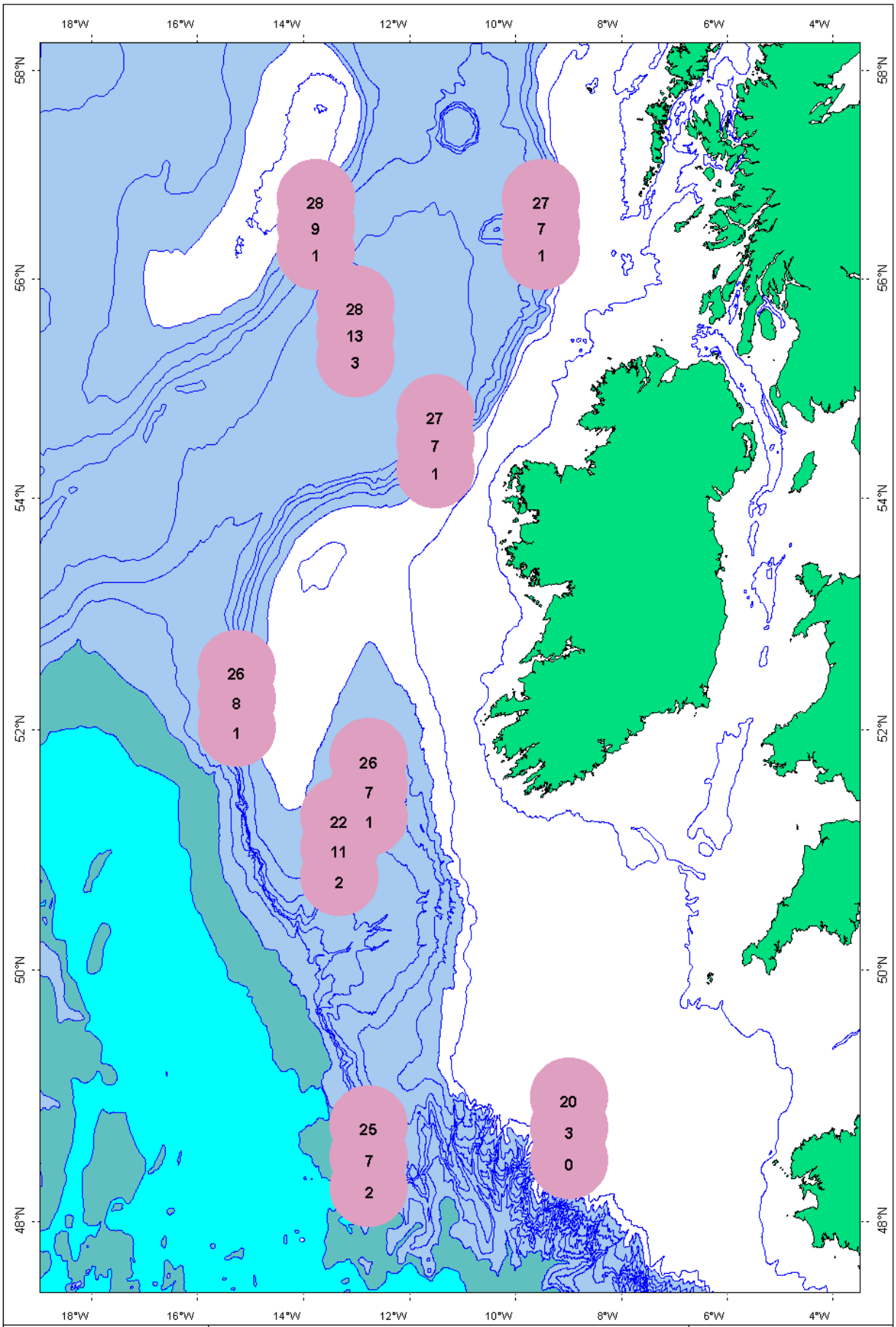
Significant Wave Height Exceedences in Days (March)

Geos Ref : C50090/2054

Figure No : 6.5

Plot Date : 20-DEC-00

FUGRO



Days HS > 2m

Days HS > 4m

Days HS > 6m

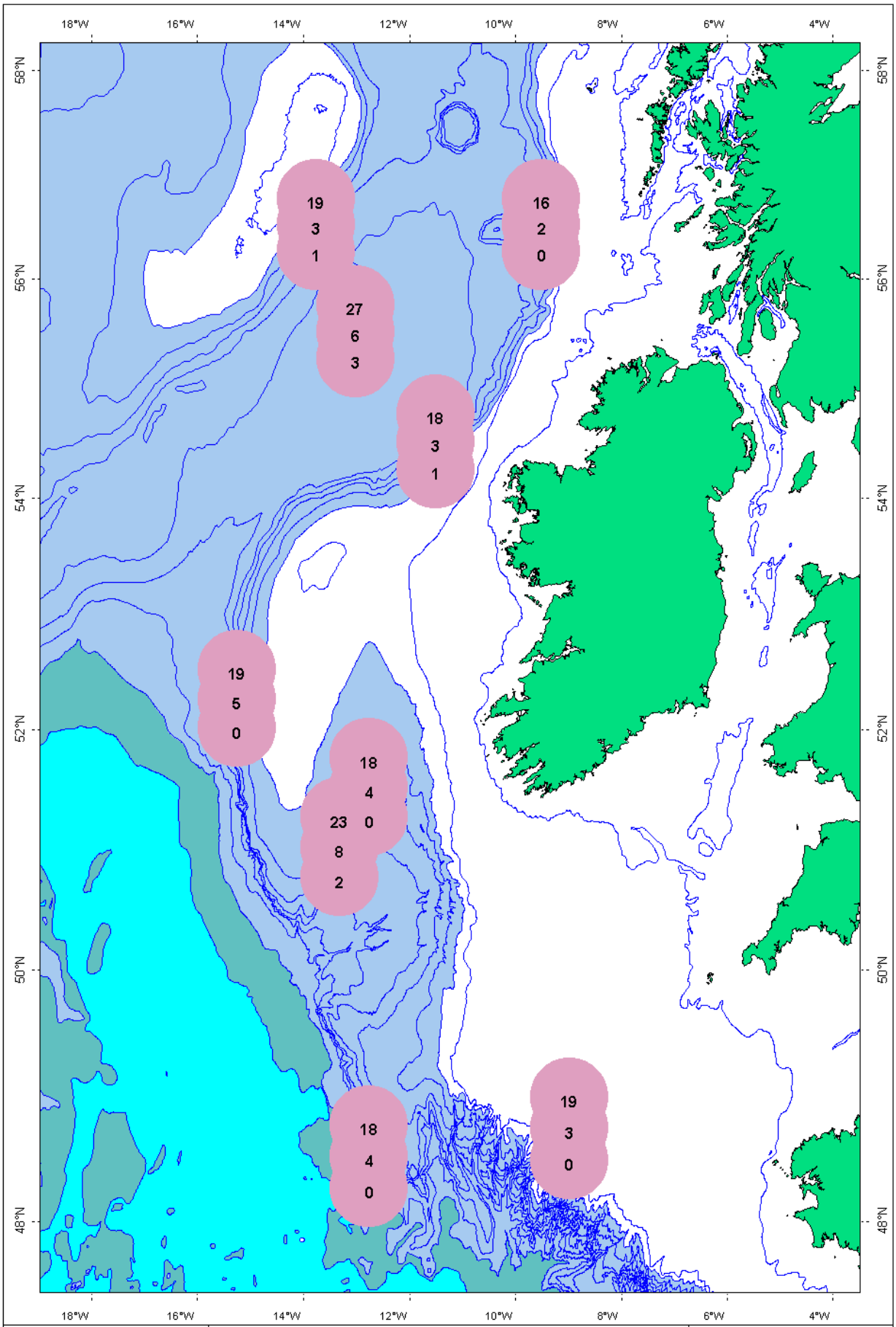
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (April)

Geos Ref : C50090/2054

Figure No : 6.6

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

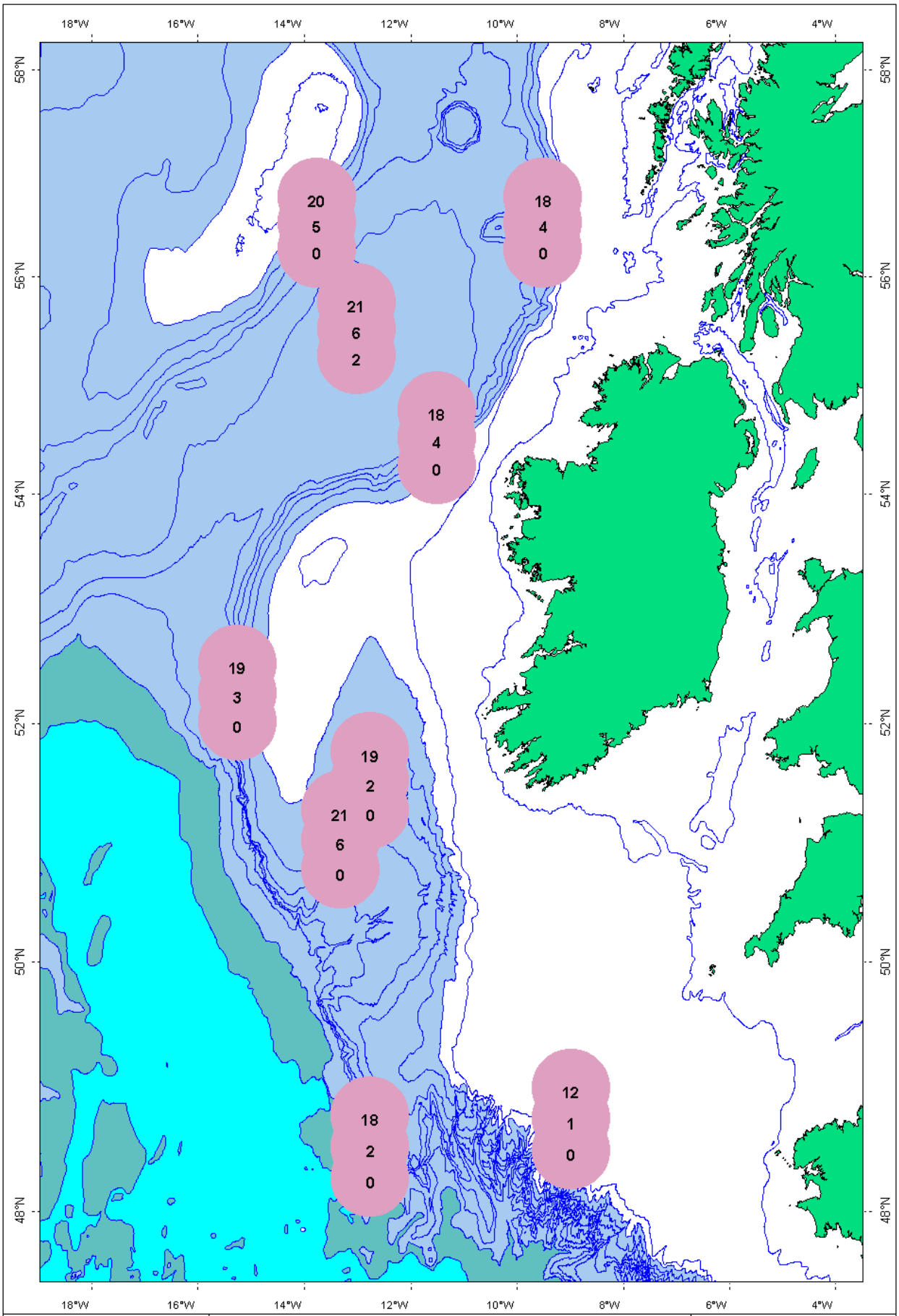
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (May)

Geos Ref : C50090/2054

Figure No : 6.7

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

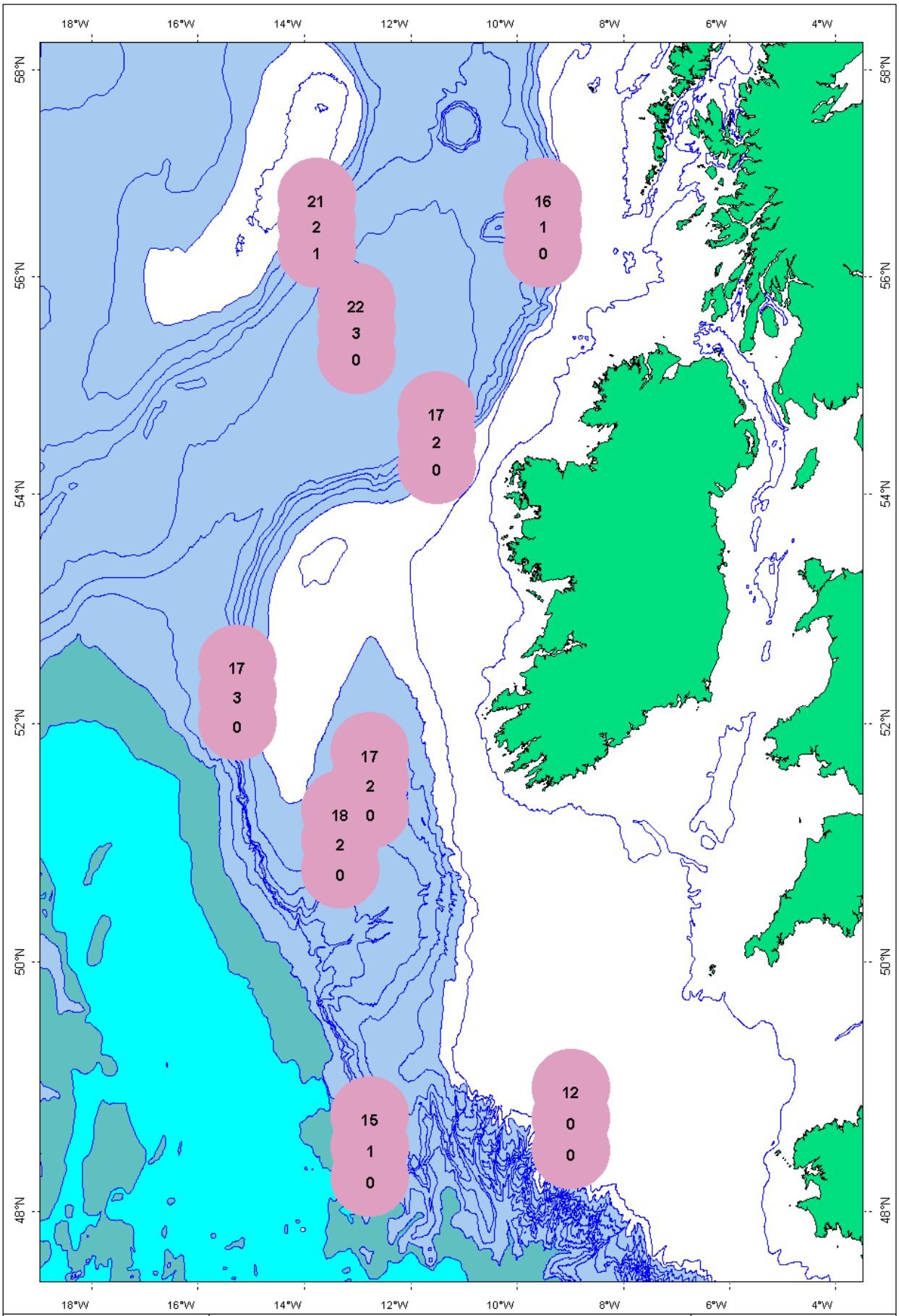
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (June)

Geos Ref : C50090/2054

Figure No : 6.8

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

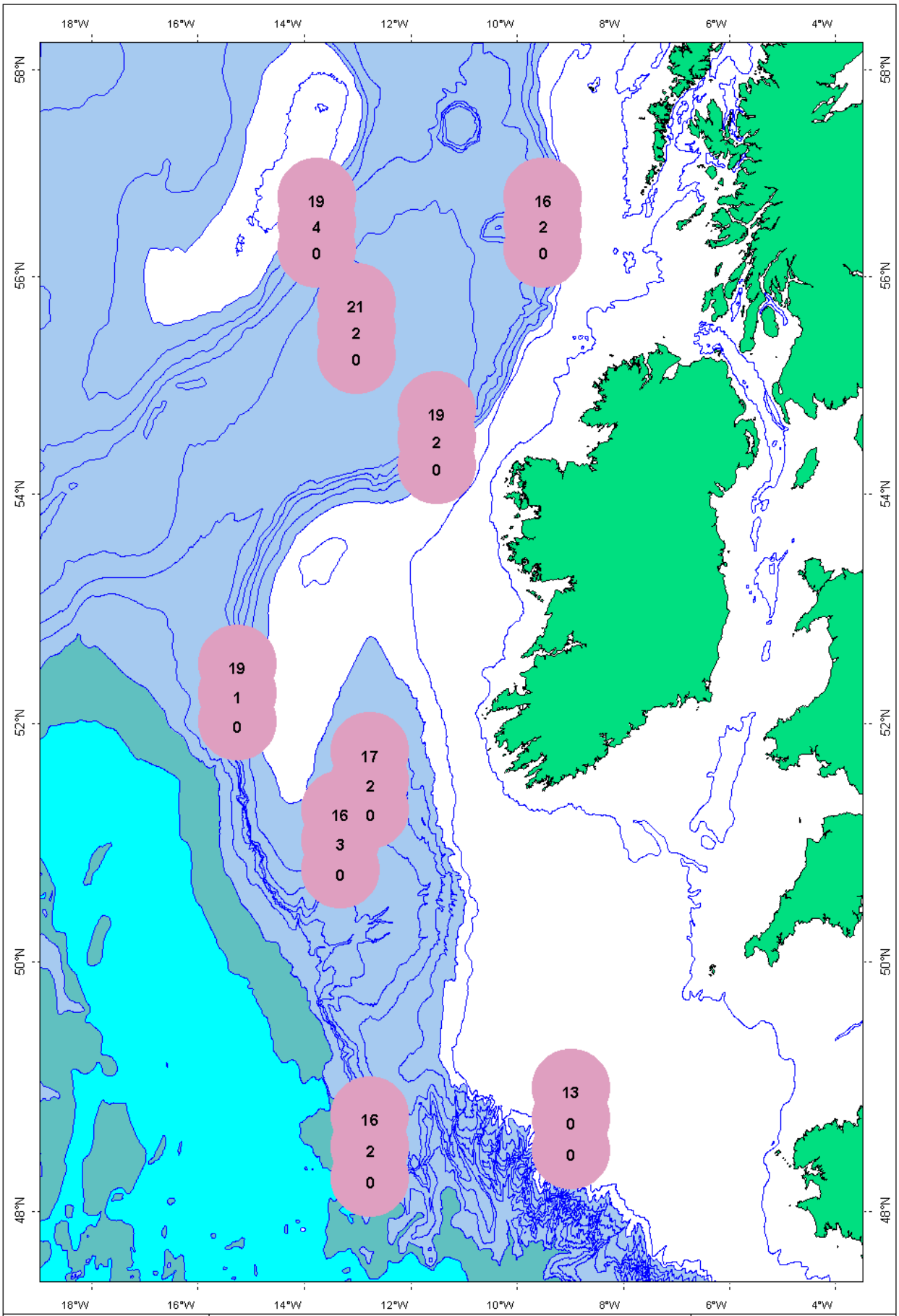
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (July)

Geos Ref : C50090/2054

Figure No : 6.9

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

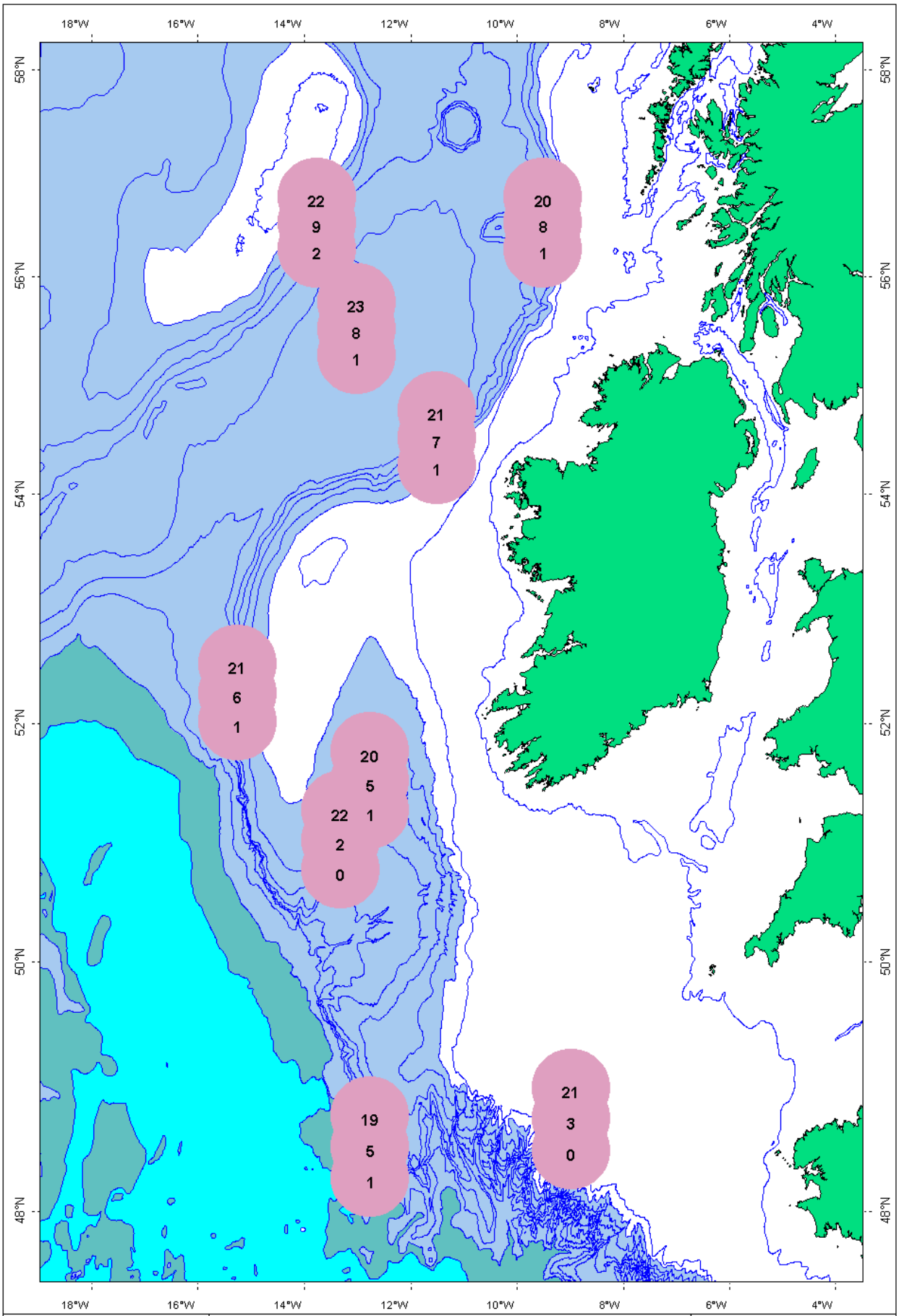
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (August)

Geos Ref : C50090/2054

Figure No : 6.10

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

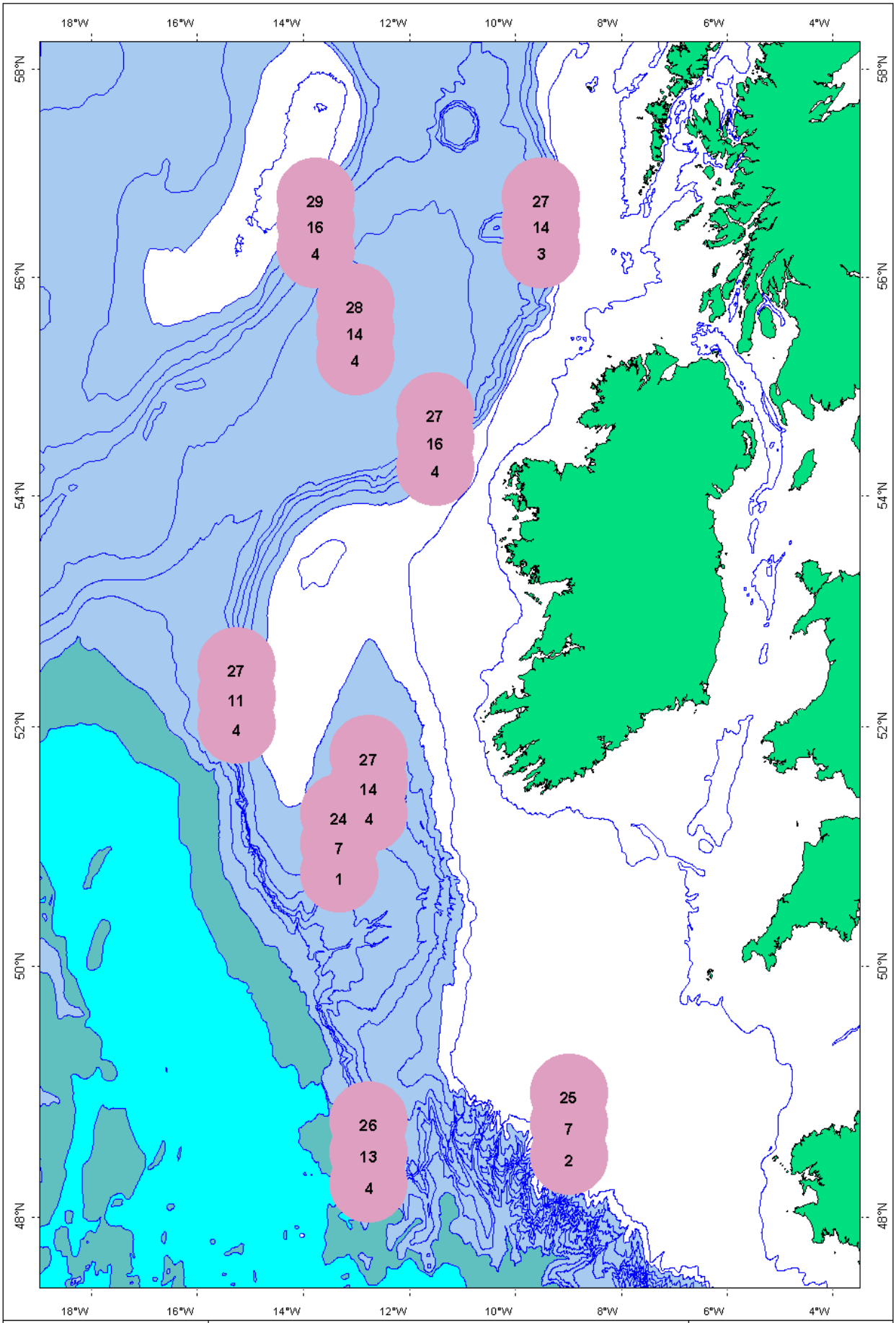
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (September)

Geos Ref : C50090/2054

Figure No : 6.11

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

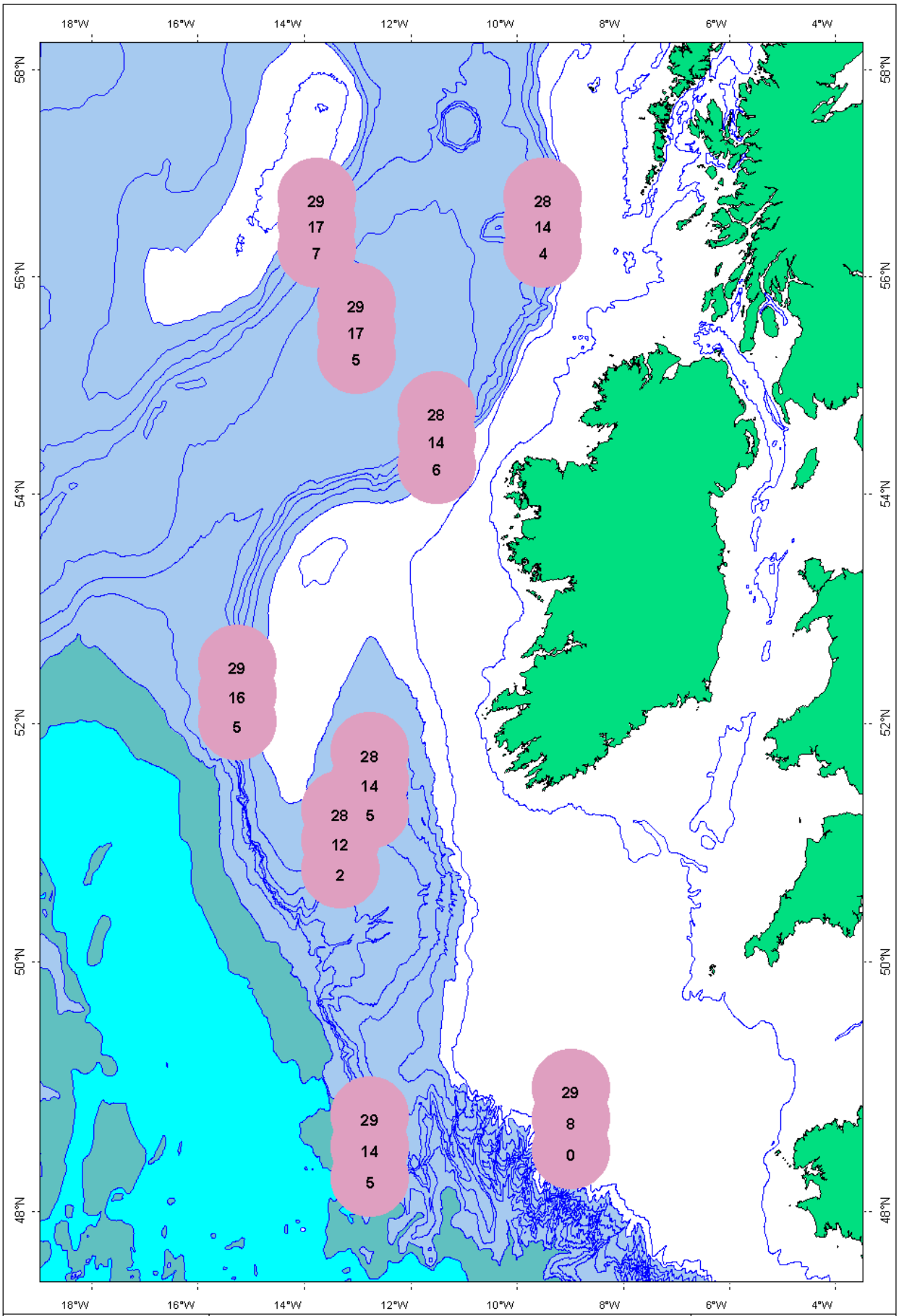
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (October)

Geos Ref : C50090/2054

Figure No : 6.12

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

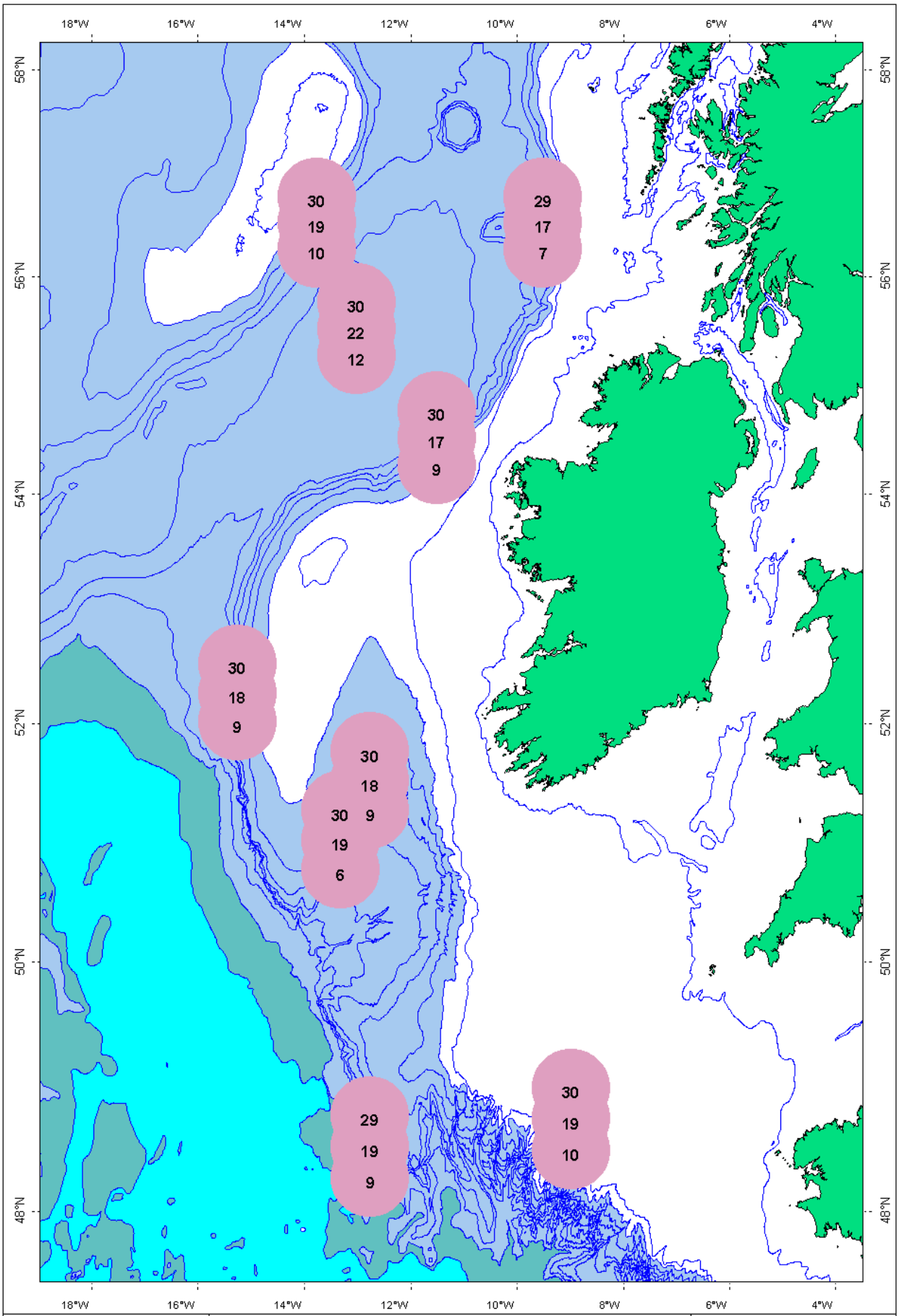
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (November)

Geos Ref : C50090/2054

Figure No : 6.13

Plot Date : 20-DEC-00



Days HS > 2m

Days HS > 4m

Days HS > 6m

WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Significant Wave Height Exceedences in Days (December)

Geos Ref : C50090/2054

Figure No : 6.14

Plot Date : 20-DEC-00

7. CURRENTS

This section has been derived from a detailed literature review (compiled by Amergen International Oceanographic Services Ltd.) and a variety of measured current meter data (summarised in Section 3.5).

Results from the measured current meter analyses have been incorporated into the literature review where appropriate and discussions made of any discrepancies between the two sources. Frequency distributions have also been generated from all measured current meter sources and these are given in Appendix C.

7.1 Data Analyses

7.1.1 Data QC

Each current meter time series (Figure 7-1) was analysed using the following methods:

- Data files were converted into binary files, ready for analysis, using standard Fugro GEOS software.
- A time series of each data set was plotted for QC purposes.
- QC parameters such as false start/end times were applied, data spikes removed and in three cases the entire data set was dismissed due to corrupt or suspicious data.

    - BODC data sets 9633 and 9634 : confusion over data ID in BODC OMEX notes, there was a caution over the suspicious quality of data. These two files were not processed because of these issues.
    - BODC data set 9419 : data corrupt between 28th September 1994 20:00 and 12th October 1994 06:00 entire data set error flagged due to suspicious data. As the source of error was uncertain, therefore it was considered best to discard the entire data set.
    - BODC data set 9418 : speed data bottoming out after 10th January 1995, whole data set error flagged after this date. Result in loss of notable amount of data.
    - BODC data set 9621 : speed data bottoming out after 4th December 1993, whole data set error flagged after this date. Result in loss of notable amount of data.
    - BODC data set 9627 : data not reducing to zero but leveling off at 1.10 cm/s, therefore all data error flagged below 1.11 cm/s.
    - Remainder of editing consisted of minor false Start/End times applied, minor spike removal.

- Occurrence tables, as counts and as percentages, were produced using modified Fugro GEOS software (to produce tables in client requested format).
- Occurrence tables were checked to make sure that no extreme values had been missed.

7.1.2 Measured Current Meter Data - Frequency Distributions

All frequency distribution tables (as counts and as percentages) of all measured datasets are given in Appendix C.

For the purposes of this section the current meters have been divided into three main areas and into a number of depth bins. The measured current meter data is grouped into the following areas:

- Porcupine Bank — North of 50°N, West of 14°W
- Porcupine Sea Bight — North of 50°N, East of 14°W
- OMEX area (Celtic Slope / Goban Spur) — South of 50°N

See Figure 7.1

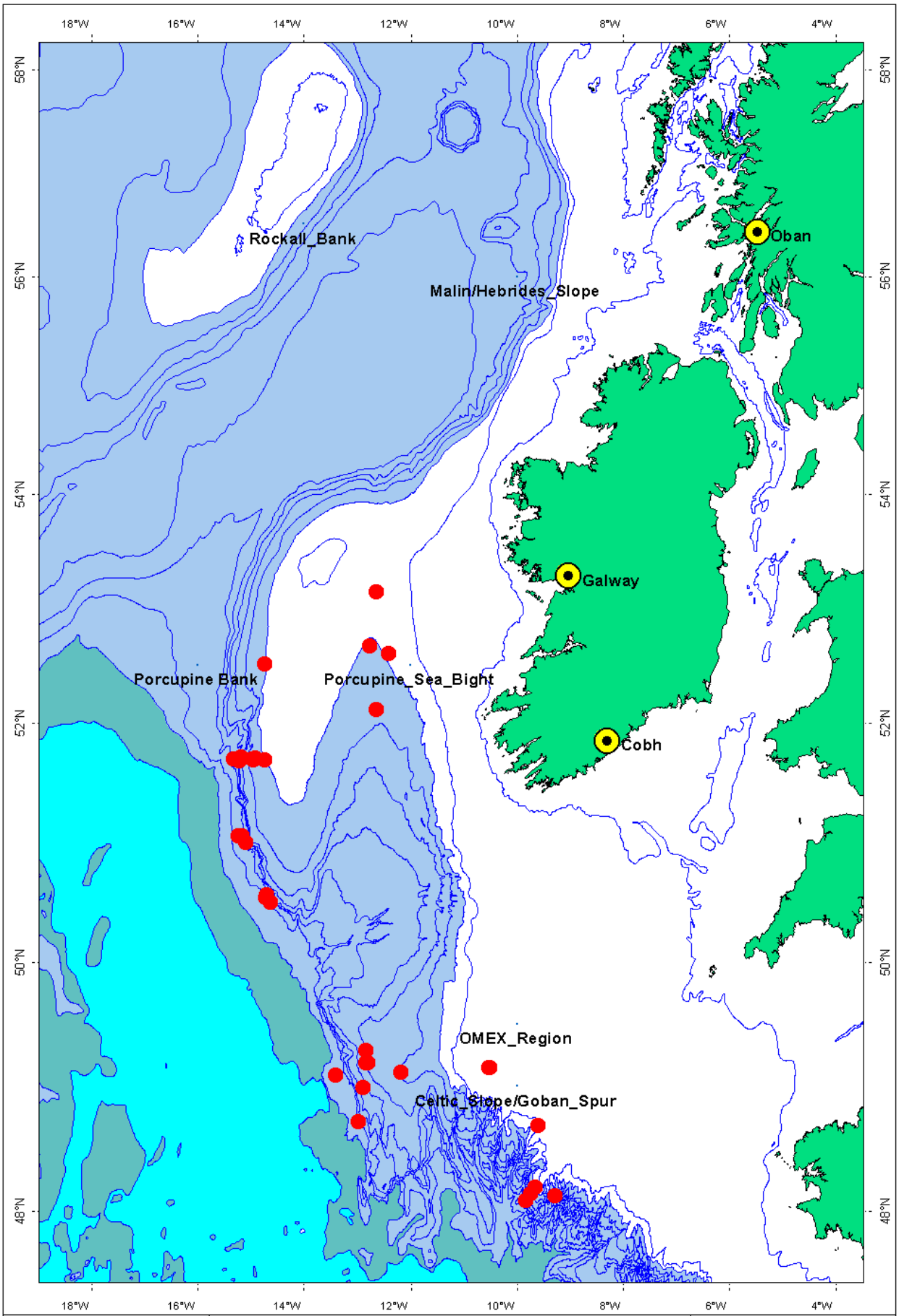
And grouped into the following depth bins:

- 0-200m
- 200-500m
- 500-1000m
- 1000-2000m
- >2000m

7.1.3 Current Profiles Associated with 10% and 50% Exceedences

Because few of the moorings used during this study contain sufficient data in the vertical to produce reliable exceedence profiles individually, we have generated exceedence profiles by fitting an appropriate curve to a composite profile of all available data within the sub-regions defined in Section 7.1.2.

The 50 and 90 percentiles (50% and 10% exceedence current speeds) for all available data within the sub-regions were produced and plotted against the current meter depth. Consistency between moorings was generally good considering the temporal variation of the data collection (Figures 7.3 to 7.5). Least square fits to a power law curve of the form $y = cx^b$ were applied to the composite data. A comparison of the three areas on the same depth axes is given in Figure 7.6.



WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Current Meter Moorings

Geos Ref : C50090/2054

Figure No : 7.1

Plot Date : 19-DEC-00

7.2 Descriptive Overview

7.2.1 Water Masses in the RSG / PSG Region

The water masses within the Porcupine-Rockall region fall into two broad categories - upper water to a depth of about 1200 m and deeper waters below this depth. The upper water is essentially derived from the North Atlantic Central Water (NACW) with a source in the western Atlantic, but modified by water masses with a source more local to the NE Atlantic (Harvey; 1982, Pollard *et al.*; 1996, Ellett *et al.*; 1986). These are principally the cooler fresher Sub Arctic Intermediate Water (SAIW) to the northwest, subducted in the vicinity of the Polar Front, and the relatively warmer more saline Eastern North Atlantic Waters (ENAW) which is formed as a winter mode water to the southeast. In addition Mediterranean outflow Water (MW) is present below 700 m depth and has a varying influence on the upper layer water masses through deep convective mixing in winter. At deeper levels, water masses are derived from Labrador Sea Water (LSW) and the denser overflow waters originating from the Norwegian Sea, together with Lower Deep Water (LDW), weakly influenced by Antarctic Bottom Water (AABW) (Holliday *et al.*; 2000).

7.2.2 Currents in the RSG / PSG Region

General patterns of circulation for the region have been established through research over the last few decades and there are now several reviews of the large scale circulation in the region (e.g. Ellett *et al.*; 1986, Ellett; 1995, Pingree and LeCann; 1989;1990, Huthnance; 1986). The region immediately adjacent to the continental margin west of Ireland falls in between the two main gyre circulation systems of the North Atlantic - the sub polar and sub tropical gyres. The main branch of the North Atlantic Current (NAC) turns northwards west of 25°W and flows west and north of the Rockall Bank (Pollard *et al.*; 1996). This is also found by the results of drifting buoy measurements summarised by Pingree (1993), which show a division of the main eastward flow of the NAC between 20°W-25°W, one branch flowing NW of Rockall Bank together with a southern branch flowing SE into the Bay of Biscay. Pollard *et al.* (1996) has estimated a northwards transport of 5Sv (1Sv=10^6 m^3 s^{-1}) into the southern Rockall Trough east of 25°W. Against the continental margin itself, a poleward flowing slope current is present, to varying degrees, at all locations. This slope current is an eastern boundary current (Smith; 1989) comprising at the upper levels, a relatively warm and saline Shelf Edge Current (SEC) and below this level the Mediterranean Outflow and deep ocean re-circulation (Dickson *et al.*; 1985). This boundary current is treated separately below.

7.2.2.1 Upper Layer Flow

Ellett and Martin (1973) estimate a net north-eastward transport in the Rockall Trough of 3.7Sv in the upper 1200 m of the water column (2.75Sv in the upper 500 m and 1Sv between 500-1200 m depth). Below 1200 m, there are no exits in the northern Rockall Trough so the authors have suggested that the mean north-eastward transport of 0.2Sv estimated between 1200-1800 m can be used as a possible error for the upper level estimate. Variability in the gross transport to the northeast is large, however, with a similar magnitude to the mean transport (e.g. the variability in the upper 500 m flow was estimated as between -0.6 to 4.7Sv). In the northern Rockall Trough, a poleward slope current is present at the east boundary of the Rockall Trough, with a southward flow against the western boundary formed by the

Rockall Bank. In the deep portion of the Trough, flows are to the south in the eastern region and northwards in the western region. The deep water flow is characterised, however, by large eddy motions which are the cause of the large variability in transport estimates. Holliday *et al.* (2000) found large interannual variability in the transport rates in the Rockall Trough. Whilst a net mean value of 3.7Sv has been estimated, minimum and maximum values of -1 and 8Sv respectively have been estimated. Holliday *et al.* (2000) have also estimated a range of slope current transports of between 0-8Sv between 1975-1998, but with minimal seasonality in the slope current flow.

In the Porcupine region, the upper layer flow in the deep water is weak as it falls in the slack region west of the branching NAC, the southern arm of which forms part of the sub-tropical gyre. This is supported by the tracks of drifting buoys, drogued for upper (<200 m) layer flow, of Pingree (1993) which show a clockwise circulation in the Bay of Biscay with mean flows of about 2 cm/s. One satellite tracked buoy remained in the Porcupine Sea Bight for over 6 months, contained in one large eddy. Pollard *et al.* (1996) has suggested a upper layer transport of O(5Sv) north into the Rockall Trough east of 20°W-25°W. Along the Biscay and Celtic Sea continental slope, a predominantly poleward flowing slope current is present (Pingree and LeCann; 1989, 1990). Pingree and LeCann (1989) have estimated a mean northwards transport, based on historical records, of 1Sv between the shelf beak and 1500 m contour, increasing to 3Sv when estimated out to the 3000m contour. Seasonality in the slope current flow was also present, and showed different phases at different locations along the continental margin in this region (Pingree and LeCann; 1990). Further north in the region west of Ireland, large topographic features have an, as yet not fully understood, influence on the seasonal variability in the slope boundary flow.

7.2.2.2 Lower Layer Flow

Within the Rockall Trough, there appears to be a overall cyclonic flow of deeper water (>1200 m depth), with LSW and North Atlantic Deep Water (NADW) entering the Rockall Trough from the south in the southeast region adjacent to Porcupine Bank. It then diverges from the slope current and is topographically steered anticlockwise around the Trough and leaves the region immediately to the south of Rockall Bank. On the north Porcupine Bank slope between 1200-1600 m water depth, Lonsdale and Hollister (1979) infer moderate to strong northward flow of Labrador Sea Water origin (with water mass characteristics of low salinity and high oxygen). This intermediate flow separates from the upper layer slope current flow, north of Porcupine Bank, and loops round to the western flank of the Trough further north. Below 2000 m water has a NADW origin with the deepest water having a signature of AABW (low oxygen and high silica values). Lonsdale and Hollister (1979) suggest that whilst there is a southward flow along the western flank of the Trough, there is a reverse flow around Feni Ridge, with northward flow on the west slope and southward flow on the east slope of the ridge. This has been supported by current meter records south of the ridge summarised by Dickson and Kidd (1986), which show a northeastwards near seabed current of 3.7cm/s to the northwest of the ridge and 5.9 cm/s south-westwards current to the southeast of the ridge. The overflow of Norwegian Sea Deep Water (NSDW) into the Rockall Trough provides a small but steady input of deep water in the region (Ellett; 1995) but with some seasonal variability measured. A southwards transport of 0.2-0.3Sv over the Wyville-Thomson Ridge has been

estimated. Dickson *et al.* (1986) report a Summer-Autumn maximum in overflow and it appears that the flow is inversely proportional to westerly wind strength such that there is a minimum in deep overflow during the winter maximum in westerly wind strength. There is a flow southwards of this water mass along the eastern slope of the Rockall Bank enhancing the cyclonic circulation in the Trough mentioned above. Within the Porcupine abyssal plain, a cyclonic gyre has been inferred from a composite of previous deep water measurements below 2000 m (Dickson *et al.*; 1985). A southward flow is found east of the Mid-Atlantic Ridge and a northward flowing boundary current of O(1-2 cm/s) along the eastern boundary. There have been no long time series measurements of currents in the deep water of the Porcupine Sea Bight outside of the eastern and northern boundaries.

7.2.2.3 The NE Atlantic Slope Current

There is evidence for poleward flows along the eastern boundaries of many ocean basin systems, including the North Atlantic (Smith; 1989). Along the NE Atlantic margin a poleward flowing current along the continental margin has been measured at many locations extending from the low latitudes of northwest Africa to the Norwegian continental margin at 60°N. Along the continental margin in the Rockall-Porcupine region, this boundary current is generally found at all depths. Of particular relevance to the RSG-PSG is the upper layer (<1000 m) flow, particularly that found over the steepest portion of the slope.

The theoretical driving mechanism for the slope current is the poleward decline in sea surface height[2], caused as a result of increasing water density with latitude. This decline in sea surface height is about 1-2 cm per 100 km in the deep ocean. The rate of reduction in sea surface height is greater over the deeper ocean than the continental shelf, such that a difference in sea surface height is generated across the continental margin which gets larger further north (Huthnance; 1986). For a simple case of a north-south aligned boundary with a constant bottom slope, and a uniformly deep ocean to the west, a simple poleward current is driven along the slope with maximum current at the mid slope depth (Huthnance; 1986). In the absence of friction this current is essentially barotropic (no vertical current shear) and is fed by eastward flow from the deep ocean. In reality both friction and baroclinic effects make the situation more complex and result in different characteristics in the slope flow at different locations along the Atlantic margin (Pingree and LeCann; 1990). Friction acts to prevent a continuously increasing current further north along the slope that is implied by a simple theory, although observations do show an increase in the mean slope current further north along the Atlantic margin. In general, mean poleward currents of about 5cm/s have been measured along the Celtic Sea slope (Pingree and LeCann; 1990), with generally similar or slightly increased mean values observed off the western Porcupine Bank slope. Mean flows are highest close to the sea bed where the topographic steering effect is most apparent. To the north of the Porcupine Bank, mean poleward slope current flows of 10-20 cm/s have been recorded (White and Bowyer; 1998), with again equivalent or higher means found further north along the Hebrides

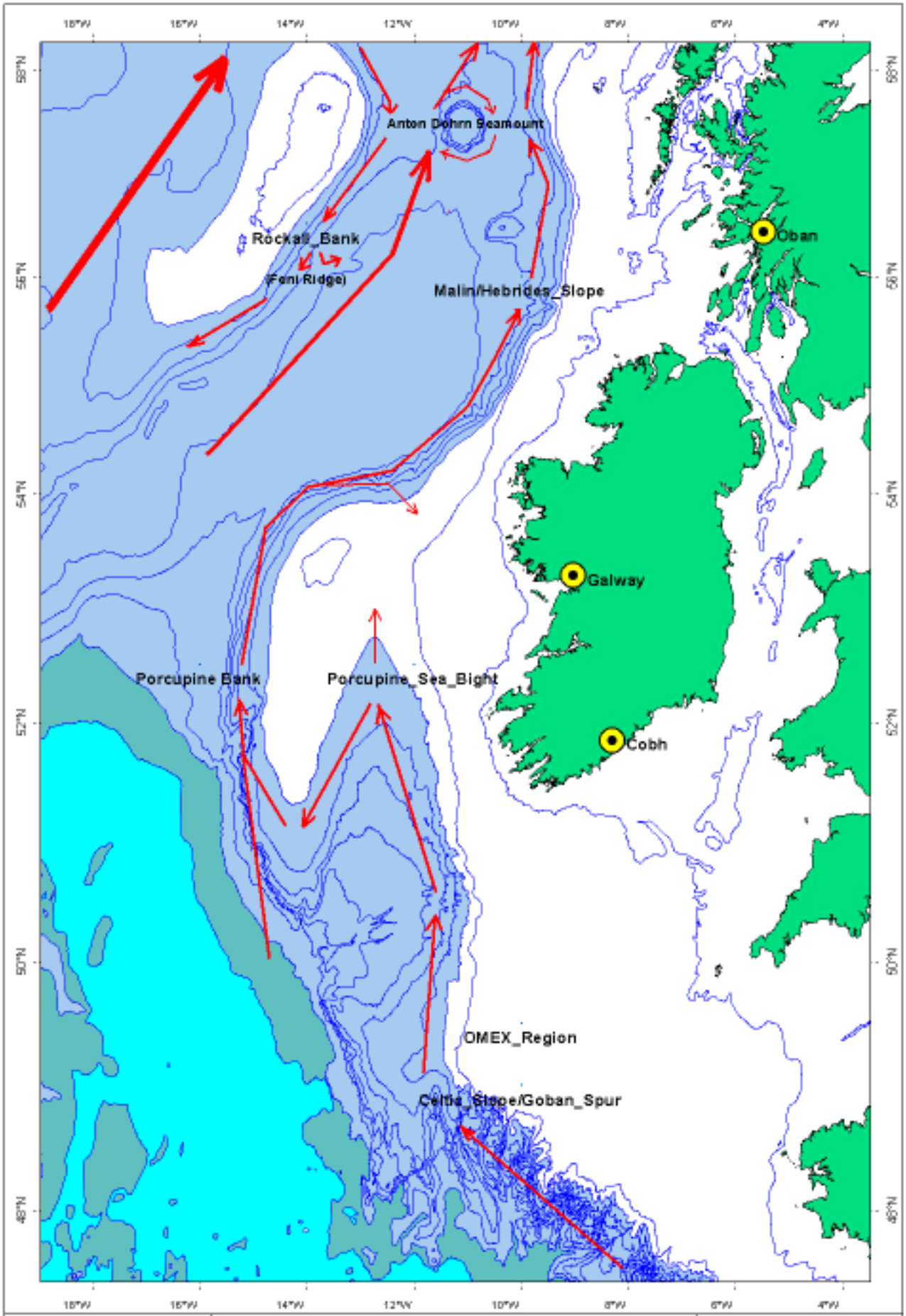
[2] Decline in sea surface height relative to the reference geopotential surface. A geopotential surface is one to which the force of gravity is perpendicular to it at all locations. It is generally taken to mean a 'level' surface. Deviations from this 'level' surface, due to hydrographic changes, result in current flow.

slope (e.g. Booth and Ellett; 1983). Seasonality in the slope current has been recognised by Pingree and LeCann (1989) in measurements made in the Bay of Biscay, Celtic and Porcupine slopes. There is a weakening of slope flow, or even a reverse in direction often measured in March and April. A further change in the flow patterns also occurs in Sept-Oct. The authors termed this seasonality the SOMA (Sept-Oct-Mar-Apr) response. It may partly be attributed to changes in large scale density/pressure forcing or a change in the wind stress at these times. The cause and timing of the response varies regionally. A similar response does not appear to happen north of Porcupine Bank along the Malin and Hebrides slope.

Measurements of the temperature and salinity across the continental margin indicate the boundary current at the upper slope region (the Shelf Edge Current, SEC) has a signature of relatively warmer and more saline water found over mid slope between the depths of 150-400 m depth (e.g. Hill and Mitchelson-Jacob; 1993). This water probably derives from the Eastern North Atlantic Water formed in winter to the NW of the Iberian margin. This warm, saline character of the upper slope flow gives rise to baroclinic (density/pressure forced) flows. The core of the slope current is relatively narrow, often only 10-30 km wide, and recent measurements along the Hebrides shelf edge indicate that the maximum current speeds do not always occur with the location of the warm-saline core in the temperature-salinity structure.

In general, a sloping boundary has an insulating effect, such that cross slope flow is small and the slope current remains essentially aligned along isobaths. Both Pingree *et al.* (1999) and Hill (1995) point out the conditions where cross slope exchange may occur. Pingree *et al.* (1999) show that less steep broader region can sustain a larger along slope transport that a steep slope, even though the steep slope is more insulating. Hill (1995) points out that a change in down current slope topography, either through a change in isobath alignment or increase in slope angle, may cause the slope current to move on shelf. The Hebrides slope was suggested as a region where this on shelf movement might occur and observational evidence has been found. Ellett (1979) and Gowen *et al.* (1998) have measured incursions of warm, saline water onto the Malin Shelf.

Figure 7-2 shows a schematic of the main upper flow regime of the study area. It must be stressed that this figure is schematic and that considerable variability exists on a number of scales. This is designed merely to give an impression of the main flows.



WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Flow Regime

Geos Ref : C50090/2054

Figure No : 7.2

Plot Date : 19-DEC-00

7.3 Regional Results

7.3.1 Celtic Slope and Goban Spur (Literature Review)

The slope current transport increases from the southern Bay of Biscay towards the Goban Spur, marking the southern slope boundary of the Porcupine region. Upstream (in the sense of the mean slope current direction) of Goban Spur, mean currents are up to 10 cm/s (maximum 40 cm/s in the upper half of the water column), with a mean slope current transport of about 3Sv has been estimated by Pingree and LeCann (1990). Currents are seasonal, with a minimum in April and a maximum in late summer/autumn. Near bottom flows may be affected by the presence of canyons which intersect the slope. At the Goban Spur, measurements made during the OMEX I experiment show marked seasonality and the effect of the Spur itself on the slope current dynamics (Pingree *et al.*; 1999). Currents show a similar mean residual and variability in the upper, middle and bottom layer represented by the 3 current meters used. There is marked seasonality with reversal of the poleward flow in April (measured in successive years). Slope current water appears to overshoot the Spur topography and move into the deep ocean. The currents are enhanced near the sea bed but the magnitudes are low, exceeding 25 cm/s less than 5% of the measurement period of over a year, even 50 m above the bottom.

7.3.2 Celtic Slope and Goban Spur (Measured)

The 90% and 50%-ile curves (10% and 50% exceedence) derived from all of the measured data in this region are given below (Figure 7-3).

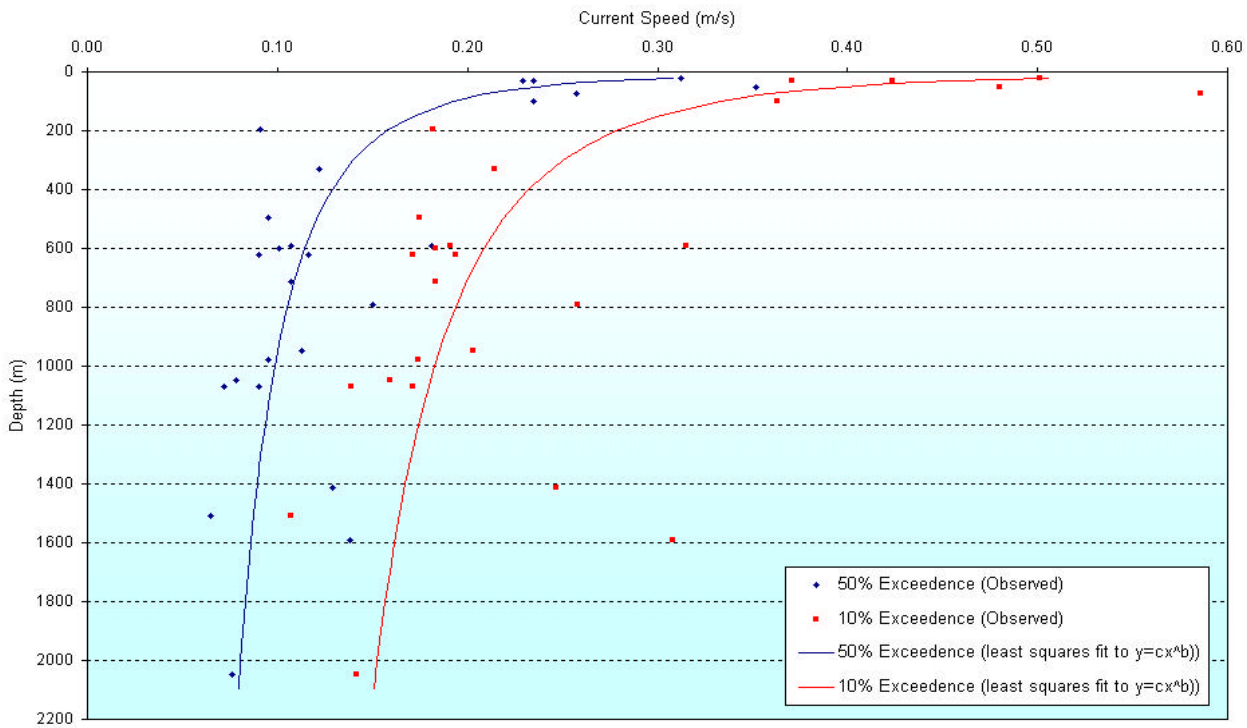


Figure 7-3 - Composite Analysis from OMEX (Celtic Slope and Goban Spur) Region

R^2 = 0.6950 (50%), 0.6367 (10%)

The 50% exceedence curve matches the literature mean current speed of 10cm/s over the majority of the water column. The measured data show significant increases in current speed in the upper 200m. Unfortunately, no measured data were recorded at very near seabed (within 50m) to verify the 25cm/s currents observed in the literature review.

0-200m All 7 mooring recorded maxima significantly greater than 40cm/s. Three moorings had significant percentages of data excceeding 40cm/s ; 3664 (26.4%), 3157 (32.2%), 9591 (14.1%). The maximum values in excess of 60cm/s were recorded at depths between 23 and 50 m and are not believed to be significantly influence by wave motions. The summary table in Section 4.3 has appended accordingly.

200-500m Of the 2 moorings in this depth interval neither recorded currents in excess of 40 cm/s.

500-1000m Of the 10 moorings in this depth interval only 1 exceeded 40 cm/s. Maximum current was recorded at mooring 5872 at 590 m depth. Only 1.6% of data exceeded 40 cm/s.

1000-2000m Only 2 from 7 moorings in this depth interval recorded currents in excess of 40 cm/s. Moorings 5874 and 5870 recorded maxima in the 45-50 cm/s bins. Only 0.5 and 2.3% of data exceeded 40 cm/s respectively.

>2000m Only 1 mooring in this depth range. No currents observed above 25 cm/s.

Mean Speed The modal value of all current speeds fell in the 5-10 cm/s bin in agreement with the literature. Surface values are generally higher on average and fall approximately evenly between the 5-10 and 10-15 cm/s bins. The summary table from the literature review (Section 4.3) has been adjusted to take these into account.

7.3.3 Porcupine Sea Bight (Literature Review)

Near bottom currents are constrained by the topography, with a poleward mean and some weakening during March/April. Some intensification of the diurnal tidal currents have been measured. At mid depth the seasonality is more marked, with a reverse in the poleward current in late March and subsequent southward flow until July (Pingree and LeCann; 1990). The percentage of stronger currents does increase further north along the eastern slope but currents only exceed 25 cm/s for any significant time (18%) near the seabed at 51°40'N due to the increased tidal currents there. The currents found at the northern boundary of the Sea Bight, between the Porcupine Bank and the Irish Shelf over water depths 360-800m, show small mean flows, indicating the slope current may not flow freely into the Rockall Trough east of Porcupine Bank. Previous measurements have indicated that mid and deep flows do not exceed 25 cm/s for more than about 15% of the time, although upper layer flow may exceed that value for up to 30% of the measurement period, occasionally reaching in excess of 35-40 cm/s. On the western flank of the Sea Bight, a small mean northward flow, with generally lower energy, has been observed during a relatively short duration mooring. Within the interior of the Sea Bight, currents have only been measured by short duration bottom landers. A satellite tracked buoy, however, has indicated that water may be retained in the Sea Bight, under low flow conditions, for up to 6 months (Pingree; 1993).

7.3.4 Porcupine Sea Bight (Measured)

The 90% and 50%-ile curves (10% and 50% exceedence) derived from all of the measured data in this region is given below (Figure 7-4).

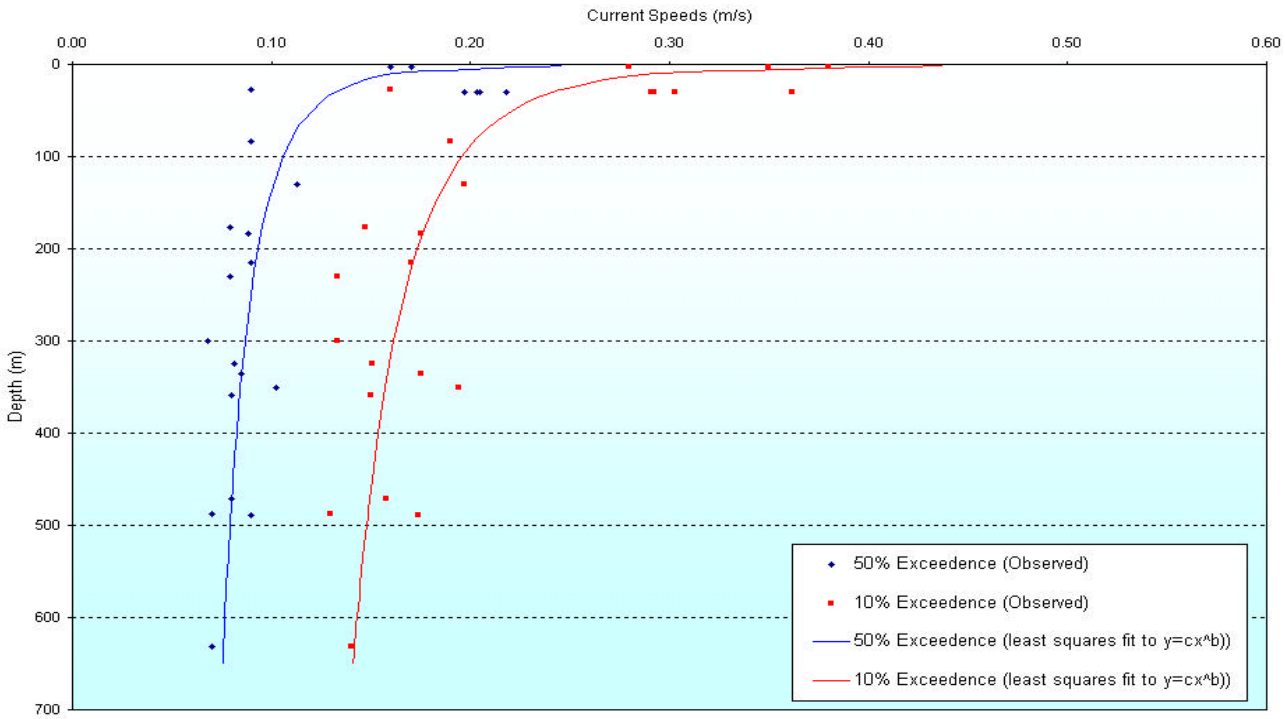


Figure 7-4 - Composite Analysis from Porcupine Sea Bight Region

R^2 = 0.6154 (50%), 0.7162 (10%)

Current meter data from the very near surface has been omitted from these analyses. High current speeds are considered unrepresentative as they are considered to be biased by wave orbital motions.

The theoretical current profiles in Figure 7-4 matches reasonably well with the literature ranges.

0-200m Of the 8 valid moorings in this region 4 had maximum currents exceeding the literature review value of 40 cm/s. Of these only 1 mooring (SEDCO30) had more than 1% of data exceeding 40 cm/s. SEDCO30 at 30m depth had a recorded maximum current speed in the 60-65 cm/s bin during September 1977. 5.9% of the SEDCO30 data exceeded 40 cm/s. Unfortunately no other meters were recording in this region during September 1977. Analysis of the current speed time series suggest that the meter was recording correctly with no obvious anomalous values. The summary table in Section 4.3 has been appended accordingly.

200-500m None of the 10 measured moorings had a current speed exceeding 35 cm/s.

500-1000m Only 1 mooring in this depth range. No currents observed above 25 cm/s.

1000-2000m No data available in this depth interval in this region.

>2000m No data available in this depth interval in this region.

Mean Speed The modal value of all current speeds fell in the 5-10cm/s bin in agreement with the literature.

7.3.5 Porcupine Bank (Literature Review)

Measurements along the western slope of Porcupine Bank have concentrated on the deeper layers below 2000 m but there are a few other, perhaps more useful data. Relatively intensive measurements have been made by the Ministry for Agriculture Fisheries and Food (MAFF) (see Dickson *et al.*; 1985) and also by Thorpe (1987b) and Thorpe *et al.* (1990). Mean flows in the water below 1500 m are generally poleward and of magnitude less than 5 cm/s. Mean values increase for those measurements made on the steeper portion of the slope near 800 m water depth as might be expected from increased topographic steering and also because conditions for enhanced current due to internal waves are expected to be at a lower water depth than further north or in the Celtic Sea. This has resulted in most energetic currents being measured at 800 m water depth (up to 40 cm/s) and not further up the slope at 500 m (about 20% exceedance of 25 cm/s at 800 m depth and less than 5% at 500 m). There would appear to be some seasonality in the mean flows with a small SOMA response described by Pingree and LeCann (1989) and Pingree *et al.* (1999). Thorpe (1987b) measured significant 2-10 day modulation of the boundary flow southwest of Porcupine Bank attributed to the presence of trapped slope waves. These waves may periodically weaken or reverse the prevailing poleward mean flow. It also has the effect of changing the local stratification in the water column which has significant influence on the internal wave propagation characteristics, broadening the region over which enhanced current might be expected from internal wave - bottom slope interactions. At the northern end of the Porcupine Bank, few measurements have been made. It appears that a near seabed slope current is present however (based on quantification of seabed formations) but whether the upper layer flow is continuous around the Bank is still uncertain.

7.3.6 Porcupine Bank (Measured)

The 90% and 50%-ile curves (10% and 50% exceedence) derived from all of the measured data in this region is shown in Figure 7-5. No measured data was available for the upper 0-200 m depth interval and the theoretical curves in Figure 7-5 have been extrapolated to near surface. The results are broadly similar to those found in Figures 7.3 and 7.4. A power law curve was fitted to the data for consistency with the other regions. Despite this fitting function there is some evidence of increase currents between 600 and 800 m which is entirely consistent with the literature review.

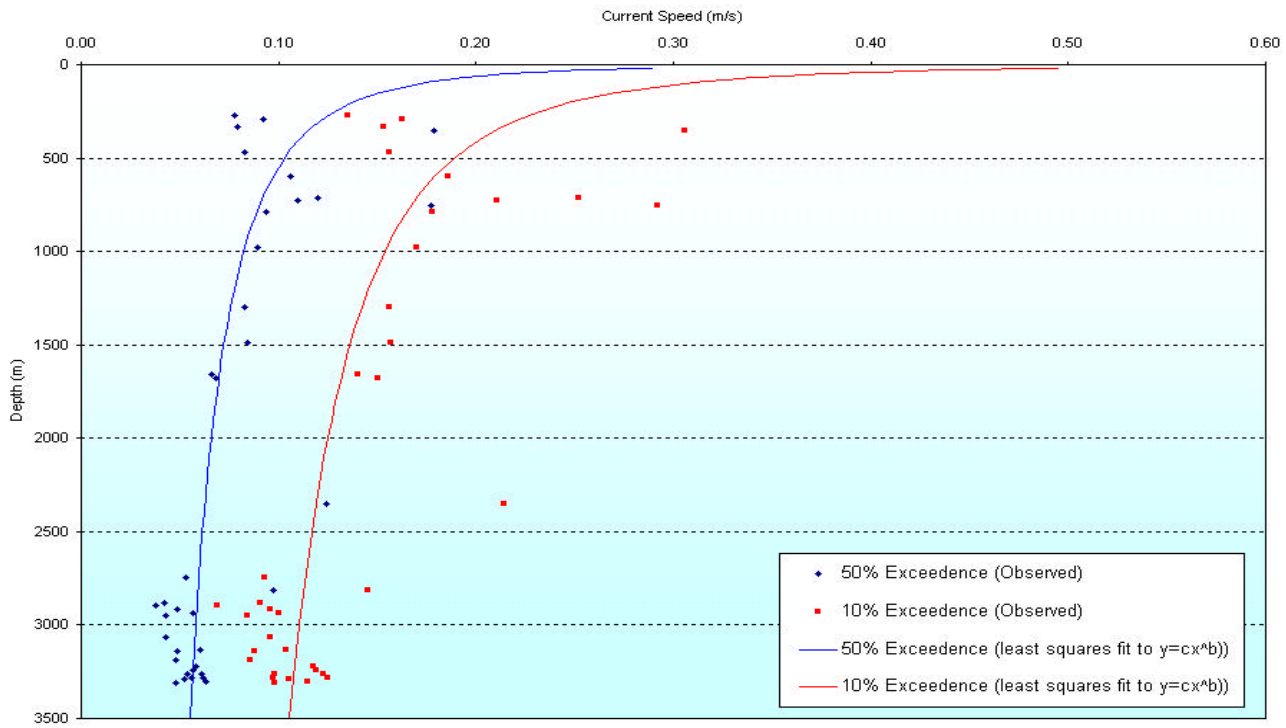


Figure 7-5 - Composite Analysis from Porcupine Bank Region

R^2 = 0.4925 (50%), 0.4923 (10%)

0-200m No data available in this depth interval in this region (extrapolated in Figure 7-5).

200-500m The summary table in Section 4.3 suggests a typical maximum of 40 cm/s. Of the 7 current meter moorings in this depth interval, only 1 measured currents exceeding this value. Mooring 5322 recorded a maximum current speed in the 50-55 cm/s bin at 352 m depth. However, only 1.5% of data exceeded 40 cm/s.

500-1000m Of the 6 moorings in this depth interval only 1 exceeded 40 cm/s. Maximum current was observed at mooring 5323 at 757 m depth. Only 0.4% of data exceeded 40 cm/s.

1000-2000m None of the 4 measured moorings had a current speed exceeding 30 cm/s.

>2000m Of the 22 moorings at greater than 2000 m only 1 exceeded 40 cm/s. Maximum current was recorded at mooring 5477 at 2354 m depth. Only 1.4% of data exceeded 40 cm/s.

Mean Speed The modal value of all current speeds fell in the 5-10 cm/s bin in agreement with the literature.

7.3.7 Malin / Hebrides Slope (Literature Review)

The slope current along the, essentially, N-S aligned Malin and Hebrides slope has the strongest mean current velocities/speeds. The current here is barotropic in character and would seem to be the measured slope current most appropriately described by the theories of these boundary flows. Mean currents are strong 10-20 cm/s and minimal seasonality has been measured, although the transport estimates of Holliday *et al.* (2000) indicate a possible spring maximum in northward transport in the slope region. The non tidal flow is highly persistent at mid and lower depths. White and Bowyer (1997) have measured currents on the Malin slope 40m above the seabed in 700m of water which show only a few days of non daily mean poleward flow in a record 8 months long. The low frequency motion was also tightly confined to the slope orientation. Current speeds are high, with typically 40% of the currents exceeding 25cm/s and currents over 50cm/s are not uncommon. Low frequency variability caused by long period slope waves has also been recorded similar to that found on Porcupine Bank. Eddies, generated close to the nearby seamounts in the deeper Trough may also modulate the slope current significantly, causing a disruption in the prevailing poleward flow. Semi-diurnal and diurnal tidal currents may be significant at the shelf edge, but are relatively small over the slope. Internal waves have been recorded in the region (e.g. Sherwin; 1988) as well as non-linear internal waves or solitons, measured during the Land-Ocean-Interaction-Study Shelf-Edge-Study (LOIS-SES).

No measured data available for direct comparison

7.3.8 Rockall Bank (Literature Review)

Generally there appears to be a cyclonic circulation around the Rockall Bank. Mean flows are relatively weak but instantaneous current speeds can be significant. A southward boundary flow is present over the eastern slope of the bank, fairly persistent close to the seabed, and reinforced at greater depth by pulses of overflow waters from the Wyville-Thomson Ridge. Upper layer flows have not been measured to any extent (Although measurements have been made in Shamrock-AMMP), but drifting buoys indicate a more variable flow direction. There is significant diurnal variability in the currents from trapped diurnal waves.

No measured data available for direct comparison

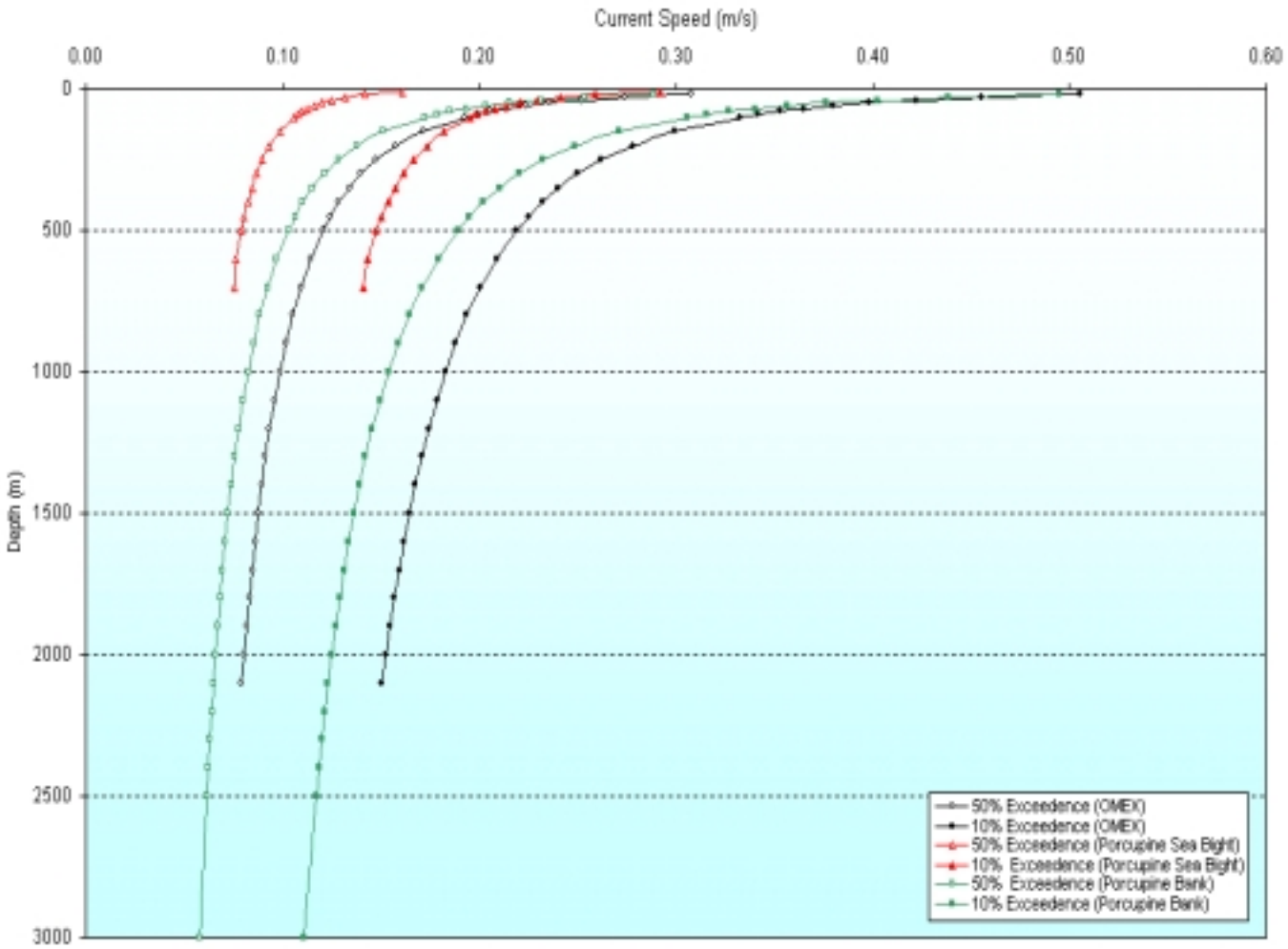


Figure 7-6 - Comparison of Representative Exceedence Curves for All Study Areas

7.4 Flow Processes

7.4.1 Tidal Currents

The northeast Atlantic basin has dimensions close to resonance for the semi-diurnal tide so that the M_2 tide is relatively large along the NE Atlantic shelf. The deep water M_2 tidal wave propagates cyclonically around the margin i.e. northwards along the NE Atlantic margin. Highest tidal energy is found on the shelf, with typically 2/3 of the total energy in the currents associated with the tidal currents. This may be reduced to 1/2 over the continental slope and is typically about 1/4-1/3 of the total energy in deep water. Current magnitudes can vary from 50 cm/s on the continental shelf, down to 5 cm/s in the deep ocean. Daily or diurnal tides are generally very small except in some locations in the region. Along the Porcupine Sea Bight boundary and Porcupine Bank, diurnal components are relatively large compared to the semi-diurnal tide and may exceed it close to the seabed. Tidal models have demonstrated the trapping of diurnal period waves on Porcupine Bank (Pingree and Griffiths; 1984), and analysis indicates that currents on the Rockall Bank are partly due to a resonance condition for the diurnal tides, which results in trapped waves of diurnal period propagating around the Bank (Huthnance; 1984). Lonsdale and Hollister (1979) have attributed strong oscillatory currents for the formation of bedform features on the northern slope of the Porcupine Bank indicating the possibility of locally enhanced tidal currents around the continental margin.

7.4.2 Mesoscale Variability

High mesoscale variability in both upper and deep circulation, due to eddies, has been measured throughout the NE Atlantic, for instance in the Rockall Trough (Dickson *et al.*; 1986, Booth; 1988) and the Porcupine Sea Bight (Pingree; 1993, Pingree et. al; 1999). The scale of such features is 10-100 km, and mesoscale variability is greatly reduced on the continental shelf. Dickson *et al.* (1986) found a strong seasonal signal in the eddy kinetic energy (eddy KE, for motions with period between 3-27 days,) in the NE Atlantic, which covers most of the sub-tidal variability. Remarkably a peak in eddy KE was found to deep abyssal depths which, whilst depth dependent and in phase at any depth or location, lagged the peak in winter wind stress by 1-3 months.

Mesoscale activity is greatest just north of the Porcupine Bank, around the seamounts of the northern Rockall Trough and in the Porcupine Sea Bight. Drogued buoys and satellite imagery has shown the presence of an eddy NW of the Porcupine Bank (Booth; 1988, Booth and Meldrum; 1987). Booth (1988) suggested baroclinic instability of the slope current as a possible generation mechanism. In the region of the seamounts, cyclonic eddies have been revealed by drifting buoys and Booth (1988) has suggested that these are a result of Taylor Column circulation around Anton Dohrn Seamount. A Taylor Column is an enclosed circulation pattern over a topographical feature. It results from the situation of slow moving flow over topography in a rapidly rotating system and the Taylor Column forms if conditions based on topographic scales, flow speeds and stratification are met. Anticyclonic circulation is found above the topographic feature and cyclonic eddies downstream of the topography. Evidence for a Taylor Column circulation, with associated doming of the temperature/density isotherms/isopycnals, above Porcupine Bank has been noted (White *et al.*, 1998), as well as above the Rockall Bank (Dickson *et al.*; 1986).

When water is moved across a region of rapidly changing depth, such as the continental slope, it undergoes changes in its angular momentum balance or vorticity. These changes are propagated along the slope as waves of period longer than those of the tide, generally between 2-10 days. Such waves have been measured west of Porcupine Bank and also at the Malin Shelf edge (e.g. Thorpe *et al.*; 1990, White and Bowyer; 1997). The waves are trapped to within about 10-20 km from the slope (~ 1 Rossby radius). They may periodically reverse the mean poleward slope current flow. Similarly long period waves may be found in shelf waters. Both sets of waves propagate with shallow water or coast to the right. Long term measurements west of Porcupine Bank (Thorpe *et al.*; 1990) indicate the timescales of sub-tidal variability become shorter closer to the slope. Strong variability between 2-9 days was found adjacent to the slope region, but further from the slope lower frequency (periods 10-20 days) dominated the signal.

7.4.3 Internal Waves

Internal waves are periodic oscillations of the water column through disturbances in the vertical density stratification. Tidal flow across the shelf edge is a known method for generating these internal motions, with subsequent propagation of the internal tidal energy both on- and off-shelf (e.g. Pingree and New; 1991). Essentially the continuity of flow across the shelf edge causes the thermocline to depress and this depression propagates away from the shelf edge region as a wave. The NE Atlantic is a prolific area of internal wave generation (e.g. Baines; 1986). Internal waves have been observed in SAR (Synthetic Aperture Radar) images through the changes in surface roughness associated with the sub-surface motions (e.g. New; 1988). These images show the generation points at the shelf edge and packets of internal waves propagating away from the source region periodically on every tide. Numerous observations of internal waves have been made along the Celtic Sea and Biscay Shelves (e.g. New and Pingree; 1990, Pingree et. al; 1983) and the generation and propagation character of these waves have been successfully modelled (Pingree and New; 1991).

Sherwin (1988) has also presented evidence for internal tide generation on the Malin Shelf slope just south of 56°N. The internal tide was found to be coherent with the barotropic tide over a spring-neap cycle, with surface current amplitude comparable to the barotropic tidal currents, about 15 cm/s. Booth (1981) has also suggested that the strong oscillatory currents found in the deep northern sector of the Trough were a result of baroclinic (internal) tidal motions. Non linear internal waves, or solitons, have been measured during the LOIS Shelf Edge Study (SES) between 56°N-58°N. Associated with such wave motions are oscillations in the thermocline of up to 50m and occasional strong currents (up to 50 cm/s) and current shear across the thermocline measured with additional strong vertical mixing present.

Amplified bottom currents may be expected where the slope of the seabed (α) matches the angle at which the internal wave energy propagates (β) (e.g. Thorpe; 1987a, Garrett and Gilbert; 1988). In regions where internals waves reflect from the continental slope, periodic mixing of water adjacent to the seabed is often observed (e.g. White; 1994). This is because, whilst the amplitude of the reflected internal waves increases significantly as resonance conditions are approached, the current shear increases as the square of the wave amplitude. On the slope west of the Porcupine Bank, such conditions

have been postulated as the cause for the generation of nepheloid layers observed in the water adjacent to the slope (Dickson and McCave; 1985, Thorpe and White; 1988). Nepheloid layer are regions of suspended sediment, where the sediment has been lifted into suspension by the mixing processes at the seabed (forming bottom or benthic nepheloid layers - BNL). These BNLs may subsequently be transported into the ocean interior as the mixed water containing the sediment spreads away from the slope, forming discrete layers within the ocean, or Intermediate Nepheloid Layers (INLs).

7.4.4 Cascading

Winter cooling of oceanic water occurs at different rates over the shelf and deep ocean, such that the reduction in temperature is greater on the shelf than the deep ocean. Water on the shelf may, therefore, become colder and denser than the water off shelf, such that it can sink over the shelf edge in the form of a density driven gravity current. This process is known as cascading. Cooper (1952) makes reference to cascaded waters from the Celtic Shelf (also Cooper and Vaux; 1949) and also from the Rockall and Porcupine Banks. Hill *et al.* (1998) and Shapiro and Hill (1997) have reported the first measurements of a dense cascade in progress, measured off the Malin Shelf near 56°N during the SES experiment. In this case the water was more saline than the water off-shelf and a towed CTD profiler showed the presence of this water cascading in the thin bottom layer current down slope.

8. TIDAL LEVELS

8.1 Reference Datum

Depths specified on Admiralty Charts are relative to Lowest Astronomical Tide (LAT) unless otherwise specified on the chart in question. Users should check individual charts to confirm datum level to which depths are specified.

Note : Particular care should be exercised when using bathymetric survey data that are reported to datum other than LAT. If the reference datum for the survey data is higher than LAT, then the reported depths will be greater than the equivalent LAT water depth.

Levels specified in this engineering reference document are relative to one of the following:

- LAT - Lowest Astronomical Tide
- MSL - Mean Sea Level

Water depths are considered insignificant in these tidal analyses as all grid points are considered to be in 'deep water', where deep water is defined as water depths greater than half of the wavelength (see Section 4.4).

8.2 Tidal Levels

The tidal signal is composed of multiple sinusoidal variations in water level. The principal tidal constituents in the study region are the Lunar semi-diurnal (M_2) and the Solar semi-diurnal (S_2) signals. These determine the Spring / Neap tidal cycle, Spring tides occurring when the signals are in phase and Neap tides occurring when they are in opposing phase. Highest Astronomical Tides (HAT) occur when the positive deviation of all constituent signals occurs in phase. In theory this occurs only once every 18.6 years, but in engineering terms the difference between the annual maximum tide and HAT is negligible.

The following tidal states are traditionally specified for locations such as the Rockall Channel / Porcupine Bank area where semi-diurnal tides predominate (that is two high waters and two low waters, approximately uniformly spaced, over each Lunar day).

- HAT - Highest Astronomical Tide
- MHWS - Mean High Water of Spring Tides
- MHWN - Mean High Water of Neap Tides
- MSL - Mean Sea Level
- MLWN - Mean Low Water of Neap Tides
- MLWS - Mean Low Water of Spring Tides
- LAT - Lowest Astronomical Tide

Tidal levels have been derived for the 6 locations (described in Section 3.4) by reference to three standard ports (Oban 56.42°N, 5.48°W ; Galway 53.27°N, 9.03°W ; Cobh 51.85°N, 8.30°W).

Levels so derived represent only tidally induced signals and therefore exclude any meteorologically induced fluctuations in level.

8.3 Harmonic Analysis

Tidal level time series from the NEA and CS3 models (Section 3.4) for the whole of 1999 were harmonically analysed in order to estimate 60 tidal constituents. The amplitude and phase results are presented in Table 8-1.

The major harmonic tidal constituents are as follows (Pugh, 1987);

Astronomical diurnal tides

- J_1 elliptical lunar
- K_1 principal lunar / principal solar
- O_1 principal lunar
- P_1 principal solar
- Q_1 larger elliptical lunar

Astronomical semi-diurnal tides

- K_2 declinational lunar / declinational solar
- L_2 smaller elliptical lunar
- M_2 principal lunar
- MU_2 variational
- N_2 larger elliptical lunar
- NU_2 larger evectional
- S_2 principal solar

The most important tidal constituents are the M_2 (principal lunar) and S_2 (principal solar) tides (shaded in Table 8-1).

Note : 0.00 represents less than 0.005 metres

	CSLOC1 (GWM1)		NE034047 (GWM2)		CSLOC2 (GWM3)		NE036062 (GWM4)		NE031059 (GWM5)		NE036071 (-)	
Water Depth	1469 m		1590 m		2213 m		1024 m		1865 m		3072 m	
	Amp (m)	Phase (°)	Amp (m)	Phase (°)	Amp (m)	Phase (°)	Amp (m)	Phase (°)	Amp (m)	Phase (°)	Amp (m)	Phase (°)
SA	0.00	152.9	0.00	293.6	0.00	260.2	0.00	97.2	0.00	67.5	0.00	270.7
SSA	0.00	66.5	0.00	19.3	0.00	269.2	0.00	133.3	0.00	336.9	0.00	142.8
MM	0.00	101.0	0.00	305.6	0.00	28.0	0.00	316.5	0.00	110.6	0.00	4.0
MSF	0.00	19.2	0.00	278.2	0.00	164.5	0.00	155.0	0.00	237.6	0.00	104.1
MF	0.00	173.5	0.00	221.1	0.00	174.7	0.00	63.4	0.00	165.2	0.00	277.5
2Q1	0.00	103.6	0.00	119.4	0.00	148.7	0.00	232.6	0.00	232.6	0.00	138.4
SIGMA1	0.00	212.7	0.00	225.6	0.00	154.9	0.00	153.1	0.00	303.3	0.00	285.4
Q1	0.00	298.7	0.00	339.6	0.02	302.8	0.03	289.0	0.03	310.9	0.02	287.0
RHO1	0.00	242.9	0.00	210.4	0.00	186.6	0.00	282.7	0.00	222.6	0.00	323.9
O1	0.10	354.6	0.10	9.5	0.06	349.7	0.06	343.8	0.05	2.0	0.06	335.6
MP1	0.00	9.2	0.00	121.0	0.00	283.5	0.00	203.5	0.00	41.1	0.00	309.9
M1	0.00	266.8	0.00	173.7	0.00	31.9	0.00	63.1	0.00	205.1	0.00	230.5
CHI1	0.00	197.8	0.00	353.8	0.00	15.4	0.00	148.5	0.00	96.9	0.00	36.6
PI1	0.00	186.9	0.00	332.4	0.00	242.6	0.00	66.9	0.00	352.8	0.00	86.7
P1	0.00	124.2	0.00	113.4	0.03	115.9	0.03	105.8	0.03	101.2	0.03	88.7
S1	0.00	70.2	0.00	305.2	0.00	64.9	0.00	265.1	0.00	199.7	0.00	235.2
K1	0.10	140.2	0.10	114.3	0.08	138.5	0.10	103.7	0.09	110.5	0.09	89.5
PSI1	0.00	70.4	0.00	59.0	0.00	44.5	0.00	66.1	0.00	98.9	0.00	346.5
PHI1	0.00	90.7	0.00	225.8	0.00	258.0	0.00	175.7	0.00	276.8	0.00	308.6
THETA1	0.00	226.7	0.00	262.6	0.00	235.7	0.00	216.4	0.00	185.6	0.00	268.8
J1	0.00	276.9	0.00	138.9	0.00	102.0	0.00	57.7	0.00	235.5	0.00	187.6
SO1	0.00	112.9	0.00	179.0	0.00	128.1	0.00	108.5	0.00	351.6	0.00	79.6
OO1	0.00	205.9	0.00	165.1	0.00	288.0	0.00	186.8	0.00	102.4	0.00	172.7
OQ2	0.00	88.2	0.00	349.9	0.00	92.1	0.00	189.7	0.00	333.2	0.00	73.9
MNS2	0.00	152.8	0.00	140.8	0.00	332.4	0.00	290.9	0.00	231.3	0.00	54.1
2N2	0.00	107.1	0.00	105.9	0.03	93.8	0.00	82.9	0.00	140.8	0.00	267.4
MU2	0.00	124.2	0.00	196.4	0.04	107.2	0.00	20.4	0.00	137.5	0.00	41.2
N2	0.20	149.2	0.20	146.6	0.22	136.0	0.21	108.5	0.18	117.7	0.20	90.8
NU2	0.00	152.6	0.00	257.8	0.04	140.3	0.00	126.9	0.00	164.1	0.00	210.0
OP2	0.00	13.2	0.00	55.8	0.00	357.1	0.00	337.4	0.00	305.7	0.00	344.1
M2	**1.05**	**164.7**	**0.87**	**159.0**	**1.06**	**152.4**	**1.00**	**126.4**	**0.87**	**133.9**	**0.97**	**109.4**
MKS2	0.00	305.2	0.00	23.3	0.00	3.9	0.00	334.5	0.00	20.2	0.00	337.9
LAMDA2	0.00	104.9	0.00	194.8	0.00	199.5	0.00	179.0	0.00	162.4	0.00	78.5
L2	0.00	174.4	0.00	112.1	0.03	166.0	0.00	146.3	0.00	278.3	0.00	184.1
T2	0.00	196.6	0.00	79.9	0.02	183.9	0.00	251.9	0.00	241.1	0.00	259.4
S2	**0.41**	**202.1**	**0.34**	**200.0**	**0.39**	**189.5**	**0.36**	**161.8**	**0.31**	**171.5**	**0.34**	**142.7**
R2	0.00	162.8	0.00	161.2	0.00	177.4	0.00	65.0	0.00	103.2	0.00	121.4
K2	0.10	202.7	0.10	203.0	0.11	189.6	0.09	161.2	0.08	171.7	0.09	141.1
MSN2	0.00	279.0	0.00	213.2	0.00	206.3	0.00	170.2	0.00	204.4	0.00	200.8
KJ2	0.00	313.3	0.00	292.6	0.00	231.2	0.00	138.0	0.00	221.4	0.00	296.1
2SM2	0.00	355.3	0.00	145.5	0.00	257.8	0.00	61.0	0.00	277.8	0.00	238.5
MO3	0.00	97.3	0.00	104.6	0.00	22.4	0.00	141.6	0.00	229.8	0.00	353.7
M3	0.00	333.5	0.00	296.3	0.00	154.3	0.00	52.5	0.00	170.2	0.00	247.3
SO3	0.00	67.7	0.00	132.8	0.00	334.4	0.00	200.7	0.00	3.4	0.00	55.7
MK3	0.00	188.8	0.00	223.8	0.00	19.9	0.00	323.4	0.00	58.4	0.00	183.6
SK3	0.00	11.0	0.00	53.2	0.00	237.1	0.00	147.1	0.00	301.2	0.00	26.6
MN4	0.00	18.9	0.00	242.3	0.00	222.7	0.00	108.7	0.00	182.8	0.00	344.0
M4	0.00	96.6	0.00	70.8	0.01	51.5	0.01	325.5	0.01	17.8	0.00	307.6
SN4	0.00	311.4	0.00	125.0	0.00	118.2	0.00	154.5	0.00	321.6	0.00	160.4
MS4	0.00	51.3	0.00	17.8	0.00	210.4	0.00	263.5	0.00	262.2	0.00	351.7
MK4	0.00	63.8	0.00	294.9	0.00	65.7	0.00	319.3	0.00	120.4	0.00	306.2
S4	0.00	70.9	0.00	253.1	0.00	324.2	0.00	127.8	0.00	296.9	0.00	36.6
SK4	0.00	109.9	0.00	284.4	0.00	166.1	0.00	52.0	0.00	172.6	0.00	127.7
2MN6	0.00	243.5	0.00	31.0	0.00	249.0	0.00	153.6	0.00	248.1	0.00	291.7
M6	0.00	329.5	0.00	176.6	0.00	77.5	0.00	355.5	0.00	239.9	0.00	128.0
MSN6	0.00	166.9	0.00	104.7	0.00	213.1	0.00	306.3	0.00	309.0	0.00	227.4
2MS6	0.00	207.2	0.00	201.1	0.00	55.8	0.00	327.4	0.00	96.5	0.00	84.2
2MK6	0.00	217.3	0.00	215.8	0.00	155.1	0.00	49.1	0.00	298.6	0.00	304.3
2SM6	0.00	186.4	0.00	128.5	0.00	244.8	0.00	347.0	0.00	116.6	0.00	13.6
MSK6	0.00	358.0	0.00	213.1	0.00	282.0	0.00	11.4	0.00	125.9	0.00	6.3

Table 8-1 - Tidal Constituents (Amplitude and Phase)

8.3.1 Harmonically Derived Tidal Levels (HAT and LAT)

The tidal constituents are then used to construct a twenty year time series (1970-1990) from which the maximum and minimum tidal levels are extracted for each year. Twenty years covers enough time to produce the highest and lowest astronomical tidal levels (18.6 year cycle) and therefore the highest of the 20 annual maxima and minima can be taken to represent the Highest Astronomical Tide (HAT) and the Lowest Astronomical Tide (LAT) relative to Mean Sea Level (MSL). The harmonically derived HAT and LAT levels, relative to both MSL and LAT, for each of the 6 locations are shown in Table 8-2.

Levels in metres

Level (Datum)	CSLOC1 GWM-1	NE034047 GWM-2	CSLOC2 GWM-3	NE036062 GWM-4	NE031059 GWM-5	NE036071 -
Water Depth	1469 m	1590 m	2213 m	1024 m	1865 m	3072 m
HAT (MSL) LAT (MSL)	2.10 -1.95	1.59 -1.52	2.01 -1.88	1.80 -1.71	1.57 -1.49	1.72 -1.65
HAT (LAT) LAT (LAT)	4.05 0.00	3.11 0.00	3.89 0.00	3.51 0.00	3.06 0.00	3.37 0.00

Table 8-2 - Harmonically Derived HAT and LAT (Relative to MSL and LAT)

8.3.2 Tidal Levels Scaled From Standard Ports

'M_2 + S_2' tidal levels were selected for the 6 model open ocean locations (Table 8-1) and for the three standard ports (Oban, Galway and Cobh : Table 8-3). The ratios between the model 'M_2 + S_2' and standard port 'M_2 + S_2' were then applied to the selected tidal reference levels (HAT, MHWS, MHWN, MSL, MLWN, MLWS, LAT) at the standard ports in order to derive tidal reference levels at the 6 model open ocean locations.

The standard port data were extracted from the Admiralty Tide Tables (2000) and are given in Table 8-3.

Levels in metres

	Oban	Galway	Cobh
HAT	4.50	5.60	4.50
MHWS	4.00	5.10	4.10
MHWN	2.90	3.90	3.20
MSL	2.40	2.90	2.20
MLWN	1.80	2.00	1.30
MLWS	0.70	0.60	0.40
LAT	0.00	-0.20	-0.10
M2	1.09	1.52	1.41
S2	0.47	0.56	0.44
M2+S2	1.56	2.08	1.85
MSR	3.3	4.5	3.7

Table 8-3 - Standard Port Data (Tide Tables 2000)

Depending on location the 6 model locations were scaled to either the single nearest port or to two approximately equidistant ports. The results are shown in Table 8-4.

Levels in metres

	CSLOC1 GWM-1	NE034047 GWM-2			CSLOC2 GWM-3	NE036062 GWM-4			NE031059 GWM-5			NE036071 -
Water Depth	1469 m	-	1590 m	-	2213 m	-	1024 m	-	-	1865 m	-	3072 m
Standard port	**Oban**	Oban	Galway	**Mean**	**Galway**	Galway	Cobh	**Mean**	Galway	Cobh	**Mean**	**Cobh**
Harmonic M2+S2 as % Of Standard Port	93.6%	77.6%	58.2%	-	69.7%	65.4%	73.5%	-	56.7%	63.8%	-	69.7%
Relative to Chart Datum												
HAT	**4.21**	3.49	3.26	**3.38**	**3.90**	3.66	3.31	**3.49**	3.18	2.87	**3.03**	**3.14**
MHWS	**3.74**	3.10	2.97	**3.04**	**3.55**	3.34	3.01	**3.18**	2.89	2.62	**2.76**	**2.86**
MHWN	**2.71**	2.25	2.27	**2.26**	**2.72**	2.55	2.35	**2.45**	2.21	2.04	**2.13**	**2.23**
MSL	**2.25**	1.86	1.69	**1.78**	**2.02**	1.90	1.62	**1.76**	1.64	1.40	**1.52**	**1.53**
MLWN	**1.68**	1.40	1.16	**1.28**	**1.39**	1.31	0.96	**1.14**	1.13	0.83	**0.98**	**0.91**
MLWS	**0.66**	0.54	0.35	**0.45**	**0.42**	0.39	0.29	**0.34**	0.34	0.26	**0.30**	**0.28**
LAT	**0.00**	0.00	-0.12	**-0.06**	**-0.14**	-0.13	-0.07	**-0.10**	-0.11	-0.06	**-0.09**	**-0.07**
Relative to LAT												
HAT	**4.21**	-	-	**3.44**	**4.04**	-	-	**3.59**	-	-	**3.12**	**3.21**
MHWS	**3.74**	-	-	**3.10**	**3.69**	-	-	**3.28**	-	-	**2.85**	**2.93**
MHWN	**2.71**	-	-	**2.32**	**2.86**	-	-	**2.55**	-	-	**2.22**	**2.30**
MSL	**2.25**	-	-	**1.84**	**2.16**	-	-	**1.86**	-	-	**1.61**	**1.60**
MLWN	**1.68**	-	-	**1.34**	**1.53**	-	-	**1.24**	-	-	**1.07**	**0.98**
MLWS	**0.66**	-	-	**0.51**	**0.56**	-	-	**0.44**	-	-	**0.39**	**0.35**
LAT	**0.00**	-	-	**0.00**	**0.00**	-	-	**0.00**	-	-	**0.00**	**0.00**

Table 8-4 - Tidal Levels Scaled From Standard Ports

8.3.3 Comparison of Harmonically Derived and Port Scaled HAT

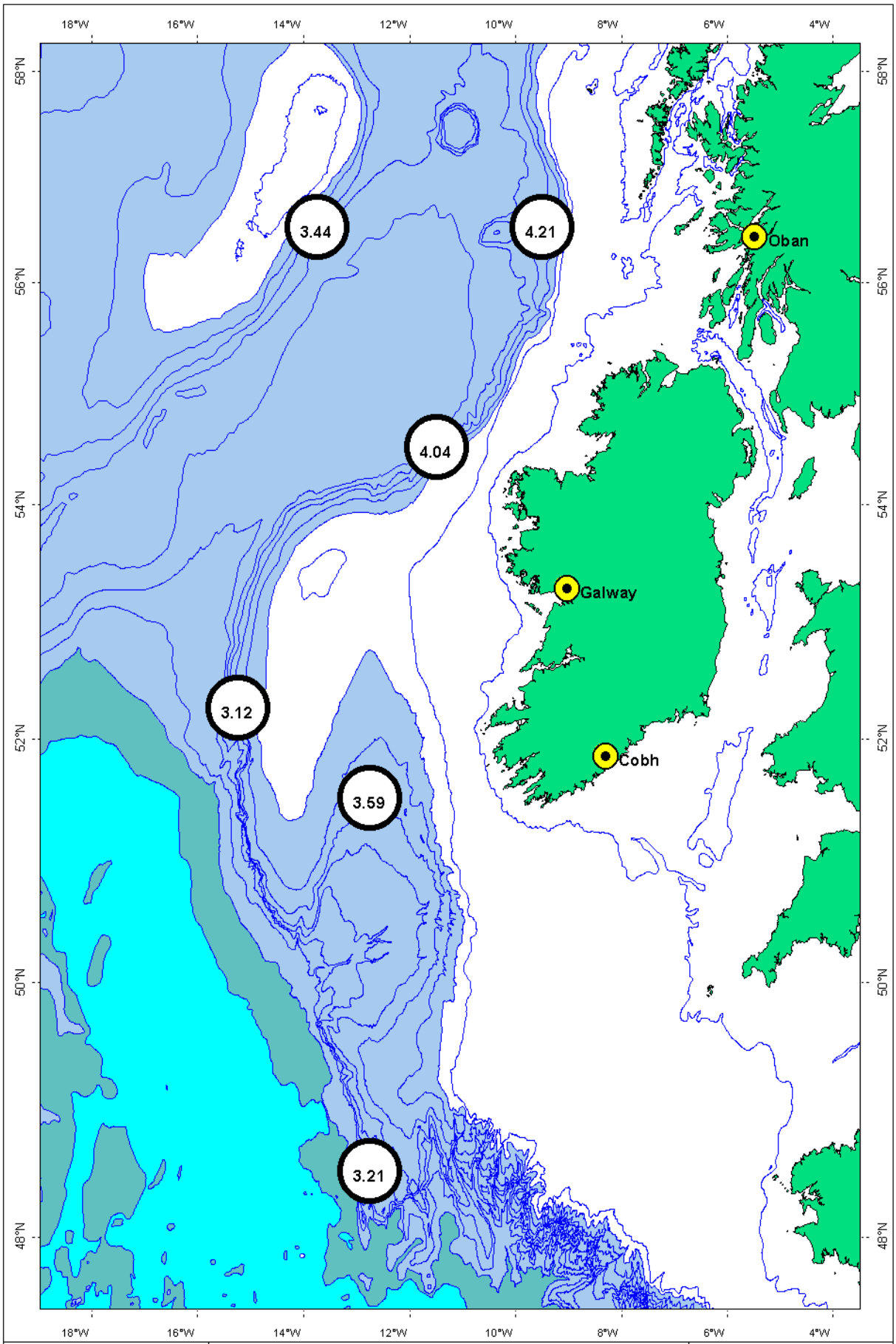
A comparison of HAT derived from the harmonically derived and the port scaled HAT for each of the 6 model locations is shown in Table 8-5.

Levels in metres

	CSLOC1 GWM-1	NE034047 GWM-2	CSLOC2 GWM-3	NE036062 GWM-4	NE031059 GWM-5	NE036071 -
Water Depth	1469 m	1590 m	2213 m	1024 m	1865 m	3072 m
Port Scaled HAT	4.21	3.44	4.04	3.59	3.12	3.21
Harmonically Derived HAT	4.05	3.11	3.89	3.51	3.06	3.37
Port Scaled HAT - Harmonically Derived HAT	0.16	0.33	0.15	0.08	0.06	-0.16

Table 8-5 - Comparison of HAT Derivations

The differences between the port scaling and the harmonically derived tidal levels is small. Fugro GEOS recommend the use of the port scaled values due to their being slightly more conservative. Port scaling would not be recommended when the shape of the tidal curve did not represent conditions at the site of interest, but this is not the case in this study. A spatial map of HAT estimates (equal to extreme tidal range as LAT = 0) based on the port scaled values is shown in Figure 8-1.



WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Tidal Ranges [HAT-LAT] in metres

Geos Ref : C50090/2054

Figure No : 8.1

Plot Date : 18-DEC-00

8.4 Tidal Curves

As the forces due to the sun and moon come into phase, the range of the tide increases to a maximum (spring tide). This maximum occurs when the sun and moon are both on the same side of the Earth or on opposite sides (syzygy). When the sun and moon are nearest to 90° to one another (quadrature) the resultant force is at a minimum and the tides have their minimum range (neap tides).

There is considerable variety among observed tides. This variation arises from the different local responses to diurnal and semi-diurnal force constituents and their relative phases. For diurnal tides there is one high and one low water in each lunar day (approximately 24.8 hours). Semi-diurnal tides have two high and two low waters in the same time interval. Semi-diurnal tides can contain two successive high and / or low tides of approximately equal height (semi-diurnal equal tides) or they can have successive high and / or low tides of different heights (semi-diurnal unequal tides).

A systematic classification of tidal types uses the 'form ratio', $F = (K_1+O_1)/(M_2+S_2)$, of the sum of the amplitudes of the two main diurnal constituents of the actual tide to the semi-diurnal amplitudes. For the tidal series shown in Figure 8-2 (location GWM-1) the form ratio is:

$$F = (0.10+0.10)/(1.05+0.41) \approx 0.14$$

Values of F typically less than 0.25 represent semi-diurnal tides with high waters and low waters of approximately the same height each day. Mean spring tidal range $\approx 2(M_2+S_2)$. This tidal pattern is observed across the entire study area.

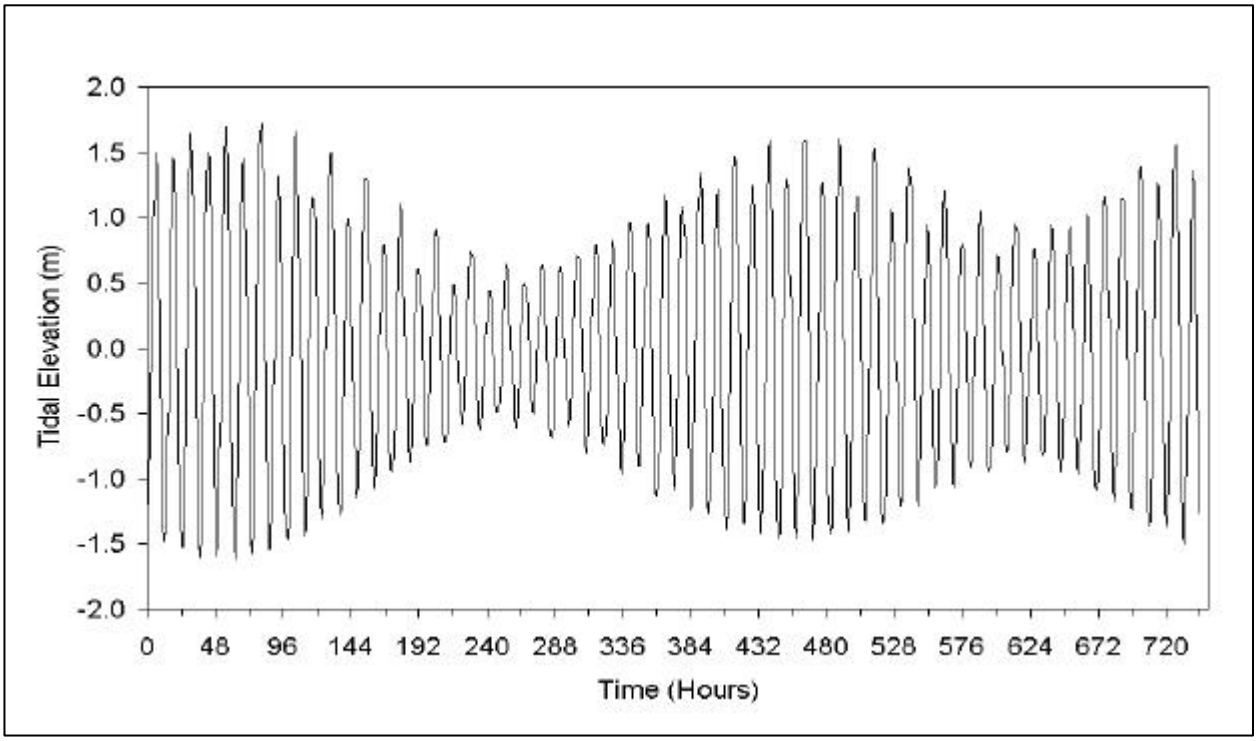


Figure 8-2 - Spring and Neap Tidal Curves (Location GWM-1 : January 1999)

9. TEMPERATURE AND SALINITY STRUCTURE

9.1 Sea Surface Temperatures

Sea Surface Temperature (SST) data were extracted from the NODC[3] database for 13 representative 2° × 2° blocks across the study region (Figure 9-1). The blocks are defined thus:

- Block 1 55-57°N 16-14°W
- Block 2 55-57°N 14-12°W
- Block 3 55-57°N 12-10°W
- Block 4 55-57°N 10-8°W
- Block 5 53-55°N 16-14°W
- Block 6 53-55°N 14-12°W
- Block 7 53-55°N 12-10°W
- Block 8 51-53°N 16-14°W
- Block 9 51-53°N 14-12°W
- Block 10 51-53°N 12-10°W
- Block 11 49-51°N 16-14°W
- Block 12 49-51°N 14-12°W
- Block 13 49-51°N 12-10°W

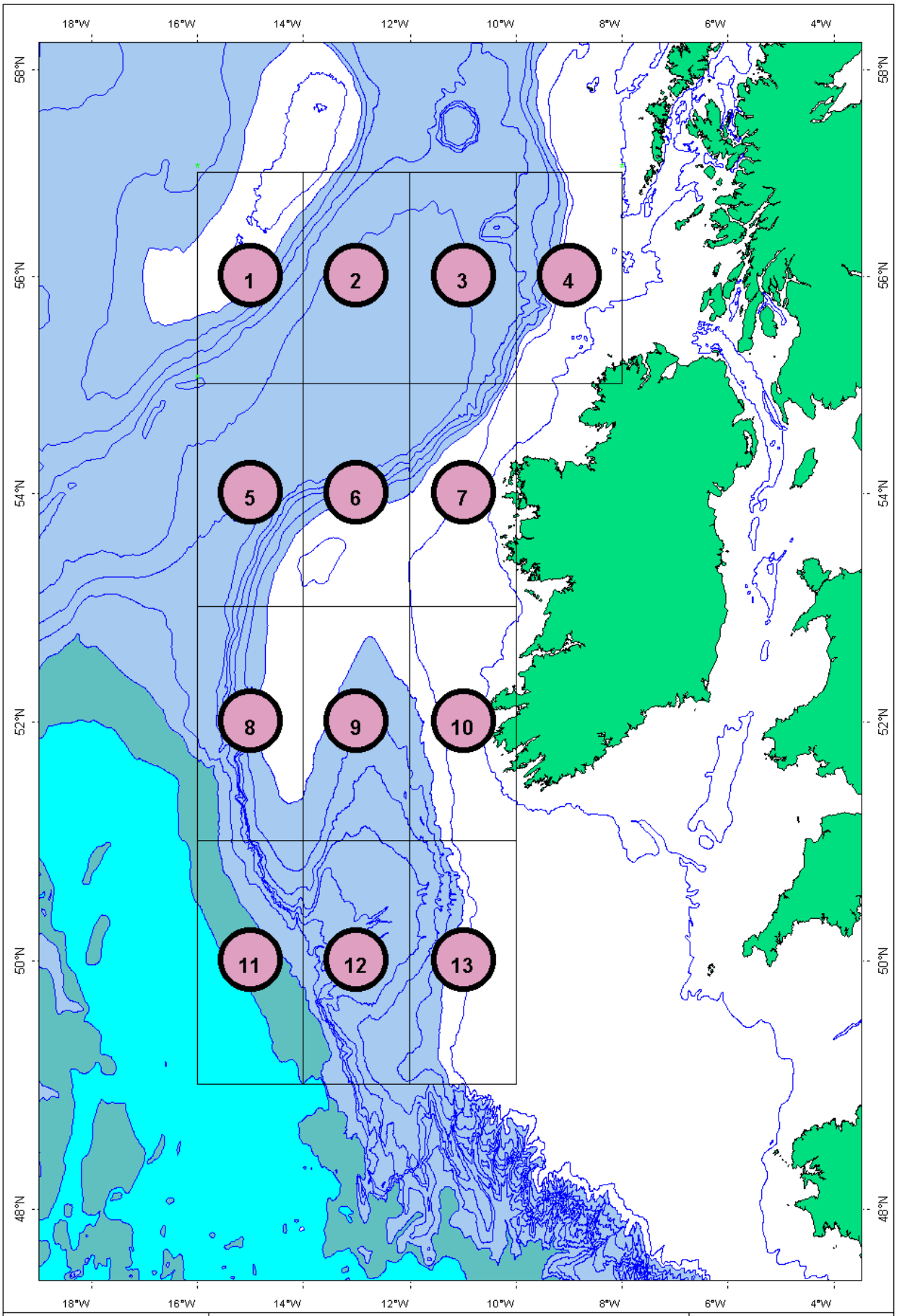
Monthly mean, minimum and maximum SSTs have been extracted from each of the 13 blocks. The results are shown in Figures 9.2 to 9.14 and are summarised in Table 9-1.

The mean SSTs are generally higher in the south of the study area throughout the year. This is clearly evident in the monthly spatial maps (Figures 9.15 to 9.26).

Spatial variation of the mean SST is at its greatest during August and September, when the range equals 3.5°C, and at its least during February and March, when it equals 1.8°C.

Annual variation of the mean SST is generally greater in the south of the study area.

[3] Global Ocean Temperature and Salinity Profiles
National Oceanographic Data Centre (NODC)
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data and Information Service



WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

2° x 2° Regions used for SST Analyses

Geos Ref : C50090/2054

Figure No : 9.1

Plot Date : 15-DEC-00

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Range
Block 1	**Mean**	9.5	9.3	9.2	9.2	10.3	12.0	14.2	13.7	13.3	11.5	10.2	9.6	**5.0**
	Min.	8.7	8.1	8.2	8.4	8.8	10.9	11.7	11.8	11.6	10.5	9.4	9.0	
	Max.	12.4	11.3	10.2	10.6	12.4	13.8	15.6	16.7	14.7	14.3	11.6	10.8	
Block 2	**Mean**	10.1	9.3	9.8	9.9	10.7	12.4	14.1	14.1	13.5	12.2	11.3	10.6	**4.9**
	Min.	9.6	7.4	8.4	9.4	8.9	10.9	11.9	12.6	12.1	10.9	10.0	9.5	
	Max.	10.6	11.3	10.4	11.1	13.2	13.9	15.2	17.0	15.7	14.5	14.0	11.8	
Block 3	Mean	10.2	9.5	9.6	9.5	10.7	12.3	14.1	14.2	13.6	12.2	11.2	10.5	**4.7**
	Min.	9.5	8.6	8.8	9.3	9.4	10.5	11.5	12.9	11.3	10.9	10.2	9.9	
	Max.	10.8	11.3	11.2	11.8	12.6	14.2	15.6	16.8	15.5	15.4	13.1	11.6	
Block 4	Mean	10.0	9.3	9.2	9.2	10.6	12.6	13.6	14.6	13.4	12.1	11.2	10.2	**5.5**
	Min.	9.2	7.9	7.0	7.5	9.1	8.7	11.9	10.7	11.5	11.3	7.9	6.7	
	Max.	10.7	10.1	11.0	10.8	12.8	15.8	15.7	16.8	15.7	13.9	12.5	12.3	
Block 5	Mean	10.6	10.3	10.2	10.5	11.1	12.7	14.1	14.8	14.4	12.9	11.6	11.2	**4.6**
	Min.	10.0	10.0	9.5	9.9	9.4	11.3	11.5	12.9	13.2	9.3	10.6	9.9	
	Max.	11.6	10.5	11.3	11.3	12.4	15.2	16.5	16.9	16.7	14.9	12.8	13.0	
Block 6	Mean	10.3	9.5	9.8	10.3	11.0	12.9	13.9	14.4	14.3	12.6	11.7	10.7	**4.9**
	Min.	9.9	9.1	9.2	9.5	8.7	11.5	12.7	13.5	13.0	10.6	10.1	9.8	
	Max.	11.1	10.6	11.3	11.5	13.0	15.0	15.9	16.3	15.5	14.1	12.6	12.3	
Block 7	Mean	10.0	9.4	9.7	9.6	10.9	13.1	14.0	15.3	14.0	12.5	11.4	10.3	**5.9**
	Min.	9.5	8.0	9.4	8.1	8.8	10.2	12.7	13.3	12.8	9.8	10.6	9.8	
	Max.	11.3	10.8	10.2	11.6	12.7	15.3	16.1	17.4	16.0	14.0	12.8	10.7	
Block 8	Mean	11.1	No Data	10.0	10.4	12.1	12.8	14.8	15.4	15.3	14.1	13.0	11.4	**5.5**
	Min.	10.2	No Data	9.0	9.7	10.7	10.8	13.6	13.2	14.1	12.4	10.5	11.0	
	Max.	13.8	No Data	10.9	11.5	14.5	14.3	15.8	18.0	16.4	15.1	16.0	11.9	
Block 9	Mean	10.5	10.3	10.2	10.3	11.7	13.5	14.8	16.1	15.5	13.8	12.8	11.0	**5.8**
	Min.	10.2	9.8	9.0	9.6	10.2	12.5	13.7	14.3	13.5	11.9	10.4	11.0	
	Max.	11.3	11.0	11.1	11.5	13.2	15.6	16.0	17.9	16.7	16.0	13.3	11.1	
Block 10	Mean	11.1	10.2	10.1	10.4	11.4	13.6	15.4	15.6	14.6	14.0	11.9	10.7	**5.6**
	Min.	11.1	8.7	9.6	8.0	9.6	11.9	11.7	13.8	13.5	12.8	10.8	10.1	
	Max.	11.1	11.4	10.5	12.0	13.5	15.8	18.3	17.8	16.8	15.1	14.7	11.3	
Block 11	Mean	11.4	10.8	11.0	10.7	12.1	14.4	15.6	17.2	16.8	14.2	13.2	12.1	**6.5**
	Min.	11.0	10.4	10.6	10.4	10.8	12.4	14.1	14.7	13.7	11.7	11.8	11.2	
	Max.	11.8	11.4	11.1	11.0	13.5	16.5	19.0	18.5	18.3	16.9	15.9	13.3	
Block 12	Mean	11.1	11.0	10.5	11.3	12.6	14.2	15.7	17.1	15.9	14.3	12.9	12.0	**6.6**
	Min.	7.9	10.4	8.4	10.7	11.1	12.0	13.9	14.5	11.7	12.5	11.7	11.4	
	Max.		13.0	11.3	12.6	14.8	17.3	16.7	18.5	19.0	16.0	16.6	12.9	
Block 13	Mean	10.9	10.7	10.4	11.0	11.8	14.0	15.8	16.4	15.7	14.3	12.7	11.6	**6.0**
	Min.	9.9	9.6	9.4	9.8	10.2	11.7	14.7	13.7	12.7	12.2	10.7	10.8	
	Max.	11.5	11.5	11.6	12.3	13.4	16.3	17.7	18.6	18.9	16.5	16.9	12.2	
Spatial Range		**1.9**	**1.8**	**1.8**	**2.2**	**2.4**	**2.4**	**2.2**	**3.5**	**3.5**	**2.8**	**3.0**	**2.5**	

Table 9-1 - Monthly Sea Surface Temperatures Across the Rockall and Porcupine Areas (°C)

Figure 9.2 : Sea Surface Temperatures - Block 1

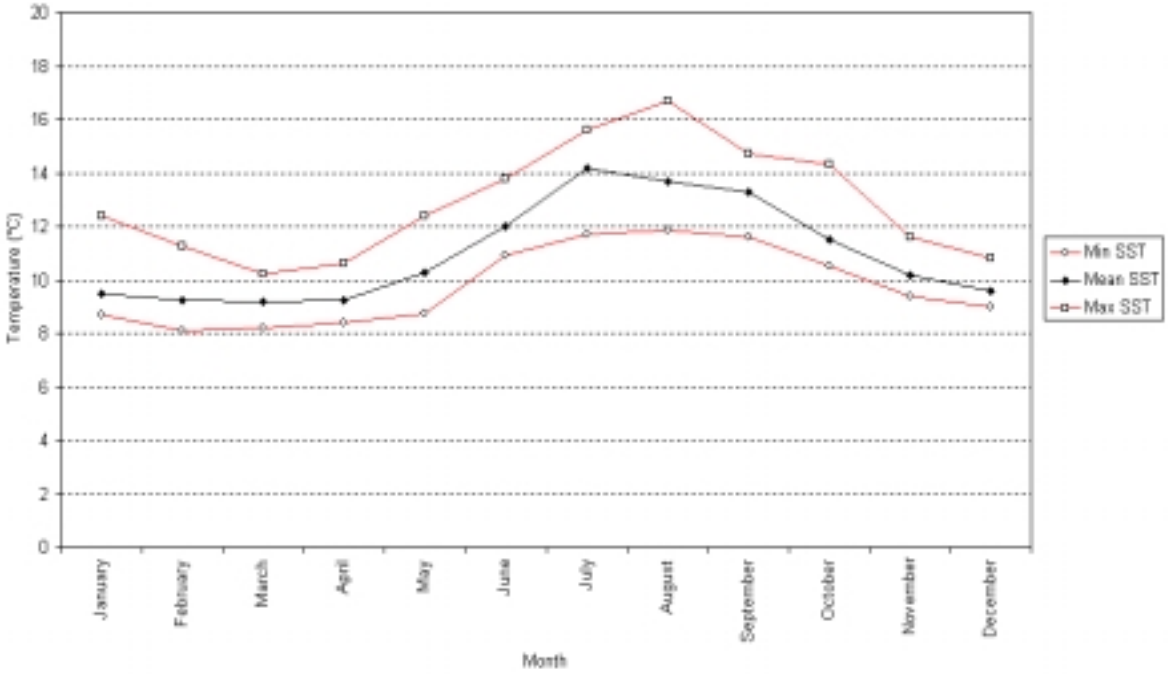


Figure 9.3 : Sea Surface Temperatures - Block 2

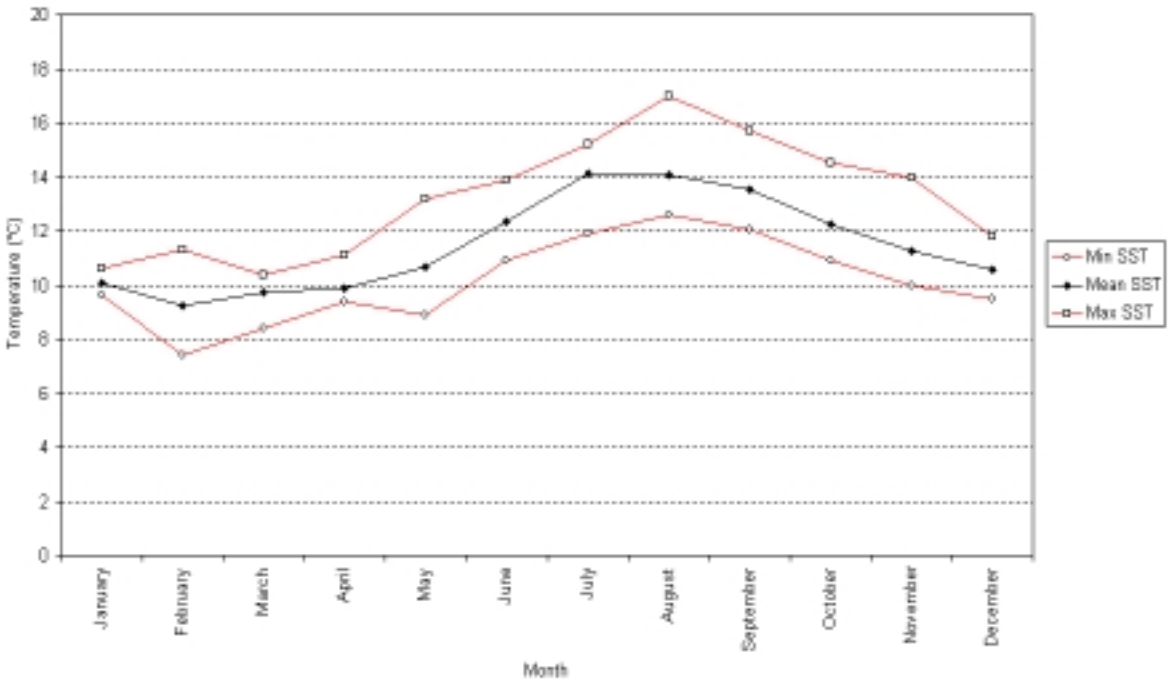


Figure 9.4 : Sea Surface Temperatures - Block 3

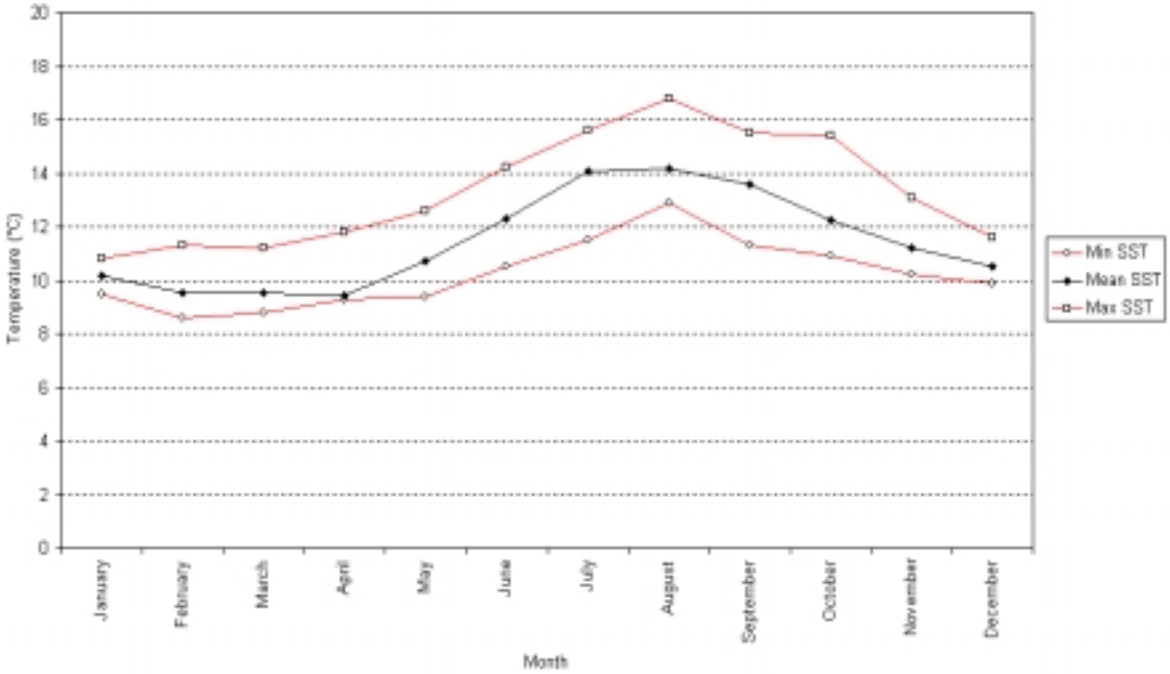


Figure 9.5 : Sea Surface Temperatures - Block 4

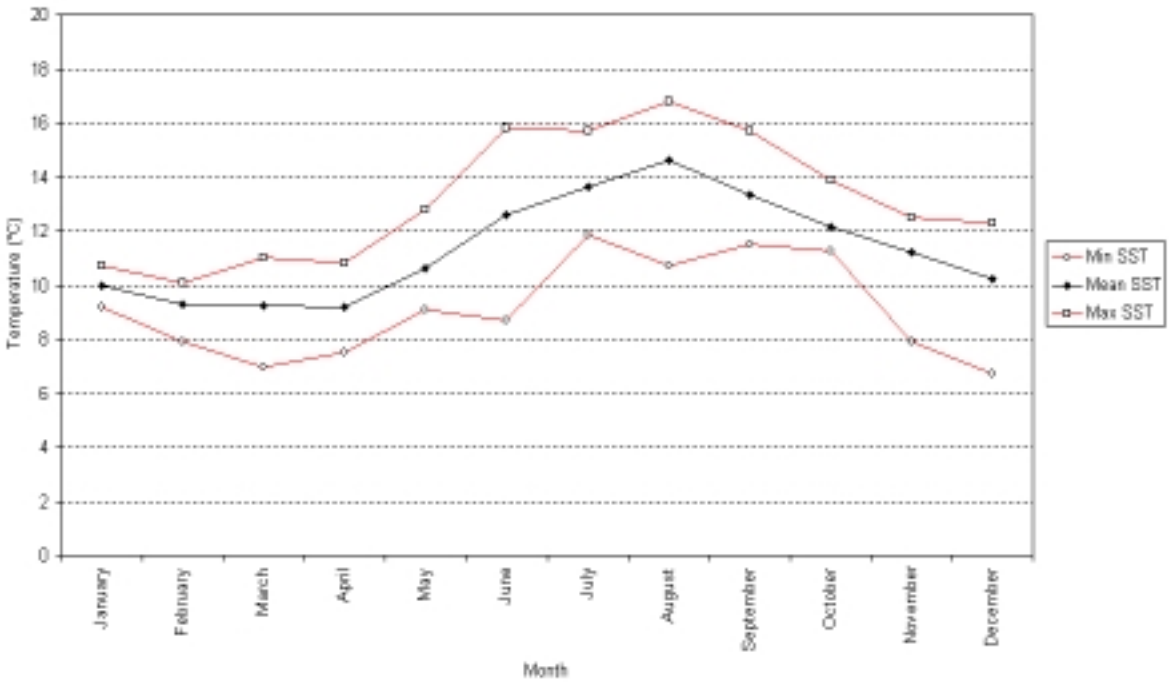


Figure 9.6 : Sea Surface Temperatures - Block 5

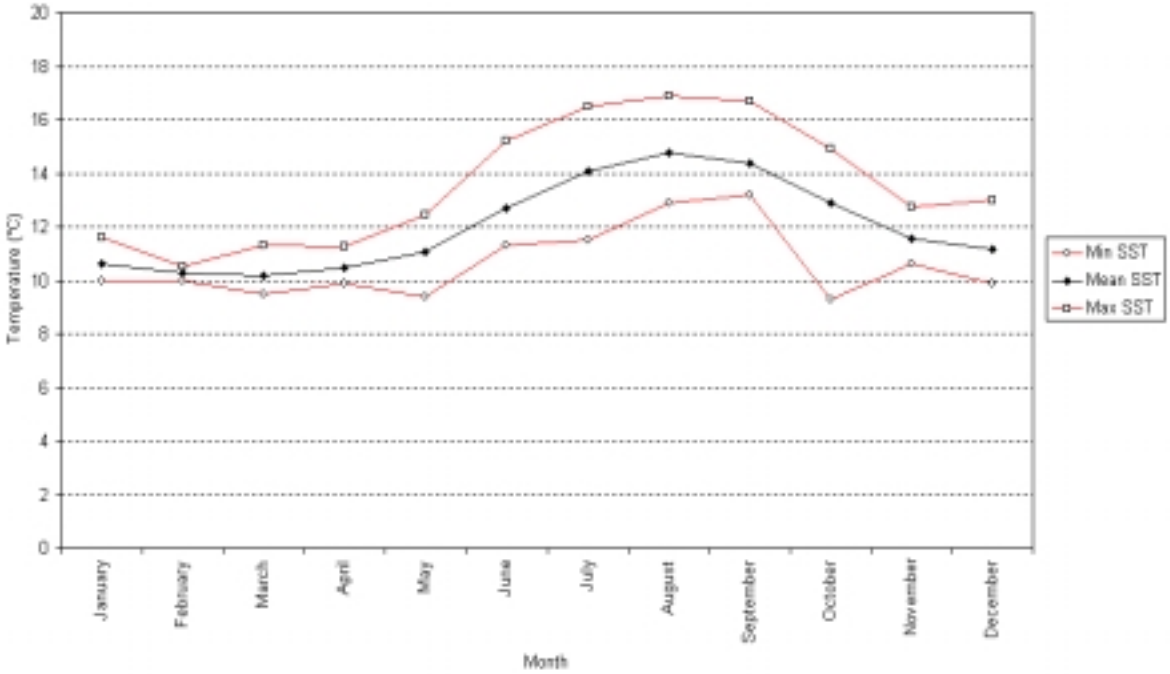


Figure 9.7 : Sea Surface |Temperatures - Block 6

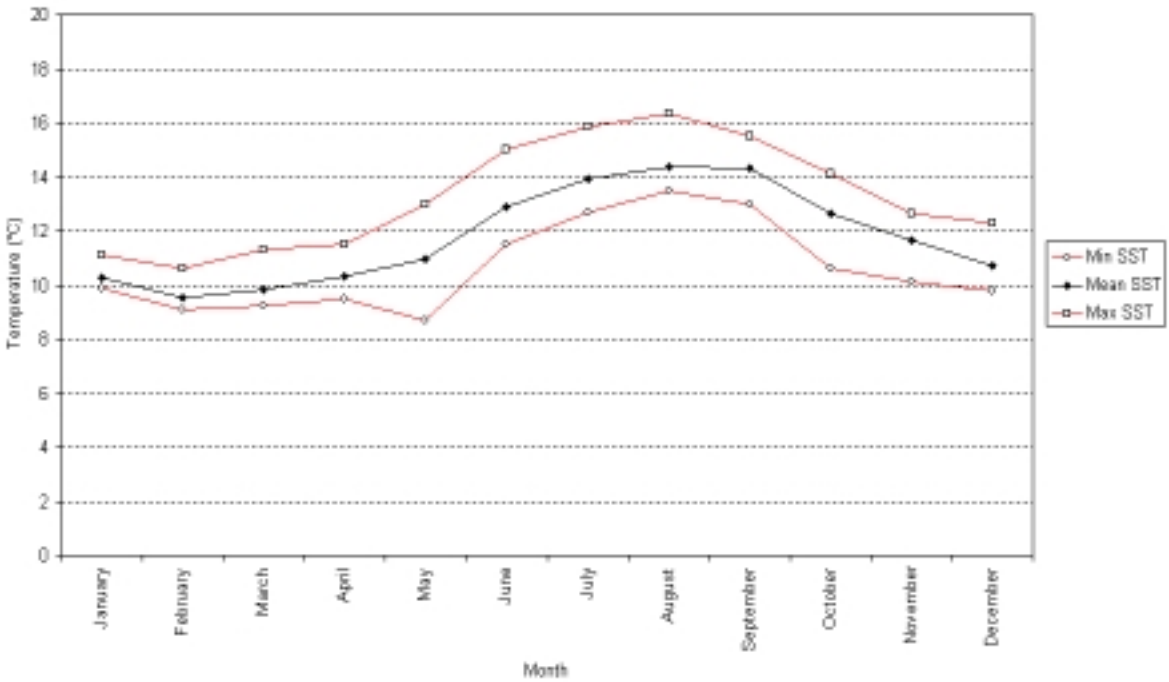


Figure 9.8 : Sea Surface Temperatures - Block 7

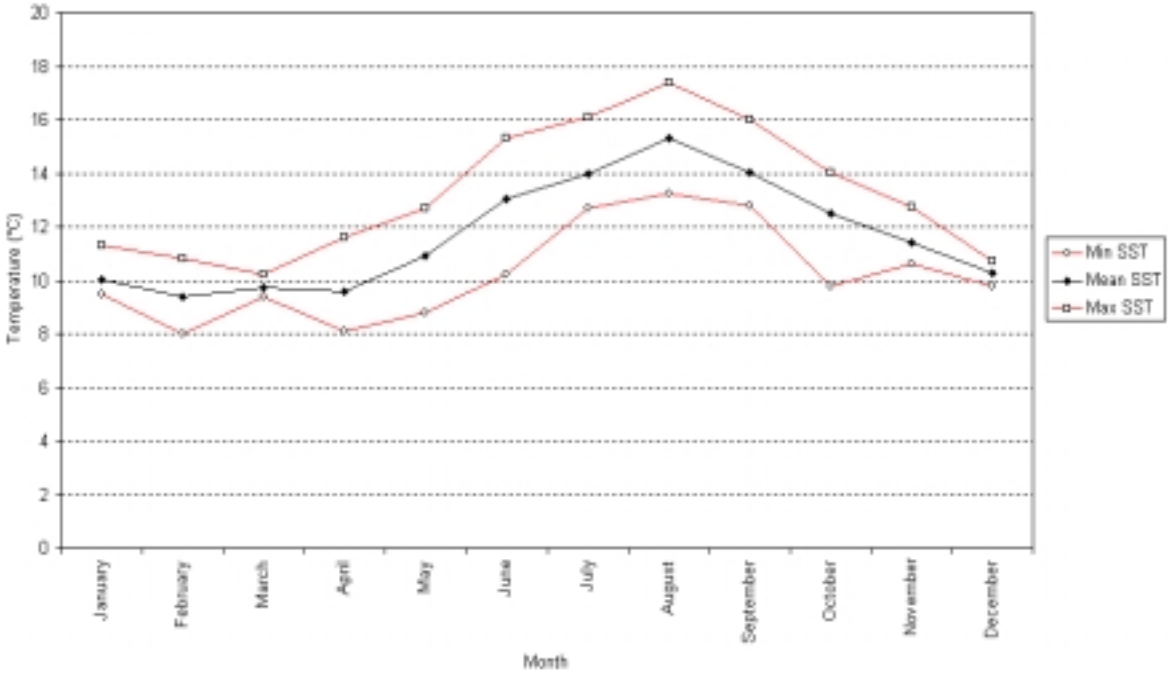


Figure 9.9 : Sea Surface Temperatures - Block 8

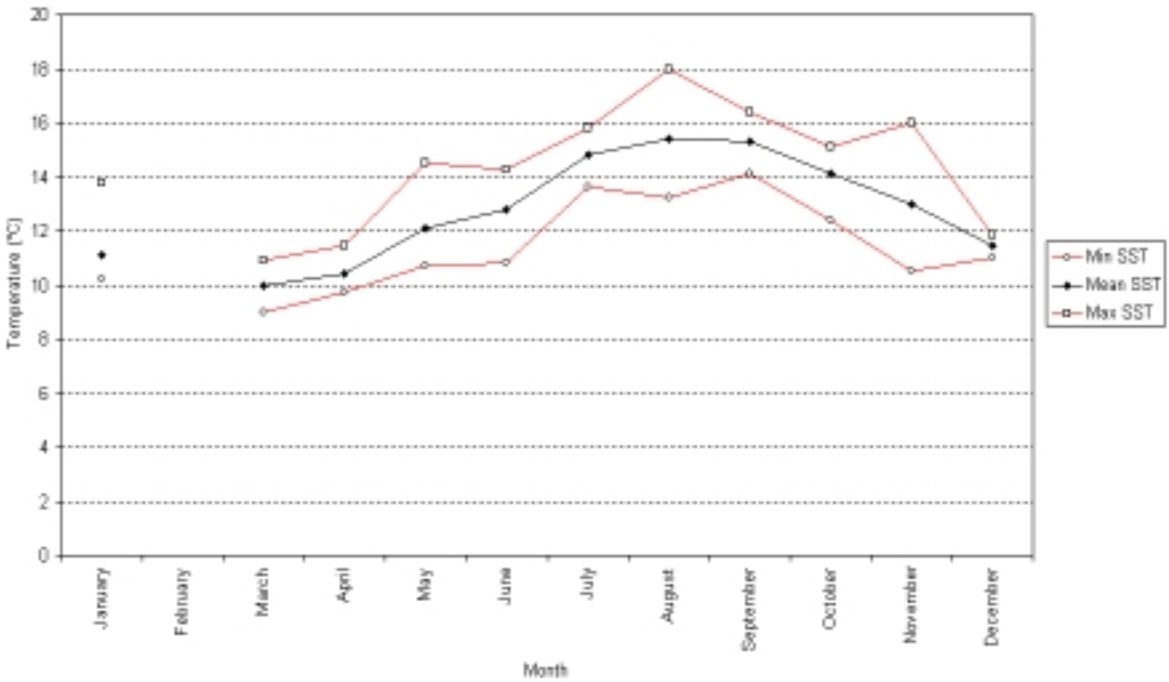


Figure 9.10 : Sea Surface Temperatures - Block 9

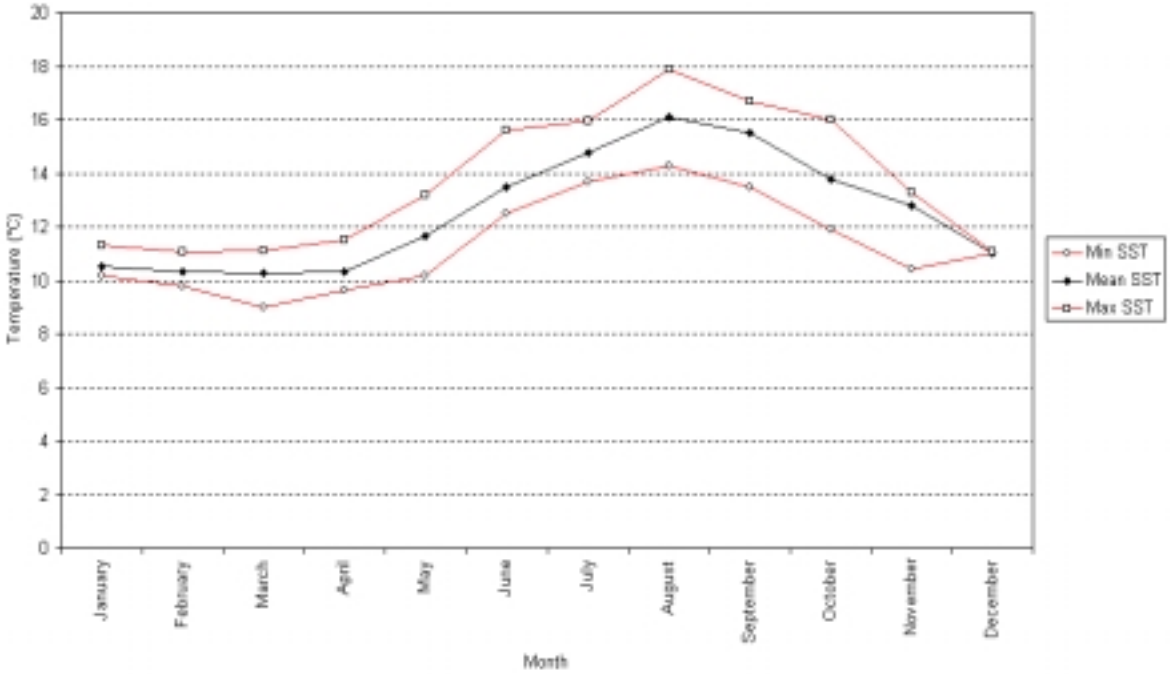


Figure 9.11 : Sea Surface Temperatures - Block 10

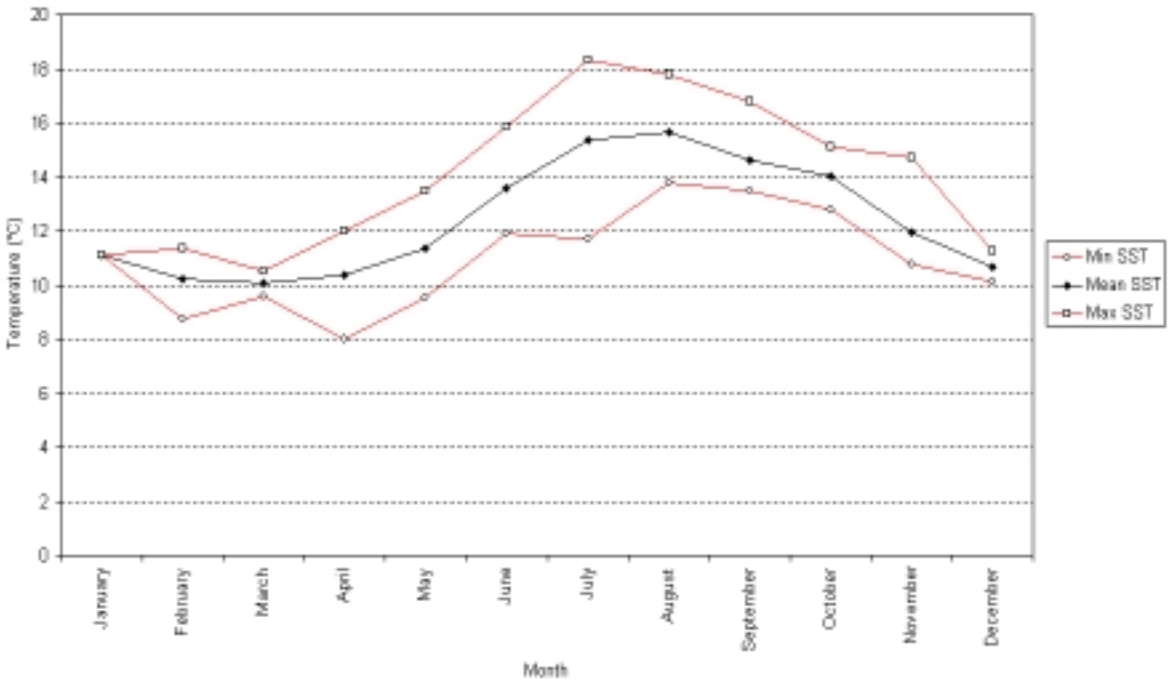


Figure 9.12 : Sea Surface Temperatures - Block 11

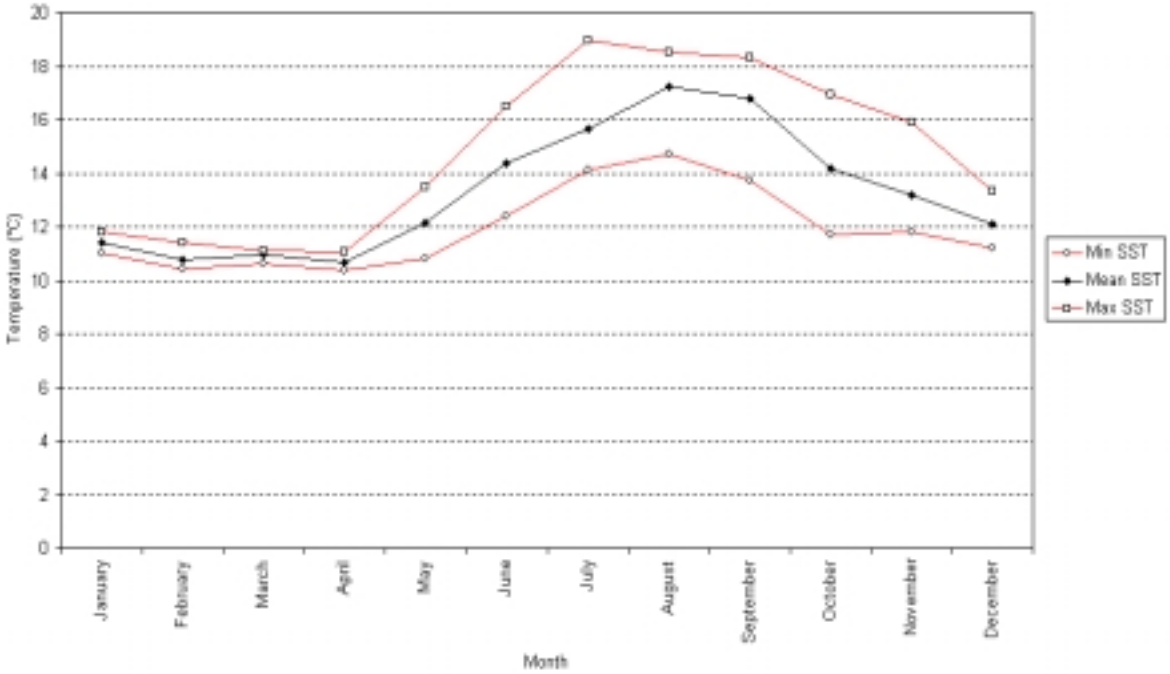


Figure 9.13 : Sea Surface Temperatures - Block 12

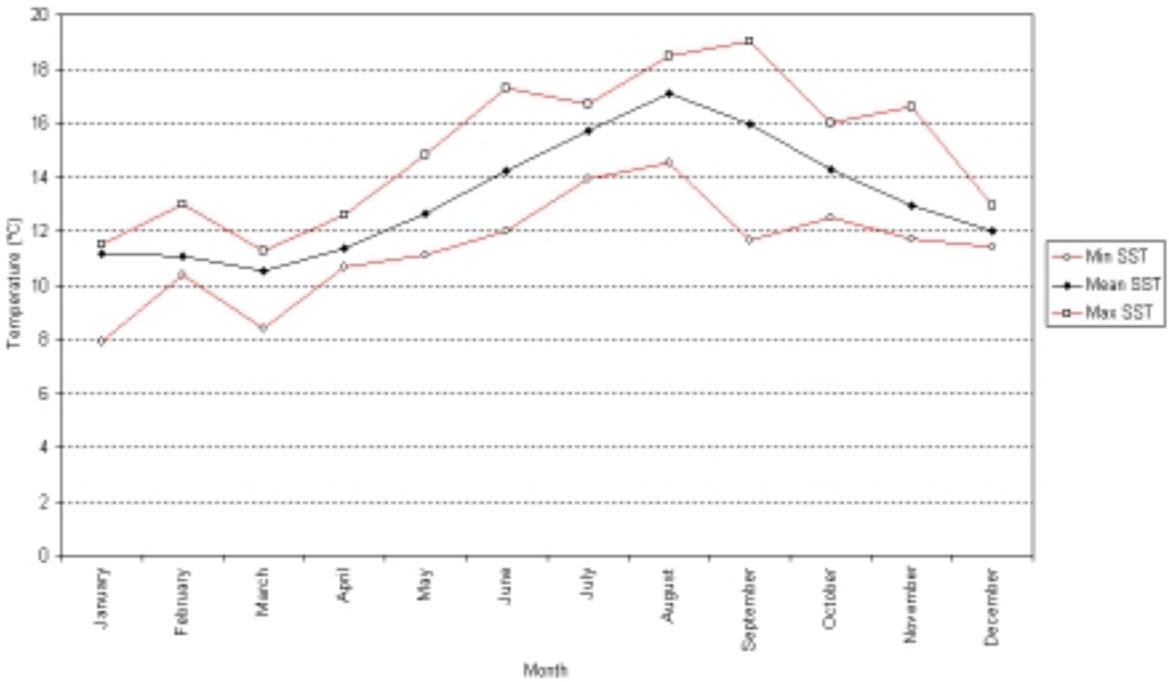
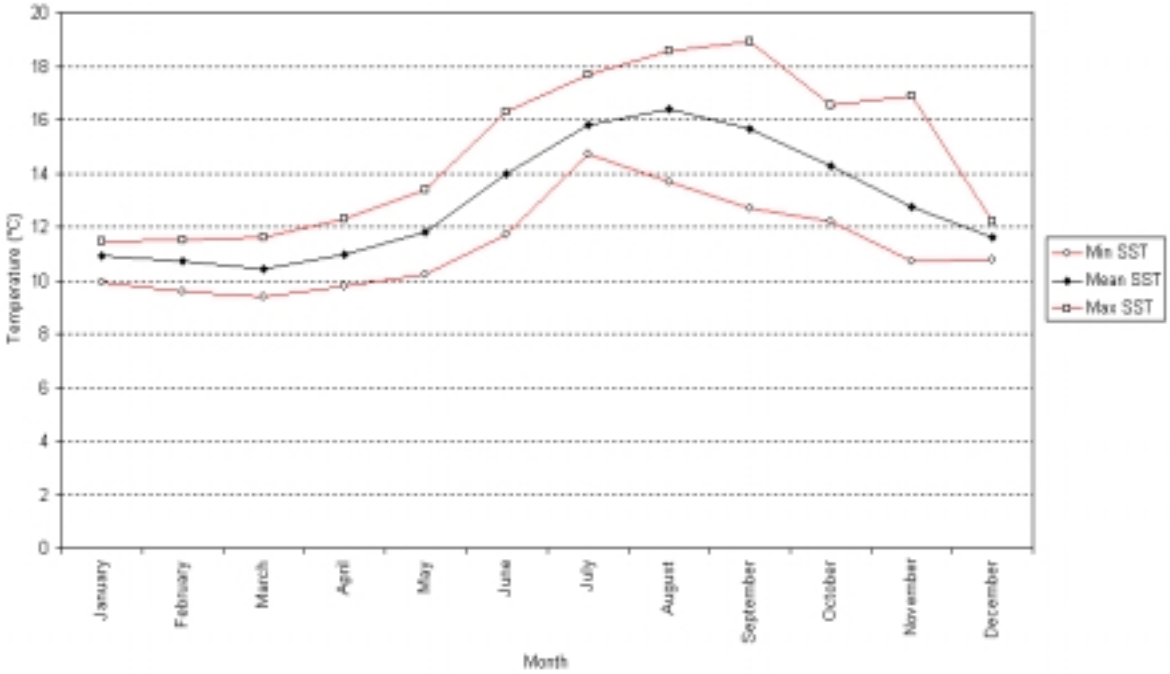
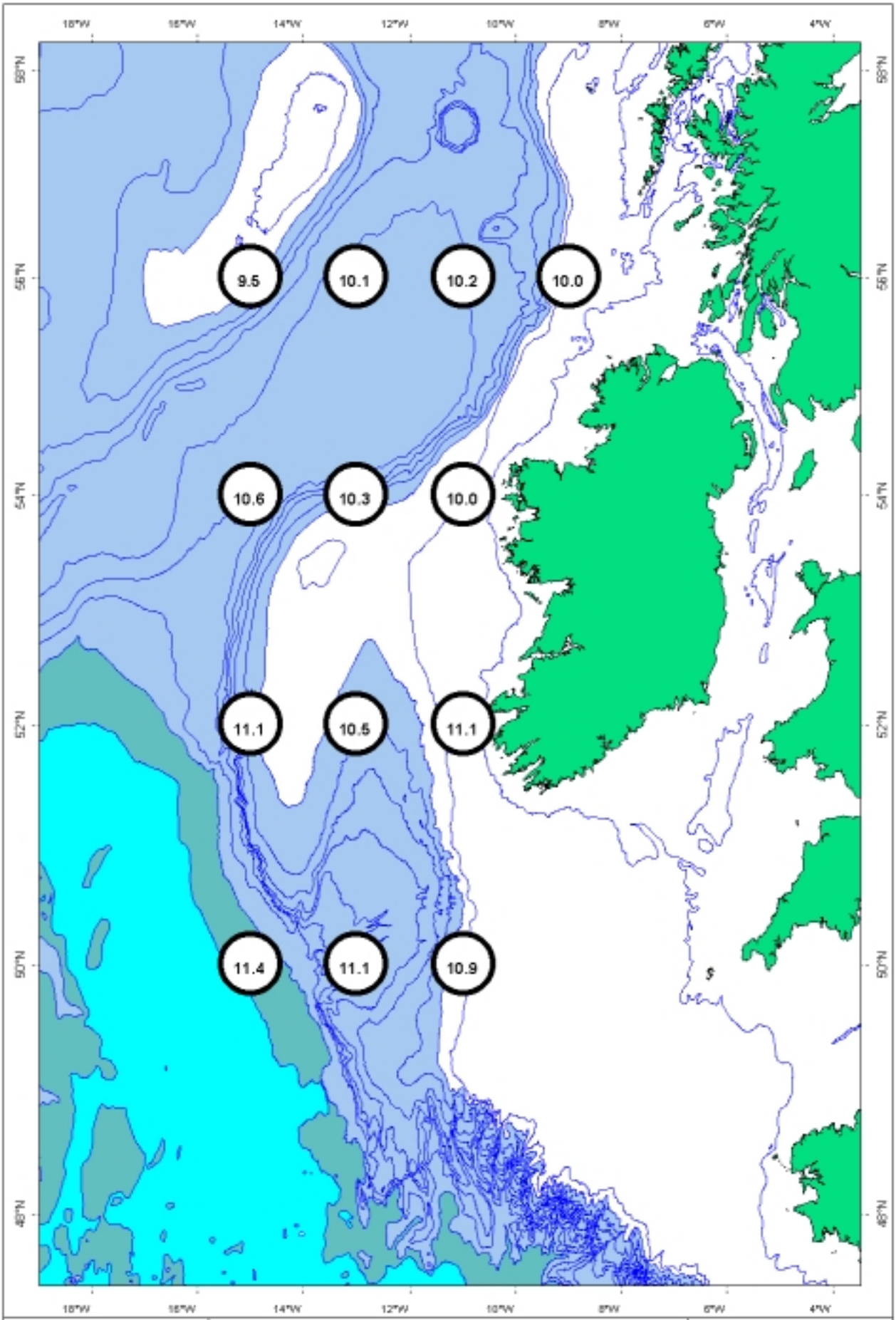


Figure 9.14 : Sea Surface Temperatures - Block 13





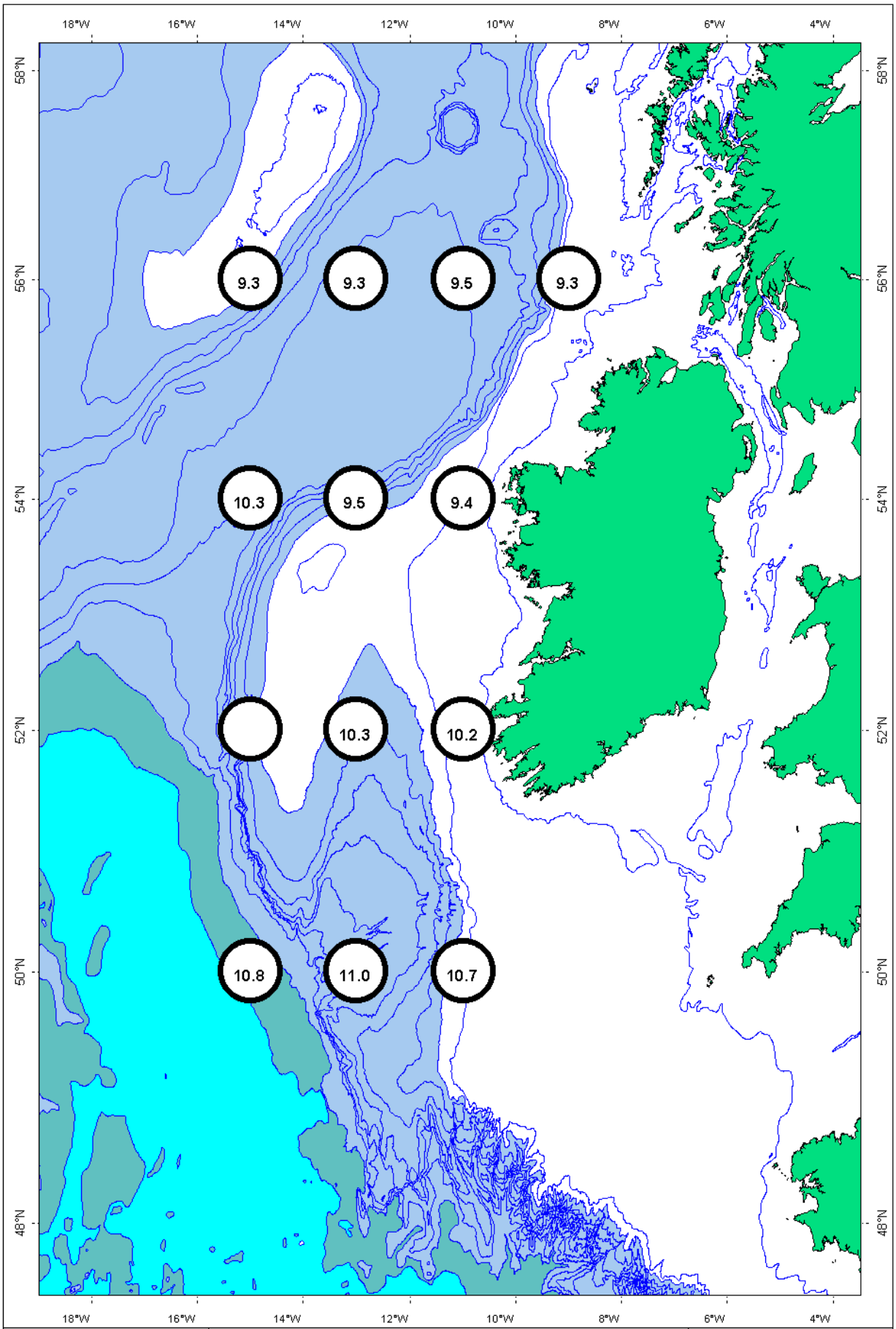
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (January)

Geos Ref : C50090/2054

Figure No : 9.15

Plot Date : 15-DEC-00



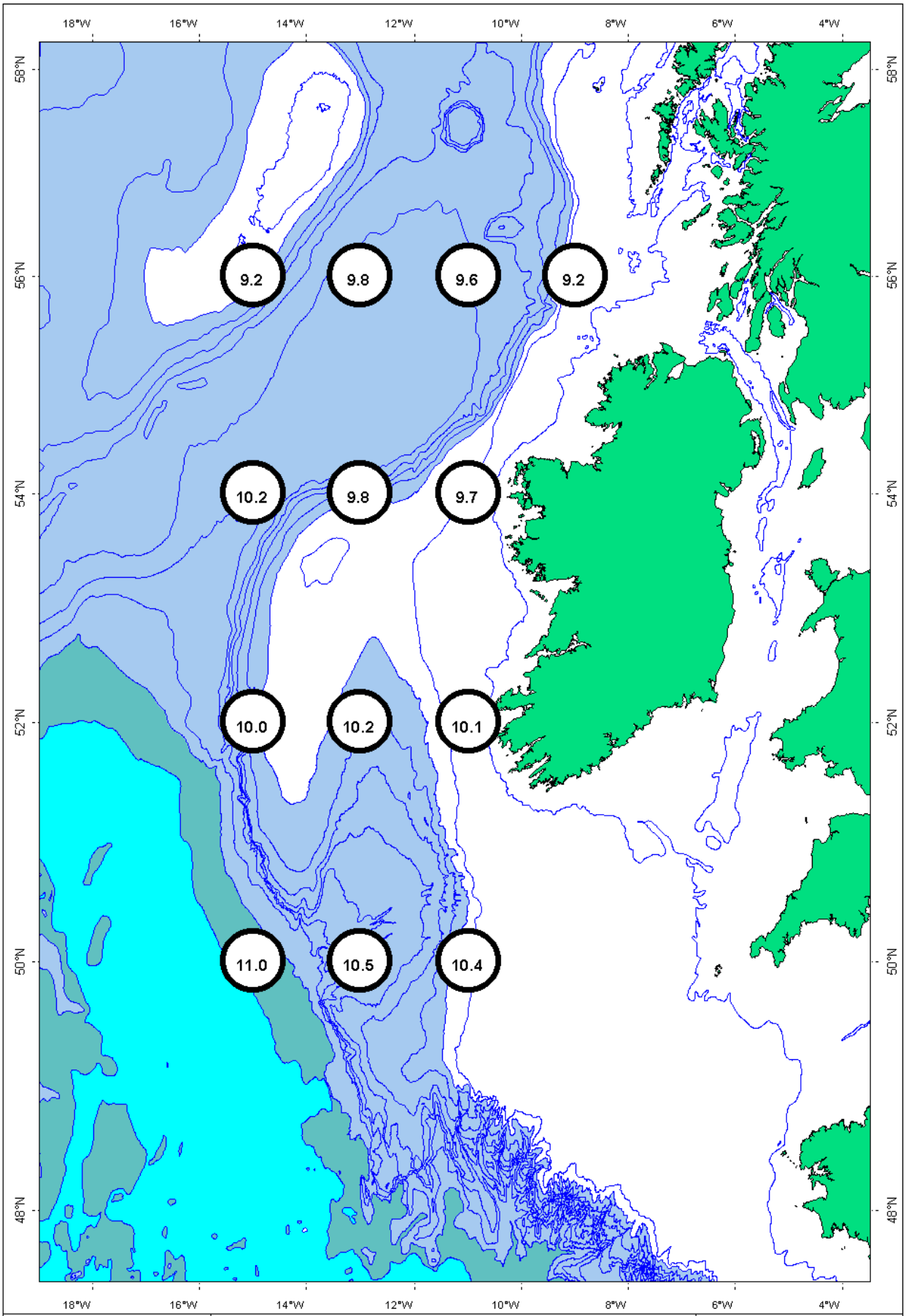
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (February)

Geos Ref : C50090/2054

Figure No : 9.16

Plot Date : 15-DEC-00



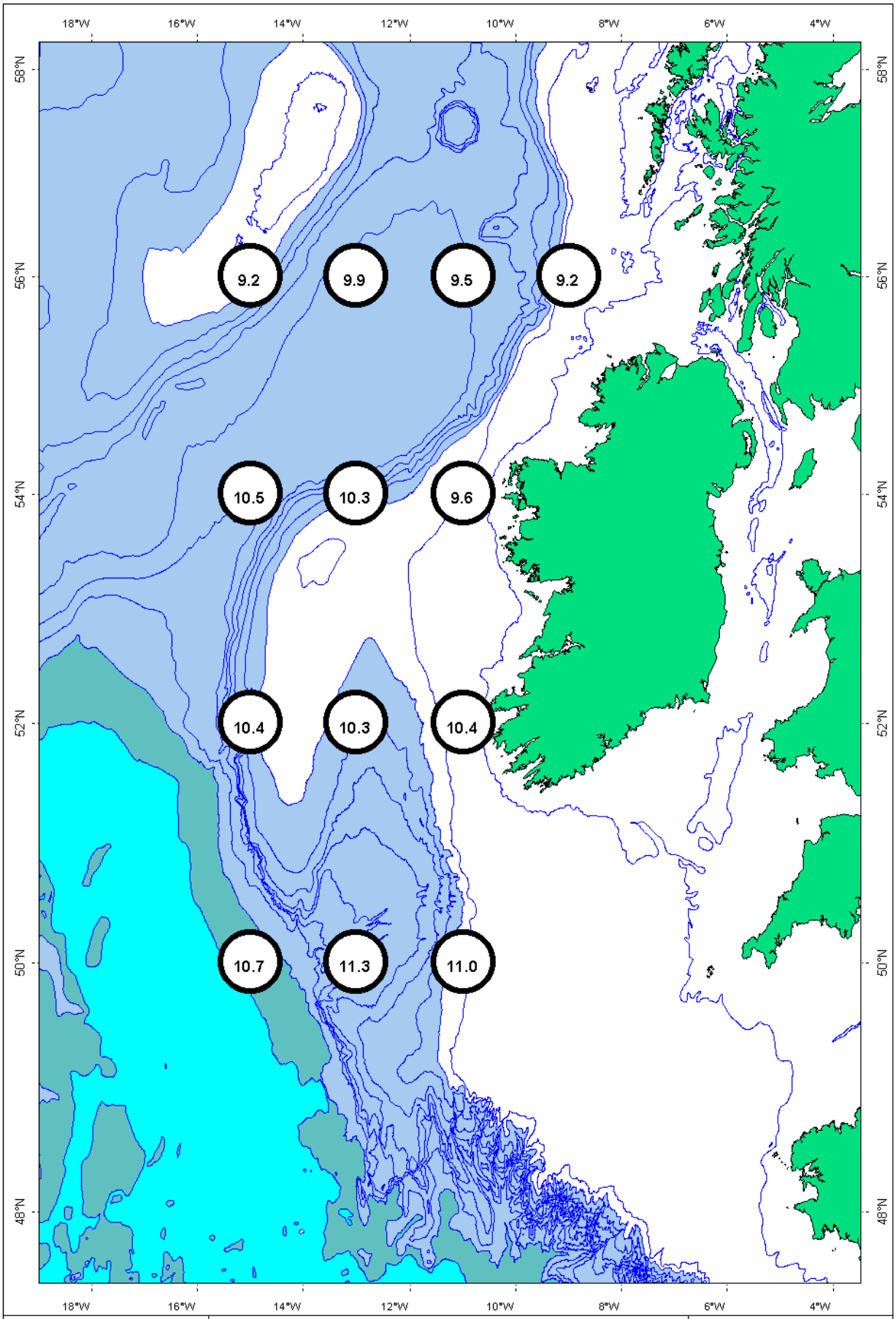
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (March)

Geos Ref : C50090/2054

Figure No : 9.17

Plot Date : 15-DEC-00



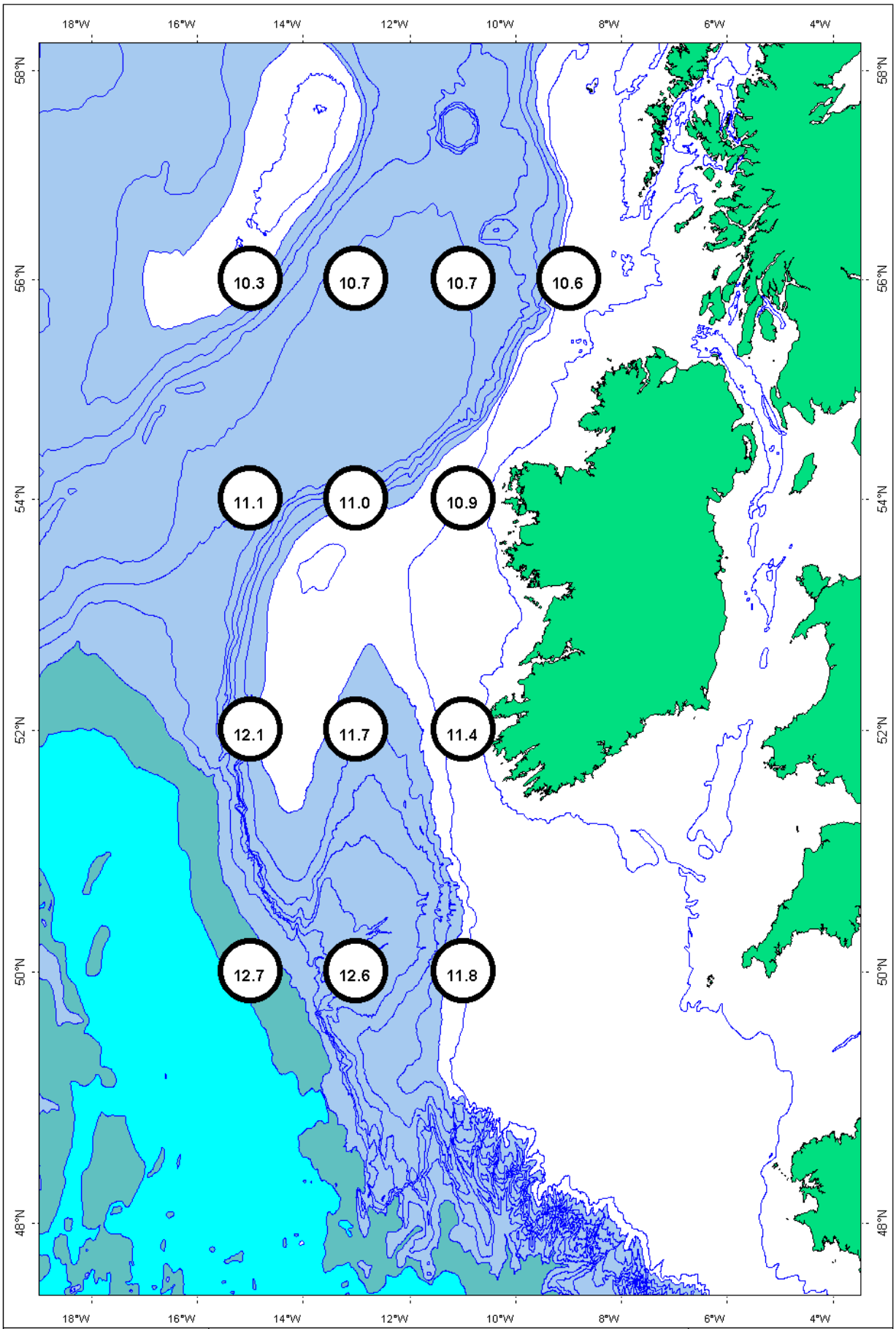
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (April)

Geos Ref : C50090/2054

Figure No : 9.18

Plot Date : 15-DEC-00



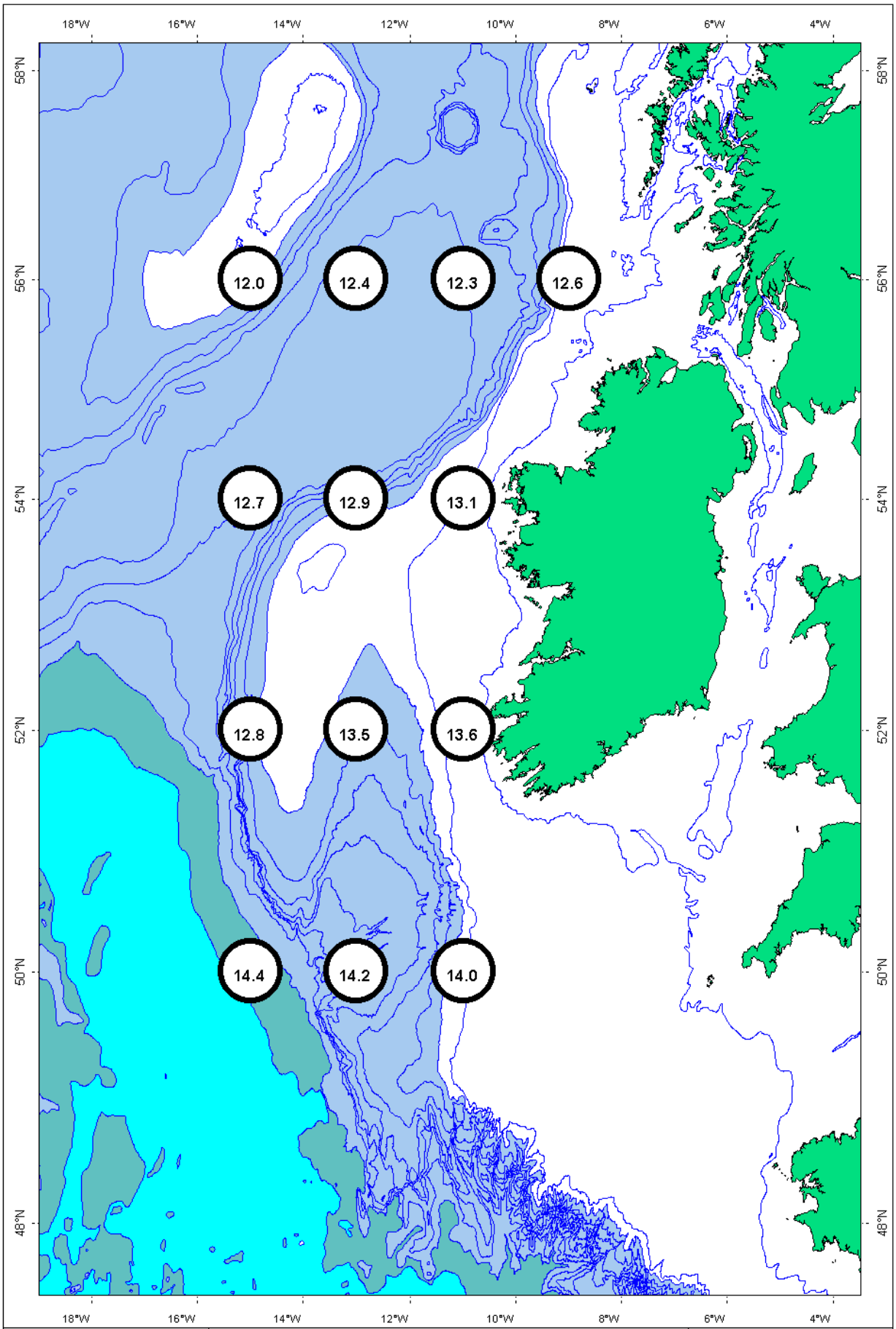
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (May)

Geos Ref : C50090/2054

Figure No : 9.19

Plot Date : 15-DEC-00



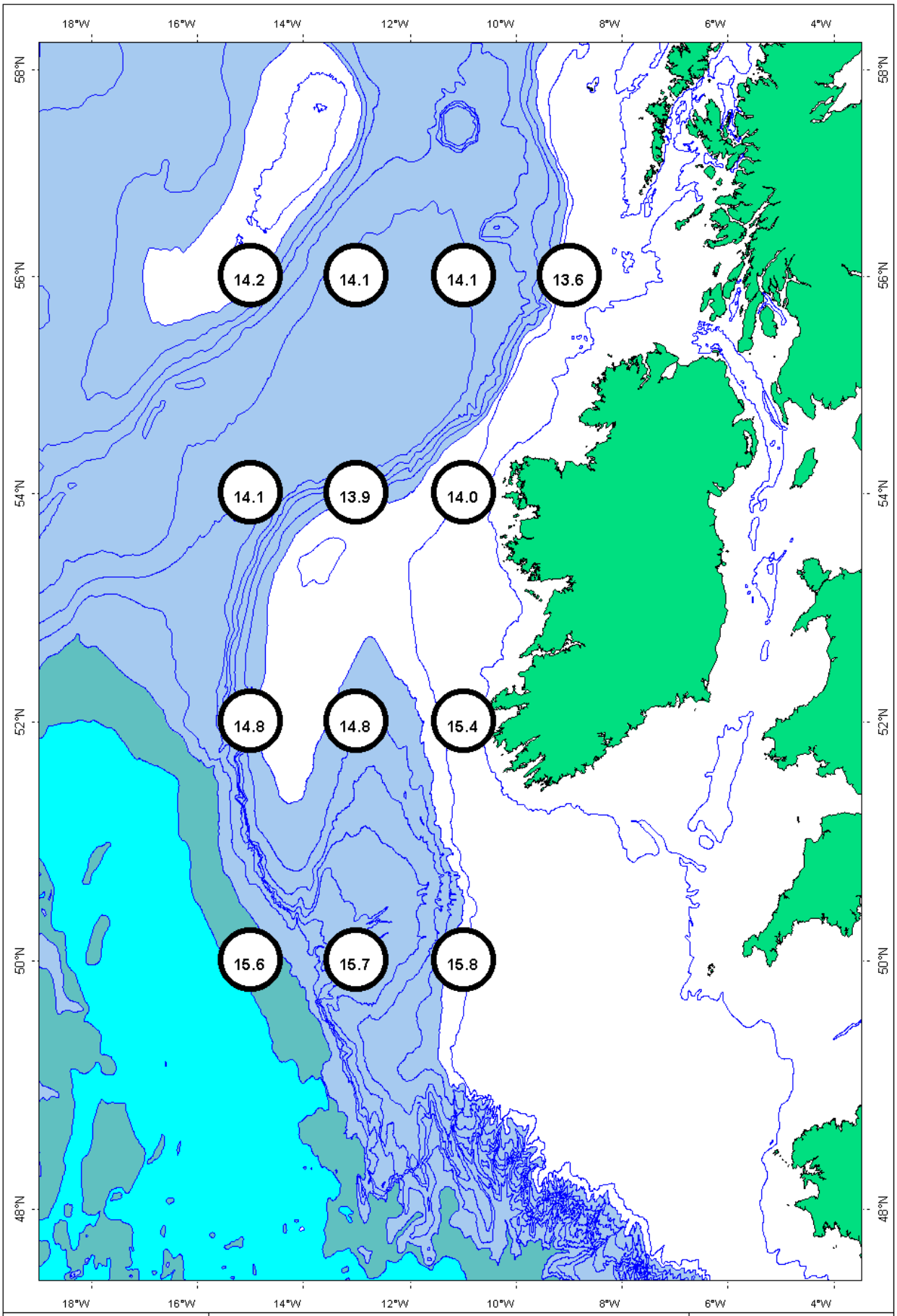
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (June)

Geos Ref : C50090/2054

Figure No : 9.20

Plot Date : 15-DEC-00



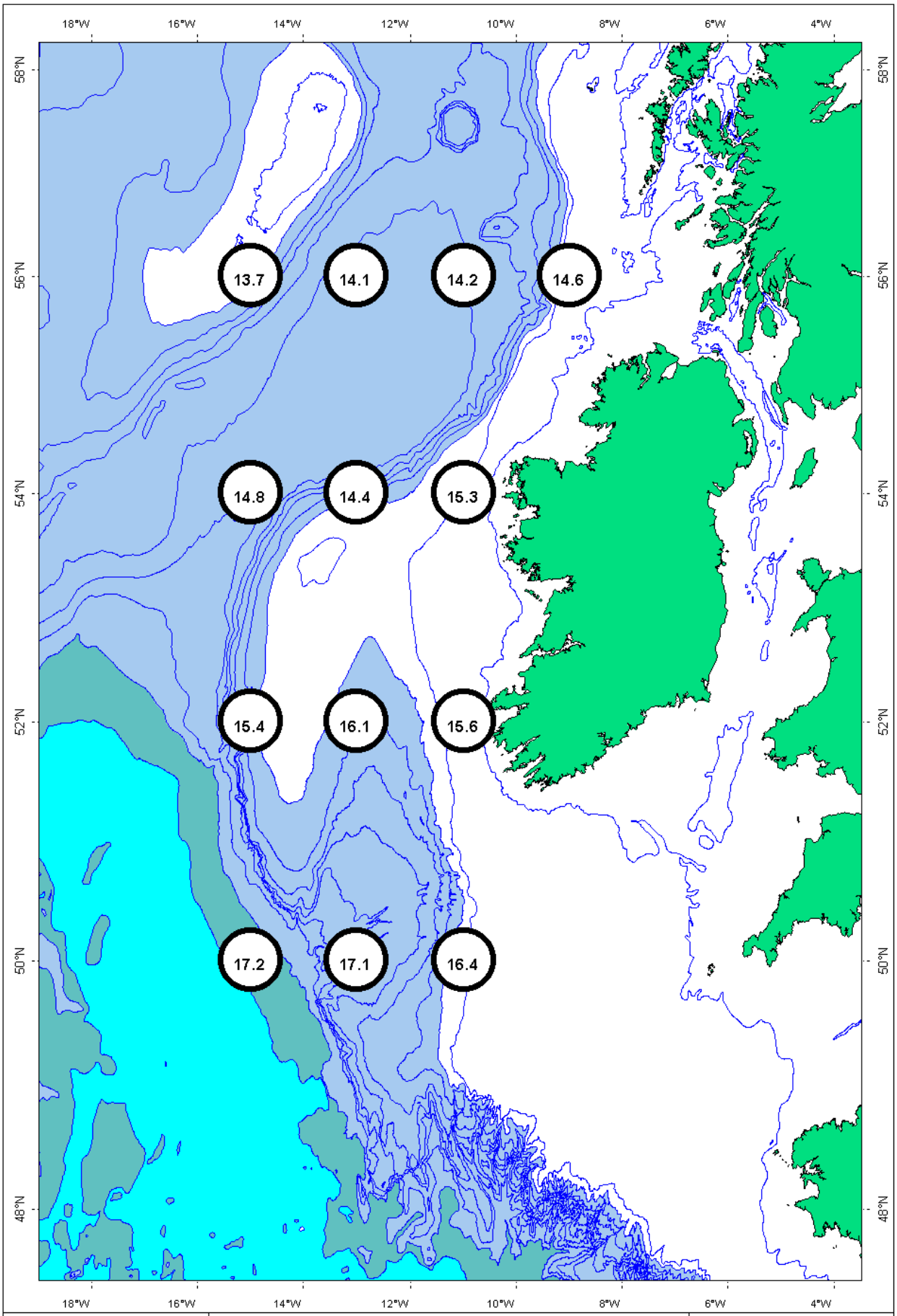
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (July)

Geos Ref : C50090/2054

Figure No : 9.21

Plot Date : 15-DEC-00



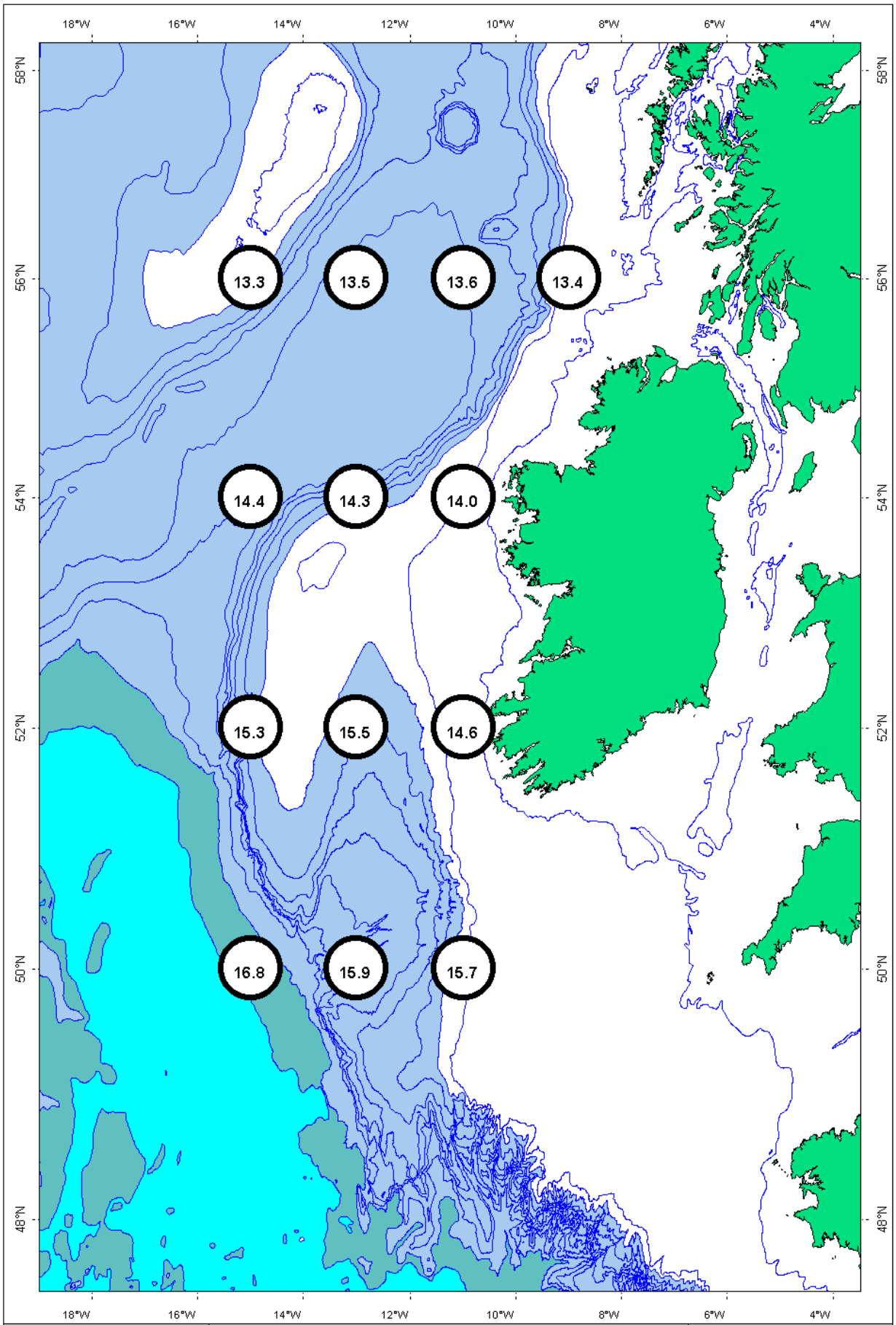
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (August

Geos Ref : C50090/2054

Figure No : 9.22

Plot Date : 15-DEC-00



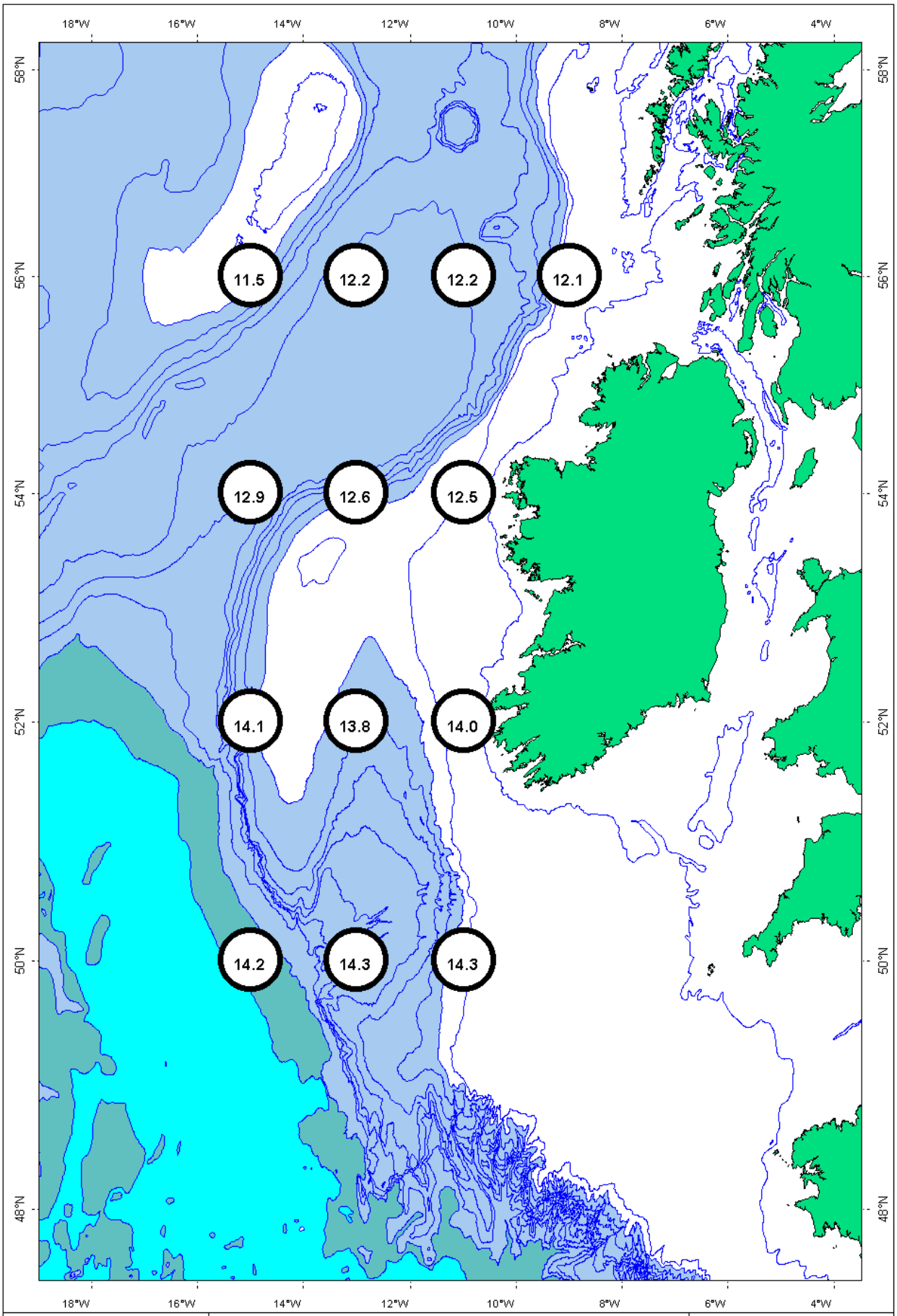
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (September)

Geos Ref : C50090/2054

Figure No : 9.23

Plot Date : 15-DEC-00



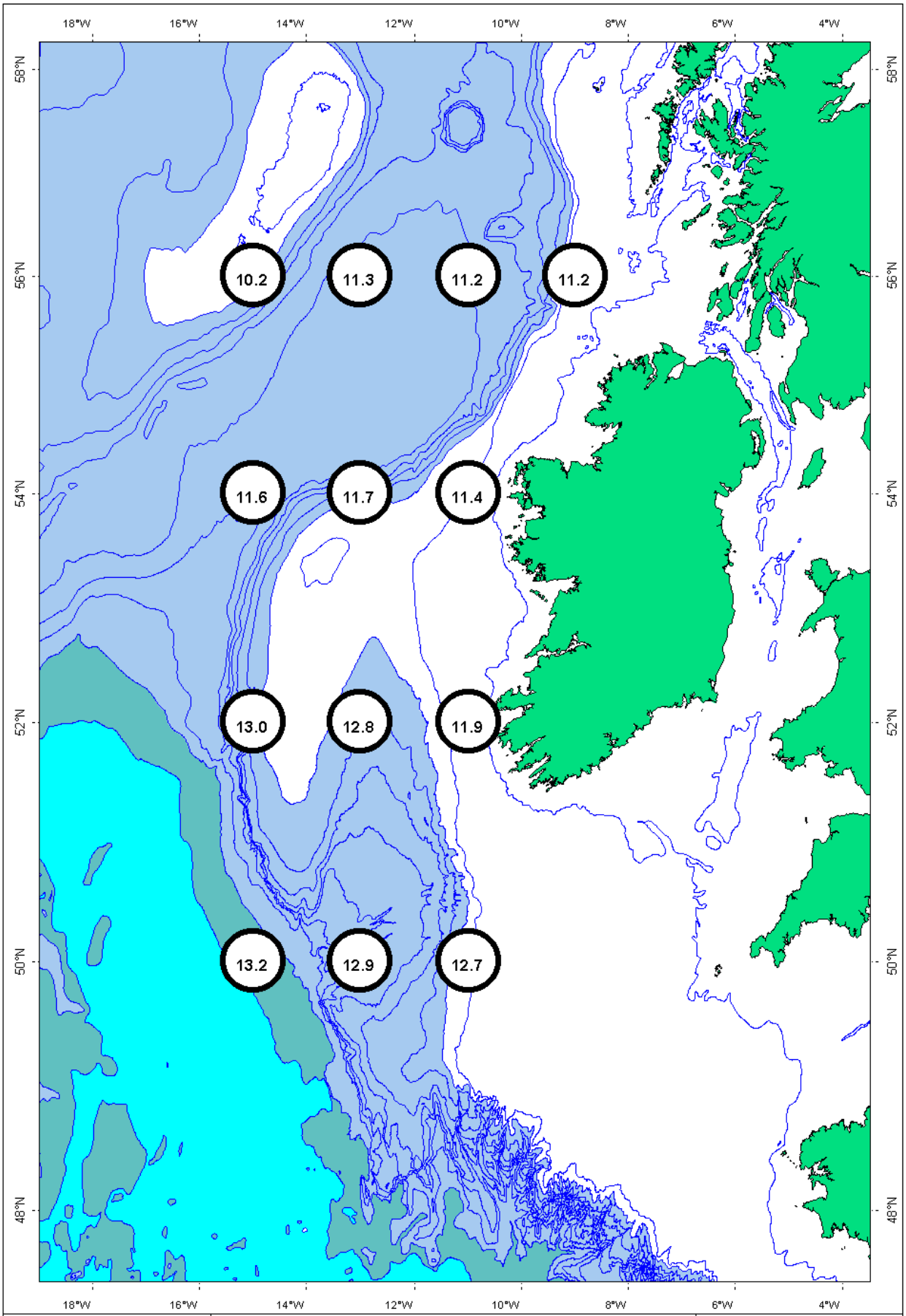
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (October)

Geos Ref : C50090/2054

Figure No : 9.24

Plot Date : 15-DEC-00



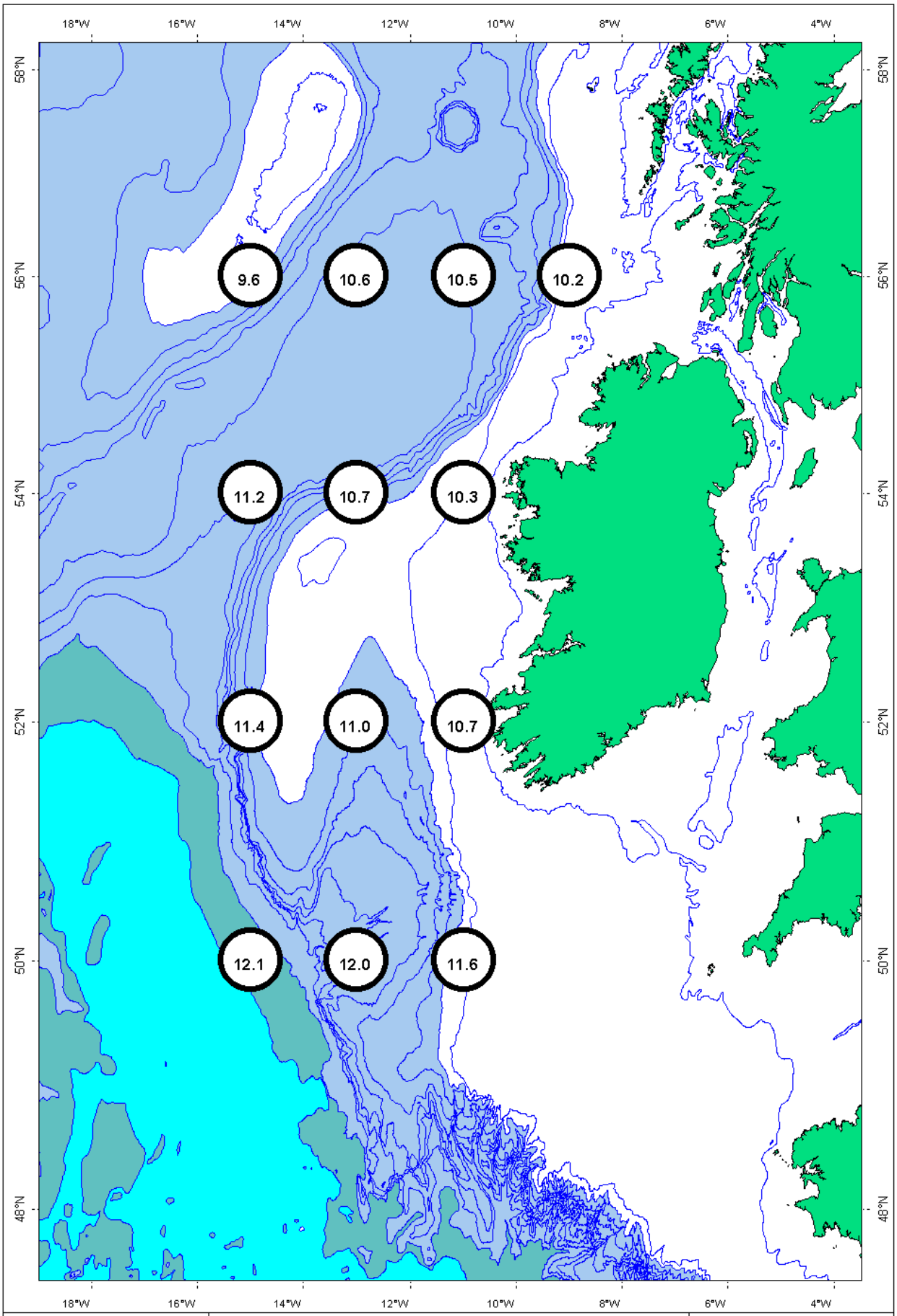
WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (November)

Geos Ref : C50090/2054

Figure No : 9.25

Plot Date : 15-DEC-00



WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Mean SST (December)

Geos Ref : C50090/2054

Figure No : 9.26

Plot Date : 15-DEC-00

9.2 Interannual Sea Surface Temperatures

Mean, minimum and maximum sea surface temperature have been extracted from the NODC data for all years with greater than 25 observations over the year. This analysis is from the entire study area and not subdivided into regions due to the sparcity of data during some years. The results are presented in Figure 9-27. Data are present for most years between 1900 and 1990 with notable gaps in the data during 1914-18 and 1939-45.

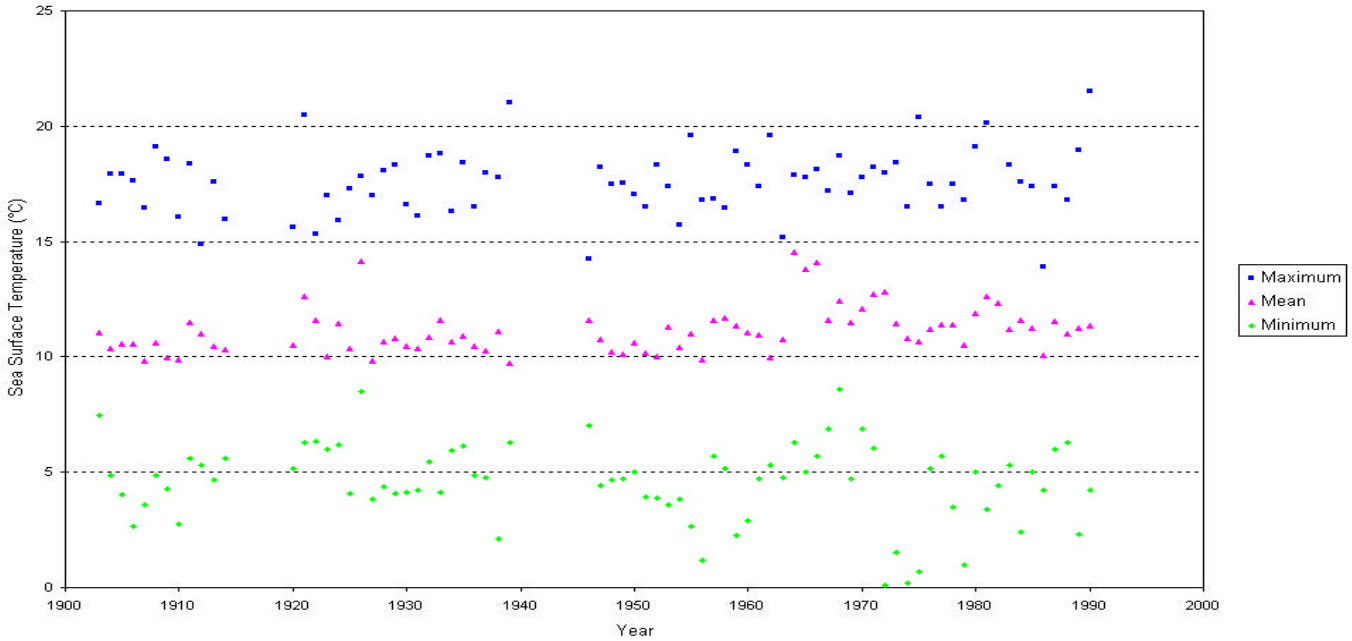


Figure 9-27 - Mean, Minimum and Maximum Sea Surface Temperatures for the Entire Study Region

9.3 Temperature Profiles

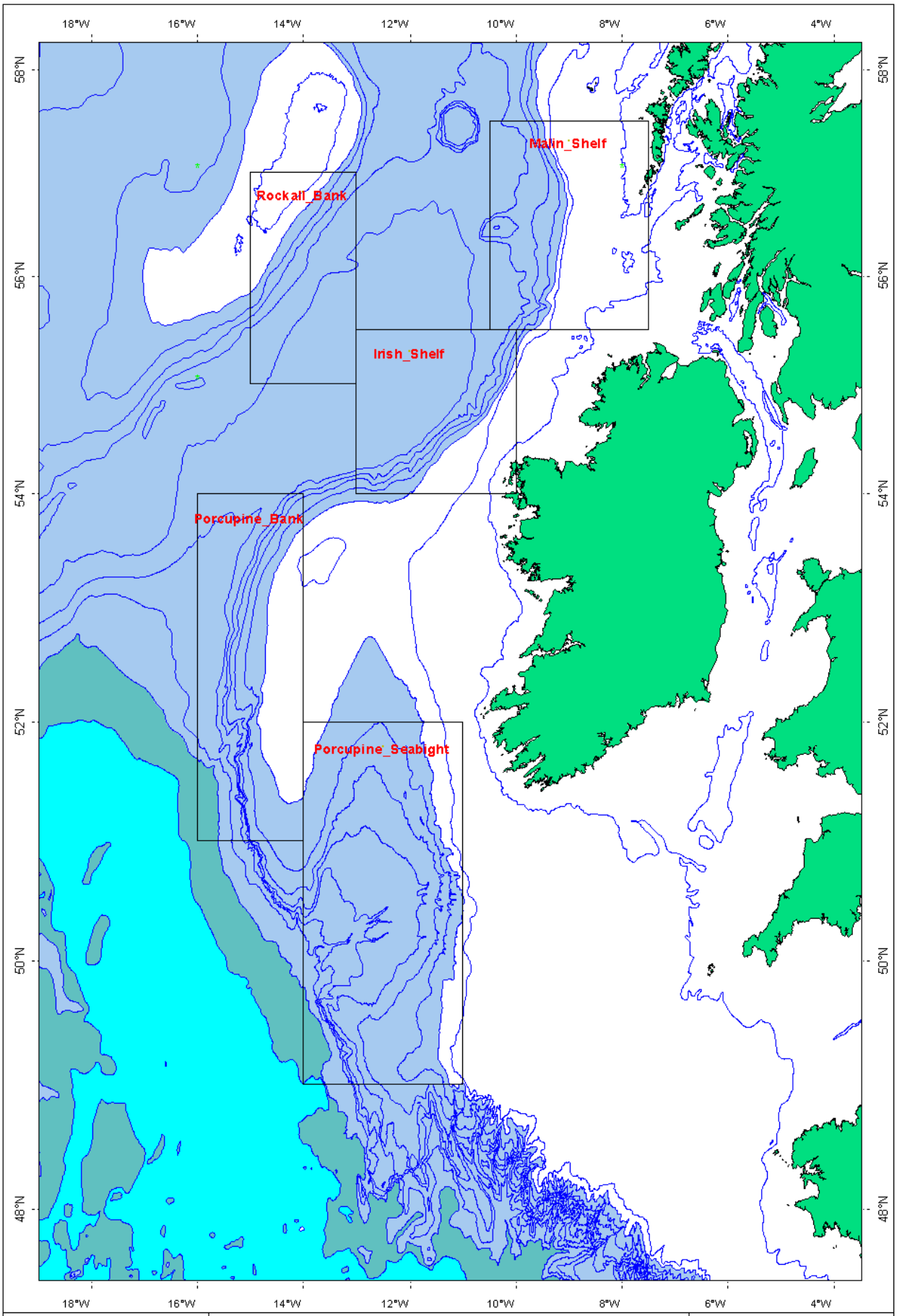
Temperature profile data were extracted from the NODC database for five representative locations at various depth ranges. In order to obtain enough data in the vertical to generate representative temperature profiles, areas have been defined according to five key regions (Figure 9.27).

The five representative locations are defined by the following:

Area 1	55.5°N to 57.5°N	7.5°W to 10.5°W	Malin Shelf
Area 2	55.0°N to 57.0°N	13.0°W to 15°W	Rockall Bank
Area 3	54.0°N to 55.5°N	10.0°W to 13.0°W	Irish Shelf
Area 4	49.0°N to 52.0°N	11.0°W to 14.0°W	Porcupine Sea Bight
Area 5	51.0°N to 54.0°N	14.0°W to 16.0°W	Porcupine Bank

Mean, Minimum and Maximum temperatures were extracted at standard depths. Where only one observation has been recorded the minimum and maximum have been linearly interpolated from the adjacent depths.

Note : these temperature profiles are derived from a number of sources. Minimum and maximum profiles are not always as continuous as one may expect due to data being collected from a whole range of depths at differing times. Individual events affecting the temperature structure (e.g. passing eddies, frontal motions etc.) may be detected at some depths and / or times and not at others. These effects should have minimal effect on the mean temperature profiles as long as the sample is large enough. Minimum and maximum temperatures based on a small number of data should be treated with caution. Basic QC has been performed on the data and extreme 'outliers' removed prior to analyses. However, several values that appear slightly anomalous but are not obviously in error will remain.



WEST OF IRELAND REGIONAL CLIMATOLOGY STUDY

Regions used for Profile Analyses

Geos Ref : C50090/2054

Figure No : 9.27

Plot Date : 15-DEC-00

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
January						
0	10	**10.09**	9.35	10.80	0.3681	34
10	20	**10.55**	10.00	10.90	0.3873	4
20	30	**10.03**	9.70	10.80	0.5252	4
30	40	**10.20**	9.80	11.00	0.5416	4
40	50	**10.36**	9.80	10.90	0.4568	7
50	75	**10.02**	8.96	10.70	0.7812	4
75	100	**10.03**	9.23	10.55	Interpolated	1
100	150	**10.05**	9.50	10.40	0.2897	10
150	200	**10.00**	9.60	10.20	0.2550	5
200	300	**10.25**	9.72	10.50	0.2733	6
300	400	**9.93**	9.50	10.60	0.3696	12
400	500	**9.87**	9.40	10.20	0.2378	21
500	750	**8.85**	8.59	9.05	Interpolated	1
750	1000	**7.84**	7.78	7.89	0.0778	2
1000	1500	**-**	-	-	-	-
February						
0	10	**9.43**	7.40	11.30	0.8113	50
10	20	**9.29**	8.19	9.80	0.4084	15
20	30	**9.43**	8.20	10.50	0.5013	20
30	40	**9.47**	9.00	10.40	0.4424	7
40	50	**9.43**	8.23	10.09	0.4900	14
50	75	**9.31**	7.40	10.29	0.6100	23
75	100	**9.63**	8.24	10.39	0.5376	14
100	150	**9.50**	8.96	10.36	0.2758	26
150	200	**9.60**	9.40	9.80	0.0818	16
200	300	**9.80**	9.20	10.70	0.4379	23
300	400	**9.82**	9.30	10.70	0.5368	11
400	500	**9.53**	9.10	11.00	0.4862	13
500	750	**8.83**	8.30	9.60	0.4298	9
750	1000	**7.95**	7.45	8.30	0.4428	3
1000	1500	**5.42**	4.80	6.04	0.8768	2
March						
0	10	**9.22**	6.30	11.22	0.8490	105
10	20	**9.15**	6.30	10.21	0.8349	54
20	30	**8.94**	6.30	10.21	1.0694	49
30	40	**9.04**	6.30	10.21	1.0459	44
40	50	**8.43**	6.30	9.70	1.0888	23
50	75	**8.95**	6.30	10.90	0.9164	73
75	100	**9.04**	7.60	10.21	0.7422	66
100	150	**9.08**	7.50	10.50	0.8036	100
150	200	**9.48**	7.93	10.70	0.5816	32
200	300	**9.54**	8.60	10.39	0.4393	32
300	400	**9.81**	8.60	10.90	0.5800	16
400	500	**9.57**	8.50	11.30	0.6079	33
500	750	**9.15**	8.39	9.74	0.4225	20
750	1000	**8.60**	7.61	9.23	0.5197	12
1000	1500	**5.75**	4.40	7.11	1.1264	5
April						
0	10	**9.55**	7.67	14.60	0.9348	149
10	20	**9.15**	7.39	11.10	0.7802	77
20	30	**9.13**	7.32	10.50	0.7194	81
30	40	**8.98**	7.31	9.98	0.6573	93
40	50	**9.02**	7.31	9.97	0.6664	66
50	75	**9.02**	7.39	10.10	0.5890	173
75	100	**8.97**	7.61	10.00	0.5894	155
100	150	**8.91**	7.50	10.00	0.5582	255
150	200	**9.16**	8.10	10.00	0.5726	68
200	300	**9.46**	8.80	9.78	0.1880	35
300	400	**9.49**	8.80	9.89	0.2492	21
400	500	**9.40**	8.80	10.10	0.3654	19
500	750	**9.86**	8.30	11.30	0.9121	33
750	1000	**8.50**	7.06	9.60	0.7984	12
1000	1500	**6.08**	4.33	7.82	1.4529	5

Table 9-2 - Temperature Profiles for Area 1 : Malin Shelf (January-April)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
May						
0	10	**10.69**	7.80	14.10	0.9186	206
10	20	**10.53**	7.81	13.20	0.9097	142
20	30	**10.15**	7.81	12.04	0.8226	141
30	40	**9.91**	7.61	12.70	0.9185	124
40	50	**9.78**	7.82	11.70	0.8243	108
50	75	**9.78**	7.94	11.70	0.7298	220
75	100	**9.83**	7.44	10.70	0.5093	150
100	150	**9.74**	8.32	10.90	0.4673	147
150	200	**9.40**	8.10	10.10	0.5139	43
200	300	**9.40**	7.70	9.98	0.4756	34
300	400	**9.43**	9.00	9.94	0.2349	26
400	500	**9.22**	7.50	9.90	0.4229	32
500	750	**8.87**	8.14	9.56	0.3263	26
750	1000	**8.31**	7.44	8.88	0.4621	17
1000	1500	**6.21**	4.64	6.97	1.0848	4
June						
0	10	**12.71**	8.70	17.10	1.3167	252
10	20	**12.00**	8.80	15.70	1.1264	197
20	30	**11.50**	8.70	14.40	1.0240	208
30	40	**10.93**	8.40	14.00	1.0118	197
40	50	**10.53**	8.30	12.60	0.9676	140
50	75	**10.19**	7.80	12.19	0.8282	335
75	100	**9.93**	8.30	12.08	0.6667	257
100	150	**9.91**	8.40	11.96	0.5935	243
150	200	**9.86**	8.50	12.96	0.6027	51
200	300	**9.62**	9.00	10.22	0.2954	26
300	400	**9.56**	9.20	10.16	0.2164	22
400	500	**9.48**	8.90	10.77	0.4120	32
500	750	**9.18**	8.40	9.51	0.2299	23
750	1000	**8.72**	7.88	9.70	0.4580	23
1000	1500	**6.97**	4.35	9.56	1.3084	18
July						
0	10	**13.45**	11.40	16.71	1.0984	262
10	20	**13.30**	10.50	16.14	1.0222	158
20	30	**12.64**	10.00	15.00	0.9976	173
30	40	**11.84**	8.10	14.53	1.0972	173
40	50	**11.16**	8.90	13.62	1.0174	121
50	75	**10.53**	7.70	13.35	0.9879	248
75	100	**9.99**	8.70	11.39	0.6637	156
100	150	**9.63**	8.20	10.95	0.5974	214
150	200	**9.46**	8.54	10.50	0.5968	42
200	300	**9.79**	9.22	10.30	0.2810	40
300	400	**9.68**	9.30	10.00	0.2058	26
400	500	**9.49**	8.80	10.20	0.2782	33
500	750	**9.20**	8.61	9.71	0.2952	23
750	1000	**8.41**	6.99	9.00	0.4950	17
1000	1500	**6.02**	4.43	7.81	1.0770	24
August						
0	10	**14.48**	10.00	16.60	1.1002	325
10	20	**14.42**	12.42	16.34	1.0208	133
20	30	**13.95**	9.78	15.88	0.8896	200
30	40	**13.15**	9.09	15.17	0.9562	162
40	50	**12.42**	8.11	14.81	1.2171	191
50	75	**11.29**	7.45	15.50	1.1451	377
75	100	**10.31**	7.41	13.42	0.6246	233
100	150	**9.96**	7.37	12.25	0.4917	357
150	200	**9.72**	8.60	11.45	0.4576	96
200	300	**9.86**	9.21	10.46	0.3074	53
300	400	**9.73**	9.10	10.70	0.3227	36
400	500	**9.59**	8.78	10.50	0.3656	56
500	750	**9.26**	8.62	10.00	0.2966	25
750	1000	**8.28**	6.86	9.00	0.5705	14
1000	1500	**6.23**	4.64	7.51	1.0191	12

Table 9-3 - Temperature Profiles for Area 1 : Malin Shelf (May-August)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
September						
0	10	**12.83**	11.27	16.10	1.1331	257
10	20	**12.74**	11.27	15.70	1.3005	102
20	30	**12.78**	11.14	15.30	0.8691	115
30	40	**12.91**	11.10	14.90	0.8803	112
40	50	**12.71**	10.40	15.00	0.9075	148
50	75	**11.71**	9.60	14.40	1.0744	426
75	100	**10.56**	9.20	12.90	0.7841	244
100	150	**10.00**	9.20	11.89	0.4865	260
150	200	**9.92**	8.80	11.30	0.5345	60
200	300	**10.03**	9.40	10.61	0.3612	40
300	400	**9.80**	9.30	10.22	0.2819	22
400	500	**9.61**	9.20	10.22	0.2969	27
500	750	**9.28**	8.70	10.03	0.3361	25
750	1000	**8.68**	7.89	9.82	0.5288	14
1000	1500	**6.36**	4.28	7.86	1.5089	4
October						
0	10	**11.92**	11.00	14.40	0.9427	108
10	20	**12.02**	11.00	13.18	0.4668	40
20	30	**12.05**	10.70	13.80	0.7118	43
30	40	**12.06**	9.90	14.00	0.6894	42
40	50	**12.31**	11.12	13.80	0.5612	31
50	75	**11.74**	9.50	13.18	0.6685	115
75	100	**11.23**	9.40	12.50	0.6795	118
100	150	**10.67**	9.60	12.20	0.5568	97
150	200	**10.19**	9.50	10.91	0.3087	35
200	300	**10.10**	9.50	11.85	0.4581	48
300	400	**9.77**	9.00	11.67	0.4699	25
400	500	**9.54**	9.00	11.16	0.3764	30
500	750	**9.52**	8.89	10.84	0.5743	21
750	1000	**8.49**	7.33	9.82	0.6110	19
1000	1500	**5.84**	4.54	7.17	1.0283	6
November						
0	10	**11.14**	10.20	14.00	0.8223	189
10	20	**11.37**	10.10	13.10	0.8433	71
20	30	**11.33**	10.00	14.22	0.9049	75
30	40	**11.34**	10.00	13.40	0.8362	60
40	50	**11.04**	10.00	13.14	1.0454	39
50	75	**11.30**	10.01	13.27	0.6789	107
75	100	**11.32**	10.26	13.27	0.6066	111
100	150	**10.98**	9.81	12.92	0.6061	221
150	200	**10.50**	9.39	12.47	0.5810	103
200	300	**10.25**	9.22	12.63	0.6227	106
300	400	**9.95**	9.10	12.53	0.6932	67
400	500	**9.63**	8.72	11.10	0.4369	72
500	750	**9.33**	8.50	9.94	0.3252	19
750	1000	**8.65**	7.32	9.30	0.5617	18
1000	1500	**5.88**	4.02	7.48	1.2461	10
December						
0	10	**10.48**	9.80	13.30	0.9046	74
10	20	**10.53**	9.80	12.90	0.8955	20
20	30	**10.78**	9.70	12.90	1.0549	17
30	40	**10.40**	9.84	12.90	0.7253	15
40	50	**10.29**	10.00	11.70	0.1977	13
50	75	**10.23**	9.86	11.00	0.1864	27
75	100	**10.00**	9.70	10.90	0.8216	17
100	150	**10.32**	9.30	12.11	0.5299	46
150	200	**10.51**	9.89	12.00	0.6507	28
200	300	**10.39**	9.61	11.90	0.6835	40
300	400	**10.16**	9.50	11.70	0.7189	26
400	500	**10.07**	9.00	11.61	0.8246	26
500	750	**9.29**	8.70	9.71	0.3015	9
750	1000	**8.66**	8.18	8.88	0.2924	5
1000	1500	**5.96**	4.60	7.38	1.3059	4

Table 9-4 - Temperature Profiles for Area 1 : Malin Shelf (September-December)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
January						
0	10	**9.77**	8.70	12.40	0.7435	35
10	20	**9.90**	8.80	11.00	1.1000	3
20	30	**9.25**	9.10	9.40	0.2121	2
30	40	**9.70**	9.30	10.10	0.5657	2
40	50	**9.45**	8.60	10.80	0.9469	4
50	75	**9.67**	9.00	10.32	0.5107	9
75	100	**9.79**	8.60	10.75	0.7004	16
100	150	**9.69**	8.69	11.00	0.9183	25
150	200	**9.88**	8.60	10.90	1.0206	14
200	300	**9.63**	8.61	10.90	0.8428	28
300	400	**9.72**	8.58	10.80	0.6431	29
400	500	**9.72**	8.70	10.70	0.6418	25
500	750	**8.20**	7.50	8.90	0.9899	2
750	1000	**7.76**	7.28	8.00	0.4157	3
1000	1500	**-**	-	-	-	0
February						
0	10	**9.60**	8.10	11.30	0.6963	18
10	20	**9.59**	9.28	9.90	0.4384	2
20	30	**9.55**	9.20	9.90	0.4950	2
30	40	**10.84**	9.00	9.61	2.6704	3
40	50	**-**	-	-	-	0
50	75	**9.66**	8.89	10.20	0.5214	5
75	100	**9.40**	8.80	10.00	0.8485	2
100	150	**9.73**	9.39	10.00	0.1830	7
150	200	**9.46**	7.80	10.50	2.6688	8
200	300	**9.19**	8.00	10.00	1.5924	16
300	400	**9.50**	9.11	9.80	0.2245	6
400	500	**9.29**	8.61	9.60	0.3061	10
500	750	**8.63**	7.28	9.30	0.8306	5
750	1000	**7.93**	6.78	8.80	1.0401	3
1000	1500	**-**	-	-	-	0
March						
0	10	**9.48**	8.20	11.10	0.6514	46
10	20	**9.11**	8.28	9.80	0.6247	7
20	30	**9.43**	8.60	9.80	0.5679	4
30	40	**9.48**	8.35	10.15	Interpolated	1
40	50	**9.53**	8.10	10.50	1.2662	3
50	75	**9.53**	8.60	10.20	0.5918	9
75	100	**9.73**	9.60	9.80	0.1155	3
100	150	**9.52**	8.20	10.30	0.5509	14
150	200	**8.83**	7.40	9.80	0.9480	6
200	300	**9.56**	8.20	10.40	0.5952	39
300	400	**9.47**	8.60	10.10	0.3638	20
400	500	**9.24**	8.50	10.00	0.4039	25
500	750	**8.64**	7.90	9.50	0.5045	19
750	1000	**7.74**	6.60	8.30	0.6757	8
1000	1500	**-**	-	-	-	0
April						
0	10	**9.51**	8.40	10.40	0.4436	40
10	20	**9.50**	8.90	10.40	0.5598	10
20	30	**9.35**	8.90	9.70	0.3423	8
30	40	**9.07**	8.70	9.40	0.2733	6
40	50	**9.30**	8.90	9.80	0.4301	5
50	75	**9.30**	8.70	10.20	0.4635	18
75	100	**9.10**	8.40	9.80	0.4000	14
100	150	**9.05**	8.30	10.00	0.3977	31
150	200	**9.11**	8.20	9.80	0.5519	16
200	300	**8.85**	8.20	9.70	0.4082	25
300	400	**8.90**	8.50	9.60	0.3531	9
400	500	**8.92**	8.20	9.60	0.5338	14
500	750	**8.19**	8.11	8.32	0.0843	5
750	1000	**7.66**	7.11	8.20	0.7707	2
1000	1500	**-**	-	-	-	0

Table 9-5 - Temperature Profiles for Area 2 : Rockall Bank (January-April)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
May						
0	10	**10.54**	8.76	13.20	1.0366	56
10	20	**10.72**	9.00	12.05	1.2061	9
20	30	**10.38**	9.20	12.17	0.7436	22
30	40	**10.42**	9.30	11.84	1.0199	12
40	50	**10.17**	8.66	11.64	0.8893	20
50	75	**10.12**	7.64	11.28	0.8125	33
75	100	**9.93**	8.80	10.89	0.5739	31
100	150	**9.94**	8.80	11.01	0.6219	49
150	200	**9.62**	7.46	10.63	0.7683	23
200	300	**9.64**	7.73	10.63	0.7107	49
300	400	**9.62**	7.73	10.42	0.6897	28
400	500	**9.48**	8.90	10.11	0.3042	26
500	750	**8.94**	8.42	9.50	0.3795	8
750	1000	**8.23**	7.36	9.19	0.6510	8
1000	1500	**6.13**	5.05	6.86	0.7557	5
June						
0	10	**12.36**	11.00	14.70	0.7754	68
10	20	**12.07**	10.60	14.50	0.7707	33
20	30	**11.77**	10.30	13.70	0.8234	37
30	40	**11.64**	9.90	13.50	0.7835	29
40	50	**10.99**	9.00	14.00	1.0530	24
50	75	**10.97**	9.16	13.50	0.7710	53
75	100	**10.38**	8.80	11.30	0.6441	29
100	150	**10.32**	8.50	12.78	0.8472	44
150	200	**10.24**	8.40	10.90	1.4140	31
200	300	**10.25**	8.40	10.90	1.7328	65
300	400	**9.62**	8.30	10.50	0.5426	28
400	500	**9.36**	8.50	10.30	0.4476	40
500	750	**8.74**	7.70	9.60	0.5150	19
750	1000	**7.57**	6.80	8.45	0.5996	10
1000	1500	**5.67**	5.29	6.05	0.5374	2
July						
0	10	**14.27**	11.70	15.60	0.7571	264
10	20	**14.34**	11.60	15.40	0.6020	223
20	30	**14.02**	10.50	15.10	0.7741	243
30	40	**13.54**	9.89	14.80	0.9803	246
40	50	**12.90**	9.11	15.00	1.0753	213
50	75	**11.94**	8.78	14.20	0.9318	490
75	100	**11.32**	8.90	12.90	0.6184	455
100	150	**11.05**	8.80	12.30	0.5639	855
150	200	**10.84**	8.28	12.20	0.6208	692
200	300	**10.67**	8.34	12.10	0.6307	913
300	400	**9.54**	8.39	11.40	0.7862	15
400	500	**9.29**	8.50	10.45	0.4432	17
500	750	**8.94**	-	-	-	1
750	1000	**8.24**	-	-	-	1
1000	1500	**7.12**	-	-	-	1
August						
0	10	**13.77**	11.83	15.30	0.7620	68
10	20	**13.90**	11.70	16.40	0.8975	34
20	30	**13.29**	11.69	14.30	0.6783	28
30	40	**12.90**	11.28	14.60	0.7942	43
40	50	**12.48**	10.39	14.65	1.1038	45
50	75	**11.49**	9.28	14.20	1.0068	87
75	100	**10.28**	9.10	12.00	0.8276	45
100	150	**10.07**	8.78	11.71	0.8400	66
150	200	**9.74**	8.50	11.20	0.8165	48
200	300	**9.77**	8.50	10.80	0.6231	64
300	400	**9.46**	8.50	10.13	0.4818	37
400	500	**9.37**	8.50	10.11	0.4784	35
500	750	**9.10**	8.42	9.57	0.4199	5
750	1000	**7.93**	7.05	8.60	0.5858	5
1000	1500	**5.45**	4.70	6.35	0.7758	4

Table 9-6 - Temperature Profiles for Area 2 : Rockall Bank (May-August)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
September						
0	10	**13.24**	9.72	15.70	0.9264	95
10	20	**13.55**	12.10	15.70	0.8262	25
20	30	**13.74**	12.10	15.60	0.8580	26
30	40	**13.43**	11.99	15.60	0.8562	32
40	50	**13.06**	10.10	15.50	1.1361	46
50	75	**11.99**	9.39	15.30	1.1795	125
75	100	**11.18**	8.72	14.01	0.9961	104
100	150	**10.60**	8.30	12.72	0.7603	147
150	200	**10.17**	7.49	11.10	0.6792	92
200	300	**9.86**	7.92	11.00	0.6232	94
300	400	**9.52**	8.70	10.20	0.3589	43
400	500	**9.31**	8.30	10.20	0.3850	37
500	750	**8.65**	8.00	9.92	0.5211	22
750	1000	**8.33**	7.40	9.00	0.4654	11
1000	1500	**-**	-	-	-	0
October						
0	10	**12.09**	10.60	14.50	0.8898	60
10	20	**11.83**	9.30	14.50	1.3238	18
20	30	**12.08**	9.10	14.50	1.5659	12
30	40	**12.18**	9.00	14.50	1.6234	14
40	50	**12.22**	10.70	14.60	1.5033	11
50	75	**12.03**	9.60	14.60	1.2663	48
75	100	**11.34**	9.30	14.40	1.1925	53
100	150	**10.66**	8.89	13.10	0.8942	74
150	200	**9.83**	8.78	11.24	0.7101	41
200	300	**9.84**	8.61	11.22	0.5307	54
300	400	**9.75**	9.00	10.78	0.4732	29
400	500	**9.44**	8.70	10.60	0.4403	35
500	750	**8.76**	7.89	9.62	0.5458	14
750	1000	**8.07**	7.61	8.90	0.7202	3
1000	1500	**6.77**	6.01	7.52	1.0677	2
November						
0	10	**10.76**	9.50	14.00	0.8359	67
10	20	**11.34**	10.02	13.90	1.2740	11
20	30	**11.29**	10.04	13.30	1.4132	4
30	40	**10.43**	9.94	11.10	0.4792	5
40	50	**10.63**	9.50	11.50	0.7461	5
50	75	**11.16**	9.70	13.90	0.9930	27
75	100	**11.08**	9.61	13.80	1.0468	24
100	150	**10.44**	8.60	12.90	0.8027	73
150	200	**10.16**	8.60	12.40	0.7862	47
200	300	**10.18**	8.90	11.90	0.5192	71
300	400	**9.77**	9.00	10.60	0.4330	52
400	500	**9.54**	8.60	11.30	0.5355	47
500	750	**8.80**	7.70	9.69	0.6045	13
750	1000	**8.45**	8.10	8.70	0.2500	5
1000	1500	**5.57**	4.40	6.66	1.0693	4
December						
0	10	**10.06**	9.00	11.80	0.6582	39
10	20	**9.95**	9.39	10.50	0.7849	2
20	30	**10.10**	9.00	10.70	0.9539	3
30	40	**10.27**	9.65	10.60	Interpolated	1
40	50	**10.44**	10.30	10.50	0.0907	5
50	75	**9.99**	9.00	10.61	0.6280	8
75	100	**9.96**	9.39	11.80	0.8533	7
100	150	**9.90**	8.60	11.70	0.8806	26
150	200	**9.99**	8.78	11.50	0.8859	17
200	300	**10.14**	8.90	11.20	0.5985	44
300	400	**10.02**	8.90	10.70	0.4542	34
400	500	**9.73**	9.00	10.40	0.3585	26
500	750	**8.82**	8.30	9.20	0.2892	11
750	1000	**8.47**	8.40	8.60	0.1155	3
1000	1500	**-**	-	-	-	0

Table 9-7 - Temperature Profiles for Area 2 : Rockall Bank (September-December)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
January						
0	10	**10.14**	9.50	11.30	0.3882	33
10	20	**9.80**	9.70	10.00	0.1732	3
20	30	**9.97**	9.90	10.08	Interpolated	1
30	40	**10.13**	10.10	10.16	0.0424	2
40	50	**9.85**	9.80	9.90	0.0707	2
50	75	**10.28**	9.80	10.74	0.3852	7
75	100	**11.07**	9.82	11.77	0.7728	5
100	150	**11.08**	10.20	11.72	0.5866	10
150	200	**10.36**	9.80	11.26	0.5750	11
200	300	**9.90**	9.60	11.06	0.3521	15
300	400	**10.05**	9.50	11.11	0.3479	27
400	500	**9.83**	9.30	10.10	0.2329	20
500	750	**-**	-	-	-	0
750	1000	**-**	-	-	-	0
1000	1500	**-**	-	-	-	0
February						
0	10	**9.52**	9.10	10.25	0.3030	98
10	20	**9.36**	9.00	10.30	0.1972	66
20	30	**9.31**	8.90	10.00	0.1566	59
30	40	**9.35**	8.90	10.30	0.2333	65
40	50	**9.32**	8.90	10.20	0.1973	61
50	75	**9.32**	8.90	10.40	0.2263	129
75	100	**9.28**	8.90	10.25	0.1755	113
100	150	**9.33**	8.90	10.50	0.2495	201
150	200	**9.54**	9.40	10.37	0.4361	91
200	300	**9.57**	9.40	10.23	0.4717	134
300	400	**9.77**	9.49	10.10	0.2134	9
400	500	**9.70**	9.50	10.00	0.1627	13
500	750	**9.50**	9.37	9.57	0.1155	3
750	1000	**-**	-	-	-	0
1000	1500	**-**	-	-	-	0
March						
0	10	**9.73**	9.22	10.20	0.2260	32
10	20	**9.61**	9.50	9.82	0.1509	4
20	30	**9.44**	9.40	9.52	0.0693	3
30	40	**9.44**	9.40	9.52	0.0693	3
40	50	**9.48**	9.40	9.70	0.1304	5
50	75	**9.56**	9.40	9.93	0.2190	9
75	100	**9.47**	9.40	9.80	0.1504	7
100	150	**9.64**	9.40	10.21	0.2763	21
150	200	**9.93**	9.46	10.50	0.4521	4
200	300	**9.94**	9.40	10.80	0.4549	14
300	400	**9.62**	9.01	10.50	0.5911	8
400	500	**9.69**	9.42	10.20	0.2342	15
500	750	**9.59**	9.42	9.90	0.2663	3
750	1000	**9.50**	-	-	-	1
1000	1500	**-**	-	-	-	0
April						
0	10	**9.76**	8.27	11.60	0.8183	97
10	20	**9.53**	8.21	11.10	0.8160	34
20	30	**9.41**	8.15	10.60	0.7152	39
30	40	**9.43**	8.10	10.40	0.6851	41
40	50	**9.29**	8.10	10.40	0.7106	33
50	75	**9.38**	8.10	10.40	0.6459	81
75	100	**9.39**	8.35	10.28	0.5398	76
100	150	**9.54**	7.71	10.18	0.3862	113
150	200	**9.33**	7.70	10.10	0.6365	23
200	300	**9.60**	8.80	10.10	0.4268	17
300	400	**9.50**	8.80	10.00	0.4129	12
400	500	**9.44**	8.70	9.80	0.2914	27
500	750	**9.54**	9.44	9.64	0.0856	5
750	1000	**9.07**	8.44	9.49	0.4724	6
1000	1500	**6.15**	4.80	7.88	1.2828	6

Table 9-8 - Temperature Profiles for Area 3 : Irish Shelf (January-April)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
May						
0	10	**10.97**	8.80	11.90	1.2687	59
10	20	**10.88**	8.50	11.80	1.7343	26
20	30	**10.45**	9.83	11.70	0.5008	25
30	40	**10.22**	9.50	11.50	0.5669	25
40	50	**10.40**	9.65	11.60	0.5781	17
50	75	**10.18**	9.20	11.39	0.5143	45
75	100	**10.01**	8.30	11.00	0.6736	25
100	150	**10.00**	9.22	10.80	0.4857	28
150	200	**9.75**	9.00	10.72	0.4956	21
200	300	**9.73**	8.10	10.50	0.5081	34
300	400	**9.58**	9.03	10.00	0.3628	15
400	500	**9.44**	8.20	9.90	0.3962	25
500	750	**9.09**	8.55	9.50	0.2669	22
750	1000	**8.68**	7.65	9.10	0.5021	10
1000	1500	**7.01**	5.99	8.10	1.0567	3
June						
0	10	**12.57**	10.20	17.40	1.1938	86
10	20	**12.77**	11.40	14.60	0.9073	38
20	30	**12.30**	11.00	13.35	0.6612	40
30	40	**11.91**	9.98	17.20	1.0777	48
40	50	**11.70**	10.00	17.00	1.0957	38
50	75	**10.89**	9.00	15.80	0.7978	89
75	100	**10.49**	8.81	15.30	0.8303	66
100	150	**10.06**	8.81	10.80	0.3938	70
150	200	**10.12**	8.78	11.30	0.5080	33
200	300	**9.96**	8.61	11.20	0.4494	44
300	400	**9.82**	9.40	11.00	0.3758	37
400	500	**9.74**	9.20	10.80	0.3750	41
500	750	**9.35**	9.23	9.51	0.0988	7
750	1000	**8.88**	8.16	9.50	0.4467	8
1000	1500	**7.00**	4.72	9.51	1.2695	15
July						
0	10	**14.12**	11.10	16.09	0.6024	621
10	20	**14.01**	10.90	15.91	0.5979	579
20	30	**13.63**	9.70	15.00	0.7864	589
30	40	**12.98**	9.50	15.00	1.0232	585
40	50	**12.10**	9.30	14.68	1.0913	550
50	75	**11.18**	8.90	16.70	0.9075	1277
75	100	**10.65**	8.70	12.46	0.6900	1240
100	150	**10.52**	8.40	12.10	0.6486	2108
150	200	**10.50**	9.50	11.80	0.5146	1538
200	300	**10.40**	9.30	11.70	0.5647	1610
300	400	**9.82**	9.40	10.67	0.2916	24
400	500	**9.66**	9.09	10.41	0.2937	34
500	750	**9.39**	8.87	10.44	0.3198	20
750	1000	**8.59**	7.83	9.28	0.4338	18
1000	1500	**6.49**	4.46	9.10	1.3520	21
August						
0	10	**14.90**	13.10	17.40	1.1022	83
10	20	**15.24**	13.08	17.40	1.0094	40
20	30	**14.35**	12.20	16.80	1.1150	56
30	40	**13.44**	11.30	16.50	1.2160	59
40	50	**12.61**	10.94	15.40	1.1413	52
50	75	**11.70**	9.66	14.40	1.0434	119
75	100	**11.08**	9.50	12.80	0.9619	91
100	150	**10.74**	9.46	12.30	0.9772	133
150	200	**10.76**	9.40	11.90	0.8818	66
200	300	**10.28**	9.51	11.70	0.6112	38
300	400	**9.91**	9.50	10.50	0.2335	19
400	500	**9.69**	9.27	10.00	0.2129	17
500	750	**9.40**	9.13	9.64	0.2173	4
750	1000	**8.27**	7.18	9.21	0.6880	7
1000	1500	**5.77**	4.80	7.18	1.0091	5

Table 9-9 - Temperature Profiles for Area 3 : Irish (May-August)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
September						
0	10	**13.77**	12.70	15.50	0.6652	71
10	20	**13.75**	12.68	15.40	0.7863	26
20	30	**13.69**	12.59	15.20	0.7283	36
30	40	**13.64**	12.56	15.05	0.6615	32
40	50	**13.48**	12.19	14.88	0.6446	46
50	75	**12.37**	10.36	14.30	0.9497	129
75	100	**11.22**	10.05	14.00	0.8438	99
100	150	**10.60**	9.87	11.54	0.4471	121
150	200	**10.29**	9.50	11.00	0.3699	29
200	300	**10.07**	9.30	10.67	0.3508	26
300	400	**9.72**	9.20	10.49	0.3331	11
400	500	**9.67**	9.10	10.10	0.3094	15
500	750	**9.15**	9.00	9.29	0.2051	2
750	1000	**7.85**	6.74	8.76	0.8672	4
1000	1500	**5.13**	4.18	6.29	0.8991	4
October						
0	10	**12.51**	9.80	14.60	0.8438	70
10	20	**12.92**	11.26	15.00	0.9104	16
20	30	**13.06**	11.36	15.10	0.9850	14
30	40	**12.88**	11.40	13.79	0.8485	14
40	50	**12.91**	11.60	15.00	0.7960	17
50	75	**12.42**	10.60	14.80	0.8895	68
75	100	**11.49**	10.20	13.10	0.6408	76
100	150	**10.82**	9.81	12.45	0.5306	65
150	200	**10.45**	9.70	11.40	0.4222	26
200	300	**10.24**	9.50	10.90	0.3166	50
300	400	**10.00**	9.60	10.65	0.2293	38
400	500	**9.83**	9.50	10.44	0.2260	34
500	750	**9.51**	9.20	9.92	0.2017	17
750	1000	**8.82**	7.82	9.44	0.4709	11
1000	1500	**6.20**	4.30	8.45	1.3052	12
November						
0	10	**11.37**	10.10	12.80	0.7342	54
10	20	**11.38**	10.70	12.90	0.7041	14
20	30	**11.19**	10.60	11.70	0.4046	10
30	40	**11.16**	10.70	12.60	0.5753	12
40	50	**11.30**	11.30	11.30	0.0000	2
50	75	**11.30**	10.00	12.20	0.5810	26
75	100	**11.09**	9.78	12.40	0.6098	39
100	150	**10.91**	9.74	12.10	0.5068	52
150	200	**10.56**	9.80	11.40	0.4448	24
200	300	**10.30**	9.41	10.90	0.3052	33
300	400	**9.89**	9.29	10.34	0.2994	17
400	500	**9.72**	9.08	10.21	0.3177	19
500	750	**9.26**	8.75	9.60	0.3442	6
750	1000	**7.94**	6.48	9.18	0.9242	7
1000	1500	**6.32**	4.27	9.00	1.6828	9
December						
0	10	**10.48**	9.80	11.30	0.4782	26
10	20	**10.91**	10.10	11.72	1.1455	2
20	30	**10.75**	10.00	11.51	Interpolated	1
30	40	**-**	-	-	-	0
40	50	**10.45**	9.80	11.10	0.9192	2
50	75	**10.74**	10.50	10.99	0.2450	3
75	100	**10.60**	10.15	11.36	Interpolated	1
100	150	**10.46**	9.80	11.72	0.6296	9
150	200	**10.65**	9.78	11.72	0.6252	13
200	300	**10.46**	9.61	11.11	0.4652	25
300	400	**9.90**	9.40	11.10	0.4194	18
400	500	**9.79**	9.28	11.00	0.4880	20
500	750	**9.20**	9.10	9.30	0.1414	2
750	1000	**-**	-	-	-	0
1000	1500	**-**	-	-	-	0

Table 9-10 - Temperature Profiles for Area 3 : Irish (September-December)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
January						
0	10	**10.97**	8.00	11.49	1.2604	28
10	20	**10.71**	8.00	11.32	0.7148	32
20	30	**10.75**	8.00	12.15	0.7810	30
30	40	**10.51**	8.00	11.40	1.0769	14
40	50	**10.54**	8.00	10.93	0.9546	9
50	75	**11.13**	10.32	11.30	1.1030	19
75	100	**11.08**	10.72	12.42	0.4711	20
100	150	**11.15**	10.30	13.40	1.0103	23
150	200	**10.94**	10.34	12.60	0.6086	21
200	300	**10.93**	10.34	12.60	0.4627	39
300	400	**10.82**	10.20	11.92	0.3694	34
400	500	**10.55**	9.85	11.49	0.2959	27
500	750	**10.22**	9.60	10.90	0.2767	37
750	1000	**9.44**	8.85	9.92	0.2795	32
1000	1500	**7.09**	4.90	8.96	1.3524	30
February						
0	10	**10.51**	9.15	13.00	0.4550	91
10	20	**10.37**	9.00	11.00	0.3148	39
20	30	**10.98**	10.63	11.42	0.3256	7
30	40	**10.34**	9.10	11.00	0.3120	34
40	50	**10.86**	10.39	11.44	0.3596	10
50	75	**10.39**	9.10	11.42	0.3743	60
75	100	**10.49**	9.41	13.00	0.5498	42
100	150	**10.55**	9.41	12.22	0.5175	64
150	200	**10.45**	9.44	11.45	0.3507	49
200	300	**10.57**	9.95	11.72	0.3882	51
300	400	**10.76**	10.24	11.44	0.3677	24
400	500	**10.45**	10.00	11.35	0.3403	39
500	750	**9.90**	9.11	10.80	0.4216	37
750	1000	**9.24**	8.71	9.70	0.3536	13
1000	1500	**8.39**	8.00	8.81	0.4062	3
March						
0	10	**10.46**	8.40	11.25	0.5261	105
10	20	**10.49**	8.35	11.26	0.5604	92
20	30	**10.53**	8.30	11.26	0.4849	94
30	40	**10.49**	8.30	11.20	0.4796	89
40	50	**10.47**	8.30	11.20	0.4873	86
50	75	**10.44**	8.30	11.26	0.5175	192
75	100	**10.43**	8.30	11.25	0.5244	185
100	150	**10.46**	8.30	11.20	0.4796	297
150	200	**10.77**	10.00	11.20	0.2296	115
200	300	**10.75**	10.40	11.20	0.2217	159
300	400	**10.46**	9.12	10.99	0.6532	9
400	500	**10.44**	9.81	10.78	0.2883	9
500	750	**9.95**	9.24	10.51	0.5261	4
750	1000	**8.71**	6.71	9.86	1.0820	7
1000	1500	**5.46**	3.99	7.55	1.3376	5
April						
0	10	**11.06**	8.47	12.60	0.6560	96
10	20	**11.02**	8.34	12.60	0.6972	52
20	30	**11.05**	9.38	12.60	0.4510	49
30	40	**10.80**	7.89	12.50	0.6824	62
40	50	**10.93**	10.40	12.40	0.3821	59
50	75	**10.77**	9.37	12.30	0.4048	126
75	100	**10.56**	9.18	12.30	0.4610	122
100	150	**10.29**	8.48	12.30	0.4334	243
150	200	**10.02**	9.03	11.20	0.3772	160
200	300	**10.51**	9.80	11.20	0.4288	44
300	400	**10.34**	9.43	10.91	0.5474	9
400	500	**10.54**	10.40	10.73	0.1226	10
500	750	**10.12**	9.96	10.30	0.1119	10
750	1000	**9.13**	8.06	9.64	0.6491	5
1000	1500	**7.00**	4.71	8.88	1.4815	7

Table 9-11 - Temperature Profiles for Area 4 : Porcupine Seabight (January-April)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
May						
0	10	**11.72**	10.01	14.80	0.9934	165
10	20	**11.30**	9.61	13.10	0.8873	84
20	30	**11.33**	9.60	13.00	0.7746	40
30	40	**10.90**	9.30	12.61	0.6073	84
40	50	**11.07**	9.20	12.04	0.6812	34
50	75	**10.66**	9.07	11.95	0.5285	126
75	100	**10.54**	9.23	11.59	0.3750	96
100	150	**10.51**	9.20	11.78	0.4637	147
150	200	**10.41**	9.21	11.50	0.3467	120
200	300	**10.47**	9.63	11.60	0.3288	134
300	400	**10.35**	9.95	10.82	0.2449	39
400	500	**10.27**	9.68	10.93	0.2765	38
500	750	**9.94**	9.14	10.91	0.3300	72
750	1000	**9.20**	7.87	10.11	0.4852	37
1000	1500	**7.52**	4.86	9.38	1.3517	20
June						
0	10	**14.13**	11.82	17.30	1.3782	80
10	20	**13.99**	11.79	16.27	1.2608	57
20	30	**13.11**	11.20	15.68	1.0610	63
30	40	**12.92**	10.56	15.80	0.9450	49
40	50	**12.27**	10.17	14.00	0.7835	48
50	75	**11.56**	10.40	13.70	0.6945	85
75	100	**11.25**	9.83	15.50	0.9228	44
100	150	**10.90**	9.69	12.90	0.5177	70
150	200	**10.74**	9.89	12.00	0.5270	27
200	300	**10.65**	9.41	11.80	0.4500	57
300	400	**10.48**	9.19	11.60	0.5784	21
400	500	**10.47**	9.58	11.50	0.3847	31
500	750	**9.99**	9.00	10.57	0.4299	26
750	1000	**9.26**	7.48	10.72	0.6576	19
1000	1500	**7.25**	4.14	8.90	1.3487	17
July						
0	10	**15.48**	11.70	17.40	0.7947	99
10	20	**15.29**	13.70	16.60	0.6642	55
20	30	**14.79**	11.80	17.32	0.9839	91
30	40	**13.61**	11.65	15.90	0.9969	77
40	50	**12.62**	10.50	15.22	1.0333	80
50	75	**11.96**	10.39	14.72	0.8012	102
75	100	**11.42**	10.22	14.39	0.5563	74
100	150	**11.14**	10.10	12.40	0.3969	109
150	200	**10.94**	10.00	11.80	0.3731	37
200	300	**10.73**	10.00	11.90	0.3301	50
300	400	**10.57**	9.67	11.19	0.3618	48
400	500	**10.45**	9.95	11.04	0.2556	39
500	750	**10.05**	9.00	11.01	0.3724	58
750	1000	**9.40**	8.63	10.04	0.3784	40
1000	1500	**7.36**	5.14	8.62	1.1376	19
August						
0	10	**16.29**	13.91	18.20	1.0729	207
10	20	**15.96**	13.81	17.90	1.1631	95
20	30	**16.07**	13.90	18.20	0.9154	82
30	40	**14.49**	10.60	17.39	1.3159	129
40	50	**14.27**	11.89	17.30	1.3021	61
50	75	**12.16**	10.11	14.70	0.9580	164
75	100	**11.34**	9.80	13.61	0.7079	124
100	150	**10.98**	9.71	12.60	0.5420	166
150	200	**10.60**	9.48	12.07	0.4362	112
200	300	**10.64**	9.65	11.84	0.3998	113
300	400	**10.49**	9.90	11.17	0.3141	64
400	500	**10.37**	9.70	11.53	0.3496	59
500	750	**9.93**	8.70	10.66	0.3446	107
750	1000	**9.10**	8.18	9.99	0.4168	67
1000	1500	**7.45**	4.82	9.77	1.2585	46

Table 9-12 - Temperature Profiles for Area 4 : Porcupine Seabight (May-August)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
September						
0	10	**15.40**	11.66	19.00	1.4672	124
10	20	**15.55**	11.66	18.91	1.1125	126
20	30	**15.44**	10.93	18.86	1.1782	132
30	40	**15.22**	11.66	17.70	1.1857	107
40	50	**14.30**	11.57	18.10	1.4376	118
50	75	**12.99**	9.30	17.11	1.4391	272
75	100	**11.59**	8.80	14.89	0.8022	219
100	150	**11.12**	8.40	13.39	0.6152	321
150	200	**10.90**	10.25	12.00	0.3107	276
200	300	**10.78**	10.04	12.00	0.3156	316
300	400	**10.56**	9.92	11.22	0.2754	66
400	500	**10.44**	9.72	11.07	0.2324	75
500	750	**10.01**	8.72	10.84	0.3919	88
750	1000	**9.26**	7.78	9.92	0.4659	44
1000	1500	**7.02**	5.37	8.41	1.0620	23
October						
0	10	**14.03**	11.90	16.00	0.9351	68
10	20	**14.02**	11.90	15.97	1.1099	22
20	30	**14.10**	11.90	16.47	1.2908	24
30	40	**14.43**	11.90	17.56	1.4505	26
40	50	**14.03**	11.90	15.57	0.9994	33
50	75	**13.04**	10.90	15.80	0.9153	136
75	100	**12.17**	10.70	15.60	0.9247	107
100	150	**11.42**	10.40	13.78	0.5588	115
150	200	**11.16**	10.10	13.75	0.6516	62
200	300	**10.93**	9.80	12.43	0.5048	51
300	400	**10.72**	8.60	11.66	0.5460	26
400	500	**10.50**	8.25	11.64	0.6956	34
500	750	**9.46**	7.90	10.77	1.3349	34
750	1000	**9.38**	8.10	10.10	0.5401	12
1000	1500	**7.82**	7.16	8.48	0.9334	2
November						
0	10	**12.61**	10.91	13.60	1.3312	117
10	20	**12.22**	10.73	13.41	1.0513	44
20	30	**12.62**	10.73	13.40	0.5116	14
30	40	**12.20**	10.73	13.38	1.1366	39
40	50	**12.57**	10.25	13.38	0.4472	12
50	75	**12.76**	9.76	13.60	1.7157	109
75	100	**12.44**	9.57	13.38	1.6259	85
100	150	**11.64**	9.59	13.40	1.0005	117
150	200	**10.98**	9.75	11.85	0.8790	84
200	300	**11.03**	10.08	11.89	0.9863	112
300	400	**10.69**	10.04	11.30	0.3784	70
400	500	**10.50**	9.99	10.97	0.2913	67
500	750	**10.10**	9.30	10.67	0.2667	92
750	1000	**9.49**	9.05	9.90	0.3094	15
1000	1500	**9.11**	8.33	9.86	0.5941	5
December						
0	10	**11.89**	10.40	12.94	0.5739	28
10	20	**11.77**	11.07	12.48	0.4646	14
20	30	**11.59**	10.95	12.10	0.3219	17
30	40	**11.34**	10.62	11.78	0.4275	7
40	50	**11.60**	11.06	11.92	0.2176	13
50	75	**11.60**	11.07	12.21	0.3149	19
75	100	**11.16**	8.65	11.77	1.0085	20
100	150	**10.89**	7.54	12.28	1.3897	34
150	200	**11.03**	9.83	12.00	0.6360	26
200	300	**10.79**	9.77	11.61	0.4989	23
300	400	**10.77**	9.54	11.32	0.4804	16
400	500	**10.48**	9.26	10.79	0.4065	12
500	750	**10.24**	10.05	10.64	0.1740	15
750	1000	**9.51**	8.93	10.06	0.3932	9
1000	1500	**7.84**	6.62	8.90	0.8908	8

Table 9-13 - Temperature Profiles for Area 4 : Porcupine Seabight (September-December)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
January						
0	10	**10.76**	10.09	13.80	0.7151	25
10	20	**10.40**	10.30	10.50	0.1414	2
20	30	**10.61**	10.08	10.96	0.2831	8
30	40	**10.77**	10.32	11.31	0.4882	4
40	50	**10.60**	10.08	11.19	0.5577	3
50	75	**10.80**	10.10	13.60	1.1402	8
75	100	**10.41**	10.08	10.60	0.2845	3
100	150	**10.60**	10.07	13.10	0.7228	16
150	200	**10.41**	10.07	11.20	0.3950	11
200	300	**10.58**	9.80	12.00	0.4925	20
300	400	**10.38**	9.70	10.83	0.2715	21
400	500	**10.24**	9.50	10.70	0.3562	20
500	750	**9.89**	9.37	10.48	0.3900	7
750	1000	**8.55**	7.73	9.16	0.5624	8
1000	1500	**6.09**	4.40	8.02	1.2768	11
February						
0	10	**10.26**	10.00	10.50	0.1847	8
10	20	**10.30**	-	-	-	1
20	30	**-**	-	-	-	0
30	40	**-**	-	-	-	0
40	50	**-**	-	-	-	0
50	75	**10.10**	-	-	-	1
75	100	**-**	-	-	-	0
100	150	**10.10**	9.90	10.30	0.1633	4
150	200	**10.15**	10.10	10.20	0.0707	2
200	300	**-**	-	-	-	0
300	400	**9.95**	9.60	10.50	0.3207	8
400	500	**9.83**	9.70	9.90	0.1155	3
500	750	**-**	-	-	-	0
750	1000	**-**	-	-	-	0
1000	1500	**-**	-	-	-	0
March						
0	10	**10.16**	9.00	11.30	0.6672	17
10	20	**10.20**	-	-	-	1
20	30	**-**	-	-	-	0
30	40	**9.70**	-	-	-	1
40	50	**-**	-	-	-	0
50	75	**10.00**	9.70	10.40	0.3606	3
75	100	**9.37**	9.30	9.43	0.0919	2
100	150	**10.30**	10.00	11.20	0.6000	4
150	200	**9.73**	9.00	10.10	0.6351	3
200	300	**9.82**	9.00	11.05	0.6438	10
300	400	**9.70**	9.00	10.30	0.5477	4
400	500	**9.78**	9.60	10.00	0.1789	5
500	750	**-**	-	-	-	0
750	1000	**-**	-	-	-	0
1000	1500	**-**	-	-	-	0
April						
0	10	**10.52**	9.90	11.48	0.3932	49
10	20	**10.44**	9.90	11.18	0.3551	18
20	30	**10.52**	9.80	11.32	0.3898	18
30	40	**10.41**	9.90	10.76	0.2895	13
40	50	**10.42**	9.90	10.75	0.2859	11
50	75	**10.50**	9.70	11.53	0.3877	29
75	100	**10.35**	9.40	11.56	0.4592	25
100	150	**10.24**	9.40	12.08	0.4291	53
150	200	**9.98**	9.30	10.40	0.2700	26
200	300	**9.90**	9.20	10.55	0.3482	44
300	400	**9.84**	9.00	10.50	0.3678	47
400	500	**9.71**	8.60	10.40	0.4414	44
500	750	**8.76**	6.79	10.20	0.9083	65
750	1000	**8.30**	6.73	9.40	0.7412	10
1000	1500	**6.45**	4.81	8.16	1.6759	3

Table 9-14 - Temperature Profiles for Area 5 : Porcupine Bank (January-April)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
May						
0	10	**11.41**	10.00	13.80	0.8093	43
10	20	**11.94**	10.60	13.30	0.7424	15
20	30	**11.28**	10.40	12.80	0.6129	20
30	40	**11.46**	10.30	13.00	0.7957	13
40	50	**11.12**	10.10	12.30	0.6555	13
50	75	**10.83**	9.70	12.00	0.6264	43
75	100	**10.74**	9.50	11.60	0.7135	22
100	150	**10.73**	9.70	11.50	0.5579	43
150	200	**10.59**	9.50	11.30	0.5325	39
200	300	**10.24**	8.90	11.01	0.6809	57
300	400	**9.80**	8.70	10.72	0.5889	30
400	500	**9.38**	8.50	10.50	0.6252	28
500	750	**9.42**	8.00	10.26	0.7807	11
750	1000	**7.96**	6.83	9.51	1.0719	12
1000	1500	**5.70**	4.37	6.78	0.9178	6
June						
0	10	**12.61**	10.68	14.74	0.9875	70
10	20	**12.44**	10.67	14.60	1.0856	46
20	30	**12.28**	10.68	14.02	0.9785	46
30	40	**12.20**	10.52	13.60	0.8593	47
40	50	**11.96**	9.82	13.60	0.8624	37
50	75	**11.48**	9.85	13.10	0.6172	76
75	100	**11.09**	9.28	13.20	0.6012	52
100	150	**10.83**	9.33	13.00	0.5634	65
150	200	**10.46**	9.78	12.33	0.4397	35
200	300	**10.35**	9.70	12.24	0.5018	45
300	400	**9.94**	9.10	11.87	0.4487	49
400	500	**9.79**	8.70	11.49	0.6311	49
500	750	**9.46**	7.89	10.59	0.6483	36
750	1000	**8.27**	6.72	9.60	0.8682	21
1000	1500	**5.76**	3.88	7.82	1.1866	22
July						
0	10	**14.25**	11.49	16.04	0.9699	63
10	20	**14.39**	13.38	15.98	0.7531	32
20	30	**13.84**	12.00	15.37	0.8593	37
30	40	**12.90**	9.70	14.93	1.0606	37
40	50	**12.21**	9.04	13.69	0.8152	34
50	75	**11.83**	10.67	13.61	0.6387	77
75	100	**11.09**	10.30	11.88	0.4278	50
100	150	**10.90**	10.30	12.70	0.4295	67
150	200	**10.73**	10.00	12.00	0.4159	27
200	300	**10.52**	9.83	11.00	0.3083	32
300	400	**10.28**	9.62	10.79	0.6236	26
400	500	**10.10**	9.40	10.99	0.3372	25
500	750	**9.53**	8.30	10.30	0.4887	34
750	1000	**7.90**	6.06	9.10	0.9011	11
1000	1500	**5.11**	3.84	7.09	1.2080	5
August						
0	10	**14.98**	12.90	18.00	1.0083	83
10	20	**14.93**	12.90	17.70	0.9906	38
20	30	**14.65**	12.90	18.00	1.0302	46
30	40	**14.32**	12.10	17.60	1.1217	51
40	50	**13.42**	11.20	17.30	1.1158	53
50	75	**12.35**	10.30	16.30	1.0570	97
75	100	**11.34**	9.90	13.80	0.8689	63
100	150	**10.85**	9.90	12.80	0.7522	108
150	200	**10.35**	9.70	11.63	0.5246	77
200	300	**10.16**	9.50	11.26	0.4769	117
300	400	**10.24**	9.50	10.88	0.3423	60
400	500	**10.04**	9.40	10.71	0.3513	34
500	750	**9.51**	8.20	10.38	0.6668	16
750	1000	**7.81**	7.10	9.14	0.6433	8
1000	1500	**5.95**	4.66	6.71	0.8221	6

Table 9-15 - Temperature Profiles for Area 5 : Porcupine Bank (May-August)

Depth range (m)		**Temp. Mean (°C)**	Temp. Min. (°C)	Temp. Max. (°C)	Temp. St.Dev. (°C)	Sample Count
September						
0	10	**15.12**	13.20	16.70	0.7251	91
10	20	**15.13**	13.70	16.30	0.5173	87
20	30	**14.96**	13.10	16.30	0.5455	78
30	40	**14.72**	12.30	16.40	0.7968	74
40	50	**14.19**	11.20	16.30	1.0031	74
50	75	**13.06**	10.66	15.60	1.2135	201
75	100	**11.81**	10.17	14.40	0.8558	152
100	150	**11.15**	9.88	12.70	0.5105	245
150	200	**10.86**	10.00	11.70	0.4042	221
200	300	**10.70**	9.74	12.00	0.4044	232
300	400	**10.38**	9.40	11.40	0.3959	36
400	500	**10.23**	9.30	11.20	0.4405	39
500	750	**9.77**	8.59	10.65	0.5317	38
750	1000	**8.90**	8.30	9.36	0.2912	24
1000	1500	**6.06**	4.43	7.94	1.2481	20
October						
0	10	**13.19**	11.80	15.10	1.0962	59
10	20	**13.80**	12.30	15.10	0.8019	24
20	30	**13.61**	12.35	15.10	1.2348	24
30	40	**13.60**	12.40	15.10	1.5423	15
40	50	**13.71**	12.40	14.70	0.6947	14
50	75	**13.06**	10.90	14.89	0.9954	66
75	100	**12.24**	10.80	14.20	0.7532	66
100	150	**11.60**	10.00	12.80	0.6634	68
150	200	**10.92**	9.80	11.90	0.5836	27
200	300	**10.38**	9.30	11.28	0.6027	32
300	400	**10.19**	8.90	11.30	0.5962	50
400	500	**9.79**	8.50	11.00	0.6359	46
500	750	**9.74**	7.20	11.30	0.9458	44
750	1000	**8.53**	7.00	10.20	1.0029	20
1000	1500	**5.85**	4.43	7.81	1.1141	10
November						
0	10	**12.19**	11.50	12.80	0.4407	35
10	20	**12.17**	11.40	13.00	0.4288	20
20	30	**12.22**	11.40	13.01	0.4558	19
30	40	**12.28**	11.40	13.40	0.5897	15
40	50	**12.20**	11.30	13.07	0.5896	13
50	75	**12.03**	10.58	13.05	0.6998	36
75	100	**11.64**	10.35	13.19	0.7029	56
100	150	**11.17**	10.30	11.80	0.4922	40
150	200	**10.77**	10.12	11.45	0.4048	19
200	300	**10.55**	9.70	11.04	0.3474	35
300	400	**10.52**	10.05	11.01	0.2398	22
400	500	**10.51**	9.50	10.76	0.3788	14
500	750	**10.42**	10.21	10.67	0.1748	7
750	1000	**-**	-	-	-	0
1000	1500	**-**	-	-	-	0
December						
0	10	**11.89**	10.40	12.94	0.5739	28
10	20	**11.77**	11.07	12.48	0.4646	14
20	30	**11.59**	10.95	12.10	0.3219	17
30	40	**11.34**	10.62	11.78	0.4275	7
40	50	**11.60**	11.06	11.92	0.2176	13
50	75	**11.60**	11.07	12.21	0.3149	19
75	100	**11.16**	11.20	13.00	1.0085	20
100	150	**10.89**	10.78	12.10	1.3897	34
150	200	**11.03**	9.83	12.00	0.6360	26
200	300	**10.79**	9.77	11.61	0.4989	23
300	400	**10.77**	9.54	11.32	0.4804	16
400	500	**10.48**	9.26	10.79	0.4065	12
500	750	**10.24**	10.05	10.64	0.1740	15
750	1000	**9.51**	8.93	10.06	0.3932	9
1000	1500	**7.84**	6.62	8.90	0.8908	8

Table 9-16 - Temperature Profiles for Area 5 : Porcupine Bank (September-December)

9.4 Sea Surface Salinity

Sea Surface Salinity (SSS) data were extracted from the NODC database for the same 13 representative 2° × 2° blocks used with the Sea Surface Temperatures (Section 9.1).

♦ Single value only ♣ Second lowest values presented here. Actual lowest values < 16.0 (freshwater input ?)

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Range
Block 1	**Mean**	No Data	No Data	No Data	35.33	35.31	35.45	35.33	35.34	35.31	35.21	35.35	No Data	**0.24**
	Min.	No Data	No Data	No Data	35.30	35.27	35.40	35.27	35.26	35.30	35.17	♦	No Data	
	Max.	No Data	No Data	No Data	35.37	35.37	35.53	35.38	35.49	35.32	35.34	♦	No Data	
Block 2	**Mean**	No Data	No Data	35.43	35.42	35.40	35.37	35.33	35.34	35.31	35.36	35.45	No Data	**0.14**
	Min.	No Data	No Data	35.43	♦	35.31	35.19	35.17	35.28	35.26	35.30	35.37	No Data	
	Max.	No Data	No Data	35.43	♦	35.47	35.45	35.48	35.39	35.36	35.41	35.50	No Data	
Block 3	Mean	No Data	No Data	35.44	35.40	35.40	35.41	35.34	35.35	35.32	35.30	35.41	35.43	**0.14**
	Min.	No Data	No Data	35.14	35.37	35.28	35.36	35.30	35.29	35.27	35.23	35.30	♦	
	Max.	No Data	No Data	35.48	35.48	35.52	35.49	35.38	35.41	35.31	35.37	35.47	♦	
Block 4	Mean	No Data	35.20	35.33	35.23	35.25	35.34	35.21	35.10	35.20	35.28	35.26	35.42	**0.32**
	Min.	No Data	34.79	34.81	34.44	34.80	34.99	34.65	34.09♣	35.19	35.17	34.96	35.41	
	Max.	No Data	35.50	35.53	35.53	35.43	35.43	35.48	35.45	35.35	35.35	35.44	35.43	
Block 5	Mean	35.62	No Data	35.43	35.44	35.34	35.34	35.44	35.41	35.38	35.38	35.48	No Data	**0.29**
	Min.	35.46	No Data	♦	35.43	35.28	35.35	35.41	35.35	♦	35.36	35.44	No Data	
	Max.	35.74	No Data	♦	35.46	35.39	35.53	35.46	35.48	♦	35.42	35.53	No Data	
Block 6	Mean	35.49	35.49	35.38	35.42	35.37	35.41	35.35	35.36	35.38	35.36	35.41	No Data	**0.14**
	Min.	35.42	35.40	35.36	35.38	35.34	35.28	35.34	35.17	♦	35.33	35.39	No Data	
	Max.	35.53	35.57	35.40	35.48	35.40	35.46	35.35	35.44	♦	35.44	35.43	No Data	
Block 7	Mean	No Data	35.31	No Data	35.03	35.18	35.14	35.34	35.24	35.14	35.27	35.40	No Data	**0.37**
	Min.	No Data	34.88♣	No Data	34.06	34.69	34.78	35.20	34.72	35.03	35.12	35.30	No Data	
	Max.	No Data	35.59	No Data	35.45	35.45	35.44	35.46	35.40	35.25	35.41	35.46	No Data	
Block 8	Mean	35.49	No Data	No Data	35.46	35.34	35.49	35.46	35.43	No Data	No Data	No Data	35.53	**0.19**
	Min.	35.42	No Data	No Data	35.43	35.32	35.44	35.37	35.35	No Data	No Data	No Data	♦	
	Max.	35.59	No Data	No Data	35.54	35.37	35.52	35.52	35.52	No Data	No Data	No Data	♦	
Block 9	Mean	35.48	35.45	No Data	35.47	35.38	35.45	35.42	35.42	35.39	No Data	35.42	35.50	**0.12**
	Min.	♦	35.23	No Data	35.45	35.12	35.28	35.41	35.32	♦	No Data	35.30	♦	
	Max.	♦	35.53	No Data	35.49	35.52	35.55	35.44	35.52	♦	No Data	35.50	♦	
Block 10	Mean	No Data	35.42	No Data	35.24	35.35	35.40	35.20	35.25	No Data	No Data	35.30	No Data	**0.22**
	Min.	No Data	34.90	No Data	34.01	34.74	35.08	35.02	34.54	No Data	No Data	34.81	No Data	
	Max.	No Data	35.61	No Data	35.68	35.53	35.62	35.52	35.57	No Data	No Data	35.55	No Data	
Block 11	Mean	No Data	No Data	35.48	35.43	35.58	35.55	35.53	35.51	No Data	35.52	No Data	35.57	**0.15**
	Min.	No Data	No Data	35.44	35.43	♦	35.49	35.43	35.42	No Data	♦	No Data	35.53	
	Max.	No Data	No Data	35.52	35.43	♦	35.62	35.62	35.60	No Data	♦	No Data	35.59	
Block 12	Mean	No Data	No Data	35.54	35.51	35.53	35.51	35.51	35.51	35.54	35.53	No Data	35.42	**0.27**
	Min.	No Data	No Data	35.53	35.42	35.47	35.48	35.41	35.44	35.53	♦	No Data	35.16	
	Max.	No Data	No Data	35.55	35.68	35.57	35.53	35.63	35.59	35.55	♦	No Data	35.62	
Block 13	Mean	35.33	35.48	35.45	35.51	35.49	35.55	35.40	35.33	35.45	No Data	35.45	35.60	**0.30**
	Min.	35.42	35.30	35.33	35.10	35.25	35.37	35.22	34.96	35.32	No Data	35.05	35.40	
	Max.	35.53	35.59	35.54	35.67	35.84	35.77	35.50	35.62	35.66	No Data	35.66	35.71	
Spatial Range		**0.30**	**0.29**	**0.21**	**0.48**	**0.40**	**0.41**	**0.33**	**0.41**	**0.40**	**0.32**	**0.22**	**0.18**	

Table 9-17 - Monthly Sea Surface Salinity Across the Rockall and Porcupine Areas

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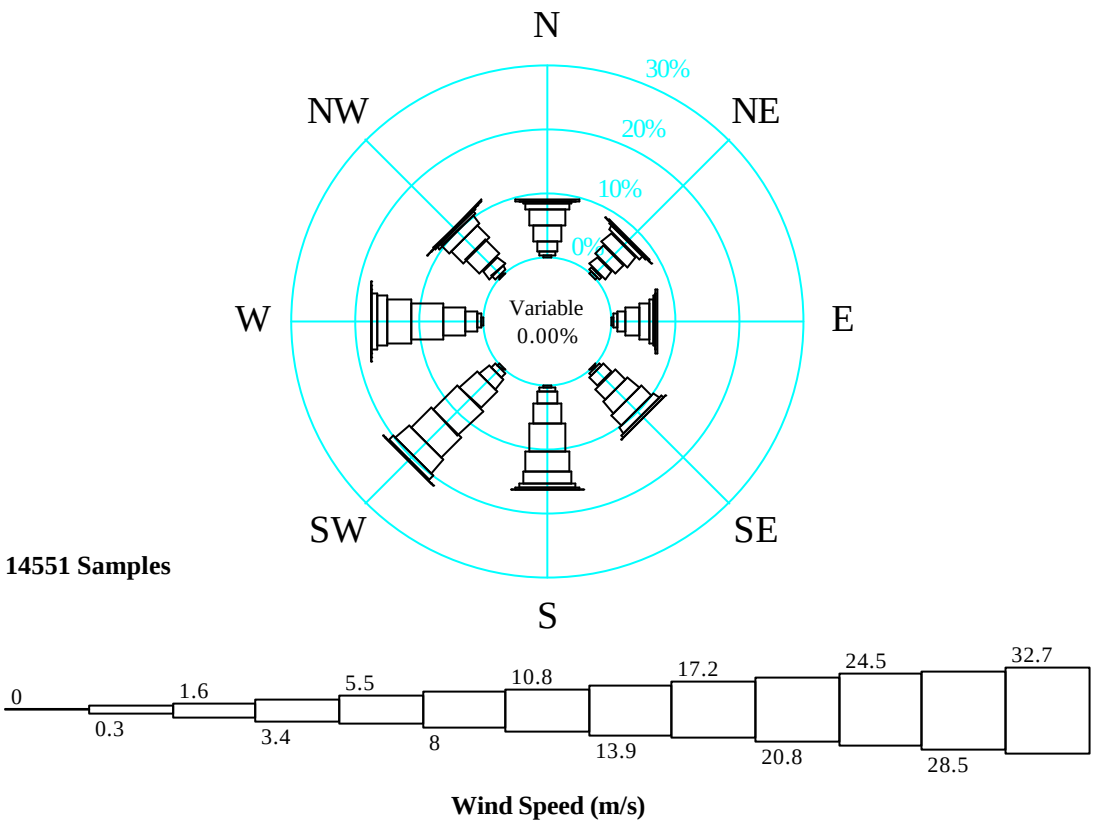
APPENDIX A-1

Figure A1.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_ALLYEAR_5/94-4/99

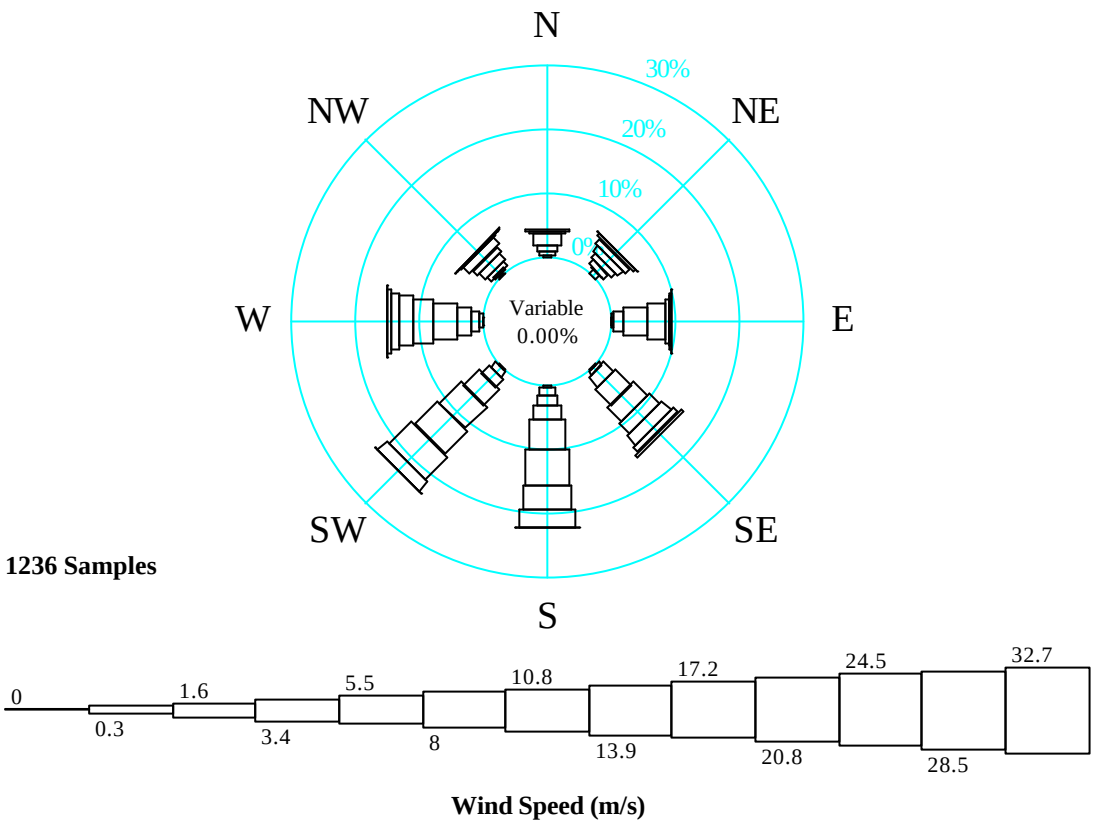
Figure A1.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										14551
0.30	41	39	34	27	37	40	44	28	290	14551
1.60	76	95	79	95	114	140	106	122	827	14261
3.40	236	243	203	265	280	278	260	231	1996	13434
5.50	376	308	315	332	445	558	510	450	3294	11438
8.00	335	303	241	360	617	794	711	384	3745	8144
10.80	176	127	91	319	453	630	547	220	2563	4399
13.90	40	26	40	165	263	416	246	79	1275	1836
17.20	7	14	14	57	113	135	98	19	457	561
20.80	4	1	2	10	23	21	33	2	96	104
24.50					2	1	3		6	8
28.50							1	1	2	2
32.70										
51.50										
Total	1291	1156	1019	1630	2347	3013	2559	1536	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_ALLYEAR_5/94-4/99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : All Year

Figure A1.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_JANUARY_94-99

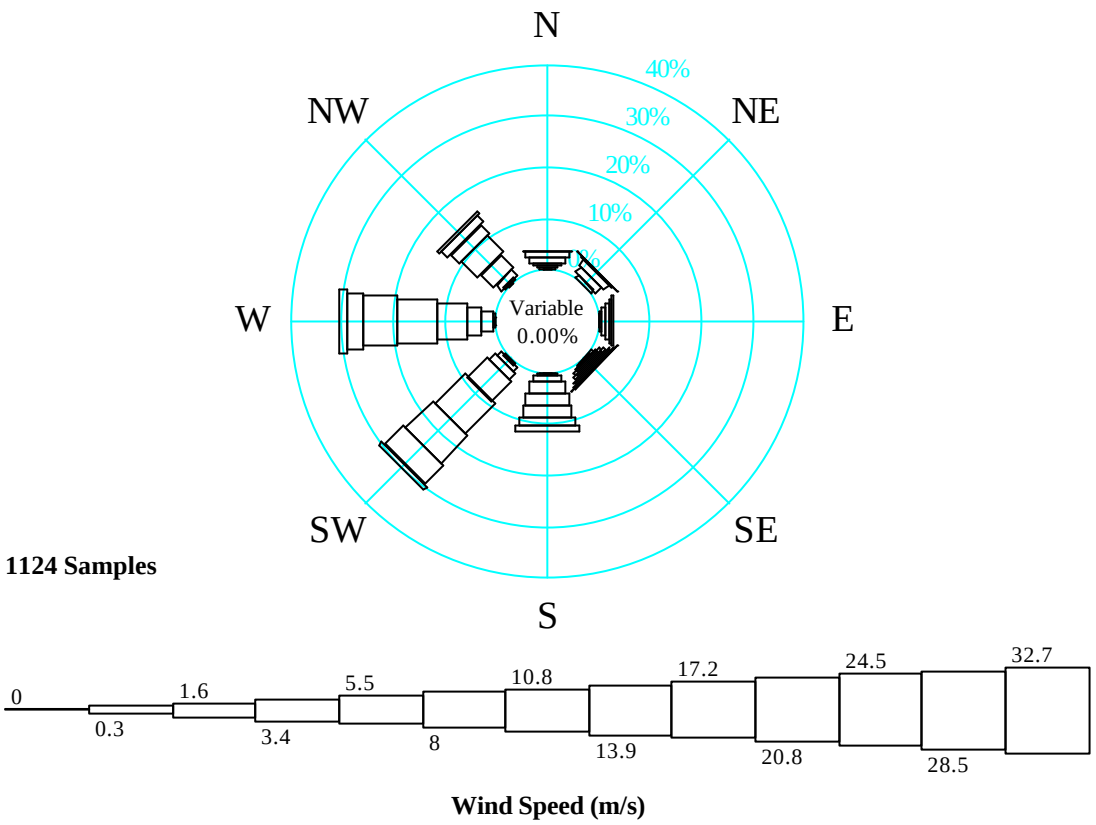
Figure A1.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1236
0.30	4	10	1	2	5	2	1	2	27	1236
1.60	8	1	2	7	14	13	8	6	59	1209
3.40	10	11	19	25	19	22	13	9	128	1150
5.50	25	13	47	43	26	40	27	17	238	1022
8.00	4	12	34	37	60	57	49	12	265	784
10.80	3	14	8	27	68	63	37	19	239	519
13.90		5	1	26	47	61	28	1	169	280
17.20		2	3	11	33	25	16	1	91	111
20.80			2	6	3	1	6	1	19	20
24.50							1		1	1
28.50										
32.70										
51.50										
Total	54	68	117	184	275	284	186	68	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_JANUARY_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : January

Figure A1.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_FEBRUARY_94-99

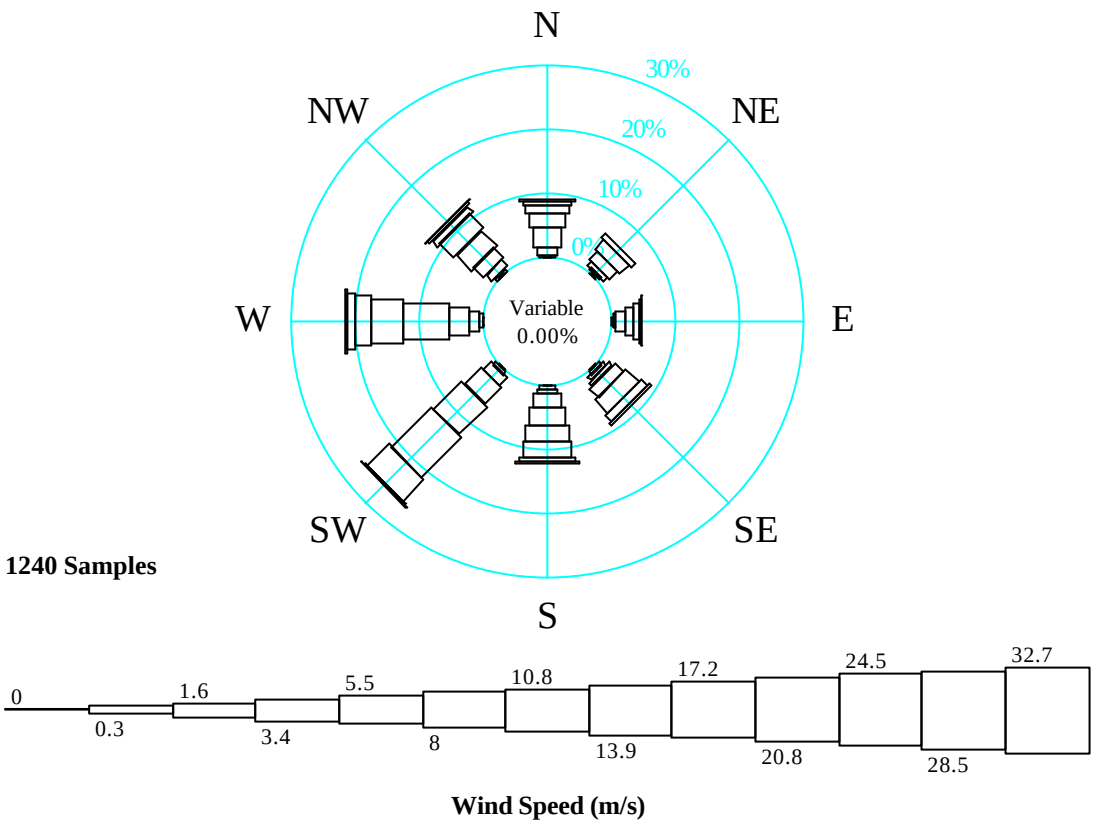
Figure A1.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1124
0.30	2				2		1	4	9	1124
1.60	3		2	1	2	6	6	2	22	1115
3.40	5	8	5	5	2	11	26	16	78	1093
5.50	6	16	6	4	14	20	29	41	136	1015
8.00	13	14	9	7	25	61	67	50	246	879
10.80	10	4	7	6	25	90	87	28	257	633
13.90	1		2	5	29	85	75	18	215	376
17.20		1		6	19	57	36	6	125	161
20.80				1	9	10	16		36	36
24.50										
28.50										
32.70										
51.50										
Total	40	43	31	35	127	340	343	165	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_FEBRUARY_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : February

Figure A1.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_MARCH_94-99

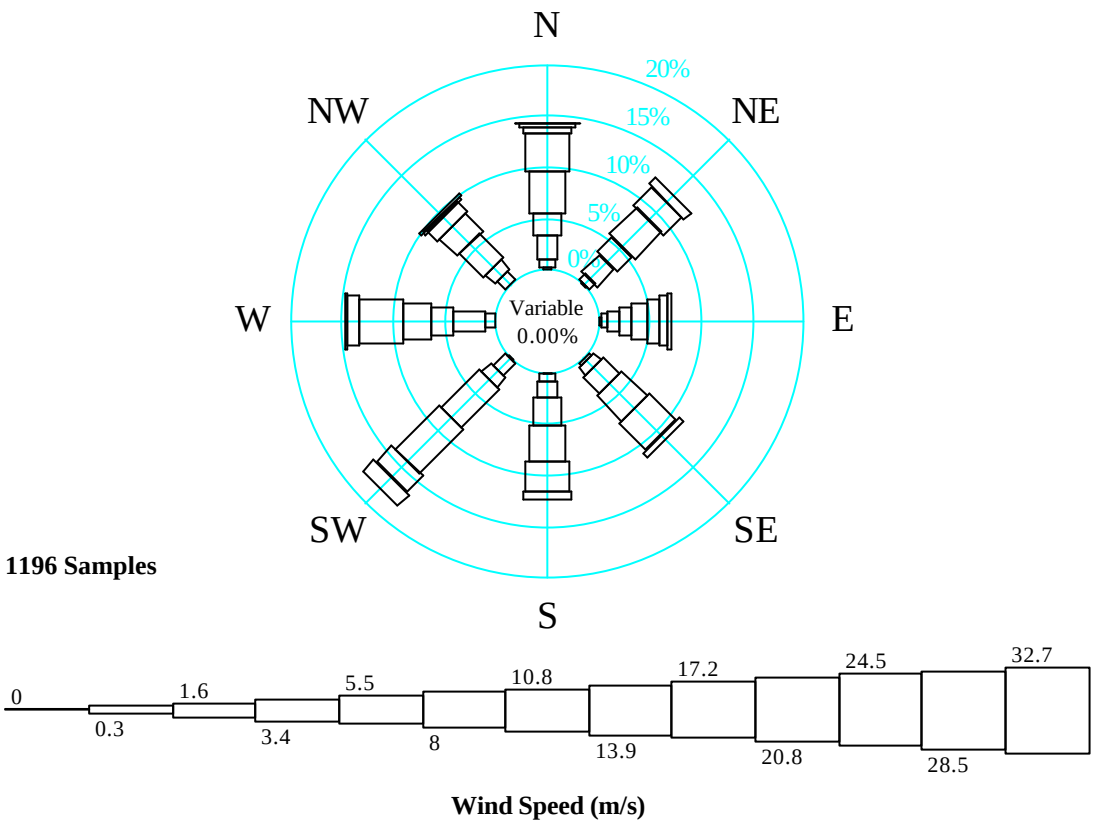
Figure A1.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	1	2	2	2	1	2	1	1	12	1240
1.60	3	6	7	6	6	6	8	5	47	1228
3.40	16	10	17	8	10	21	17	16	115	1181
5.50	38	22	18	10	27	46	40	27	228	1066
8.00	25	24	10	24	33	76	90	41	323	838
10.80	18	10	4	34	30	110	59	38	303	515
13.90	8		1	15	31	57	31	14	157	212
17.20	1			8	10	3	16	7	45	55
20.80					2	3	4	1	10	10
24.50										
28.50										
32.70										
51.50										
Total	110	74	59	107	150	324	266	150	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_MARCH_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : March

Figure A1.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_APRIL_94-99

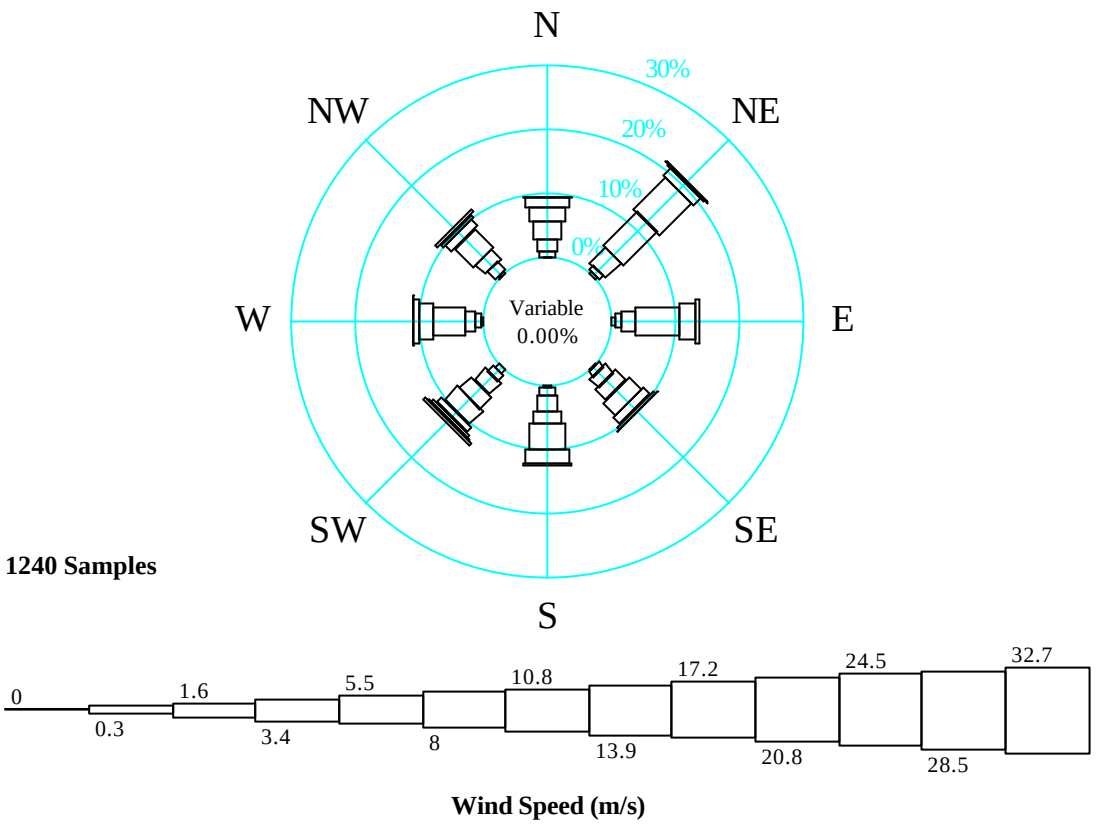
Figure A1.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1196
0.30	3	1	4		2	2			12	1196
1.60	9	9	6	4	8	19	12	14	81	1184
3.40	29	28	15	12	19	15	37	15	170	1103
5.50	25	25	14	27	33	63	26	39	252	933
8.00	50	45	17	41	41	72	34	28	328	681
10.80	43	29	14	44	35	26	51	16	258	353
13.90	7	10	10	6	11	19	13	4	80	95
17.20	4		5				3	2	14	15
20.80	1								1	1
24.50										
28.50										
32.70										
51.50										
Total	171	147	85	134	149	216	176	118	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_APRIL_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : April

Figure A1.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_MAY_94-99

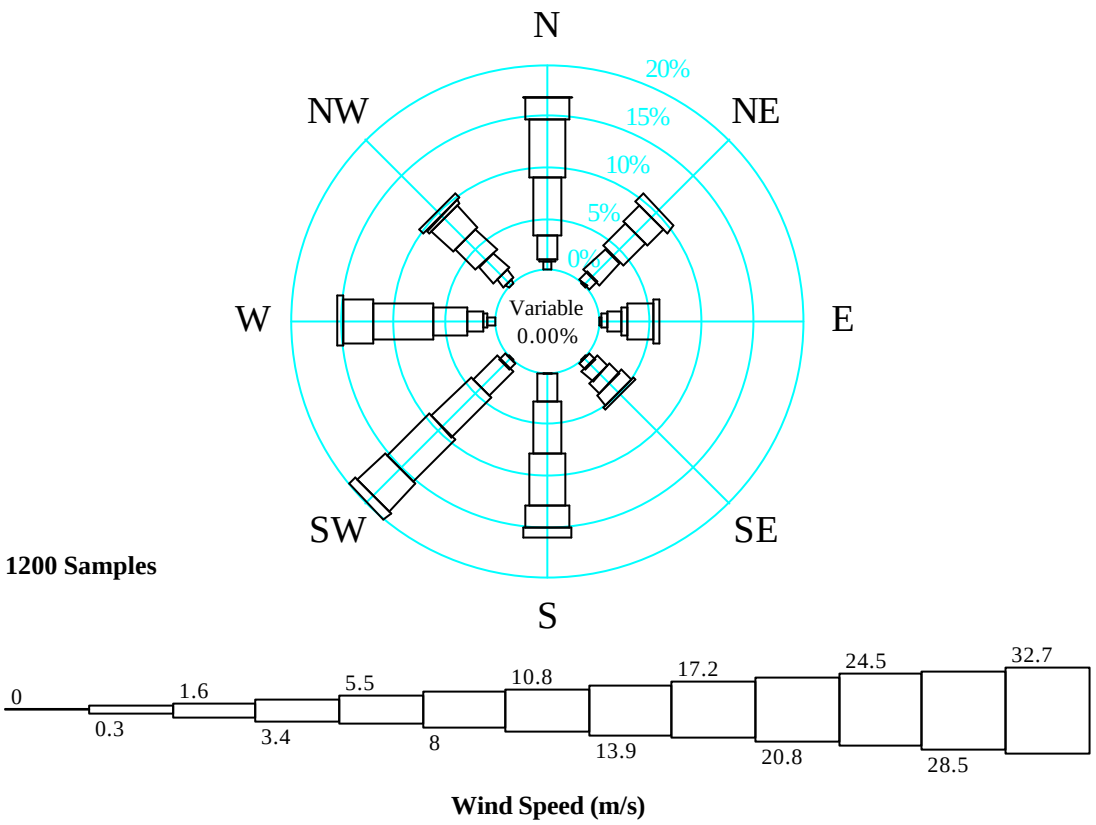
Figure A1.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	1	5	6	2	5	9	4	3	35	1240
1.60	11	9	13	12	15	16	13	22	111	1205
3.40	22	43	29	23	29	30	16	25	217	1094
5.50	37	91	83	27	23	32	62	52	407	877
8.00	26	85	33	35	50	36	29	18	312	470
10.80	17	21	5	17	28	15	12	7	122	158
13.90	1	2		7	3	7	1	6	27	36
17.20		2		1		2			5	9
20.80						4			4	4
24.50										
28.50										
32.70										
51.50										
Total	115	258	169	124	153	151	137	133	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_MAY_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : May

Figure A1.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_JUNE_94-99

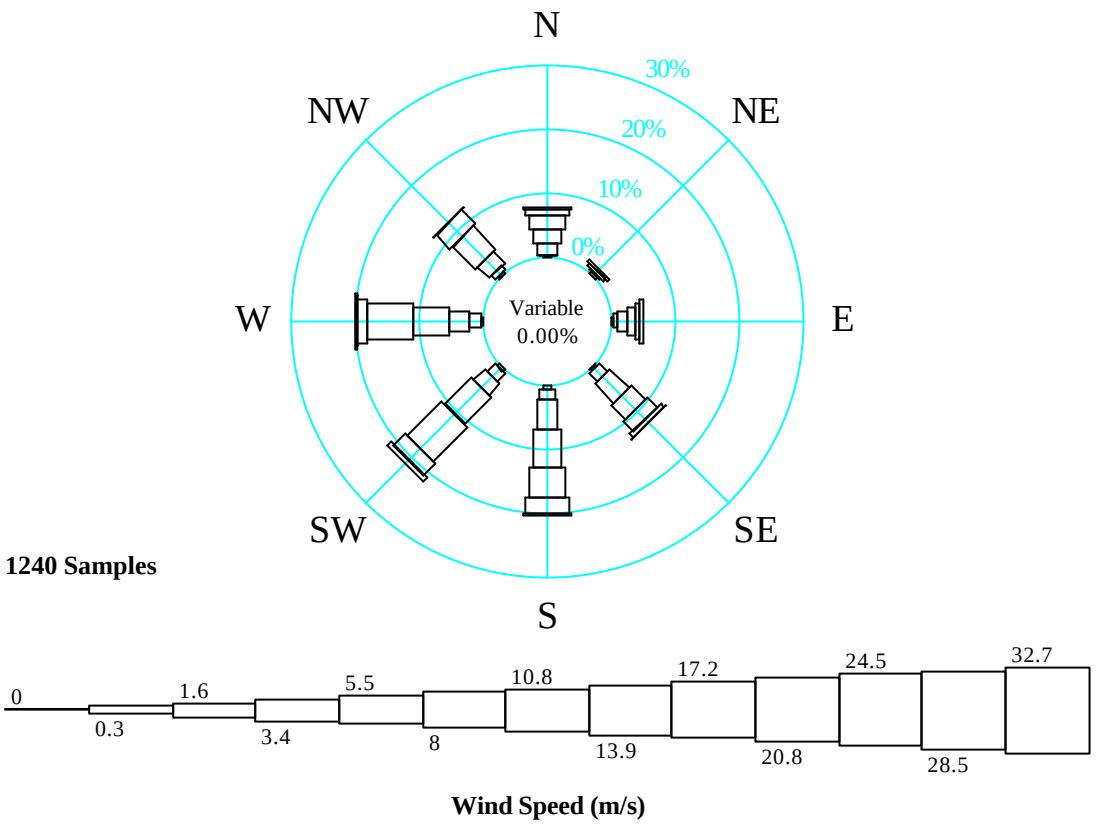
Figure A1.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	9	2	4	1	2	1	10	5	34	1200
1.60	4	11	6	9		9	6	11	56	1166
3.40	27	35	17	17	31	40	17	25	209	1110
5.50	68	37	7	15	62	64	40	35	328	901
8.00	67	27	31	15	61	70	71	34	376	573
10.80	27	13	7	5	26	44	34	5	161	197
13.90	1				11	11	7	6	36	36
17.20										
20.80										
24.50										
28.50										
32.70										
51.50										
Total	203	125	72	62	193	239	185	121	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_JUNE_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : June

Figure A1.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_JULY_94-99

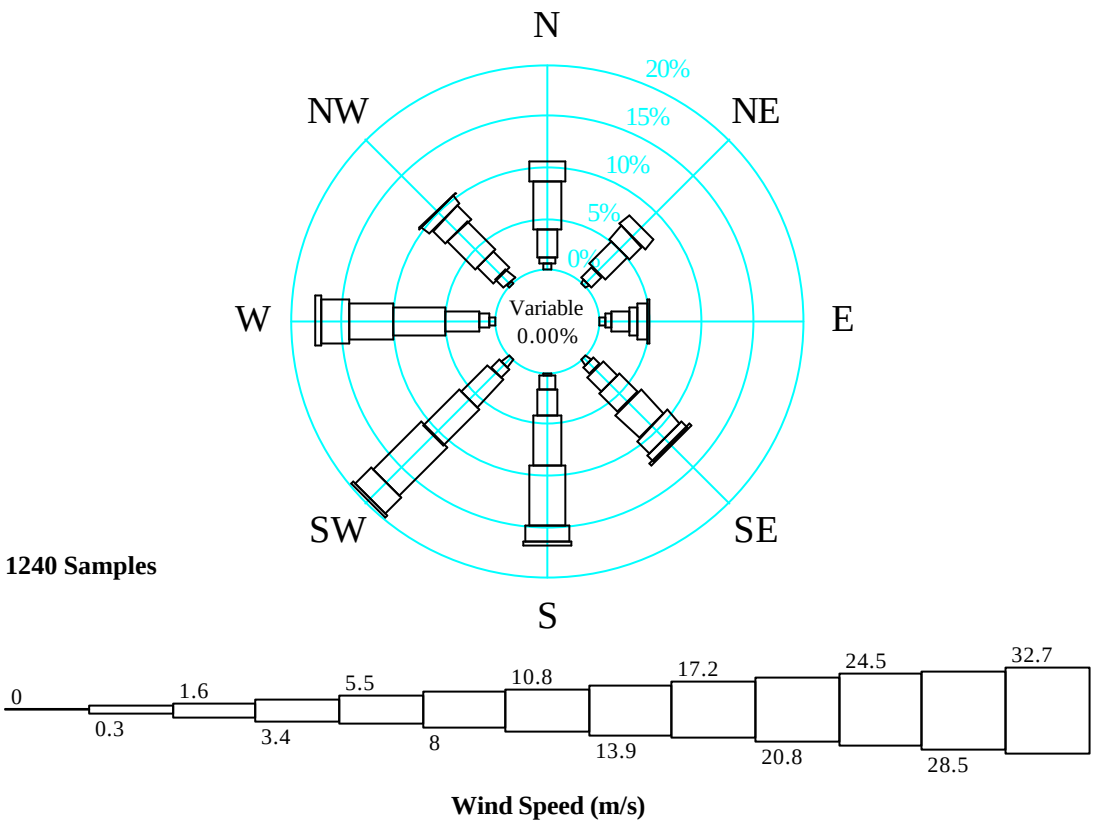
Figure A1.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	2	4	2	3	7	6	5	3	32	1240
1.60	2	2	8	24	20	20	22	11	109	1208
3.40	24	8	19	52	57	30	38	31	259	1099
5.50	25	6	19	38	73	74	69	63	367	840
8.00	28		7	27	61	93	90	37	343	473
10.80	10		6	8	29	32	18	1	104	130
13.90	6			1	5	9	2		23	26
17.20							3		3	3
20.80										
24.50										
28.50										
32.70										
51.50										
Total	97	20	61	153	252	264	247	146	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_JULY_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : July

Figure A1.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_AUGUST_94-99

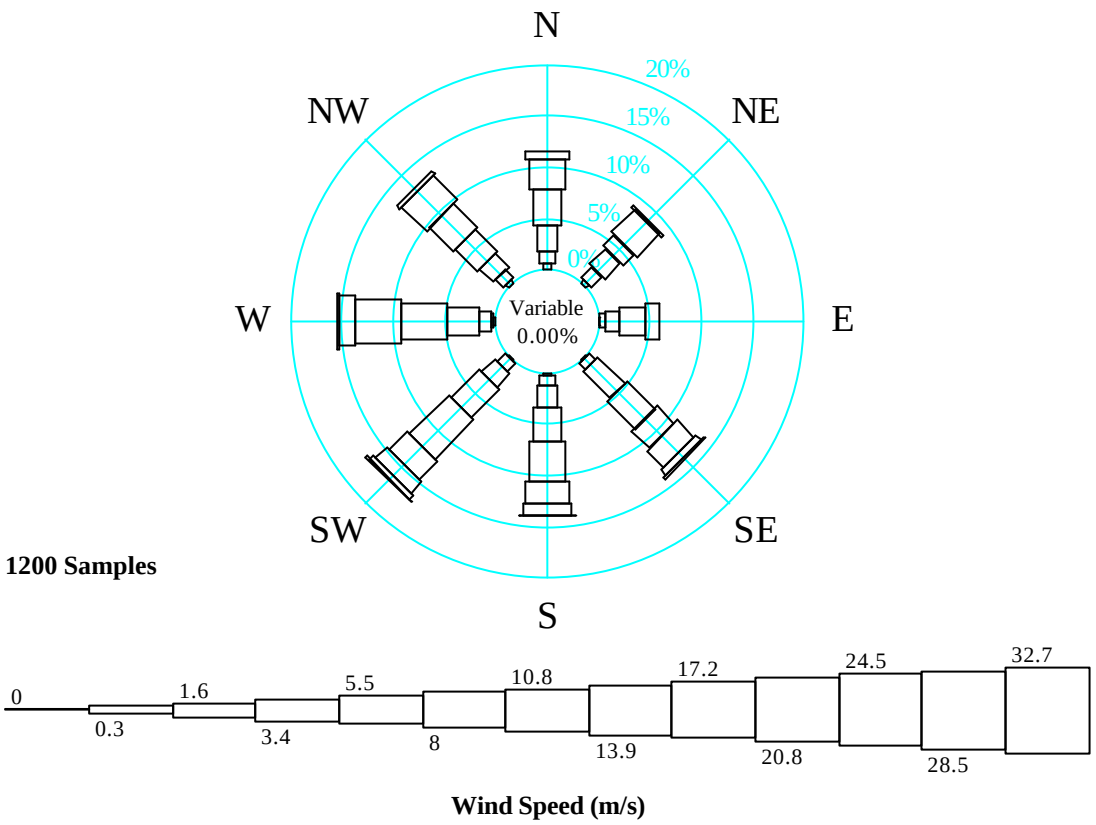
Figure A1.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	8	5	7	8	4	11	9	3	55	1240
1.60	8	18	9	12	16	15	12	14	104	1185
3.40	33	38	22	24	32	45	40	27	261	1081
5.50	59	22	9	32	60	61	63	47	353	820
8.00	23	16	11	40	73	81	53	22	319	467
10.80			4	22	20	28	35	13	122	148
13.90				10	3	3	7	1	24	26
17.20				2					2	2
20.80										
24.50										
28.50										
32.70										
51.50										
Total	131	99	62	150	208	244	219	127	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_AUGUST_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : August

Figure A1.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_SEPTEMBER_94-99

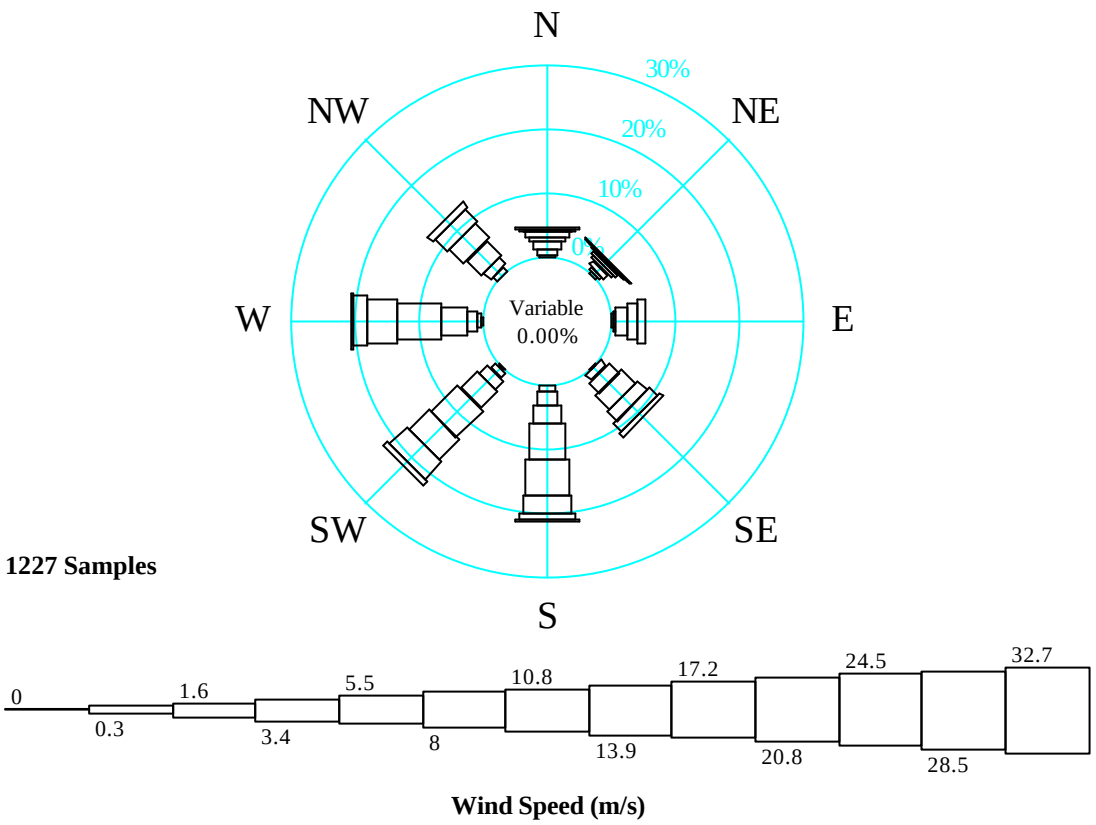
Figure A1.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	7	4	2	2	4	1	3	5	28	1200
1.60	14	18	7	9	10	13	2	12	85	1172
3.40	30	26	16	44	26	22	15	22	201	1087
5.50	43	19	30	46	41	46	38	36	299	886
8.00	35	38	15	28	47	65	52	40	320	587
10.80	10	3		28	26	30	55	40	192	267
13.90				9	12	17	19	5	62	75
17.20				1	2	7	2		12	13
20.80						1			1	1
24.50										
28.50										
32.70										
51.50										
Total	139	108	70	167	168	202	186	160	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_SEPTEMBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : September

Figure A1.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_OCTOBER_94-99

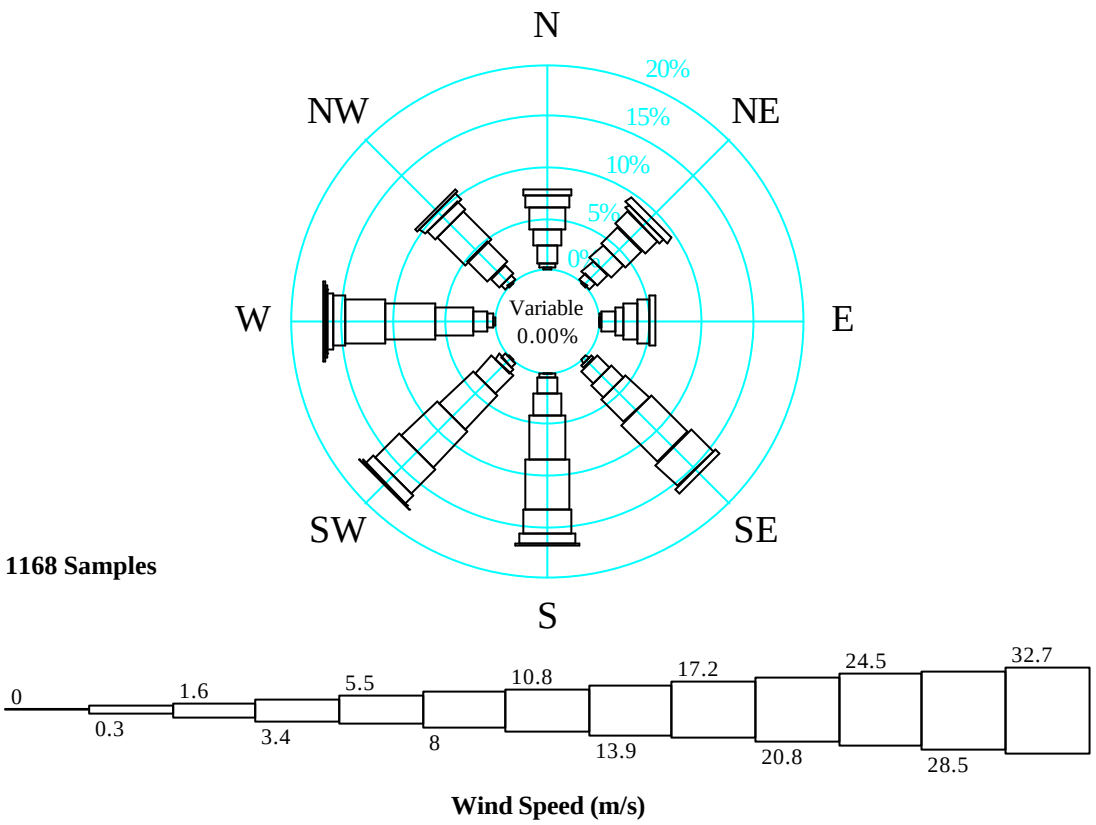
Figure A1.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1227
0.30		4		1		3	3		11	1227
1.60	5	7	2		12	14	10	11	61	1216
3.40	9	10	7	15	27	22	16	19	125	1155
5.50	15	7	20	28	33	46	53	38	240	1030
8.00	10	7	22	36	68	73	81	40	337	790
10.80	9	3	13	25	72	52	57	32	263	453
13.90	3	1		22	32	47	28	13	146	190
17.20	2	1		8	12	9	5		37	44
20.80	3	1			3				7	7
24.50										
28.50										
32.70										
51.50										
Total	56	41	64	135	259	266	253	153	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_OCTOBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : October

Figure A1.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_NOVEMBER_94-99

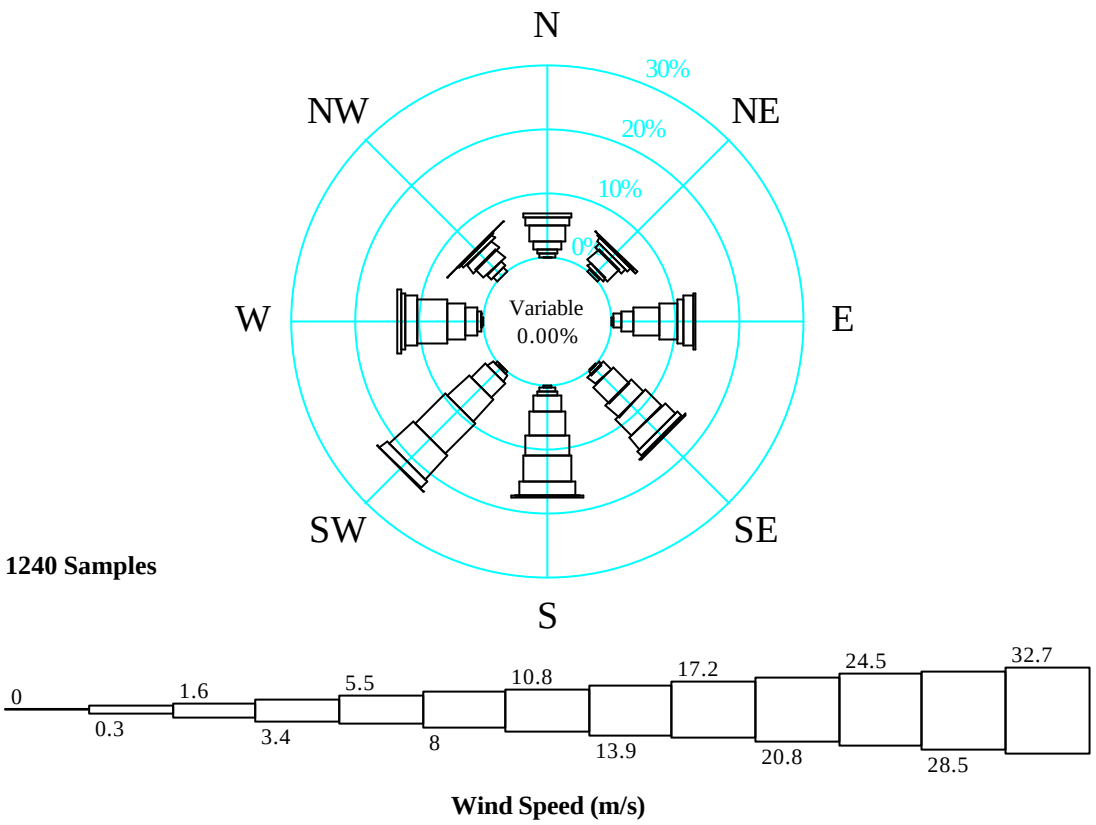
Figure A1.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1168
0.30	3	2	1	4	1	2	4	2	19	1168
1.60	4	8	3	5	5	5	5	5	40	1149
3.40	22	17	15	20	17	7	17	14	129	1109
5.50	18	21	10	19	25	28	42	32	195	980
8.00	25	26	16	36	51	52	58	44	308	785
10.80	14	21	13	60	56	57	46	13	280	477
13.90	5	6	7	35	29	38	13	8	141	197
17.20		7		7	10	13	7	3	47	56
20.80					3	1	1		5	9
24.50						1	2		3	4
28.50							1		1	1
32.70										
51.50										
Total	91	108	65	186	197	204	196	121	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_NOVEMBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : November

Figure A1.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_DECEMBER_94-99

Figure A1.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	1		5	2	4	1	3		16	1240
1.60	5	6	14	6	6	4	2	9	52	1224
3.40	9	9	22	20	11	13	8	12	104	1172
5.50	17	29	52	43	28	38	21	23	251	1068
8.00	29	9	36	34	47	58	37	18	268	817
10.80	15	9	10	43	38	83	56	8	262	549
13.90	8	2	19	29	50	62	22	3	195	287
17.20		1	6	13	27	19	10		76	92
20.80				3	3	1	6		13	16
24.50					2				2	3
28.50								1	1	1
32.70										
51.50										
Total	84	65	164	193	216	279	165	74	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_WS/WD_DECEMBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : December

UKMO GWM 1 (56.50°N, 9.66°W)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	97.82	99.20	99.03	99.00	97.18	97.17	97.42	95.56	97.67	99.10	98.37	98.71	98.01
3.4	93.04	97.24	95.24	92.22	88.23	92.50	88.63	87.18	90.58	94.13	94.95	94.52	92.32
5.5	82.69	90.30	85.97	78.01	70.73	75.08	67.74	66.13	73.83	83.94	83.90	86.13	78.61
8.0	63.43	78.20	67.58	56.94	37.90	47.75	38.15	37.66	48.92	64.38	67.21	65.89	55.97
10.8	41.99	56.32	41.53	29.52	12.74	16.42	10.48	11.94	22.25	36.92	40.84	44.27	30.23
13.9	22.65	33.45	17.10	7.94	2.90	3.00	2.10	2.10	6.25	15.48	16.87	23.15	12.62
17.2	8.98	14.32	4.44	1.25	0.73	0.00	0.24	0.16	1.08	3.59	4.79	7.42	3.86
20.8	1.62	3.20	0.81	0.08	0.32	0.00	0.00	0.00	0.08	0.57	0.77	1.29	0.71
24.5	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.24	0.05
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.08	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**10.21**	**11.94**	**10.08**	**8.77**	**7.28**	**7.80**	**7.09**	**7.02**	**8.11**	**9.72**	**10.01**	**10.45**	**9.02**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**1.02**	**0.51**	**1.02**	**0.51**
Maximum	**25.70**	**24.15**	**23.64**	**21.58**	**22.10**	**16.96**	**18.50**	**18.50**	**21.58**	**23.13**	**29.80**	**29.80**	**29.80**

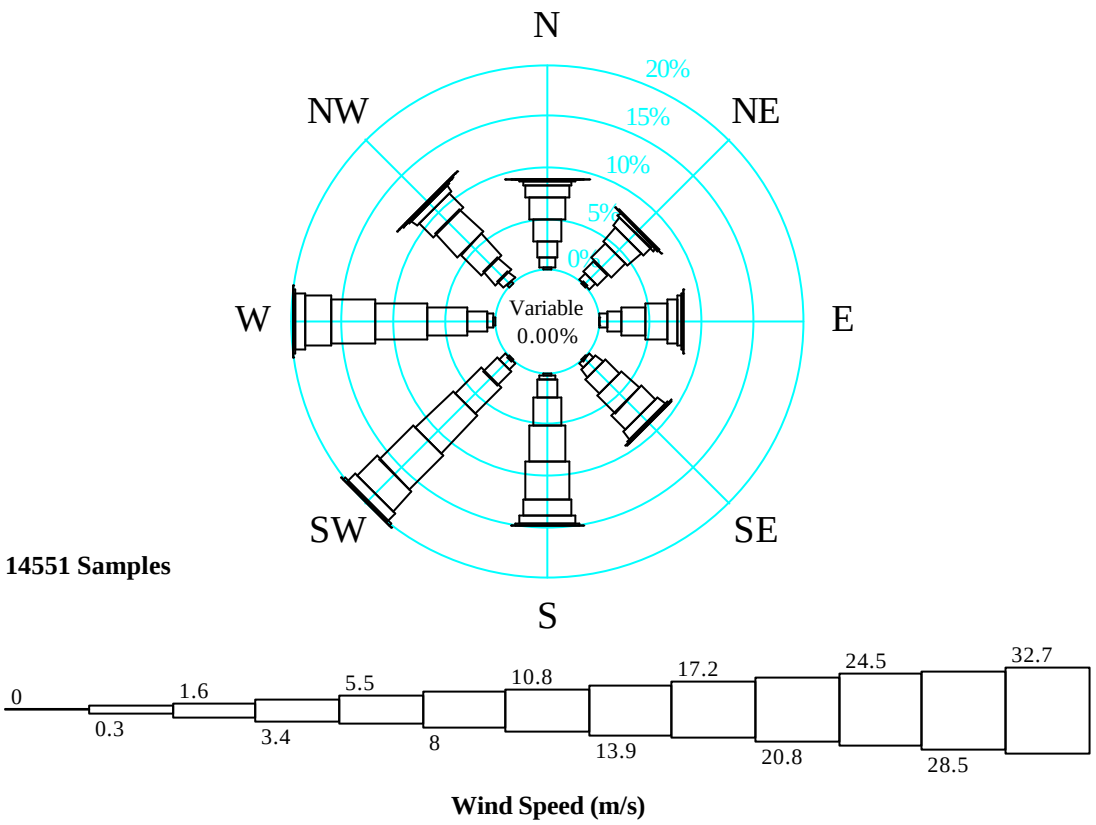
Table A1.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : UKMO GWM 1

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	96.82	96.63	96.66	98.34	98.42	98.67	98.28	98.18	98.01
3.4	90.94	88.41	88.91	92.52	93.57	94.03	94.14	90.23	92.32
5.5	72.66	67.39	68.99	76.26	81.64	84.80	83.98	75.20	78.61
8.0	43.53	40.74	38.08	55.89	62.68	66.28	64.05	45.90	55.97
10.8	17.58	14.53	14.43	33.80	36.39	39.93	36.26	20.90	30.23
13.9	3.95	3.55	5.50	14.23	17.09	19.02	14.89	6.58	12.62
17.2	0.85	1.30	1.57	4.11	5.88	5.21	5.28	1.43	3.86
20.8	0.31	0.09	0.20	0.61	1.07	0.73	1.45	0.20	0.71
24.5	0.00	0.00	0.00	0.00	0.09	0.03	0.16	0.07	0.05
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.07	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**7.67**	**7.36**	**7.41**	**9.16**	**9.74**	**10.03**	**9.76**	**8.01**	**9.02**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**23.13**	**23.13**	**23.13**	**24.15**	**26.72**	**26.21**	**29.80**	**29.80**	**29.80**

Table A1.28 - All Year Wind Speed - Percentage Exceedence by Direction : UKMO GWM 1

APPENDIX A-2

Figure A2.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_ALLYEAR_5/94-4/99

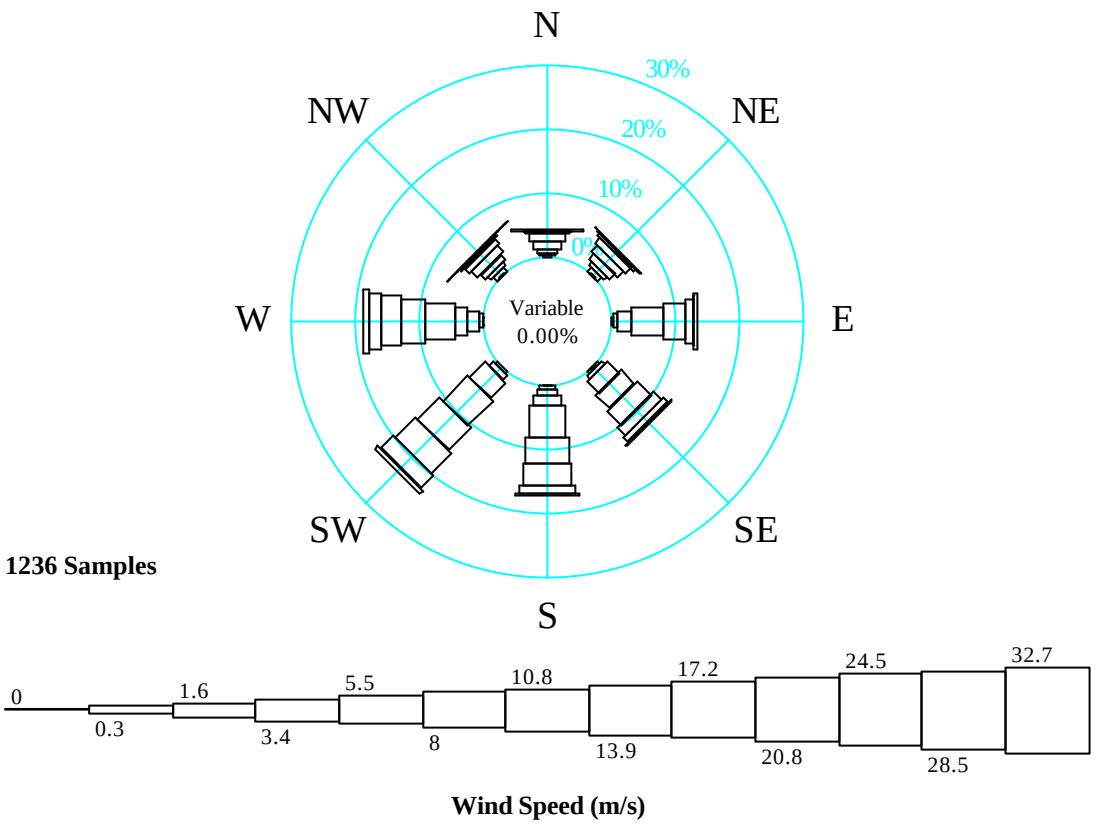
Figure A2.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										14551
0.30	44	28	23	26	31	33	28	35	248	14551
1.60	129	100	94	71	80	102	99	122	797	14303
3.40	222	212	200	141	238	277	279	251	1820	13506
5.50	314	291	359	273	410	502	559	407	3115	11686
8.00	332	269	286	359	511	742	743	457	3699	8571
10.80	155	139	166	267	521	680	641	262	2831	4872
13.90	52	55	51	132	242	382	354	108	1376	2041
17.20	28	10	28	41	101	153	139	26	526	665
20.80	4	3	1	11	33	30	38	4	124	139
24.50	1				2	2	5	2	12	15
28.50								1	1	3
32.70	1							1	2	2
51.50										
Total	1282	1107	1208	1321	2169	2903	2885	1676	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_ALLYEAR_5/94-4/99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : All Year

Figure A2.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_JANUARY_94-99

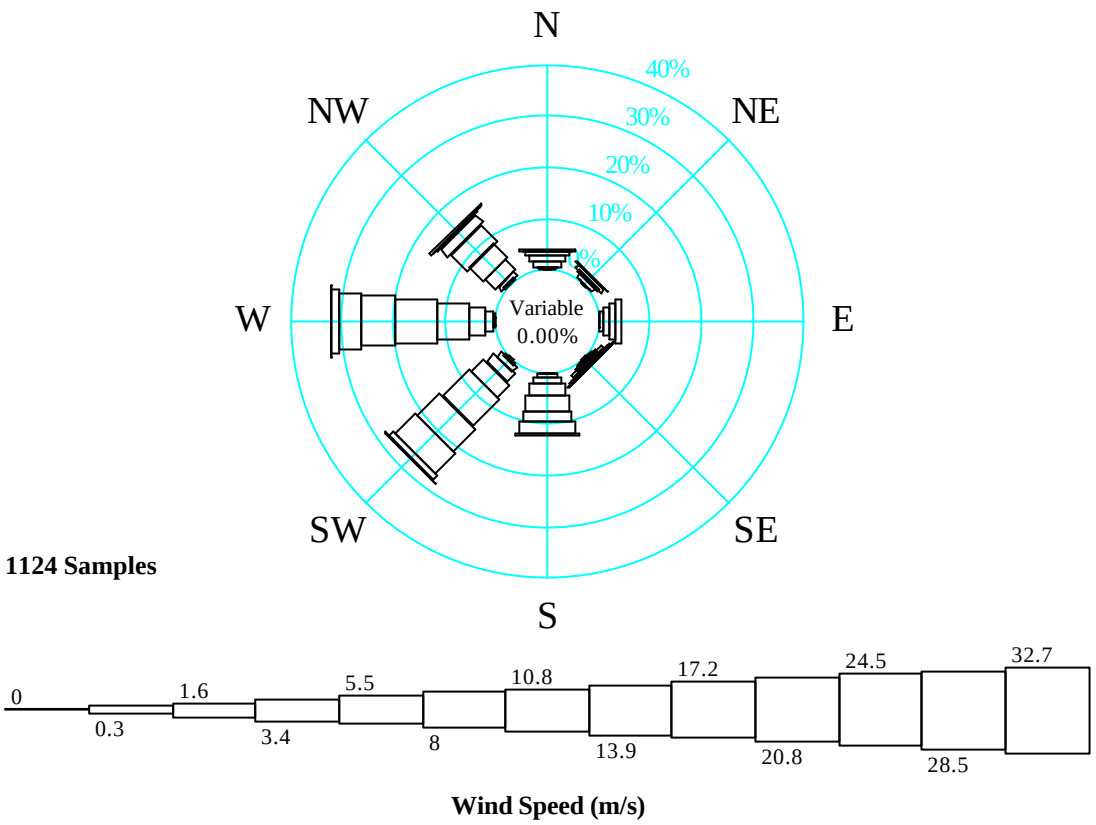
Figure A2.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1236
0.30	2	1	2	1	1		1	1	9	1236
1.60	5	8	9	3	8	5	6	9	53	1227
3.40	8	9	28	10	9	11	24	9	108	1174
5.50	15	14	62	30	22	43	24	12	222	1066
8.00	17	17	43	35	60	68	57	17	314	844
10.80	3	13	14	38	52	60	46	13	239	530
13.90	1	4	1	22	42	56	39	4	169	291
17.20		2	5	12	16	33	23	1	92	122
20.80		2		3	1	10	11		27	30
24.50	1								1	3
28.50								1	1	2
32.70								1	1	1
51.50 Total	52	70	164	154	211	286	231	68	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_JANUARY_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : January

Figure A2.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_FEBRUARY_94-99

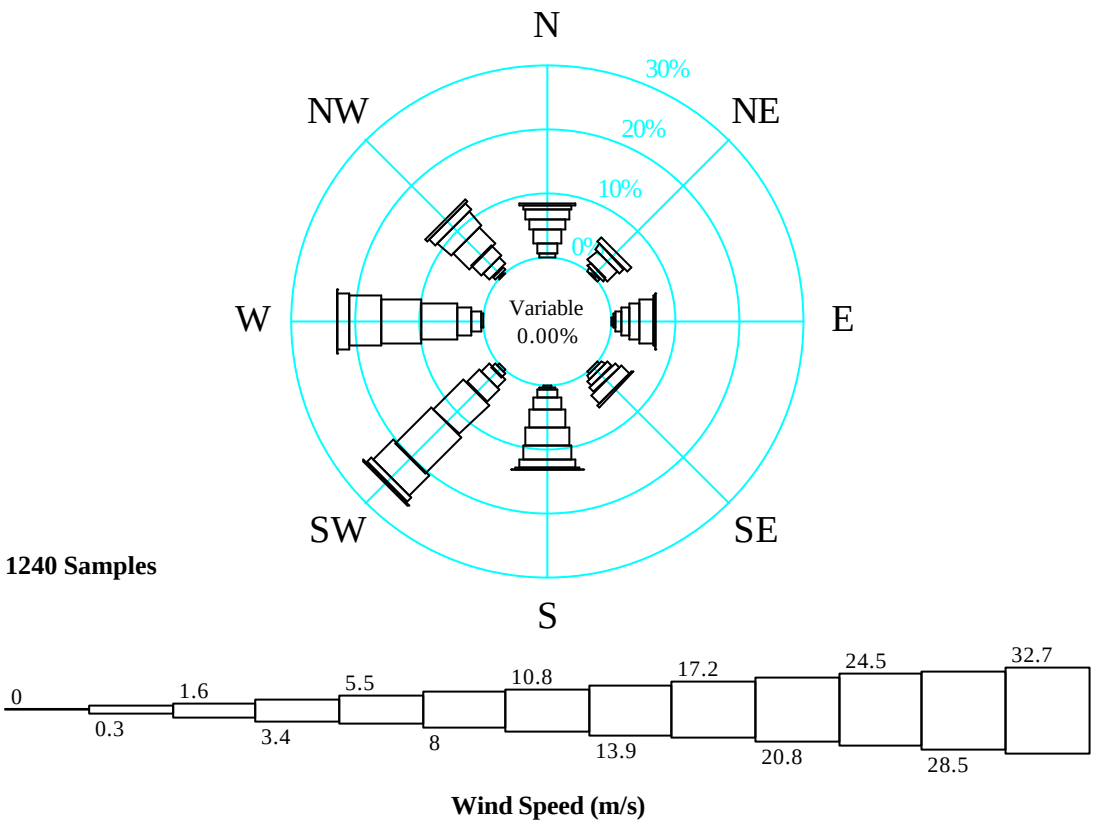
Figure A2.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1124
0.30	1	1		2	1	1	2		8	1124
1.60	3	2	2	1	1	6	5	6	26	1116
3.40	2	8	9	2	7	14	16	10	68	1090
5.50	11	5	11	5	15	24	35	33	139	1022
8.00	17	8	15		26	39	69	42	216	883
10.80	5	2	12	7	35	82	92	50	285	667
13.90	3			2	23	70	77	23	198	382
17.20	1			3	26	61	47	5	143	184
20.80				2	4	13	16	2	37	41
24.50						1	1	2	4	4
28.50										
32.70										
51.50										
Total	43	26	49	24	138	311	360	173	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_FEBRUARY_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : February

Figure A2.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_MARCH_94-99

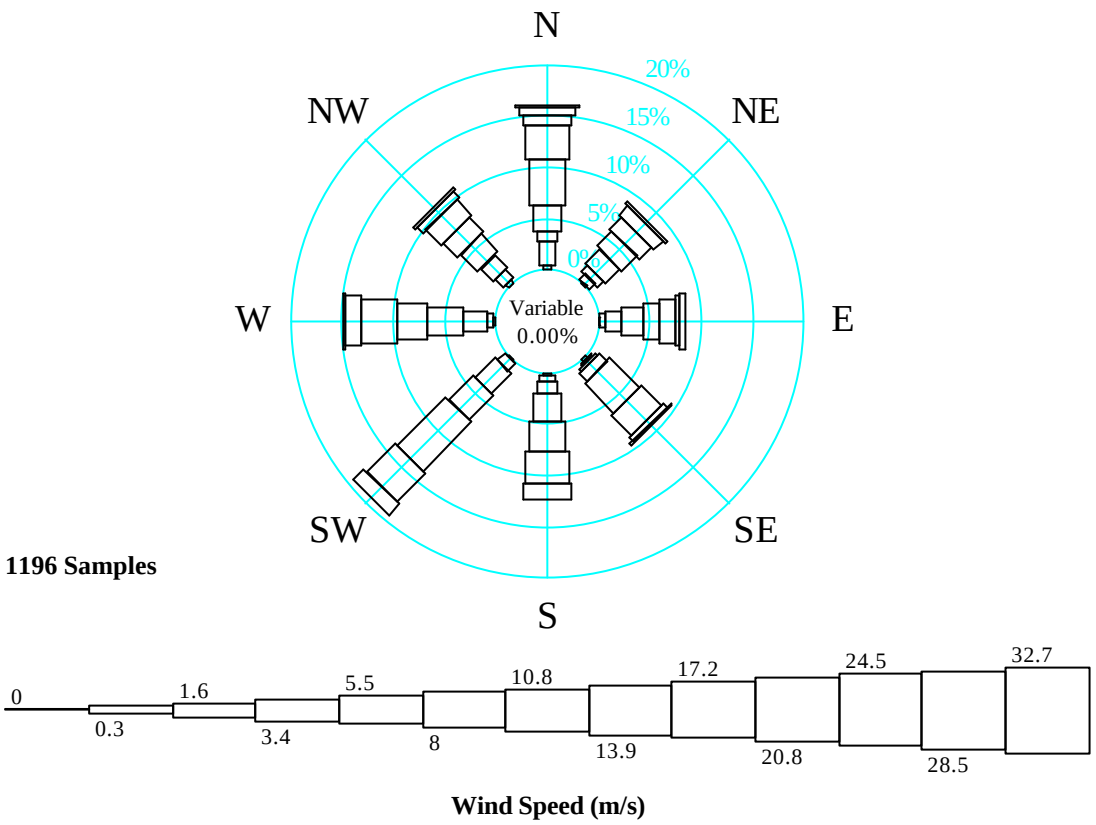
Figure A2.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30		1	2		3	4		2	12	1240
1.60	6	6	5	5	5	10	5	10	52	1228
3.40	20	8	11	8	14	20	18	17	116	1176
5.50	26	25	17	12	26	35	26	26	193	1060
8.00	20	12	18	11	33	82	71	41	288	867
10.80	20	14	27	24	36	98	78	37	334	579
13.90	8		3	4	26	54	61	15	171	245
17.20	3		1		15	13	24	8	64	74
20.80					5	3	1		9	10
24.50					1				1	1
28.50										
32.70										
51.50										
Total	103	66	84	64	164	319	284	156	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_MARCH_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : March

Figure A2.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_APRIL_94-99

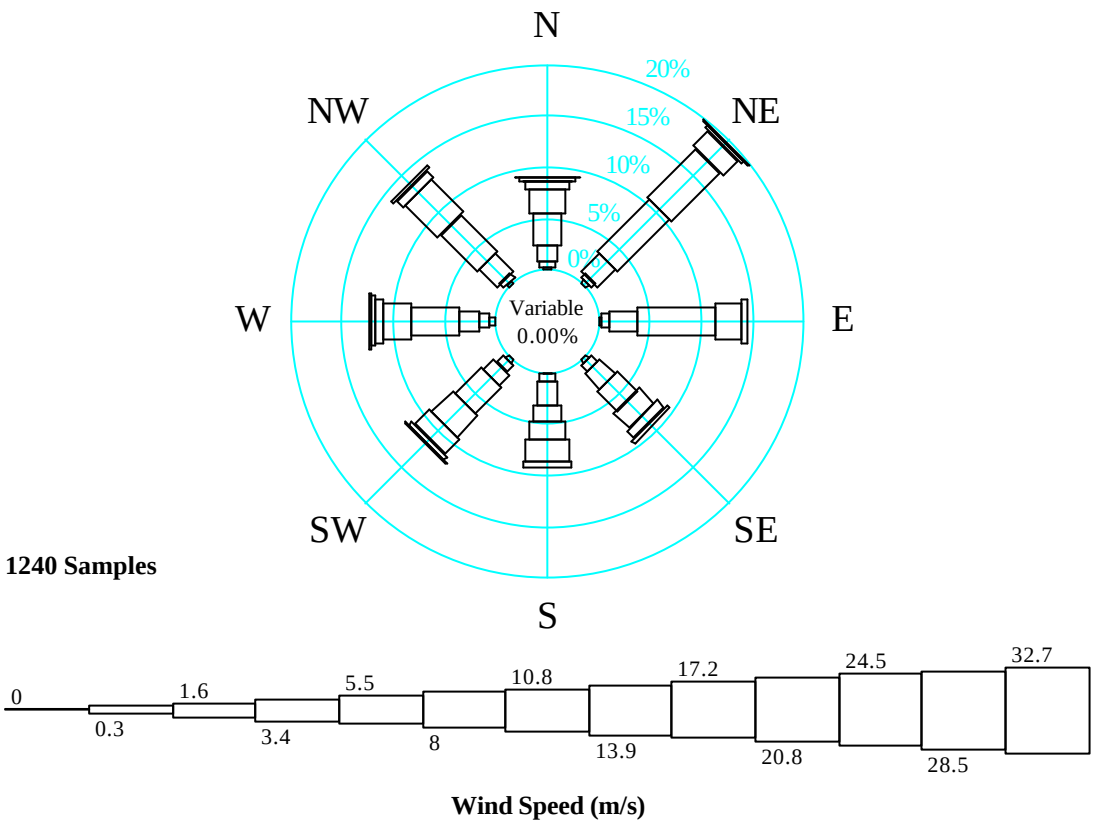
Figure A2.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1196
0.30	6	2	1	3	4	1	2	4	23	1196
1.60	28	8	6	3	7	12	7	13	84	1173
3.40	11	10	19	4	14	33	28	21	140	1089
5.50	30	23	27	12	31	40	44	29	236	949
8.00	55	25	17	49	37	80	35	24	322	713
10.80	39	19	19	33	37	47	40	24	258	391
13.90	11	15	6	6	19	18	20	9	104	133
17.20	10	3	5	3			2	5	28	29
20.80	1								1	1
24.50										
28.50										
32.70										
51.50										
Total	191	105	100	113	149	231	178	129	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_APRIL_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : April

Figure A2.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_MAY_94-99

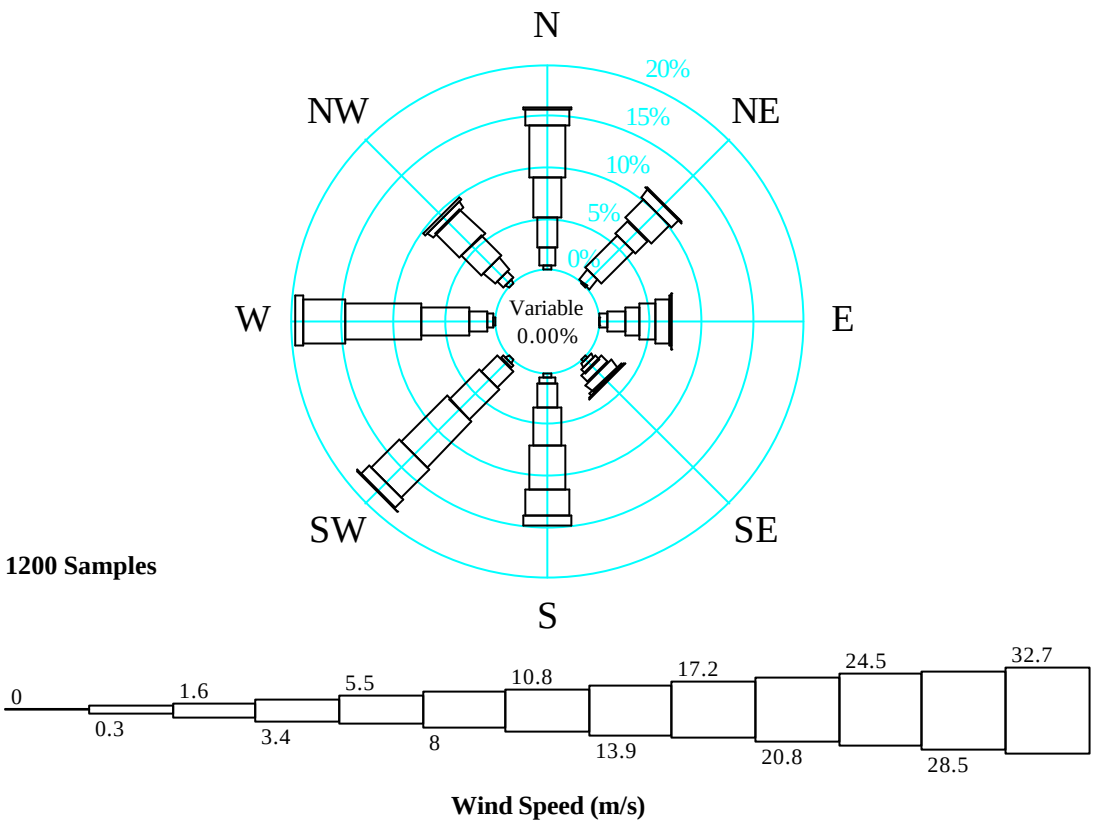
Figure A2.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	2	5	3	5	1	5	8	3	32	1240
1.60	8	5	11	10	9	11	13	7	74	1208
3.40	20	31	34	25	29	18	24	31	212	1134
5.50	38	88	92	34	21	44	58	62	437	922
8.00	29	83	33	25	22	37	33	55	317	485
10.80	10	26	6	13	26	24	9	12	126	168
13.90	1	4		5	6	6	5	3	30	42
17.20	3					2	4		9	12
20.80	2	1							3	3
24.50										
28.50										
32.70										
51.50										
Total	113	243	179	117	114	147	154	173	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_MAY_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : May

Figure A2.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_JUNE_94-99

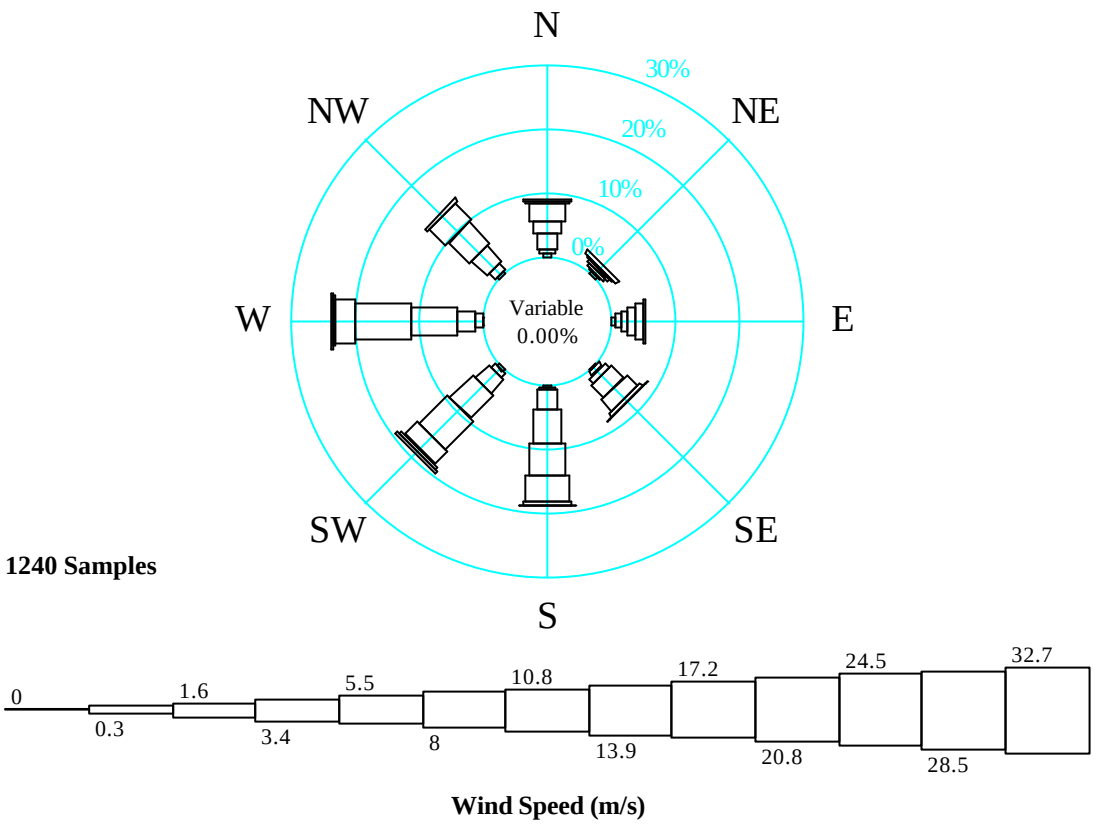
Figure A2.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	5	2	1	3	6	5	3	5	30	1200
1.60	21	14	9	5	7	4	8	9	77	1170
3.40	36	53	22	6	27	27	21	19	211	1093
5.50	47	21	16	10	46	49	55	32	276	882
8.00	60	30	18	12	51	75	90	40	376	606
10.80	19	12	17	2	30	46	48	7	181	230
13.90	3	1	2	1	12	14	10	3	46	49
17.20			1			2			3	3
20.80										
24.50										
28.50										
32.70										
51.50										
Total	191	133	86	39	179	222	235	115	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_JUNE_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : June

Figure A2.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_JULY_94-99

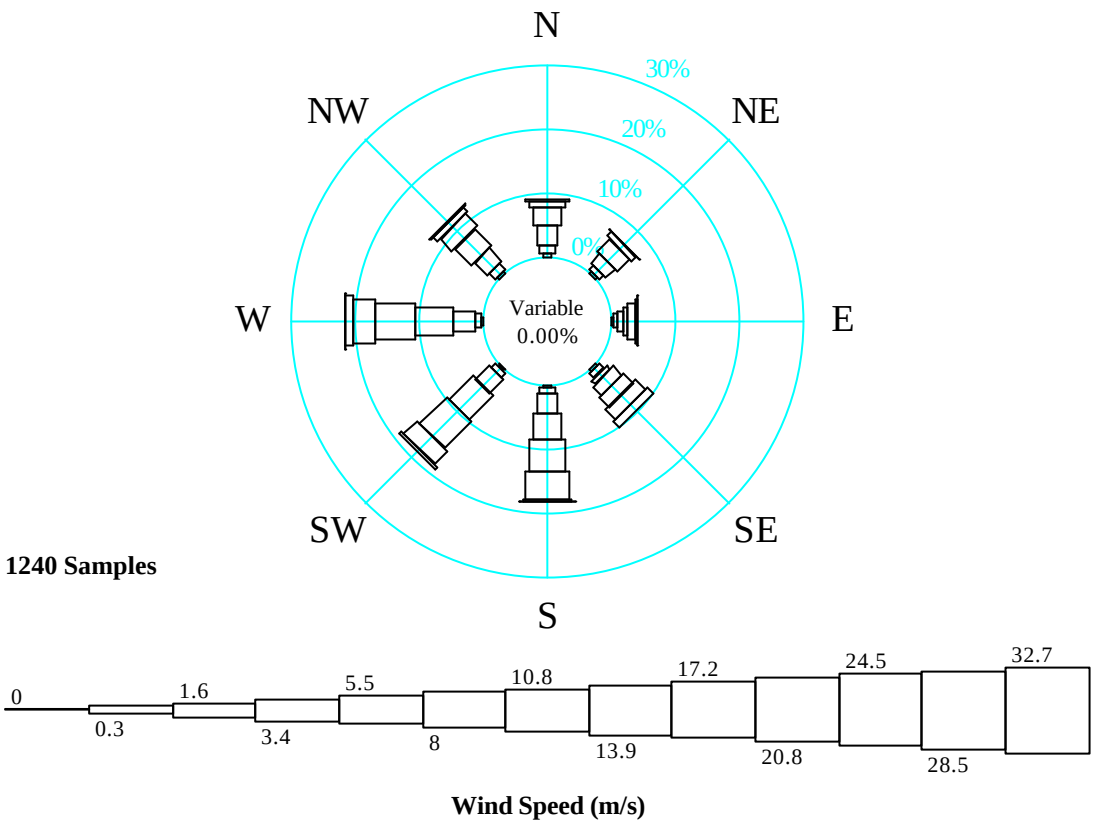
Figure A2.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	6	4	7	2	3	6	1	4	33	1240
1.60	9	3	12	10	6	10	14	17	81	1207
3.40	30	7	11	13	36	35	37	42	211	1126
5.50	23	5	15	33	66	63	88	56	349	915
8.00	35	2	18	30	63	76	108	45	377	566
10.80	5	8	3	7	51	35	38	7	154	189
13.90	2			1	6	8	3		20	35
17.20				1	3	5	6		15	15
20.80										
24.50										
28.50										
32.70										
51.50										
Total	110	29	66	97	234	238	295	171	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_JULY_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : July

Figure A2.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_AUGUST_94-99

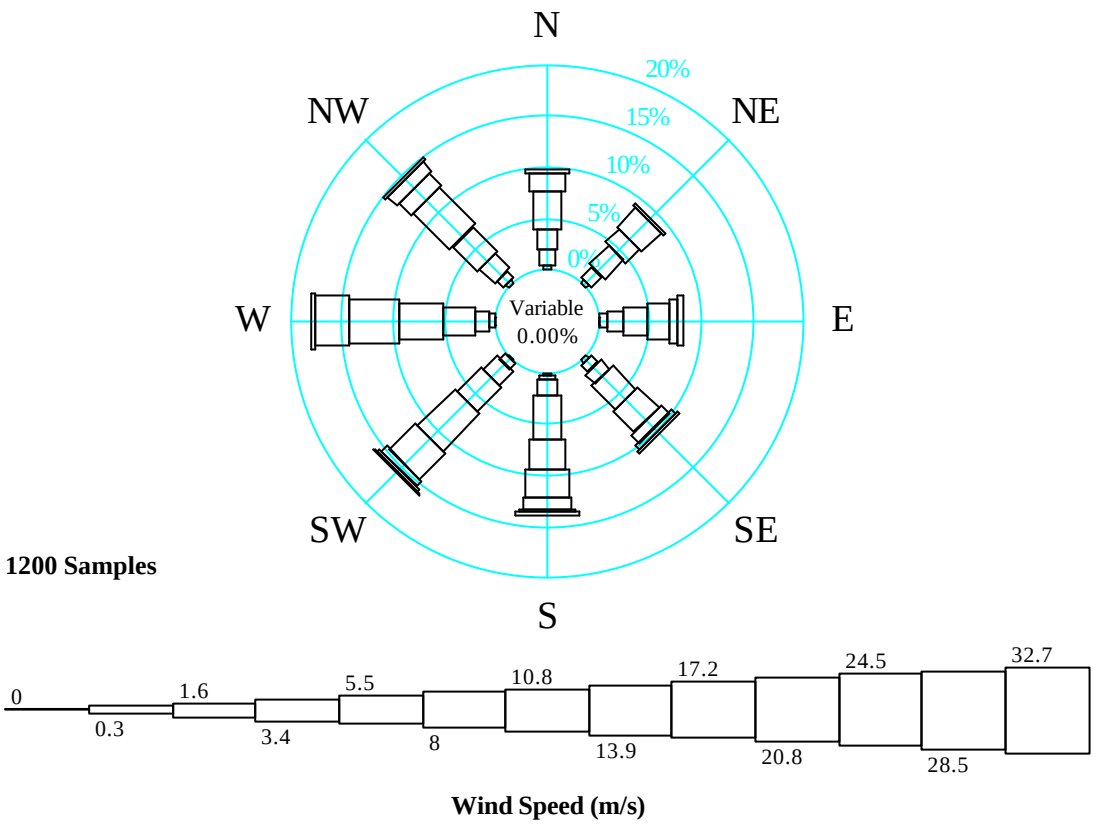
Figure A2.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	7	4	3	4	3	3	4	4	32	1240
1.60	16	11	9	14	13	13	12	16	104	1208
3.40	38	25	11	9	38	37	41	35	234	1104
5.50	34	34	9	24	49	64	74	47	335	870
8.00	12	11	13	27	63	72	77	32	307	535
10.80	4	2	6	25	55	37	45	13	187	228
13.90			1	17	2	6	12	1	39	41
17.20					1		1		2	2
20.80										
24.50										
28.50										
32.70										
51.50										
Total	111	87	52	120	224	232	266	148	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_AUGUST_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : August

Figure A2.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_SEPTEMBER_94-99

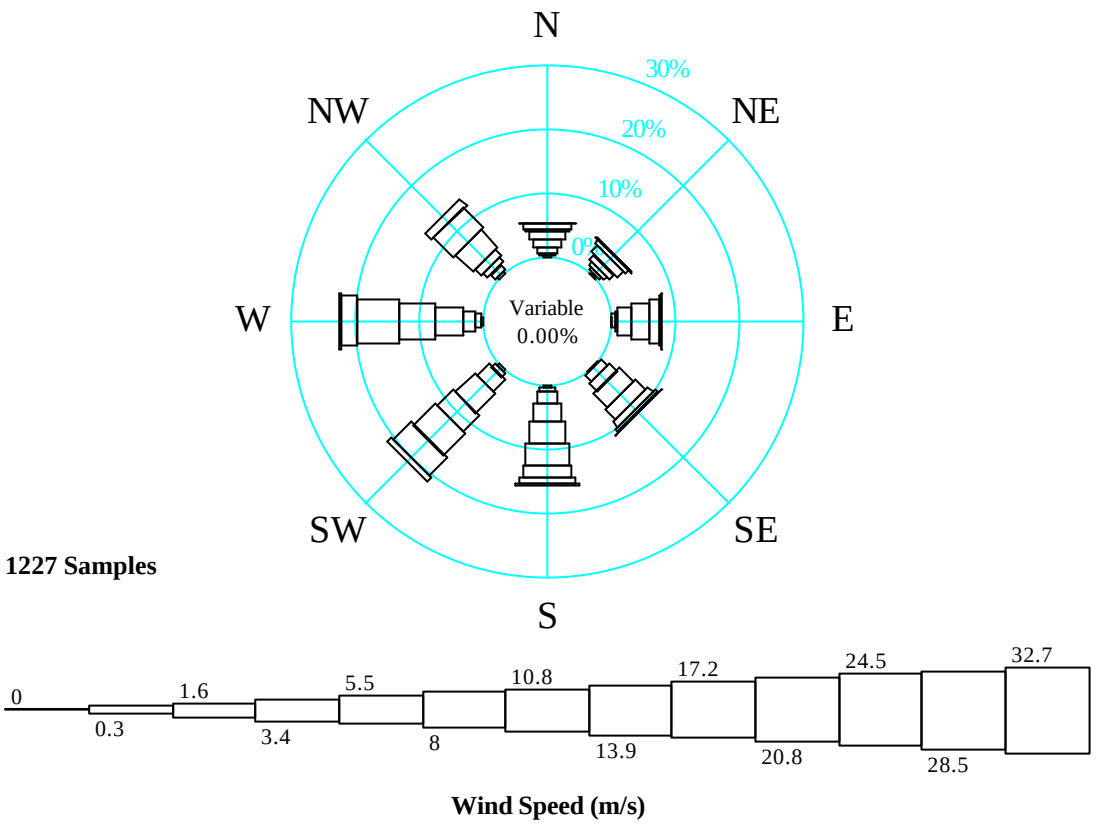
Figure A2.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	5	5	1	5	4	2	2	5	29	1200
1.60	18	17	10	11	5	8	7	10	86	1171
3.40	24	32	18	15	17	23	15	24	168	1085
5.50	46	22	29	38	53	39	38	41	306	917
8.00	20	31	24	34	34	62	51	60	316	611
10.80	4	4	10	13	34	42	59	20	186	295
13.90			6	7	14	8	39	15	89	109
17.20				2	2	4	4	4	16	20
20.80					3	1			4	4
24.50										
28.50										
32.70										
51.50										
Total	117	111	98	125	166	189	215	179	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_SEPTEMBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : September

Figure A2.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_OCTOBER_94-99

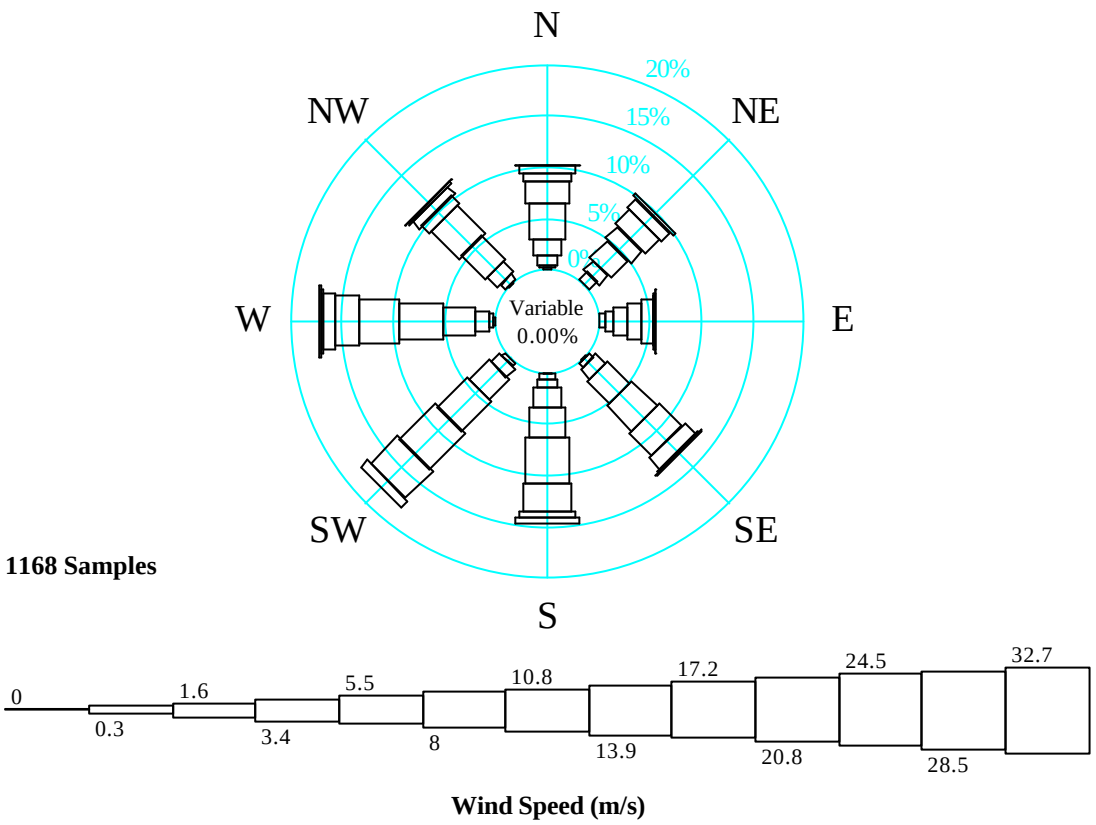
Figure A2.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1227
0.30	5	2	1		2	4	3	4	21	1227
1.60	2	7	5	1	10	10	11	13	59	1206
3.40	13	9	6	17	22	31	23	12	133	1147
5.50	15	12	26	20	35	52	54	16	230	1014
8.00	13	19	33	37	42	42	69	47	302	784
10.80	6	7	19	27	44	59	82	52	296	482
13.90	9	3	4	14	22	47	29	17	145	186
17.20	1		2	7	9	10	6		35	41
20.80				2	4				6	6
24.50										
28.50										
32.70										
51.50										
Total	64	59	96	125	190	255	277	161	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_OCTOBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : October

Figure A2.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_NOVEMBER_94-99

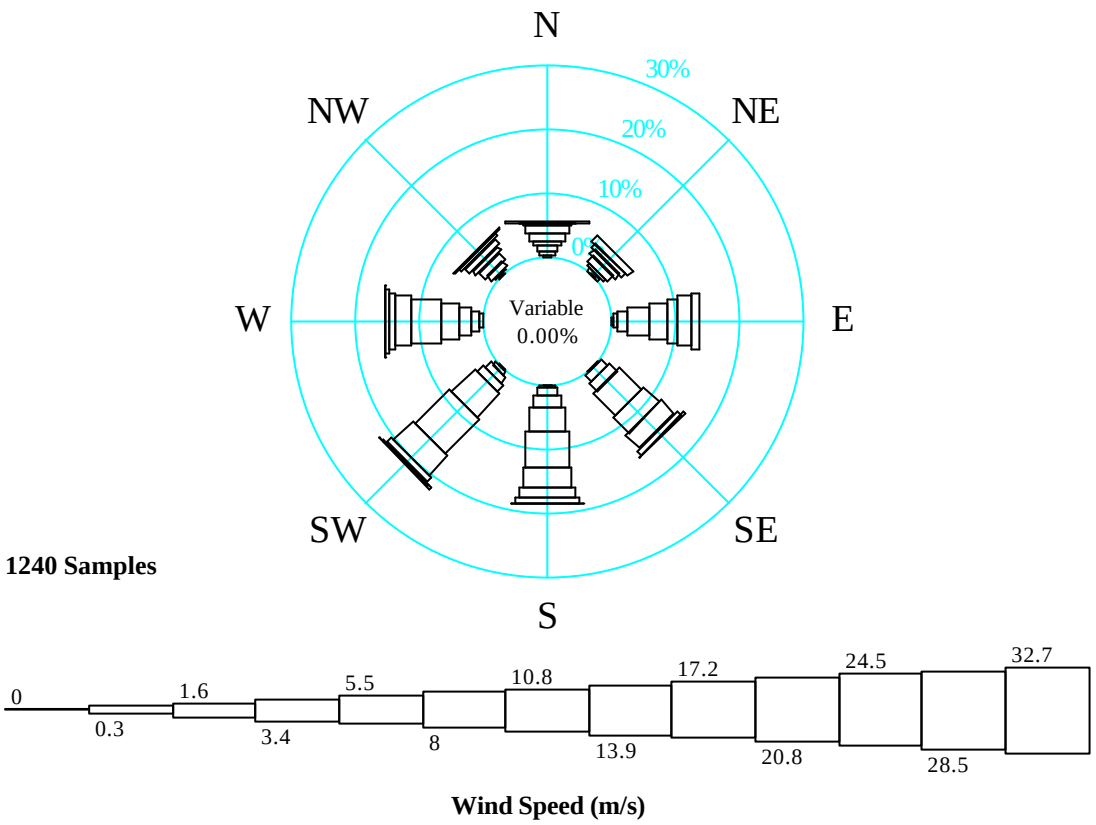
Figure A2.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1168
0.30	3			1	2		2	1	9	1168
1.60	3	13	7	6	5	6	5	8	53	1159
3.40	11	14	10	15	11	14	16	17	108	1106
5.50	18	28	15	36	22	31	38	37	225	998
8.00	40	19	16	40	33	48	48	44	288	773
10.80	25	24	14	36	53	56	47	12	267	485
13.90	10	13	1	17	31	43	28	11	154	218
17.20	8	5	1	1	8	10	12	3	48	64
20.80	1		1	2	6		2	1	13	16
24.50							3		3	3
28.50										
32.70										
51.50										
Total	119	116	65	154	171	208	201	134	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_NOVEMBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : November

Figure A2.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_DECEMBER_94-99

Figure A2.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	2	1	2		1	2		2	10	1240
1.60	10	6	9	2	4	7	6	4	48	1230
3.40	9	6	21	17	14	14	16	14	111	1182
5.50	11	14	40	19	24	18	25	16	167	1071
8.00	14	12	38	59	47	61	35	10	276	904
10.80	15	8	19	42	68	94	57	15	318	628
13.90	4	15	27	36	39	52	31	7	211	310
17.20	2		13	12	21	13	10		71	99
20.80				2	10	3	8	1	24	28
24.50					1	1	1		3	4
28.50										1
32.70	1								1	1
51.50										
Total	68	62	169	189	229	265	189	69	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_WS/WD_DECEMBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : December

UKMO GWM 2 (56.50°N, 13.66°W)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	99.27	99.29	99.03	98.08	97.50	97.42	97.34	97.42	97.58	98.29	99.23	99.19	98.30
3.4	94.98	96.98	94.84	91.05	91.08	91.45	90.81	89.03	90.42	93.48	94.69	95.32	92.82
5.5	86.25	90.93	85.48	79.35	73.50	74.35	73.79	70.16	76.42	82.64	85.45	86.37	80.31
8.0	68.28	78.56	69.92	59.62	50.50	39.11	45.65	43.15	50.92	63.90	66.18	72.90	58.90
10.8	42.88	59.34	46.69	32.69	19.17	13.55	15.24	18.39	24.58	39.28	41.52	50.65	33.48
13.9	23.54	33.99	19.76	11.12	4.08	3.39	2.82	3.31	9.08	15.16	18.66	25.00	14.03
17.2	9.87	16.37	5.97	2.42	0.25	0.97	1.21	0.16	1.67	3.34	5.48	7.98	4.57
20.8	2.43	3.65	0.81	0.08	0.00	0.24	0.00	0.00	0.33	0.49	1.37	2.26	0.96
24.5	0.24	0.36	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.32	0.10
28.5	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.02
32.7	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01
Mean	**10.62**	**12.13**	**10.44**	**9.05**	**7.47**	**7.98**	**7.69**	**7.62**	**8.40**	**9.70**	**10.14**	**10.99**	**9.33**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**1.02**	**0.51**	**0.51**	**0.51**	**0.51**	**1.02**	**0.51**
Maximum	**32.89**	**27.24**	**24.67**	**23.13**	**22.10**	**17.99**	**20.56**	**17.99**	**22.10**	**23.64**	**27.75**	**32.89**	**32.89**

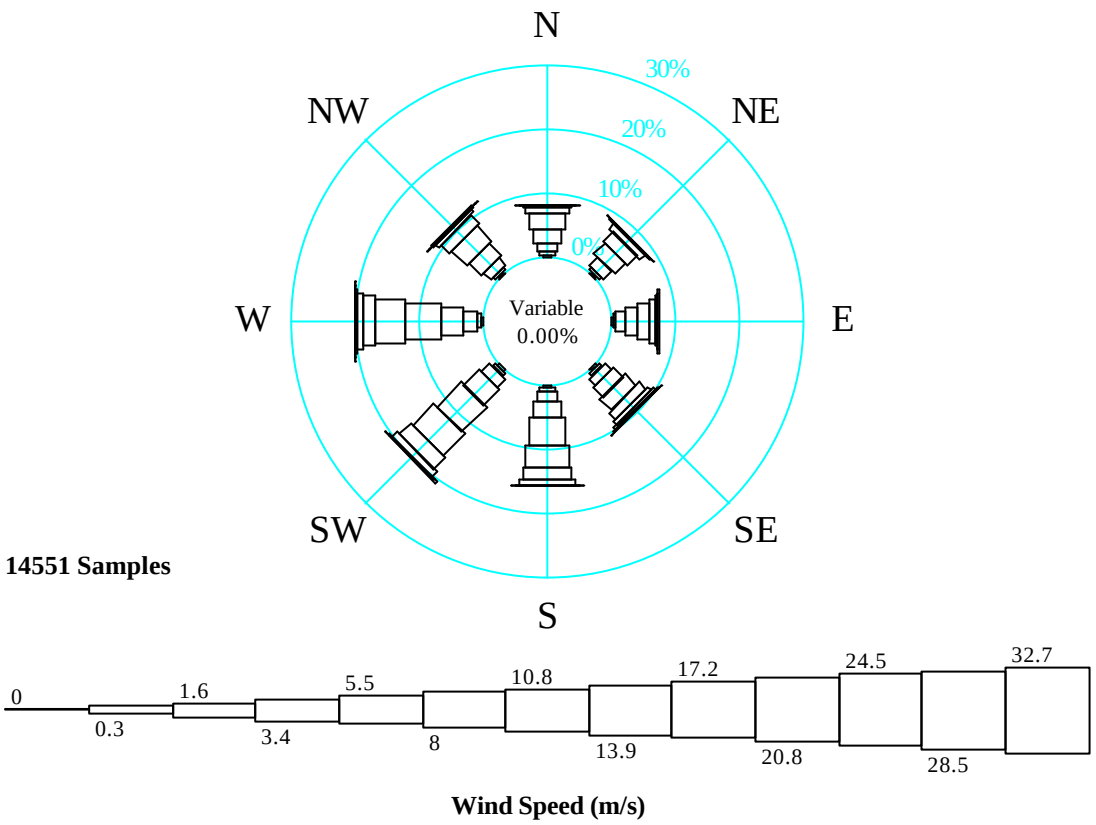
Table A2.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : UKMO GWM 2

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	96.57	97.47	98.10	98.03	98.57	98.86	99.03	97.91	98.30
3.4	86.51	88.44	90.31	92.66	94.88	95.35	95.60	90.63	92.82
5.5	69.19	69.29	73.76	81.98	83.91	85.81	85.93	75.66	80.31
8.0	44.70	43.00	44.04	61.32	65.01	68.52	66.55	51.37	58.90
10.8	18.80	18.70	20.36	34.14	41.45	42.96	40.80	24.11	33.48
13.9	6.71	6.14	6.62	13.93	17.43	19.53	18.58	8.47	14.03
17.2	2.65	1.17	2.40	3.94	6.27	6.37	6.31	2.03	4.57
20.8	0.47	0.27	0.08	0.83	1.61	1.10	1.49	0.48	0.96
24.5	0.16	0.00	0.00	0.00	0.09	0.07	0.17	0.24	0.10
28.5	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.02
32.7	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.01
Mean	**7.77**	**7.68**	**7.97**	**9.46**	**10.03**	**10.31**	**10.18**	**8.45**	**9.33**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**32.89**	**22.61**	**21.58**	**23.64**	**25.18**	**26.21**	**27.75**	**32.89**	**32.89**

Table A2.28 - All Year Wind Speed - Percentage Exceedence by Direction : UKMO GWM 2

APPENDIX A-3

Figure A3.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_ALLYEAR_5/94-4/99

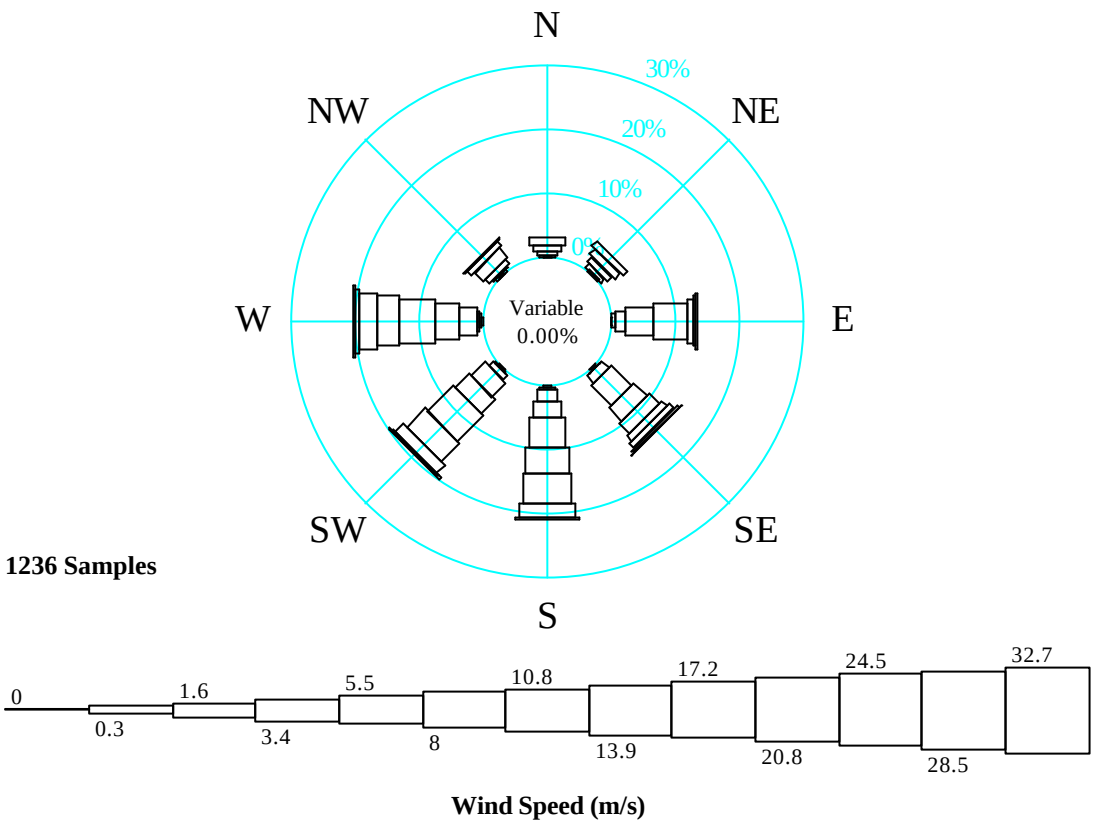
Figure A3.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										14551
0.30	27	27	36	40	41	42	44	27	284	14551
1.60	88	92	61	98	96	98	93	86	712	14267
3.40	189	255	209	203	245	265	293	221	1880	13555
5.50	333	350	274	302	365	502	534	395	3055	11675
8.00	338	314	283	346	618	783	814	475	3971	8620
10.80	137	138	134	226	476	675	650	273	2709	4649
13.90	43	24	54	113	282	373	314	95	1298	1940
17.20	14	9	13	46	131	151	137	27	528	642
20.80	4	1	1	9	23	18	28	5	89	114
24.50				1	1	11	5	5	23	25
28.50							2		2	2
32.70										
51.50										
Total	1173	1210	1065	1384	2278	2918	2914	1609	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_ALLYEAR_5/94-4/99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : All Year

Figure A3.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_JANUARY_94-99

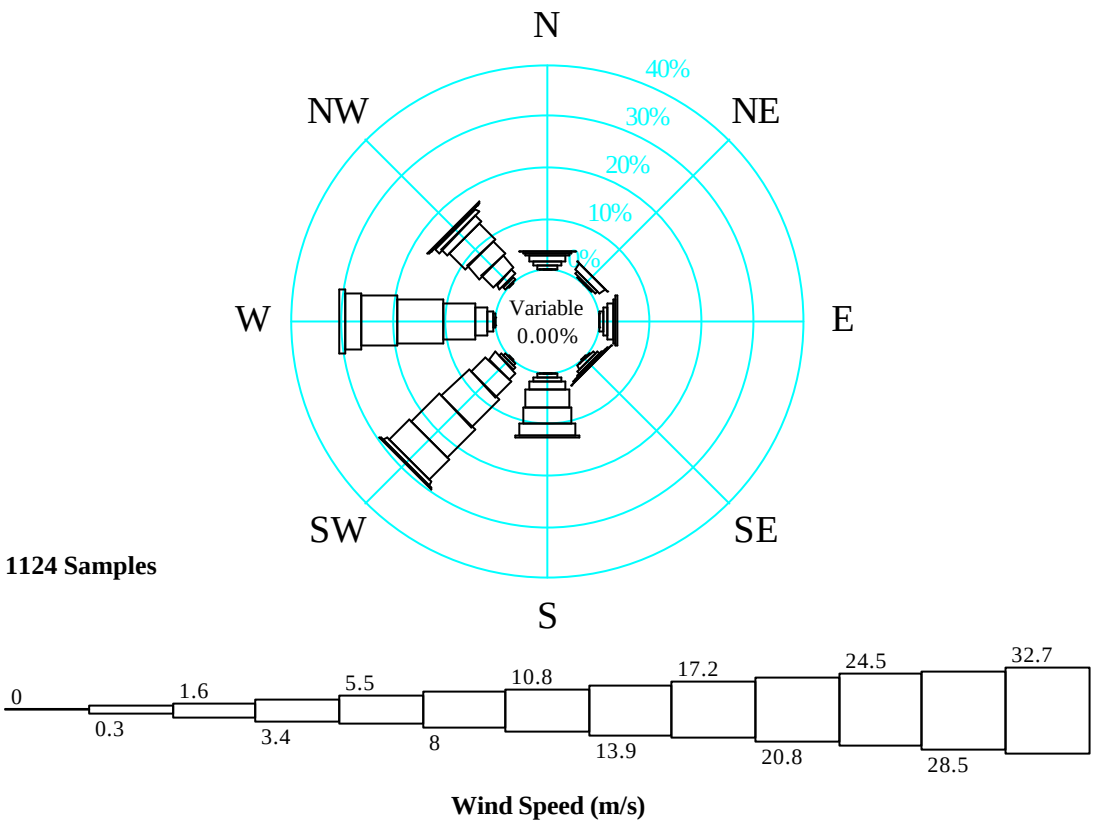
Figure A3.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1236
0.30	1		1	3	3	2	3	1	14	1236
1.60	4	2	5	2	5	2	3	3	26	1222
3.40	5	9	20	19	23	12	5	1	94	1196
5.50	11	14	56	54	30	38	36	13	252	1102
8.00	18	15	63	35	60	37	46	23	297	850
10.80		14	14	28	49	71	68	13	257	553
13.90			1	15	57	50	42	3	168	296
17.20			4	11	29	22	36		102	128
20.80				5	4	2	8		19	26
24.50				1		4	2		7	7
28.50										
32.70										
51.50										
Total	39	54	164	173	260	240	249	57	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_JANUARY_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : January

Figure A3.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_FEBRUARY_94-99

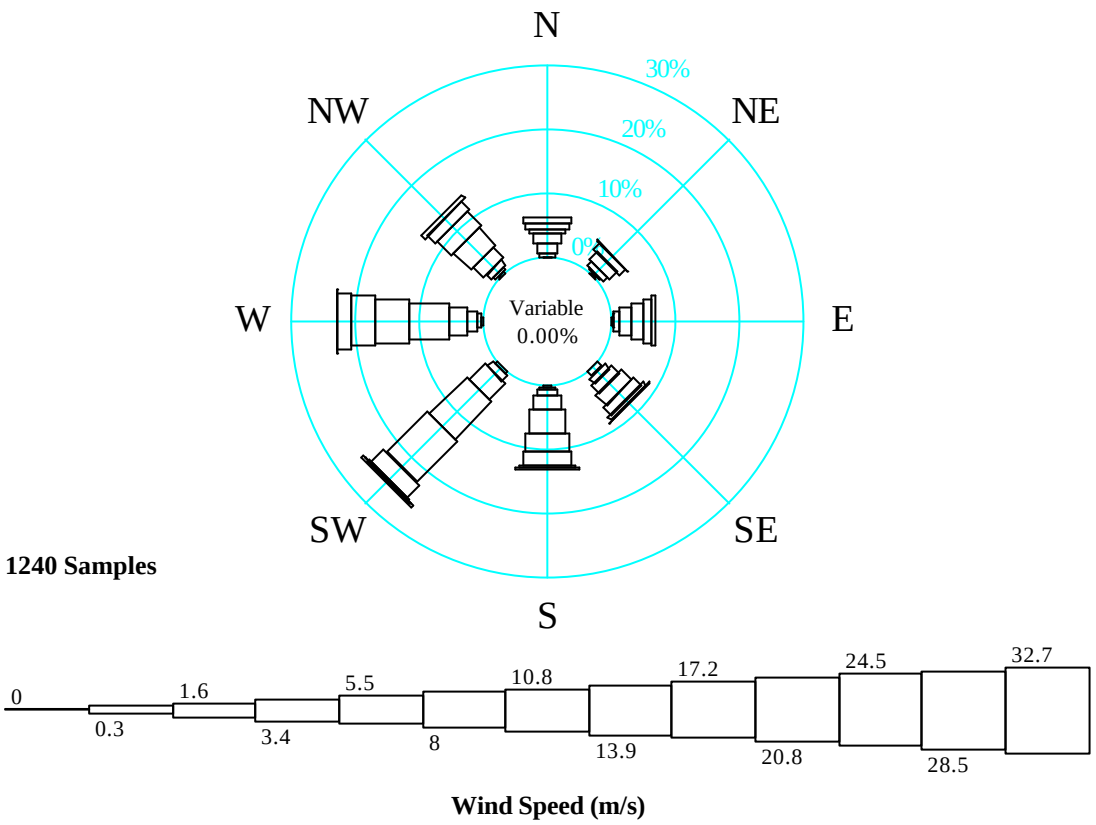
Figure A3.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1124
0.30	2			1	1	3	2	3	12	1124
1.60	1	1	2	3	1	5	4	8	25	1112
3.40	5	2	8	9	7	7	11	11	60	1087
5.50	12	9	11	4	9	23	28	36	132	1027
8.00	13	14	10	3	20	47	71	39	217	895
10.80	5	3	4	1	39	82	100	47	281	678
13.90	1		4	1	33	88	78	19	224	397
17.20	1			2	26	60	37	11	137	173
20.80					6	10	12	2	30	36
24.50						3		3	6	6
28.50										
32.70										
51.50										
Total	40	29	39	24	142	328	343	179	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_FEBRUARY_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : February

Figure A3.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_MARCH_94-99

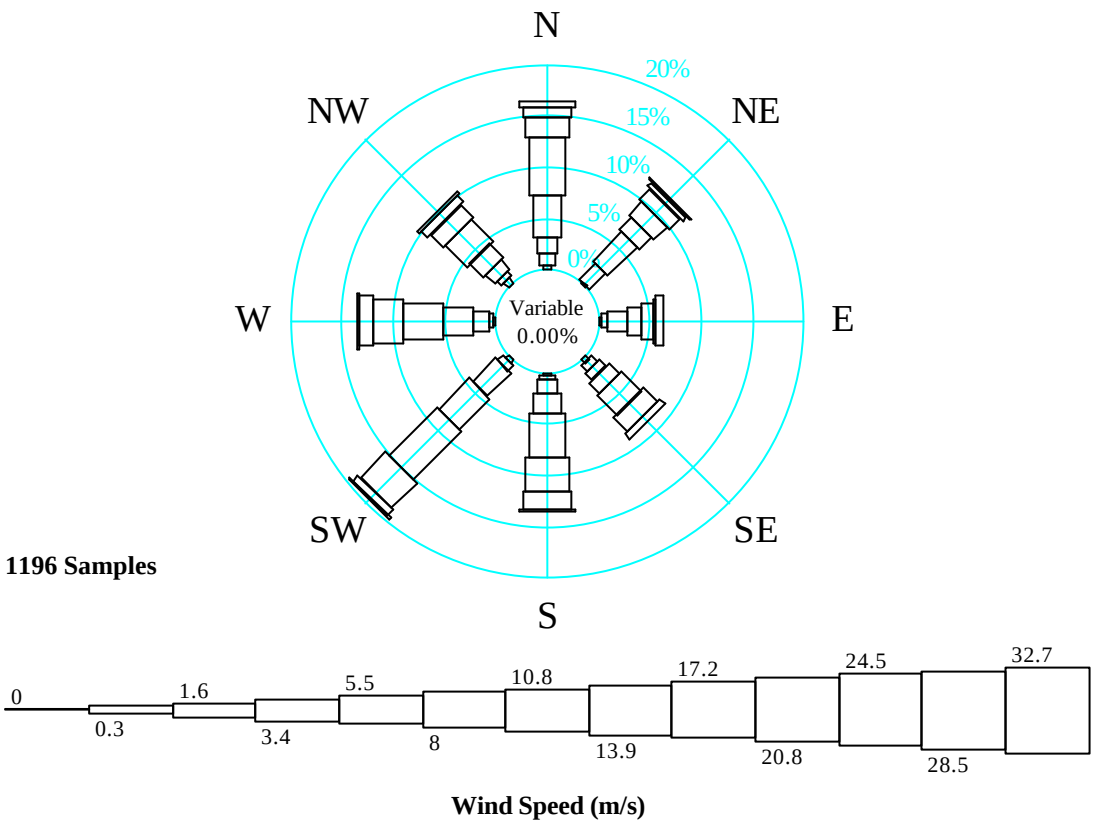
Figure A3.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	1	2	2		4		3	3	15	1240
1.60	6	5	3	12	5	5	7	6	49	1225
3.40	19	11	12	14	12	15	19	13	115	1176
5.50	19	20	23	18	24	43	38	28	213	1061
8.00	9	17	21	28	46	101	75	47	344	848
10.80	11	1	18	19	36	111	65	39	300	504
13.90	10		6	7	26	33	49	21	152	204
17.20				1	7	4	27	7	46	52
20.80					2	1	1		4	6
24.50						2			2	2
28.50										
32.70										
51.50										
Total	75	56	85	99	162	315	284	164	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_MARCH_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : March

Figure A3.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_APRIL_94-99

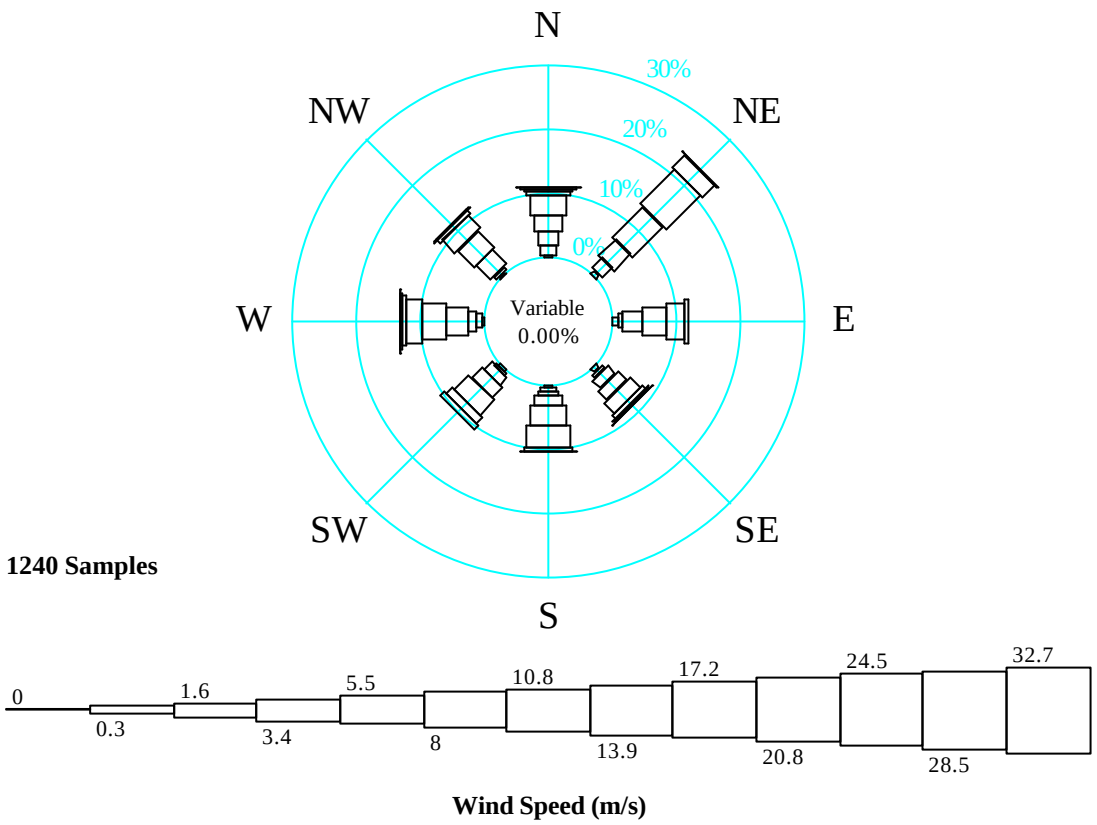
Figure A3.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1196
0.30	6	2	2	6	4	5	2	7	34	1196
1.60	14	26	8	9	5	8	5	7	82	1162
3.40	18	47	23	10	15	38	20	15	186	1080
5.50	49	20	16	17	23	51	34	22	232	894
8.00	67	22	14	33	53	79	48	36	352	662
10.80	24	17	3	22	38	42	34	21	201	310
13.90	12	6	9	9	21	9	17	10	93	109
17.20	6	3			2	1	1	3	16	16
20.80										
24.50										
28.50										
32.70										
51.50										
Total	196	143	75	106	161	233	161	121	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_APRIL_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : April

Figure A3.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_MAY_94-99

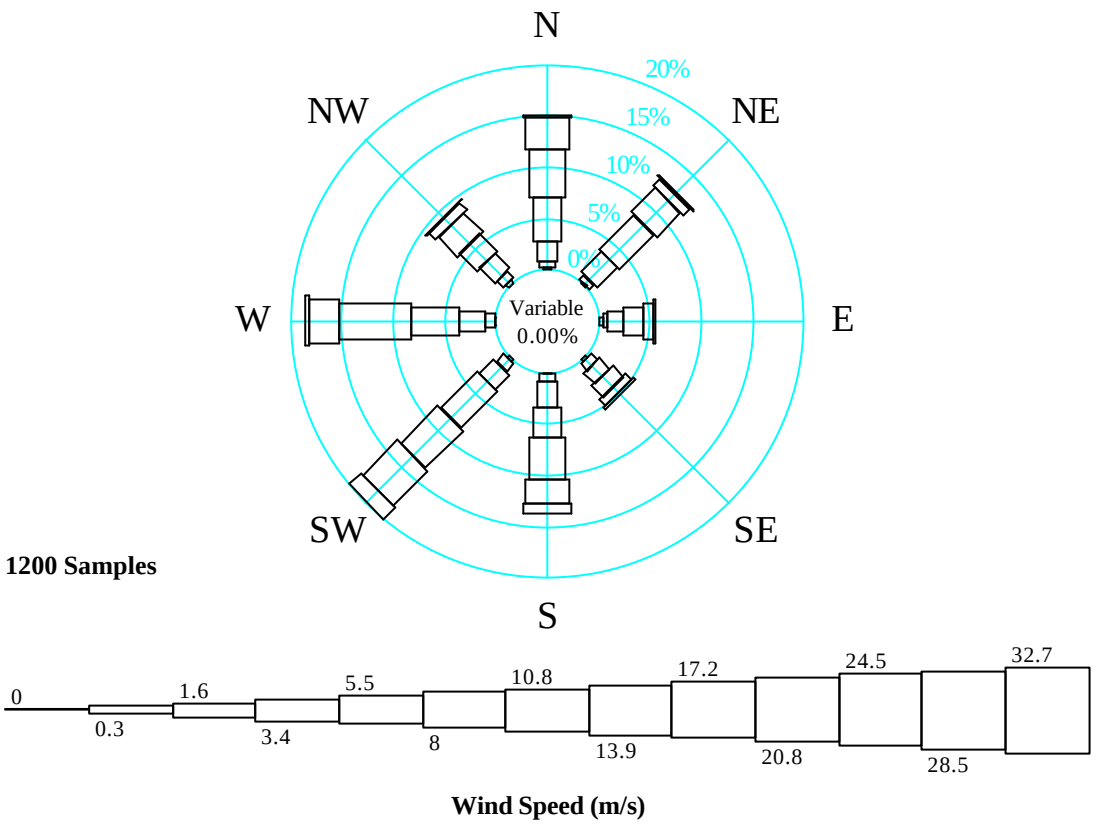
Figure A3.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	2	8	10	8	5	4	4	2	43	1240
1.60	20	27	10	10	5	5	13	10	100	1197
3.40	27	45	37	20	11	20	15	39	214	1097
5.50	31	82	48	26	18	29	41	46	321	883
8.00	38	95	34	28	40	41	46	35	357	562
10.80	9	33	9	10	41	15	30	7	154	205
13.90	5	3		2	8	11	9	2	40	51
17.20	2			1	1		5		9	11
20.80	1						1		2	2
24.50										
28.50										
32.70										
51.50										
Total	135	293	148	105	129	125	164	141	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_MAY_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : May

Figure A3.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_JUNE_94-99

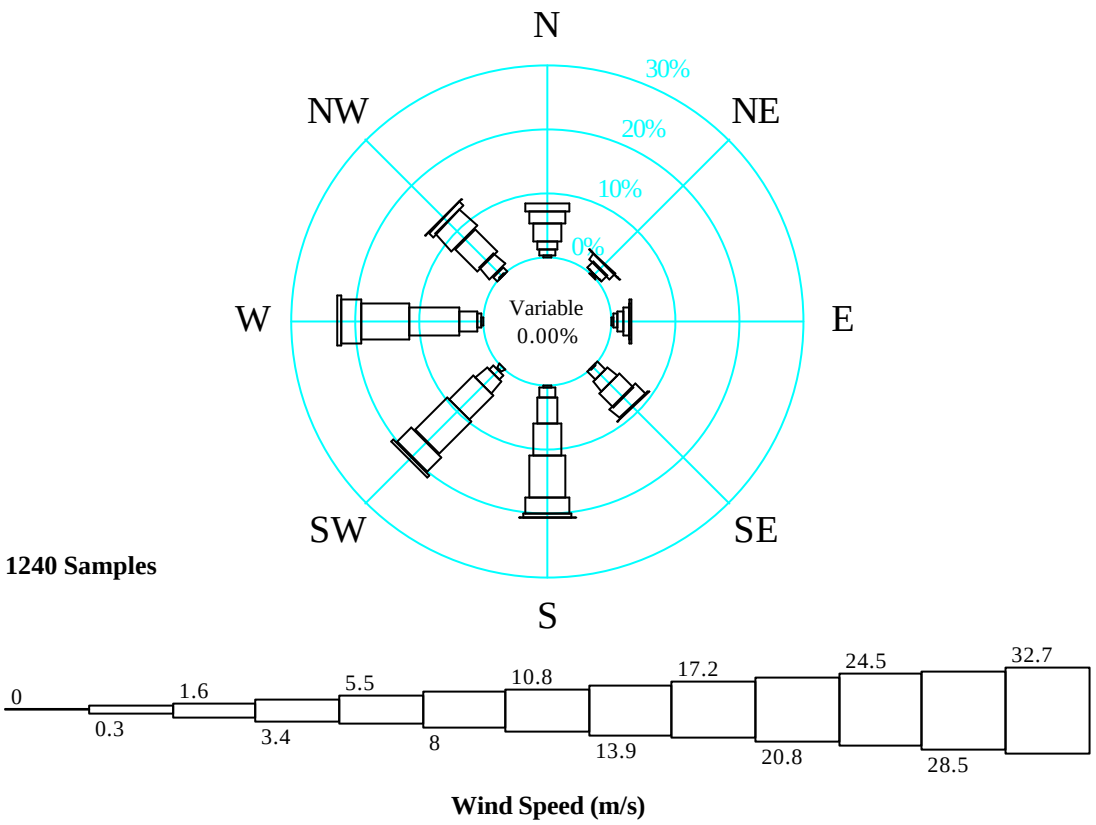
Figure A3.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	3	2	5	3	1	3	2	5	24	1200
1.60	6	7	5	10	10	13	10	10	71	1176
3.40	25	34	20	18	29	24	30	25	205	1105
5.50	51	57	22	17	36	60	56	28	327	900
8.00	56	39	11	9	50	62	86	31	344	573
10.80	38	12	3	4	28	58	35	12	190	229
13.90	1	2			11	19	5	1	39	39
17.20										
20.80										
24.50										
28.50										
32.70										
51.50										
Total	180	153	66	61	165	239	224	112	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_JUNE_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : June

Figure A3.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_JULY_94-99

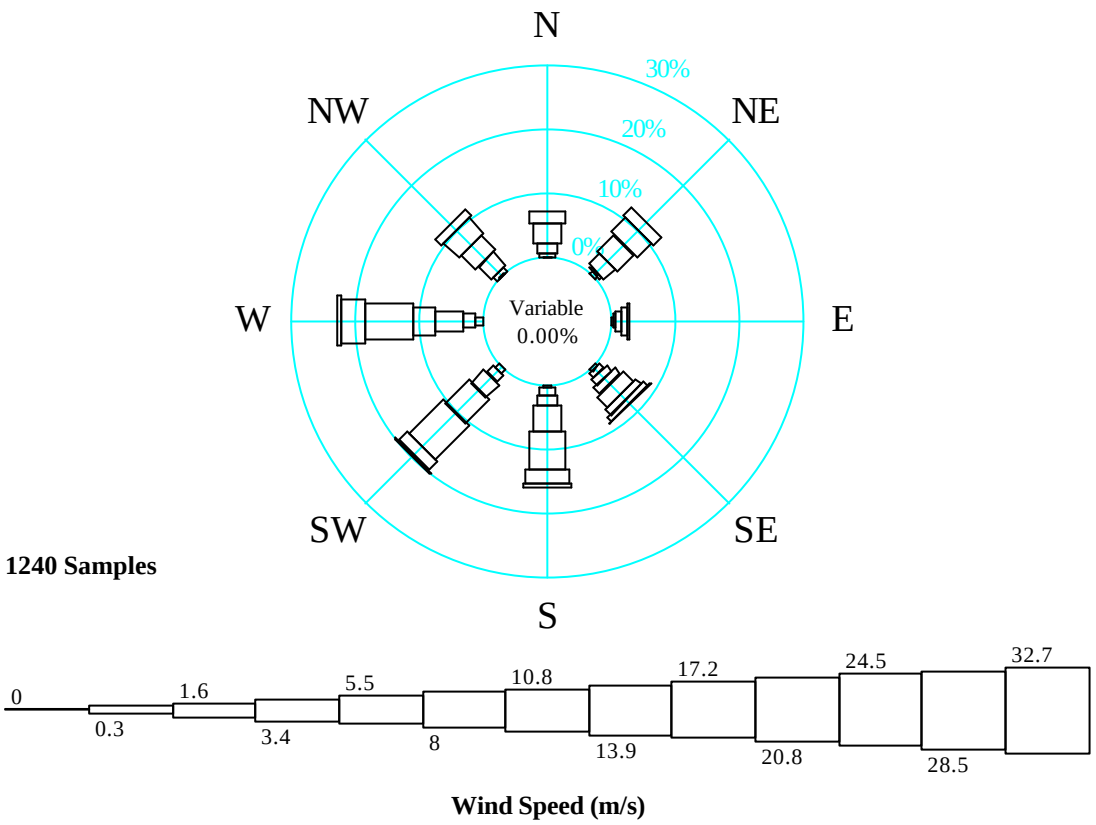
Figure A3.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	3	2	4	1	2	8	2	1	23	1240
1.60	12	3	6	20	20	14	9	11	95	1217
3.40	14	15	14	25	51	30	35	30	214	1122
5.50	37	12	9	36	64	64	97	60	379	908
8.00	23	1	3	25	80	89	93	47	361	529
10.80	16	1	1	4	30	42	39	11	144	168
13.90					8	7	7	1	23	24
17.20					1				1	1
20.80										
24.50										
28.50										
32.70										
51.50										
Total	105	34	37	111	256	254	282	161	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_JULY_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : July

Figure A3.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_AUGUST_94-99

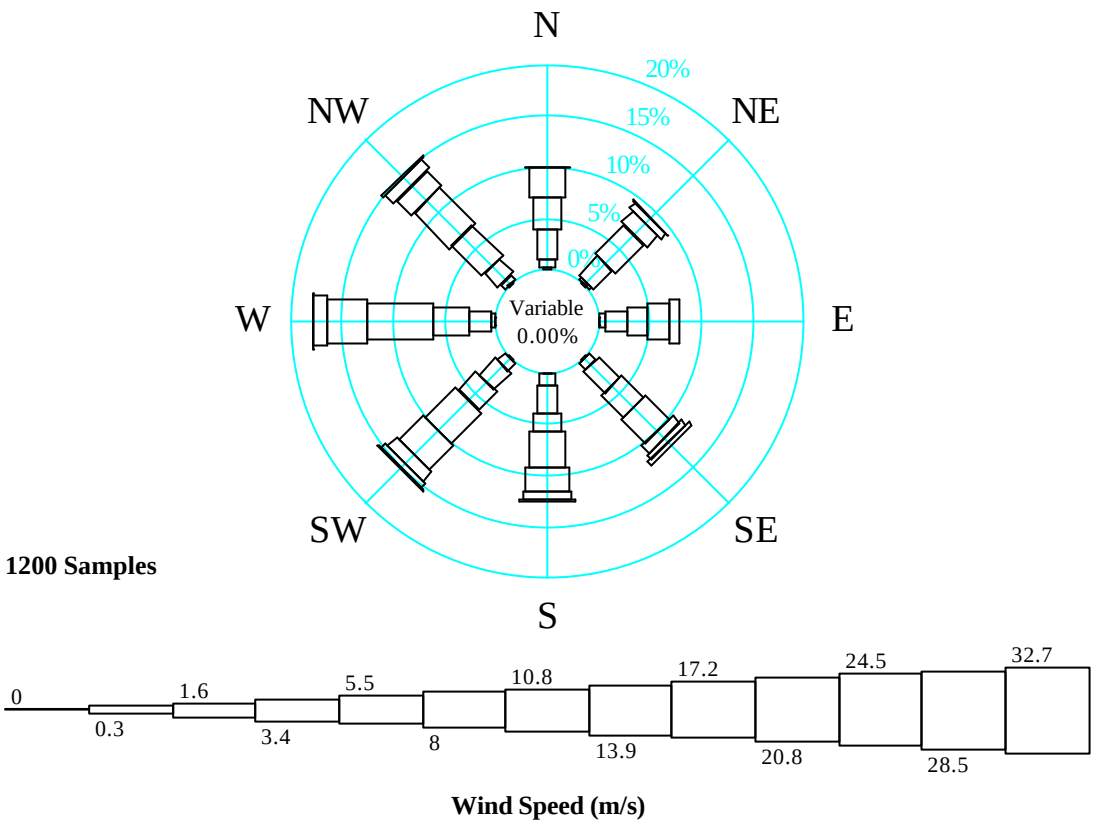
Figure A3.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	1	7	4	6	3	11	17	1	50	1240
1.60	6	4	3	11	15	18	20	9	86	1190
3.40	18	29	13	15	22	35	57	34	223	1104
5.50	39	46	12	16	50	62	43	40	308	881
8.00	23	40	4	29	72	92	91	40	391	573
10.80		22		13	26	24	45	15	145	182
13.90				12	11	3	10		36	37
17.20				1					1	1
20.80										
24.50										
28.50										
32.70										
51.50										
Total	87	148	36	103	199	245	283	139	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_AUGUST_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : August

Figure A3.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_SEPTEMBER_94-99

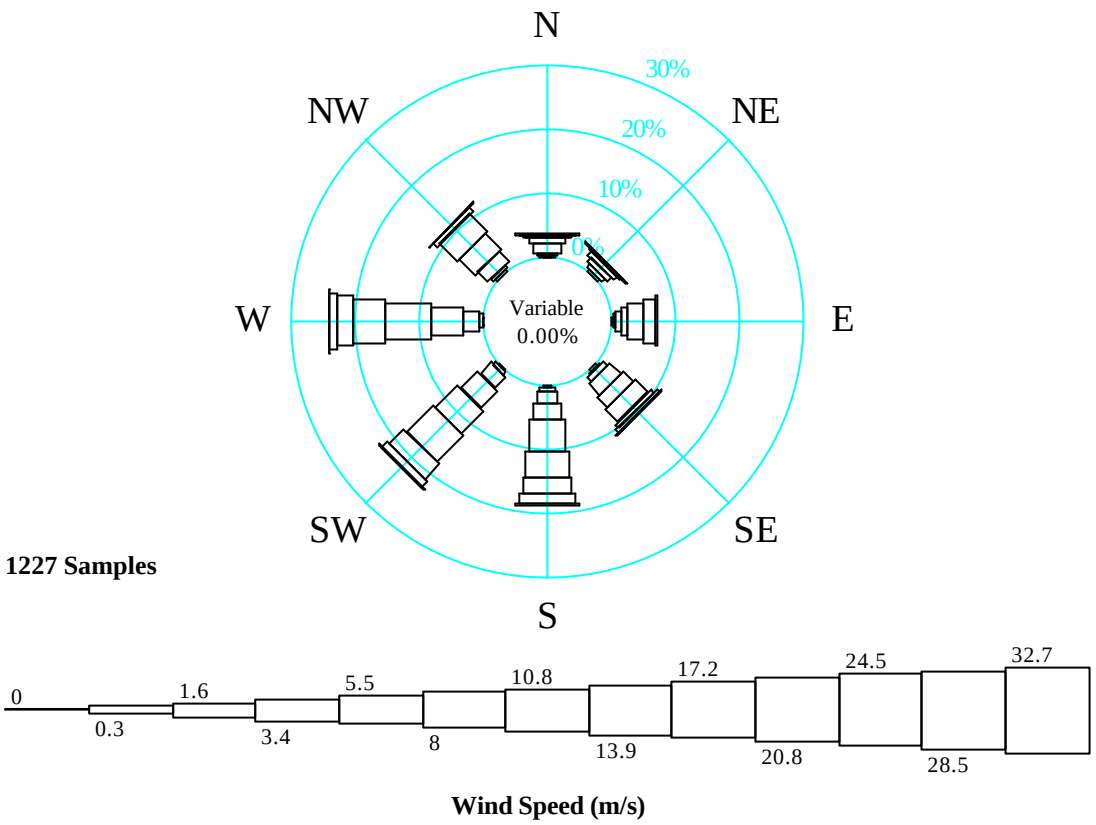
Figure A3.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	2	2	1	2	2	1	2	2	14	1200
1.60	11	2	7	10	13	12	3	7	65	1186
3.40	34	31	25	35	32	28	27	22	234	1121
5.50	39	48	23	35	23	29	42	50	289	887
8.00	33	19	27	40	40	50	77	58	344	598
10.80	2	8	11	11	30	40	47	25	174	254
13.90		1		7	8	15	15	15	61	80
17.20				6	3	7	1	1	18	19
20.80						1			1	1
24.50										
28.50										
32.70										
51.50										
Total	121	111	94	146	151	183	214	180	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_SEPTEMBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : September

Figure A3.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_OCTOBER_94-99

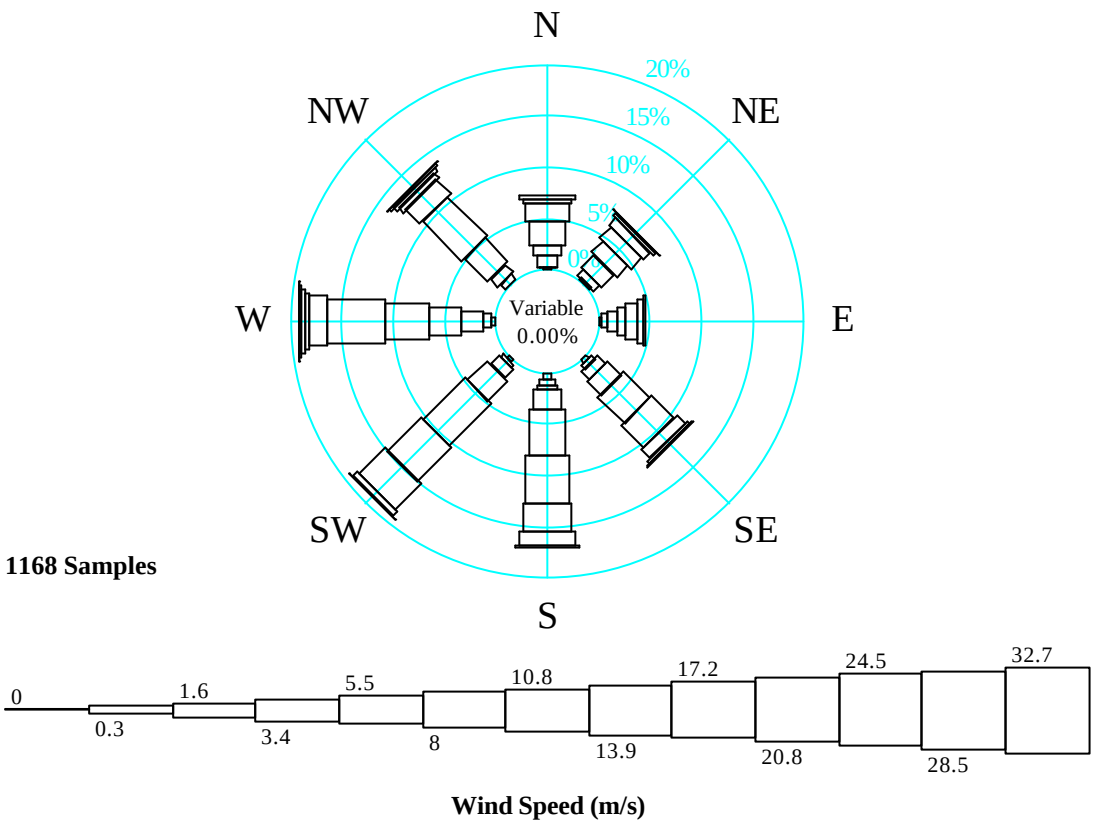
Figure A3.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1227
0.30	1		3	4	4	2	1		15	1227
1.60	4	4	4	3	7	7	5	4	38	1212
3.40	4	8	12	12	24	29	33	6	128	1174
5.50	16	10	10	29	32	47	61	27	232	1046
8.00	11	9	33	28	59	61	87	44	332	814
10.80	2	3	21	33	50	71	63	46	289	482
13.90	3	2	4	9	31	39	30	10	128	193
17.20	1	1		6	17	15	13		53	65
20.80	3			2	4	1	1	1	12	12
24.50										
28.50										
32.70										
51.50										
Total	45	37	87	126	228	272	294	138	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_OCTOBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : October

Figure A3.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_NOVEMBER_94-99

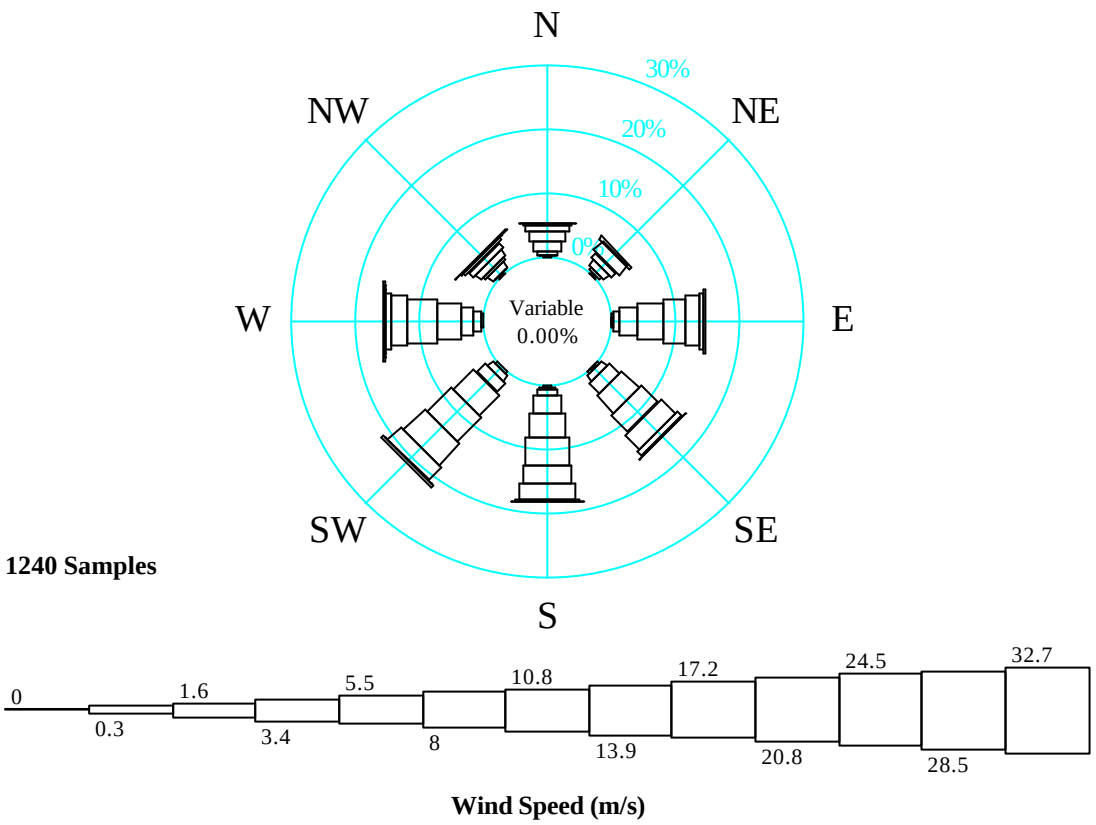
Figure A3.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1168
0.30	3		3	5	8	3	6		28	1168
1.60	1	3	6	5	7	5	9	9	45	1140
3.40	13	10	13	12	5	13	25	12	103	1095
5.50	10	20	8	22	21	32	35	38	186	992
8.00	29	18	14	42	54	67	51	63	338	806
10.80	19	18	8	35	55	54	65	23	277	468
13.90	6	10	2	13	31	42	21	7	132	191
17.20	3	5		4	15	7	6	4	44	59
20.80		1		1	3	1	3	2	11	15
24.50							2	1	3	4
28.50							1		1	1
32.70										
51.50										
Total	84	85	54	139	199	224	224	159	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_NOVEMBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : November

Figure A3.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_DECEMBER_94-99

Figure A3.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	2	2	1	1	4			2	12	1240
1.60	3	8	2	3	3	4	5	2	30	1228
3.40	7	14	12	14	14	14	16	13	104	1198
5.50	19	12	36	28	35	24	23	7	184	1094
8.00	18	25	49	46	44	57	43	12	294	910
10.80	11	6	42	46	54	65	59	14	297	616
13.90	5		28	38	37	57	31	6	202	319
17.20	1		9	14	30	35	11	1	101	117
20.80			1	1	4	2	2		10	16
24.50					1	2	1	1	5	6
28.50							1		1	1
32.70										
51.50										
Total	66	67	180	191	226	260	192	58	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_WS/WD_DECEMBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wind Rose and Frequency Table : December

UKMO GWM 3 (54.50°N, 11.66°W)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	98.87	98.93	98.79	97.16	96.53	98.00	98.15	95.97	98.83	98.78	97.60	99.03	98.05
3.4	96.76	96.71	94.84	90.30	88.47	92.08	90.48	89.03	93.42	95.68	93.75	96.61	93.16
5.5	89.16	91.37	85.56	74.75	71.21	75.00	73.23	71.05	73.92	85.25	84.93	88.23	80.24
8.0	68.77	79.63	68.39	55.35	45.32	47.75	42.66	46.21	49.83	66.34	69.01	73.39	59.24
10.8	44.74	60.32	40.65	25.92	16.53	19.08	13.55	14.68	21.17	39.28	40.07	49.68	31.95
13.9	23.95	35.32	16.45	9.11	4.11	3.25	1.94	2.98	6.67	15.73	16.35	25.73	13.33
17.2	10.36	15.39	4.19	1.34	0.89	0.00	0.08	0.08	1.58	5.30	5.05	9.44	4.41
20.8	2.10	3.20	0.48	0.00	0.16	0.00	0.00	0.00	0.08	0.98	1.28	1.29	0.78
24.5	0.57	0.53	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.48	0.17
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.08	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**10.82**	**12.25**	**10.08**	**8.53**	**7.63**	**7.90**	**7.50**	**7.55**	**8.21**	**10.01**	**10.03**	**11.06**	**9.28**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**28.27**	**25.18**	**26.21**	**20.04**	**21.58**	**16.96**	**17.99**	**17.47**	**22.10**	**24.15**	**30.32**	**30.32**	**30.32**

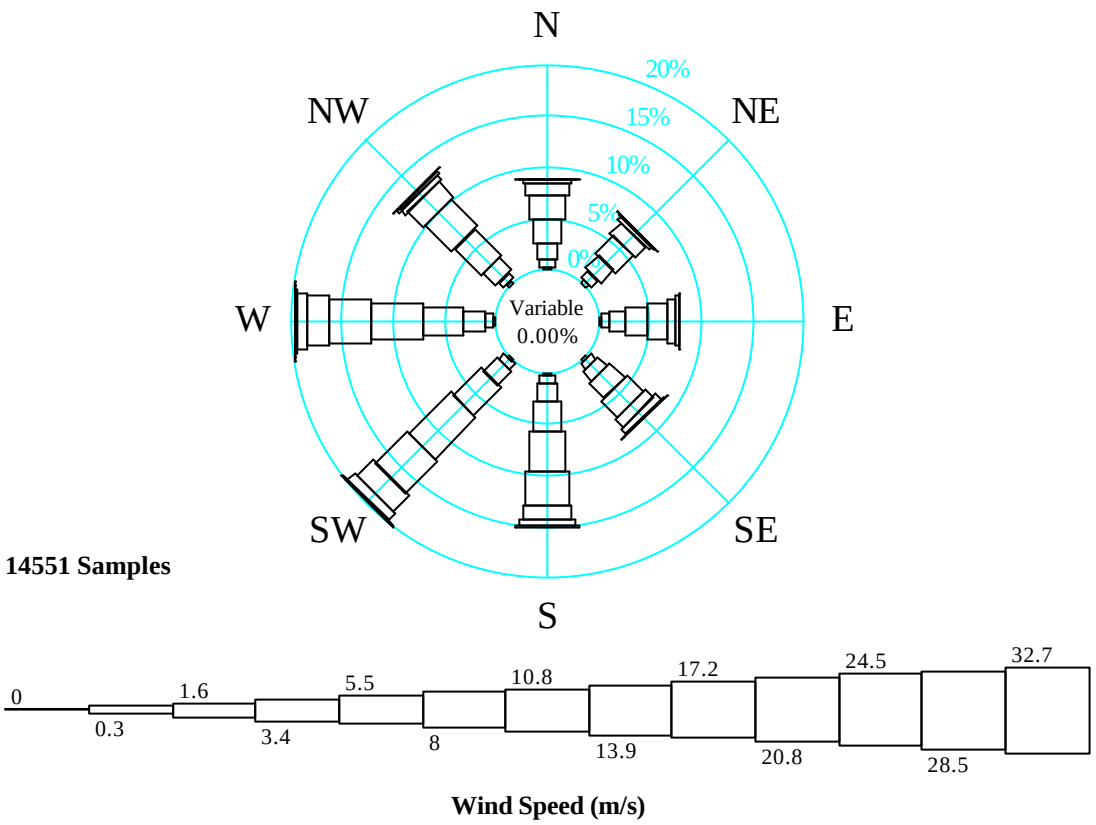
Table A3.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : UKMO GWM 3

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	97.70	97.77	96.62	97.11	98.20	98.56	98.49	98.32	98.05
3.4	90.20	90.17	90.89	90.03	93.99	95.20	95.30	92.98	93.16
5.5	74.08	69.09	71.27	75.36	83.23	86.12	85.24	79.24	80.24
8.0	45.69	40.17	45.54	53.54	67.21	68.92	66.92	54.69	59.24
10.8	16.88	14.21	18.97	28.54	40.08	42.08	38.98	25.17	31.95
13.9	5.20	2.81	6.38	12.21	19.18	18.95	16.68	8.20	13.33
17.2	1.53	0.83	1.31	4.05	6.80	6.17	5.90	2.30	4.41
20.8	0.34	0.08	0.09	0.72	1.05	0.99	1.20	0.62	0.78
24.5	0.00	0.00	0.00	0.07	0.04	0.38	0.24	0.31	0.17
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**7.86**	**7.35**	**7.83**	**8.78**	**10.11**	**10.29**	**10.06**	**8.70**	**9.28**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**24.15**	**21.07**	**21.07**	**24.67**	**24.67**	**27.75**	**30.32**	**28.27**	**30.32**

Table A3.28 - All Year Wind Speed - Percentage Exceedence by Direction : UKMO GWM 3

APPENDIX A-4

Figure A4.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_ALLYEAR_5/94-4/99

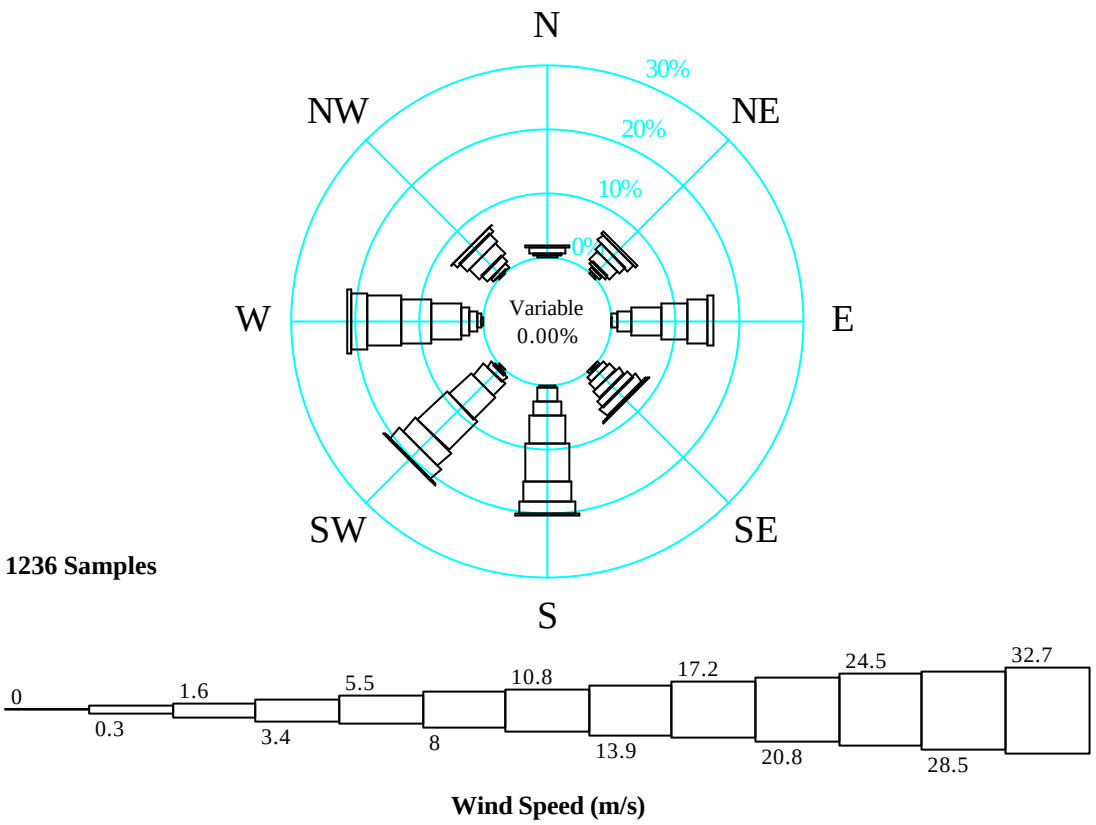
Figure A4.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										14551
0.30	32	46	50	36	45	35	44	40	328	14551
1.60	114	140	102	100	106	104	119	110	895	14223
3.40	231	264	240	180	250	271	287	242	1965	13328
5.50	330	338	290	301	424	541	587	534	3345	11363
8.00	340	211	284	314	588	825	723	527	3812	8018
10.80	177	55	124	160	470	635	615	308	2544	4206
13.90	49	22	49	96	206	306	308	91	1127	1662
17.20	14	4	3	19	88	145	123	41	437	535
20.80	3			1	11	18	45	9	87	98
24.50						4	6		10	11
28.50							1		1	1
32.70										
51.50										
Total	1290	1080	1142	1207	2188	2884	2858	1902	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_ALLYEAR_5/94-4/99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : All Year

Figure A4.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_JANUARY_94-99

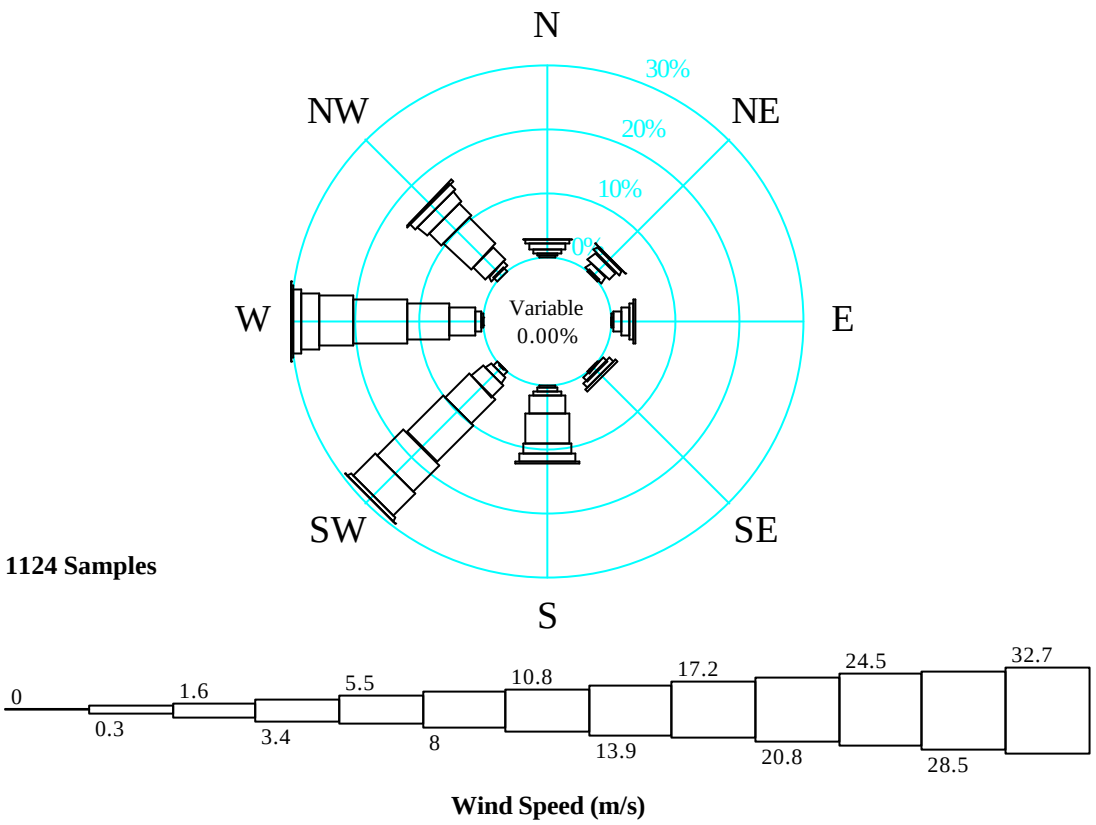
Figure A4.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1236
0.30		3	1	1		3	5	2	15	1236
1.60		9	12	6	5	5	5	1	43	1221
3.40	4	8	24	11	24	13	15	8	107	1178
5.50	5	19	59	18	30	31	18	16	196	1071
8.00	8	17	50	16	54	58	56	26	285	875
10.80	5	14	39	16	74	77	58	21	304	590
13.90		6	12	19	37	36	67	8	185	286
17.20				3	22	28	29	3	85	101
20.80				1	3	1	10		15	16
24.50						1			1	1
28.50										
32.70										
51.50										
Total	22	76	197	91	249	253	263	85	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_JANUARY_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : January

Figure A4.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_FEBRUARY_94-99

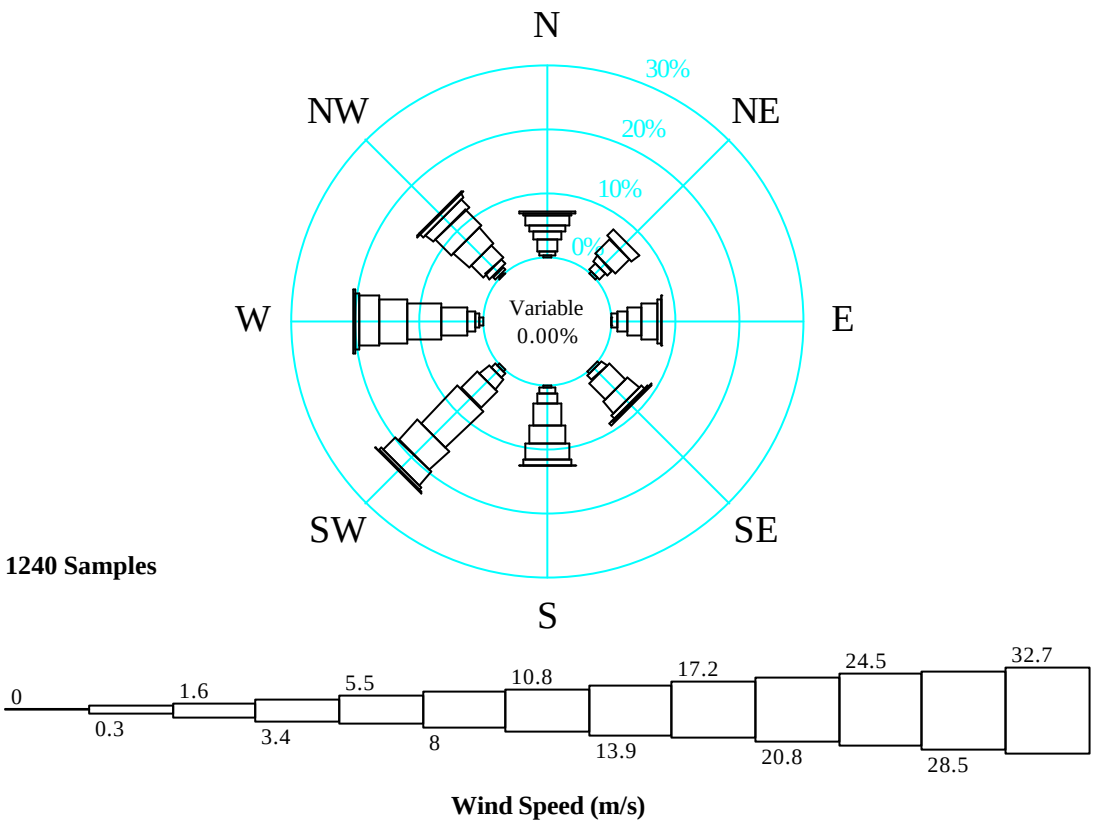
Figure A4.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1124
0.30			1	1		1	1		4	1124
1.60	2	2	2	1	2	8	3	7	27	1120
3.40	3	12	14		9	13	11	8	70	1093
5.50	7	19	13	8	8	27	43	32	157	1023
8.00	11	9	9	8	30	60	75	65	267	866
10.80	7	3	4	5	51	90	96	31	287	599
13.90	1				18	65	58	22	164	312
17.20					16	55	33	14	118	148
20.80					2	7	14	2	25	30
24.50						2	2		4	5
28.50							1		1	1
32.70										
51.50										
Total	31	45	43	23	136	328	337	181	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_FEBRUARY_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : February

Figure A4.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_MARCH_94-99

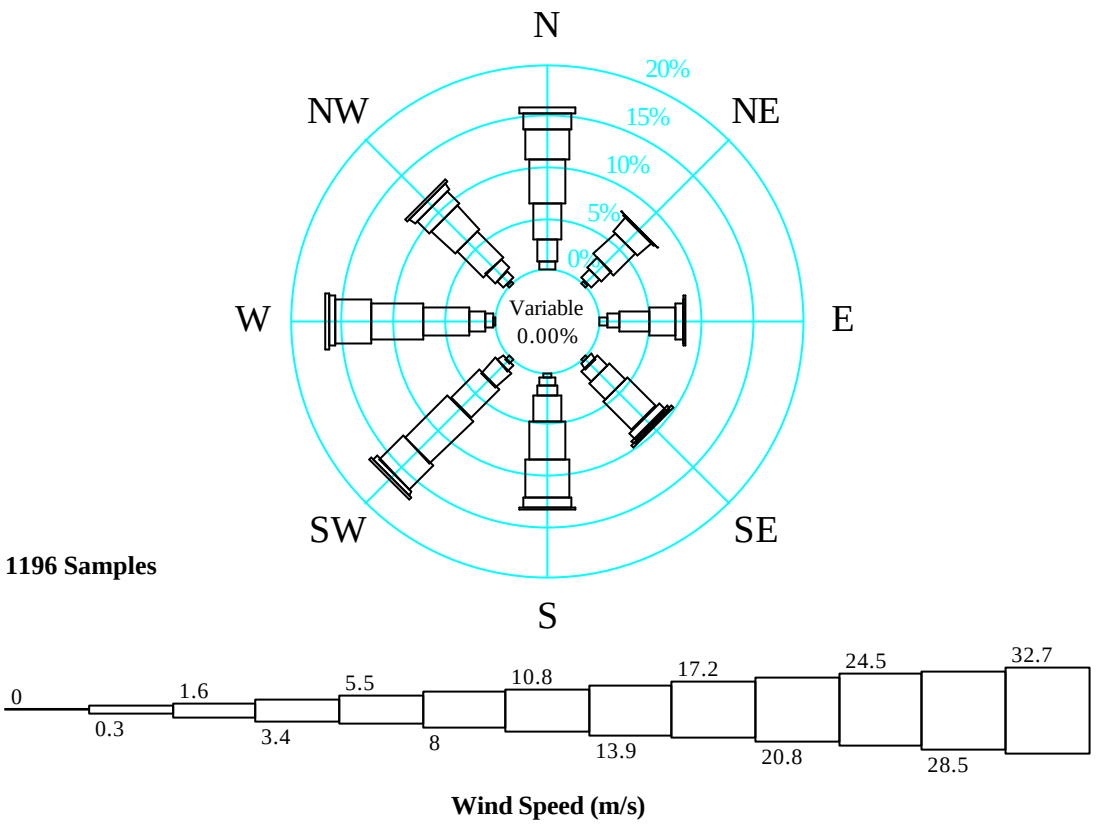
Figure A4.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	3	4	1		2	4	7	2	23	1240
1.60	8	16	9	5	12	12	9	10	81	1217
3.40	22	13	19	12	21	24	16	13	140	1136
5.50	17	41	28	45	42	46	49	31	299	996
8.00	12	18	33	31	36	102	65	42	339	697
10.80	20		5	9	32	53	56	42	217	358
13.90	4		1	1	8	34	36	20	104	141
17.20	1			1	1	7	9	9	28	37
20.80						1	6	2	9	9
24.50										
28.50										
32.70										
51.50										
Total	87	92	96	104	154	283	253	171	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_MARCH_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : March

Figure A4.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_APRIL_94-99

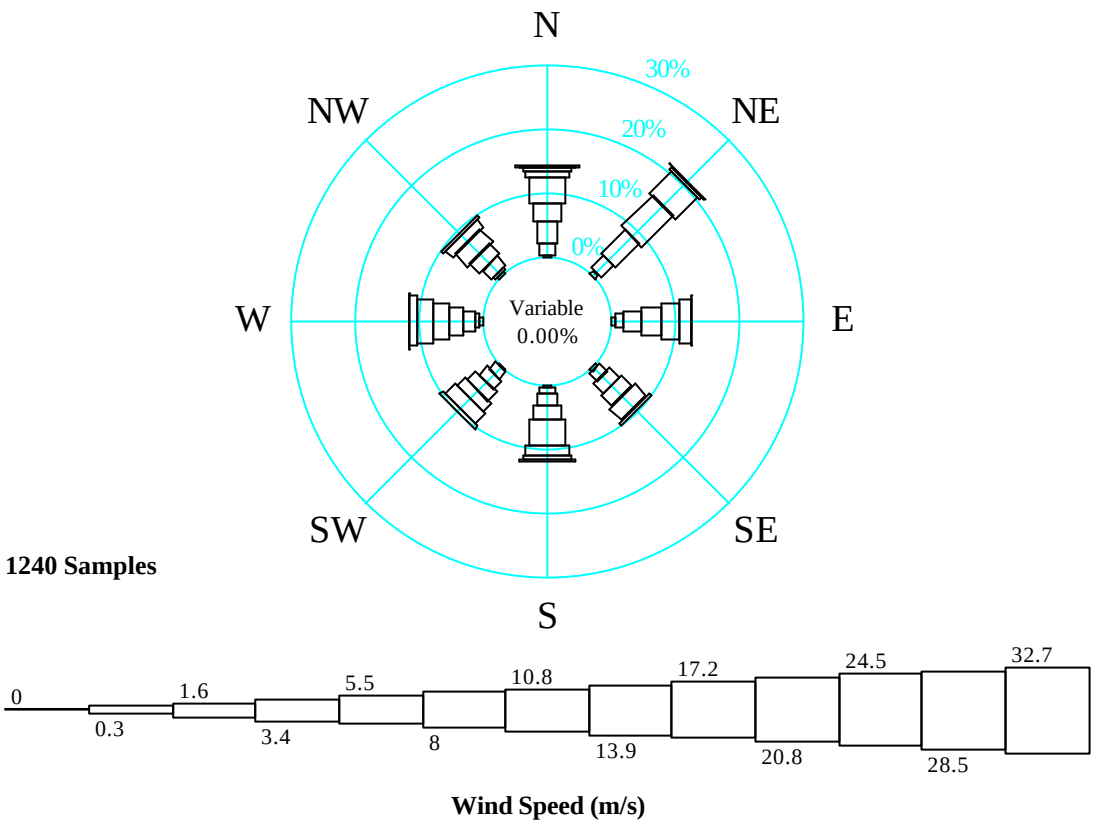
Figure A4.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1196
0.30		3	10	3	6	6	2	3	33	1196
1.60	11	14	15	7	10	7	10	12	86	1163
3.40	24	17	35	16	11	24	19	15	161	1077
5.50	42	35	29	27	31	46	53	42	305	916
8.00	53	21	9	46	44	71	62	38	344	611
10.80	35	1	1	10	44	38	41	20	190	267
13.90	18	1	1	4	11	6	8	8	57	77
17.20	7			1	2	2	4	4	20	20
20.80										
24.50										
28.50										
32.70										
51.50										
Total	190	92	100	114	159	200	199	142	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_APRIL_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : April

Figure A4.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_MAY_94-99

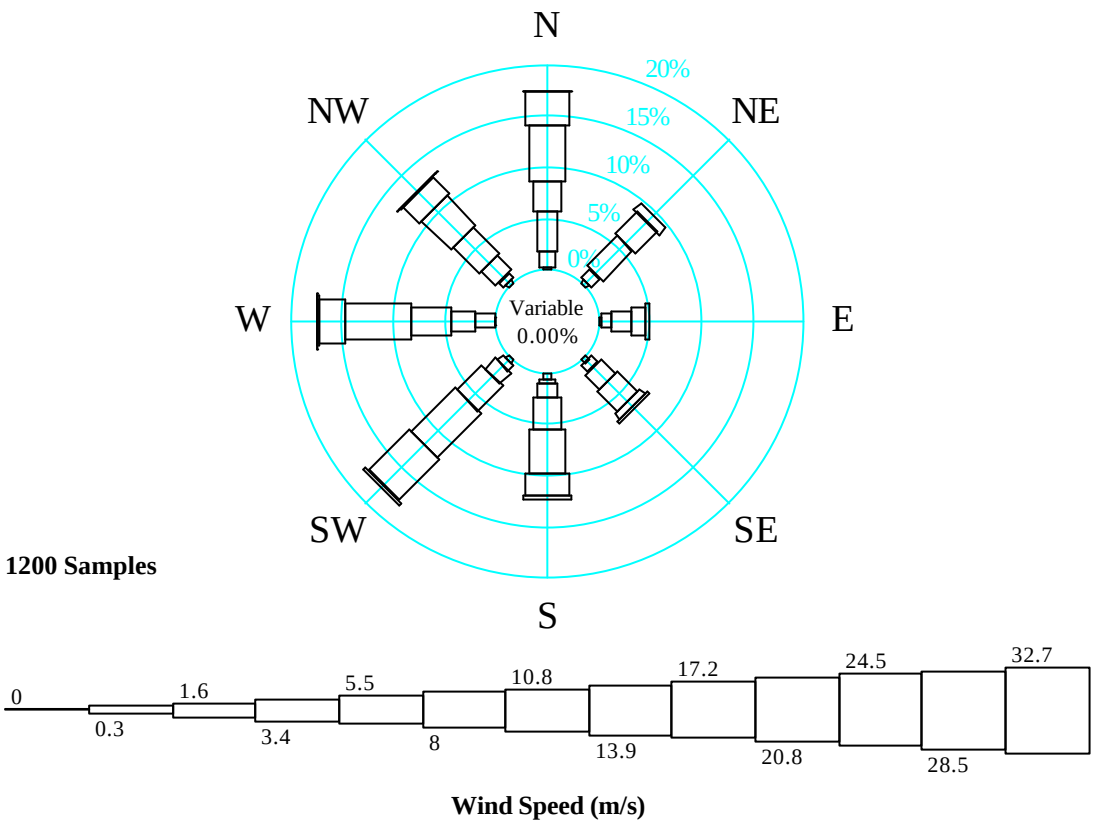
Figure A4.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	4	8	7	6	2	2	6	4	39	1240
1.60	24	34	17	19	15	18	9	5	141	1201
3.40	42	66	33	25	21	23	24	24	258	1060
5.50	34	83	39	30	27	22	28	27	290	802
8.00	50	60	36	32	50	21	29	34	312	512
10.80	13	6	23	8	20	28	32	17	147	200
13.90	6	2	1		9	8	13	7	46	53
17.20	1				2		2		5	7
20.80	2								2	2
24.50										
28.50										
32.70										
51.50										
Total	176	259	156	120	146	122	143	118	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_MAY_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : May

Figure A4.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_JUNE_94-99

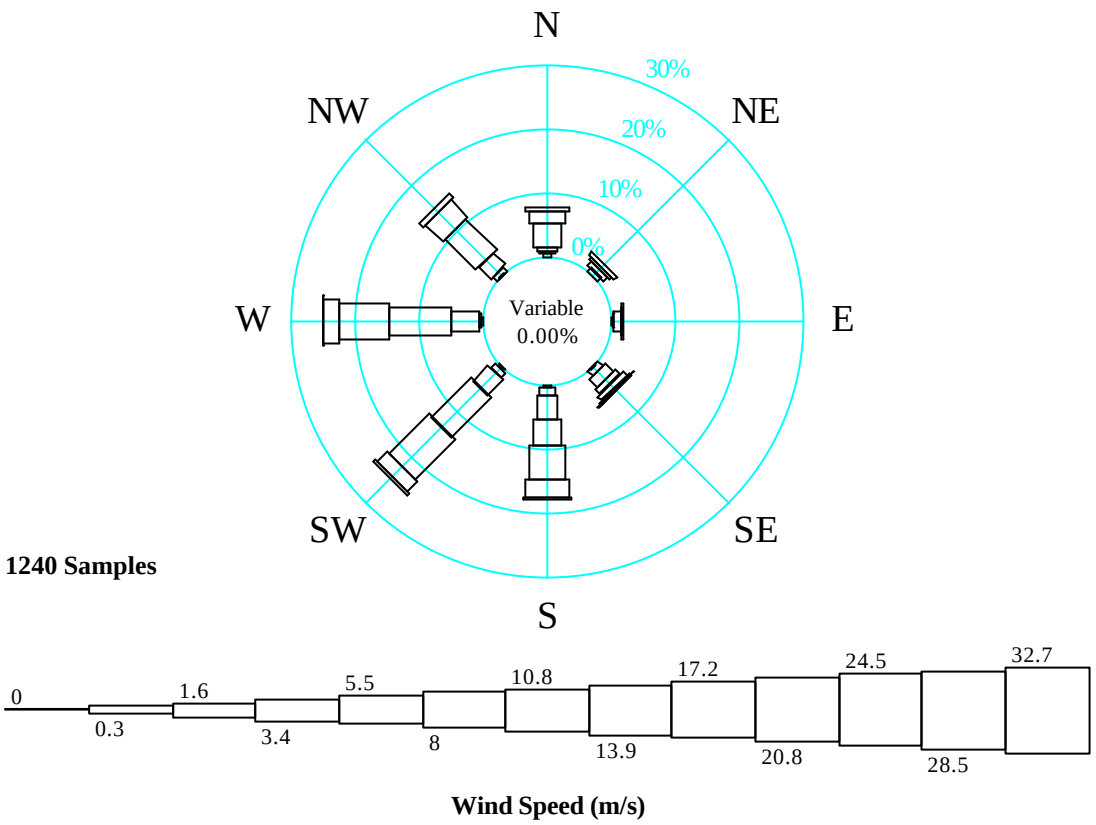
Figure A4.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	4	5	4	6	9	4	2	5	39	1200
1.60	17	14	10	10	4	9	23	7	94	1161
3.40	47	49	25	24	17	18	27	24	231	1067
5.50	35	36	16	32	37	40	48	43	287	836
8.00	66	11	5	9	52	73	77	48	341	549
10.80	40			4	25	67	30	27	193	208
13.90	1				5	4	1	1	12	15
17.20							2	1	3	3
20.80										
24.50										
28.50										
32.70										
51.50										
Total	210	115	60	85	149	215	210	156	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_JUNE_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : June

Figure A4.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_JULY_94-99

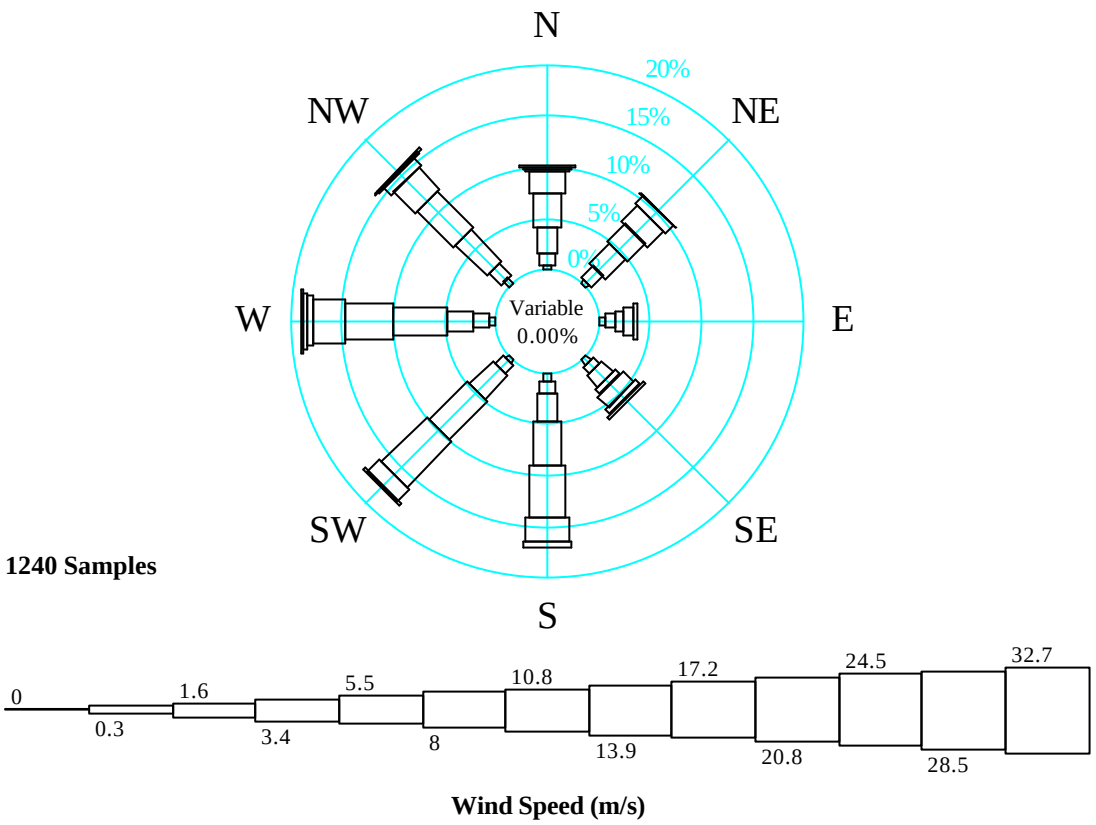
Figure A4.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	6		2	1	5	3	2	1	20	1240
1.60	6	8	3	12	14	14	6	10	73	1220
3.40	8	9	13	21	45	42	53	32	223	1147
5.50	44	6	3	14	52	105	120	84	428	924
8.00	23	10	1	10	64	110	96	46	360	496
10.80	11			5	35	26	32	13	122	136
13.90				1	7	5	1		14	14
17.20										
20.80										
24.50										
28.50										
32.70										
51.50										
Total	98	33	22	64	222	305	310	186	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_JULY_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : July

Figure A4.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_AUGUST_94-99

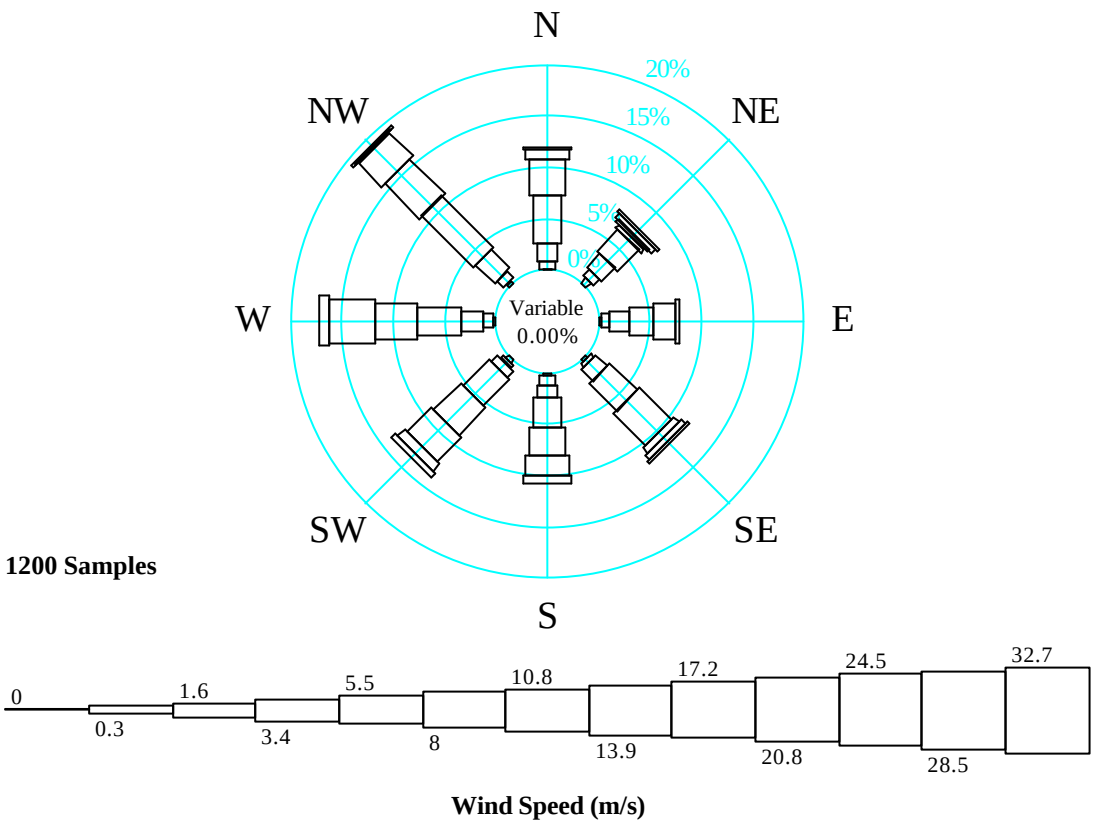
Figure A4.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	5	5	9	8	10	5	7	9	58	1240
1.60	14	19	11	11	14	13	20	19	121	1182
3.40	33	34	11	18	35	39	31	54	255	1061
5.50	41	29	11	8	53	66	65	61	334	806
8.00	25	27	6	19	63	77	60	37	314	472
10.80	3	13		7	28	19	38	12	120	158
13.90	4	1		3	8	3	6		25	38
17.20	2						7	1	10	13
20.80							1	2	3	3
24.50										
28.50										
32.70										
51.50										
Total	127	128	48	74	211	222	235	195	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_AUGUST_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : August

Figure A4.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_SEPTEMBER_94-99

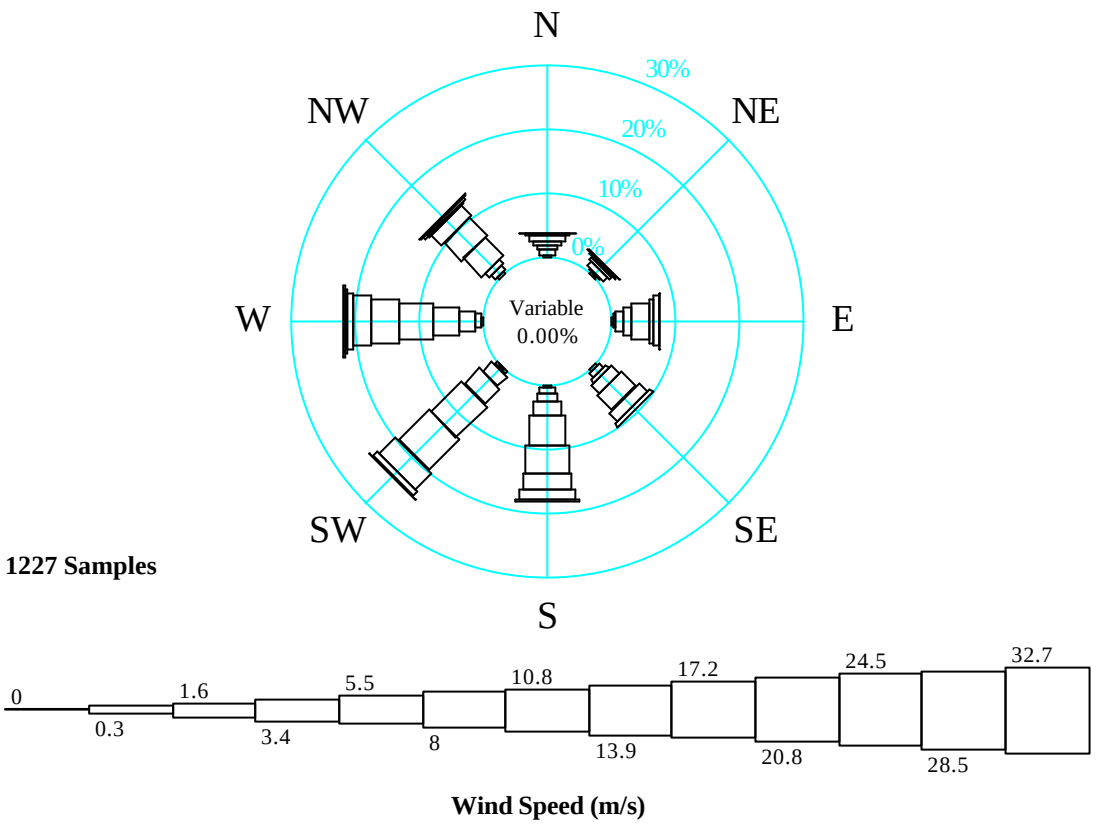
Figure A4.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	1	8	3	3	3	4	3	3	28	1200
1.60	8	10	9	5	11	5	12	12	72	1172
3.40	23	22	25	19	15	11	26	31	172	1100
5.50	56	34	26	44	35	42	51	85	373	928
8.00	41	5	26	52	34	45	50	57	310	555
10.80	12	4	5	9	23	40	54	39	186	245
13.90	3	5		6	8	12	11	2	47	59
17.20		3		3		5		1	12	12
20.80										
24.50										
28.50										
32.70										
51.50										
Total	144	91	94	141	129	164	207	230	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_SEPTEMBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : September

Figure A4.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_OCTOBER_94-99

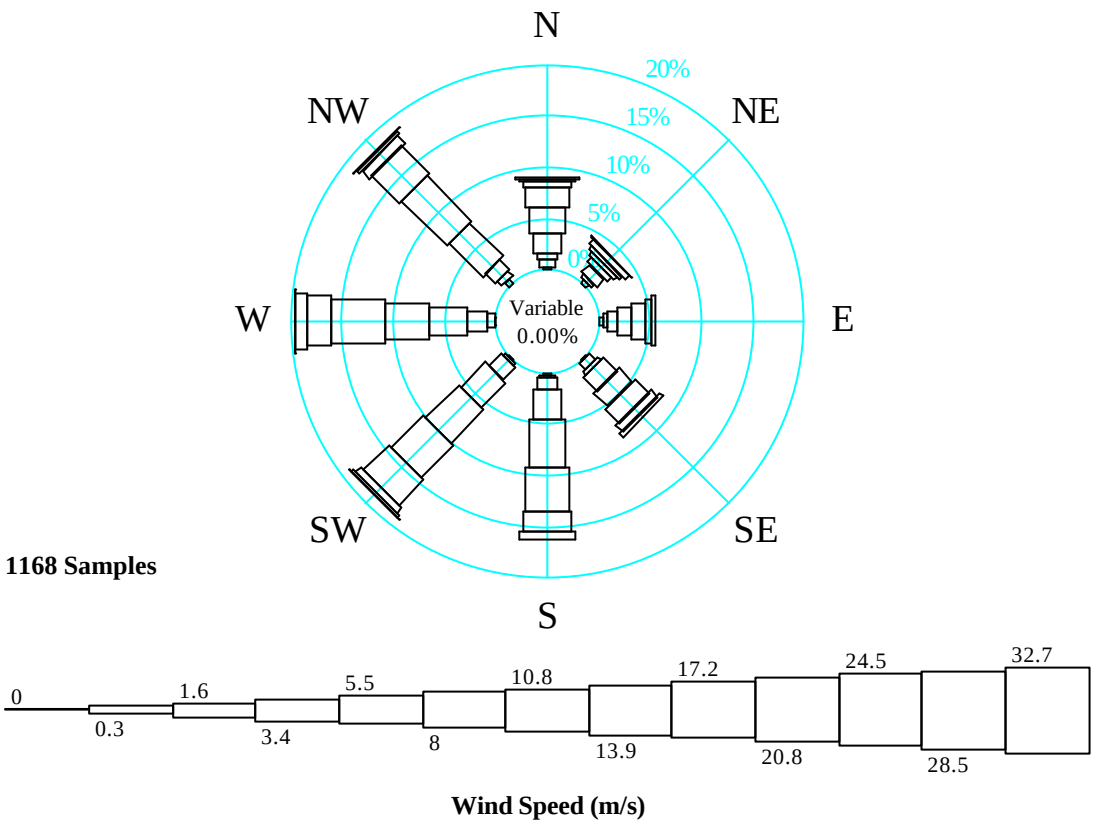
Figure A4.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1227
0.30	4	3	3	5	3	1	5	4	28	1227
1.60	10	3	3	10	13	6	12	11	68	1199
3.40	8	11	16	9	13	25	27	11	120	1131
5.50	10	8	17	21	30	42	51	49	228	1011
8.00	10	4	34	39	56	84	66	47	340	783
10.80	3	1	6	24	53	81	55	29	252	443
13.90			11	8	31	44	34	4	132	191
17.20	1		1		18	13	10	3	46	59
20.80					4	1	3	2	10	13
24.50							3		3	3
28.50										
32.70										
51.50										
Total	46	30	91	116	221	297	266	160	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_OCTOBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : October

Figure A4.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_NOVEMBER_94-99

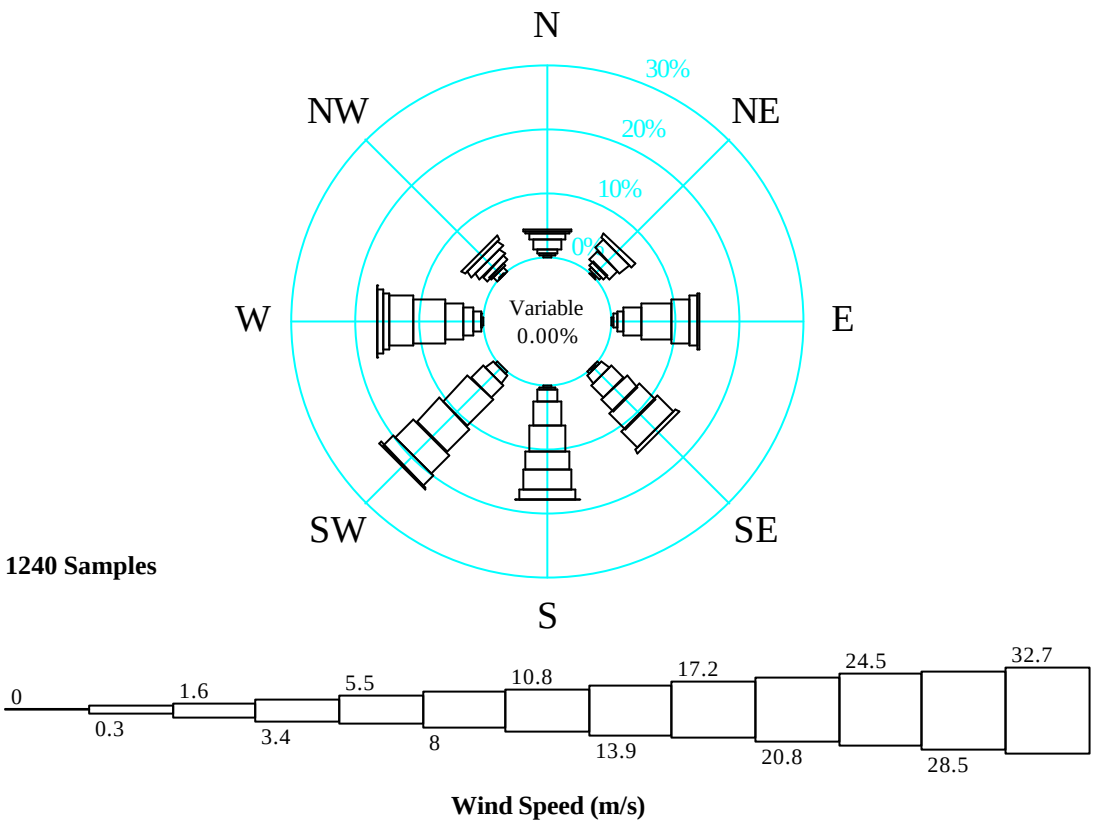
Figure A4.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1168
0.30	3	5	5	1	3	2	1	6	26	1168
1.60	9	4	5	10	2	3	9	8	50	1142
3.40	8	12	12	5	14	19	23	16	109	1092
5.50	21	7	15	21	34	40	43	53	234	983
8.00	30	5	16	21	55	54	51	73	305	749
10.80	22	5	8	23	50	51	60	44	263	444
13.90	9	7	4	10	22	40	27	11	130	181
17.20	2	1		4	10	8	14	5	44	51
20.80	1					3	1	1	6	7
24.50						1			1	1
28.50										
32.70										
51.50										
Total	105	46	65	95	190	221	229	217	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_NOVEMBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : November

Figure A4.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_DECEMBER_94-99

Figure A4.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	2	2	4	1	2		3	1	15	1240
1.60	5	7	6	4	4	4	1	8	39	1225
3.40	9	11	13	20	25	20	15	6	119	1186
5.50	18	21	34	33	45	34	18	11	214	1067
8.00	11	24	59	31	50	70	36	14	295	853
10.80	6	8	33	40	35	65	63	13	263	558
13.90	3		19	44	42	49	46	8	211	295
17.20			2	7	17	27	13		66	84
20.80					2	5	10		17	18
24.50							1		1	1
28.50										
32.70										
51.50										
Total	54	73	170	180	222	274	206	61	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_WS/WD_DECEMBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wind Rose and Frequency Table : December

UKMO GWM 4 (51.50°N, 12.46°W)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	98.79	99.64	98.15	97.24	96.85	96.75	98.39	95.32	97.67	97.72	97.77	98.79	97.75
3.4	95.31	97.24	91.61	90.05	85.48	88.92	92.50	85.56	91.67	92.18	93.49	95.65	91.60
5.5	86.65	91.01	80.32	76.59	64.68	69.67	74.52	65.00	77.33	82.40	84.16	86.05	78.09
8.0	70.79	77.05	56.21	51.09	41.29	45.75	40.00	38.06	46.25	63.81	64.13	68.79	55.10
10.8	47.73	53.29	28.87	22.32	16.13	17.33	10.97	12.74	20.42	36.10	38.01	45.00	28.91
13.9	23.14	27.76	11.37	6.44	4.27	1.25	1.13	3.06	4.92	15.57	15.50	23.79	11.42
17.2	8.17	13.17	2.98	1.67	0.56	0.25	0.00	1.05	1.00	4.81	4.37	6.77	3.68
20.8	1.29	2.67	0.73	0.00	0.16	0.00	0.00	0.24	0.00	1.06	0.60	1.45	0.67
24.5	0.08	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.09	0.08	0.08
28.5	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**10.75**	**11.57**	**8.95**	**8.23**	**7.28**	**7.48**	**7.38**	**7.05**	**8.01**	**9.65**	**9.76**	**10.59**	**8.87**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**25.70**	**28.78**	**22.61**	**20.56**	**22.10**	**19.53**	**16.69**	**23.63**	**19.01**	**26.72**	**25.70**	**28.27**	**28.78**

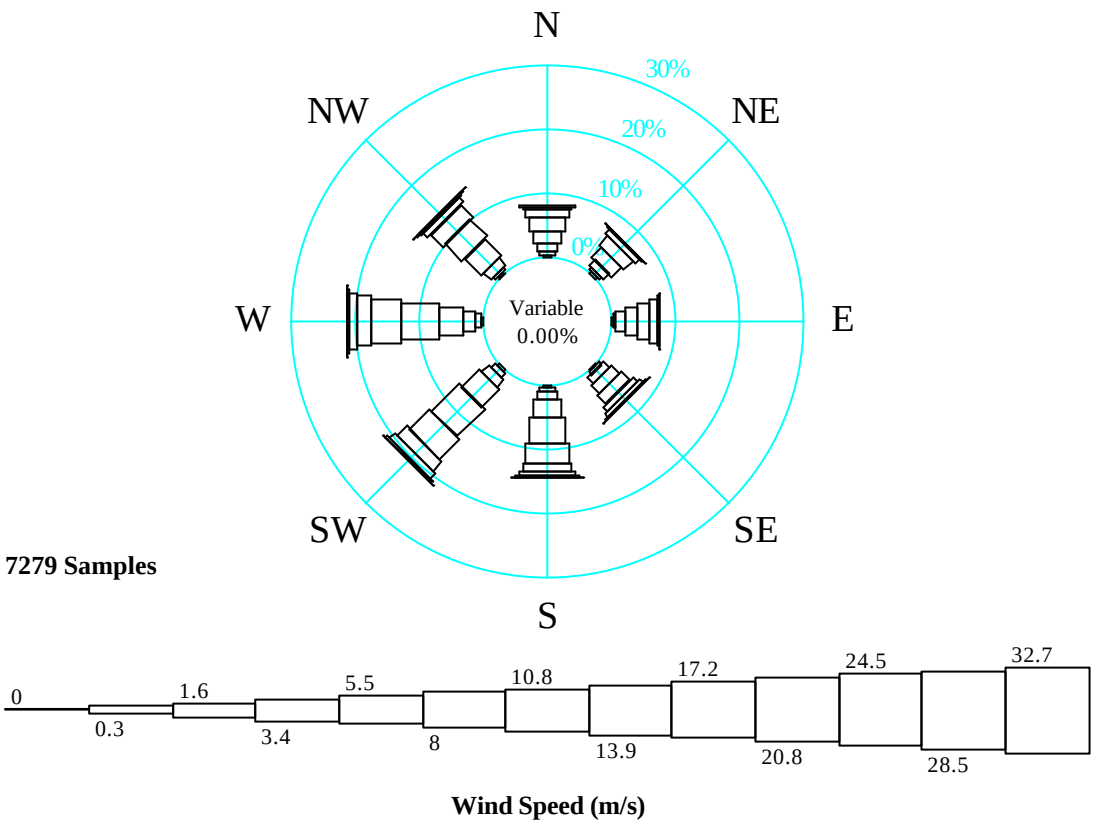
Table A4.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : UKMO GWM 4

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	97.52	95.74	95.62	97.02	97.94	98.79	98.46	97.90	97.75
3.4	88.68	82.78	86.69	88.73	93.10	95.18	94.30	92.11	91.60
5.5	70.78	58.33	65.67	73.82	81.67	85.78	84.25	79.39	78.09
8.0	45.19	27.04	40.28	48.88	62.29	67.02	63.72	51.31	55.10
10.8	18.84	7.50	15.41	22.87	35.42	38.42	38.42	23.61	28.91
13.9	5.12	2.41	4.55	9.61	13.94	16.40	16.90	7.41	11.42
17.2	1.32	0.37	0.26	1.66	4.52	5.79	6.12	2.63	3.68
20.8	0.23	0.00	0.00	0.08	0.50	0.76	1.82	0.47	0.67
24.5	0.00	0.00	0.00	0.00	0.00	0.14	0.24	0.00	0.08
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**7.78**	**6.36**	**7.30**	**8.19**	**9.48**	**9.99**	**9.91**	**8.48**	**8.87**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**22.10**	**19.01**	**17.99**	**21.07**	**24.15**	**26.21**	**28.78**	**23.13**	**28.78**

Table A4.28 - All Year Wind Speed - Percentage Exceedence by Direction : UKMO GWM 4

APPENDIX A-5

Figure A5.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_ALLYEAR_5/94-4/99

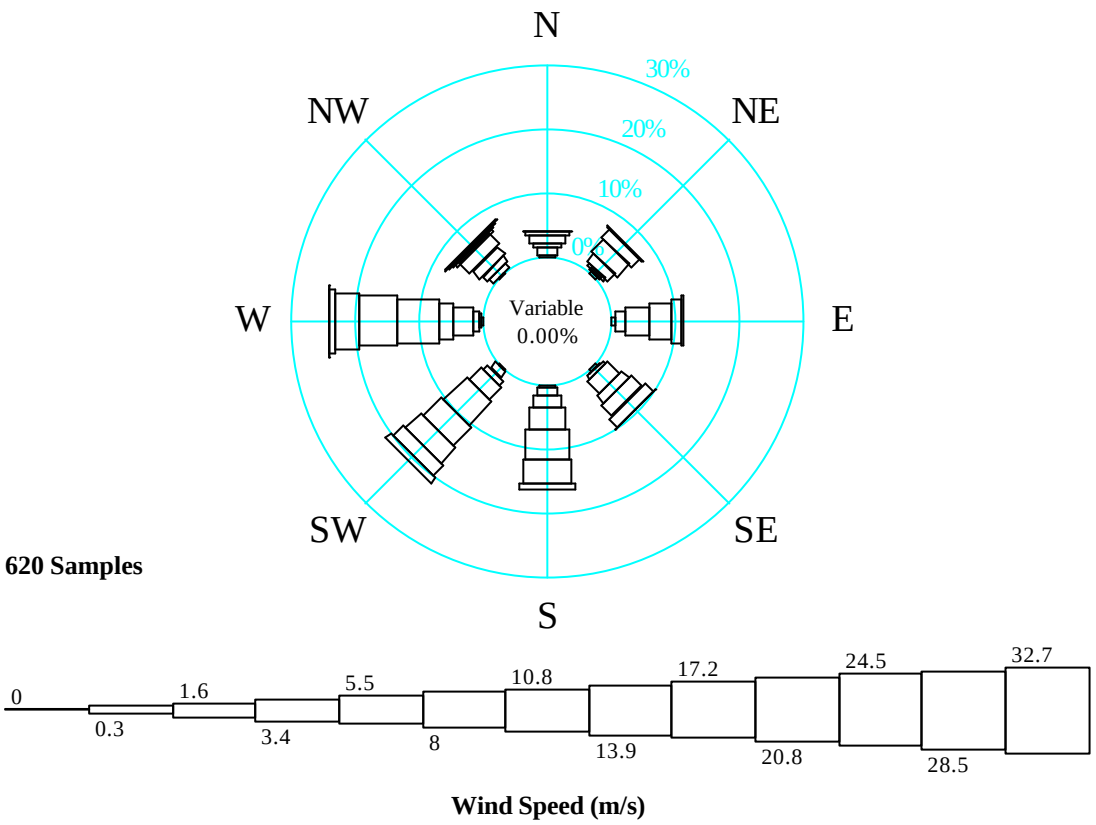
Figure A5.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										7279
0.30	14	19	20	12	16	25	16	16	138	7279
1.60	44	33	32	35	42	68	65	38	357	7141
3.40	88	99	101	89	106	115	150	114	862	6784
5.50	145	147	146	130	206	275	278	273	1600	5922
8.00	171	140	141	135	279	435	414	270	1985	4322
10.80	88	70	76	76	229	325	345	189	1398	2337
13.90	24	12	19	45	107	157	164	66	594	939
17.20	10	1	10	15	48	75	79	32	270	345
20.80				1	11	19	25	7	63	75
24.50					2	2	7	1	12	12
28.50										
32.70										
51.50										
Total	584	521	545	538	1046	1496	1543	1006	7279	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_ALLYEAR_5/94-4/99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : All Year

Figure A5.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_JANUARY_94-99

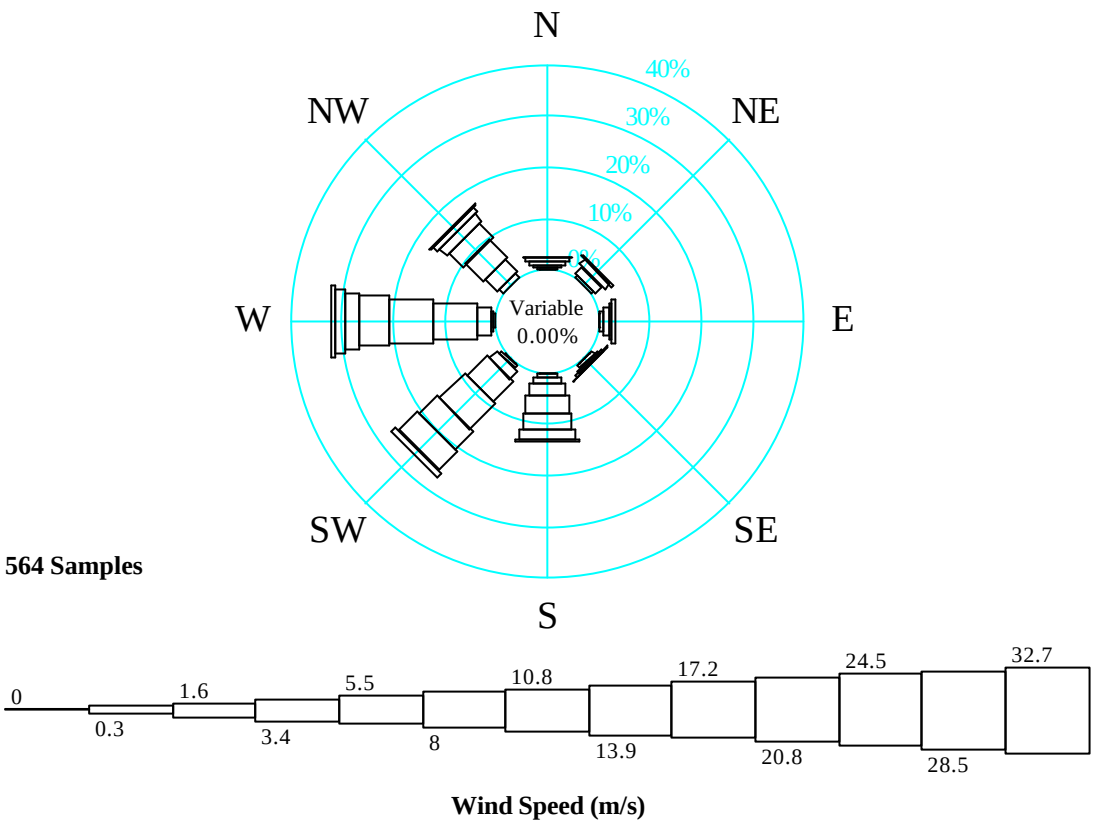
Figure A5.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										620
0.30		2	3	2		1	2	1	11	620
1.60	2	2		1	2	8	1		16	609
3.40	7	3	10	3	7	6	7	5	48	593
5.50	4	9	23	17	12	16	18	7	106	545
8.00	8	17	21	10	22	31	15	10	134	439
10.80	3	10	11	14	29	25	41	14	147	305
13.90	1	2	2	11	22	21	35	3	97	158
17.20				1	7	13	24	1	46	61
20.80						7	5	1	13	15
24.50							1	1	2	2
28.50										
32.70										
51.50										
Total	25	45	70	59	101	128	149	43	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_JANUARY_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : January

Figure A5.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_FEBRUARY_94-99

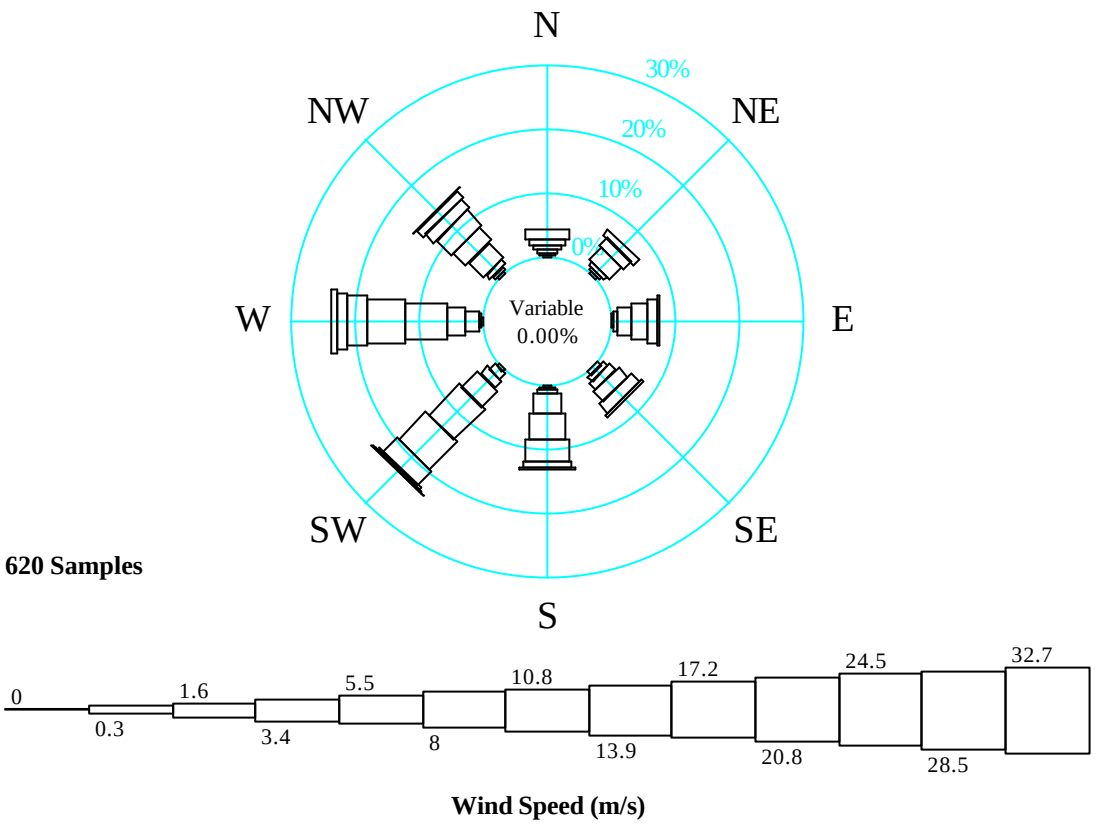
Figure A5.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										564
0.30										564
1.60	1		1	1	1	2	2		8	564
3.40	1	2	5	4	4	3	4	6	29	556
5.50	4	11	5	3	7	12	15	18	75	527
8.00	3	8	4	2	13	31	49	28	138	452
10.80	4	2	3		21	39	48	21	138	314
13.90	1			1	17	27	32	10	88	176
17.20					10	30	16	7	63	88
20.80					3	6	11	1	21	25
24.50							4		4	4
28.50										
32.70										
51.50										
Total	14	23	18	11	76	150	181	91	564	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_FEBRUARY_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : February

Figure A5.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_MARCH_94-99

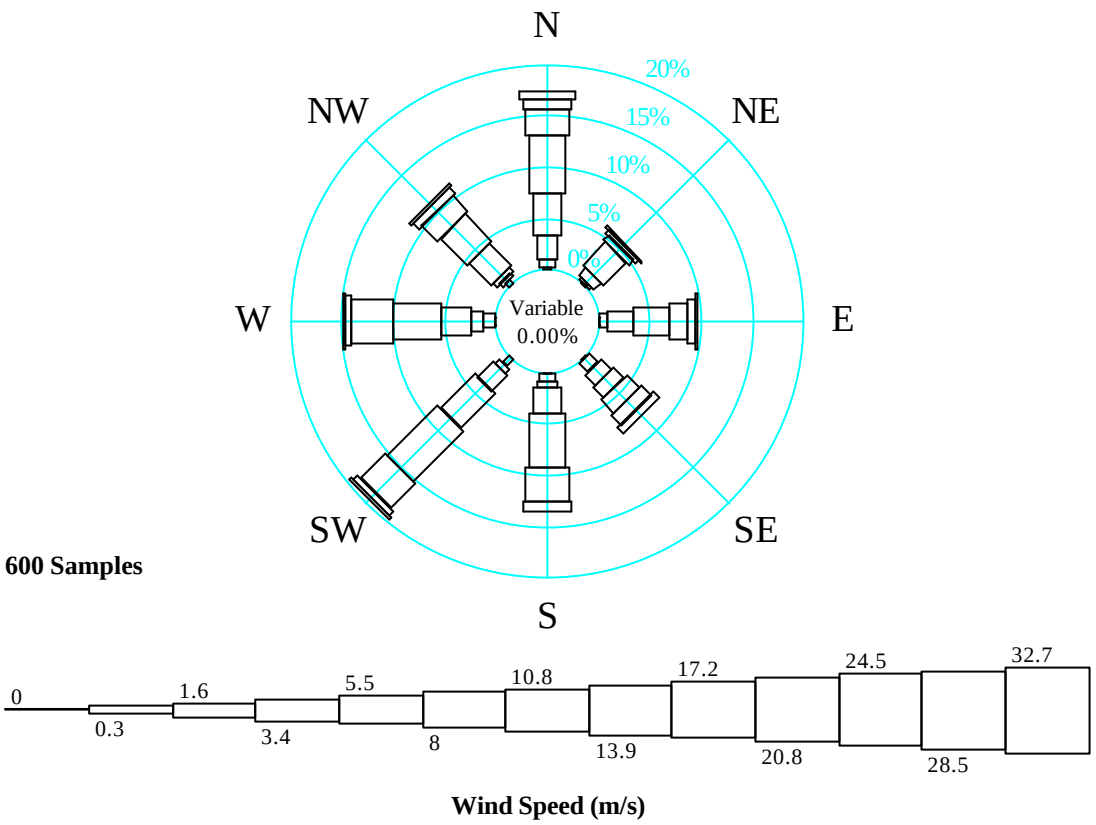
Figure A5.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										620
0.30	1	2			1	3	1	2	10	620
1.60	2	3	2	4	2	7	3	4	27	610
3.40	4	4	3	6	4	9	13	5	48	583
5.50	5	16	14	8	20	22	18	21	124	535
8.00	6	11	16	13	25	42	40	17	170	411
10.80	8	6	10	11	22	37	37	20	151	241
13.90			1	3	6	19	20	12	61	90
17.20					2	2	9	8	21	29
20.80						1	5	1	7	8
24.50						1			1	1
28.50										
32.70										
51.50										
Total	26	42	46	45	82	143	146	90	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_MARCH_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : March

Figure A5.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_APRIL_94-99

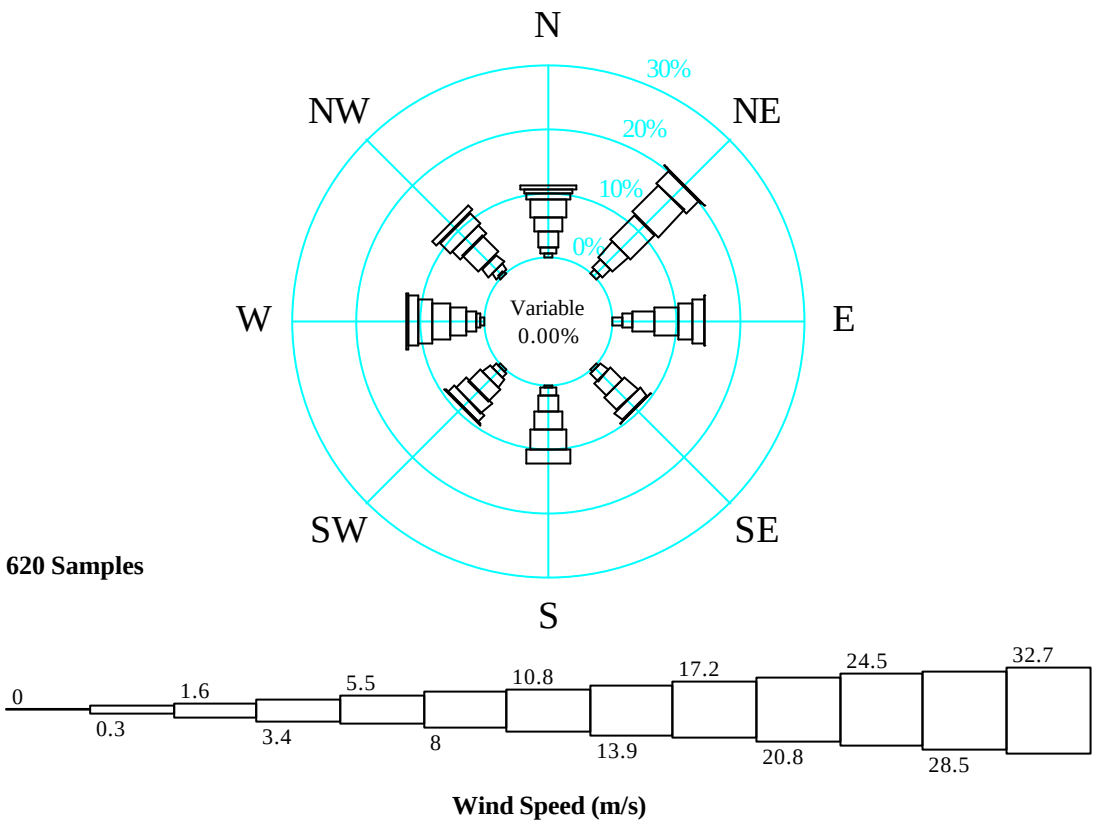
Figure A5.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										600
0.30	2	1	1	1	1	5	1	3	15	600
1.60	4	1	4	7	4	4	6	2	32	585
3.40	14	6	15	8	4	13	8	3	71	553
5.50	25	19	21	9	15	28	17	18	152	482
8.00	34	4	11	10	32	42	28	22	183	330
10.80	15	2	4	8	19	20	25	13	106	147
13.90	6	1		5	6	4	3	5	30	41
17.20	5		2			1	1	2	11	11
20.80										
24.50										
28.50										
32.70										
51.50										
Total	105	34	58	48	81	117	89	68	600	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_APRIL_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : April

Figure A5.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_MAY_94-99

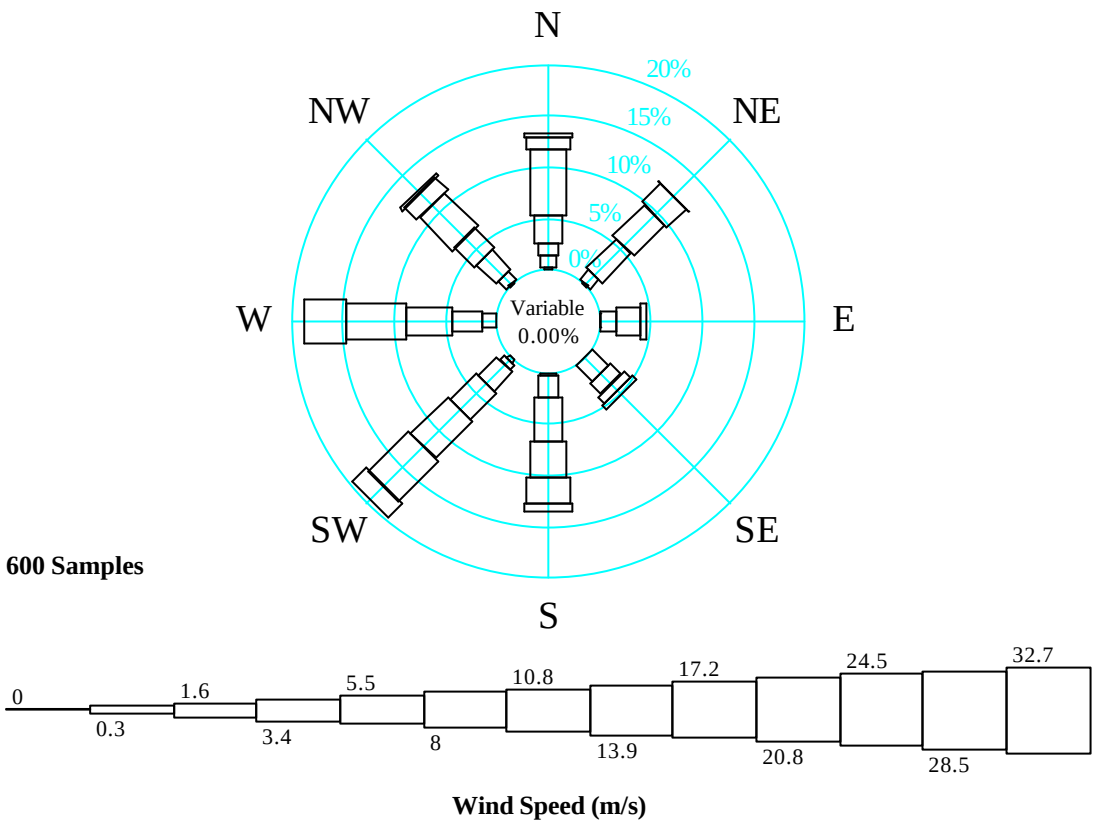
Figure A5.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										620
0.30	3	5	10	2	2	2	3	3	30	620
1.60	6	11	9	10	8	6	5	6	61	590
3.40	16	20	22	17	16	9	9	10	119	529
5.50	14	34	22	17	17	16	16	22	158	410
8.00	16	37	15	10	19	14	17	11	139	252
10.80	7	16	10	2	14	7	13	14	83	113
13.90	4	1	1			2	11	6	25	30
17.20	3	1					1		5	5
20.80										
24.50										
28.50										
32.70										
51.50										
Total	69	125	89	58	76	56	75	72	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_MAY_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : May

Figure A5.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_JUNE_94-99

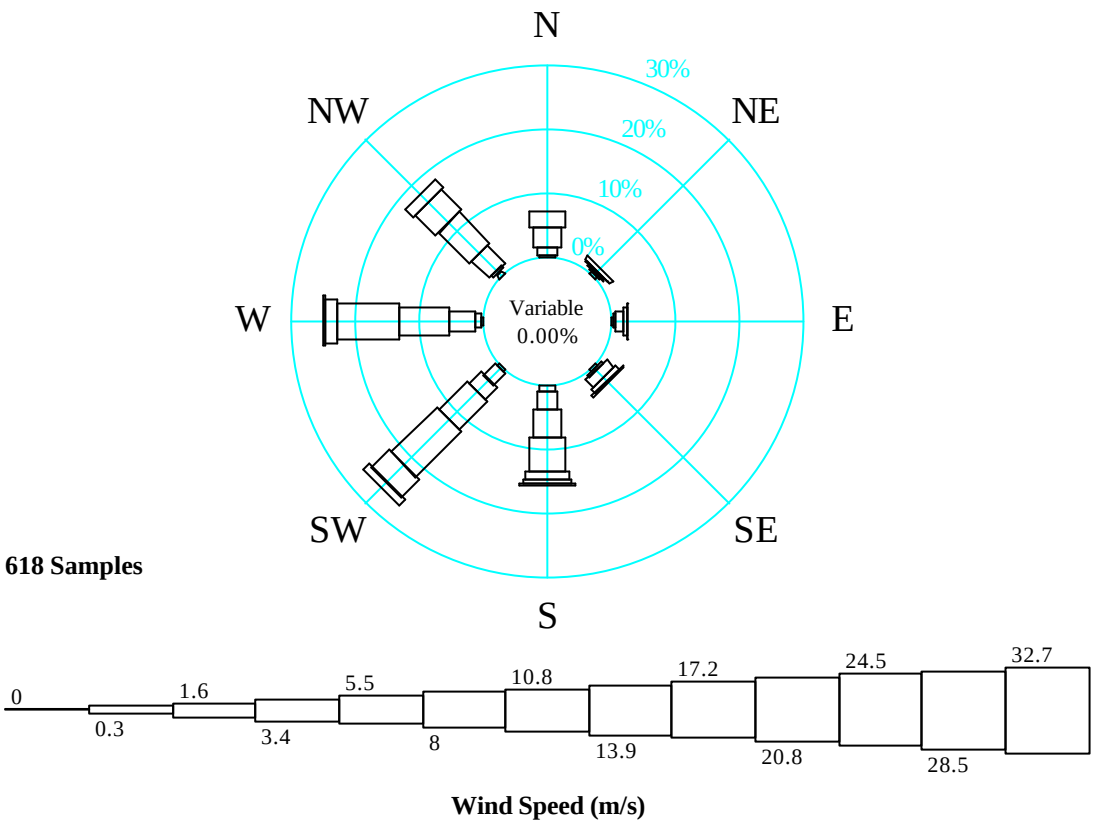
Figure A5.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										600
0.30	1	1				2		1	5	600
1.60	7	7	1		2	4	9	6	36	595
3.40	8	24	9	13	12	15	17	16	114	559
5.50	16	26	14	9	26	22	27	16	156	445
8.00	38	15	3	5	21	30	35	27	174	289
10.80	8	1		3	15	33	25	10	95	115
13.90	2				5	11		2	20	20
17.20										
20.80										
24.50										
28.50										
32.70										
51.50										
Total	80	74	27	30	81	117	113	78	600	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_JUNE_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : June

Figure A5.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_JULY_94-99

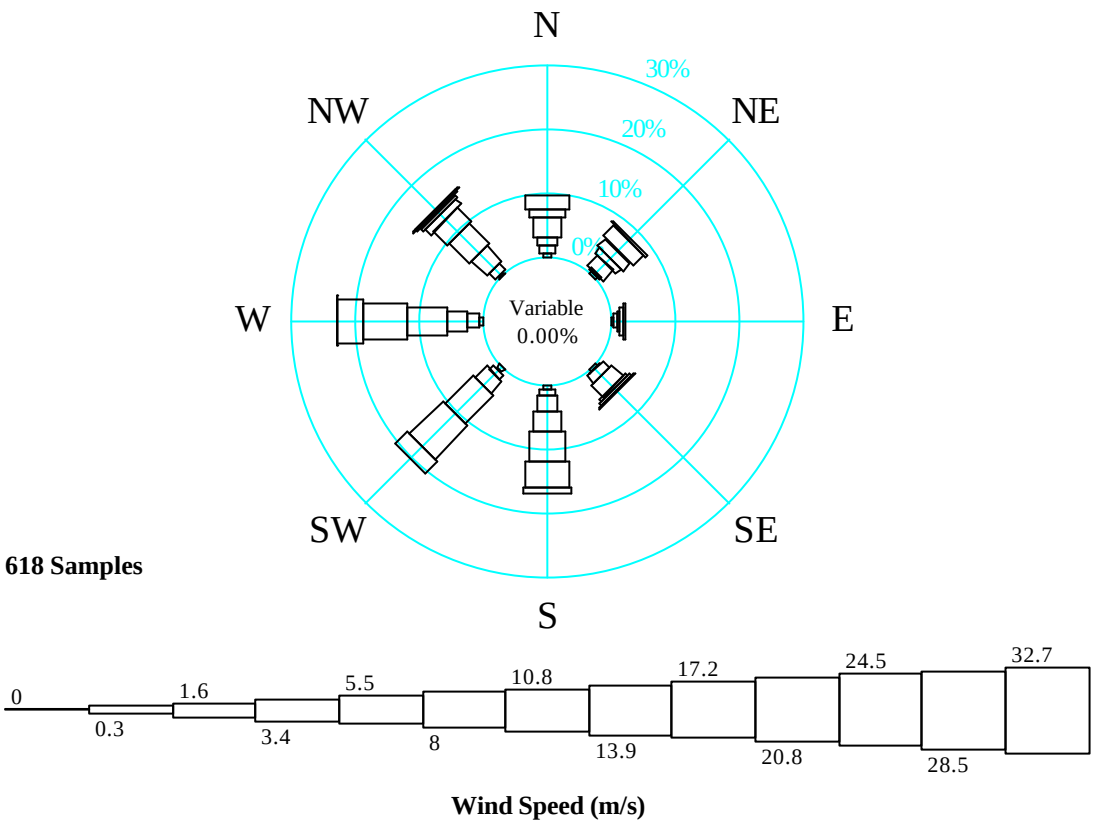
Figure A5.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										618
0.30		3	1	2		2	2	4	14	618
1.60	1	1	2		5	16	6	3	34	604
3.40	8	1	8	3	18	16	24	24	102	570
5.50	20	1	4	10	27	38	48	42	190	468
8.00	15	4	1	5	32	62	60	27	206	278
10.80				2	8	23	12	11	56	72
13.90					4	7	3		14	16
17.20					2				2	2
20.80										
24.50										
28.50										
32.70										
51.50										
Total	44	10	16	22	96	164	155	111	618	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_JULY_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : July

Figure A5.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_AUGUST_94-99

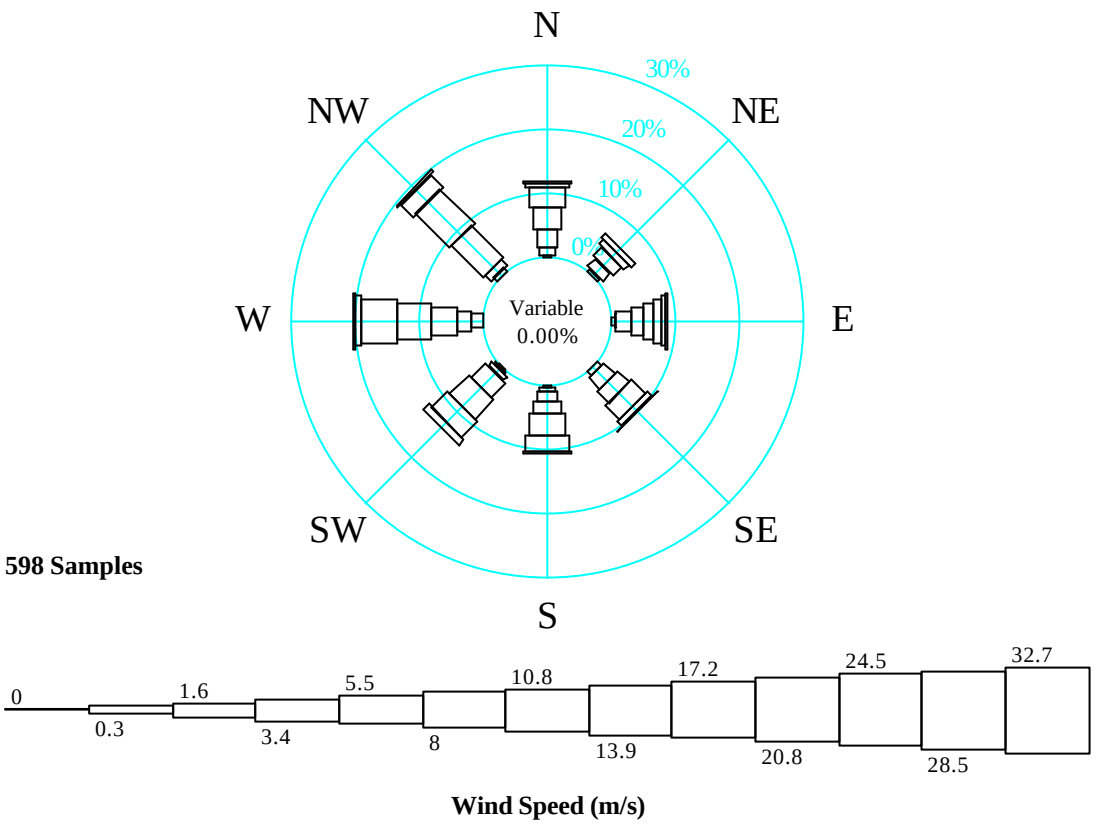
Figure A5.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										618
0.30	3	2	1	2	4	4	3	1	20	618
1.60	8	2	5	1	6	6	13	9	50	598
3.40	8	14	2	9	16	15	18	21	103	548
5.50	19	6	4	15	18	39	40	27	168	445
8.00	9	10	1	3	29	44	42	19	157	277
10.80	13	15		2	26	17	24	7	104	120
13.90		2		1	5		1	3	12	16
17.20								3	3	4
20.80								1	1	1
24.50										
28.50										
32.70										
51.50										
Total	60	51	13	33	104	125	141	91	618	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_AUGUST_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : August

Figure A5.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_SEPTEMBER_94-99

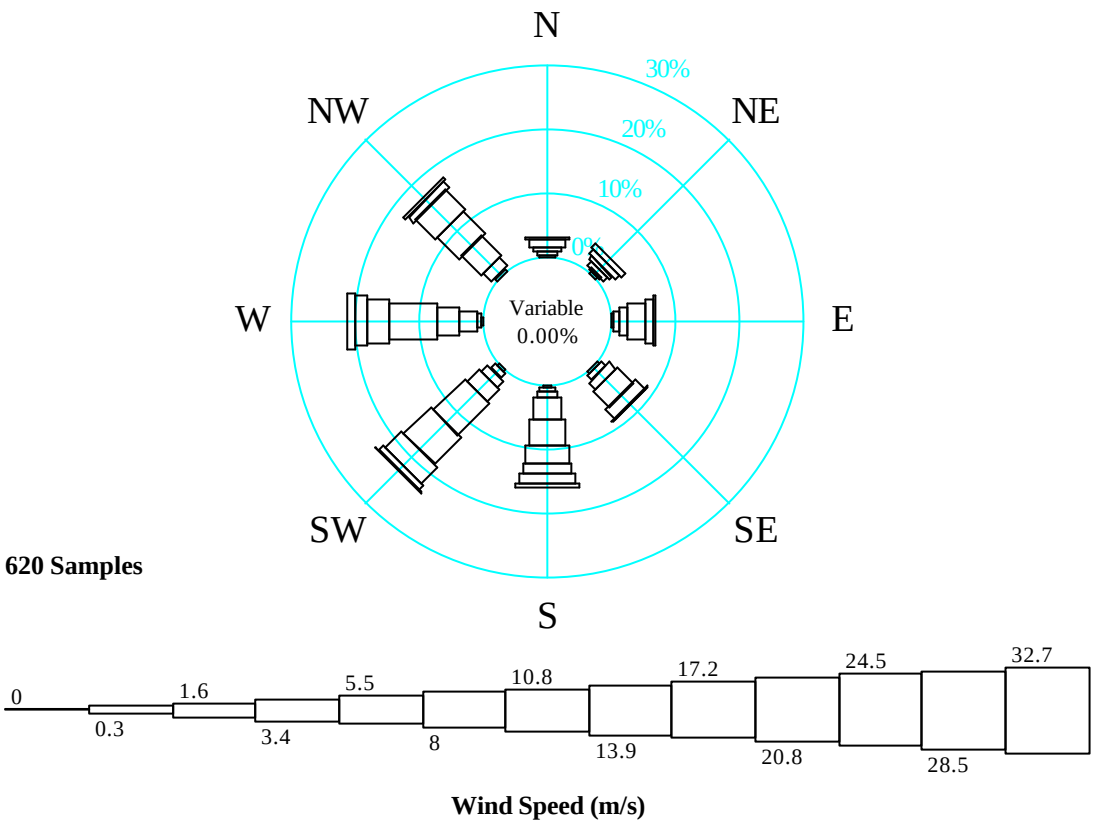
Figure A5.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										598
0.30	2		3		2	1			8	598
1.60	8	3	1	5	4	2	11	4	38	590
3.40	16	10	14	14	9	5	13	7	88	552
5.50	21	12	11	15	12	19	25	42	157	464
8.00	19	6	10	19	19	26	32	45	176	307
10.80	3	5	7	5	15	20	33	16	104	131
13.90	1		5		3	7	6	2	24	27
17.20			1	1			1		3	3
20.80										
24.50										
28.50										
32.70										
51.50										
Total	70	36	52	59	64	80	121	116	598	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_SEPTEMBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : September

Figure A5.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_OCTOBER_94-99

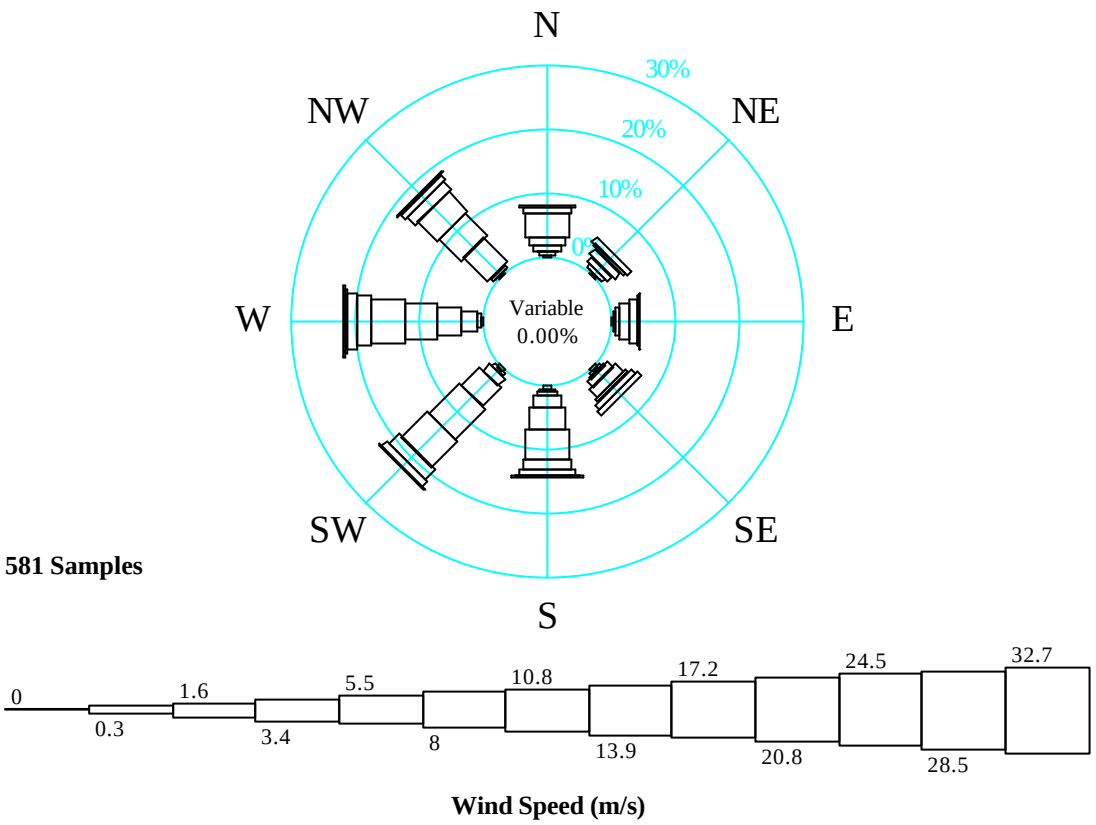
Figure A5.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										620
0.30		2			1	2	2		7	620
1.60	1	2	2	2	5	7	4	3	26	613
3.40	4	5	6	6	6	9	17	12	65	587
5.50	5	4	7	9	21	16	22	26	110	522
8.00	7	6	17	22	26	43	46	30	197	412
10.80	3	6	9	12	16	36	22	26	130	215
13.90			2	1	10	22	11	7	53	85
17.20					9	6	8	4	27	32
20.80					4	1			5	5
24.50										
28.50										
32.70										
51.50										
Total	20	25	43	52	98	142	132	108	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_OCTOBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : October

Figure A5.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_NOVEMBER_94-99

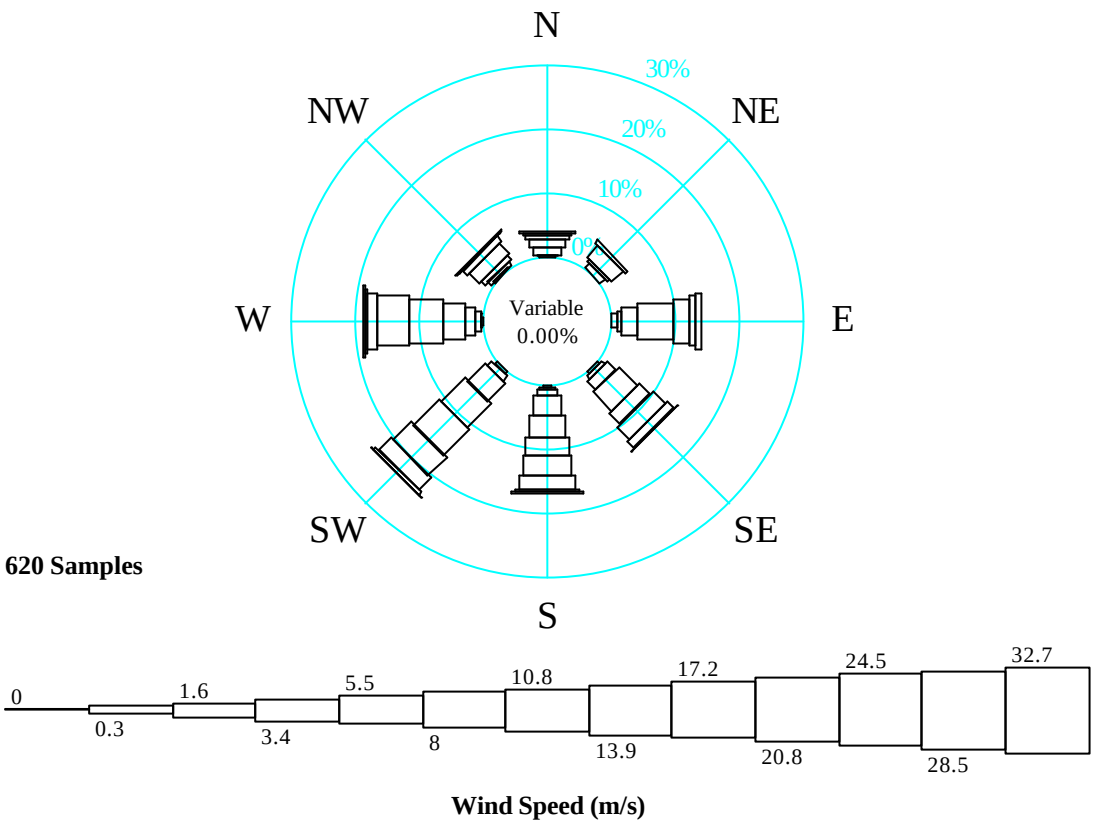
Figure A5.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										581
0.30	2	1	1	3	3	3	1	1	15	581
1.60	3	1		2	2	3	4	1	16	566
3.40	1	4	3	2	4	9	15	3	41	550
5.50	5	6	4	6	11	23	21	31	107	509
8.00	7	7	9	10	20	38	30	28	149	402
10.80	21	3	6	3	27	33	31	24	148	253
13.90	7	6	2	6	9	12	12	10	64	105
17.20	1		1	4	5	7	9	6	33	41
20.80					1	1	2	2	6	8
24.50					1		1		2	2
28.50										
32.70										
51.50										
Total	47	28	26	36	83	129	126	106	581	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_NOVEMBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : November

Figure A5.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_DECEMBER_94-99

Figure A5.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										620
0.30					2		1		3	620
1.60	1		5	2	1	3	1		13	617
3.40	1	6	4	4	6	6	5	2	34	604
5.50	7	3	17	12	20	24	11	3	97	570
8.00	9	15	33	26	21	32	20	6	162	473
10.80	3	4	16	14	17	35	34	13	136	311
13.90	2		6	17	20	25	30	6	106	175
17.20	1		6	9	13	16	10	1	56	69
20.80				1	3	3	2	1	10	13
24.50					1	1	1		3	3
28.50										
32.70										
51.50										
Total	24	28	87	85	104	145	115	32	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_WS/WD_DECEMBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wind Rose and Frequency Table : December

UKMO GWM 5 (52.10°N, 15.63°W)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	98.23	100.00	98.39	97.50	99.17	95.16	97.73	96.76	98.66	98.87	97.42	99.52	98.10
3.4	95.65	98.58	94.03	92.17	93.17	85.32	92.23	88.67	92.31	94.68	94.66	97.42	93.20
5.5	87.90	93.44	86.29	80.33	74.17	66.13	75.73	72.01	77.59	84.19	87.61	91.94	81.36
8.0	70.81	80.14	66.29	55.00	48.17	40.65	44.98	44.82	51.34	66.45	69.19	76.29	59.38
10.8	49.19	55.67	38.87	24.50	19.17	18.23	11.65	19.42	21.91	34.68	43.55	50.16	32.11
13.9	25.48	31.21	14.52	6.83	3.33	4.84	2.59	2.59	4.52	13.71	18.07	28.23	12.90
17.2	9.84	15.60	4.68	1.83	0.00	0.81	0.32	0.65	0.50	5.16	7.06	11.13	4.74
20.8	2.42	4.43	1.29	0.00	0.00	0.00	0.00	0.16	0.00	0.81	1.38	2.10	1.03
24.5	0.32	0.71	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.48	0.16
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**11.06**	**12.14**	**9.88**	**8.59**	**7.39**	**7.93**	**7.61**	**7.66**	**8.25**	**9.75**	**10.36**	**11.43**	**9.32**
Minimum	**0.51**	**2.05**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**1.02**	**0.51**	**0.51**	**1.02**	**0.51**
Maximum	**27.24**	**26.21**	**25.18**	**20.56**	**20.56**	**15.93**	**19.53**	**22.10**	**18.50**	**24.15**	**27.24**	**27.24**	**27.24**

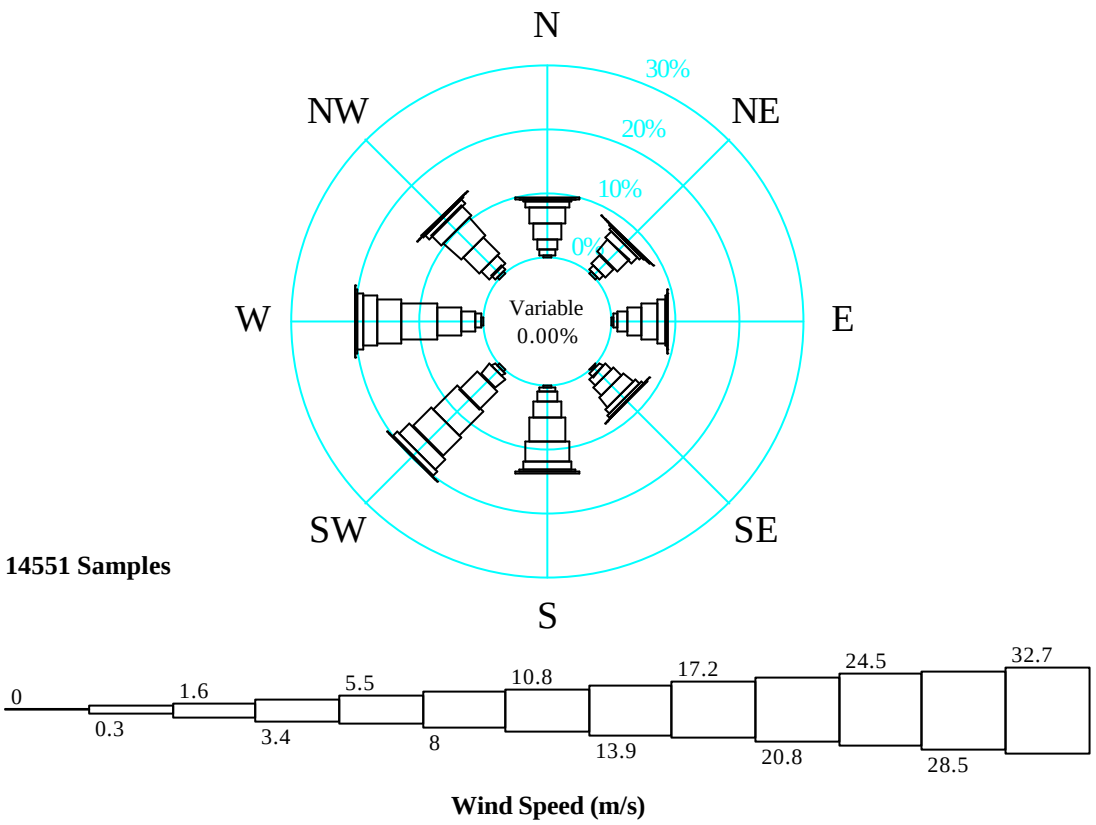
Table A5.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : UKMO GWM 5

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	97.60	96.35	96.33	97.77	98.47	98.33	98.96	98.41	98.10
3.4	90.07	90.02	90.46	91.26	94.46	93.78	94.75	94.63	93.20
5.5	75.00	71.02	71.93	74.72	84.32	86.10	85.03	83.30	81.36
8.0	50.17	42.80	45.14	50.56	64.63	67.71	67.01	56.16	59.38
10.8	20.89	15.93	19.27	25.46	37.95	38.64	40.18	29.32	32.11
13.9	5.82	2.50	5.32	11.34	16.06	16.91	17.82	10.54	12.90
17.2	1.71	0.19	1.83	2.97	5.83	6.42	7.19	3.98	4.74
20.8	0.00	0.00	0.00	0.19	1.24	1.40	2.07	0.80	1.03
24.5	0.00	0.00	0.00	0.00	0.19	0.13	0.45	0.10	0.16
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**8.19**	**7.49**	**7.82**	**8.50**	**9.90**	**10.10**	**10.16**	**9.13**	**9.32**
Minimum	**1.02**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**20.56**	**19.01**	**20.56**	**22.61**	**26.72**	**27.24**	**27.24**	**27.24**	**27.24**

Table A5.28 - All Year Wind Speed - Percentage Exceedence by Direction : UKMO GWM 5

APPENDIX A-6

Figure A6.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_ALLYEAR_5/94-4/99

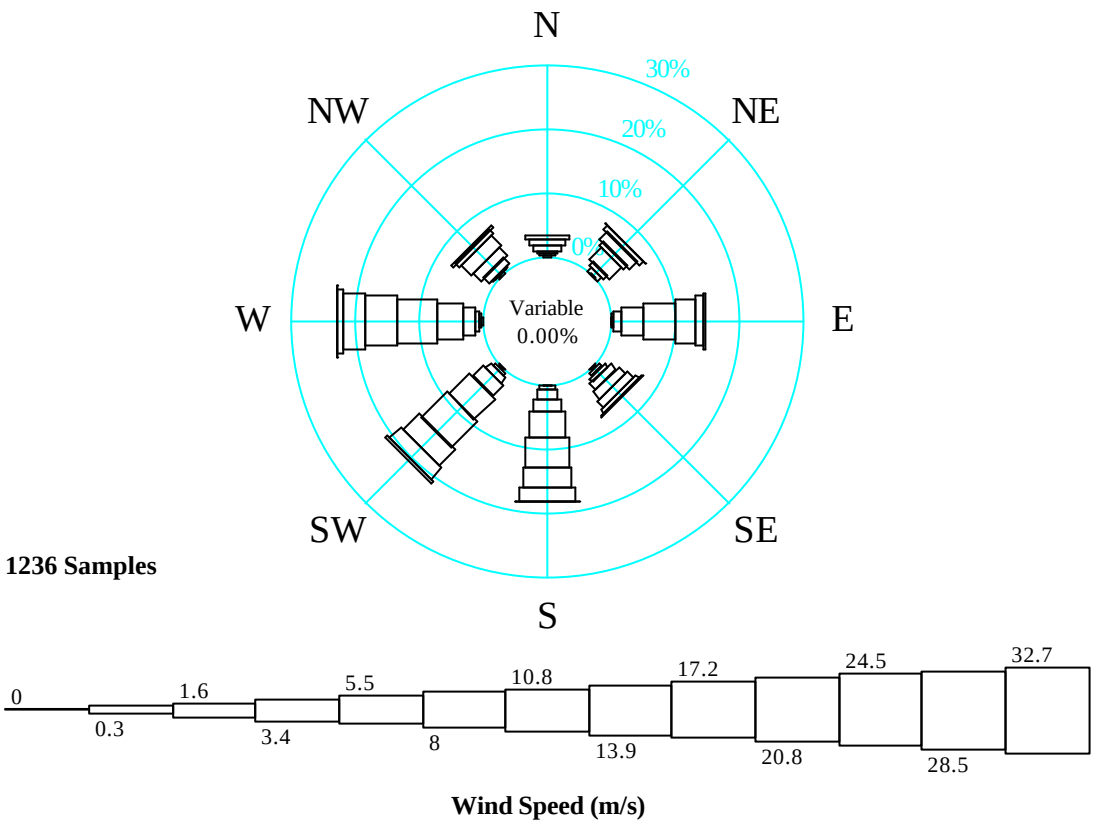
Figure A6.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										14551
0.30	45	37	37	33	42	44	44	43	325	14551
1.60	115	145	91	122	89	109	131	110	912	14226
3.40	231	262	252	178	231	297	307	260	2018	13314
5.50	382	382	314	261	382	584	539	505	3349	11296
8.00	343	201	334	284	550	764	833	533	3842	7947
10.80	155	61	180	149	414	592	564	317	2432	4105
13.90	47	21	56	62	179	328	306	115	1114	1673
17.20	14	5	16	13	79	144	154	34	459	559
20.80	2	3	1	2	10	26	35	5	84	100
24.50		1				6	8	1	16	16
28.50										
32.70										
51.50										
Total	1334	1118	1281	1104	1976	2894	2921	1923	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_ALLYEAR_5/94-4/99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : All Year

Figure A6.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_JANUARY_94-99

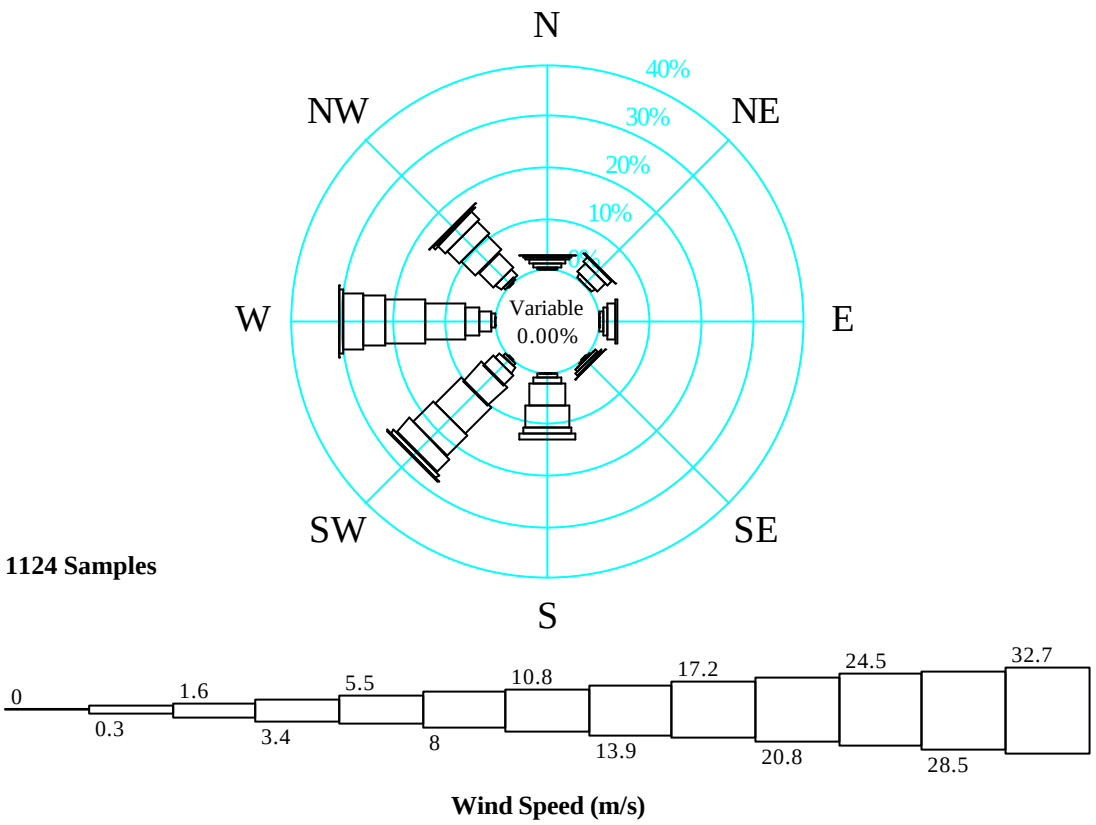
Figure A6.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1236
0.30	4	1	1	3	1	3	2	3	18	1236
1.60	3	8	3	9	7	8	6	1	45	1218
3.40	6	11	16	9	18	12	7	2	81	1173
5.50	10	31	41	15	24	30	24	16	191	1092
8.00	13	10	64	17	51	57	51	21	284	901
10.80	5	18	35	18	57	68	76	27	304	617
13.90		9	16	8	39	41	61	10	184	313
17.20		1	6	2	25	31	43	2	110	129
20.80					2	4	12		18	19
24.50							1		1	1
28.50										
32.70										
51.50										
Total	41	89	182	81	224	254	283	82	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_JANUARY_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : January

Figure A6.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_FEBRUARY_94-99

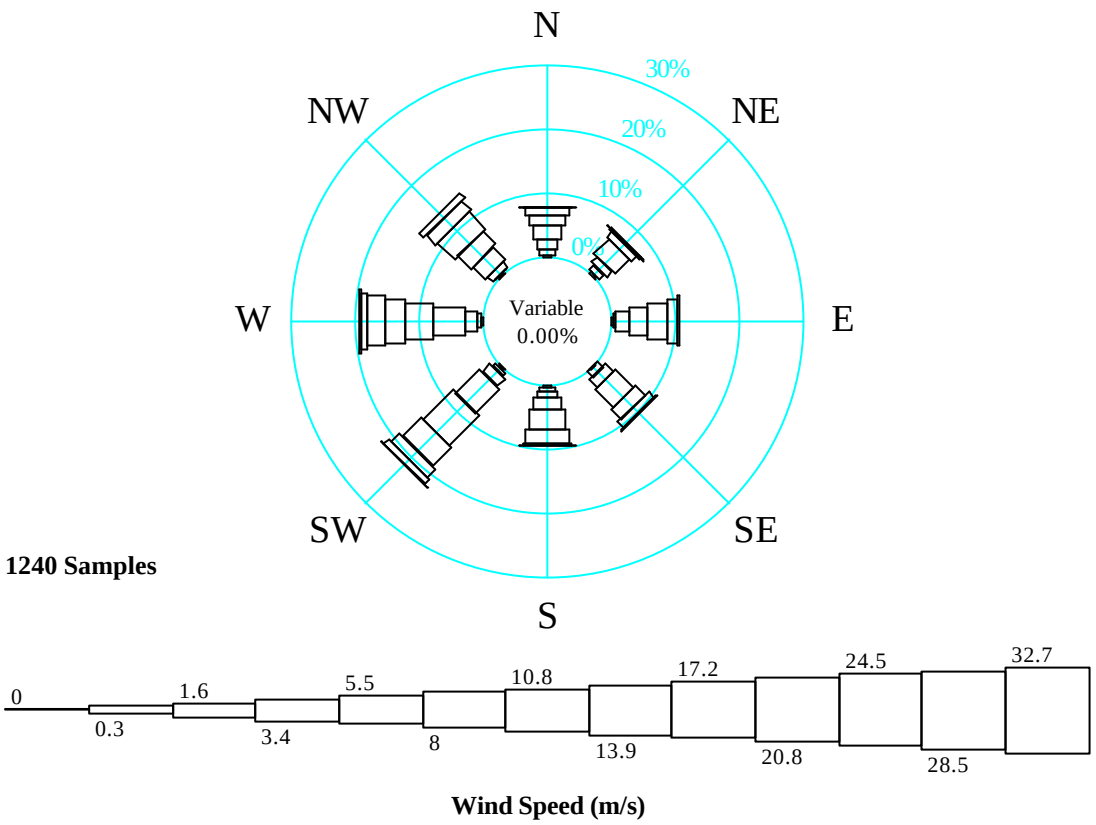
Figure A6.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1124
0.30			1	3	1	2	3	2	12	1124
1.60	3	1	2	2	3	8	6	5	30	1112
3.40	1	10	7	1	6	13	28	18	84	1082
5.50	10	25	8	7	14	30	31	44	169	998
8.00	7	13	18	6	47	57	87	46	281	829
10.80	7	3	3	2	48	78	88	36	265	548
13.90	2				14	63	46	24	149	283
17.20	1				14	42	44	6	107	134
20.80						10	9	2	21	27
24.50						3	3		6	6
28.50										
32.70										
51.50										
Total	31	52	39	21	147	306	345	183	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_FEBRUARY_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : February

Figure A6.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_MARCH_94-99

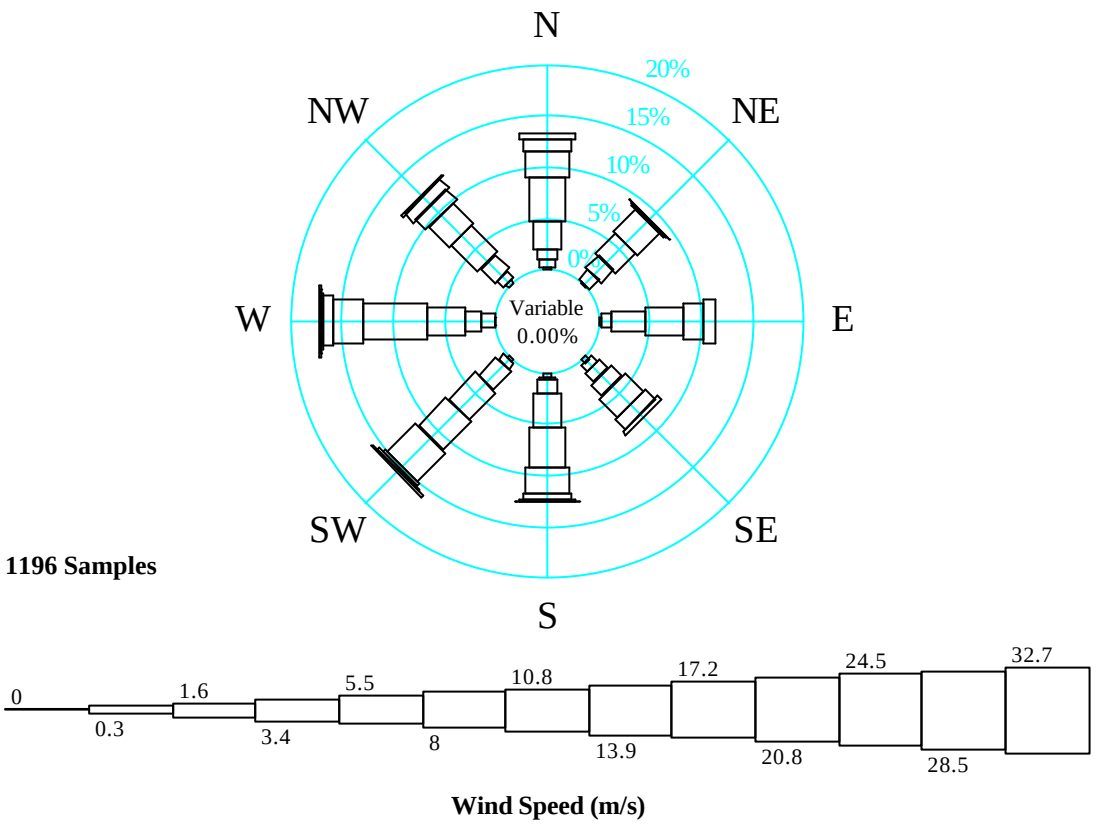
Figure A6.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	4	3	5	1	2	3	3	2	23	1240
1.60	11	14	4	13	9	9	7	3	70	1217
3.40	20	15	25	22	14	21	23	13	153	1147
5.50	27	40	37	48	22	66	64	34	338	994
8.00	17	16	39	27	38	81	53	36	307	656
10.80	16	2	19	14	28	51	39	45	214	349
13.90	2	1	1	3	3	22	35	25	92	135
17.20	1				1	14	11	12	39	43
20.80						1	3		4	4
24.50										
28.50										
32.70										
51.50										
Total	98	91	130	128	117	268	238	170	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_MARCH_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : March

Figure A6.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_APRIL_94-99

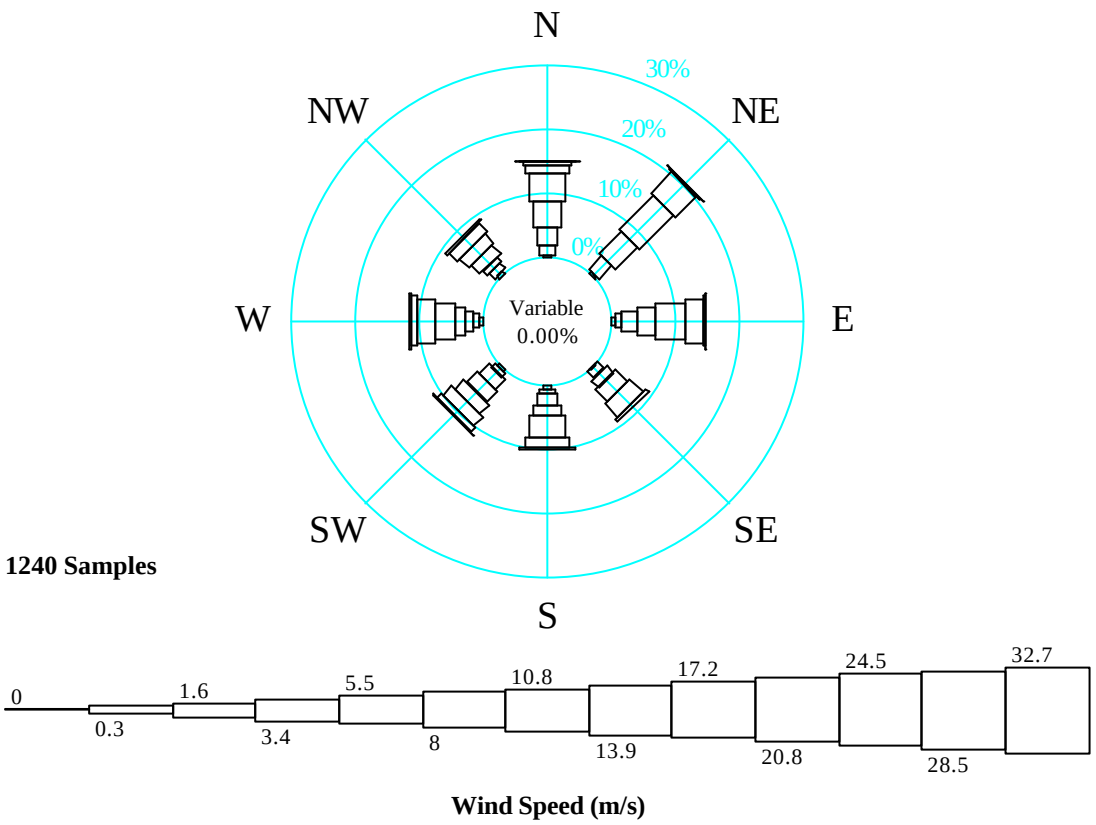
Figure A6.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1196
0.30	4	1	3	6	5	3	1	5	28	1196
1.60	8	15	12	8	4	9	15	10	81	1168
3.40	12	21	40	14	15	29	20	23	174	1087
5.50	33	32	44	19	39	45	43	44	299	913
8.00	51	36	23	30	48	46	75	33	342	614
10.80	31	2	13	16	31	47	35	17	192	272
13.90	14	1		6	7	4	12	14	58	80
17.20	7	1			1	3	2	3	17	22
20.80					1		1		2	5
24.50						2	1		3	3
28.50										
32.70										
51.50										
Total	160	109	135	99	151	188	205	149	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_APRIL_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : April

Figure A6.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_MAY_94-99

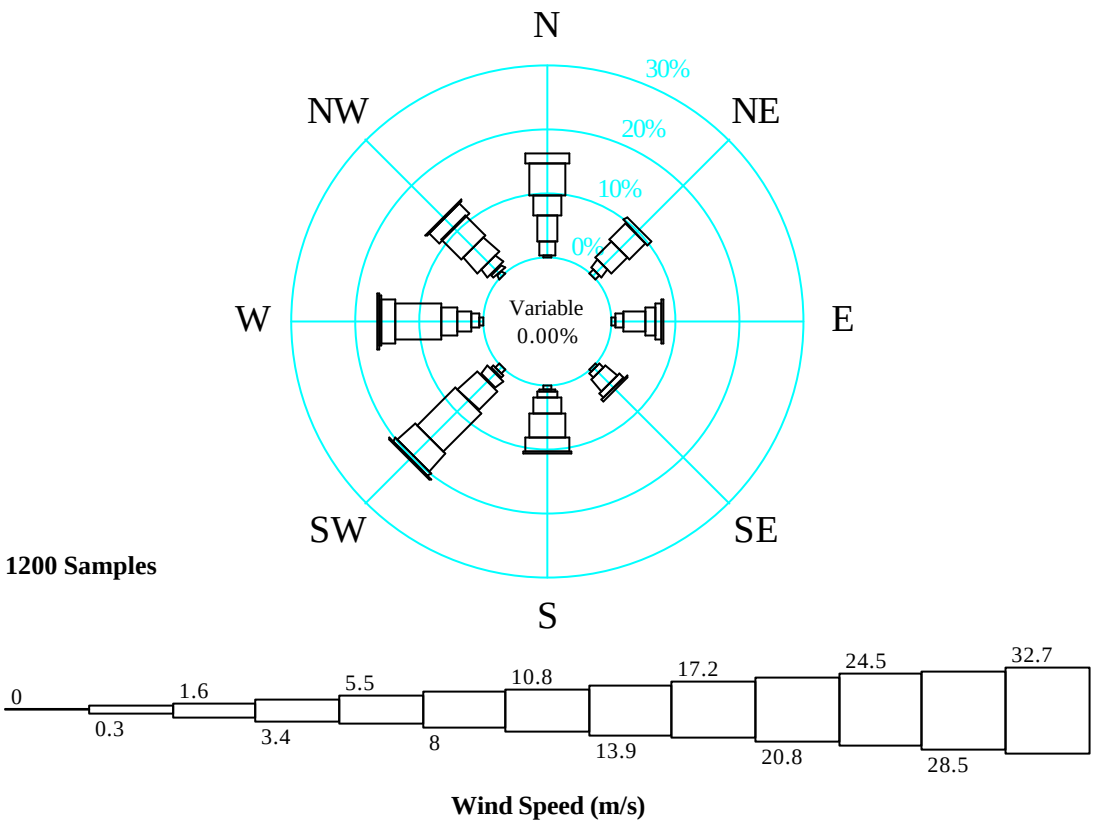
Figure A6.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	5	3	8	1	8	5	8	7	45	1240
1.60	17	37	12	17	7	9	10	13	122	1195
3.40	37	60	31	19	23	26	16	12	224	1073
5.50	47	94	35	31	21	29	21	25	303	849
8.00	57	55	58	34	40	26	38	25	333	546
10.80	16	4	32	9	22	25	34	22	164	213
13.90	5	1	6			11	13	4	40	49
17.20	2		1		2	2	1		8	9
20.80	1								1	1
24.50										
28.50										
32.70										
51.50										
Total	187	254	183	111	123	133	141	108	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_MAY_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : May

Figure A6.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_JUNE_94-99

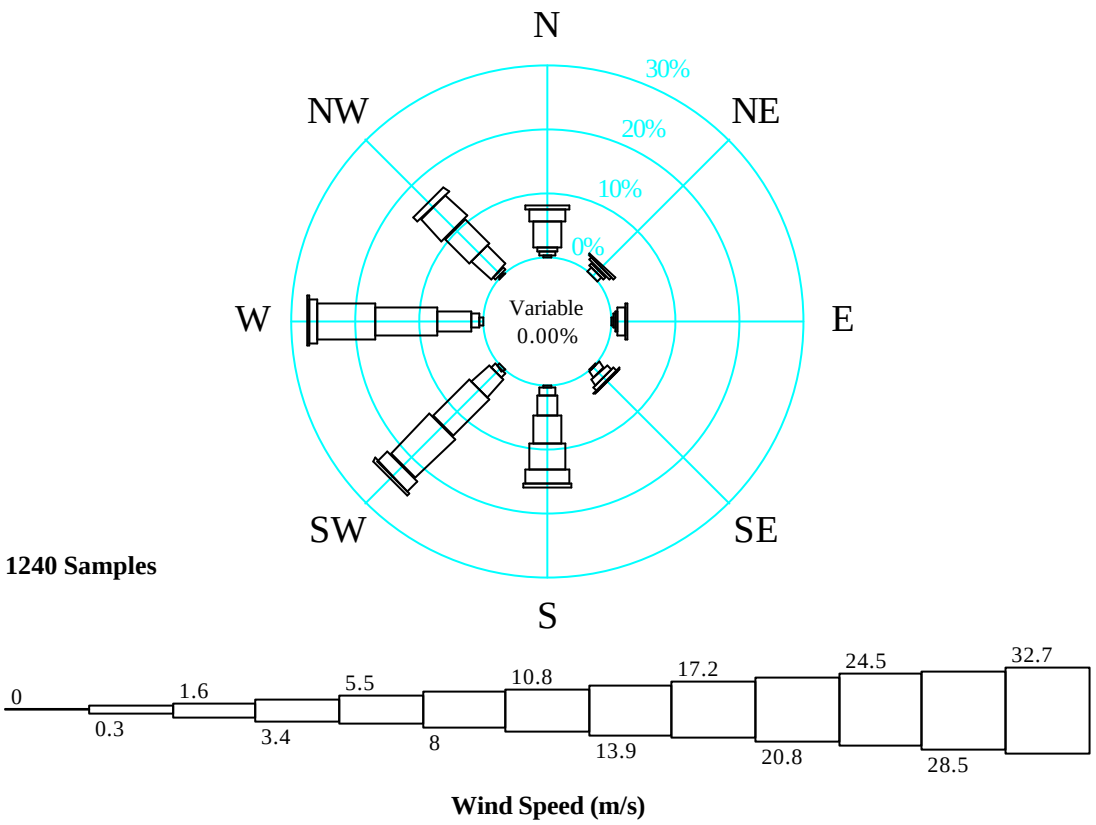
Figure A6.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	5	10	6	5	6	9	7	7	55	1200
1.60	25	18	17	10	6	8	16	10	110	1145
3.40	50	42	39	29	11	20	26	19	236	1035
5.50	34	44	20	12	29	52	31	39	261	799
8.00	60	9	13	5	47	100	86	53	373	538
10.80	21		1		24	46	25	25	142	165
13.90					4	8	5	3	20	23
17.20						1	2		3	3
20.80										
24.50										
28.50										
32.70										
51.50										
Total	195	123	96	61	127	244	198	156	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_JUNE_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : June

Figure A6.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_JULY_94-99

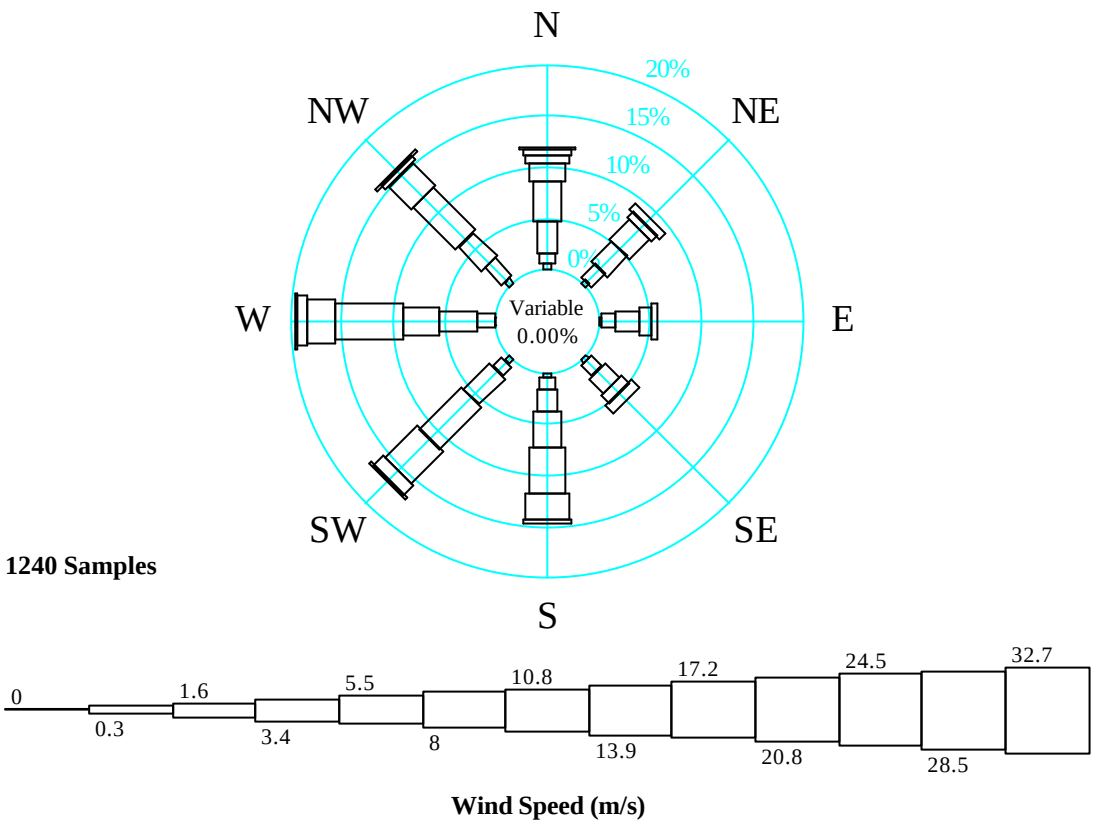
Figure A6.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	2		5	2	3	6	6	2	26	1240
1.60	8	10	3	15	15	9	17	9	86	1214
3.40	9	6	4	12	42	48	64	51	236	1128
5.50	52	7	13	9	53	100	122	67	423	892
8.00	22	5	4	3	49	108	110	59	360	469
10.80	7				27	28	17	12	91	109
13.90					8	6	4		18	18
17.20										
20.80										
24.50										
28.50										
32.70										
51.50										
Total	100	28	29	41	197	305	340	200	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_JULY_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : July

Figure A6.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_AUGUST_94-99

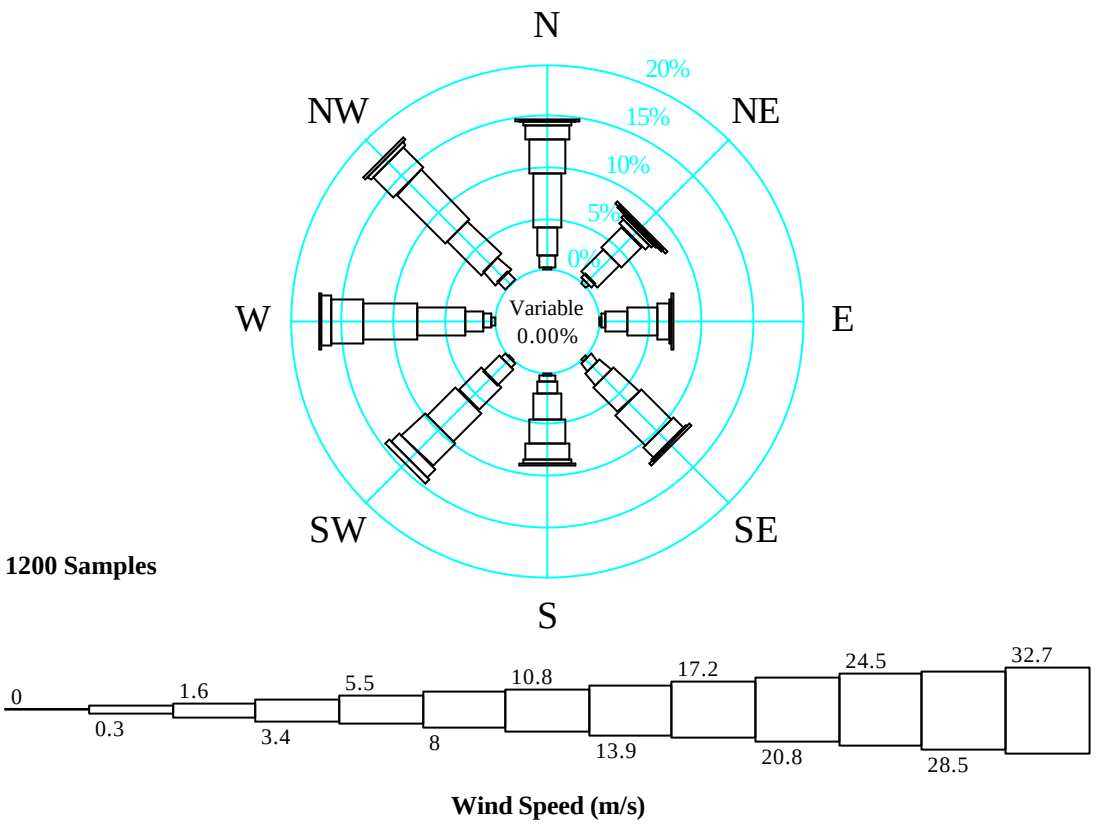
Figure A6.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	8	6	3	5	6	7	2	7	44	1240
1.60	13	21	18	18	15	16	20	30	151	1196
3.40	38	35	28	24	26	44	46	40	281	1045
5.50	48	33	14	13	43	72	45	73	341	764
8.00	22	10	8	13	56	54	82	38	283	423
10.80	9	9			31	16	34	7	106	140
13.90	7				6	3	11		27	34
17.20	2						3	2	7	7
20.80										
24.50										
28.50										
32.70										
51.50										
Total	147	114	71	73	183	212	243	197	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_AUGUST_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : August

Figure A6.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_SEPTEMBER_94-99

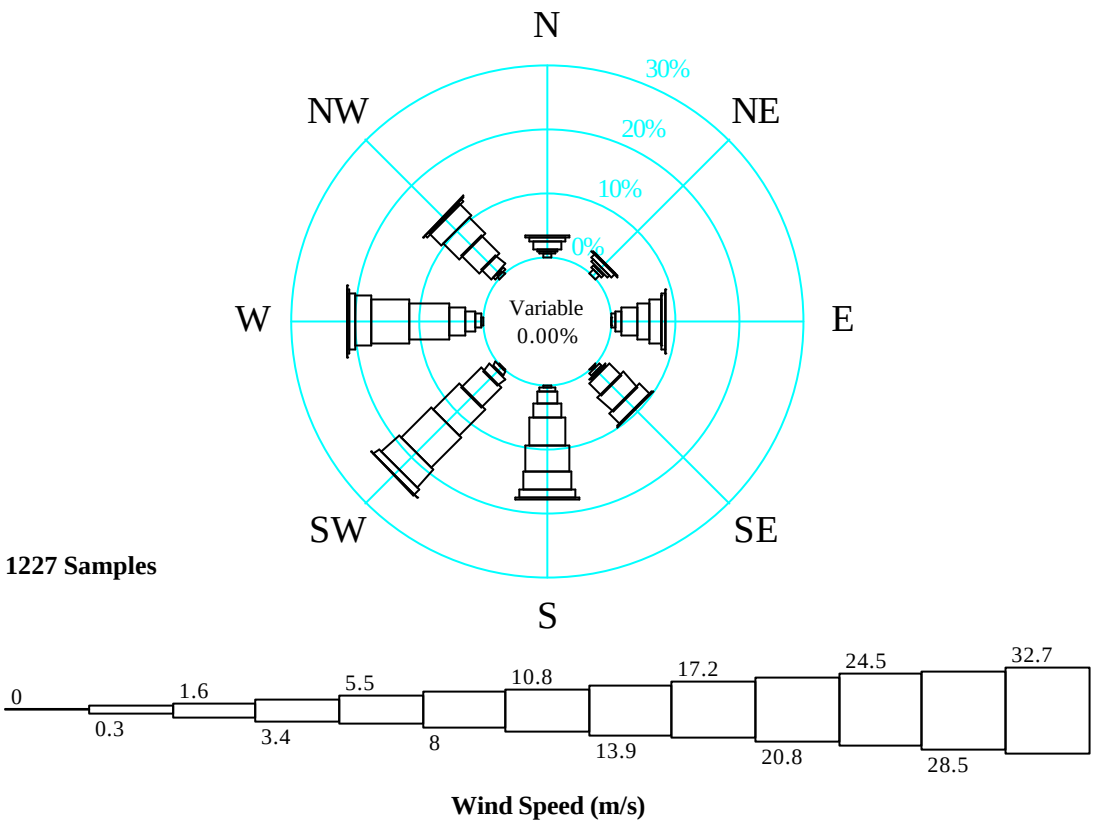
Figure A6.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1200
0.30	3	4	3	3	3	2	5		23	1200
1.60	14	6	5	11	7	6	10	13	72	1177
3.40	32	35	26	19	15	26	22	21	196	1105
5.50	63	35	34	41	29	36	54	55	347	909
8.00	41	7	15	49	28	48	65	80	333	562
10.80	15	4	3	17	20	37	37	34	167	229
13.90	5	1		3	4	14	11	5	43	62
17.20	1		1	1	2	5	2	2	14	19
20.80	1	3							4	5
24.50		1							1	1
28.50										
32.70										
51.50										
Total	175	96	87	144	108	174	206	210	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_SEPTEMBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : September

Figure A6.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_OCTOBER_94-99

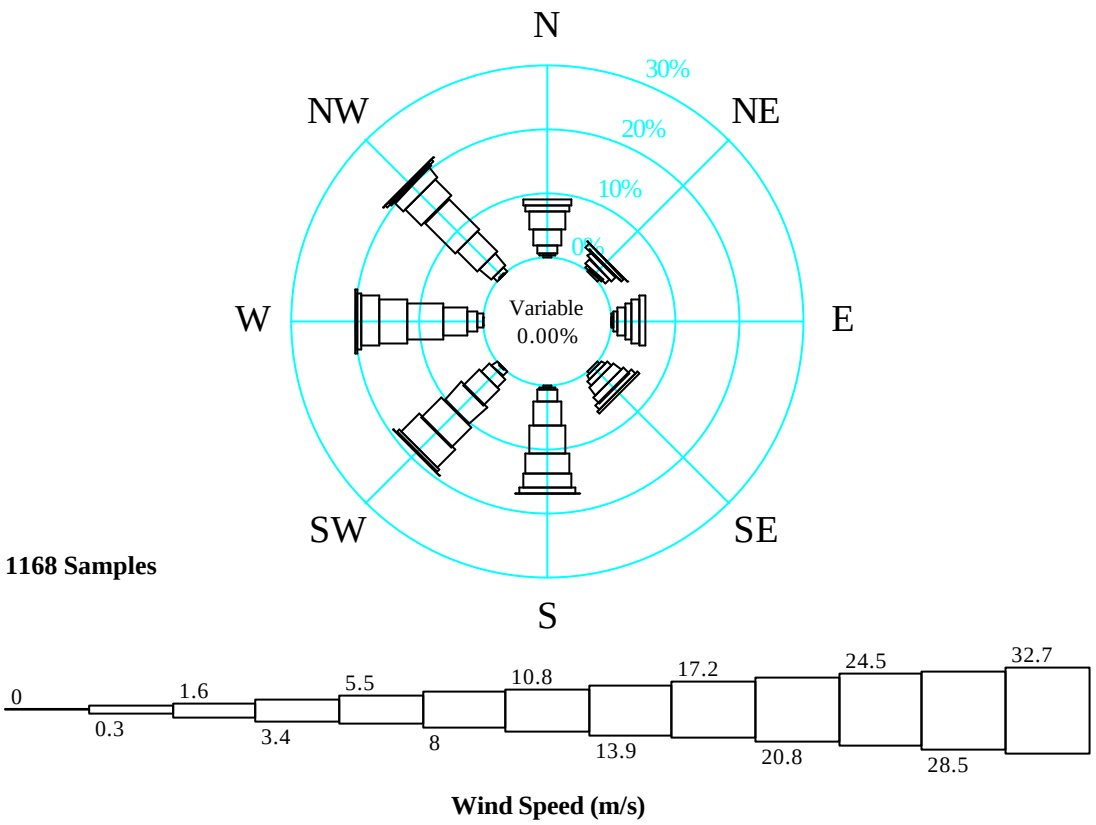
Figure A6.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1227
0.30	6	9	1	3	3	2	4	6	34	1227
1.60	4	8	8	9	9	10	11	5	64	1193
3.40	6	7	10	4	22	19	18	25	111	1129
5.50	13	8	31	33	26	50	33	45	239	1018
8.00	8	2	24	39	56	69	77	43	318	779
10.80	5		21	25	50	82	71	30	284	461
13.90			2	2	33	47	32	5	121	177
17.20			6		14	13	10	2	45	56
20.80			1		4	1	4		10	11
24.50							1		1	1
28.50										
32.70										
51.50										
Total	42	34	104	115	217	293	261	161	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_OCTOBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : October

Figure A6.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_NOVEMBER_94-99

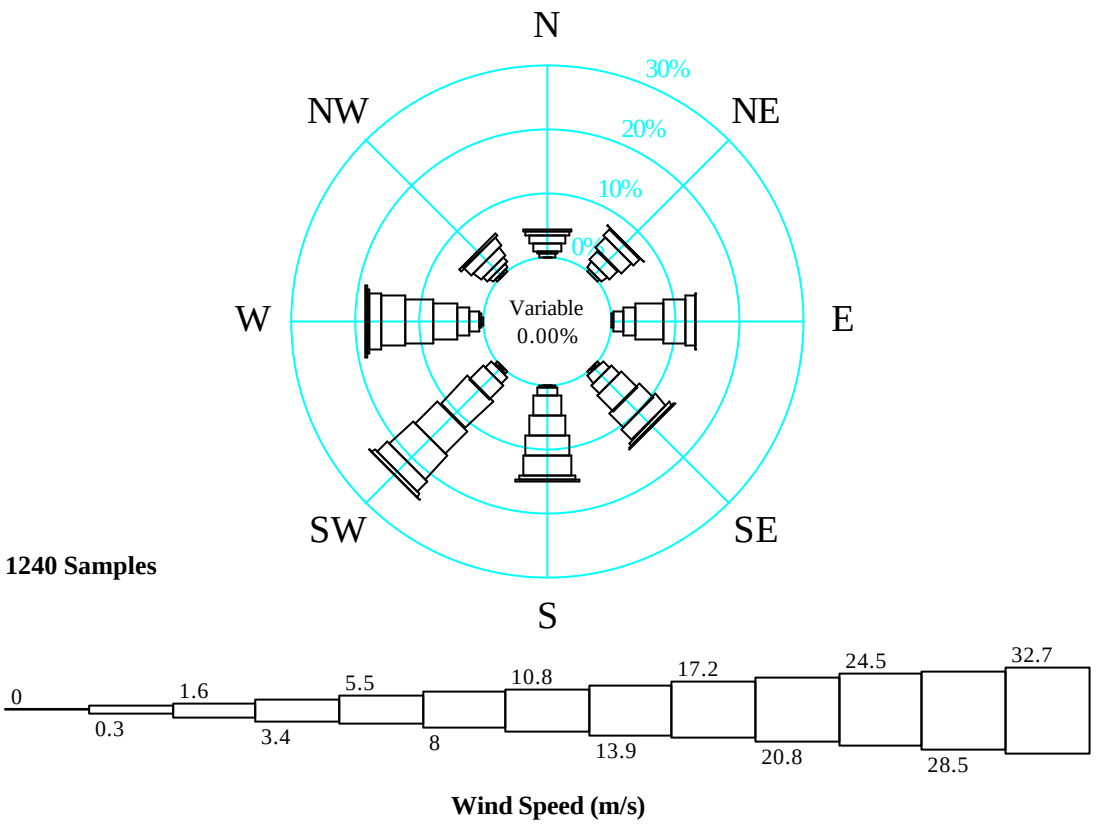
Figure A6.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1168
0.30	3		1		3	1	1	1	10	1168
1.60	3	3	2	5	6	11	8	8	46	1158
3.40	15	5	8	8	20	22	19	28	125	1112
5.50	30	10	15	10	43	38	46	52	244	987
8.00	31	10	12	18	52	44	64	78	309	743
10.80	14	1	13	13	38	52	52	44	227	434
13.90	10	7	11	11	24	45	31	21	160	207
17.20		3		3	10	7	10	5	38	47
20.80					1	2	2	3	8	9
24.50								1	1	1
28.50										
32.70										
51.50										
Total	106	39	62	68	197	222	233	241	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_NOVEMBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : November

Figure A6.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_DECEMBER_94-99

Figure A6.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1240
0.30	1			1	1	1	2	1	7	1240
1.60	6	4	5	5	1	6	5	3	35	1233
3.40	5	15	18	17	19	17	18	8	117	1198
5.50	15	23	22	23	39	36	25	11	194	1081
8.00	14	28	56	43	38	74	45	21	319	887
10.80	9	18	40	35	38	62	56	18	276	568
13.90	2	1	20	29	37	64	45	4	202	292
17.20			2	7	10	26	26		71	90
20.80				2	2	8	4		16	19
24.50						1	2		3	3
28.50										
32.70										
51.50										
Total	52	89	163	162	185	295	228	66	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_WS/WD_DECEMBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wind Rose and Frequency Table : December

UKMO GWM 6 (50.25°N, 12.86°W)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	98.54	98.93	98.15	97.66	96.37	95.42	97.90	96.45	98.08	97.23	99.14	99.44	97.77
3.4	94.90	96.26	92.50	90.89	86.53	86.25	90.97	84.27	92.08	92.01	95.21	96.61	91.50
5.5	88.35	88.79	80.16	76.34	68.47	66.58	71.94	61.61	75.75	82.97	84.50	87.18	77.63
8.0	72.90	73.75	52.90	51.34	44.03	44.83	37.82	34.11	46.83	63.49	63.61	71.53	54.61
10.8	49.92	48.75	28.15	22.74	17.18	13.75	8.79	11.29	19.08	37.57	37.16	45.81	28.21
13.9	25.32	25.18	10.89	6.69	3.95	1.92	1.45	2.74	5.17	14.43	17.72	23.55	11.50
17.2	10.44	11.92	3.47	1.84	0.73	0.25	0.00	0.56	1.58	4.56	4.02	7.26	3.84
20.8	1.54	2.40	0.32	0.42	0.08	0.00	0.00	0.00	0.42	0.90	0.77	1.53	0.69
24.5	0.08	0.53	0.00	0.25	0.00	0.00	0.00	0.00	0.08	0.08	0.09	0.24	0.11
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**11.03**	**11.18**	**8.62**	**8.34**	**7.49**	**7.28**	**7.17**	**6.81**	**8.06**	**9.66**	**9.81**	**10.72**	**8.85**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**27.75**	**26.72**	**22.61**	**28.27**	**22.10**	**19.53**	**16.96**	**20.56**	**24.67**	**27.75**	**25.18**	**28.27**	**28.27**

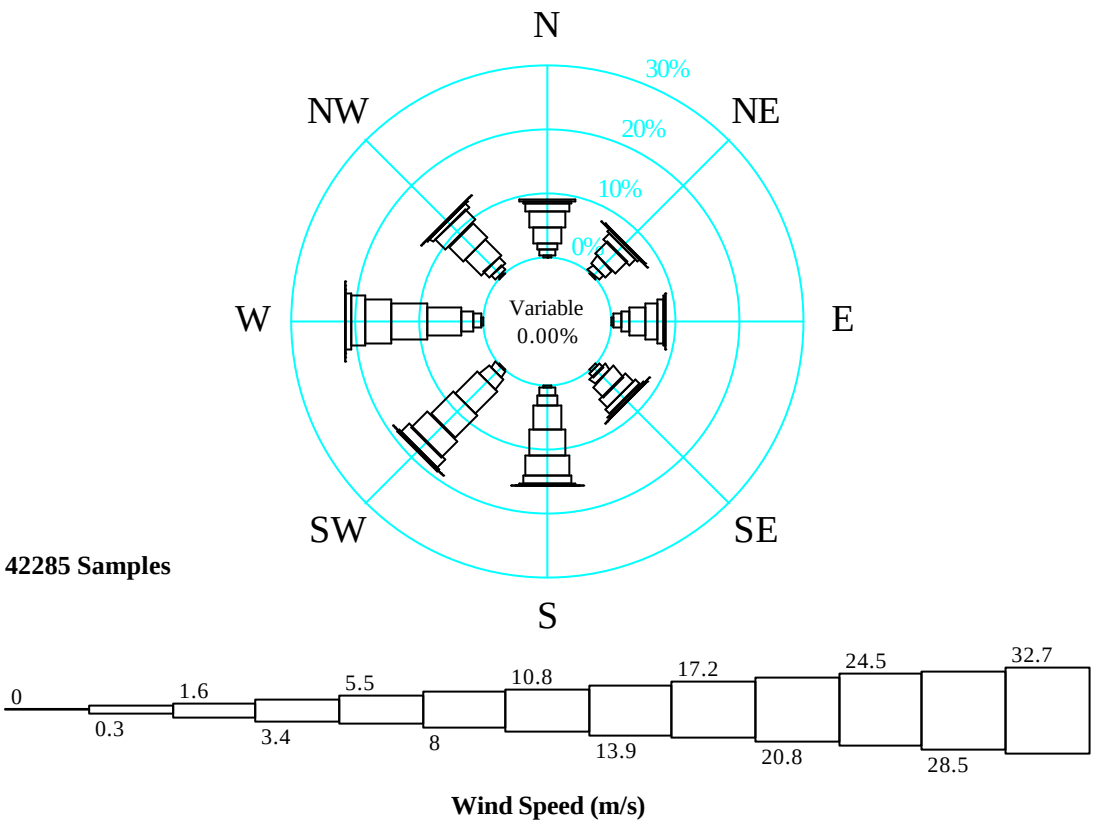
Table A6.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : UKMO GWM 6

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	96.63	96.69	97.11	97.01	97.87	98.48	98.49	97.76	97.77
3.4	88.01	83.72	90.01	85.96	93.37	94.71	94.01	92.04	91.50
5.5	70.69	60.29	70.34	69.84	81.68	84.45	83.50	78.52	77.63
8.0	42.05	26.12	45.82	46.20	62.35	64.27	65.05	52.26	54.61
10.8	16.34	8.14	19.75	20.47	34.51	37.87	36.53	24.54	28.21
13.9	4.72	2.68	5.70	6.97	13.56	17.42	17.22	8.06	11.50
17.2	1.20	0.81	1.33	1.36	4.50	6.08	6.74	2.08	3.84
20.8	0.15	0.36	0.08	0.18	0.51	1.11	1.47	0.31	0.69
24.5	0.00	0.09	0.00	0.00	0.00	0.21	0.27	0.05	0.11
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**7.58**	**6.46**	**7.81**	**7.83**	**9.48**	**9.93**	**9.93**	**8.49**	**8.85**
Minimum	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**	**0.51**
Maximum	**22.61**	**24.67**	**21.07**	**22.10**	**24.15**	**28.27**	**28.27**	**25.18**	**28.27**

Table A6.28 - All Year Wind Speed - Percentage Exceedence by Direction : UKMO GWM 6

APPENDIX A-7

Figure A7.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_ALLYEAR_1/94-11/99

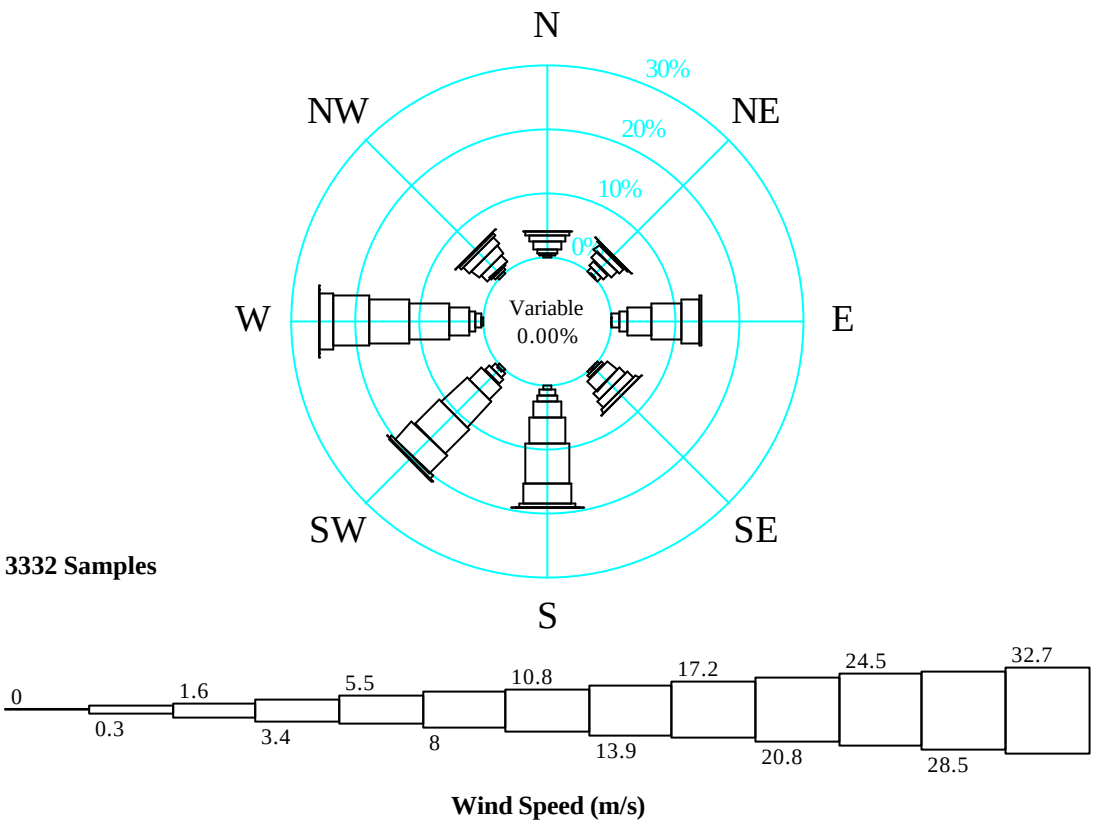
Figure A7.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	1								1	42285
0.30	80	61	136	125	125	70	68	78	743	42284
1.60	405	461	500	332	478	478	547	408	3609	41541
3.40	450	598	574	452	667	869	891	558	5059	37932
5.50	1067	1103	1068	968	1578	2015	2152	1431	11382	32873
8.00	1009	557	808	744	1761	2072	2455	1335	10741	21491
10.80	549	155	372	389	1309	1491	1692	971	6928	10750
13.90	166	42	103	174	566	695	960	319	3025	3822
17.20	42	5	6	25	137	143	271	63	692	797
20.80		1		1	12	19	42	19	94	105
24.50					2	3	3	2	10	11
28.50							1		1	1
32.70										
51.50										
Total	3769	2983	3567	3210	6635	7855	9082	5184	42285	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_ALLYEAR_1/94-11/99

BUOY DATA K2 : 51.05°N, 13.30°W
1/1/94-30/11/99
Wind Rose and Frequency Table : All Year

Figure A7.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_JANUARY_94-99

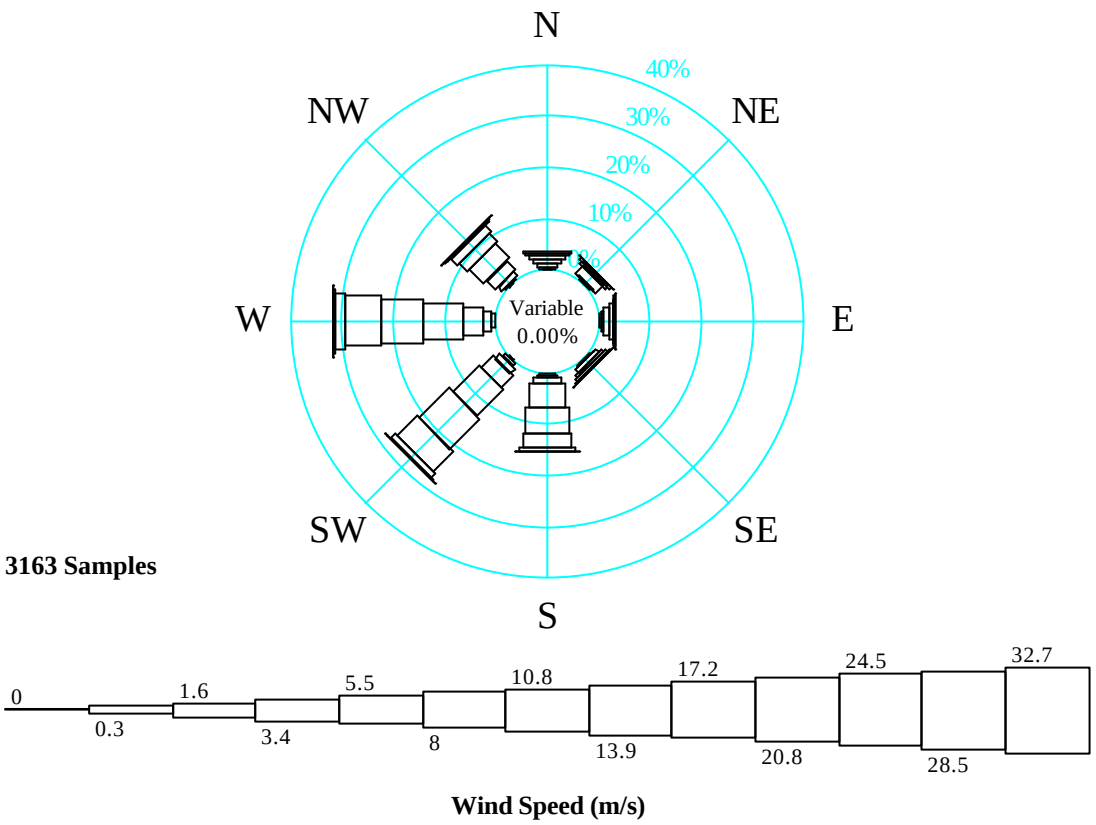
Figure A7.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3332
0.30	6	2	3	2	23	18	10	9	73	3332
1.60	14	26	36	13	33	22	34	17	195	3259
3.40	20	30	44	15	30	34	24	12	209	3064
5.50	39	46	129	71	76	94	111	41	607	2855
8.00	33	34	147	45	137	186	200	52	834	2248
10.80	20	12	102	41	214	176	216	41	822	1414
13.90	2	2	9	25	100	129	181	18	466	592
17.20				1	20	18	72	1	112	126
20.80					3	2	6		11	14
24.50					1		2		3	3
28.50										
32.70										
51.50										
Total	134	152	470	213	637	679	856	191	3332	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_JANUARY_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : January

Figure A7.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_FEBRUARY_94-99

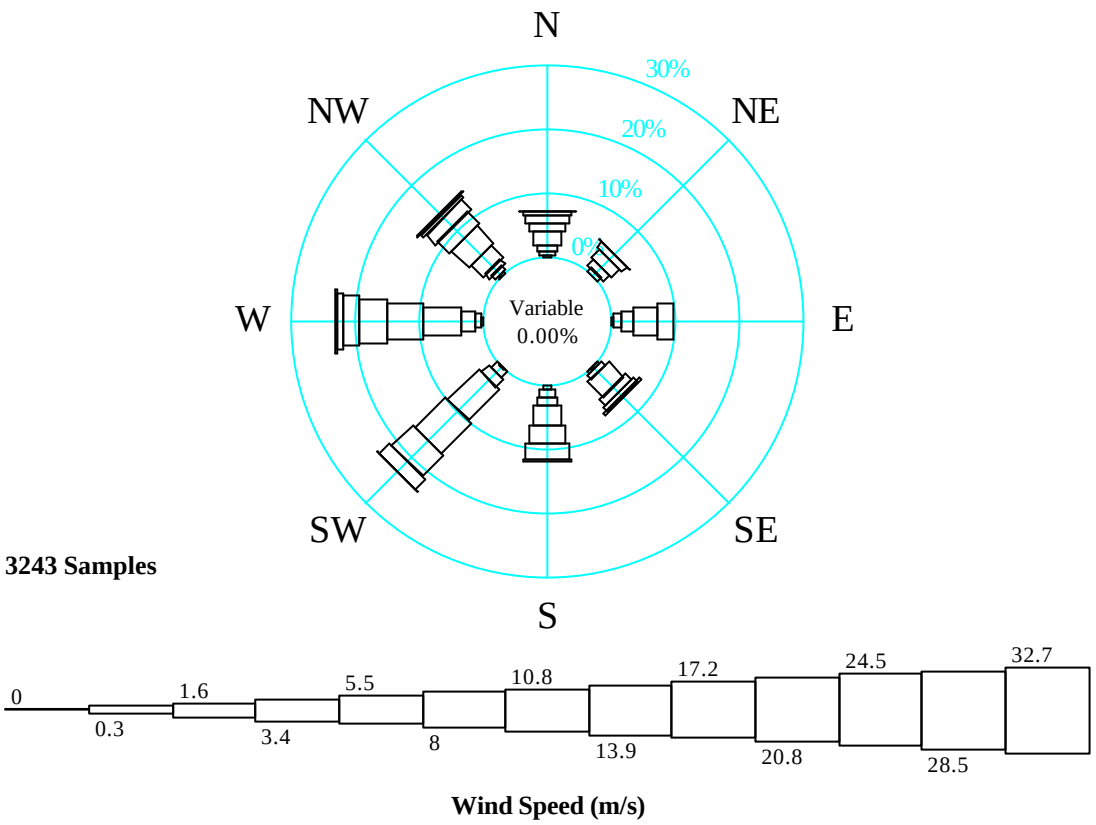
Figure A7.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3163
0.30	1					1		1	3	3163
1.60	17	11	14	11	12	28	25	12	130	3160
3.40	21	10	10	7	12	45	51	32	188	3030
5.50	31	57	43	25	48	101	128	79	512	2842
8.00	24	21	21	16	138	225	250	123	818	2330
10.80	13	9	7	16	166	262	250	71	794	1512
13.90	3	2	2	5	86	170	225	55	548	718
17.20			1	1	22	42	66	8	140	170
20.80					1	7	13	5	26	30
24.50						1	1	2	4	4
28.50										
32.70										
51.50										
Total	110	110	98	81	485	882	1009	388	3163	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_FEBRUARY_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : February

Figure A7.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_MARCH_94-99

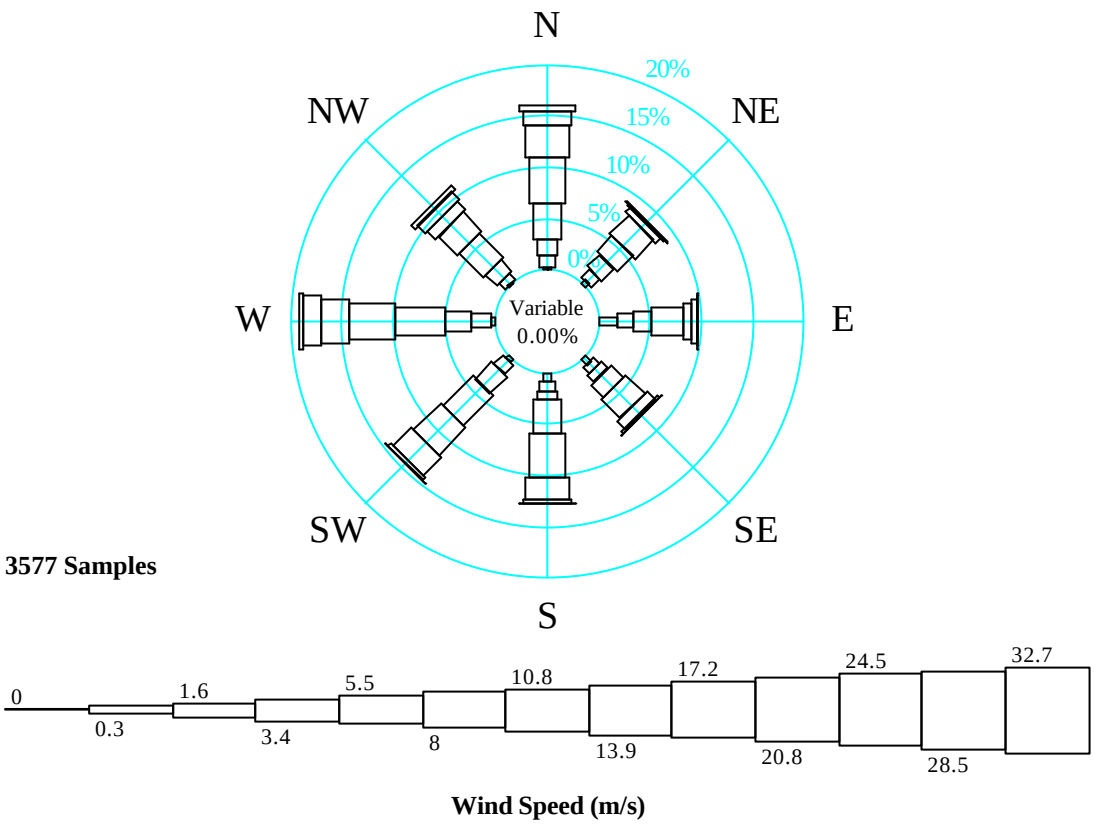
Figure A7.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3243
0.30	5		5	2	16	4	6	8	46	3243
1.60	29	22	41	11	40	36	33	27	239	3197
3.40	25	38	69	28	45	55	68	32	360	2958
5.50	69	58	115	102	105	217	196	80	942	2598
8.00	47	33	81	44	84	212	180	125	806	1656
10.80	34	2		20	80	153	143	79	511	850
13.90	18			10	14	70	80	64	256	339
17.20	1					4	36	22	63	83
20.80							9	11	20	20
24.50										
28.50										
32.70										
51.50										
Total	228	153	311	217	384	751	751	448	3243	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_MARCH_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : March

Figure A7.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_APRIL_94-99

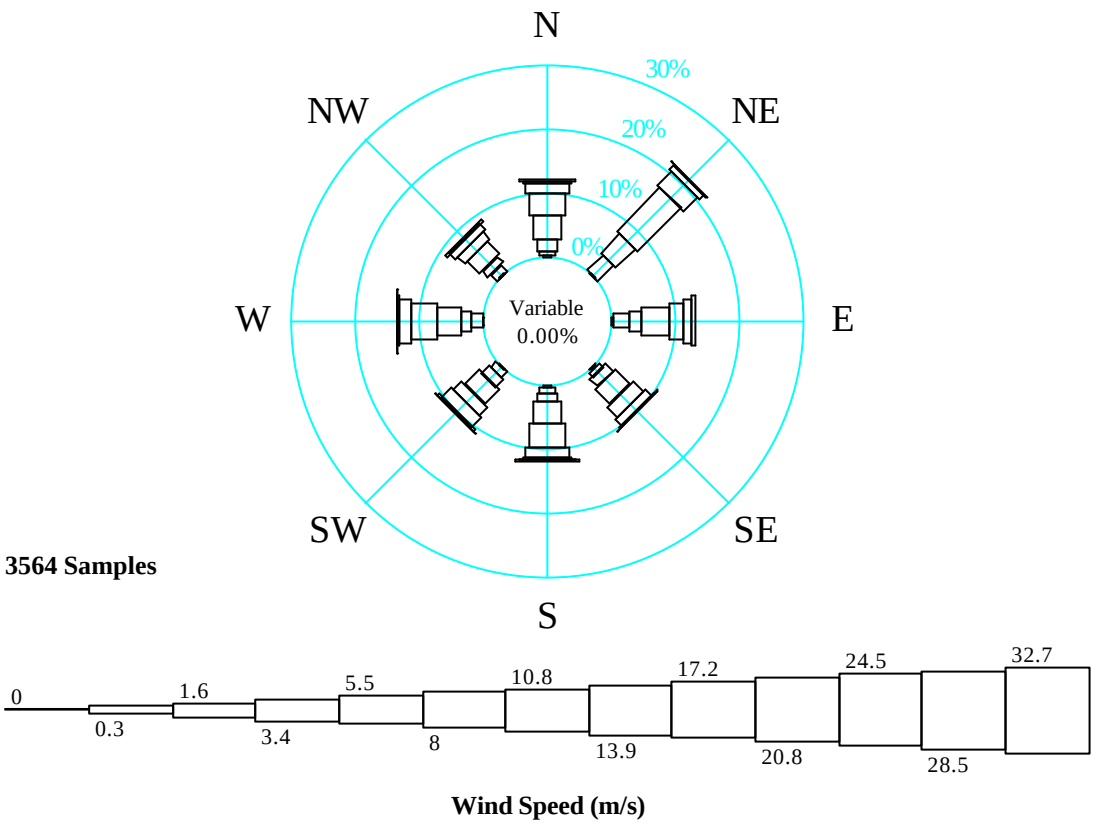
Figure A7.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	1								1	3577
0.30	7	17	68	27	34	11	15	6	185	3576
1.60	42	38	54	25	32	47	68	26	332	3391
3.40	60	58	65	32	31	83	94	56	479	3059
5.50	120	78	106	62	115	144	177	119	921	2580
8.00	164	93	32	92	151	135	155	89	911	1659
10.80	110	21	18	39	78	88	98	44	496	748
13.90	48	4	3	7	12	11	67	37	189	252
17.20	21	3	1	4	6	4	10	14	63	63
20.80										
24.50										
28.50										
32.70										
51.50										
Total	573	312	347	288	459	523	684	391	3577	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_APRIL_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : April

Figure A7.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_MAY_94-99

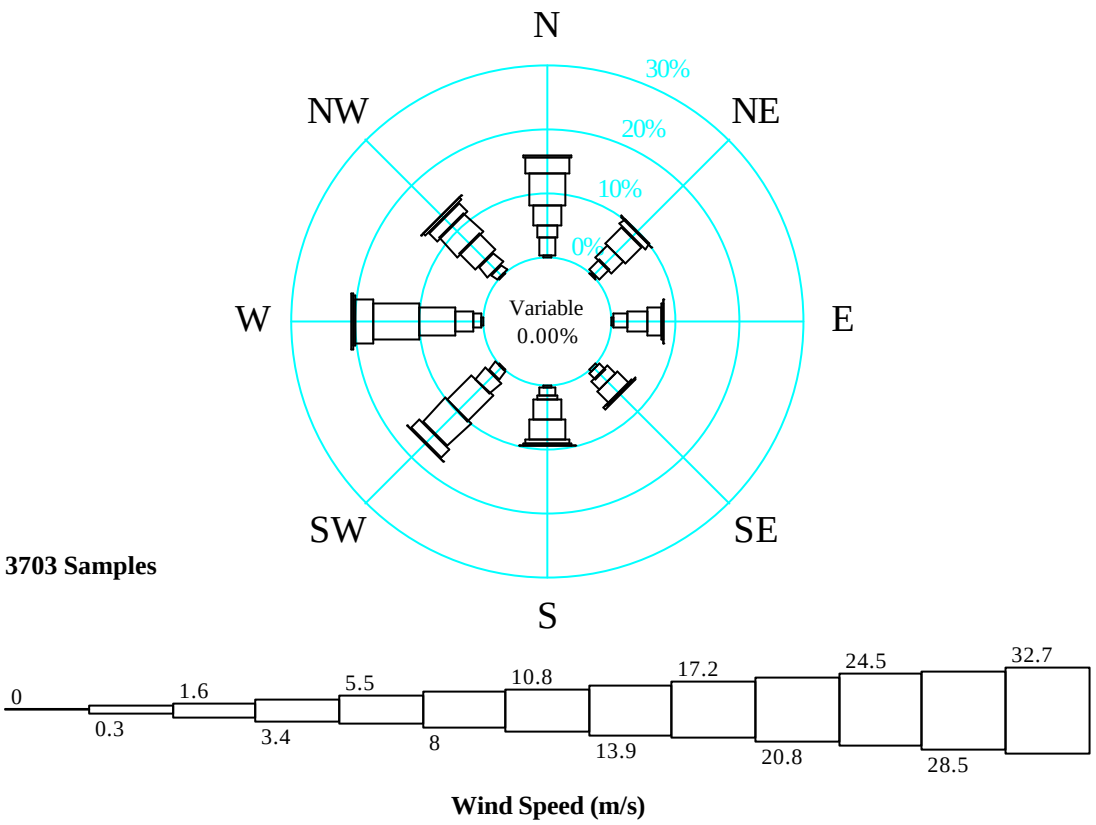
Figure A7.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3564
0.30	6	4	12	7	9	5	3	2	48	3564
1.60	30	118	87	33	37	38	63	49	455	3516
3.40	59	153	64	56	46	63	60	42	543	3061
5.50	134	336	164	120	114	108	134	99	1209	2518
8.00	128	108	76	80	137	66	141	57	793	1309
10.80	51	36	45	46	54	74	67	42	415	516
13.90	11	3	13	3	14	14	7	12	77	101
17.20	11			2	4	3			20	24
20.80					3		1		4	4
24.50										
28.50										
32.70										
51.50										
Total	430	758	461	347	418	371	476	303	3564	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_MAY_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : May

Figure A7.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_JUNE_94-99

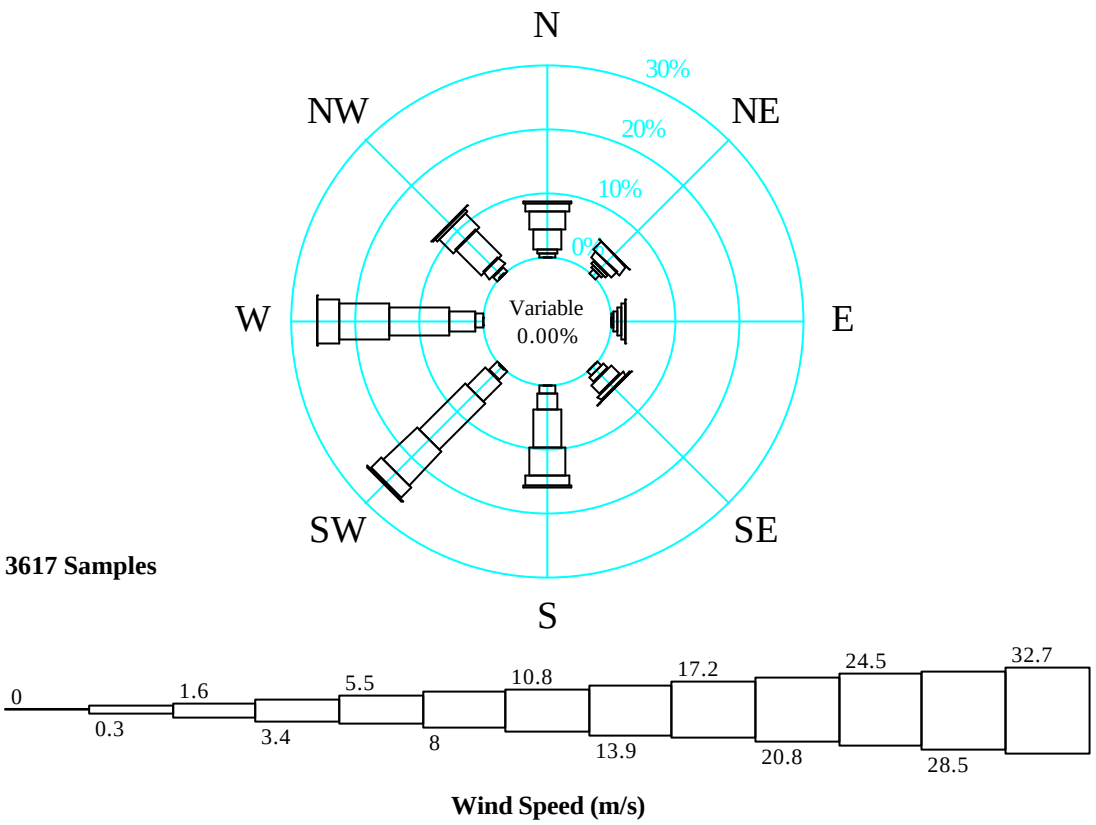
Figure A7.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3703
0.30	6	8	14	11	13	6	10	5	73	3703
1.60	104	81	79	47	40	62	50	45	508	3630
3.40	68	98	113	62	28	93	103	80	645	3122
5.50	119	133	80	92	115	197	208	130	1074	2477
8.00	182	42	12	6	113	189	258	151	953	1403
10.80	103	1	1	6	31	76	108	66	392	450
13.90	2				5	5	19	19	50	58
17.20					1		6	1	8	8
20.80										
24.50										
28.50										
32.70										
51.50										
Total	584	363	299	224	346	628	762	497	3703	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_JUNE_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : June

Figure A7.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_JULY_94-99

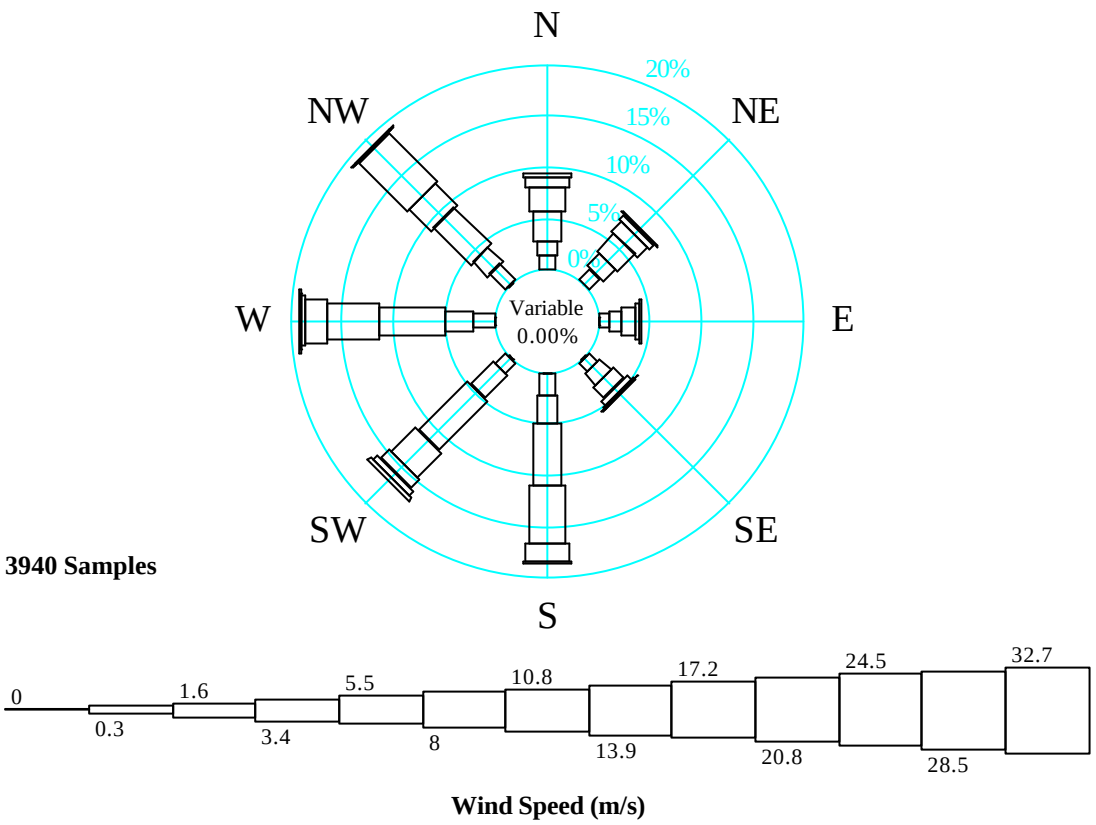
Figure A7.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3617
0.30	4	26	4	1	3	3	4	2	47	3617
1.60	16	18	8	28	39	63	40	31	243	3570
3.40	21	19	17	35	97	150	152	58	549	3327
5.50	121	46	28	74	209	365	334	197	1374	2778
8.00	100	59	17	28	159	262	286	106	1017	1404
10.80	44	7	9	5	62	84	117	21	349	387
13.90	3			4	12	10	8	1	38	38
17.20										
20.80										
24.50										
28.50										
32.70										
51.50										
Total	309	175	83	175	581	937	941	416	3617	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_JULY_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : July

Figure A7.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_AUGUST_94-99

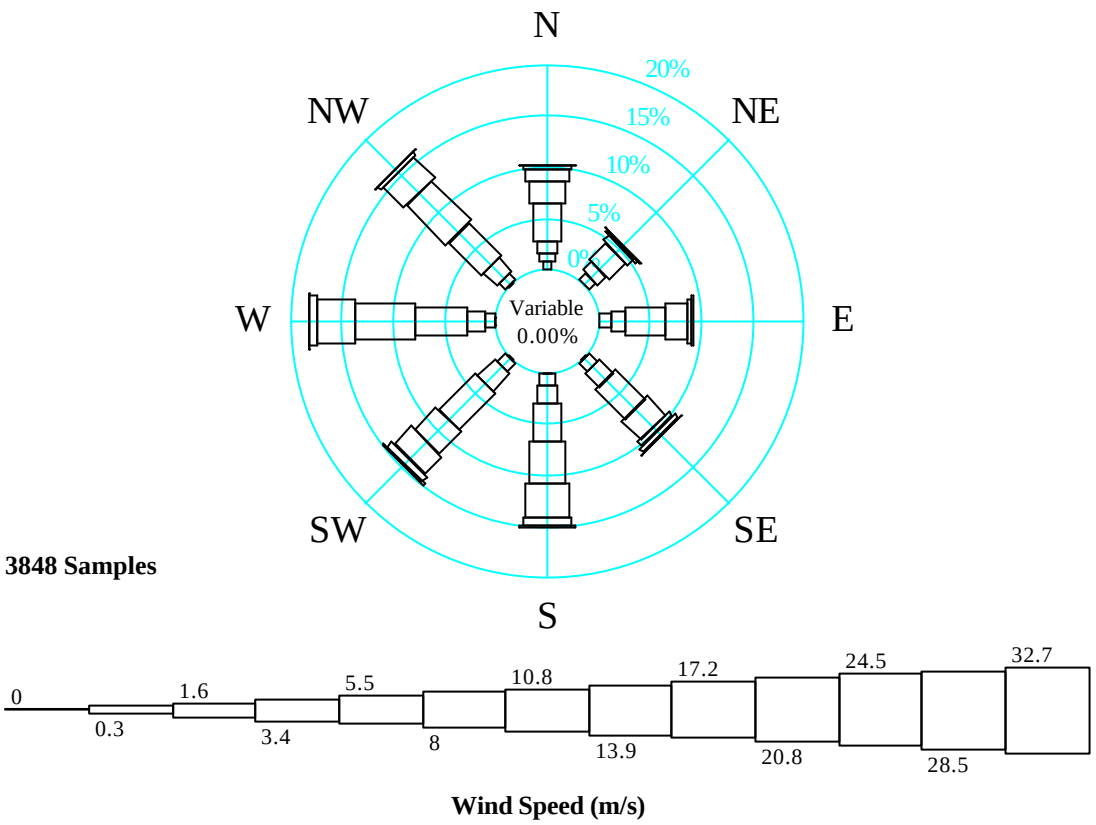
Figure A7.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3940
0.30			1	3	3	1	3	3	14	3940
1.60	53	61	43	44	83	58	82	83	507	3926
3.40	57	69	45	60	108	120	110	80	649	3419
5.50	112	91	53	58	241	270	255	198	1278	2770
8.00	93	57	13	24	219	134	197	115	852	1492
10.80	37	22	6	8	75	45	88	267	548	640
13.90	18	7		1	3	23	14	6	72	92
17.20						16	1	1	18	20
20.80							2		2	2
24.50										
28.50										
32.70										
51.50										
Total	370	307	161	198	732	667	752	753	3940	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_AUGUST_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : August

Figure A7.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_SEPTEMBER_94-99

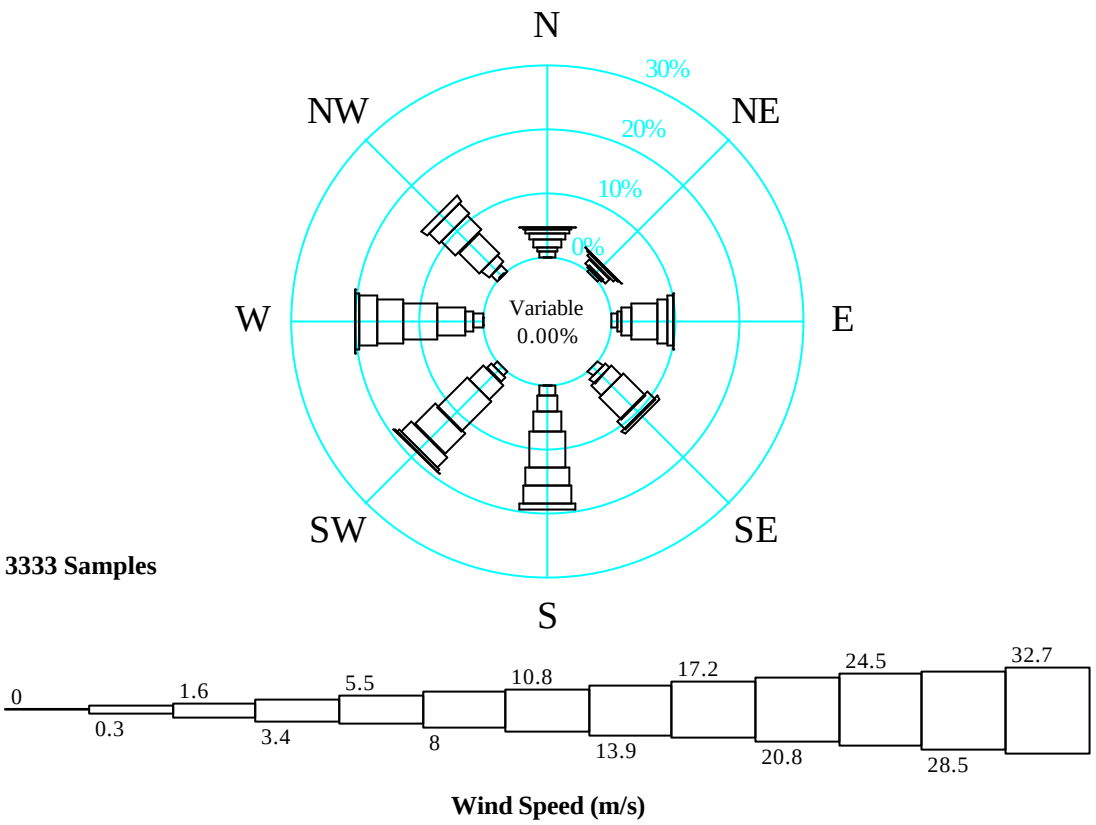
Figure A7.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3848
0.30	33			3	1	3	3	3	46	3848
1.60	30	38	47	43	47	42	38	34	319	3802
3.40	46	42	56	74	68	92	68	65	511	3483
5.50	142	90	149	151	144	193	192	175	1236	2972
8.00	85	29	79	99	155	115	230	210	1002	1736
10.80	44	8	20	20	132	93	141	112	570	734
13.90	11	5	5	19	27	28	30	13	138	164
17.20	4			3	9	4	1	5	26	26
20.80										
24.50										
28.50										
32.70										
51.50										
Total	395	212	356	412	583	570	703	617	3848	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_SEPTEMBER_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : September

Figure A7.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_OCTOBER_94-99

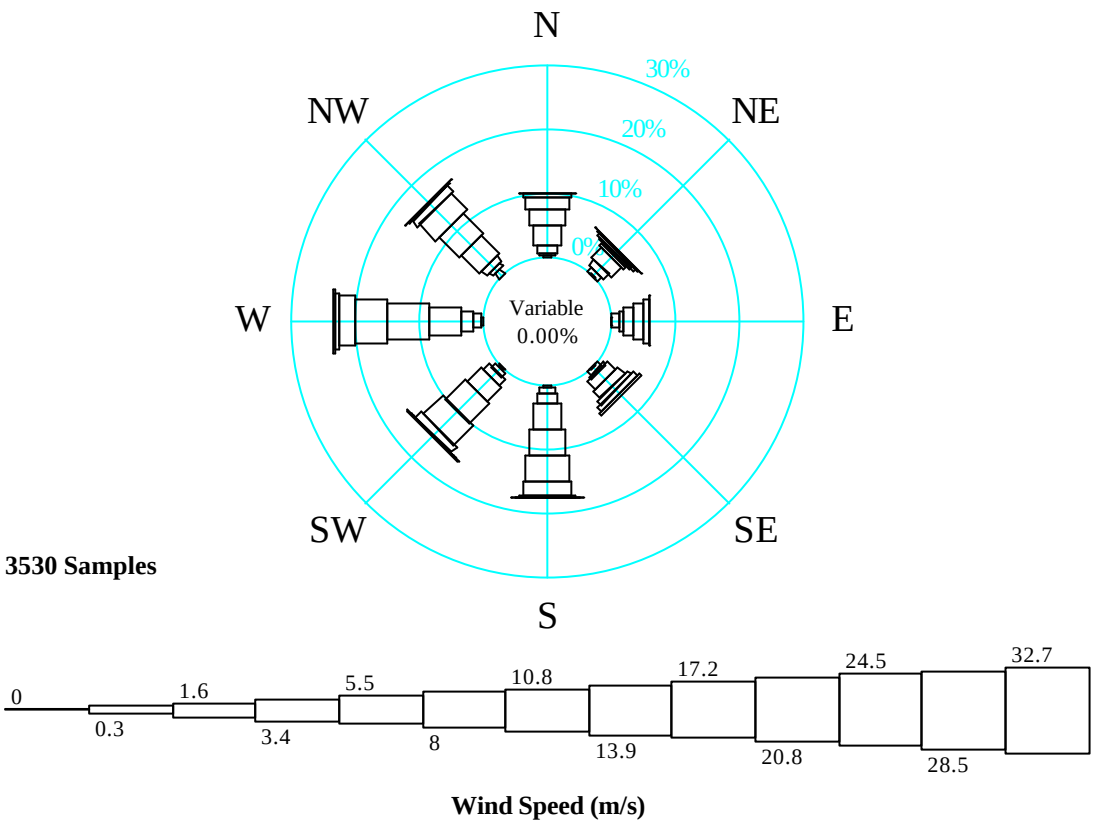
Figure A7.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3333
0.30	1				2		1	2	6	3333
1.60	30	11	26	35	48	26	46	42	264	3327
3.40	18	14	26	33	84	33	44	52	304	3063
5.50	40	28	55	70	104	107	151	148	703	2759
8.00	35	15	132	160	186	220	177	105	1030	2056
10.80	16	10	54	47	101	147	131	76	582	1026
13.90	13	1	27	21	88	76	98	39	363	444
17.20	2		3		37	13	21		76	81
20.80						4	1		5	5
24.50										
28.50										
32.70										
51.50										
Total	155	79	323	366	650	626	670	464	3333	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_OCTOBER_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : October

Figure A7.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_NOVEMBER_94-99

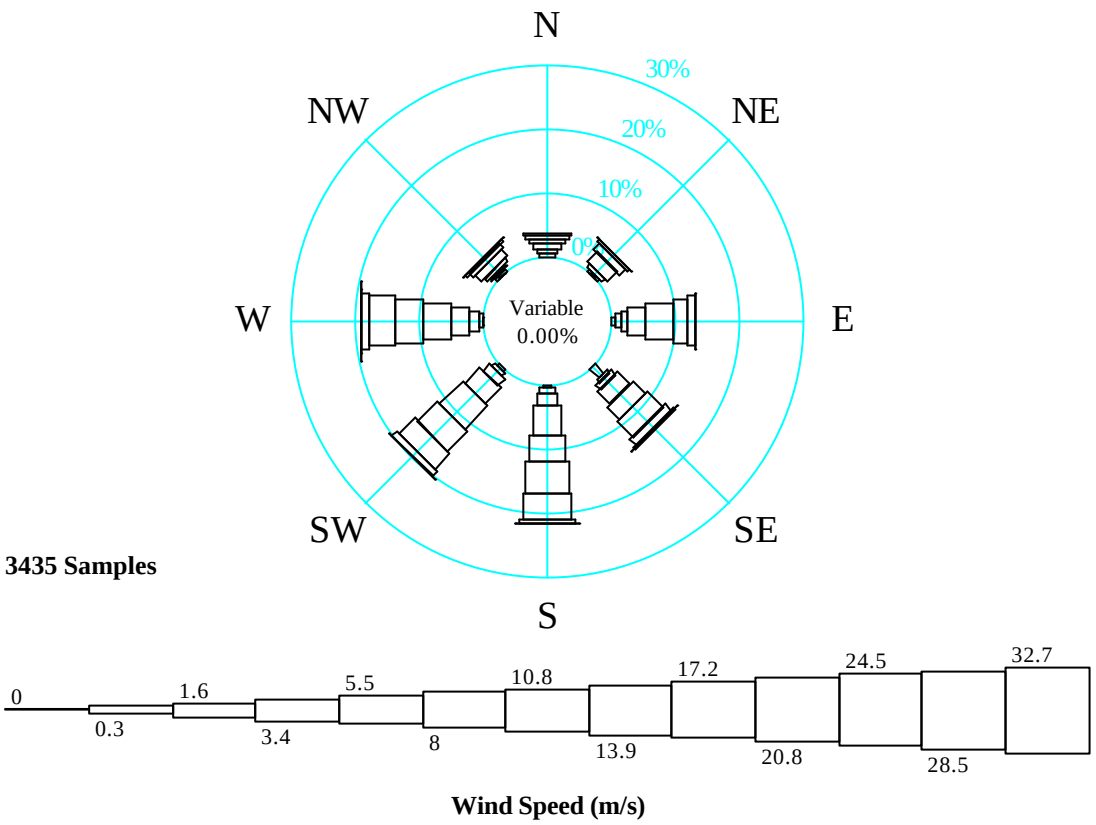
Figure A7.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3530
0.30	11	2	3	3	8	7	11	36	81	3530
1.60	15	24	36	23	37	31	47	26	239	3449
3.40	40	45	31	17	50	49	65	37	334	3210
5.50	109	72	54	54	147	107	174	137	854	2876
8.00	91	20	49	52	143	153	231	158	897	2022
10.80	58	14	32	29	146	142	178	125	724	1125
13.90	26	17	4	30	70	41	90	42	320	401
17.20	3	2		10	17	4	20	10	66	81
20.80		1			2	2	4	3	12	15
24.50					1	2			3	3
28.50										
32.70										
51.50										
Total	353	197	209	218	621	538	820	574	3530	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_NOVEMBER_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : November

Figure A7.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_DECEMBER_94-99

Figure A7.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3435
0.30		2	26	66	13	11	2	1	121	3435
1.60	25	13	29	19	30	25	21	16	178	3314
3.40	15	22	34	33	68	52	52	12	288	3136
5.50	31	68	92	89	160	112	92	28	672	2848
8.00	27	46	149	98	139	175	150	44	828	2176
10.80	19	13	78	112	170	151	155	27	725	1348
13.90	11	1	40	49	135	118	141	13	508	623
17.20			1	4	21	35	38	1	100	115
20.80				1	3	4	6		14	15
24.50										1
28.50							1		1	1
32.70										
51.50										
Total	128	165	449	471	739	683	658	142	3435	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_WS/WD_DECEMBER_94-99

BUOY DATA K2 : 51.05°N, 9.66°W
1/1/94-30/11/99
Wind Rose and Frequency Table : December

BUOY K2 (51.00°N, 13.30°W)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	99.97	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	97.83	99.91	98.56	94.84	98.66	98.01	98.70	99.65	98.81	99.82	97.68	96.48	98.24
3.4	91.99	95.77	91.22	85.56	85.89	84.35	91.96	86.79	90.55	91.92	90.88	91.23	89.71
5.5	85.77	89.92	80.15	72.20	70.67	67.02	76.79	70.34	77.30	82.81	81.45	82.84	77.78
8.0	67.56	73.70	51.22	46.34	36.75	37.96	38.82	37.90	45.20	61.77	57.34	63.18	50.89
10.8	42.50	48.00	26.24	20.87	14.50	12.15	10.69	16.22	19.10	30.81	31.93	39.11	25.47
13.9	17.83	22.79	10.49	7.04	2.83	1.56	1.05	2.33	4.30	13.32	11.35	18.19	9.08
17.2	3.78	5.42	2.54	1.77	0.67	0.22	0.00	0.51	0.67	2.43	2.32	3.47	1.90
20.8	0.42	0.94	0.61	0.03	0.11	0.00	0.00	0.05	0.00	0.15	0.42	0.43	0.25
24.5	0.09	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.03	0.03
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**10.02**	**10.78**	**8.64**	**7.86**	**7.23**	**7.01**	**7.34**	**7.25**	**7.89**	**9.26**	**9.03**	**9.65**	**8.44**
Minimum	**0.54**	**1.09**	**0.54**	**0.00**	**0.54**	**1.09**	**1.09**	**1.09**	**1.09**	**1.09**	**1.09**	**1.09**	**0.00**
Maximum	**27.45**	**26.83**	**23.76**	**22.54**	**22.54**	**20.11**	**15.93**	**23.76**	**20.72**	**21.93**	**26.83**	**28.70**	**28.70**

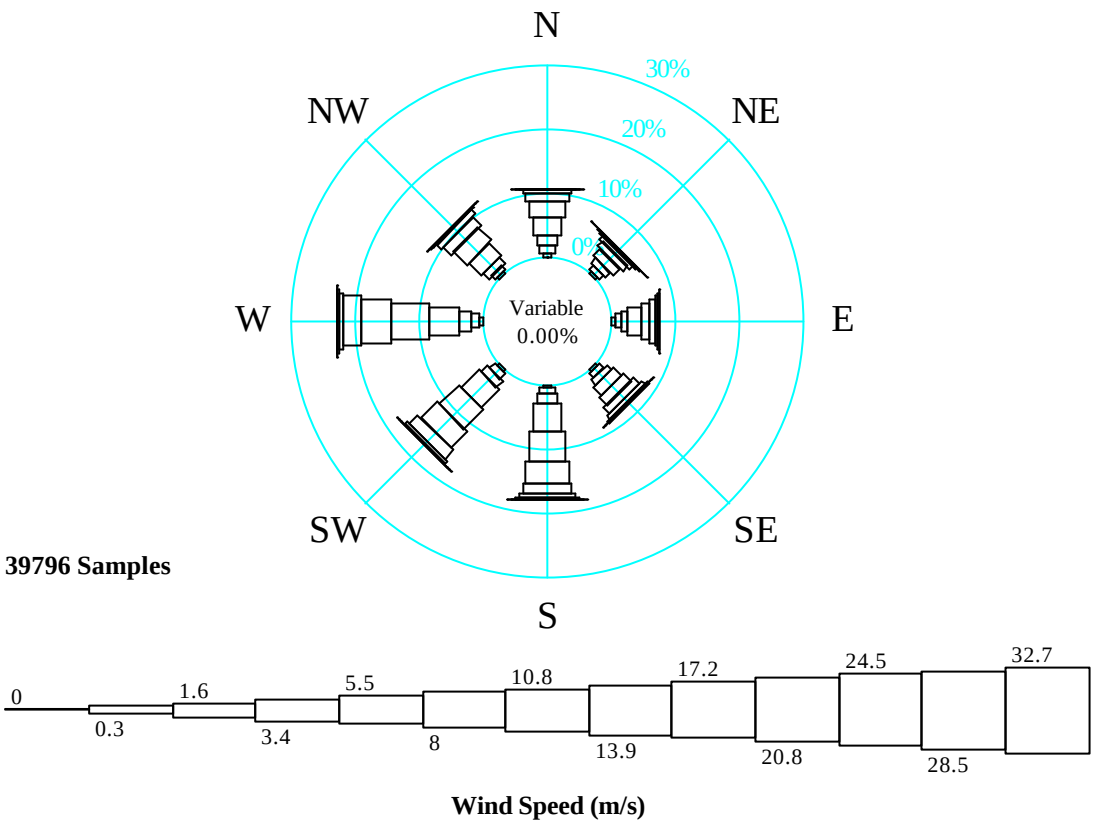
Table A7.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : BUOY K2

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	99.97	100.00	100.00	99.97	100.00	99.97	99.97	100.00	100.00
1.6	97.85	97.96	96.19	96.11	98.12	99.11	99.25	98.50	98.24
3.4	87.11	82.50	82.17	85.76	90.91	93.02	93.23	90.63	89.71
5.5	75.17	62.45	66.08	71.68	80.26	81.96	83.42	79.86	77.78
8.0	46.86	25.48	36.14	41.53	57.08	56.31	59.72	52.26	50.89
10.8	20.08	6.81	13.48	18.35	30.54	29.93	32.69	26.50	25.47
13.9	5.52	1.61	3.06	6.23	10.81	10.95	14.06	7.77	9.08
17.2	1.11	0.20	0.17	0.81	2.28	2.10	3.49	1.62	1.90
20.8	0.00	0.03	0.00	0.03	0.21	0.28	0.51	0.41	0.25
24.5	0.00	0.00	0.00	0.00	0.03	0.04	0.04	0.04	0.03
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**8.00**	**6.39**	**6.99**	**7.59**	**8.93**	**8.96**	**9.33**	**8.49**	**8.44**
Minimum	**0.00**	**0.54**	**1.09**	**0.54**	**0.54**	**0.54**	**1.09**	**1.09**	**0.00**
Maximum	**22.54**	**21.93**	**20.11**	**21.32**	**26.83**	**26.83**	**28.70**	**25.60**	**28.70**

Table A7.28 - All Year Wind Speed - Percentage Exceedence by Direction : BUOY K2

APPENDIX A-8

Figure A8.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_ALLYEAR_1/94-11/99

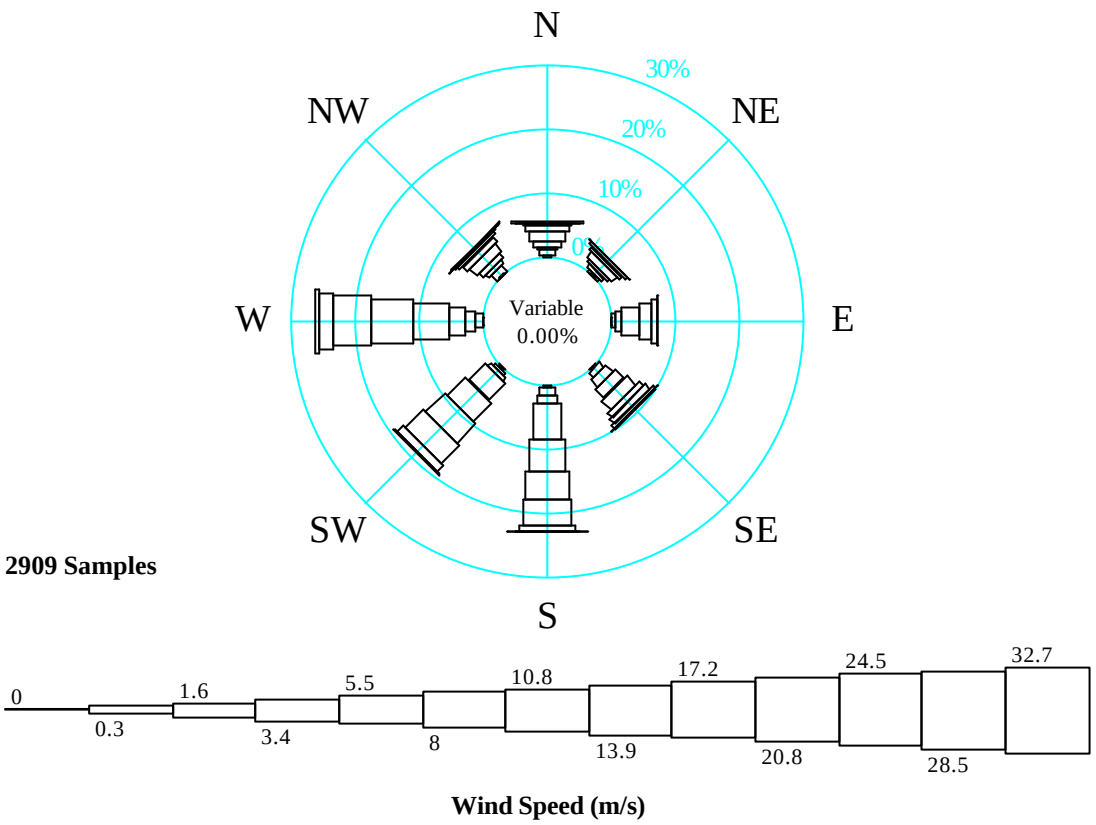
Figure A8.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	1								1	39796
0.30	229	166	215	184	147	182	285	144	1552	39795
1.60	477	332	366	360	395	415	488	298	3131	38243
3.40	629	385	413	412	636	567	727	456	4225	35112
5.50	1079	629	847	713	1665	1512	1883	1124	9452	30887
8.00	1038	449	549	650	1815	1746	2285	1164	9696	21435
10.80	491	222	327	479	1377	1385	1905	679	6865	11739
13.90	230	70	149	282	732	802	1058	345	3668	4874
17.20	62	34	50	82	247	181	320	85	1061	1206
20.80	7		3	5	10	25	48	23	121	145
24.50	2			2	3	2	11	1	21	24
28.50		1			1	1			3	3
32.70										
51.50										
Total	4245	2288	2919	3169	7028	6818	9010	4319	39796	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_ALLYEAR_1/94-11/99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : All Year

Figure A8.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_JANUARY_94-99

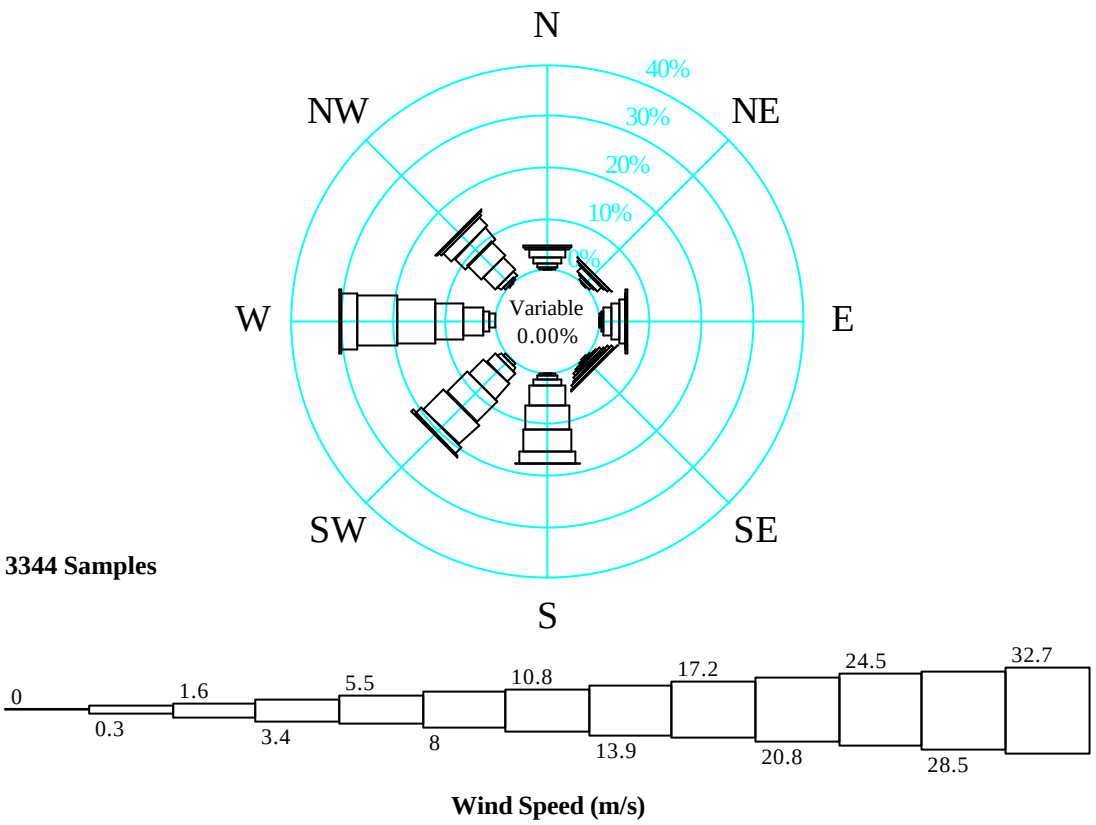
Figure A8.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										2909
0.30	4	2	2	5	5	6	3	2	29	2909
1.60	27	6	17	33	43	20	36	33	215	2880
3.40	17	18	27	45	32	19	38	21	217	2665
5.50	24	16	77	54	164	106	73	23	537	2448
8.00	48	30	58	60	150	119	164	48	677	1911
10.80	28	19	25	27	122	120	197	29	567	1234
13.90	6	12	3	30	115	117	167	13	463	667
17.20		8		16	33	36	66	7	166	204
20.80	2			1	1	8	17	5	34	38
24.50	2							1	3	4
28.50					1				1	1
32.70										
51.50										
Total	158	111	209	271	666	551	761	182	2909	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_JANUARY_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : January

Figure A8.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_FEBRUARY_94-99

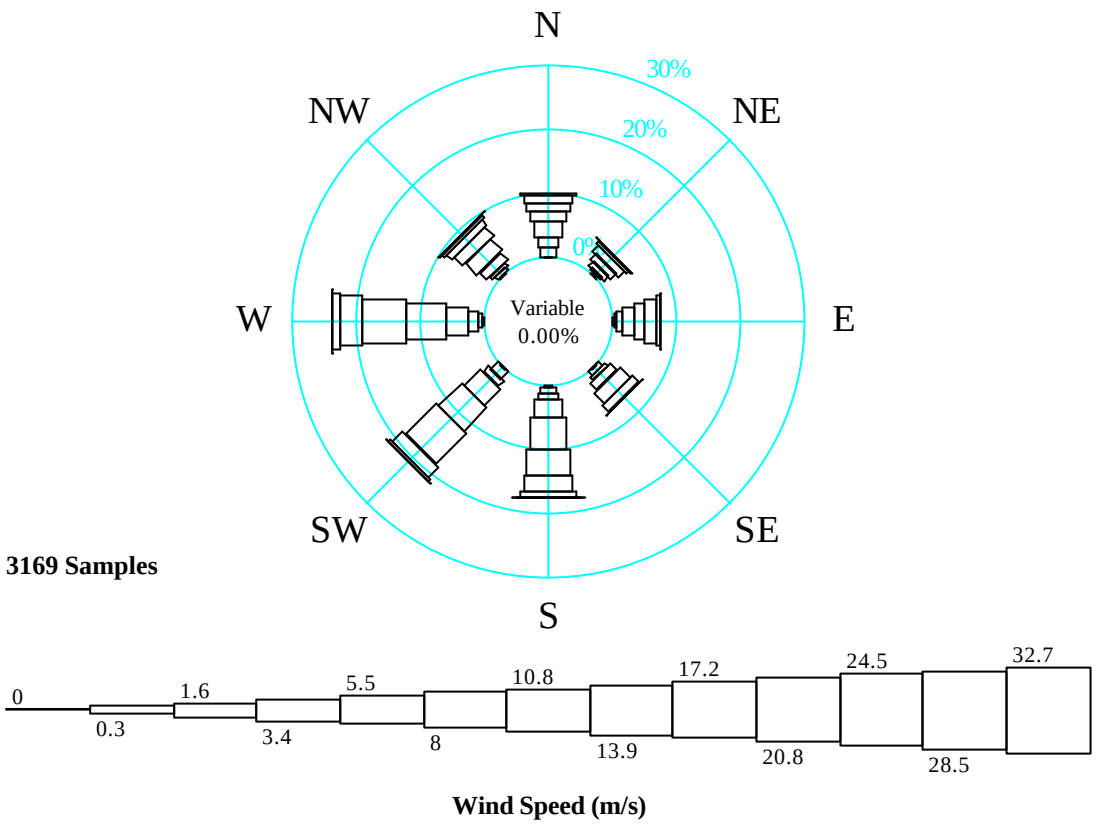
Figure A8.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3344
0.30	2	2	1	1	3			1	10	3344
1.60	16	24	20	12	15	25	46	19	177	3334
3.40	21	9	15	7	21	28	39	30	170	3157
5.50	39	38	47	7	47	78	128	111	495	2987
8.00	53	11	51	14	124	133	185	129	700	2492
10.80	18	12	38	18	164	193	252	93	788	1792
13.90	13	2	4	14	134	181	259	72	679	1004
17.20			3	20	82	58	106	22	291	325
20.80			2	2	2	8	10	10	34	34
24.50										
28.50										
32.70										
51.50										
Total	162	98	181	95	592	704	1025	487	3344	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_FEBRUARY_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : February

Figure A8.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_MARCH_94-99

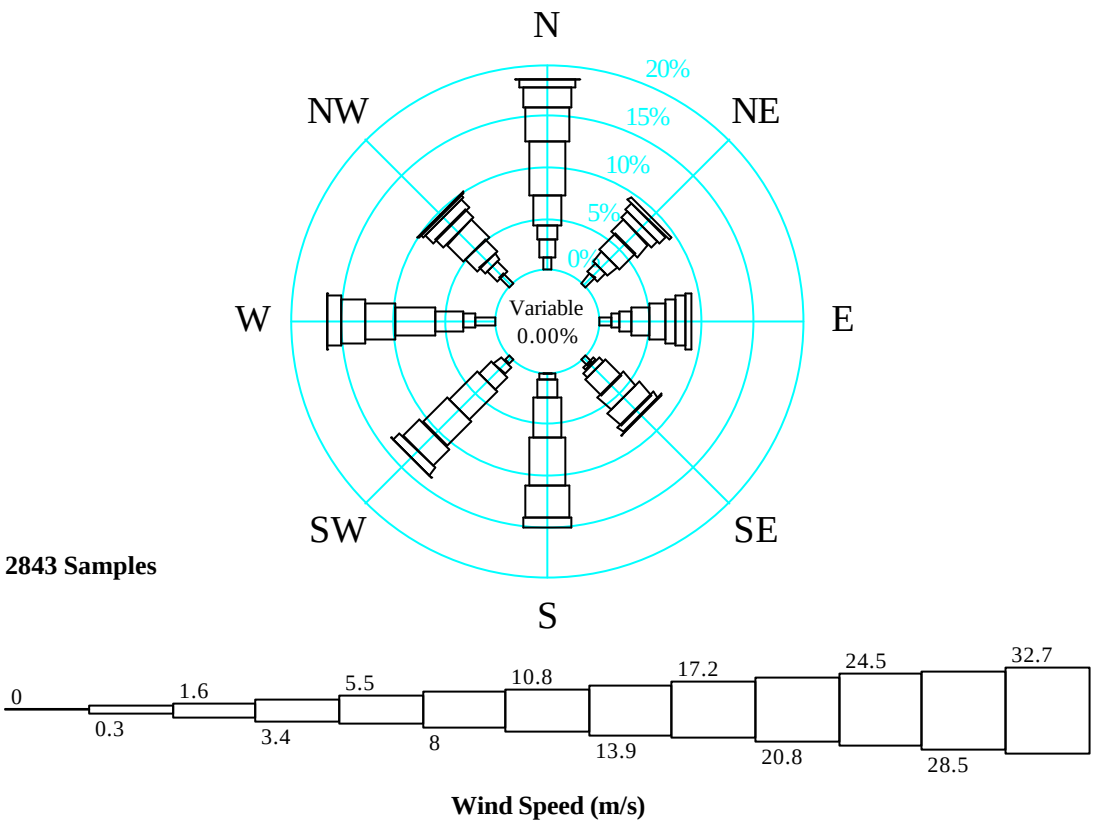
Figure A8.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3169
0.30	1	5	8	3	11	3	6	4	41	3169
1.60	44	14	11	22	30	46	27	18	212	3128
3.40	55	32	26	18	27	34	41	18	251	2916
5.50	76	32	66	52	91	116	109	54	596	2665
8.00	55	38	47	68	155	162	205	79	809	2069
10.80	32	19	58	49	133	214	214	61	780	1260
13.90	46	1	23	4	75	71	110	38	368	480
17.20	7		2		34	15	34	14	106	112
20.80					1	1	2	1	5	6
24.50					1				1	1
28.50										
32.70										
51.50										
Total	316	141	241	216	558	662	748	287	3169	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_MARCH_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : March

Figure A8.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_APRIL_94-99

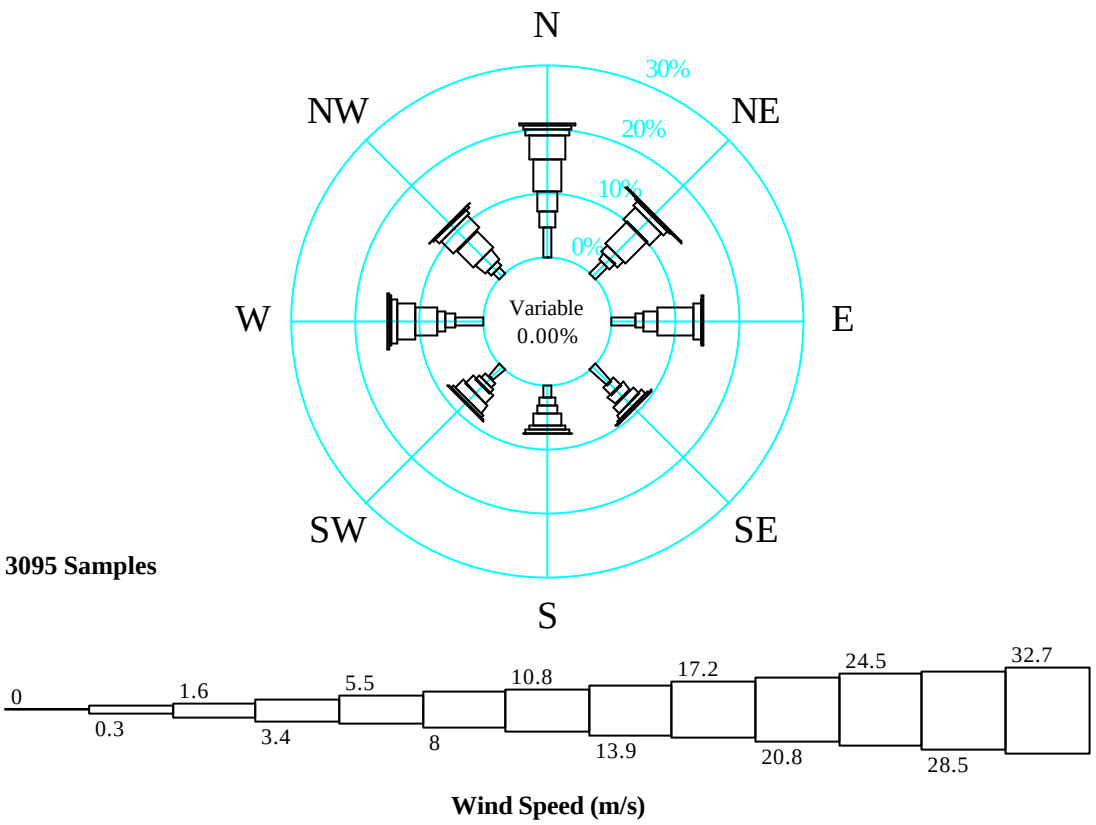
Figure A8.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										2843
0.30	34	36	36	22	4	16	55	37	240	2843
1.60	51	30	22	8	15	30	37	37	230	2603
3.40	41	35	35	15	48	49	75	21	319	2373
5.50	80	59	50	61	112	108	114	43	627	2054
8.00	152	44	42	50	133	95	83	66	665	1427
10.80	90	25	30	49	90	67	65	31	447	762
13.90	59	25	27	18	27	27	36	30	249	315
17.20	21	13	17	1		1	1	9	63	66
20.80	2							1	3	3
24.50										
28.50										
32.70										
51.50										
Total	530	267	259	224	429	393	466	275	2843	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_APRIL_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : April

Figure A8.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_MAY_94-99

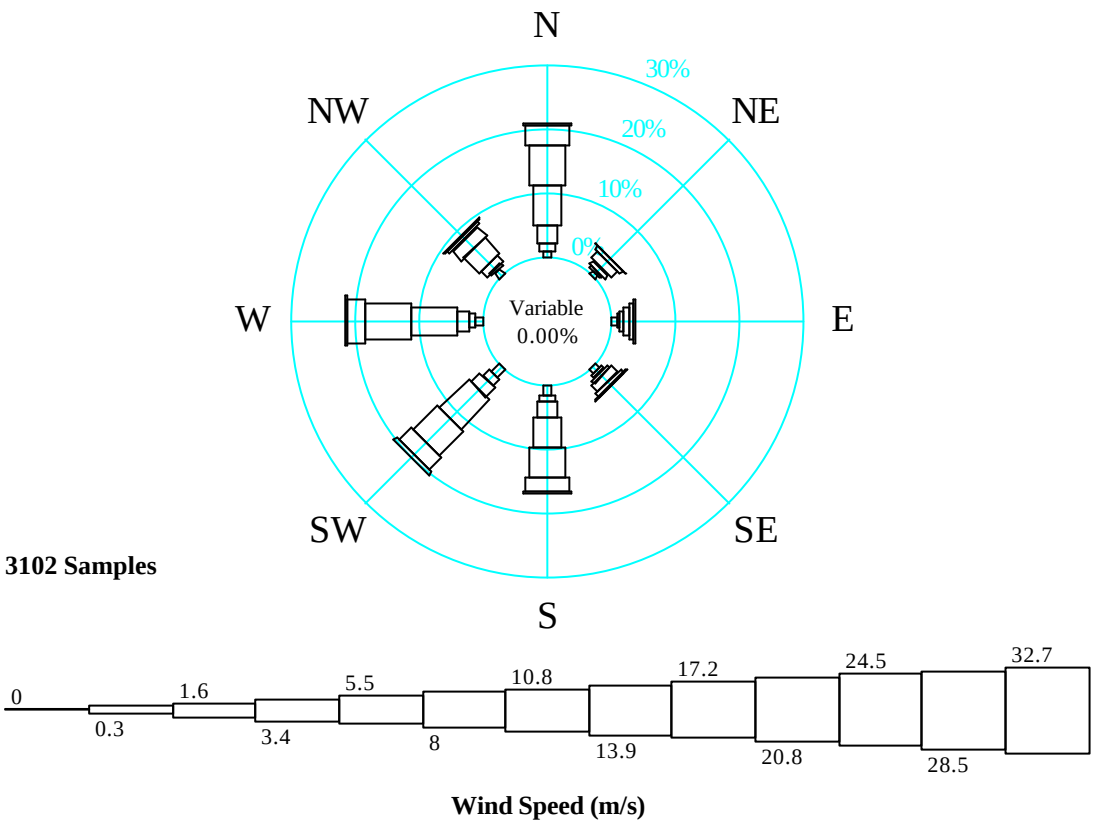
Figure A8.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	1								1	3095
0.30	140	78	111	112	54	75	130	40	740	3094
1.60	76	36	47	45	42	34	55	26	361	2354
3.40	98	43	62	47	37	24	39	61	411	1993
5.50	156	144	171	44	60	47	104	114	840	1582
8.00	121	80	42	23	19	53	83	84	505	742
10.80	28	28	5	9	23	13	33	25	164	237
13.90	20	7	1	3	1	2	10	5	49	73
17.20	10	2					9	2	23	24
20.80										1
24.50										1
28.50		1							1	1
32.70										
51.50										
Total	650	419	439	283	236	248	463	357	3095	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_MAY_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : May

Figure A8.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_JUNE_94-99

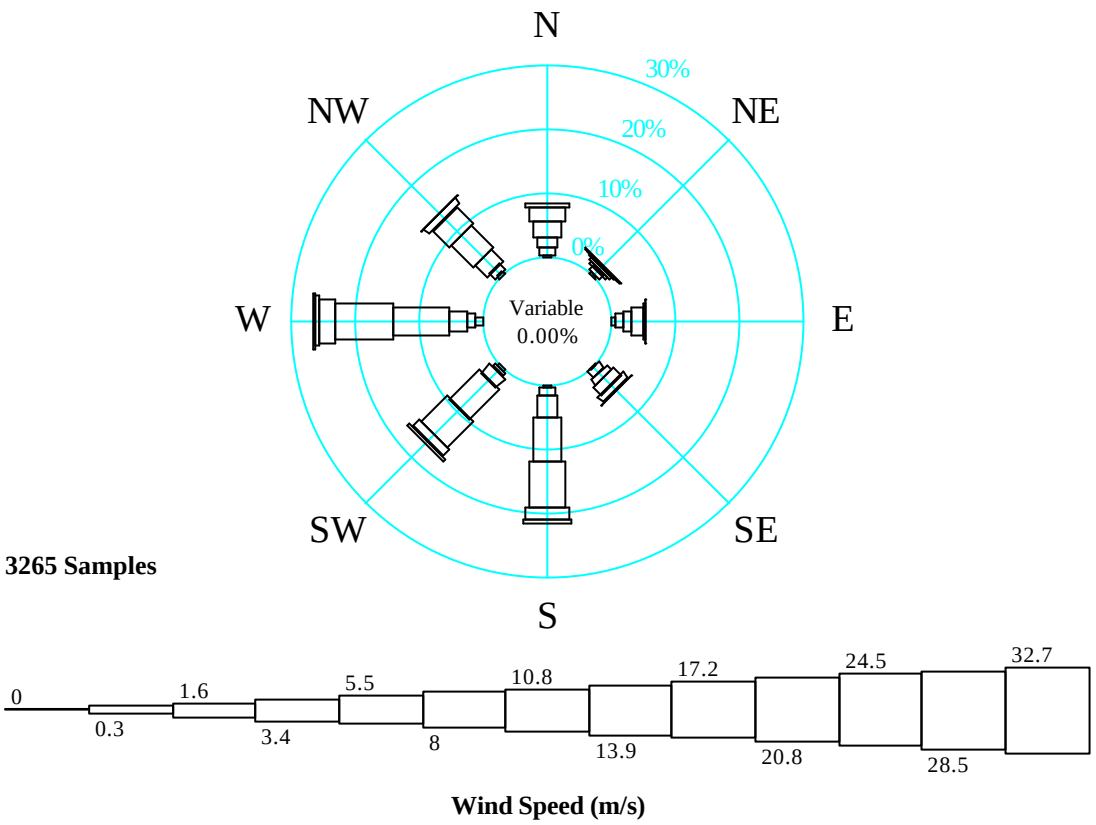
Figure A8.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3102
0.30	31	18	29	27	48	52	39	32	276	3102
1.60	34	13	11	18	28	45	31	14	194	2826
3.40	87	22	18	19	78	62	60	40	386	2632
5.50	192	49	31	40	145	195	216	103	971	2246
8.00	195	15	15	22	142	167	227	63	846	1275
10.80	99	9	16	2	72	80	80	21	379	429
13.90	9				6	19	14	2	50	50
17.20										
20.80										
24.50										
28.50										
32.70										
51.50										
Total	647	126	120	128	519	620	667	275	3102	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_JUNE_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : June

Figure A8.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_JULY_94-99

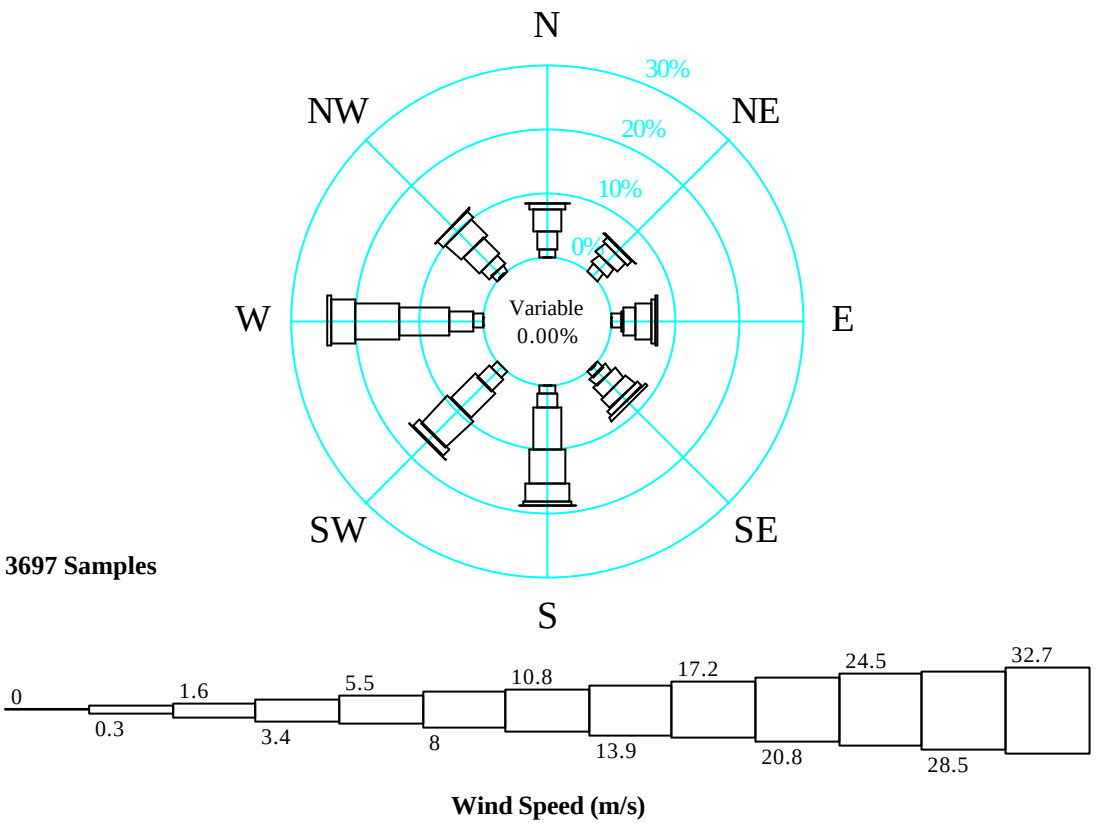
Figure A8.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3265
0.30	8	8	20	5	13	13	39	16	122	3265
1.60	40	26	40	40	40	20	47	33	286	3143
3.40	51	16	44	31	106	64	86	83	481	2857
5.50	88	14	54	54	226	205	285	158	1084	2376
8.00	70	2	10	35	235	185	293	119	949	1292
10.80	21	4	1	6	67	49	88	42	278	343
13.90		5			14	15	20	1	55	65
17.20							10		10	10
20.80										
24.50										
28.50										
32.70										
51.50										
Total	278	75	169	171	701	551	868	452	3265	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_JULY_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : July

Figure A8.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_AUGUST_94-99

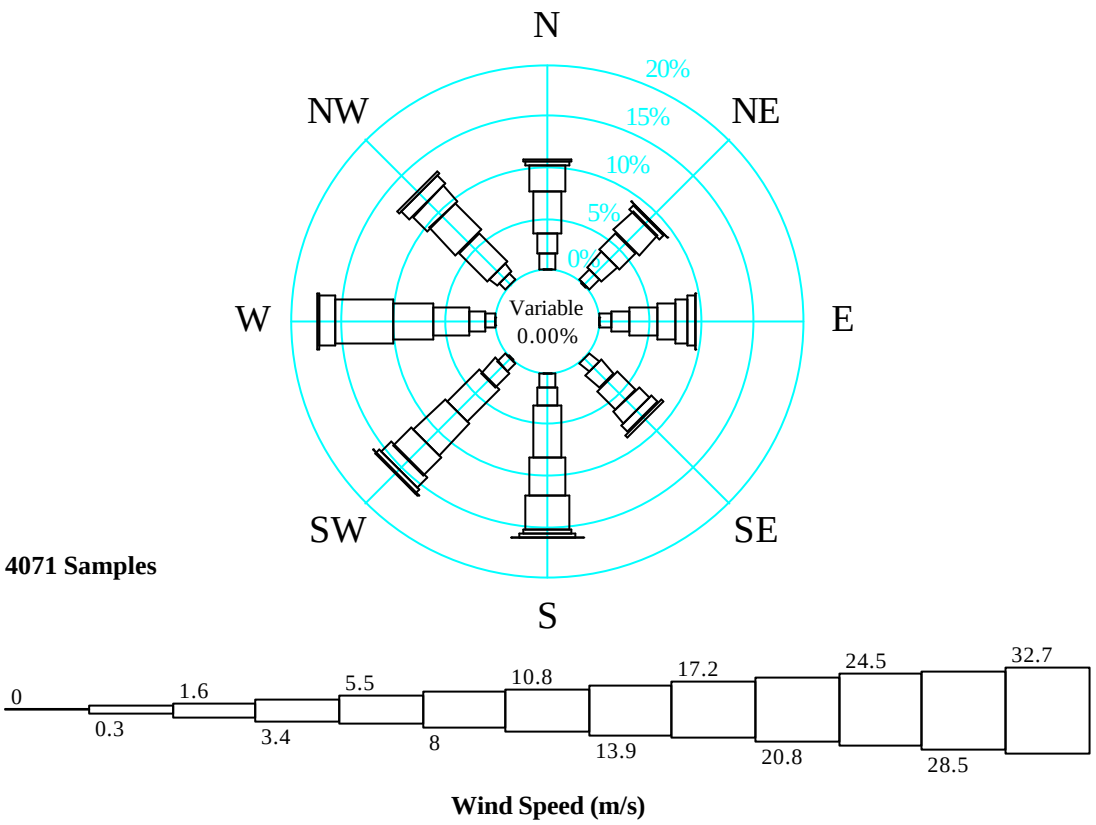
Figure A8.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3697
0.30	2		1	3	4		4	4	18	3697
1.60	44	54	54	39	41	46	57	34	369	3679
3.40	103	57	15	53	84	96	135	65	608	3310
5.50	124	73	70	76	236	195	283	127	1184	2702
8.00	36	34	87	67	203	221	260	123	1031	1518
10.80	3	2	31	40	106	49	133	54	418	487
13.90			1	21	19	2	23	1	67	69
17.20					2				2	2
20.80										
24.50										
28.50										
32.70										
51.50										
Total	312	220	259	299	695	609	895	408	3697	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_AUGUST_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : August

Figure A8.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_SEPTEMBER_94-99

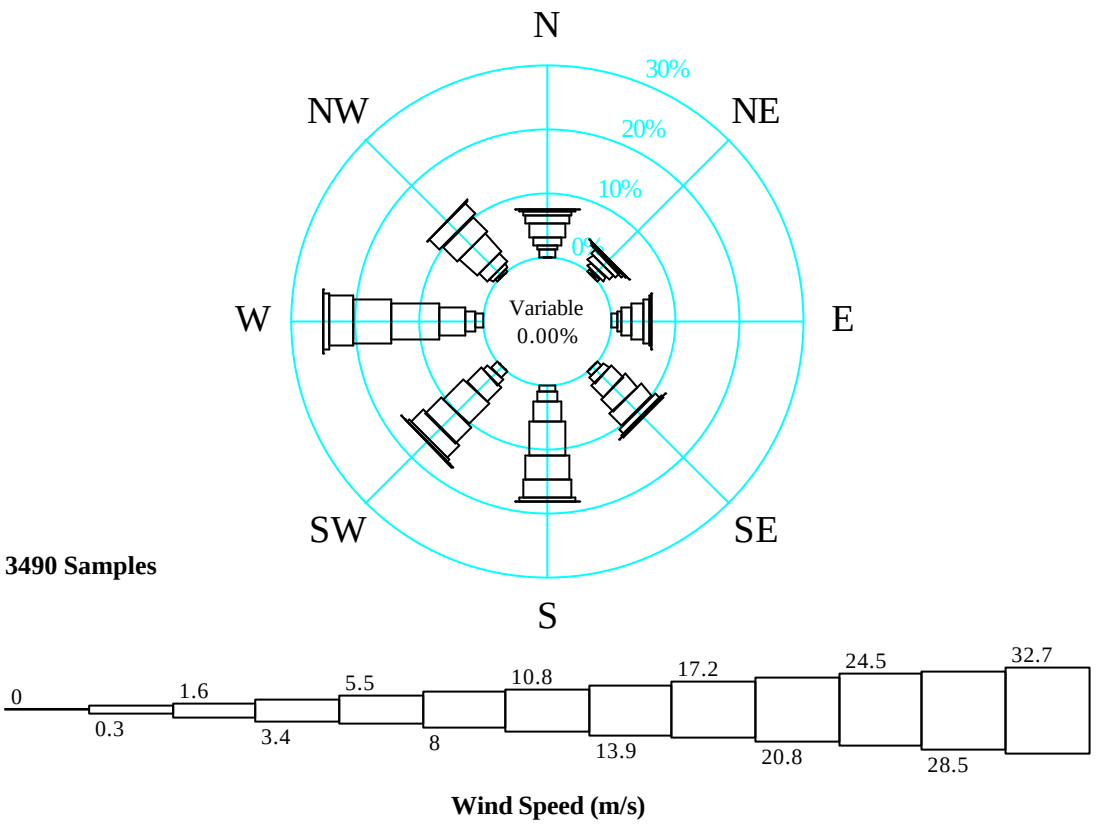
Figure A8.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										4071
0.30	2	4	2		1	3	3		15	4071
1.60	65	58	49	55	55	44	41	36	403	4056
3.40	81	83	68	75	78	80	63	41	569	3653
5.50	161	93	116	107	202	175	144	161	1159	3084
8.00	105	107	70	62	148	175	160	151	978	1925
10.80	19	21	51	35	140	96	224	80	666	947
13.90	4	2	24	15	18	53	69	45	230	281
17.20			5		12	20	2	9	48	51
20.80						2			2	3
24.50					1				1	1
28.50										
32.70										
51.50										
Total	437	368	385	349	655	648	706	523	4071	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_SEPTEMBER_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : September

Figure A8.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_OCTOBER_94-99

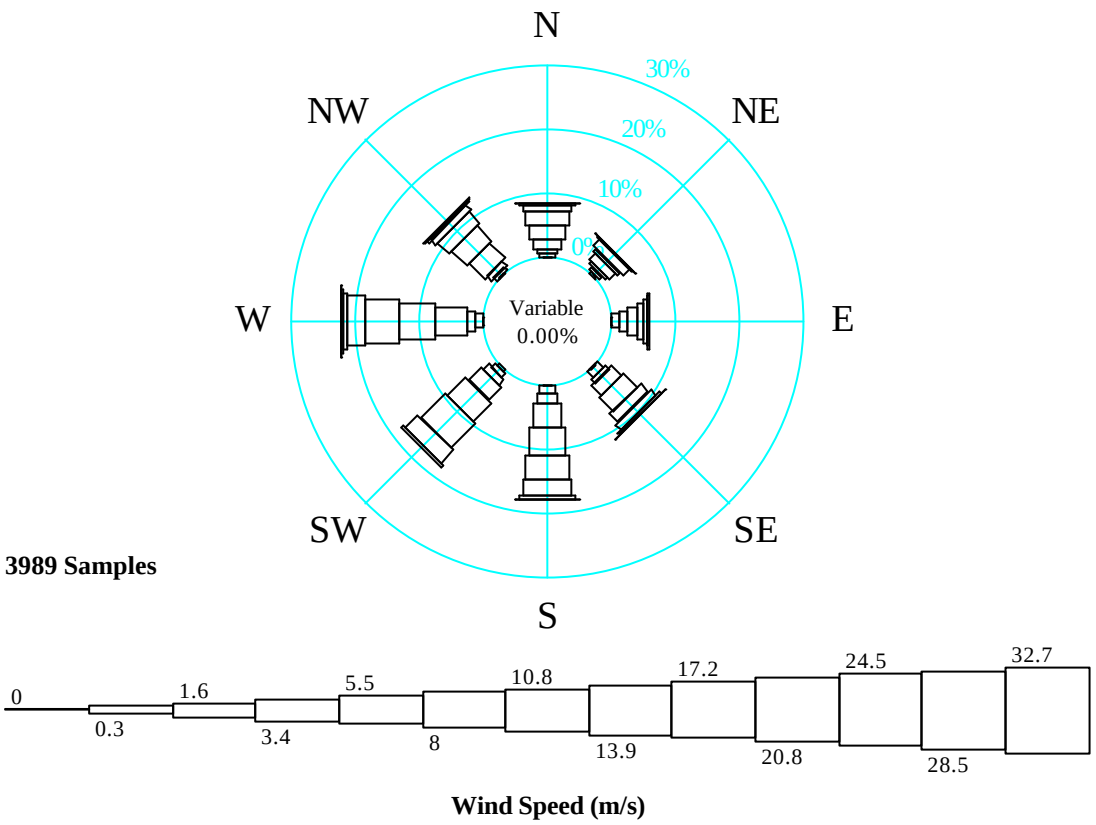
Figure A8.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3490
0.30	1	2		1		1		1	6	3490
1.60	36	17	33	26	28	47	42	14	243	3484
3.40	25	25	19	45	55	39	50	19	277	3241
5.50	44	37	61	84	114	107	142	61	650	2964
8.00	80	31	63	95	180	154	268	132	1003	2314
10.80	38	7	25	91	140	122	208	115	746	1311
13.90	20	4	13	35	91	88	132	76	459	565
17.20	11	5	3	8	21	16	24	9	97	106
20.80	2			1	1	2	2		8	9
24.50						1			1	1
28.50										
32.70										
51.50										
Total	257	128	217	386	630	577	868	427	3490	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_OCTOBER_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : October

Figure A8.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_NOVEMBER_94-99

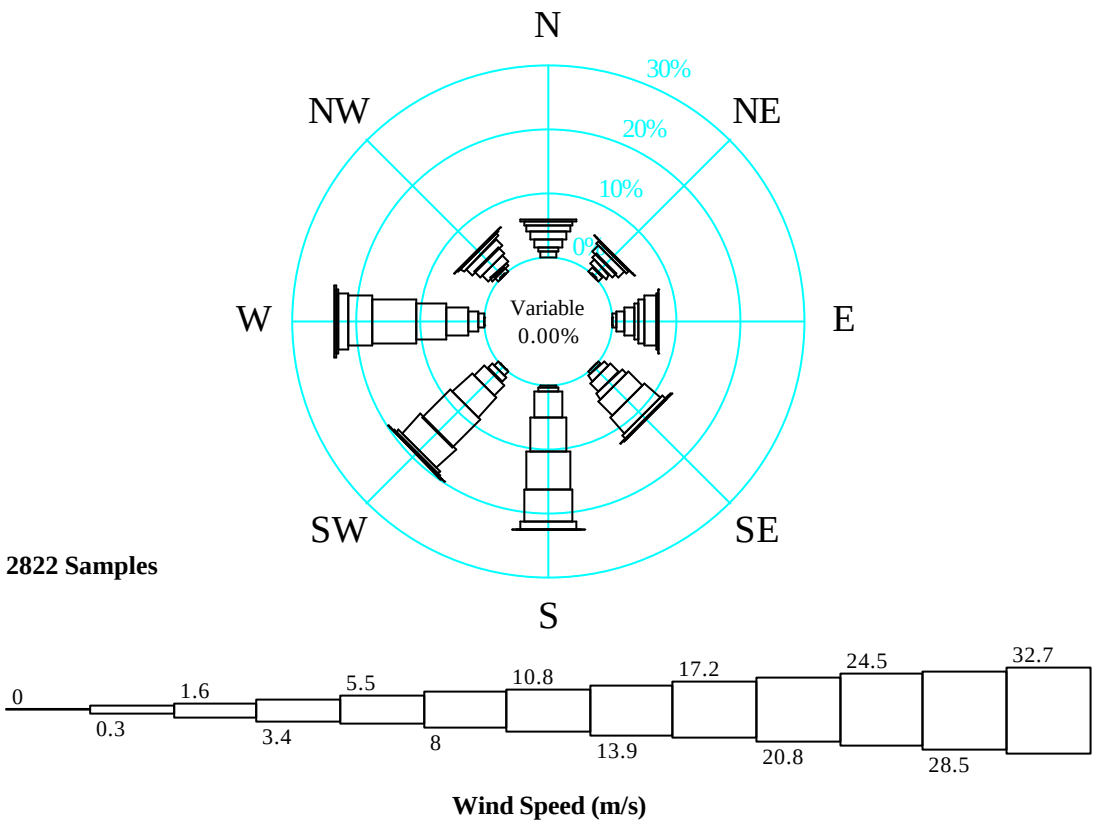
Figure A8.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										3989
0.30	4	9	4	4	4	12	4	5	46	3989
1.60	18	30	42	49	48	34	47	19	287	3943
3.40	29	21	54	31	57	47	52	42	333	3656
5.50	62	49	62	80	150	114	191	134	842	3323
8.00	90	22	40	123	179	160	225	135	974	2481
10.80	84	59	24	68	146	215	220	93	909	1507
13.90	38	11	3	48	96	111	107	43	457	598
17.20	8	4	5	16	28	20	25	10	116	141
20.80	1				3		8	5	17	25
24.50				1			7		8	8
28.50										
32.70										
51.50										
Total	334	205	234	420	711	713	886	486	3989	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_NOVEMBER_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : November

Figure A8.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_DECEMBER_94-99

Figure A8.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										2822
0.30		2	1	1		1	2	2	9	2822
1.60	26	24	20	13	10	24	22	15	154	2813
3.40	21	24	30	26	13	25	49	15	203	2659
5.50	33	25	42	54	118	66	94	35	467	2456
8.00	33	35	24	31	147	122	132	35	559	1989
10.80	31	17	23	85	174	167	191	35	723	1430
13.90	15	1	50	94	136	116	111	19	542	707
17.20	5	2	15	21	35	15	43	3	139	165
20.80			1	1	2	4	9	1	18	26
24.50				1	1	1	4		7	8
28.50						1			1	1
32.70										
51.50										
Total	164	130	206	327	636	542	657	160	2822	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_WS/WD_DECEMBER_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/1/94-30/11/99
Wind Rose and Frequency Table : December

BUOY K4 (See Section 2.2 of main report for positions)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	99.97	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	98.96	99.70	98.70	91.70	76.33	91.14	96.26	99.51	99.63	99.83	98.83	99.68	96.13
3.4	91.68	94.45	92.11	83.56	64.73	84.92	87.51	89.56	89.71	92.89	91.66	94.27	88.29
5.5	84.22	89.44	84.30	72.35	51.47	72.53	72.78	73.12	75.77	85.01	83.35	87.14	77.73
8.0	66.06	74.71	65.71	50.31	24.31	41.24	39.56	41.15	47.33	66.44	62.20	70.52	54.06
10.8	42.80	53.59	40.49	26.99	7.99	13.90	10.50	13.17	23.28	37.66	37.87	50.60	29.70
13.9	23.46	29.98	15.73	11.14	2.52	1.64	1.99	1.86	6.94	16.24	15.05	25.05	12.40
17.2	7.32	9.68	3.67	2.32	0.80	0.00	0.31	0.05	1.27	3.04	3.56	5.94	3.09
20.8	1.34	1.06	0.19	0.10	0.03	0.00	0.00	0.00	0.07	0.28	0.62	0.98	0.38
24.5	0.13	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.02	0.03	0.20	0.28	0.06
28.5	0.03	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**10.29**	**11.29**	**9.78**	**8.21**	**5.56**	**7.20**	**7.21**	**7.44**	**8.15**	**9.79**	**9.58**	**10.76**	**8.76**
Minimum	**0.54**	**1.09**	**1.09**	**0.54**	**0.00**	**1.09**	**1.09**	**1.09**	**1.09**	**1.09**	**1.09**	**1.09**	**0.00**
Maximum	**29.32**	**23.15**	**28.07**	**22.54**	**29.32**	**15.93**	**19.51**	**18.91**	**24.98**	**24.98**	**26.86**	**29.32**	**29.32**

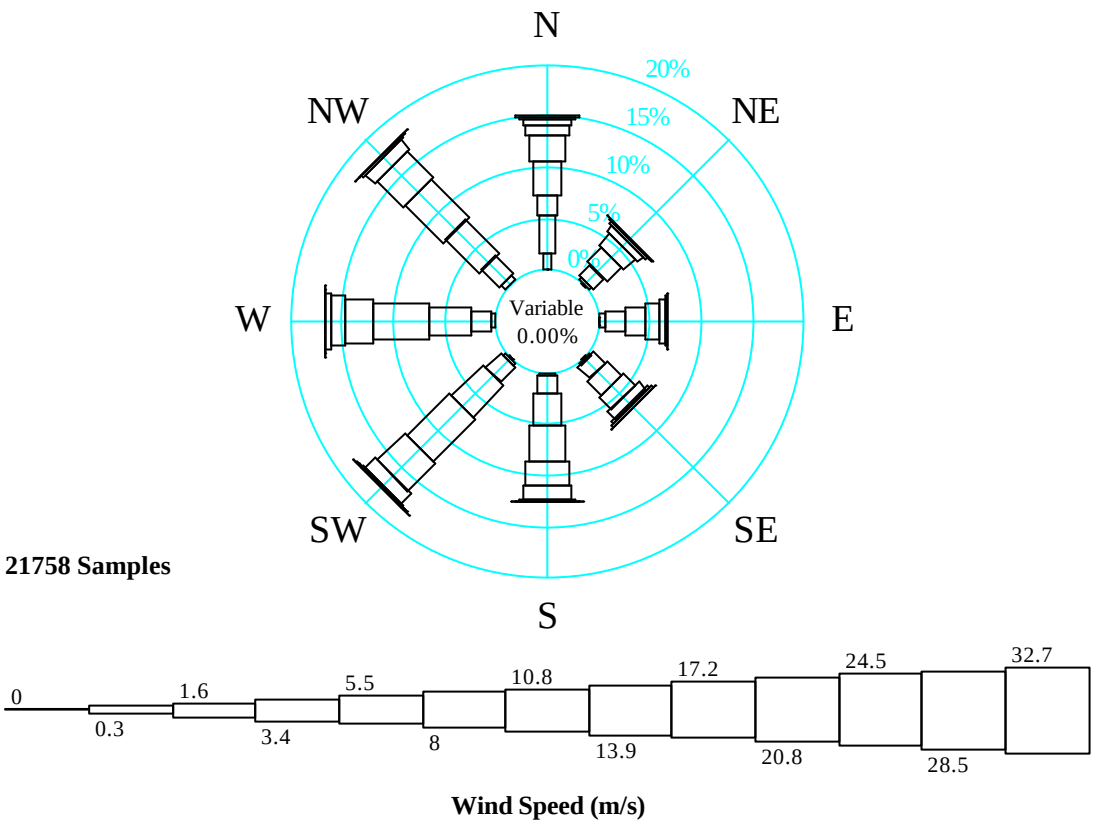
Table A8.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : BUOY K4

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	99.98	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.6	94.58	92.74	92.63	94.19	97.91	97.33	96.84	96.67	96.13
3.4	83.35	78.23	80.10	82.83	92.29	91.24	91.42	89.77	88.29
5.5	68.53	61.41	65.95	69.83	83.24	82.93	83.35	79.21	77.73
8.0	43.11	33.92	36.93	47.33	59.55	60.75	62.45	53.18	54.06
10.8	18.66	14.29	18.12	26.82	33.72	35.14	37.09	26.23	29.70
13.9	7.09	4.59	6.92	11.71	14.13	14.83	15.95	10.51	12.40
17.2	1.67	1.53	1.82	2.81	3.71	3.07	4.21	2.52	3.09
20.8	0.21	0.04	0.10	0.22	0.20	0.41	0.65	0.56	0.38
24.5	0.05	0.04	0.00	0.06	0.06	0.04	0.12	0.02	0.06
28.5	0.00	0.04	0.00	0.00	0.01	0.01	0.00	0.00	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**7.87**	**6.79**	**7.24**	**8.15**	**9.35**	**9.38**	**9.58**	**8.61**	**8.76**
Minimum	**0.00**	**0.54**	**0.54**	**1.09**	**0.54**	**1.09**	**1.09**	**1.09**	**0.00**
Maximum	**24.98**	**29.32**	**22.54**	**26.21**	**29.32**	**29.32**	**28.07**	**26.21**	**29.32**

Table A8.28 - All Year Wind Speed - Percentage Exceedence by Direction : BUOY K4

APPENDIX A-9

Figure A9.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_ALLYEAR_6/78-3/82

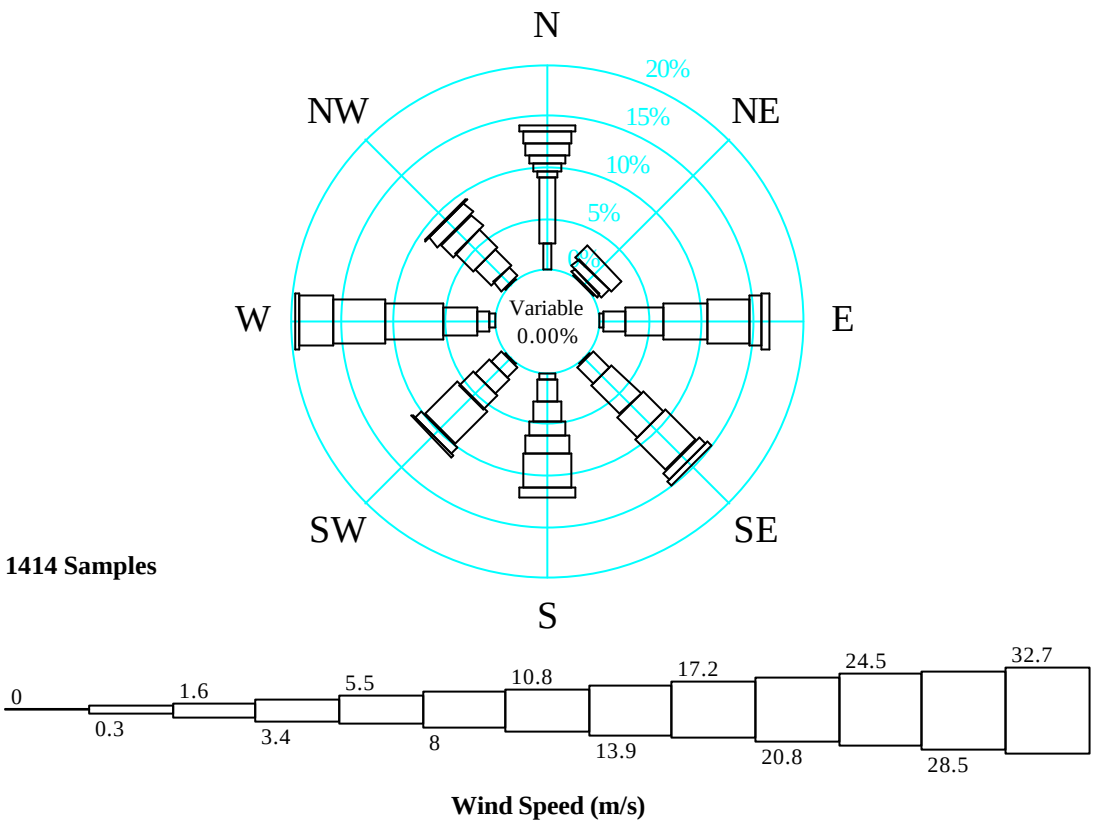
Figure A9.2

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	15	1							16	21758
0.30	322	1	1	2		1			327	21742
1.60	835	80	127	64	80	85	104	135	1510	21415
3.40	410	308	452	330	363	433	418	540	3254	19905
5.50	712	449	416	436	659	945	910	975	5502	16651
8.00	546	328	273	359	783	1264	1174	1122	5849	11149
10.80	243	143	147	190	513	811	578	781	3406	5300
13.90	112	62	33	64	283	279	324	275	1432	1894
17.20	62	8	16	49	54	62	101	51	403	462
20.80	5	3		7	7	5	6	10	43	59
24.50					4	3	4	3	14	16
28.50						2			2	2
32.70										
51.50										
Total	3262	1383	1465	1501	2746	3890	3619	3892	21758	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_ALLYEAR_6/78-3/82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : All Year

Figure A9.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_JANUARY_78-82

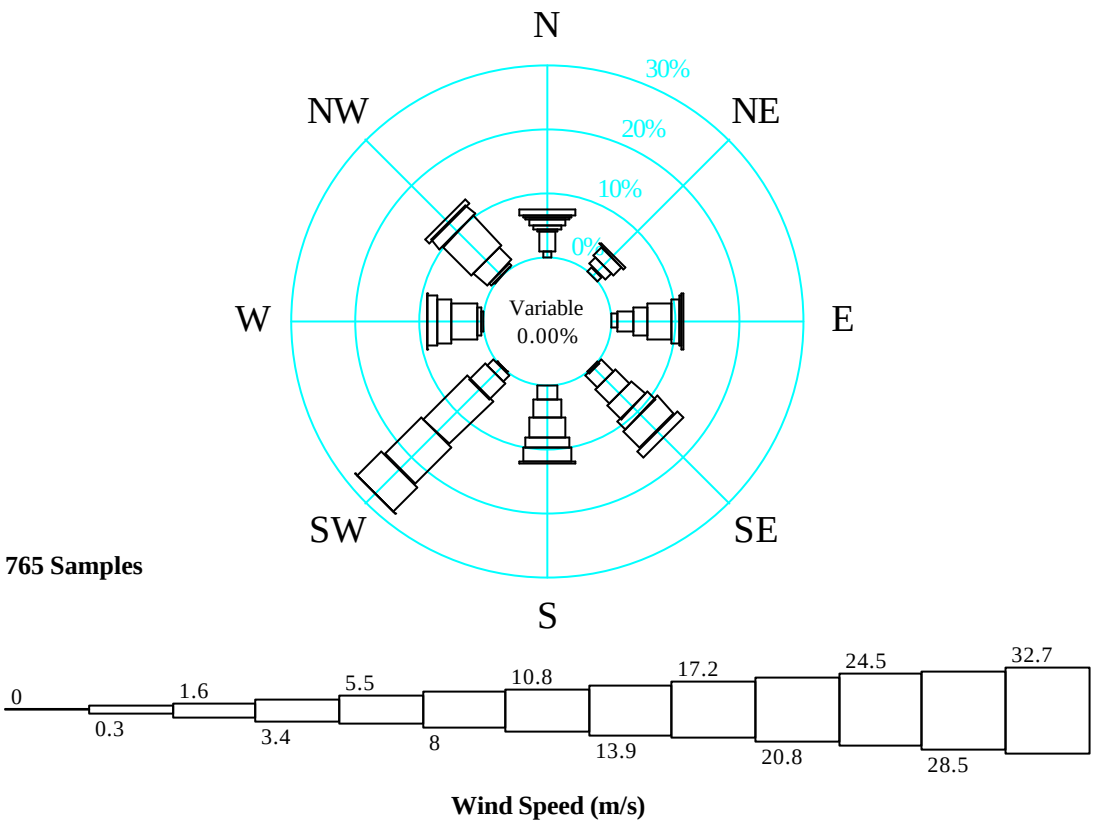
Figure A9.4

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1414
0.30	37								37	1414
1.60	90		6	3	9	3	9	3	123	1377
3.40	8		30	31	30	20	18	17	154	1254
5.50	12	1	52	57	29	27	46	30	254	1100
8.00	10	6	63	39	20	27	81	35	281	846
10.80	18	13	57	60	24	62	71	23	328	565
13.90	17	21	16	12	47	13	45	18	189	237
17.20	7		10	7	12	2	8	2	48	48
20.80										
24.50										
28.50										
32.70										
51.50										
Total	199	41	234	209	171	154	278	128	1414	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_JANUARY_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : January

Figure A9.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_FEBRUARY_78-82

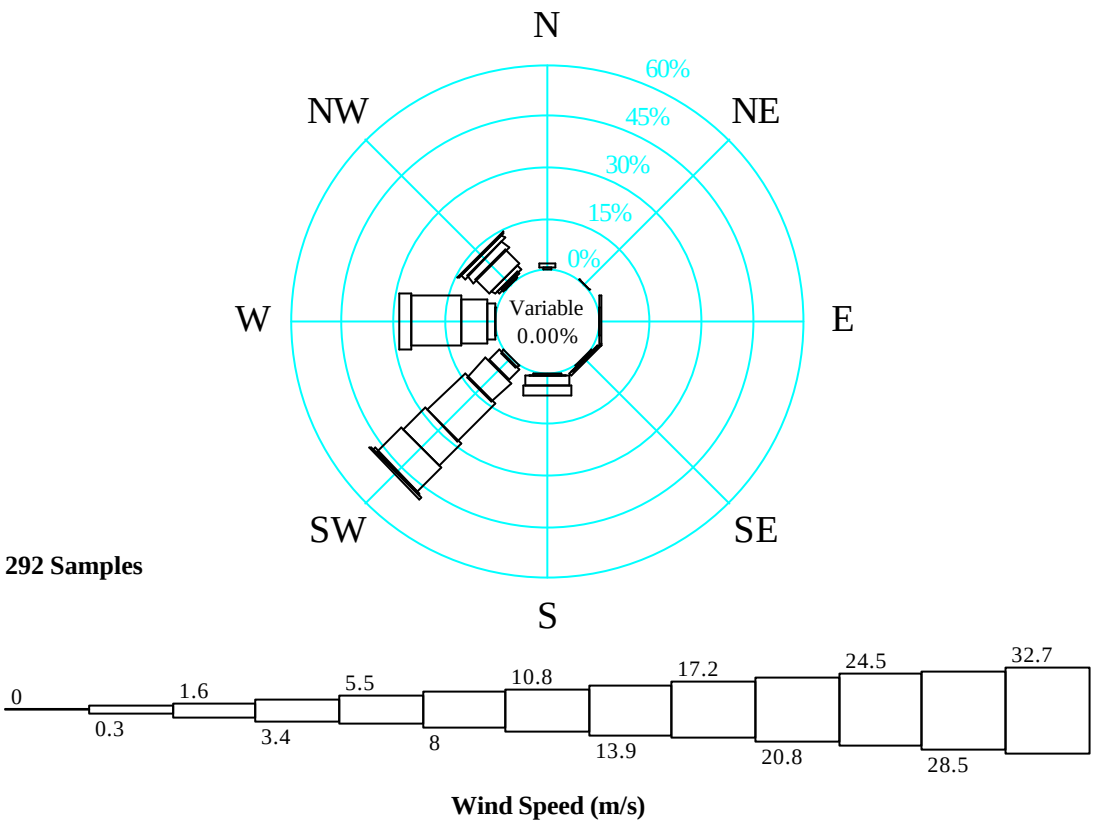
Figure A9.6

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										765
0.30	7								7	765
1.60	23	7	6	2		1			39	758
3.40	4	11	21	19	17	10	2	1	85	719
5.50	4	14	17	24	22	26	5	4	116	634
8.00	8	3	28	23	23	73	32	21	211	518
10.80	1		10	12	13	63	15	49	163	307
13.90	4		1	28	16	40	12	15	116	144
17.20	6		2	11	1	1	1	6	28	28
20.80										
24.50										
28.50										
32.70										
51.50										
Total	57	35	85	119	92	214	67	96	765	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_FEBRUARY_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : February

Figure A9.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_MARCH_78-82

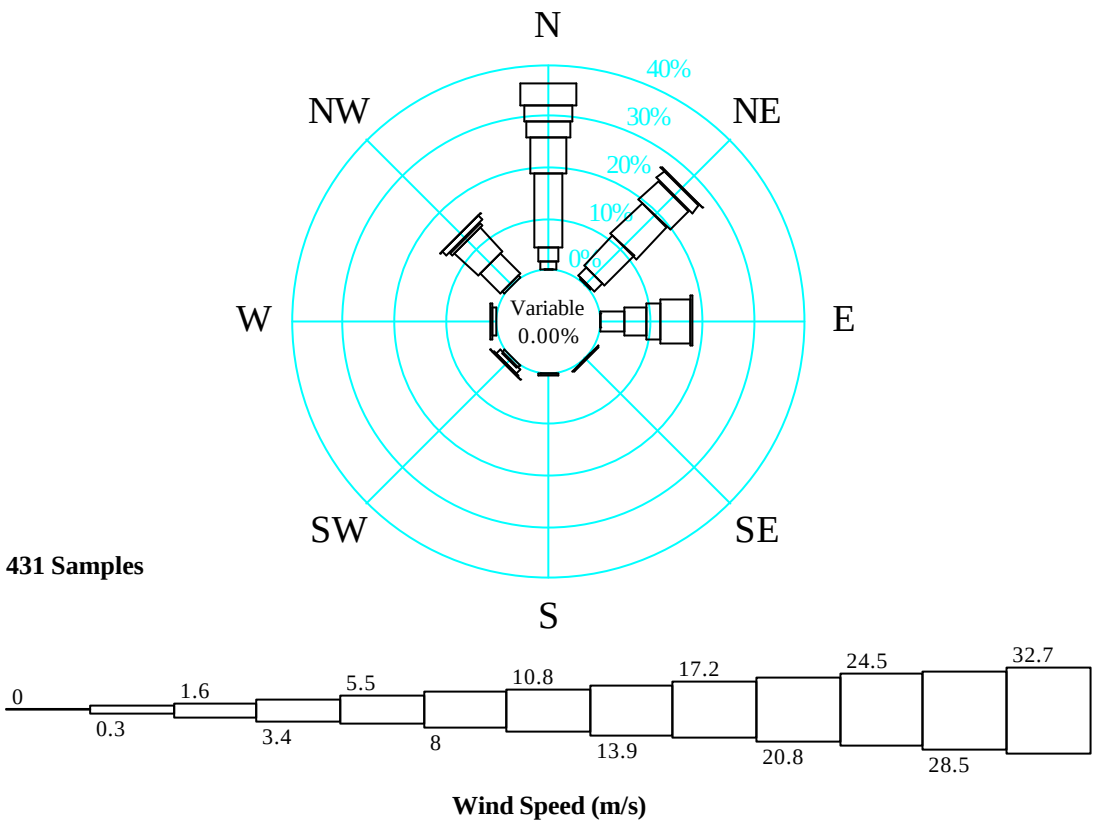
Figure A9.8

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										292
0.30	2								2	292
1.60	4	1						1	6	290
3.40				1		3		2	6	284
5.50			1		2	12	1	1	17	278
8.00				1	1	23	6	4	35	261
10.80				2	8	44	22	16	92	226
13.90			1		8	26	43	8	86	134
17.20						29	11	4	44	48
20.80						2		1	3	4
24.50						1			1	1
28.50										
32.70										
51.50										
Total	6	1	2	4	19	140	83	37	292	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_MARCH_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : March

Figure A9.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_APRIL_78-82

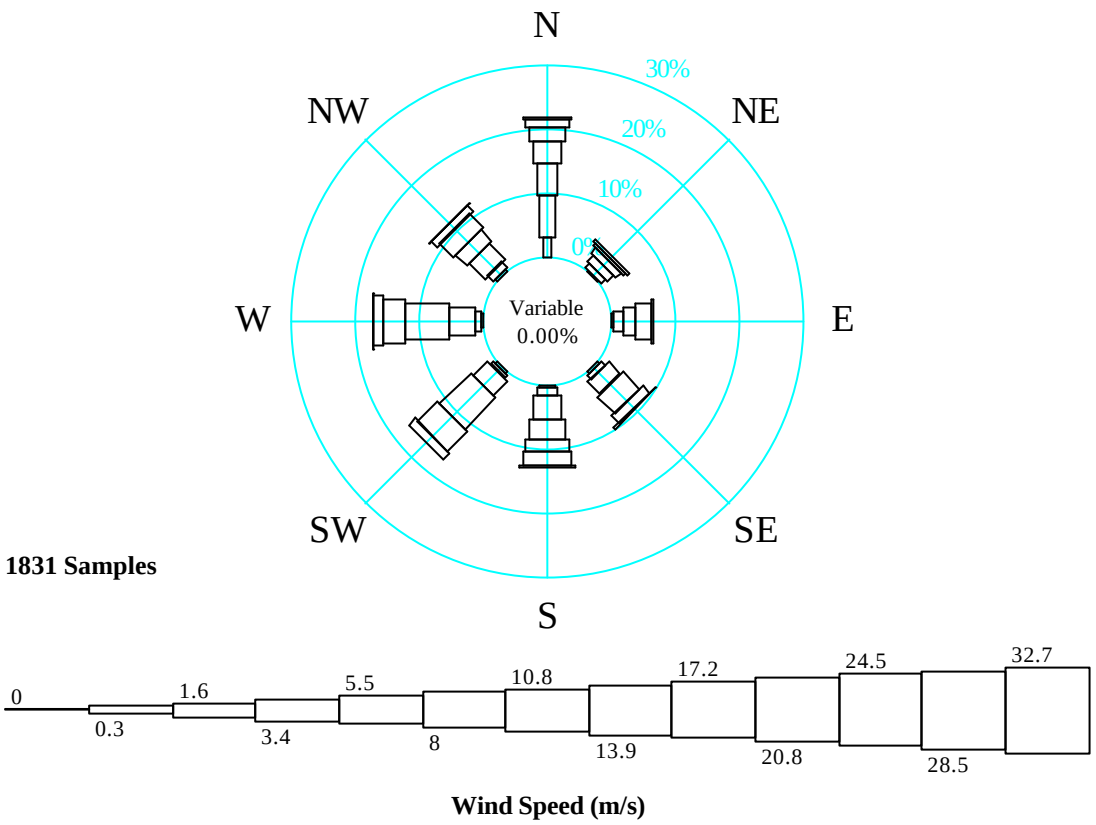
Figure A9.10

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										431
0.30	1								1	431
1.60	6	2	1	1	1				11	430
3.40	12	10	20		2	3		2	49	419
5.50	62	34	19			4	4	24	147	370
8.00	31	37	11	1		1	1	27	109	223
10.80	13	23	25			1		3	65	114
13.90	13	9	2					5	29	49
17.20	18	1						1	20	20
20.80										
24.50										
28.50										
32.70										
51.50										
Total	156	116	78	2	3	9	5	62	431	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_APRIL_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : April

Figure A9.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_MAY_78-82

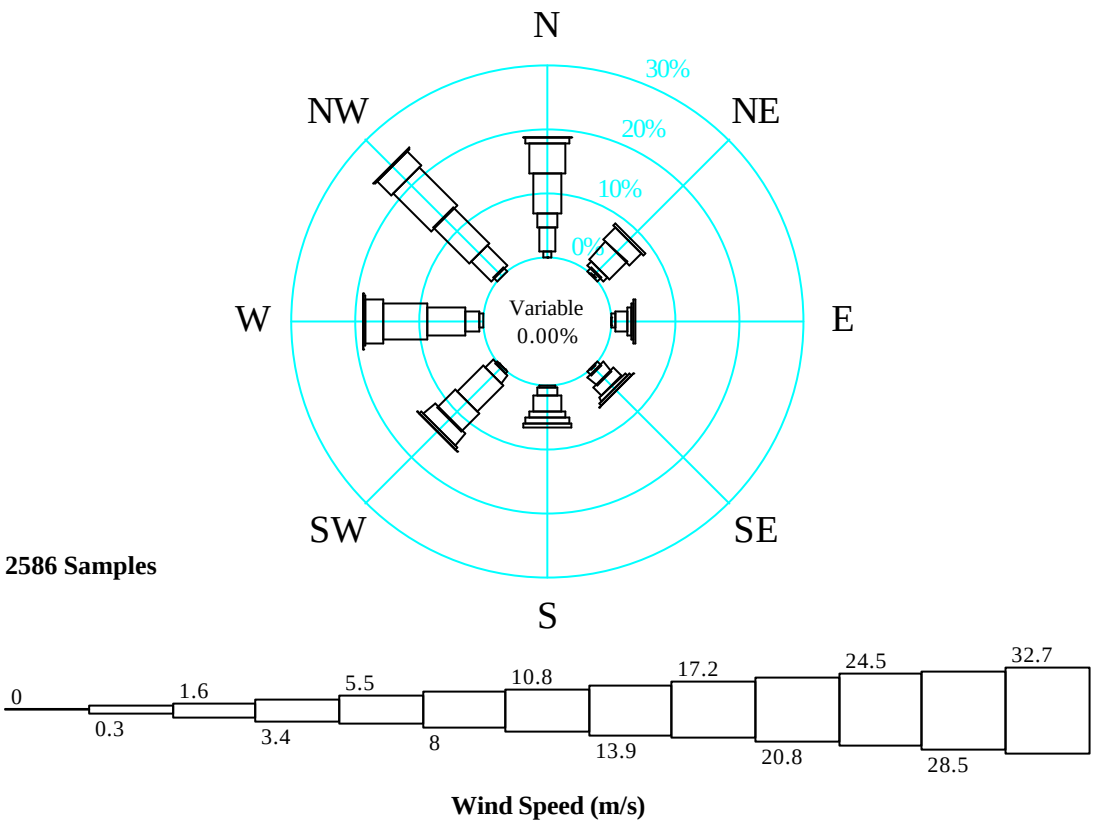
Figure A9.12

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1831
0.30	57								57	1831
1.60	117	1	8	7	8	6	3	7	157	1774
3.40	94	19	26	16	18	10	19	23	225	1617
5.50	64	24	32	47	70	61	75	60	433	1392
8.00	40	19	47	70	61	122	127	46	532	959
10.80	19	7	7	28	34	81	59	53	288	427
13.90	8	8			35	25	30	22	128	139
17.20				1	6		3	1	11	11
20.80										
24.50										
28.50										
32.70										
51.50										
Total	399	78	120	169	232	305	316	212	1831	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_MAY_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : May

Figure A9.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_JUNE_78-82

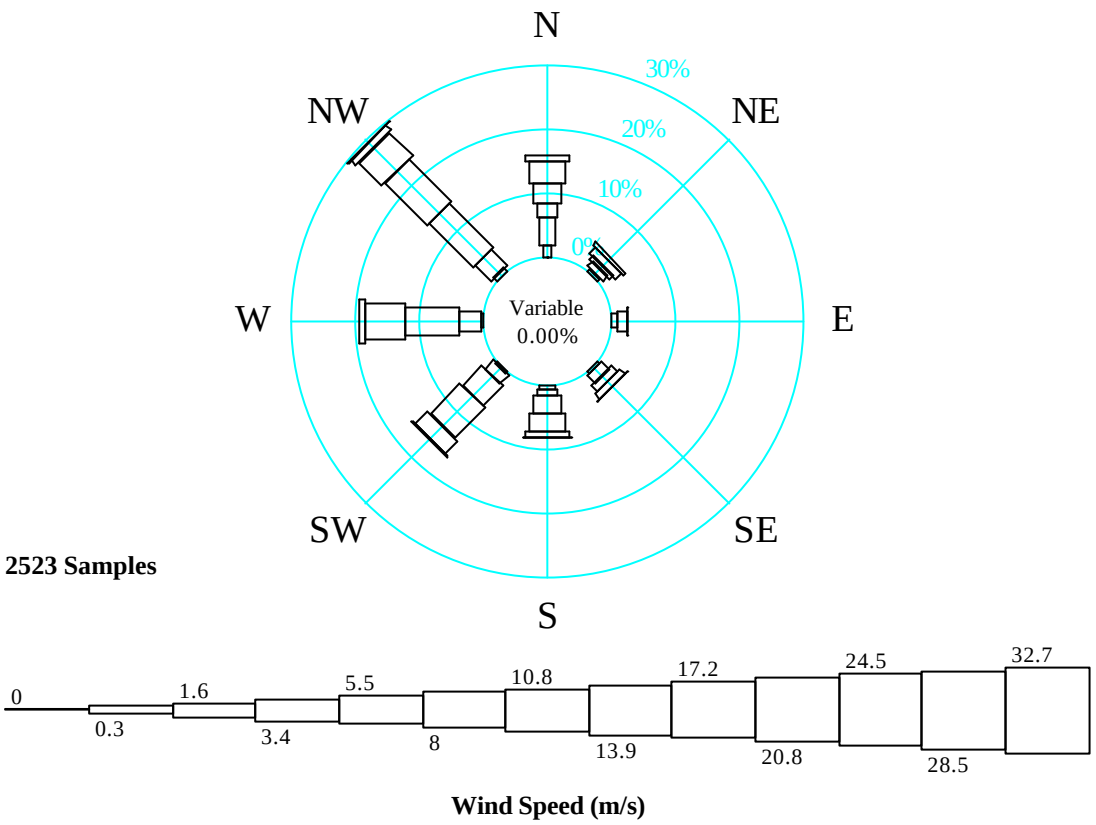
Figure A9.14

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	1	1							2	2586
0.30	25	1	1	2		1			30	2584
1.60	93	14	14	16	11	6	14	16	184	2554
3.40	56	23	47	47	28	44	56	111	412	2370
5.50	160	96	19	44	63	149	156	204	891	1958
8.00	126	66	10	17	26	99	175	214	733	1067
10.80	20	11	4	10	25	59	77	81	287	334
13.90	5			1	18	11	7	3	45	47
17.20						1	1		2	2
20.80										
24.50										
28.50										
32.70										
51.50										
Total	486	212	95	137	171	370	486	629	2586	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_JUNE_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : June

Figure A9.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_JULY_78-82

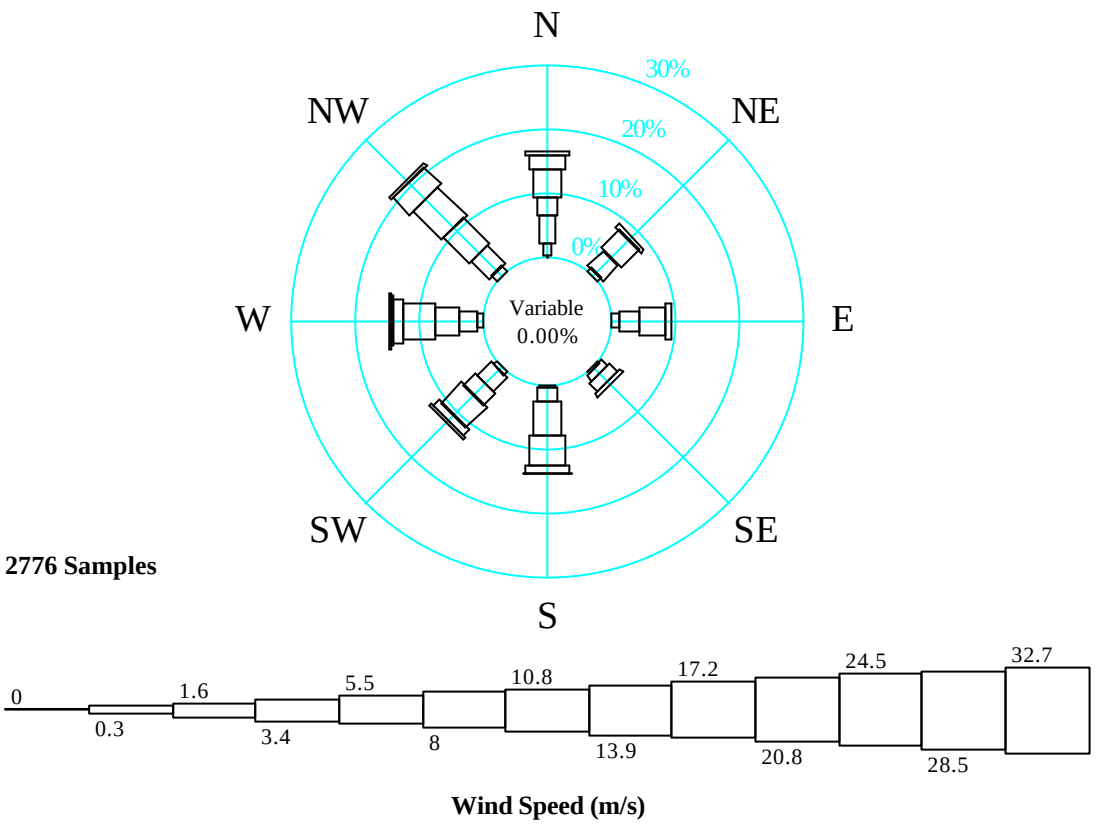
Figure A9.16

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	1								1	2523
0.30	48								48	2522
1.60	107	12	26	10	13	5	7	16	196	2474
3.40	58	29	38	43	24	49	88	90	419	2278
5.50	78	14	1	28	70	108	214	243	756	1859
8.00	85	32		27	75	166	157	234	776	1103
10.80	22	16		5	23	72	22	130	290	327
13.90					2	4		30	36	37
17.20								1	1	1
20.80										
24.50										
28.50										
32.70										
51.50										
Total	399	103	65	113	207	404	488	744	2523	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_JULY_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : July

Figure A9.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_AUGUST_78-82

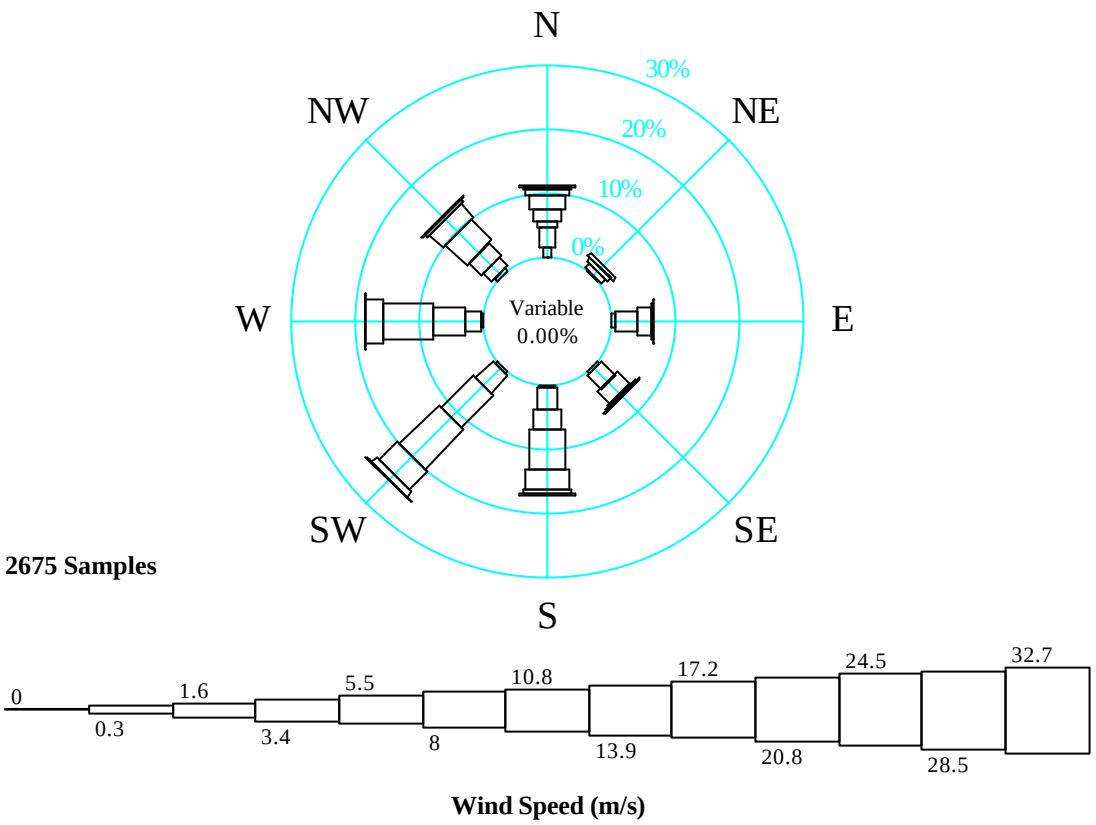
Figure A9.18

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	5								5	2776
0.30	52								52	2771
1.60	122	17	32	8	11	17	22	30	259	2719
3.40	81	92	85	34	61	85	79	106	623	2460
5.50	124	111	115	50	143	71	105	159	878	1837
8.00	57	19	24	18	130	124	139	174	685	959
10.80	13				37	31	40	102	223	274
13.90					2	13	15	13	43	51
17.20							8		8	8
20.80										
24.50										
28.50										
32.70										
51.50										
Total	454	239	256	110	384	341	408	584	2776	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_AUGUST_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : August

Figure A9.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_SEPTEMBER_78-82

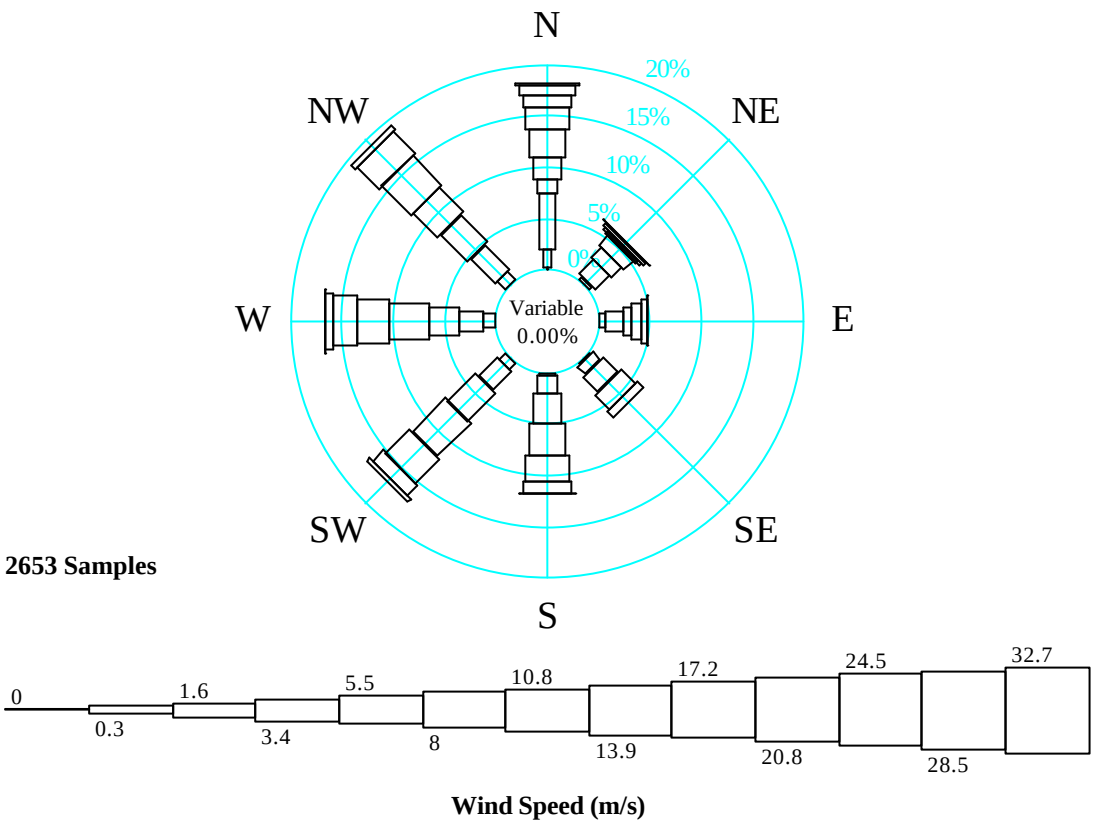
Figure A9.20

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	2								2	2675
0.30	37								37	2673
1.60	81	3	13	9	12	12	8	15	153	2636
3.40	28	23	95	83	86	97	64	50	526	2483
5.50	53	19	59	68	86	189	139	71	684	1957
8.00	57	17	6	8	170	234	207	121	820	1273
10.80	28		1	3	78	103	70	77	360	453
13.90	9			3	20	27	2	16	77	93
17.20	2				6	3	1	2	14	16
20.80						2			2	2
24.50										
28.50										
32.70										
51.50										
Total	297	62	174	174	458	667	491	352	2675	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_SEPTEMBER_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : September

Figure A9.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_OCTOBER_78-82

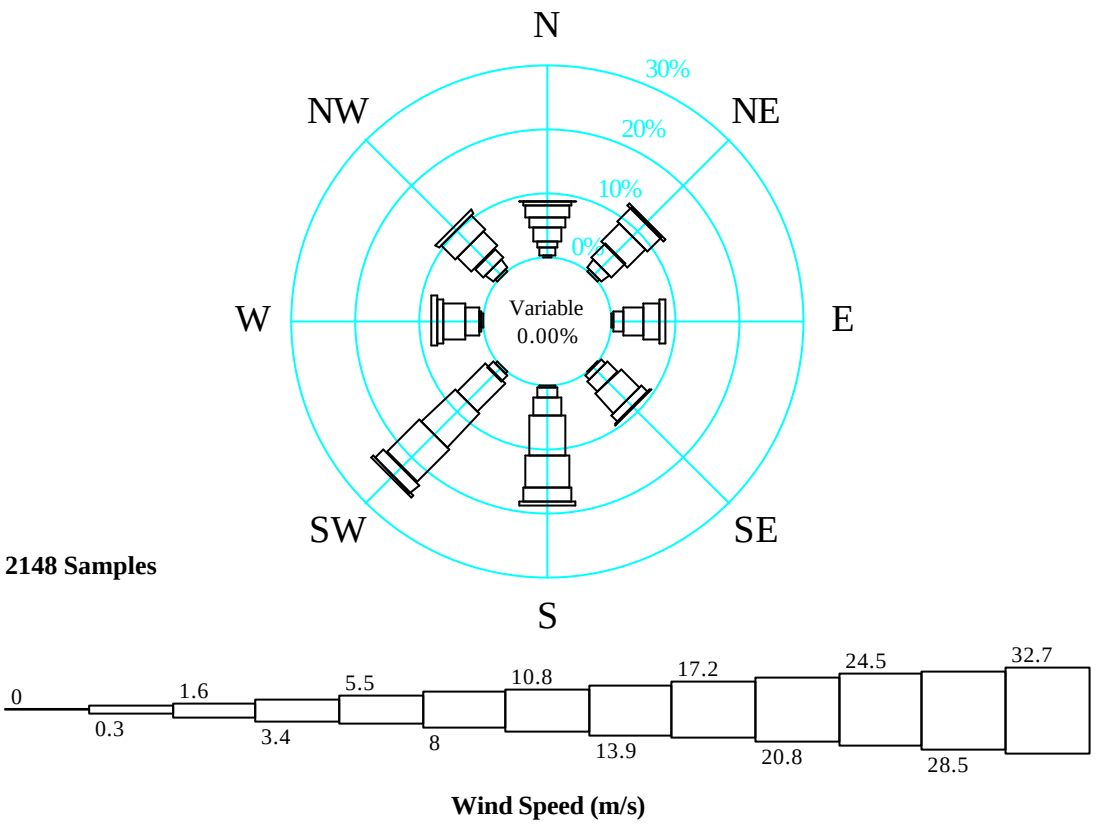
Figure A9.22

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00	6								6	2653
0.30	46								46	2647
1.60	148	13	16	6	7	26	32	31	279	2601
3.40	33	53	48	27	48	66	62	89	426	2322
5.50	56	35	23	56	79	102	76	101	528	1896
8.00	74	34	23	52	81	121	108	89	582	1368
10.80	57	4	14	24	67	89	82	106	443	786
13.90	34	8	1		31	38	61	81	254	343
17.20	25	7			1	11	22	14	80	89
20.80	5	3					1		9	9
24.50										
28.50										
32.70										
51.50										
Total	484	157	125	165	314	453	444	511	2653	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_OCTOBER_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : October

Figure A9.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_NOVEMBER_78-82

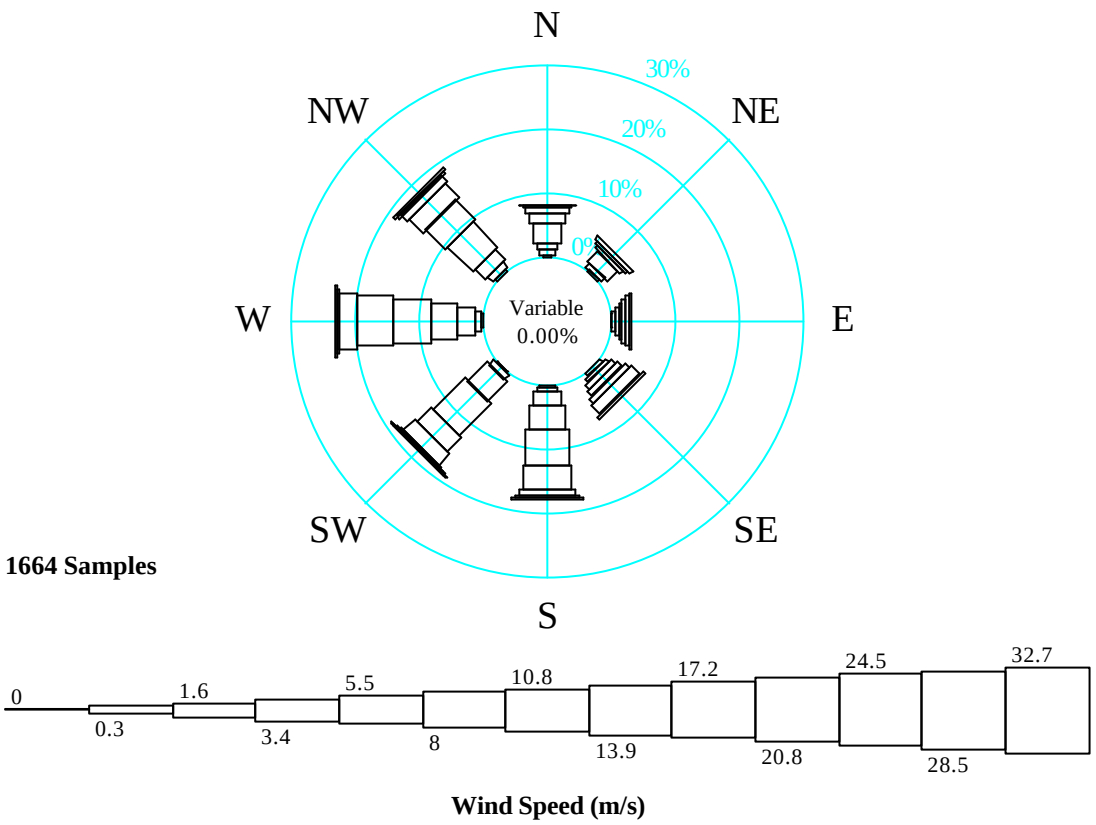
Figure A9.24

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										2148
0.30	7								7	2148
1.60	28	6	4	2	5	7	4	9	65	2141
3.40	20	33	33	21	36	28	12	30	213	2076
5.50	47	65	69	49	57	128	44	43	502	1863
8.00	30	85	55	89	135	157	74	67	692	1361
10.80	39	62	20	28	112	155	23	68	507	669
13.90	15	7		3	41	43	14	15	138	162
17.20	3				13	8			24	24
20.80										
24.50										
28.50										
32.70										
51.50										
Total	189	258	181	192	399	526	171	232	2148	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_NOVEMBER_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : November

Figure A9.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_DECEMBER_78-82

Figure A9.26

Wind Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.00										1664
0.30	3								3	1664
1.60	16	4	1		3	2	5	7	38	1661
3.40	16	15	9	8	13	18	18	19	116	1623
5.50	52	36	9	13	38	68	45	35	296	1507
8.00	28	10	6	14	61	117	67	90	393	1211
10.80	13	7	9	18	92	51	97	73	360	818
13.90	7	9	12	17	63	39	95	49	291	458
17.20	1		4	30	15	7	46	20	123	167
20.80				7	7	1	5	9	29	44
24.50					4	2	4	3	13	15
28.50						2			2	2
32.70										
51.50										
Total	136	81	50	107	296	307	382	305	1664	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_WS/WD_DECEMBER_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Wind Rose and Frequency Table : December

BUOY DB1 (48.72°N, 8.97°W)

Speed (m/s)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	100.00	100.00	100.00	100.00	100.00	99.92	99.96	99.82	99.93	99.74	100.00	100.00	99.94
1.6	98.33	99.36	99.72	99.34	97.07	98.79	98.12	97.95	98.55	98.04	99.52	99.64	98.66
3.4	91.77	95.57	96.77	94.71	88.48	91.78	90.41	88.66	92.79	87.50	96.58	96.83	92.39
5.5	80.64	84.09	89.34	77.52	74.85	75.90	73.72	66.19	73.07	71.35	86.92	90.46	78.14
8.0	62.73	63.52	73.57	44.31	51.34	41.23	42.92	34.49	47.40	51.28	64.24	74.04	53.61
10.8	40.75	34.15	52.75	14.33	22.69	12.79	12.66	9.83	16.83	29.54	30.10	51.75	26.84
13.9	19.40	15.79	28.59	4.56	7.15	1.77	1.42	1.83	3.45	12.87	7.15	28.35	10.68
17.2	5.97	3.44	9.47	1.69	0.57	0.08	0.04	0.29	0.59	3.29	1.05	9.51	2.90
20.8	1.09	0.29	1.59	0.00	0.00	0.00	0.00	0.00	0.07	0.33	0.00	2.39	0.49
24.5	0.00	0.12	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.08
28.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**9.80**	**9.52**	**11.24**	**7.83**	**8.15**	**7.47**	**7.43**	**6.90**	**7.81**	**8.55**	**9.17**	**11.28**	**8.71**
Minimum	**0.72**	**0.92**	**1.02**	**0.52**	**0.52**	**0.20**	**0.10**	**0.10**	**0.10**	**0.10**	**0.92**	**1.02**	**0.10**
Maximum	**24.41**	**25.27**	**24.52**	**20.25**	**19.61**	**20.46**	**17.49**	**19.19**	**23.45**	**23.02**	**20.36**	**32.04**	**32.04**

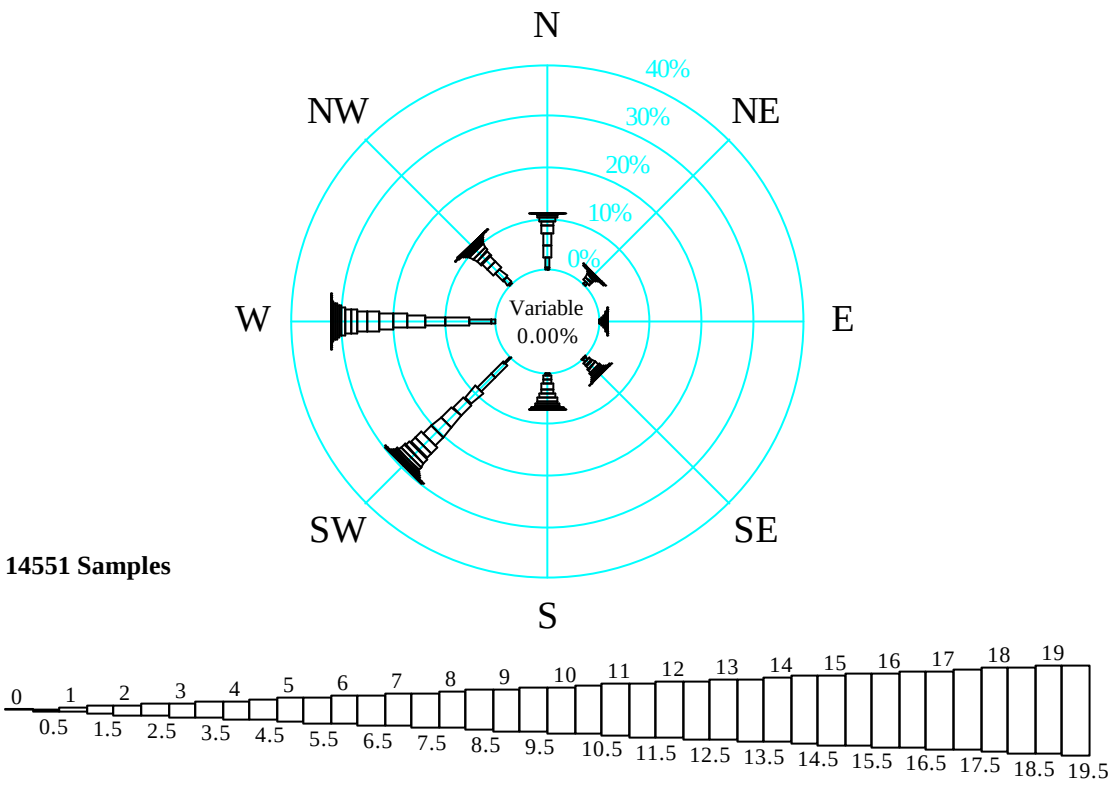
Table A9.27 - Omnidirectional Wind Speed - Percentage Exceedence by Month : BUOY DB1

Speed (m/s)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.3	99.54	99.93	100.00	100.00	100.00	100.00	100.00	100.00	99.94
1.6	89.67	99.86	99.93	99.87	100.00	99.97	100.00	100.00	98.66
3.4	64.07	94.07	91.26	95.60	97.09	97.79	97.13	96.53	92.39
5.5	51.50	71.80	60.41	73.62	83.87	86.66	85.58	82.66	78.14
8.0	29.68	39.33	32.01	44.57	59.87	62.37	60.43	57.61	53.61
10.8	12.94	15.62	13.38	20.65	31.35	29.87	27.99	28.78	26.84
13.9	5.49	5.28	3.34	7.99	12.67	9.02	12.02	8.71	10.68
17.2	2.056	0.80	1.09	3.73	2.37	1.85	3.07	1.64	2.90
20.8	0.15	0.22	0.00	0.47	0.40	0.26	0.28	0.33	0.49
24.5	0.00	0.00	0.00	0.00	0.15	0.13	0.11	0.08	0.08
28.5	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.01
32.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**8.42**	**7.72**	**6.98**	**8.18**	**9.39**	**9.23**	**9.25**	**9.02**	**8.71**
Minimum	**0.10**	**0.20**	**0.82**	**1.23**	**2.56**	**1.23**	**2.15**	**2.66**	**0.10**
Maximum	**23.02**	**22.38**	**20.04**	**24.08**	**25.59**	**32.04**	**25.38**	**25.41**	**32.04**

Table A9.28 - All Year Wind Speed - Percentage Exceedence by Direction : BUOY DB1

APPENDIX B-1

Figure B1.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_ALLYEAR_5/94-4/99

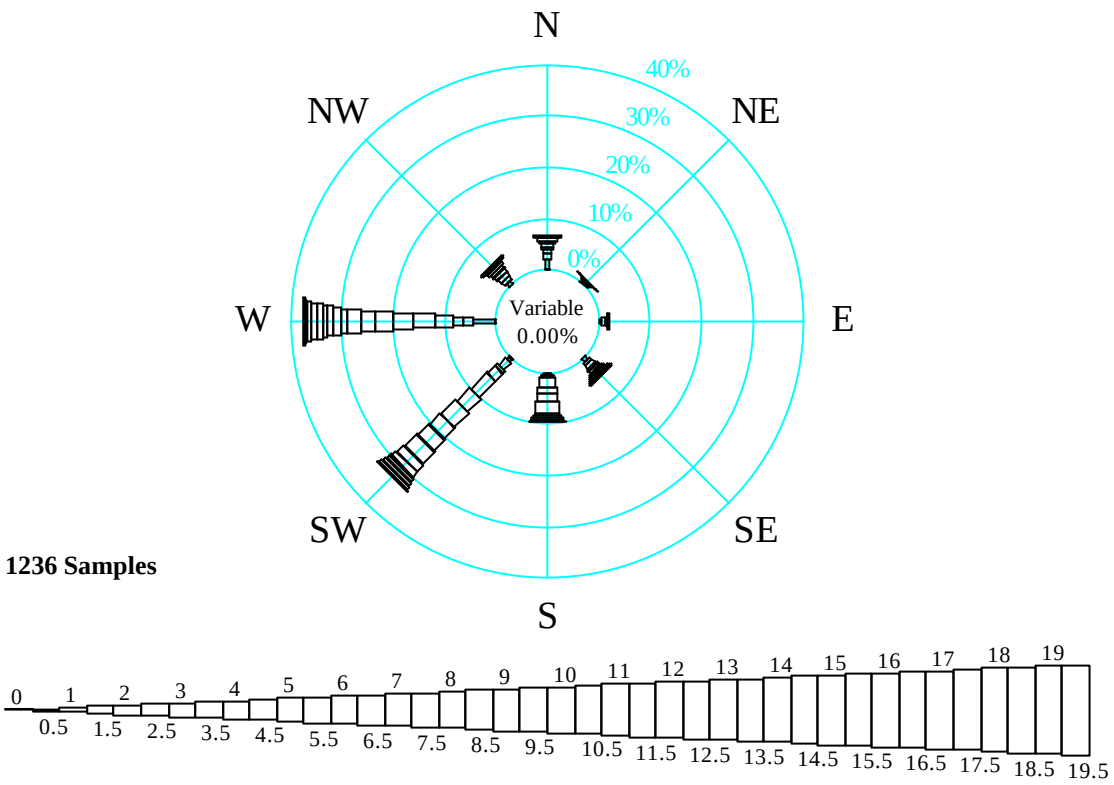
Figure B1.2

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0	1								1	14551
0.5	74	23	16	14	14	242	146	50	579	14550
1.0	295	80	55	97	71	477	590	201	1866	13971
1.5	320	105	45	105	93	549	693	293	2203	12105
2.0	328	91	44	107	126	462	573	248	1979	9902
2.5	235	56	28	124	147	435	506	214	1745	7923
3.0	143	31	8	82	118	437	426	154	1399	6178
3.5	85	12	14	61	153	357	361	125	1168	4779
4.0	65	4	15	38	71	327	382	97	999	3611
4.5	36	7	3	18	78	241	248	71	702	2612
5.0	14	2	3	12	77	180	196	37	521	1910
5.5	7	6	1	8	30	171	153	47	423	1389
6.0	9	4	1	5	15	133	106	25	298	966
6.5	1	1		1	15	90	85	18	211	668
7.0	1				10	56	44	6	117	457
7.5	2				4	40	63	3	112	340
8.0					1	37	49	4	91	228
8.5						33	26	1	60	137
9.0						11	11	3	25	77
9.5						9	7	3	19	52
10.0						1	8	1	10	33
10.5						4	9		13	23
11.0						2	2		4	10
11.5						3	2		5	6
12.0							1		1	1
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	1616	422	233	672	1023	4297	4687	1601	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_ALLYEAR_5/94-4/99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : All Year

Figure B1.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_JANUARY_94-99

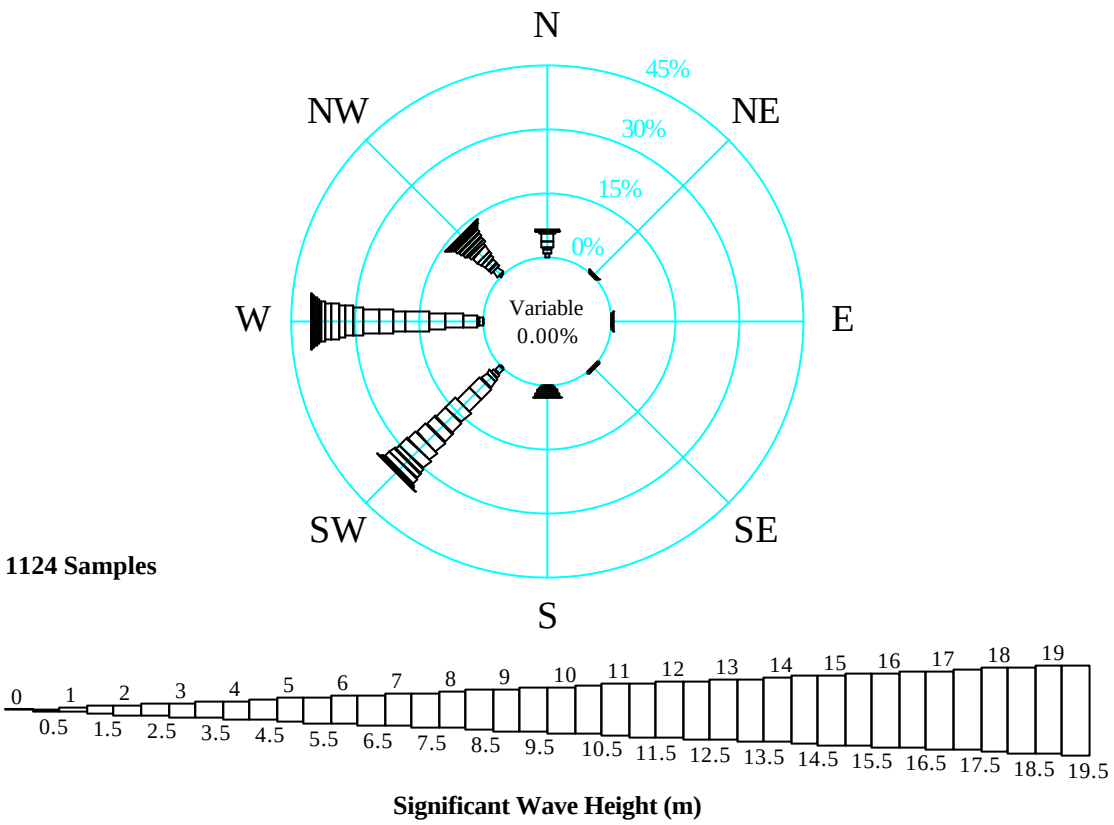
Figure B1.4

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1236
0.5	2					1	4		7	1236
1.0	25		6	9	3	9	49	9	110	1229
1.5	11		8	7		23	25	1	75	1119
2.0	13	4	6	10	2	8	27	9	79	1044
2.5	4	6	1	6	3	26	41	11	98	965
3.0	7	2	1	8	3	55	53	11	140	867
3.5	6		2	5	24	45	49	9	140	727
4.0	9			4	16	49	41	7	126	587
4.5	2	1		1	20	38	34	2	98	461
5.0		1		2	26	37	33	1	100	363
5.5	1			3	6	41	18	2	71	263
6.0	3	1		4	4	23	19	2	56	192
6.5				1	8	14	14	3	40	136
7.0					1	6	8		15	96
7.5					2	8	17		27	81
8.0						11	14		25	54
8.5						7	9		16	29
9.0						4	4		8	13
9.5						1	2		3	5
10.0							2		2	2
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	83	15	24	60	118	406	463	67	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_JANUARY_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : January

Figure B1.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_FEBRUARY_94-99

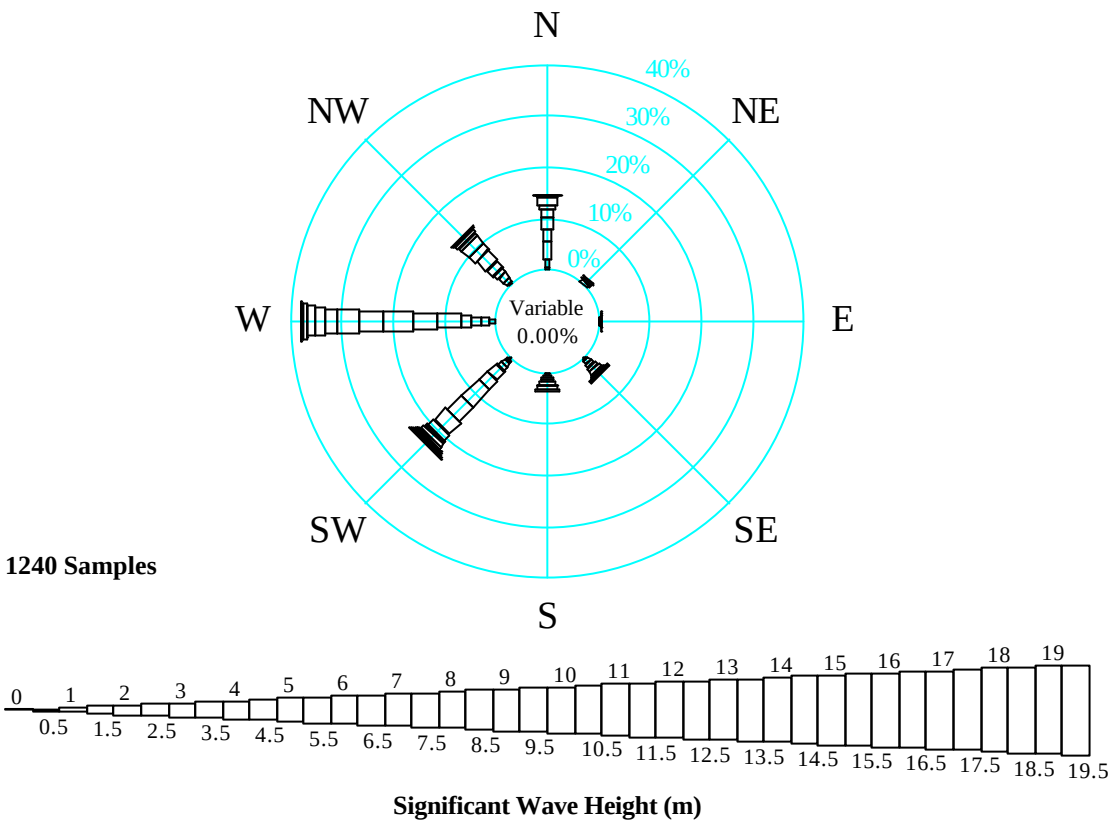
Figure B1.6

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1124
0.5										1124
1.0	9					2	2	5	18	1124
1.5	9					17	10	19	55	1106
2.0	6	2			1	10	6	11	36	1051
2.5	15	2		2	2	11	35	12	79	1015
3.0	21	5	1	3	4	21	48	12	115	936
3.5	7		3	2	5	39	39	11	106	821
4.0	2		2		2	45	63	16	130	715
4.5					5	35	34	10	84	585
5.0	1				5	38	38	7	89	501
5.5	1				6	28	42	10	87	412
6.0					4	35	25	11	75	325
6.5						28	20	10	58	250
7.0						27	14	4	45	192
7.5						14	22	3	39	147
8.0						17	19	2	38	108
8.5						18	9	1	28	70
9.0						2	6	3	11	42
9.5						3	3	3	9	31
10.0						1	6	1	8	22
10.5						1	7		8	14
11.0							1		1	6
11.5						3	1		4	5
12.0							1		1	1
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	71	9	6	7	34	395	451	151	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_FEBRUARY_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : February

Figure B1.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_MARCH_94-99

Figure B1.8

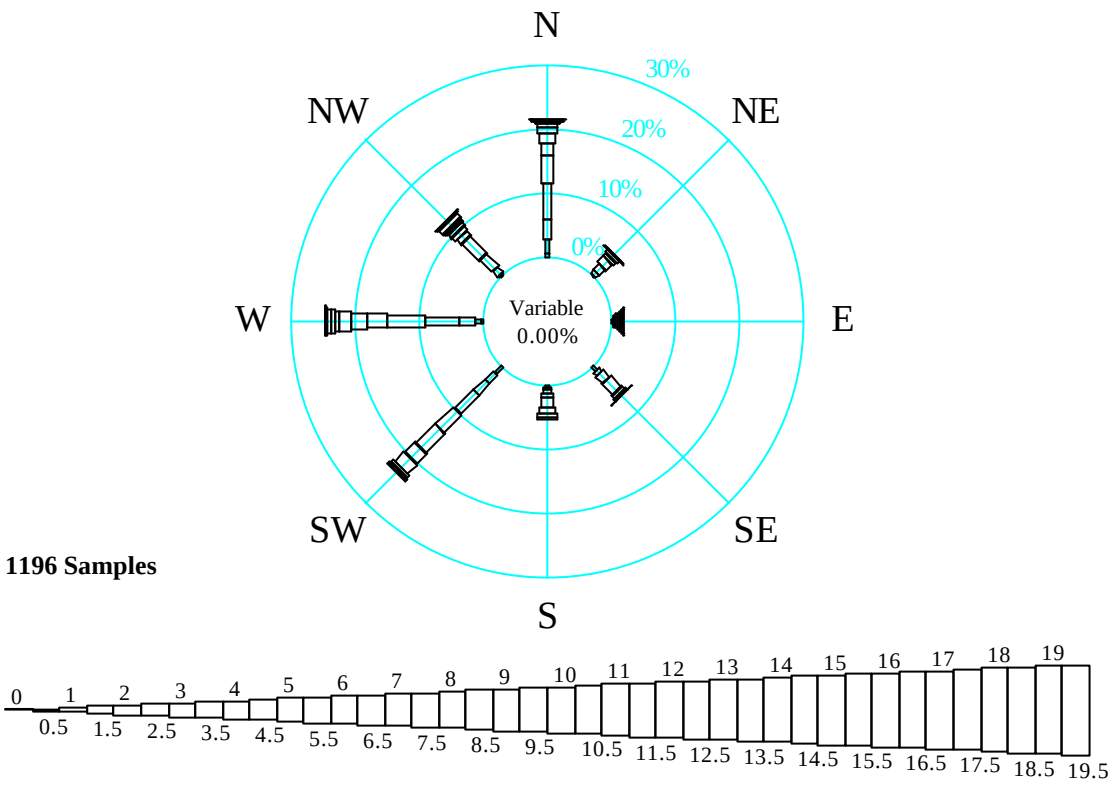
Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	8			2	2	8		5	25	1240
1.0	18		2	4	5	6	17	2	54	1215
1.5	44		1	9	4	8	19	8	93	1161
2.0	29	9	2	9		14	23	17	103	1068
2.5	26	6	1	10	6	28	23	13	113	965
3.0	22	4	1	10	2	28	59	21	147	852
3.5	10			3	12	59	57	33	174	705
4.0	17		1	2	2	46	73	21	162	531
4.5	4			3	6	40	61	22	136	369
5.0	2			1	8	20	52	8	91	233
5.5				2		6	29	10	47	142
6.0	1					11	23	2	37	95
6.5						5	19	3	27	58
7.0						1	2		3	31
7.5						1	9		10	28
8.0						4	4		8	18
8.5						5	2		7	10
9.0						2			2	3
9.5						1			1	1
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	181	19	8	55	47	293	472	165	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_MARCH_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : March

Figure B1.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_APRIL_94-99

Figure B1.10

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1196
0.5	7					17	2	3	29	1196
1.0	26	1	2	10	2	23	14	1	79	1167
1.5	39	8	1	8	5	27	27	14	129	1088
2.0	65	16	1	18	9	49	66	33	257	959
2.5	54	16	5	28	8	47	69	44	271	702
3.0	20	7	3	8	16	51	38	12	155	431
3.5	21	6	2	3	14	27	31	9	113	276
4.0	9	2	5	1	6	24	21	8	76	163
4.5	9		1		2	6	8	5	31	87
5.0	1		1			5	7	4	18	56
5.5	1		1			2	8	10	22	38
6.0	2	1	1	1			3	2	10	16
6.5	1						1	1	3	6
7.0	1								1	3
7.5	2								2	2
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
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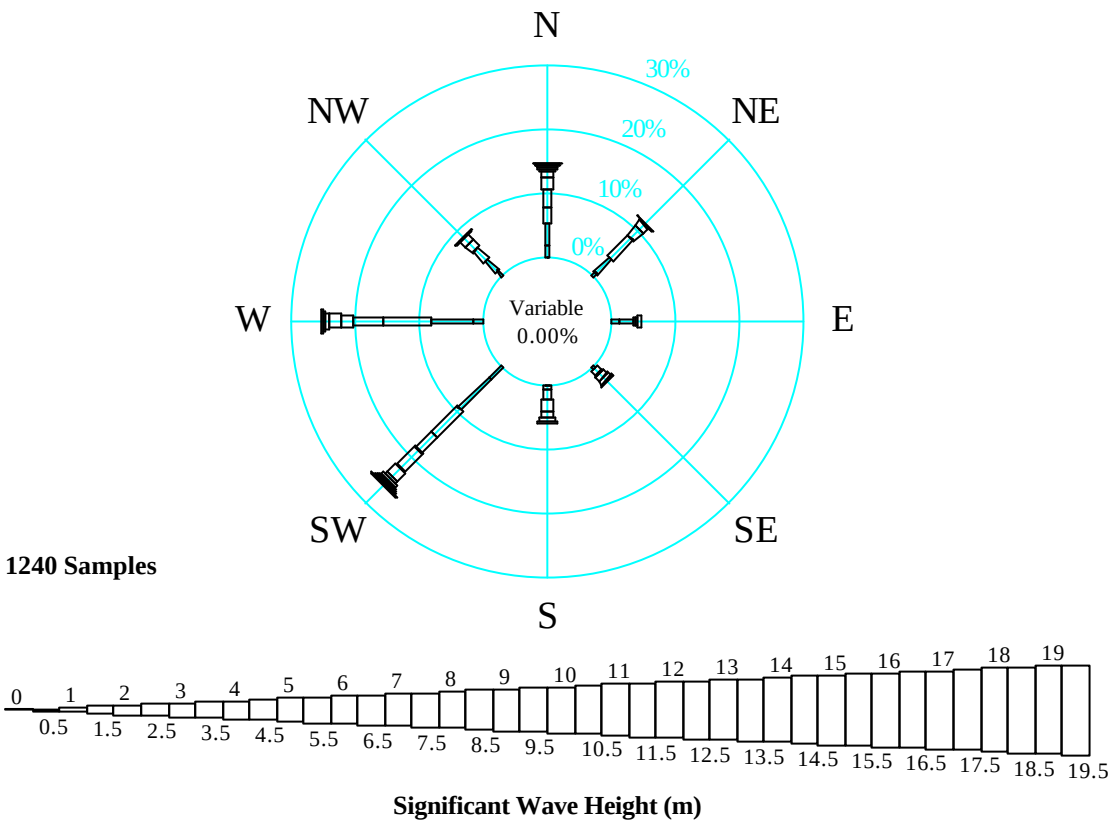
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	258	57	23	77	62	278	295	146	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_APRIL_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : April

Figure B1.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_MAY_94-99

Figure B1.12

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0	1								1	1240
0.5	23	8	15			32	21	13	112	1239
1.0	40	40	27	5	1	83	78	30	304	1127
1.5	31	56	5	10	7	71	94	29	303	823
2.0	37	23	4	3	20	42	57	17	203	520
2.5	24	14	7	11	23	48	26	15	168	317
3.0	8	2		8	11	24	23		76	149
3.5	5			3	8	6	8		30	73
4.0	4					5	4		13	43
4.5	3	1			3	3		1	11	30
5.0	3					2		2	7	19
5.5	1					2	1		4	12
6.0	2					2			4	8
6.5						2			2	4
7.0										2
7.5						2			2	2
8.0										
8.5										
9.0										
9.5										
10.0										
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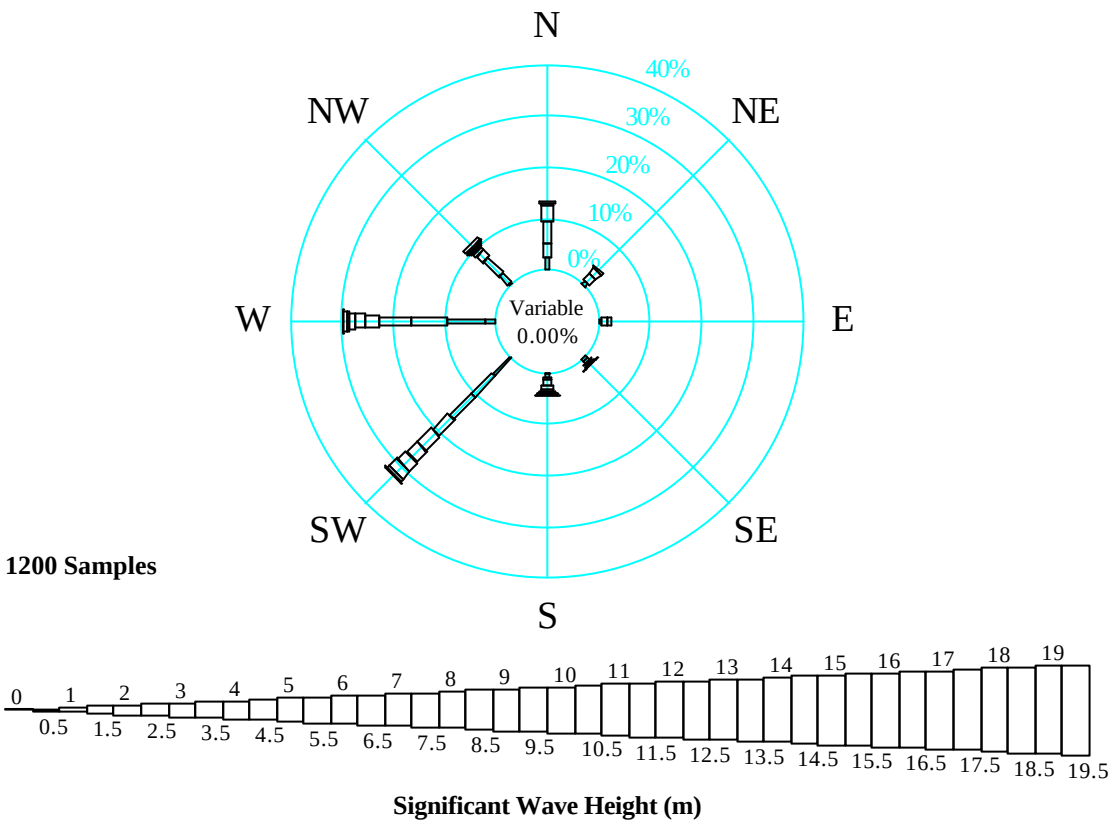
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	182	144	58	40	73	324	312	107	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_MAY_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : May

Figure B1.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_JUNE_94-99

Figure B1.14

Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1200
0.5					2	57	25	5	89	1200
1.0	31	8	7	7	8	67	90	29	247	1111
1.5	32	20	14	5	4	73	85	50	283	864
2.0	49	17	10	6	18	51	72	20	243	581
2.5	38	4		3	8	46	35	8	142	338
3.0	7			1	5	35	24	6	78	196
3.5	4			1	5	26	11	4	51	118
4.0				1	1	25	7	4	38	67
4.5					2	7	8	8	25	29
5.0					1	1	2		4	4
5.5										
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
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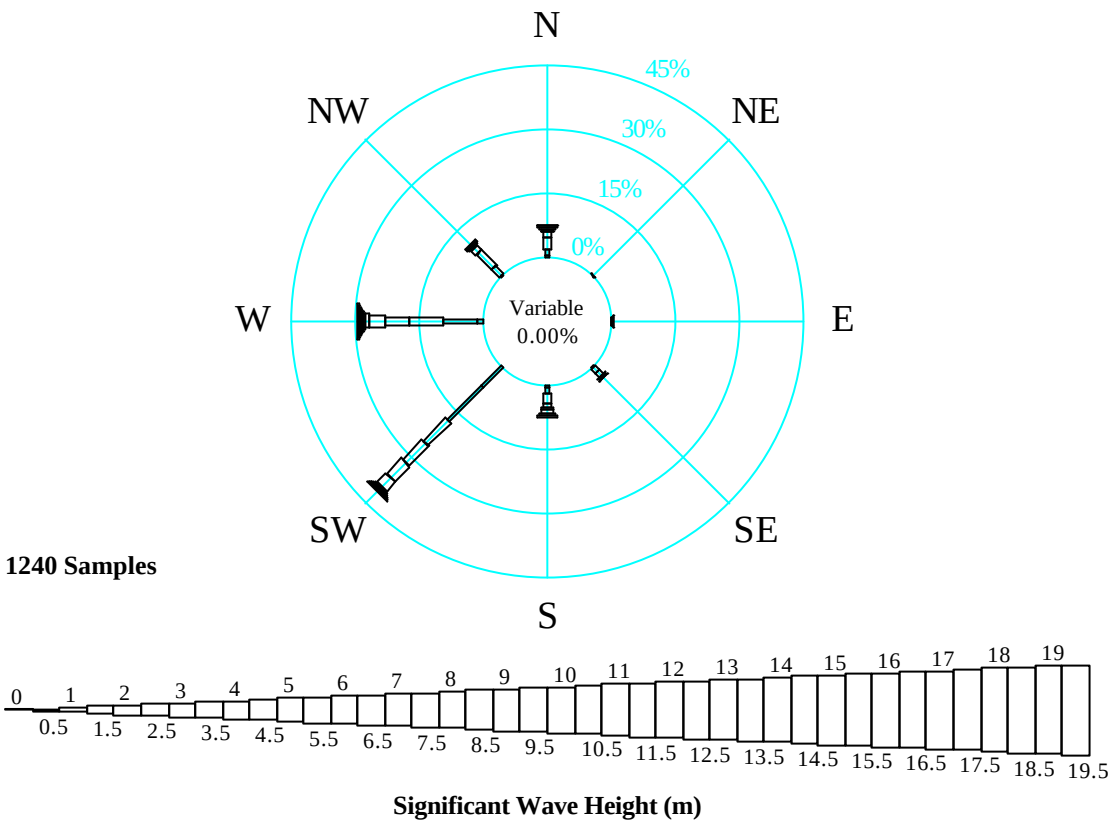
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	161	49	31	24	54	388	359	134	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_JUNE_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : June

Figure B1.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_JULY_94-99

Figure B1.16

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	8			1	7	82	17	2	117	1240
1.0	16	4		18	19	138	96	31	322	1123
1.5	32		2	16	27	94	103	62	336	801
2.0	19		4	7	9	79	66	19	203	465
2.5	2		2	3	9	62	48	9	135	262
3.0	5				13	39	13	4	74	127
3.5	5				5	6	2		18	53
4.0	4				2	4	2		12	35
4.5	2					1	4		7	23
5.0						3	4		7	16
5.5							1		1	9
6.0						1	1		2	8
6.5										6
7.0							3		3	6
7.5							3		3	3
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
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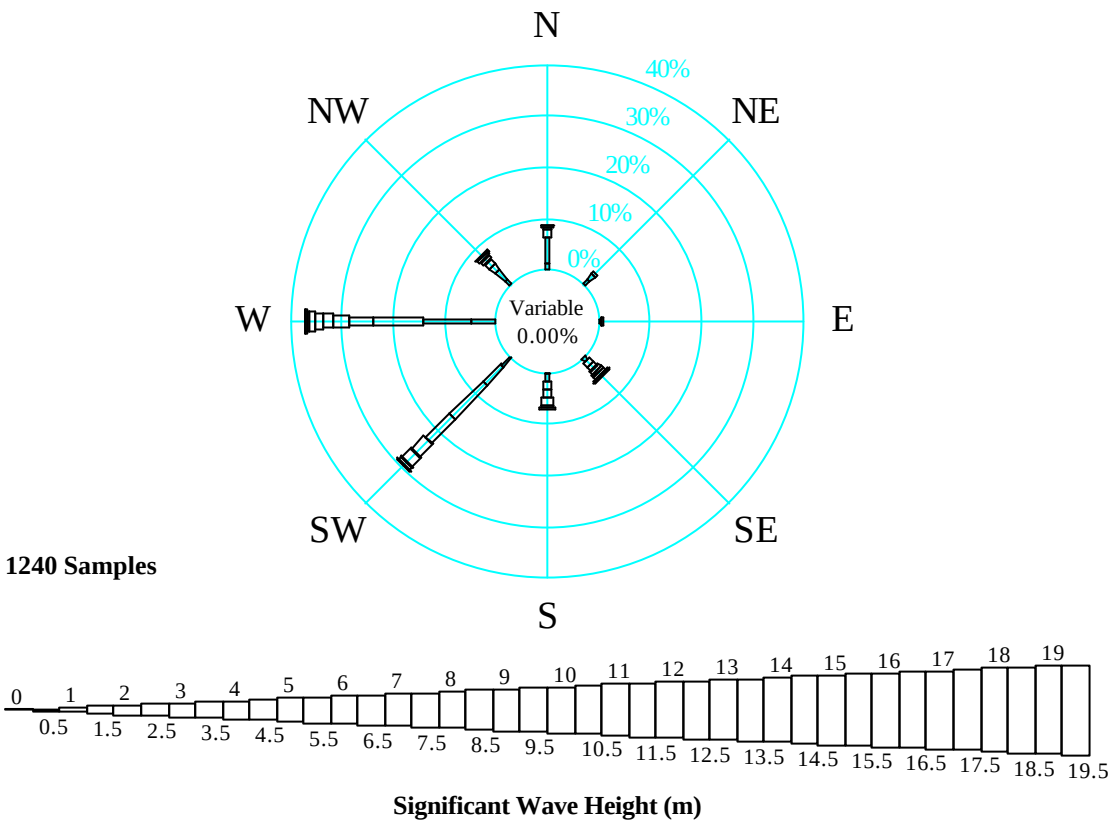
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	93	4	8	45	91	509	363	127	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_JULY_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : July

Figure B1.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_AUGUST_94-99

Figure B1.18

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	17	15			2	29	62	15	140	1240
1.0	63	19	5	10	20	59	113	33	322	1100
1.5	19	6	2	12	17	113	121	15	305	778
2.0	6		2	14	19	82	59	16	198	473
2.5	2			8	23	44	40	11	128	275
3.0	1			7	4	29	23	7	71	147
3.5				6	4	9	19	5	43	76
4.0				4		3	13		20	33
4.5				2			7		9	13
5.0							3		3	4
5.5							1		1	1
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
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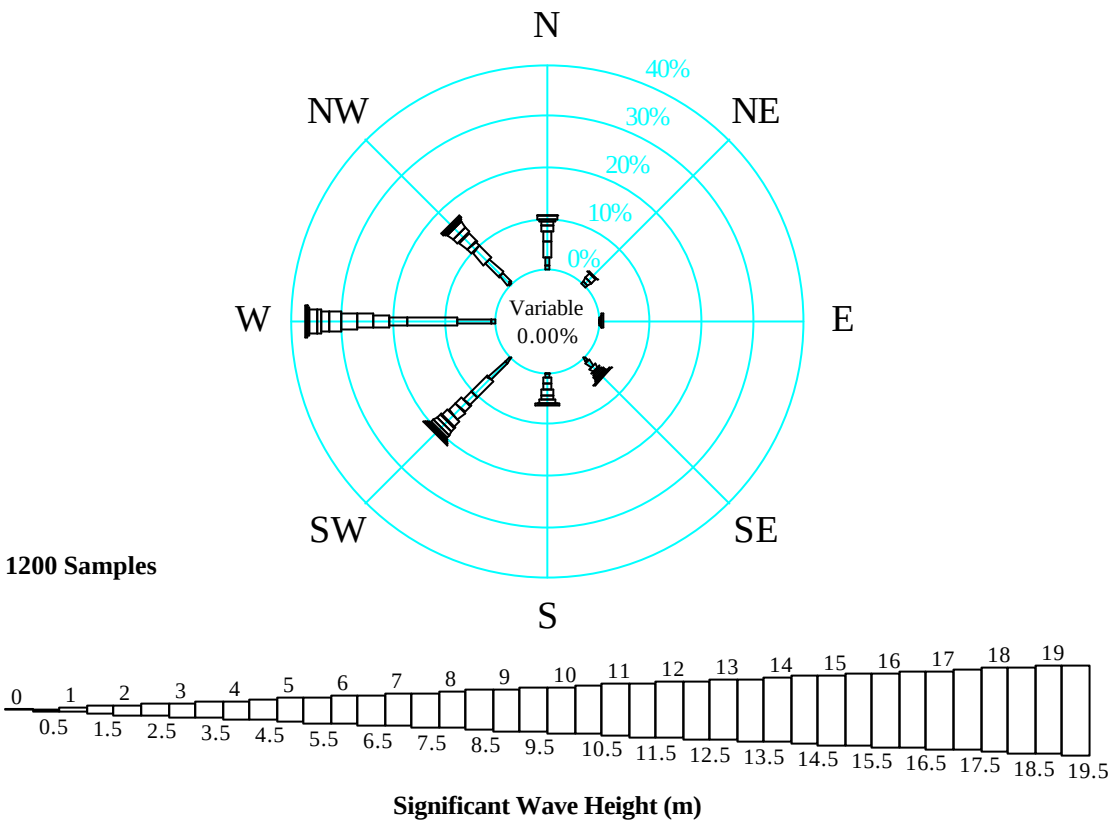
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	108	40	9	63	89	368	461	102	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_AUGUST_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : August

Figure B1.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_SEPTEMBER_94-99

Figure B1.20

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1200
0.5	9		1	11	1	16	12	6	56	1200
1.0	19	6	1	19	9	54	80	28	216	1144
1.5	37	9	5	9	16	51	114	44	285	928
2.0	26	14		4	13	27	45	39	168	643
2.5	13	2	1	8	15	20	37	14	110	475
3.0	11		1	5	8	23	38	25	111	365
3.5	4			4	8	18	34	16	84	254
4.0	7				4	12	31	14	68	170
4.5	1			2		9	18	7	37	102
5.0				1		9	10	4	24	65
5.5					1	5	16	2	24	41
6.0							5		5	17
6.5						5	1		6	12
7.0						1	5		6	6
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
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15.5										
16.0										
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17.0										
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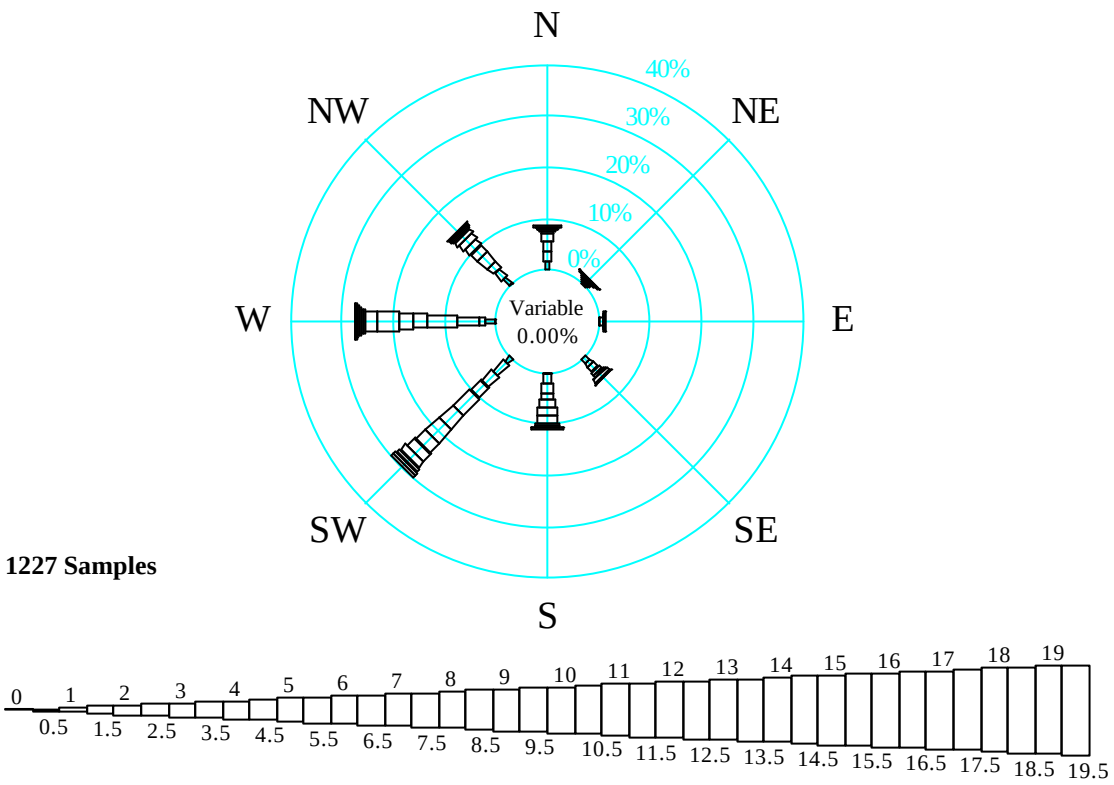
18.0										
18.5										
19.0										
19.5										
20.0										
Total	127	31	9	63	75	250	446	199	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_SEPTEMBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : September

Figure B1.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_OCTOBER_94-99

Figure B1.22

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5										1227
1.0							3	1	4	1227
1.5	21	2		13	2	17	24	21	100	1223
2.0	24	5	4	11	2	37	15	25	123	1123
2.5	21	1	5	14	23	35	49	20	168	1000
3.0	21	4	3	9	24	33	73	30	197	832
3.5	6	1		6	11	57	33	22	136	635
4.0	3	1	1	2	20	43	35	19	124	499
4.5	3		1	7	19	46	50	17	143	375
5.0	3	2	1	3	19	31	29	11	99	232
5.5	2	1		1	8	25	6	8	51	133
6.0					4	20	5	4	33	82
6.5	1	2				9	7	2	21	49
7.0		1			1	9	2		13	28
7.5					3	7	1		11	15
8.0							3		3	4
8.5							1		1	1
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
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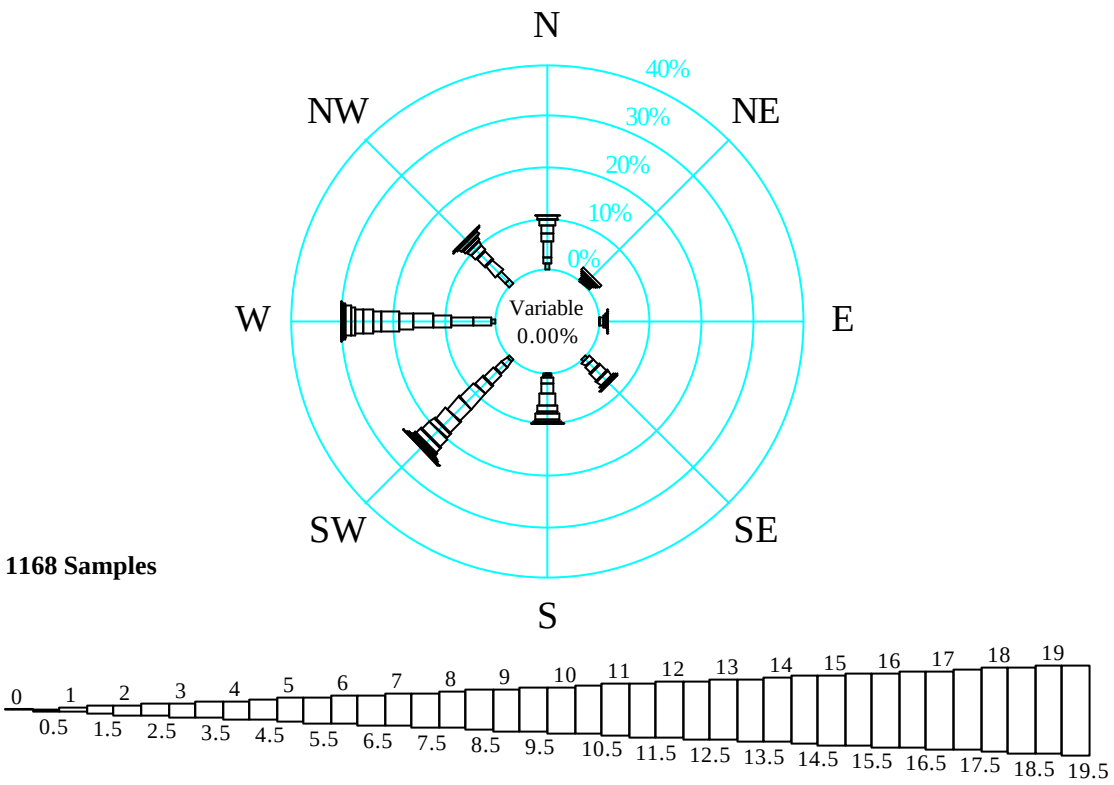
18.0										
18.5										
19.0										
19.5										
20.0										
Total	105	20	15	66	136	369	336	180	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_OCTOBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : October

Figure B1.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_NOVEMBER_94-99

Figure B1.24

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1168
0.5										1168
1.0	14		1		2	6	13	12	48	1168
1.5	13		2	6	3	15	40	25	104	1120
2.0	37	3	6	12	8	21	49	34	170	1016
2.5	18	1	8	18	10	32	43	27	157	846
3.0	21	6	1	22	24	26	44	13	157	689
3.5	11	5	1	16	28	46	30	12	149	532
4.0	3	2		4	12	39	40	7	107	383
4.5	8	2	1	2	8	35	22	2	80	276
5.0			2	5	12	14	21	2	56	196
5.5	1	6			3	25	20	8	63	140
6.0					4	15	8	3	30	77
6.5					1	6	12		19	47
7.0					3	2	3	1	9	28
7.5						1	3		4	19
8.0						2	3	1	6	15
8.5						1	3		4	9
9.0						1			1	5
9.5						2			2	4
10.0										2
10.5						1			1	2
11.0						1			1	1
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
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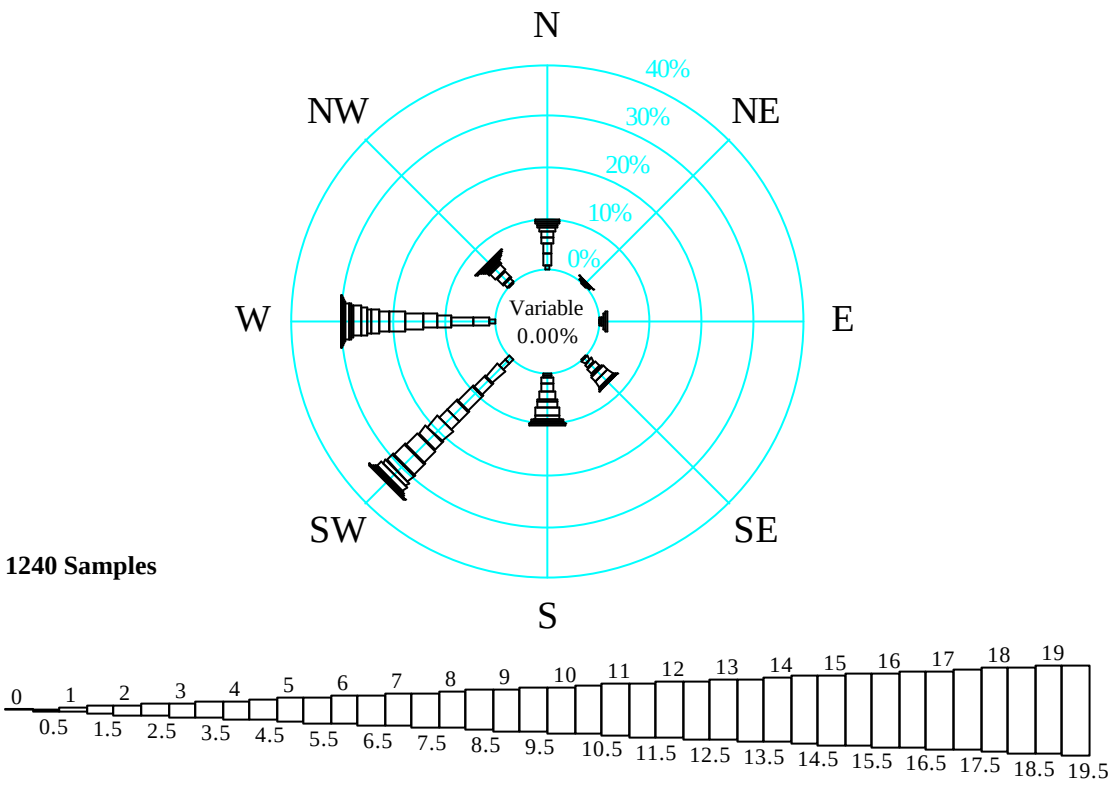
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	126	25	22	85	118	291	354	147	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_NOVEMBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : November

Figure B1.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_DECEMBER_94-99

Figure B1.26

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5										1240
1.0	13		4	2		13	14		46	1240
1.5	29	1	1	12	8	20	40	1	112	1194
2.0	20	2	4	10	4	44	54	13	151	1082
2.5	18	1		18	16	38	36	20	147	931
3.0	14	4		4	17	49	30	21	139	784
3.5	9		5	16	20	33	46	7	136	645
4.0	7		6	15	7	29	37	3	104	509
4.5	4	1		5	13	36	23	3	85	405
5.0	5			2	17	26	20	1	71	320
5.5	2			3	10	42	12	1	70	249
6.0					3	37	15	3	58	179
6.5					5	21	16	1	43	121
7.0					3	12	8	1	24	78
7.5					2	14	6		22	54
8.0					1	3	8	1	13	32
8.5						2	3		5	19
9.0						2	1		3	14
9.5						2	2		4	11
10.0										7
10.5						2	2		4	7
11.0						1	1		2	3
11.5							1		1	1
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	121	9	20	87	126	426	375	76	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_HS/WVD_DECEMBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : December

UKMO GWM 1 (56.50°N, 9.66°W)

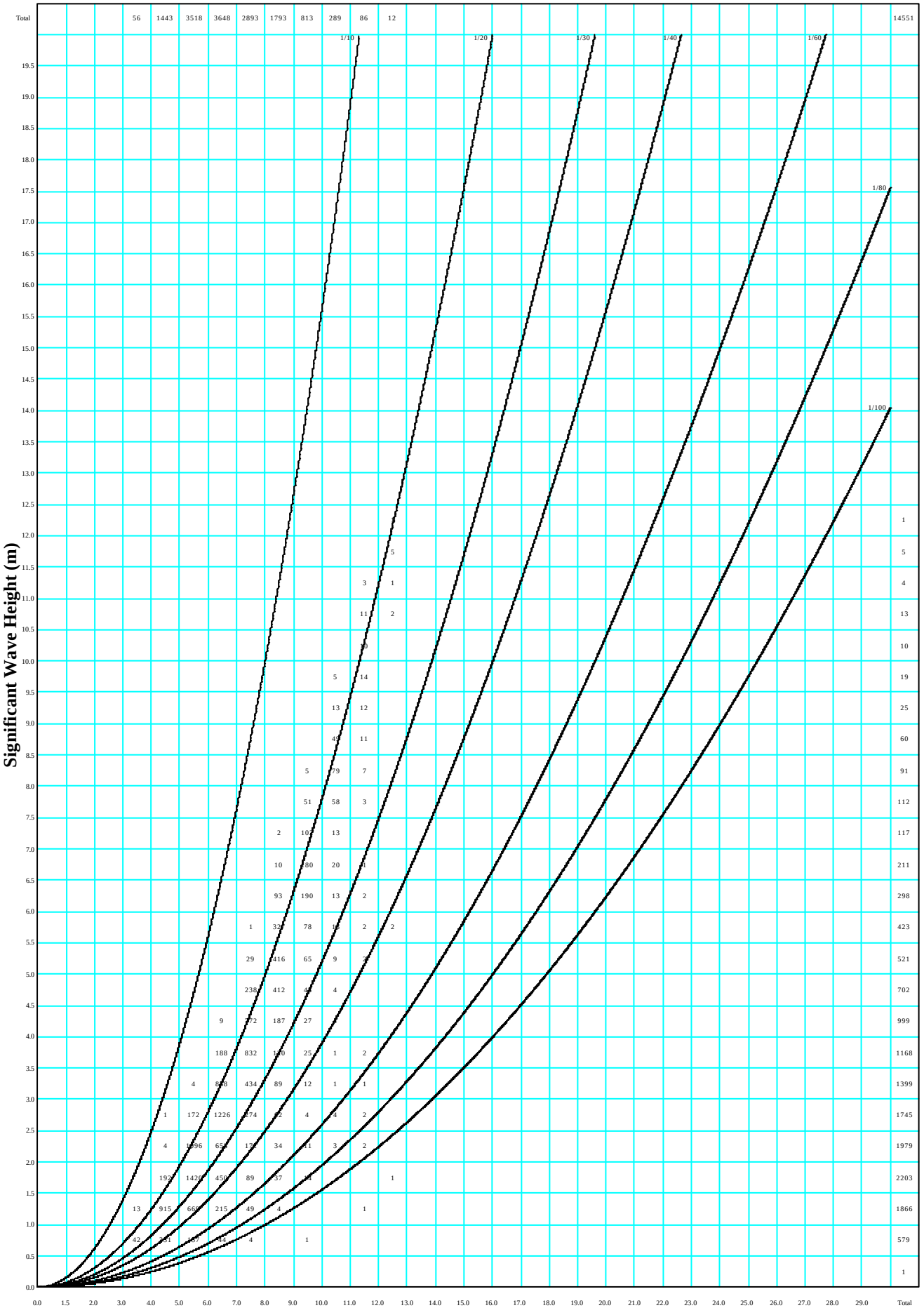
Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	99.92	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.99
1.0	99.43	100.00	97.98	97.58	90.89	92.58	90.56	88.71	95.33	99.67	100.00	100.00	96.01
1.5	90.53	98.40	93.63	90.97	66.37	72.00	64.60	62.74	77.33	91.52	95.89	96.29	83.19
2.0	84.47	93.51	86.13	80.18	41.94	48.42	37.50	38.15	53.58	81.50	86.99	87.26	68.05
2.5	78.07	90.30	77.82	58.70	25.56	28.17	21.13	22.18	39.58	67.81	72.43	75.08	54.45
3.0	70.15	83.27	68.71	36.04	12.02	16.33	10.24	11.85	30.42	51.75	58.99	63.23	42.46
3.5	58.82	73.04	56.85	23.08	5.89	9.83	4.27	6.13	21.17	40.67	45.55	52.02	32.84
4.0	47.49	63.61	42.82	13.63	3.47	5.58	2.82	2.66	14.17	30.56	32.79	41.05	24.82
4.5	37.30	52.05	29.76	7.27	2.42	2.42	1.85	1.05	8.50	18.91	23.63	32.66	17.95
5.0	29.37	44.57	18.79	4.68	1.53	0.33	1.29	0.32	5.42	10.84	16.78	25.81	13.13
5.5	21.28	36.65	11.45	3.18	0.97	0.00	0.73	0.08	3.42	6.68	11.99	20.08	9.55
6.0	15.53	28.91	7.66	1.34	0.65	0.00	0.65	0.00	1.42	3.99	6.59	14.44	6.64
6.5	11.00	22.24	4.68	0.50	0.32	0.00	0.48	0.00	1.00	2.28	4.02	9.76	4.59
7.0	7.77	17.08	2.50	0.25	0.16	0.00	0.48	0.00	0.50	1.22	2.40	6.29	3.14
7.5	6.55	13.08	2.26	0.17	0.16	0.00	0.24	0.00	0.00	0.33	1.63	4.35	2.34
8.0	4.37	9.61	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.08	1.28	2.58	1.57
8.5	2.35	6.23	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77	1.53	0.94
9.0	1.05	3.74	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	1.13	0.53
9.5	0.40	2.76	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.89	0.36
10.0	0.16	1.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.56	0.23
10.5	0.00	1.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.56	0.16
11.0	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.24	0.07
11.5	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.04
12.0	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**4.04**	**4.92**	**3.73**	**2.79**	**1.97**	**2.09**	**1.89**	**1.87**	**2.47**	**3.24**	**3.52**	**3.89**	**3.02**
Minimum	**0.90**	**1.10**	**0.60**	**0.60**	**0.40**	**0.60**	**0.50**	**0.50**	**0.70**	**0.80**	**1.00**	**1.00**	**0.40**
Maximum	**10.20**	**12.00**	**9.50**	**7.50**	**7.60**	**5.30**	**7.90**	**5.60**	**7.40**	**8.10**	**11.10**	**11.90**	**12.00**

Table B1.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : UKMO GWM 1

Height (m)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	99.94	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.99
1.0	95.36	94.55	93.13	97.92	98.63	94.37	96.89	96.88	96.01
1.5	77.10	75.59	69.53	83.48	91.69	83.27	84.30	84.32	83.19
2.0	57.30	50.71	50.21	67.86	82.60	70.49	69.51	66.02	68.05
2.5	37.00	29.15	31.33	51.93	70.28	59.74	57.29	50.53	54.45
3.0	22.46	15.88	19.31	33.48	55.91	49.62	46.49	37.16	42.46
3.5	13.61	8.53	15.88	21.28	44.38	39.45	37.40	27.55	32.84
4.0	8.35	5.69	9.87	12.20	29.42	31.14	29.70	19.74	24.82
4.5	4.33	4.74	3.43	6.55	22.48	23.53	21.55	13.68	17.95
5.0	2.10	3.08	2.15	3.87	14.86	17.92	16.26	9.24	13.13
5.5	1.24	2.61	0.86	2.08	7.33	13.73	12.08	6.93	9.55
6.0	0.80	1.18	0.43	0.89	4.40	9.75	8.81	4.00	6.64
6.5	0.25	0.24	0.00	0.15	2.93	6.66	6.55	2.44	4.59
7.0	0.19	0.00	0.00	0.00	1.47	4.56	4.74	1.31	3.14
7.5	0.12	0.00	0.00	0.00	0.49	3.26	3.80	0.94	2.34
8.0	0.00	0.00	0.00	0.00	0.10	2.33	2.45	0.75	1.57
8.5	0.00	0.00	0.00	0.00	0.00	1.47	1.41	0.50	0.94
9.0	0.00	0.00	0.00	0.00	0.00	0.70	0.85	0.44	0.53
9.5	0.00	0.00	0.00	0.00	0.00	0.44	0.62	0.25	0.36
10.0	0.00	0.00	0.00	0.00	0.00	0.23	0.47	0.06	0.23
10.5	0.00	0.00	0.00	0.00	0.00	0.21	0.30	0.00	0.16
11.0	0.00	0.00	0.00	0.00	0.00	0.12	0.11	0.00	0.07
11.5	0.00	0.00	0.00	0.00	0.00	0.07	0.06	0.00	0.04
12.0	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**2.30**	**2.17**	**2.19**	**2.62**	**3.35**	**3.27**	**3.22**	**2.82**	**3.02**
Minimum	**0.40**	**0.50**	**0.60**	**0.70**	**0.50**	**0.50**	**0.50**	**0.50**	**0.40**
Maximum	**7.50**	**6.50**	**6.20**	**6.60**	**8.40**	**11.70**	**12.00**	**10.00**	**12.00**

Table B1.28 - All Year Significant Wave Height - Percentage Exceedence by Direction : UKMO GWM 1

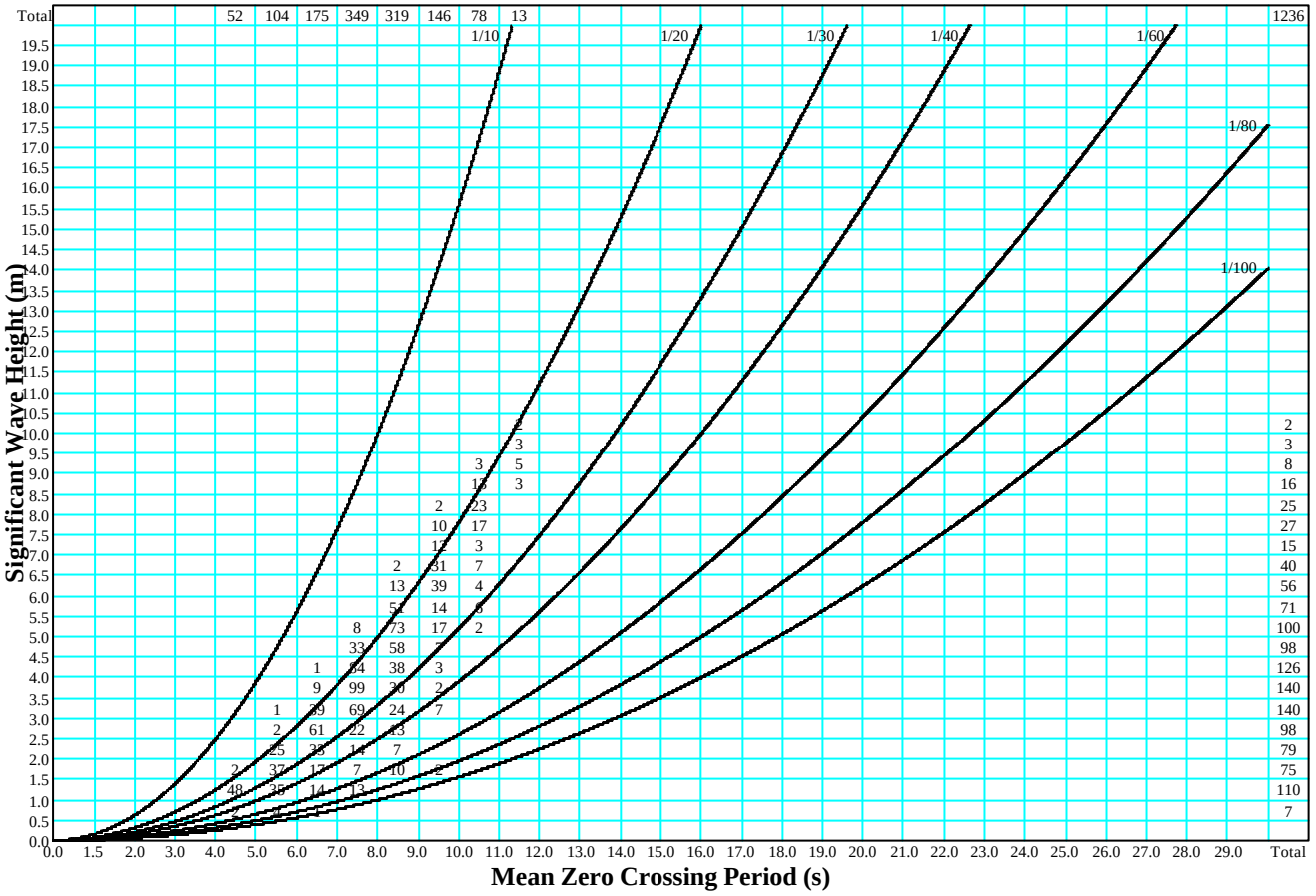
Figure B1.29 **Total Samples 14551**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_ALLYEAR_5/94-4/99

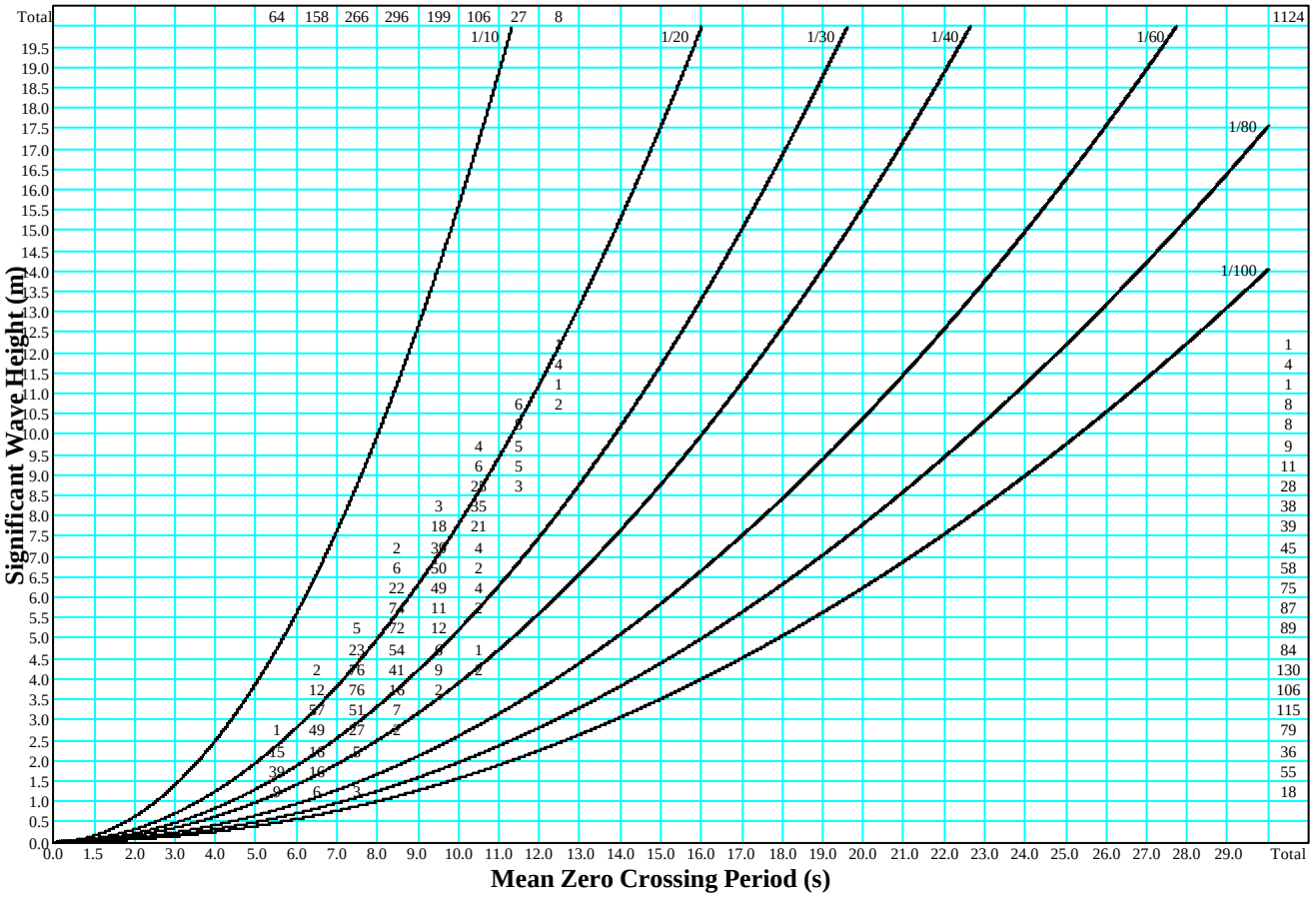
UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B1.30 **Total Samples 1236**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_JANUARY_94-99

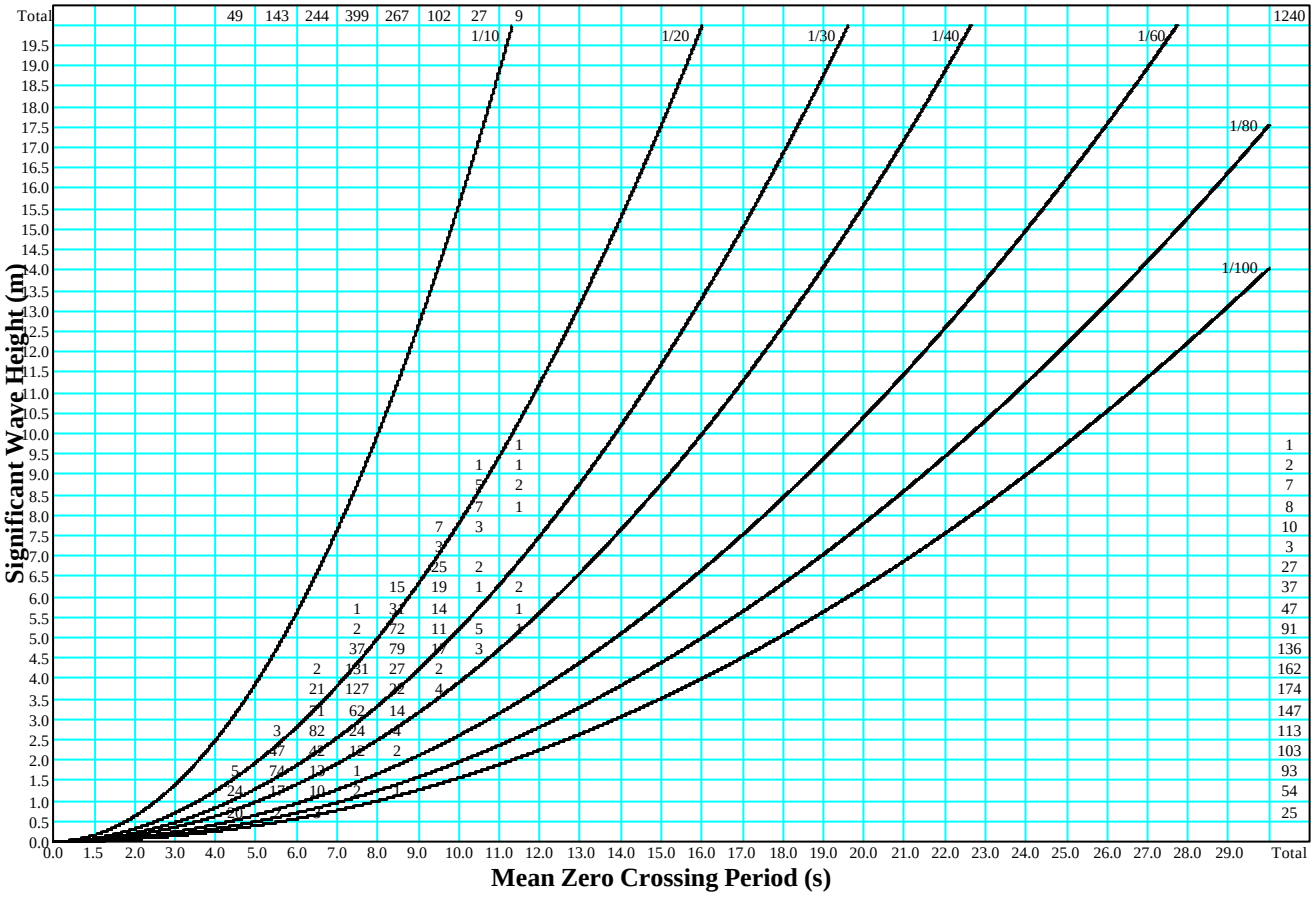
Figure B1.31 **Total Samples 1124**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_FEBRUARY_94-99

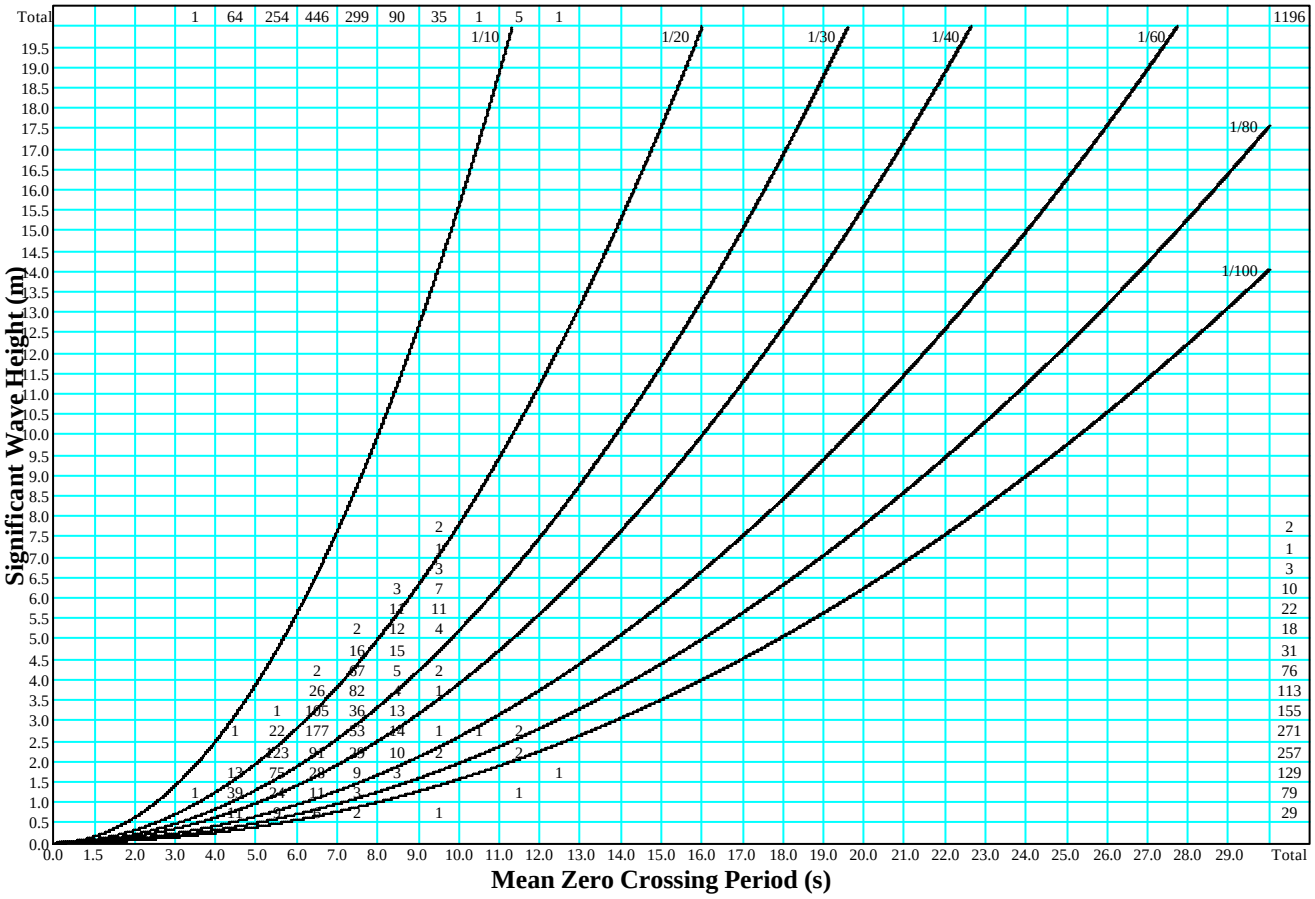
UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B1.32 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_MARCH_94-99

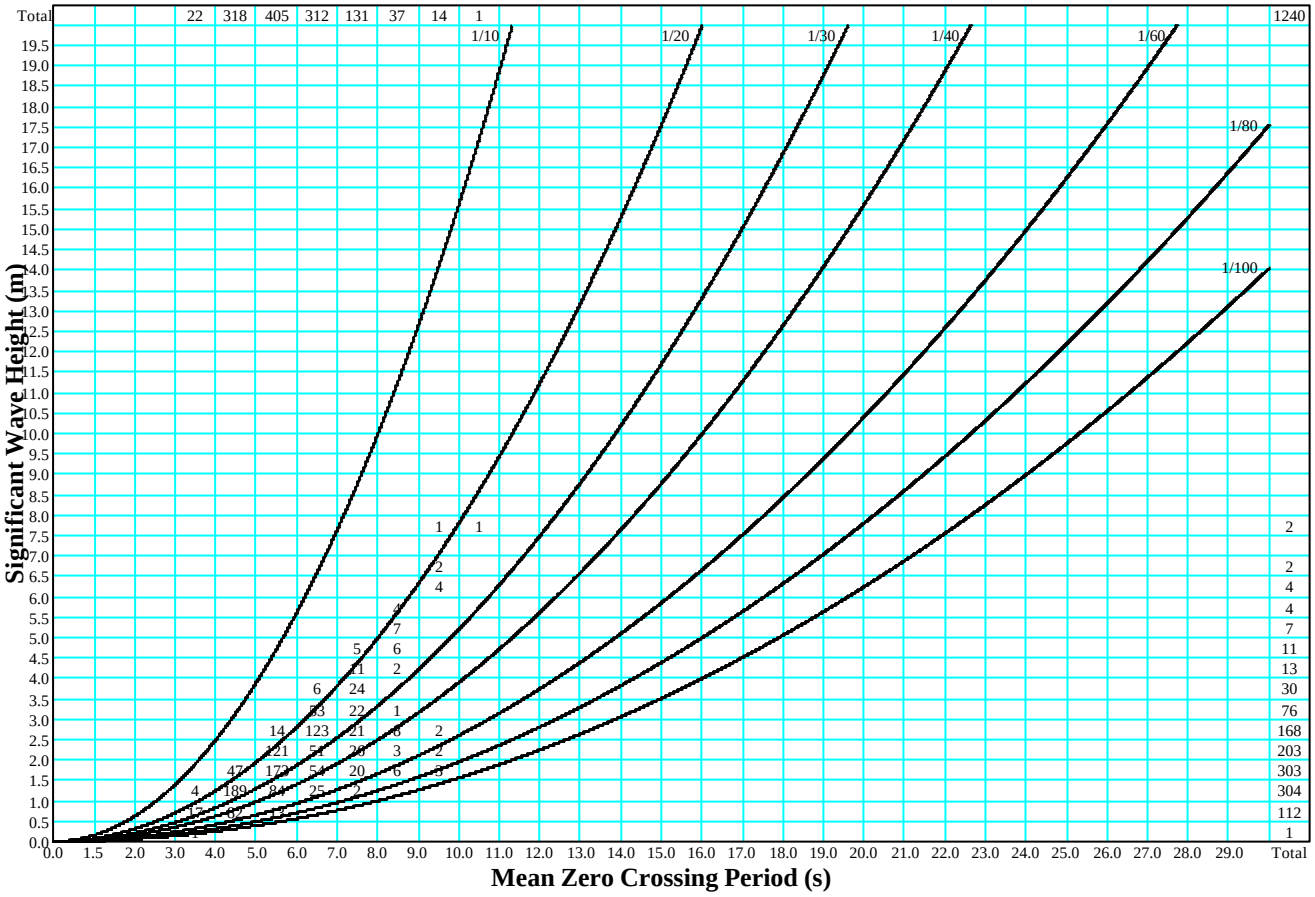
Figure B1.33 **Total Samples 1196**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_APRIL_94-99

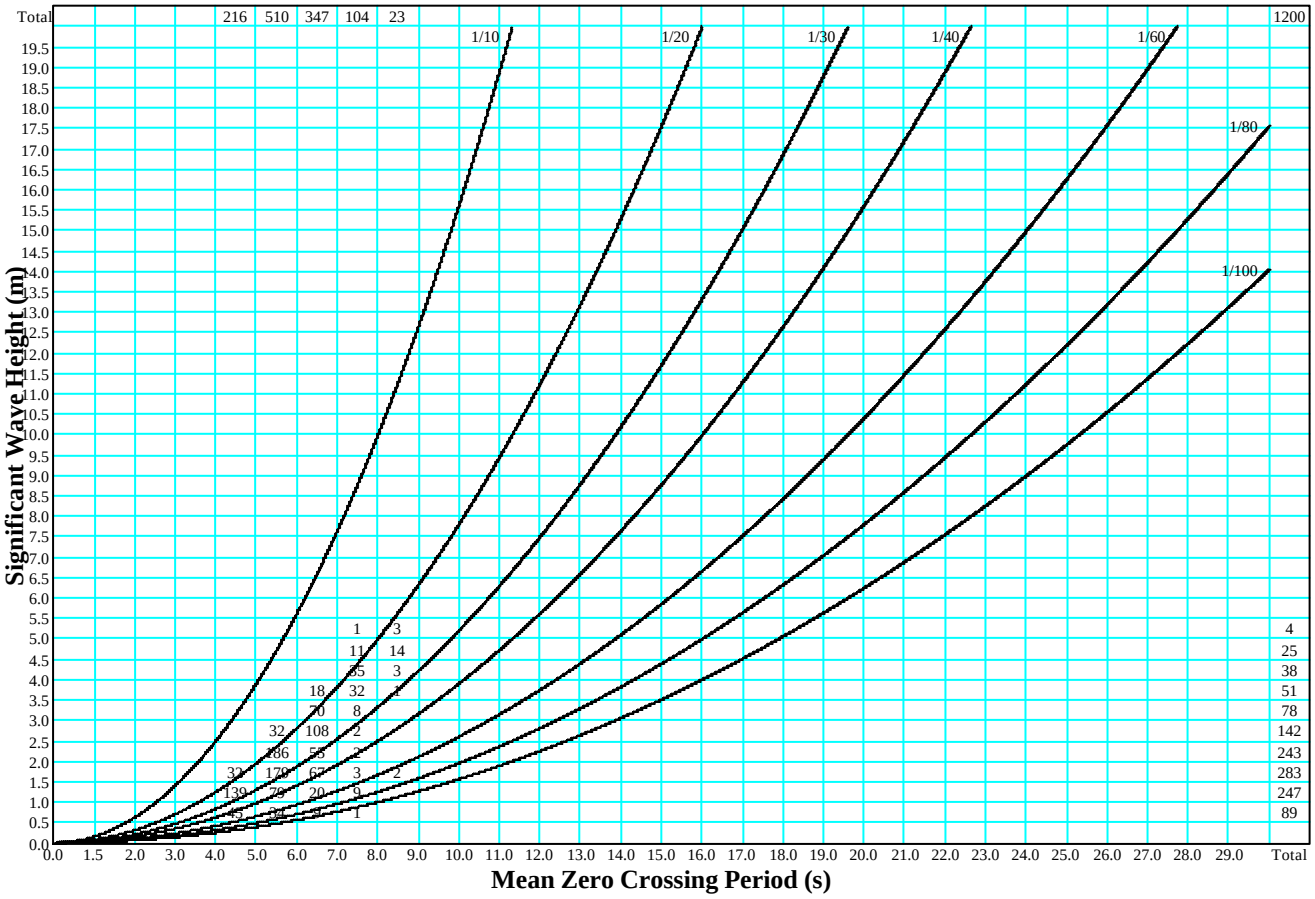
UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B1.34 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_MAY_94-99

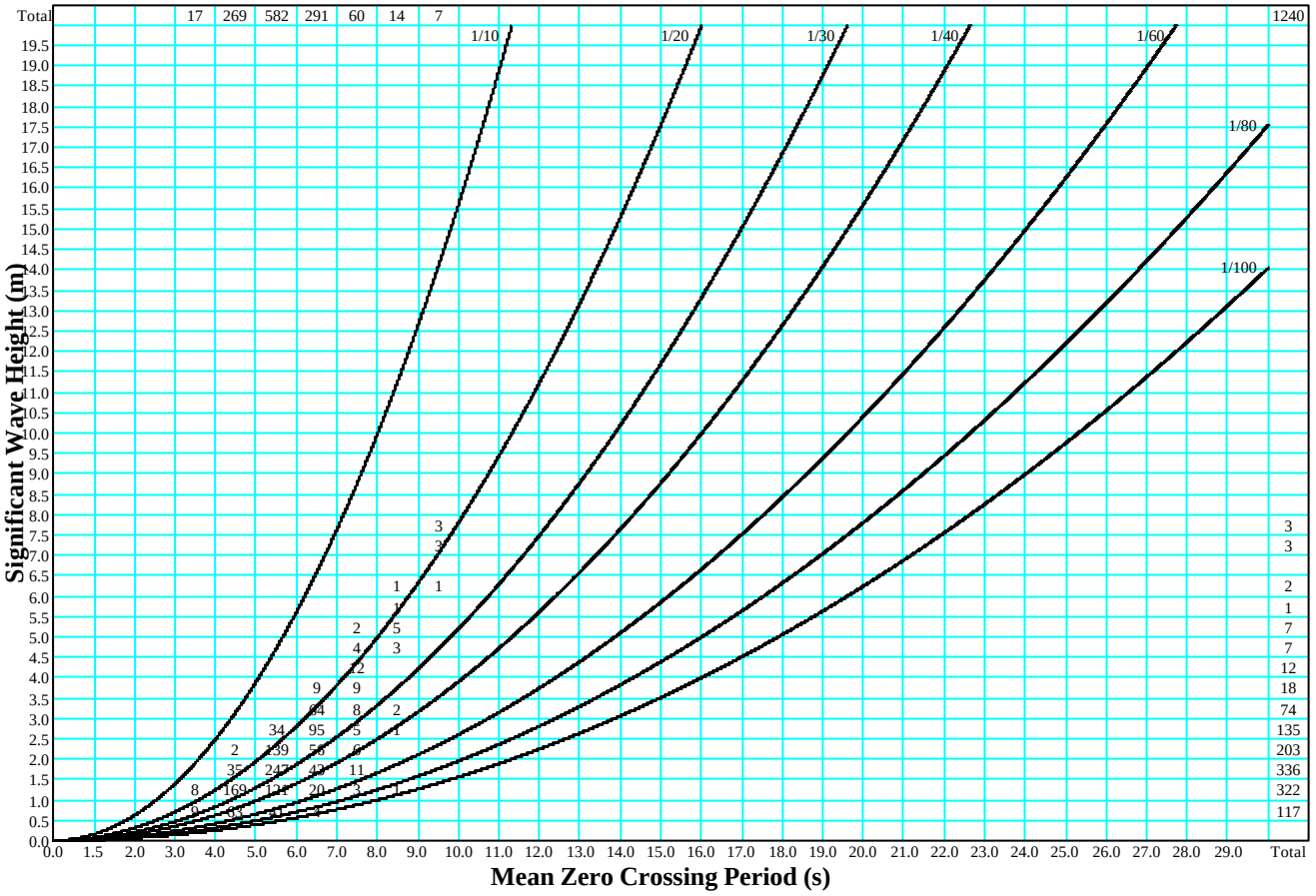
Figure B1.35 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_JUNE_94-99

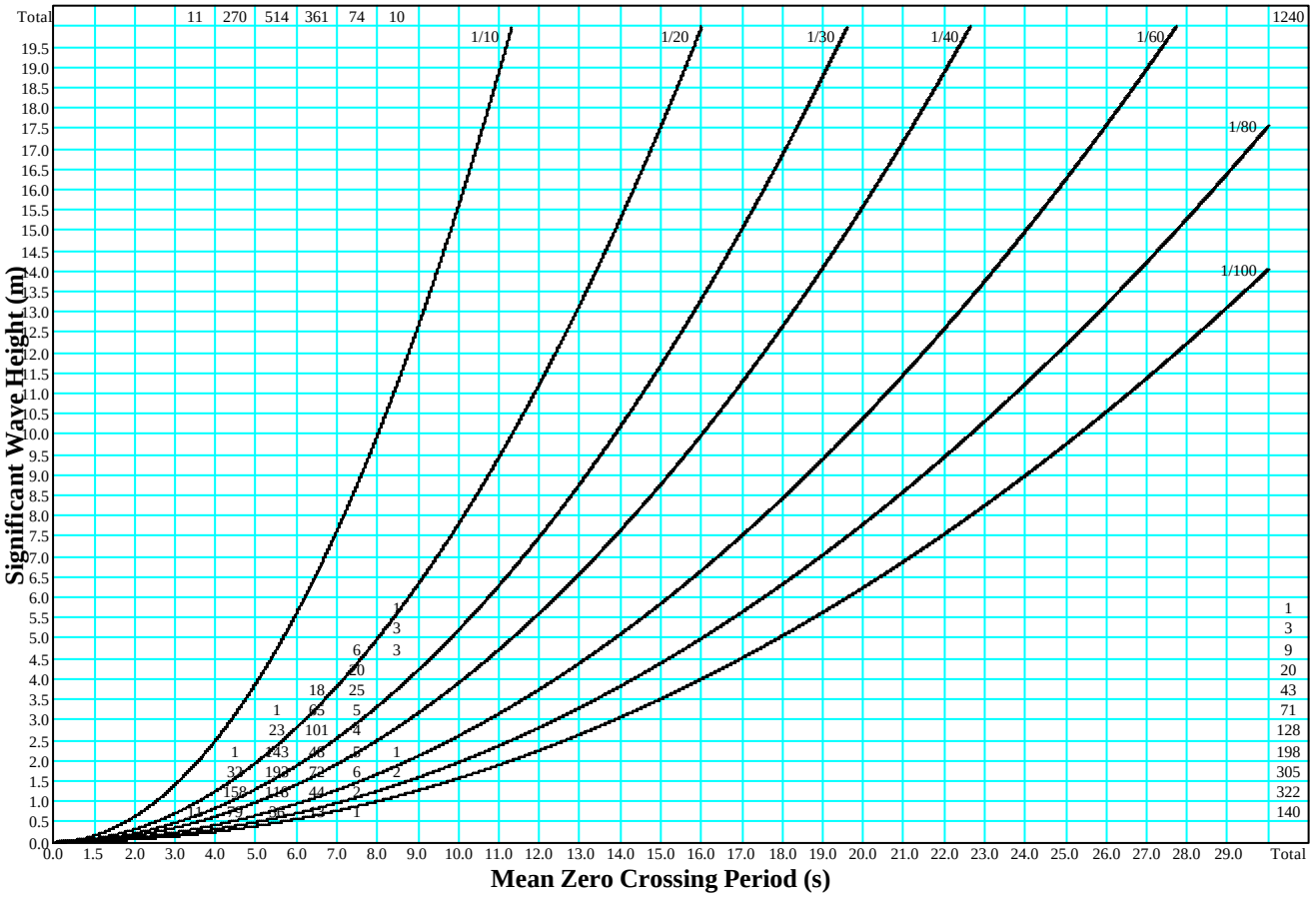
UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B1.36 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_JULY_94-99

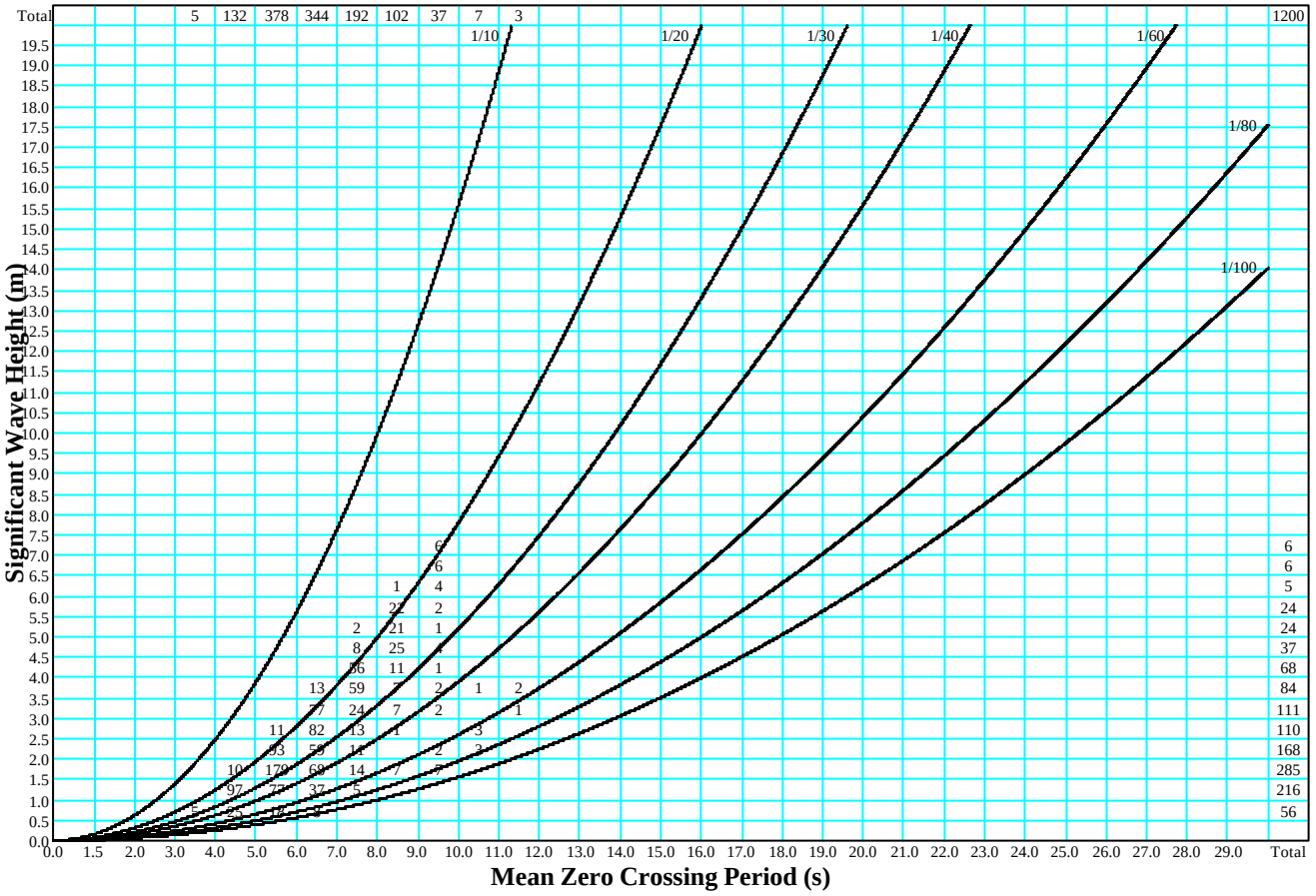
Figure B1.37 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_AUGUST_94-99

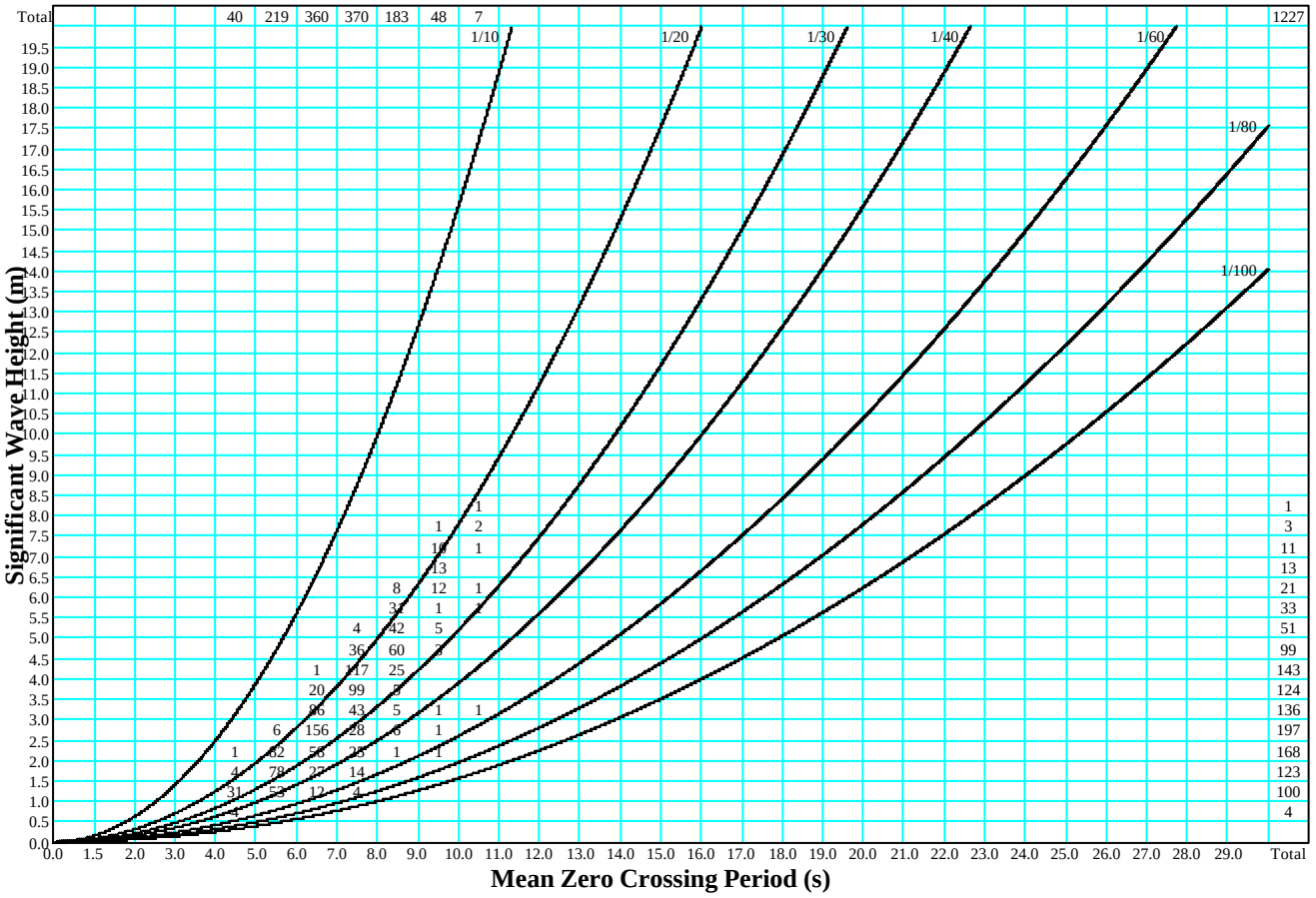
UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B1.38 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_SEPTEMBER_94-99

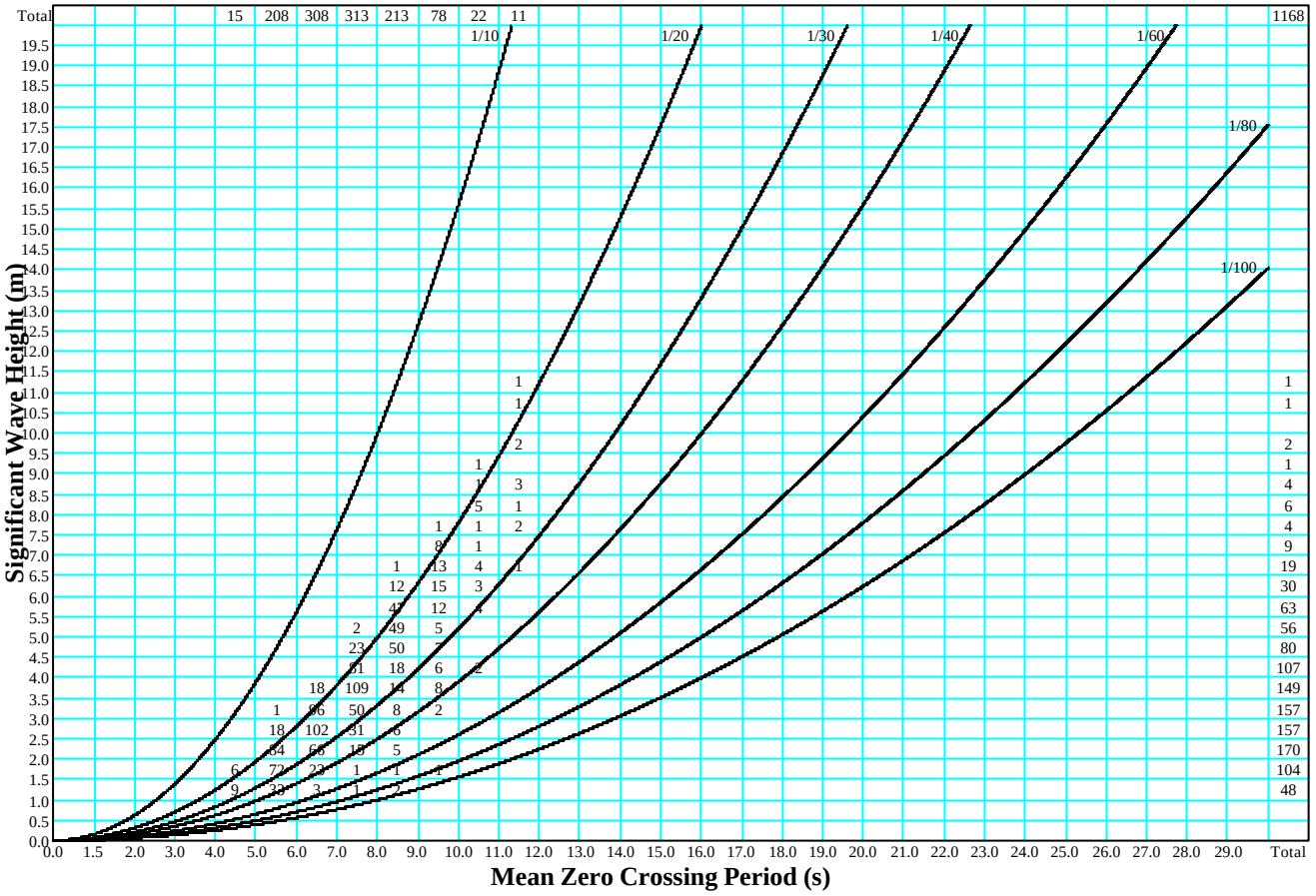
Figure B1.39 **Total Samples 1227**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_OCTOBER_94-99

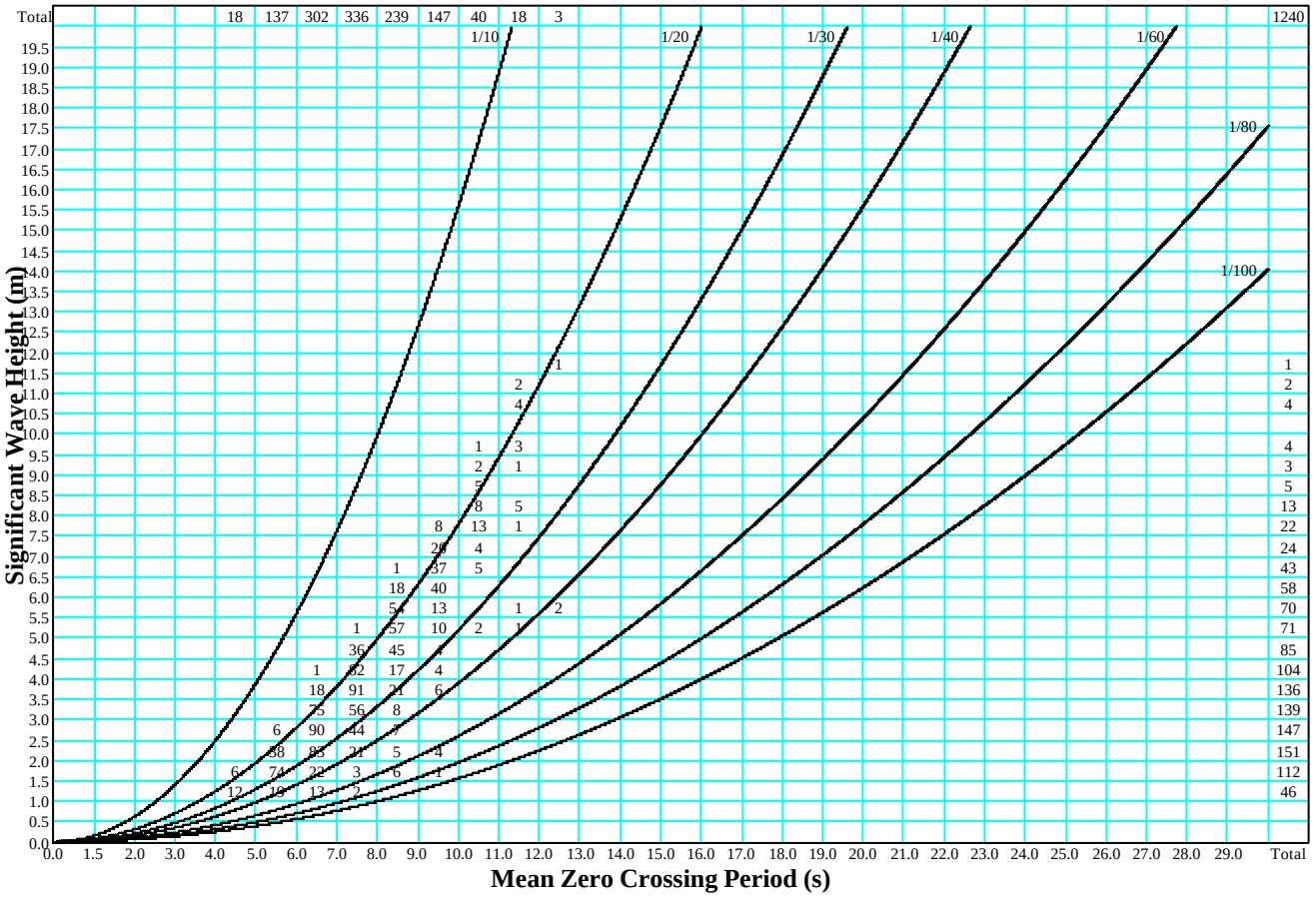
UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B1.40 **Total Samples 1168**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_NOVEMBER_94-99

Figure B1.41 **Total Samples 1240**

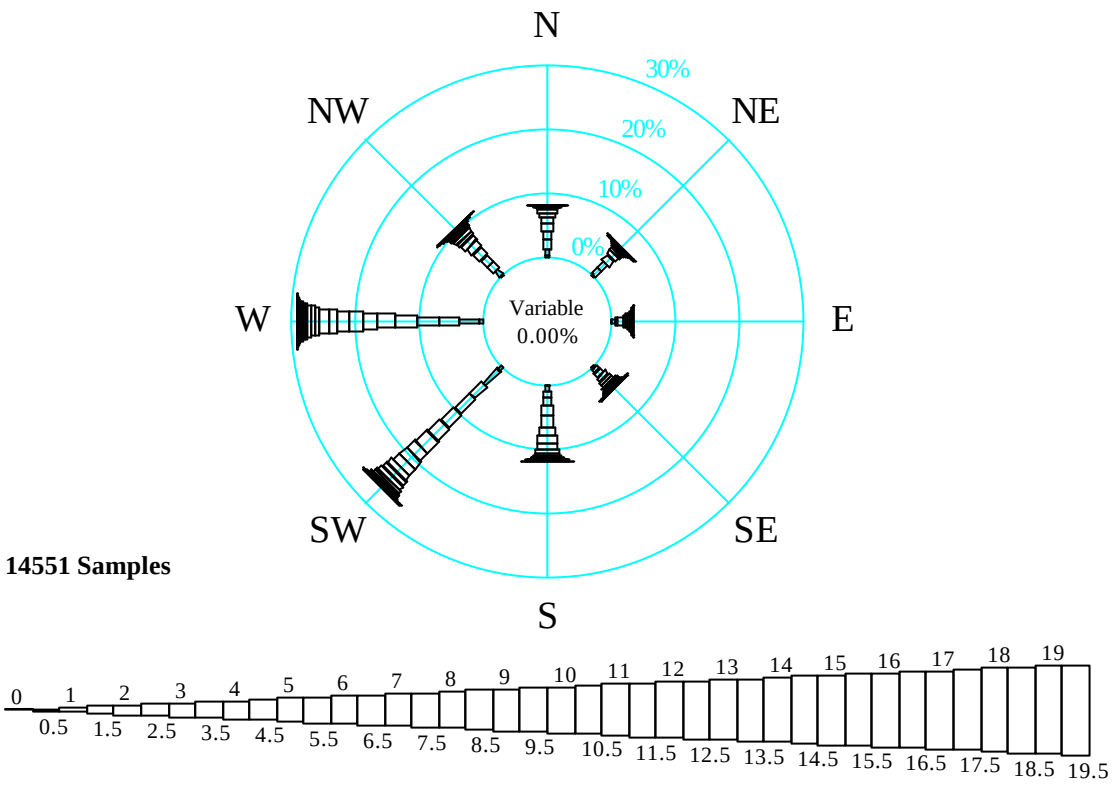


V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM1.mdb~F2S_GP1_Hs/Tz_DECEMBER_94-99

UKMO GWM 1 : 56.50°N, 9.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

APPENDIX B-2

Figure B2.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_ALLYEAR_5/94-4/99

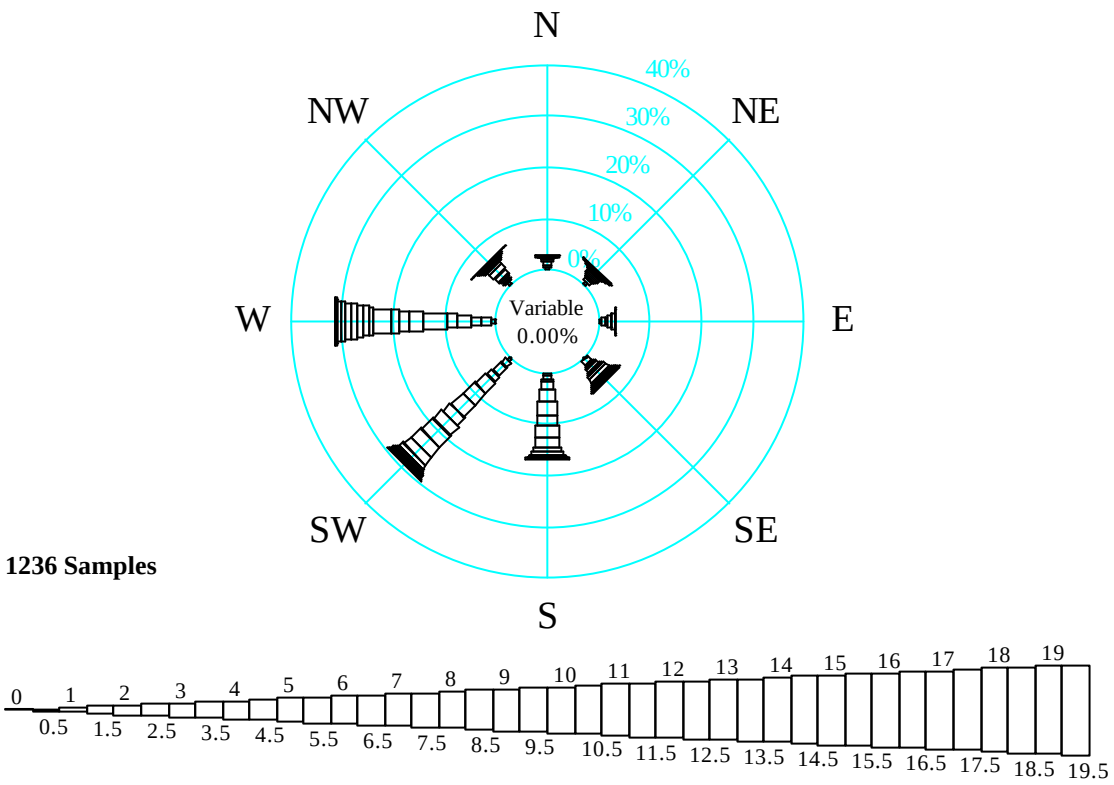
Figure B2.2

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										14551
0.5	23	25	10	3	20	102	99	15	297	14551
1.0	156	189	69	40	96	459	439	160	1608	14254
1.5	210	197	65	96	155	378	478	209	1788	12646
2.0	214	162	106	112	203	475	474	187	1933	10858
2.5	184	125	69	104	220	428	500	226	1856	8925
3.0	121	75	52	82	239	377	407	187	1540	7069
3.5	79	53	41	74	216	359	327	146	1295	5529
4.0	75	22	18	40	158	256	332	93	994	4234
4.5	49	12	13	56	131	207	269	76	813	3240
5.0	22	15	19	30	85	192	190	54	607	2427
5.5	12	13	12	20	58	144	192	56	507	1820
6.0	8	13	7	10	38	134	124	32	366	1313
6.5	8	3	3	4	28	119	89	17	271	947
7.0	6	3	2	9	25	69	74	11	199	676
7.5	2	1		5	14	46	63	11	142	477
8.0		2		2	9	33	46	7	99	335
8.5	1	1		2	4	30	46	5	89	236
9.0					2	22	24	1	49	147
9.5					4	17	18	3	42	98
10.0						8	17	2	27	56
10.5						1	8	2	11	29
11.0						3	4		7	18
11.5					1	1	4		6	11
12.0							5		5	5
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	1170	911	486	689	1706	3860	4229	1500	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_ALLYEAR_5/94-4/99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : All Year

Figure B2.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_JANUARY_94-99

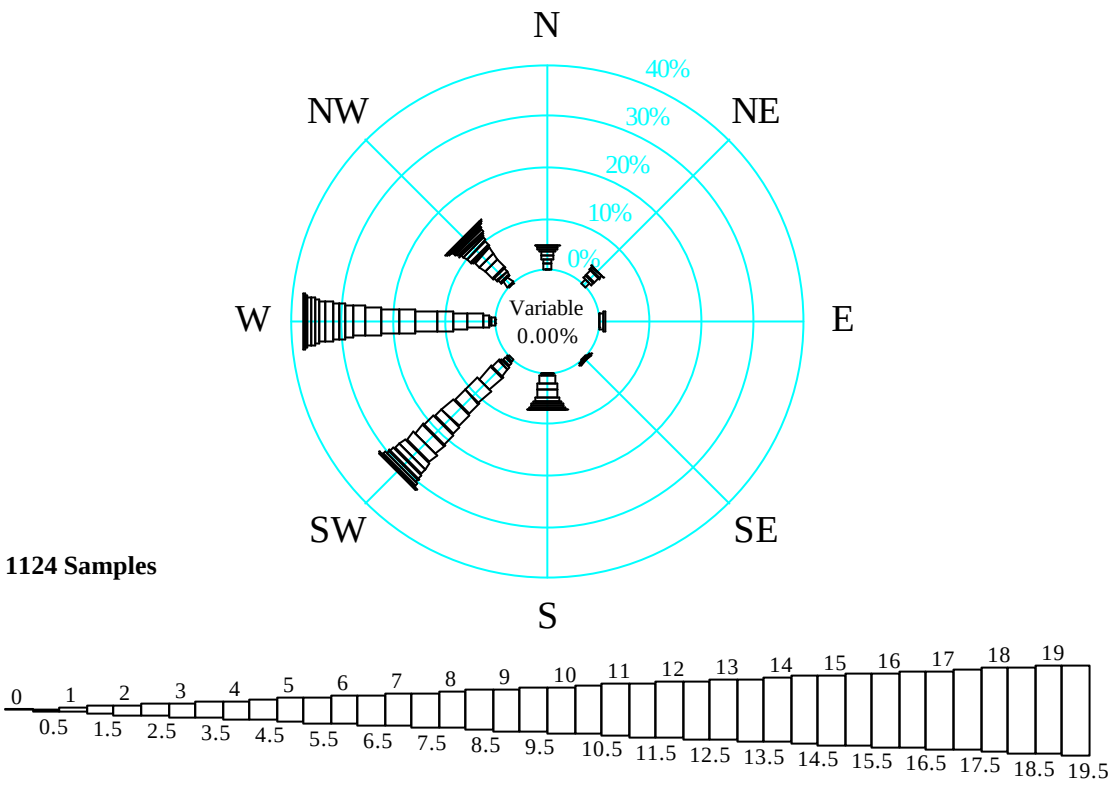
Figure B2.4

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1236
0.5		2		2		2	1	3	10	1236
1.0	5	8	6	2		7	11	6	45	1226
1.5	6	6	8	12	7	16	22	3	80	1181
2.0	10	3	7	5	8	26	27	5	91	1101
2.5	4	3	8	5	8	18	31	7	84	1010
3.0	4	5	4	8	19	35	26	14	115	926
3.5	1	8	6	4	26	39	56	16	156	811
4.0		2		3	33	39	36	6	119	655
4.5	1	2		7	27	25	22	3	87	536
5.0	2	1		9	28	29	20	2	91	449
5.5	1	1	1	4	24	39	42	4	116	358
6.0		2	1	3	11	32	13	2	64	242
6.5		1		2	8	21	11	1	44	178
7.0		1		3	1	12	15	3	35	134
7.5				4	1	2	15	1	23	99
8.0		2		2	2	7	13		26	76
8.5		1		2	2	3	11		19	50
9.0					1	5	9		15	31
9.5					1	5	1	1	8	16
10.0						2	4	1	7	8
10.5							1		1	1
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	34	48	41	77	207	364	387	78	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_JANUARY_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : January

Figure B2.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_FEBRUARY_94-99

Figure B2.6

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1124
0.5										1124
1.0	3					4	1	1	9	1124
1.5	13	11		2	1	3	8	17	55	1115
2.0	7	9		1	1	9	5	2	34	1060
2.5	10	14			1	8	15	7	55	1026
3.0	7	8	3	3	2	20	32	11	86	971
3.5	6	1	7	2	18	39	32	23	128	885
4.0	4		5		15	39	35	16	114	757
4.5	3				17	31	51	14	116	643
5.0					8	35	31	6	80	527
5.5	1				1	20	40	11	73	447
6.0					2	31	35	8	76	374
6.5					7	27	27	6	67	298
7.0					3	23	18	5	49	231
7.5					3	17	14	6	40	182
8.0					1	14	14	5	34	142
8.5					1	13	18	4	36	108
9.0						7	10	1	18	72
9.5						7	12	2	21	54
10.0						3	9	1	13	33
10.5							5	2	7	20
11.0						1	4		5	13
11.5						1	4		5	8
12.0							3		3	3
12.5										
13.0										
13.5										
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14.5										
15.0										
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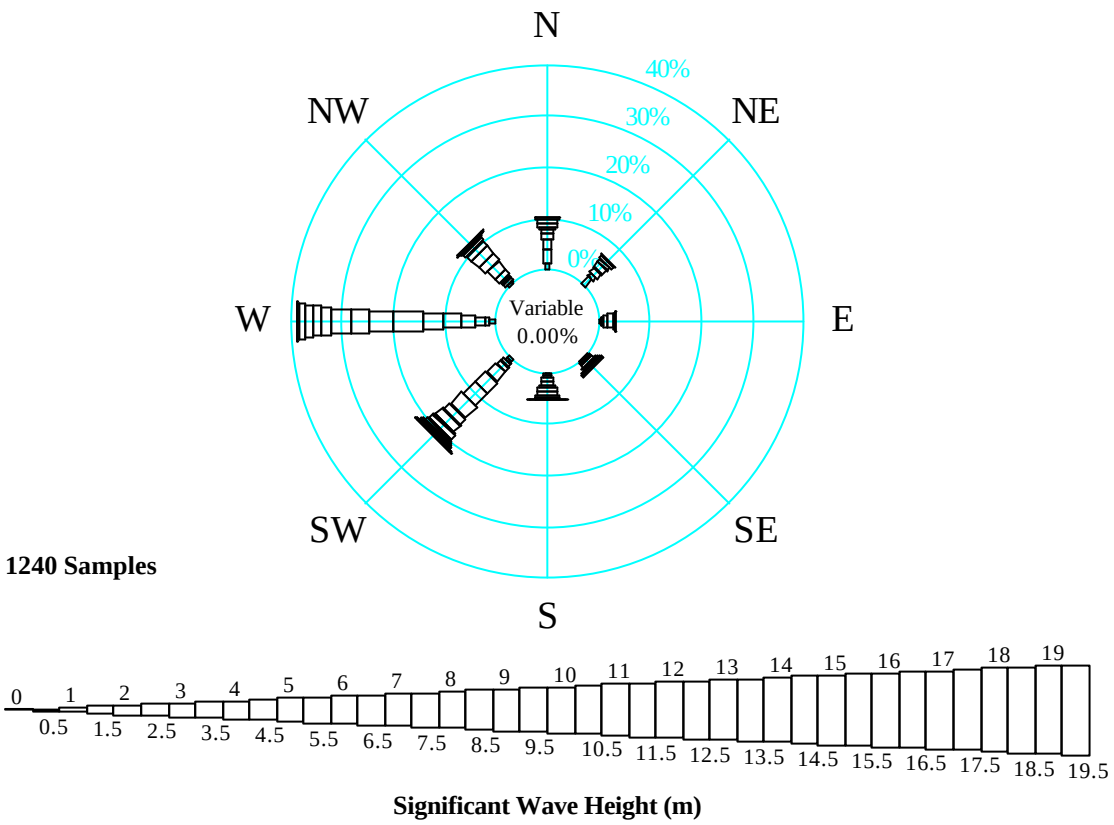
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	54	43	15	8	81	352	423	148	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_FEBRUARY_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : February

Figure B2.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_MARCH_94-99

Figure B2.8

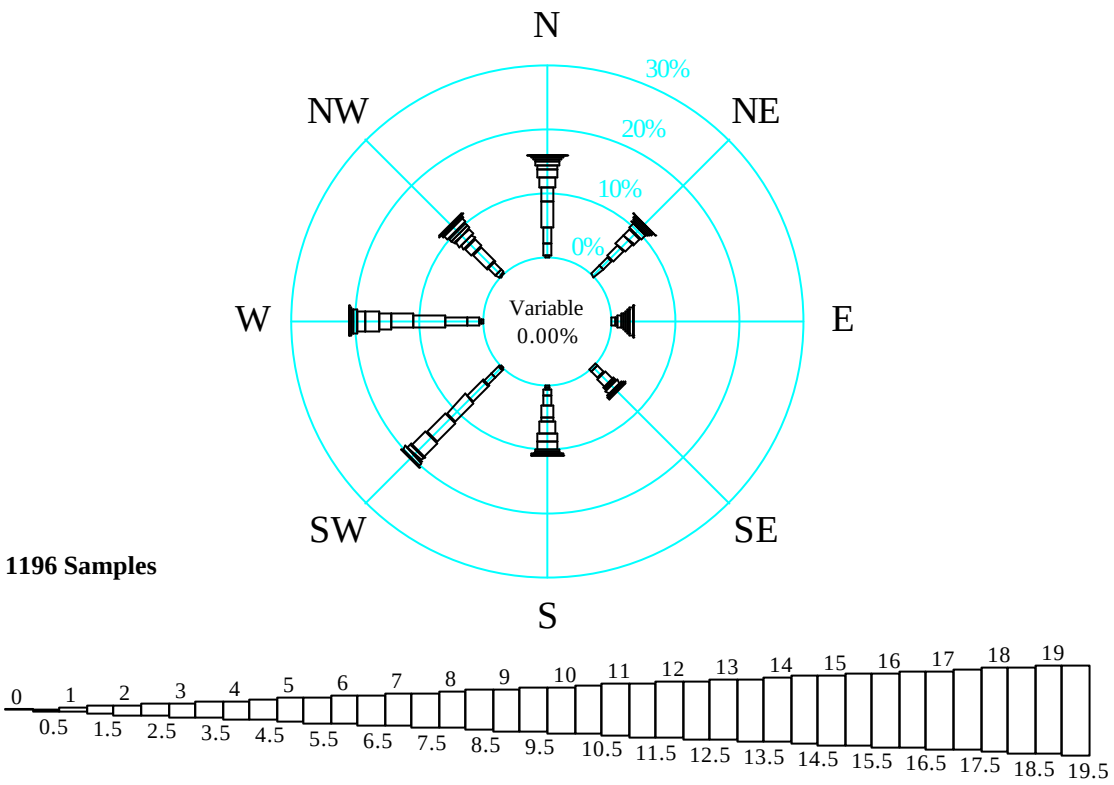
Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5										1240
1.0										1240
1.5	17	24	6		4	7	17	4	79	1240
2.0	31	9	2		3	5	8	1	59	1161
2.5	24	16	4	1	6	10	26	9	96	1102
3.0	16	15	7	3	8	12	32	7	100	1006
3.5	10	10	16	6	12	32	45	15	146	906
4.0	7	6	3	8	3	36	49	27	139	760
4.5	9	3	3	3	10	41	73	21	163	621
5.0	9		1	4	9	39	54	25	141	458
5.5	4				7	22	46	15	94	317
6.0	1			4	2	21	46	8	82	223
6.5				2		4	26	4	36	141
7.0						12	21	3	36	105
7.5						6	20	1	27	69
8.0						5	12	1	18	42
8.5					1	2	5	1	9	24
9.0					1	3	1		5	15
9.5						6			6	10
10.0										4
10.5						2			2	4
11.0						1			1	2
11.5						1			1	1
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	128	83	42	31	66	267	481	142	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_MARCH_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : March

Figure B2.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_APRIL_94-99

Figure B2.10

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1196
0.5					2	3	2		7	1196
1.0	3	22			6	19	7	3	60	1189
1.5	24	23	8	4	9	21	20	7	116	1129
2.0	29	28	4	17	20	41	41	20	200	1013
2.5	47	21	7	21	22	51	61	36	266	813
3.0	29	17	4	7	9	51	40	19	176	547
3.5	17	11	4	8	20	36	24	9	129	371
4.0	15	2	1	2	15	8	24	12	79	242
4.5	9	3		3	18	2	14	7	56	163
5.0	6	5	5	4	4	8	9	6	47	107
5.5	4	4	2		2	4	3	11	30	60
6.0	3		5		1		3	3	15	30
6.5	2	1	1		1		3	1	9	15
7.0			1		1			1	3	6
7.5	2								2	3
8.0										1
8.5	1								1	1
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
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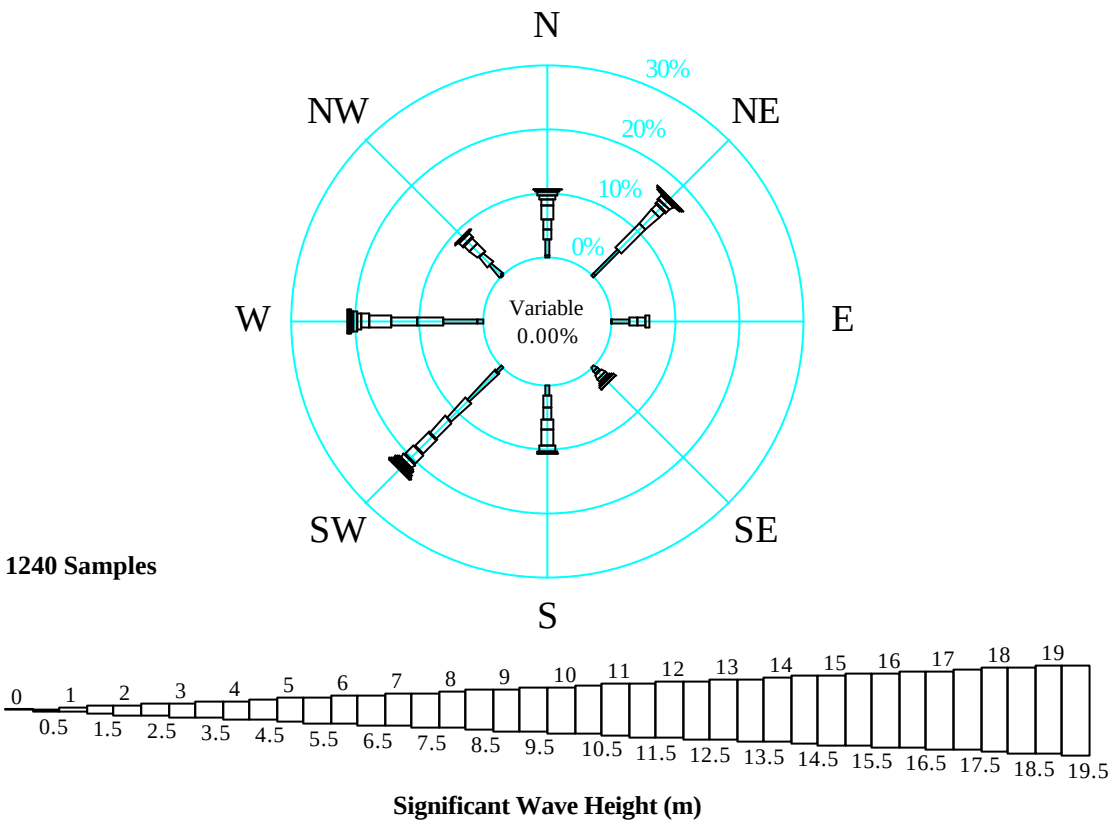
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	191	137	42	66	130	244	251	135	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_APRIL_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : April

Figure B2.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_MAY_94-99

Figure B2.12

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	3	5	1			14	12	2	37	1240
1.0	31	65	33	7	21	78	64	29	328	1203
1.5	20	65	18	7	21	53	50	26	260	875
2.0	19	36	12	10	24	45	51	21	218	615
2.5	26	15	8	7	18	38	42	15	169	397
3.0	14	9		5	34	24	16	12	114	228
3.5	7	9		2	8	10	10	1	47	114
4.0	8	2		4	5	2	8		29	67
4.5	1			1	2	3	4	1	12	38
5.0	1					5	3		9	26
5.5		1				3	1		5	17
6.0	1	1				4			6	12
6.5		1				2			3	6
7.0		2							2	3
7.5		1							1	1
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
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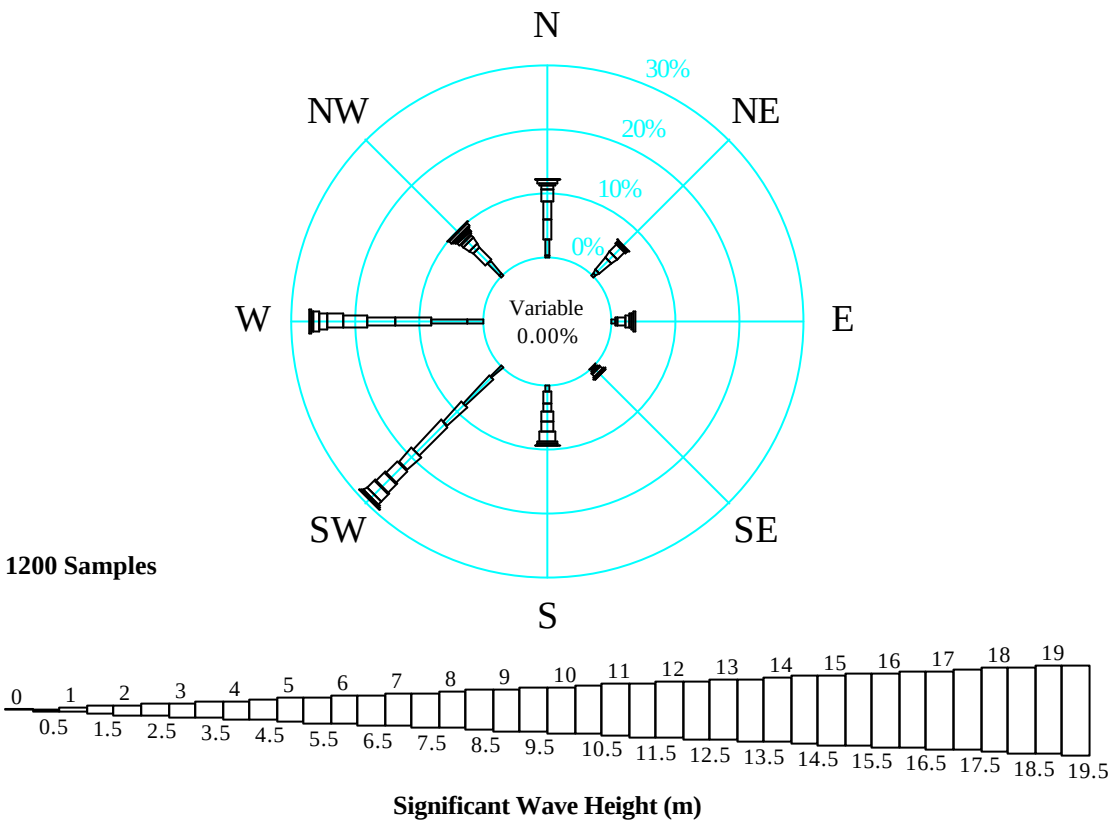
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	131	212	72	43	133	281	261	107	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_MAY_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : May

Figure B2.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_JUNE_94-99

Figure B2.14

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1200
0.5	2	4				28	31	5	70	1200
1.0	30	9	7		11	72	66	30	225	1130
1.5	40	29	5	3	24	51	68	33	253	905
2.0	33	12	13	6	12	76	52	8	212	652
2.5	22	20	8	8	20	36	43	13	170	440
3.0	8	5	5	2	21	31	31	7	110	270
3.5	4	2	4	1	15	24	17	5	72	160
4.0	5		1		7	20	9	3	45	88
4.5	1				2	9	6	5	23	43
5.0	1				1	1	3	1	7	20
5.5	1					3		6	10	13
6.0						2		1	3	3
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
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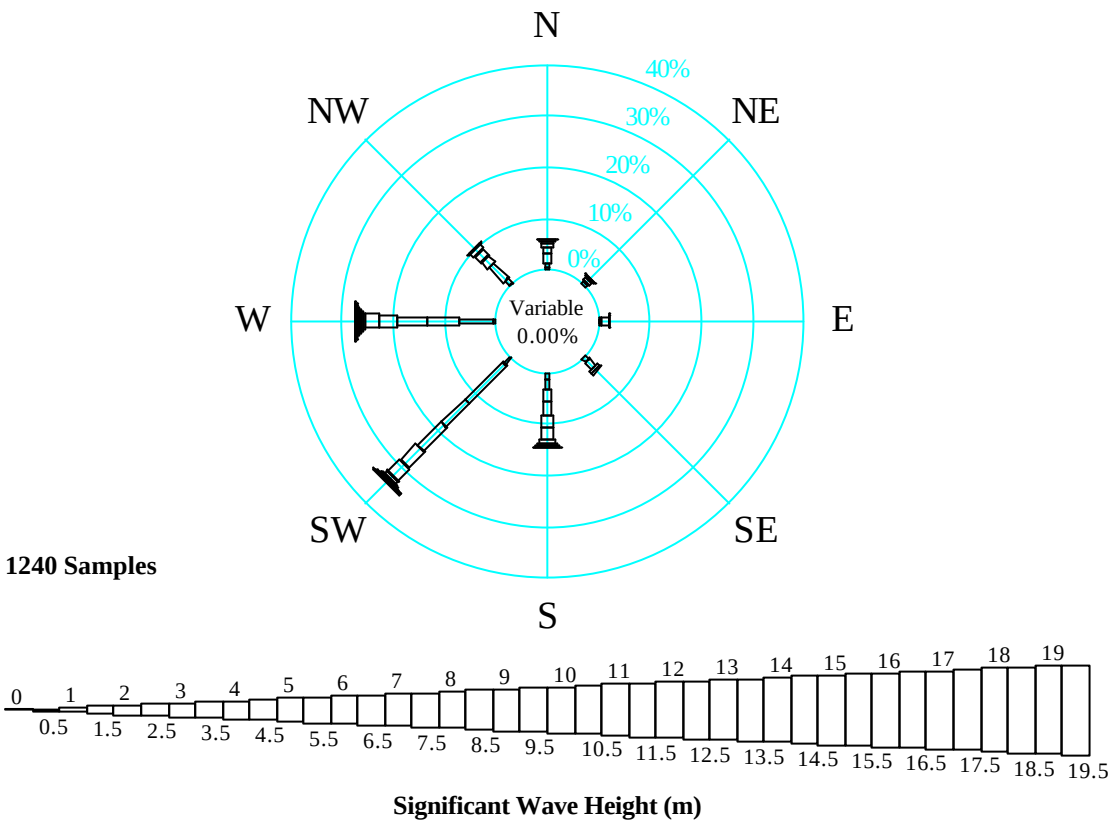
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	147	81	43	20	113	353	326	117	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_JUNE_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : June

Figure B2.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_JULY_94-99

Figure B2.16

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	6		2		17	21	6	1	53	1240
1.0	11	6		11	23	129	82	16	278	1187
1.5	22	4	6	23	31	80	79	50	295	909
2.0	18	7	18	6	32	80	72	22	255	614
2.5	6	3	1	4	32	53	41	21	161	359
3.0	7	3	1		27	42	34	13	127	198
3.5	5				9	8	6		28	71
4.0	1				3	3	4	1	12	43
4.5					4	1	3		8	31
5.0					1	2	2		5	23
5.5						1	2		3	18
6.0					1		3		4	15
6.5						2	1		3	11
7.0						1			1	8
7.5							1		1	7
8.0						1	2		3	6
8.5							3		3	3
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
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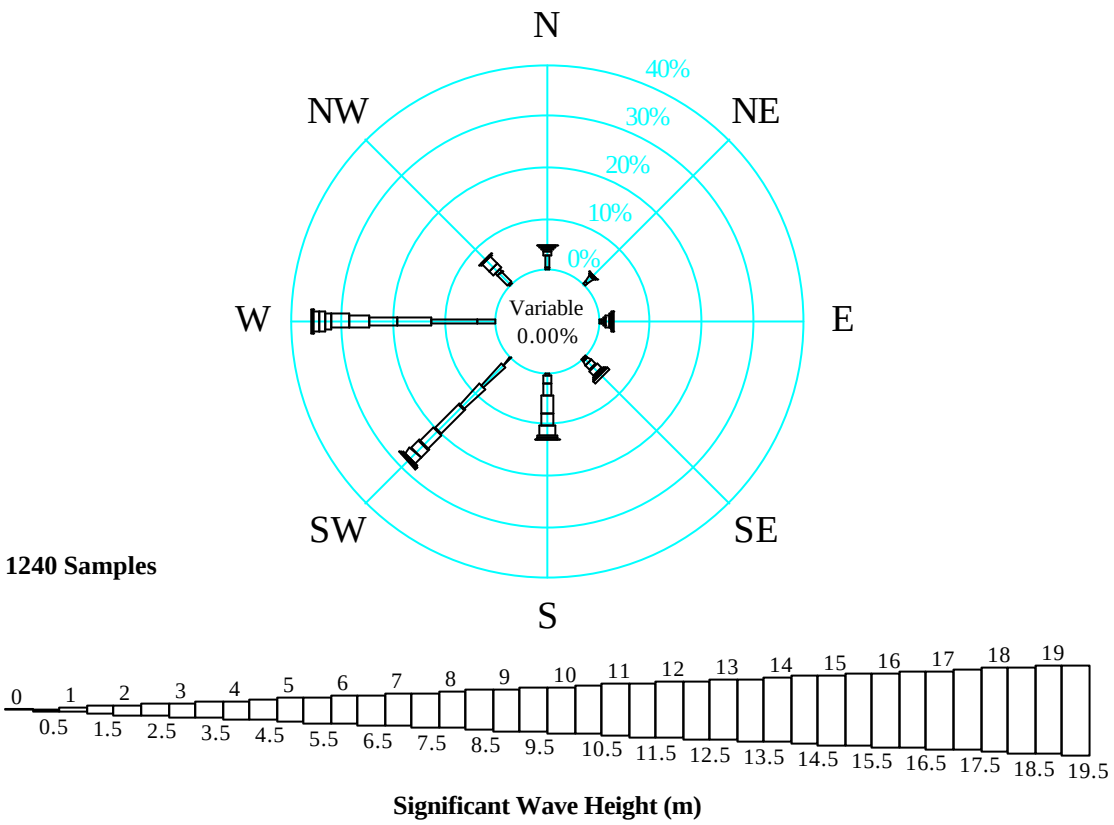
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	76	23	28	44	180	424	341	124	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_JULY_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : July

Figure B2.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_AUGUST_94-99

Figure B2.18

Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	6	10	5	1		27	45	4	98	1240
1.0	29	17	7	6	8	71	110	34	282	1142
1.5	9	2	2	10	19	71	86	9	208	860
2.0	7	2	4	14	30	82	65	13	217	652
2.5	4	3	10	18	40	47	51	25	198	435
3.0	2		3	2	32	27	40	1	107	237
3.5	2		2	4	21	20	15	1	65	130
4.0	2		1	2	6	3	17		31	65
4.5			2	6	5	3	13		29	34
5.0					1	1	2		4	5
5.5							1		1	1
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
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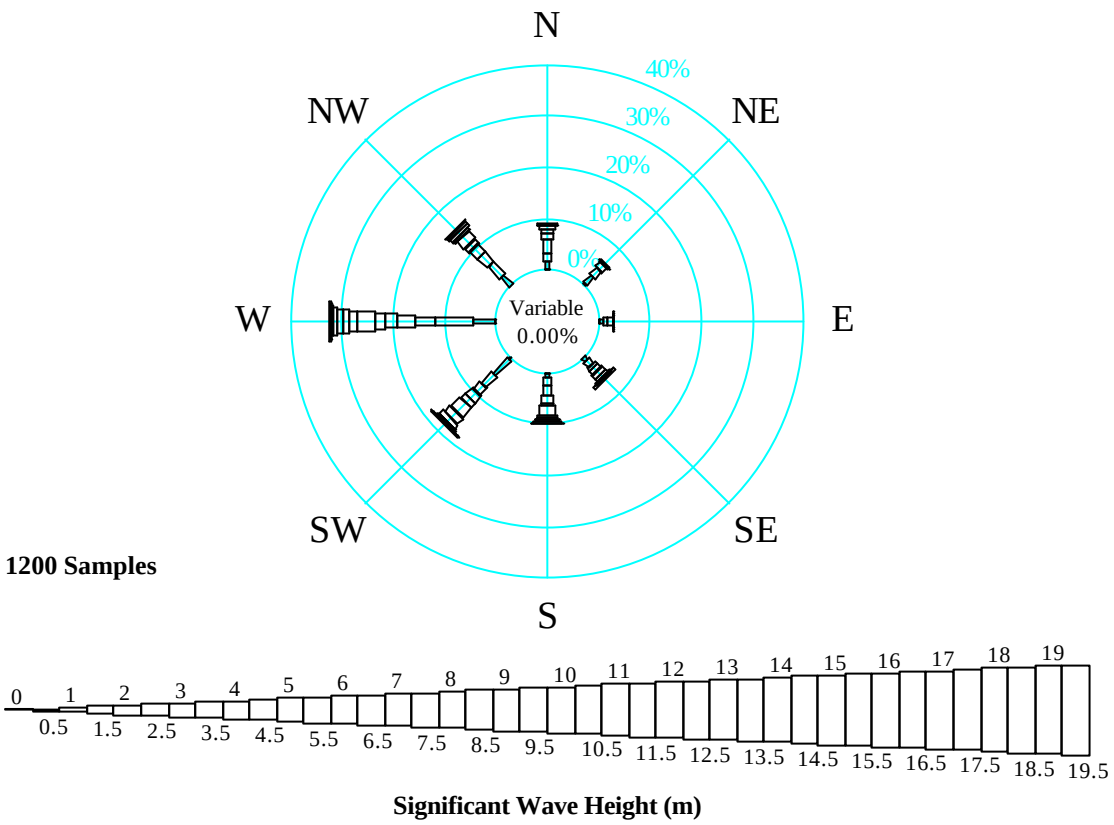
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	61	34	36	63	162	352	445	87	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_AUGUST_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : August

Figure B2.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_SEPTEMBER_94-99

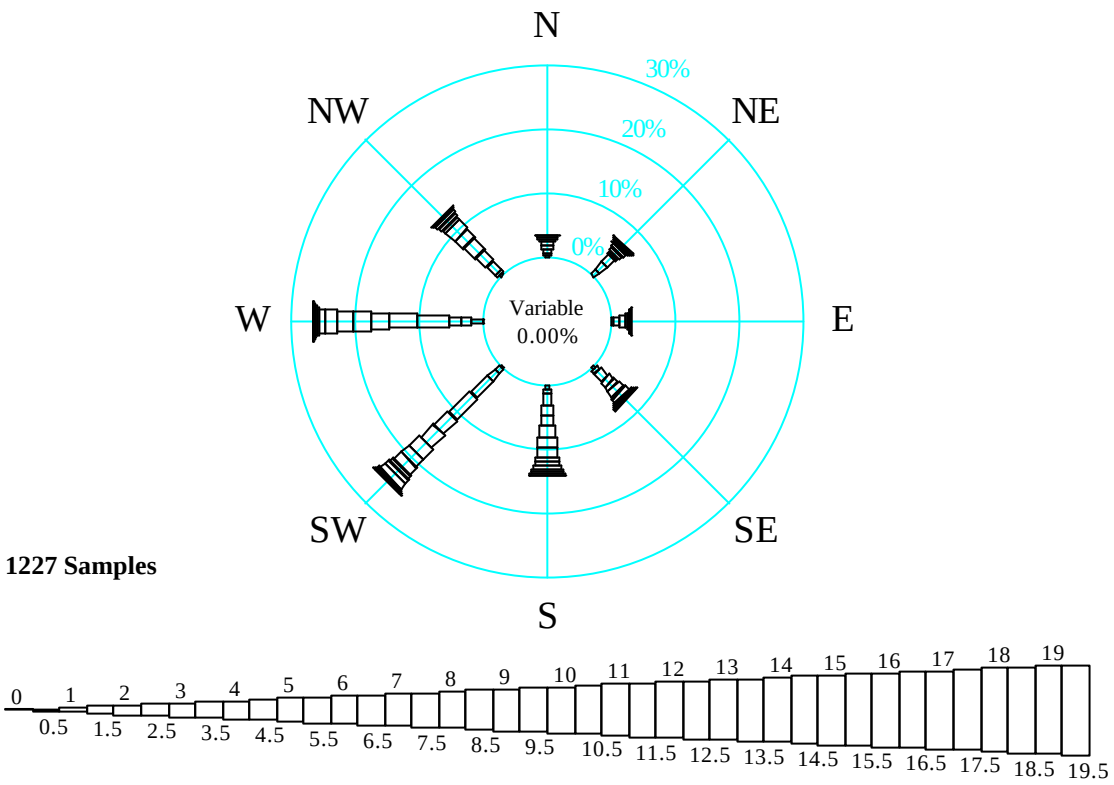
Figure B2.20

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1200
0.5	1	4	2		1	6	1		15	1200
1.0	19	25	8	9	9	49	51	29	199	1185
1.5	21	22	9	16	19	36	90	38	251	986
2.0	31	16	14	7	23	22	49	31	193	735
2.5	13	3	1	12	18	22	39	25	133	542
3.0	10	1		11	9	14	28	13	86	409
3.5	7		1	8	19	31	24	24	114	323
4.0	4		1	2	8	19	41	2	77	209
4.5	5			2	2	13	21	5	48	132
5.0				1	3	1	11	8	24	84
5.5					1	2	17	6	26	60
6.0				2	5	3	9	4	23	34
6.5							3		3	11
7.0					1				1	8
7.5						1	1		2	7
8.0							1		1	5
8.5						2	2		4	4
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	111	71	36	70	118	221	388	185	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_SEPTEMBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : September

Figure B2.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_OCTOBER_94-99

Figure B2.22

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1227
0.5	5					1	1		7	1227
1.0		12		4	8	12	21	5	62	1220
1.5	3	20	4	8	8	19	18	5	85	1158
2.0	7	20	11	20	23	44	25	22	172	1073
2.5	9	6	10	13	20	57	62	28	205	901
3.0	8	6	6	9	17	37	54	29	166	696
3.5	3	3	4	12	22	35	33	22	134	530
4.0	4	6		5	19	27	35	22	118	396
4.5	1	3		9	20	20	32	8	93	278
5.0	1	3	1	2	9	19	20	7	62	185
5.5		2	2	2	9	8	11	8	42	123
6.0		4	1	3	4	10	5	3	30	81
6.5					4	12	3	1	20	51
7.0				3	6	4	3		16	31
7.5					4	4			8	15
8.0					1	1	2		4	7
8.5						1	1		2	3
9.0							1		1	1
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
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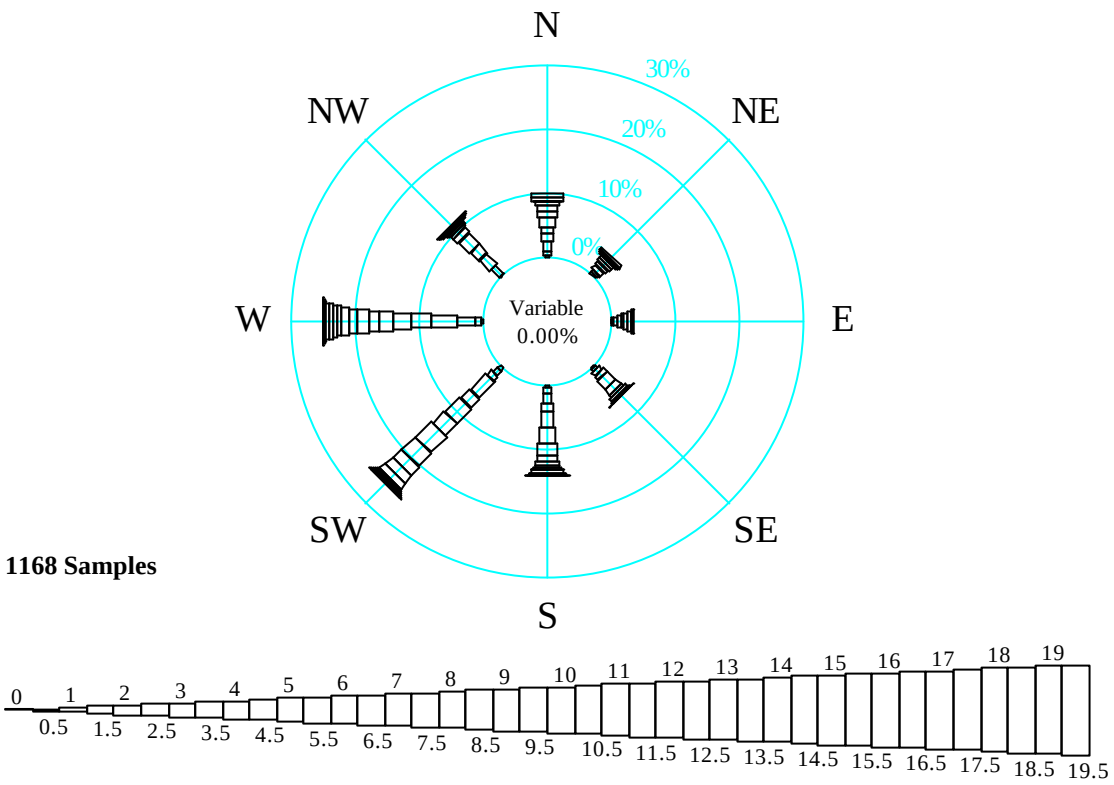
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	41	85	39	90	174	311	327	160	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_OCTOBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : October

Figure B2.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_NOVEMBER_94-99

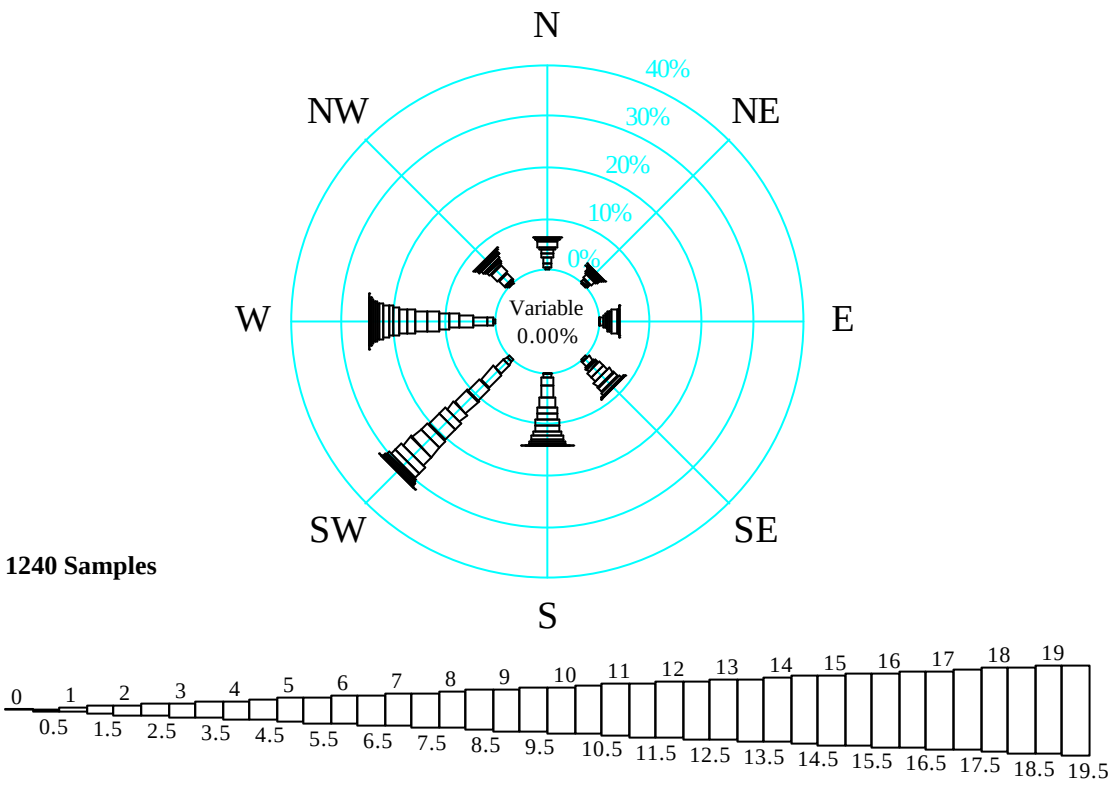
Figure B2.24

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1168
0.5										1168
1.0	3		1	1	5	6	2	2	20	1168
1.5	8	3	1	6	11	12	14	20	75	1148
2.0	19	6	10	8	16	12	30	28	129	1073
2.5	14	9	5	10	14	40	49	21	162	944
3.0	12	8	6	21	29	23	35	28	162	782
3.5	15	7	7	12	29	39	35	12	156	620
4.0	11	5	5	5	22	30	25	5	108	464
4.5	13	2	2	7	11	40	18	4	97	356
5.0	5	2	2	2	10	34	23	3	81	259
5.5	1	2	1	2	3	21	12		42	178
6.0	2	6			3	18	15		44	136
6.5	6				1	14	8	2	31	92
7.0	6			1	6	3	6		22	61
7.5					2	3	9	3	17	39
8.0					1	2	5	1	9	22
8.5						2	2	1	5	13
9.0					1		1		2	8
9.5					1	1	2		4	6
10.0							2		2	2
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	115	50	40	75	165	300	293	130	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_NOVEMBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : November

Figure B2.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_DECEMBER_94-99

Figure B2.26

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5										1240
1.0	5	1	1		1	5	7	1	21	1240
1.5	13	3	2	5	2	11	15		51	1219
2.0	10	7	9	17	8	28	31	6	116	1168
2.5	13	13	4	3	19	46	34	21	153	1052
3.0	10	3	4	8	28	41	26	25	145	899
3.5	5	6	3	13	26	42	26	6	127	754
4.0	12	2	1	14	15	25	25	5	99	627
4.5	6	2	8	17	14	21	31	4	103	528
5.0	2	4	11	12	13	35	20	6	103	425
5.5	3	3	6	8	16	22	17	2	77	322
6.0	2				11	30	15	7	65	245
6.5			2	2	7	29	12	3	55	180
7.0			1	2	7	20	12	1	43	125
7.5				1	4	14	11		30	82
8.0					3	6	4		13	52
8.5						6	8		14	39
9.0						4	3		7	25
9.5					2	4	3		9	18
10.0						1	2		3	9
10.5							2		2	6
11.0						1			1	4
11.5					1				1	3
12.0							2		2	2
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	81	44	52	102	177	391	306	87	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_HS/WVD_DECEMBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : December

UKMO GWM 2 (56.50°N, 13.66°W)

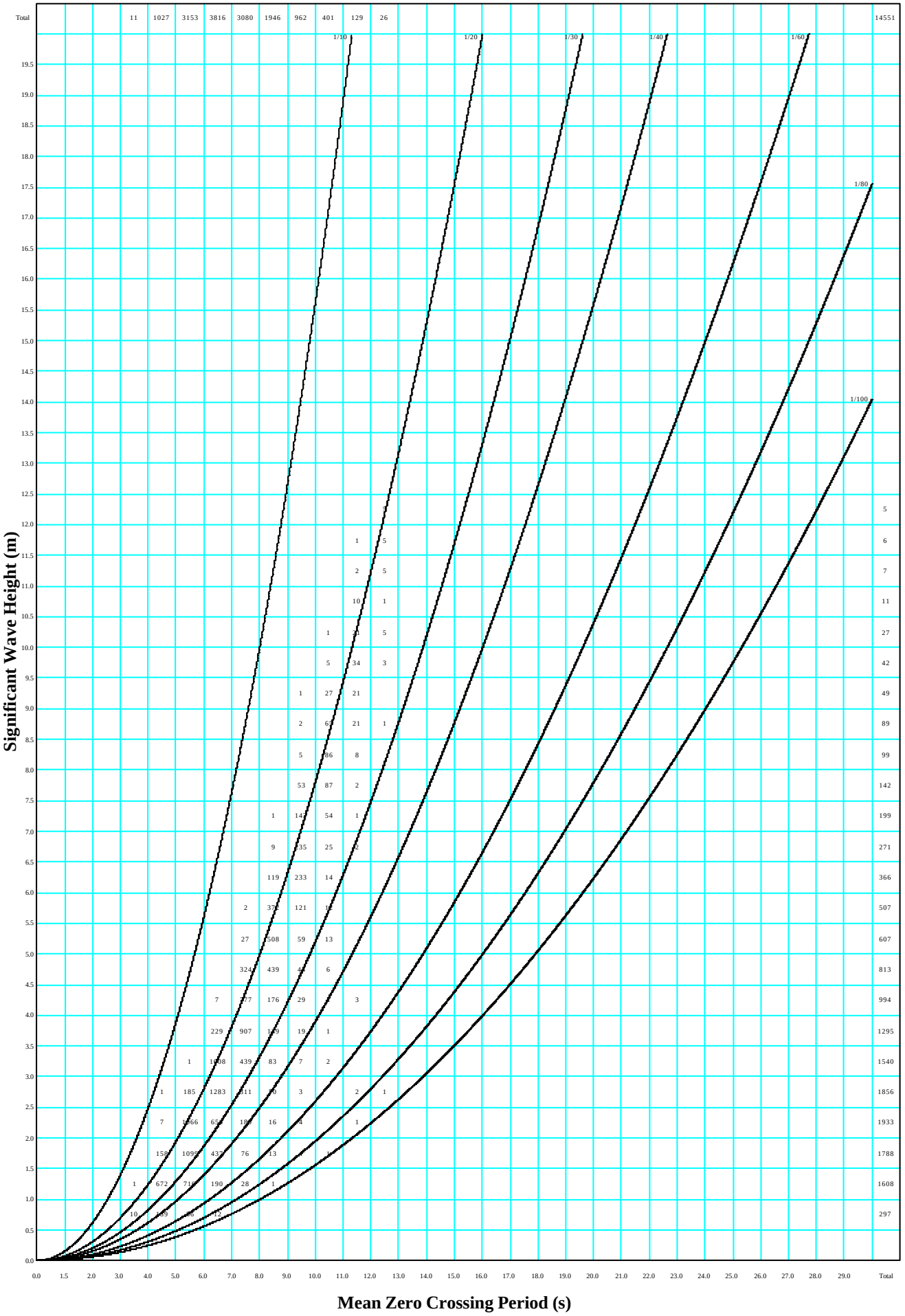
Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.0	99.19	100.00	100.00	99.41	97.02	94.17	95.73	92.10	98.75	99.43	100.00	100.00	97.96
1.5	95.55	99.20	93.63	94.40	70.56	75.42	73.31	69.35	82.17	94.38	98.29	98.31	86.91
2.0	89.08	94.31	88.87	84.70	49.60	54.33	49.52	52.58	61.25	87.45	91.87	94.19	74.62
2.5	81.72	91.28	81.13	67.98	32.02	36.67	28.95	35.08	45.17	73.43	80.82	84.84	61.34
3.0	74.92	86.39	73.06	45.74	18.39	22.50	15.97	19.11	34.08	56.72	66.95	72.50	48.58
3.5	65.61	78.74	61.29	31.02	9.19	13.33	5.73	10.48	26.92	43.19	53.08	60.81	38.00
4.0	52.99	67.35	50.08	20.23	5.40	7.33	3.47	5.24	17.42	32.27	39.73	50.56	29.10
4.5	43.37	57.21	36.94	13.63	3.06	3.58	2.50	2.74	11.00	22.66	30.48	42.58	22.27
5.0	36.33	46.89	25.56	8.95	2.10	1.67	1.85	0.40	7.00	15.08	22.17	34.27	16.68
5.5	28.96	39.77	17.98	5.02	1.37	1.08	1.45	0.08	5.00	10.02	15.24	25.97	12.51
6.0	19.58	33.27	11.37	2.51	0.97	0.25	1.21	0.00	2.83	6.60	11.64	19.76	9.02
6.5	14.40	26.51	8.47	1.25	0.48	0.00	0.89	0.00	0.92	4.16	7.88	14.52	6.51
7.0	10.84	20.55	5.56	0.50	0.24	0.00	0.65	0.00	0.67	2.53	5.22	10.08	4.65
7.5	8.01	16.19	3.39	0.25	0.08	0.00	0.56	0.00	0.58	1.22	3.34	6.61	3.28
8.0	6.15	12.63	1.94	0.08	0.00	0.00	0.48	0.00	0.42	0.57	1.88	4.19	2.30
8.5	4.05	9.61	1.21	0.08	0.00	0.00	0.24	0.00	0.33	0.24	1.11	3.15	1.62
9.0	2.51	6.41	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.68	2.02	1.01
9.5	1.29	4.80	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	1.45	0.67
10.0	0.65	2.94	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.73	0.37
10.5	0.08	1.78	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.19
11.0	0.00	1.16	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.12
11.5	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.08
12.0	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.03
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**4.39**	**5.20**	**4.02**	**3.08**	**2.16**	**2.26**	**2.12**	**2.13**	**2.68**	**3.46**	**3.86**	**4.35**	**3.30**
Minimum	**0.90**	**1.00**	**1.00**	**0.80**	**0.70**	**0.70**	**0.60**	**0.50**	**0.60**	**0.90**	**1.10**	**1.00**	**0.50**
Maximum	**10.60**	**12.10**	**11.40**	**8.50**	**7.70**	**6.00**	**8.90**	**5.60**	**8.90**	**9.20**	**10.20**	**12.40**	**12.40**

Table B2.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : UKMO GWM 2

Height (m)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.0	98.03	97.26	97.94	99.56	98.83	97.36	97.16	99.00	97.96
1.5	84.70	76.51	83.74	93.76	93.20	85.47	87.28	88.33	86.91
2.0	66.75	54.88	70.37	79.83	84.11	75.67	75.98	74.40	74.62
2.5	48.46	37.10	48.56	63.57	72.22	63.37	64.77	61.93	61.34
3.0	32.74	23.38	34.36	48.48	59.32	52.28	52.94	46.87	48.58
3.5	22.39	15.15	23.66	36.57	45.31	42.51	43.32	34.40	38.00
4.0	15.64	9.33	15.23	25.83	32.65	33.21	35.59	24.67	29.10
4.5	9.23	6.92	11.52	20.03	23.39	26.58	27.74	18.47	22.27
5.0	5.04	5.60	8.85	11.90	15.71	21.22	21.38	13.40	16.68
5.5	3.16	3.95	4.94	7.55	10.73	16.24	16.88	9.80	12.51
6.0	2.14	2.52	2.47	4.64	7.33	12.51	12.34	6.07	9.02
6.5	1.45	1.10	1.03	3.19	5.10	9.04	9.41	3.93	6.51
7.0	0.77	0.77	0.41	2.61	3.46	5.96	7.31	2.80	4.65
7.5	0.26	0.44	0.00	1.31	1.99	4.17	5.56	2.07	3.28
8.0	0.09	0.33	0.00	0.58	1.17	2.98	4.07	1.33	2.30
8.5	0.09	0.11	0.00	0.29	0.64	2.12	2.98	0.87	1.62
9.0	0.00	0.00	0.00	0.00	0.41	1.35	1.89	0.53	1.01
9.5	0.00	0.00	0.00	0.00	0.29	0.78	1.32	0.47	0.67
10.0	0.00	0.00	0.00	0.00	0.06	0.34	0.90	0.27	0.38
10.5	0.00	0.00	0.00	0.00	0.06	0.13	0.50	0.13	0.20
11.0	0.00	0.00	0.00	0.00	0.06	0.10	0.31	0.00	0.12
11.5	0.00	0.00	0.00	0.00	0.06	0.03	0.21	0.00	0.08
12.0	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.03
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**2.66**	**2.39**	**2.71**	**3.20**	**3.49**	**3.48**	**3.56**	**3.16**	**3.30**
Minimum	**0.70**	**0.50**	**0.50**	**0.90**	**0.70**	**0.50**	**0.60**	**0.80**	**0.50**
Maximum	**8.50**	**8.60**	**7.20**	**8.70**	**11.50**	**11.50**	**12.40**	**10.90**	**12.40**

Table B2.28 - All Year Significant Wave Height - Percentage Exceedence by Direction : UKMO GWM 2

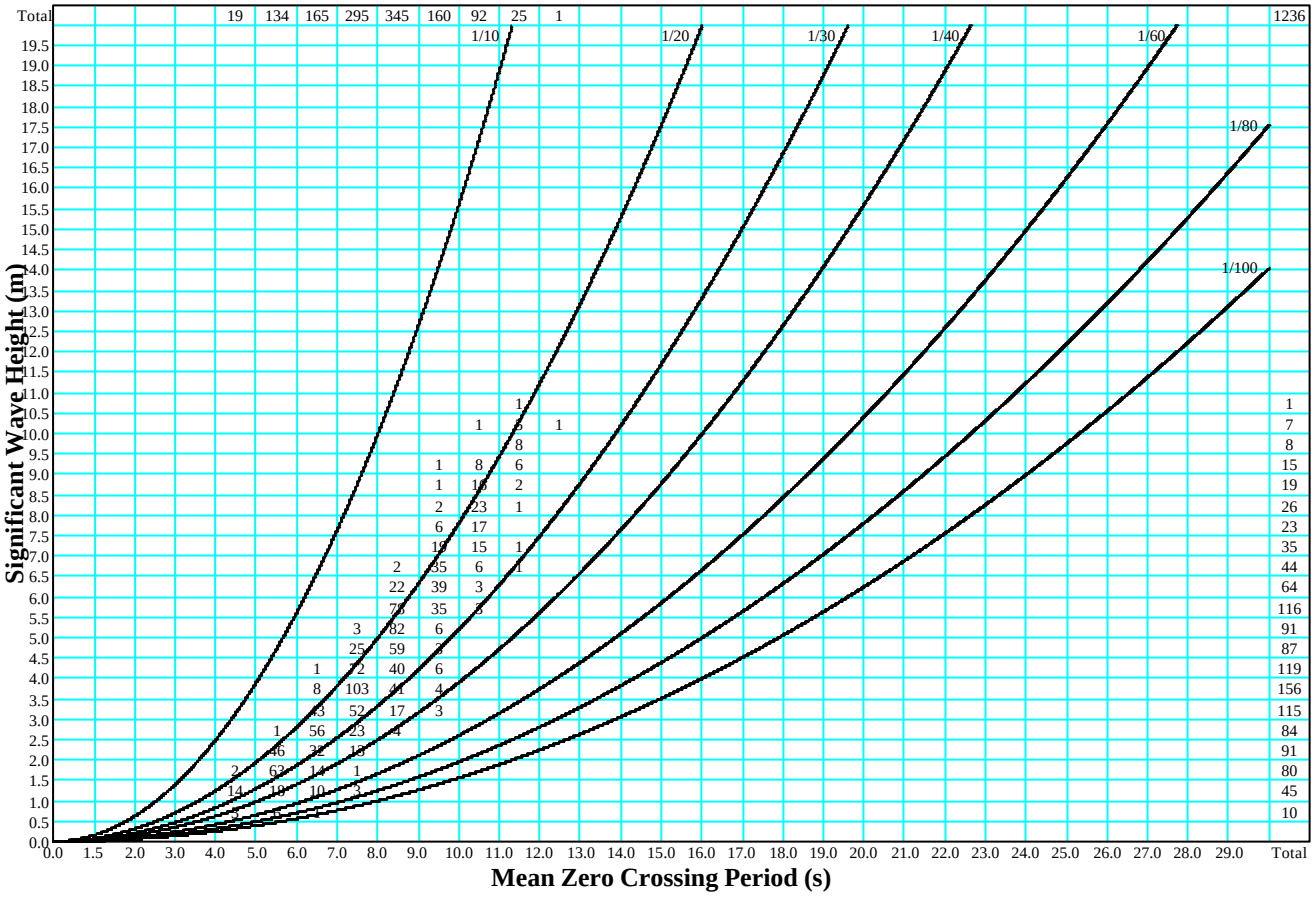
Figure B2.29 **Total Samples 14551**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_ALLYEAR_5/94-4/99

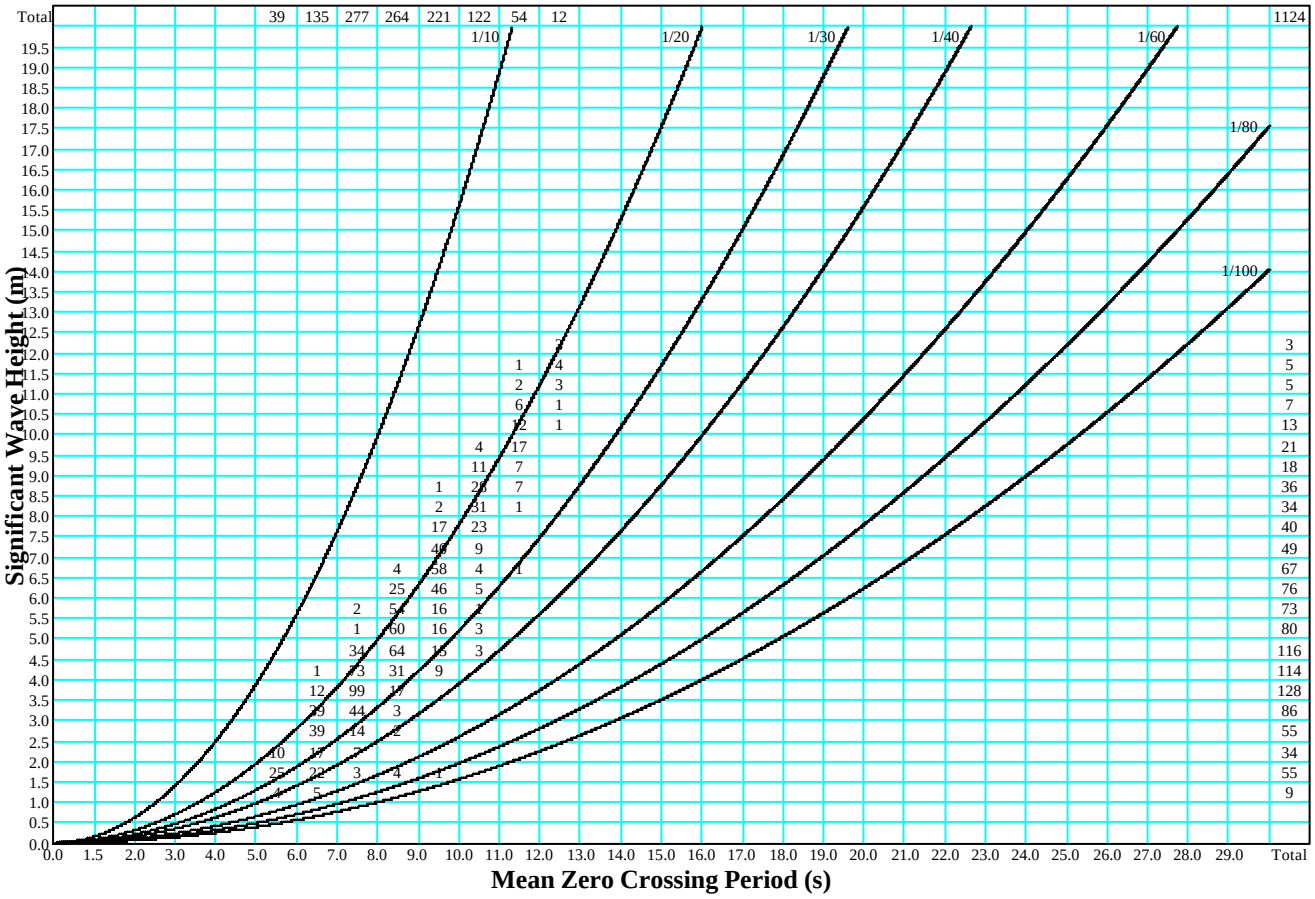
UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B2.30 **Total Samples 1236**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_JANUARY_94-99

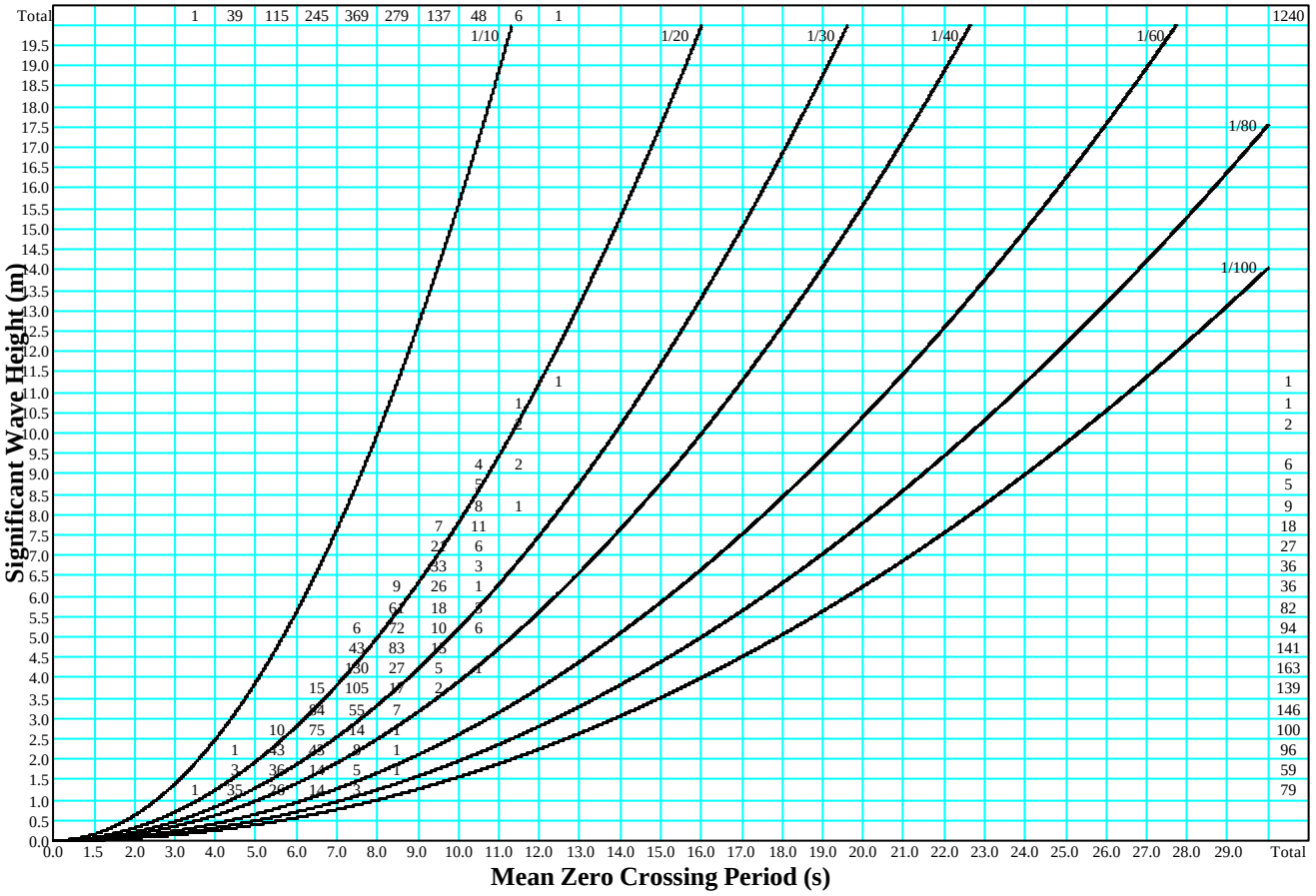
Figure B2.31 **Total Samples 1124**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_FEBRUARY_94-99

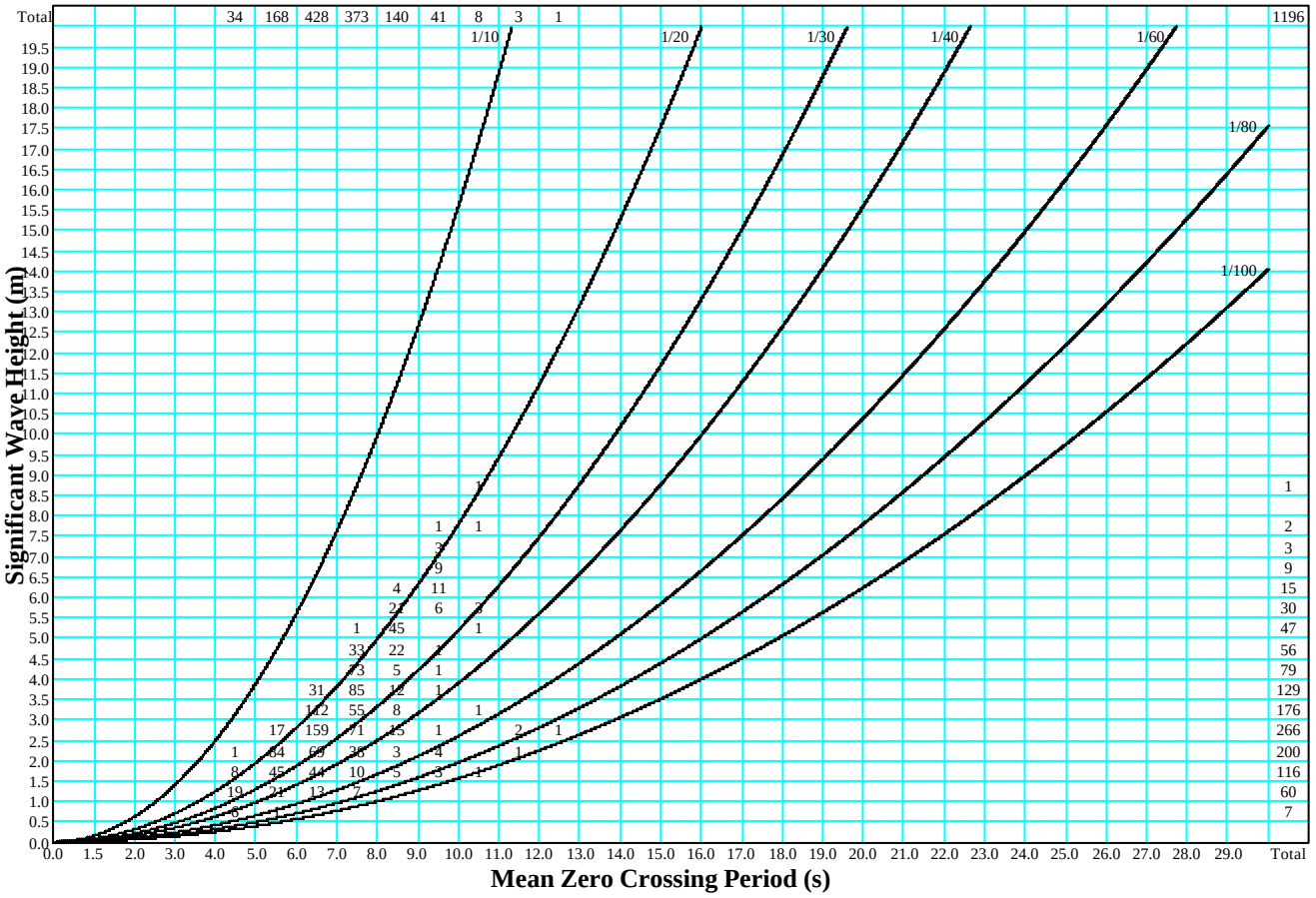
UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B2.32 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_MARCH_94-99

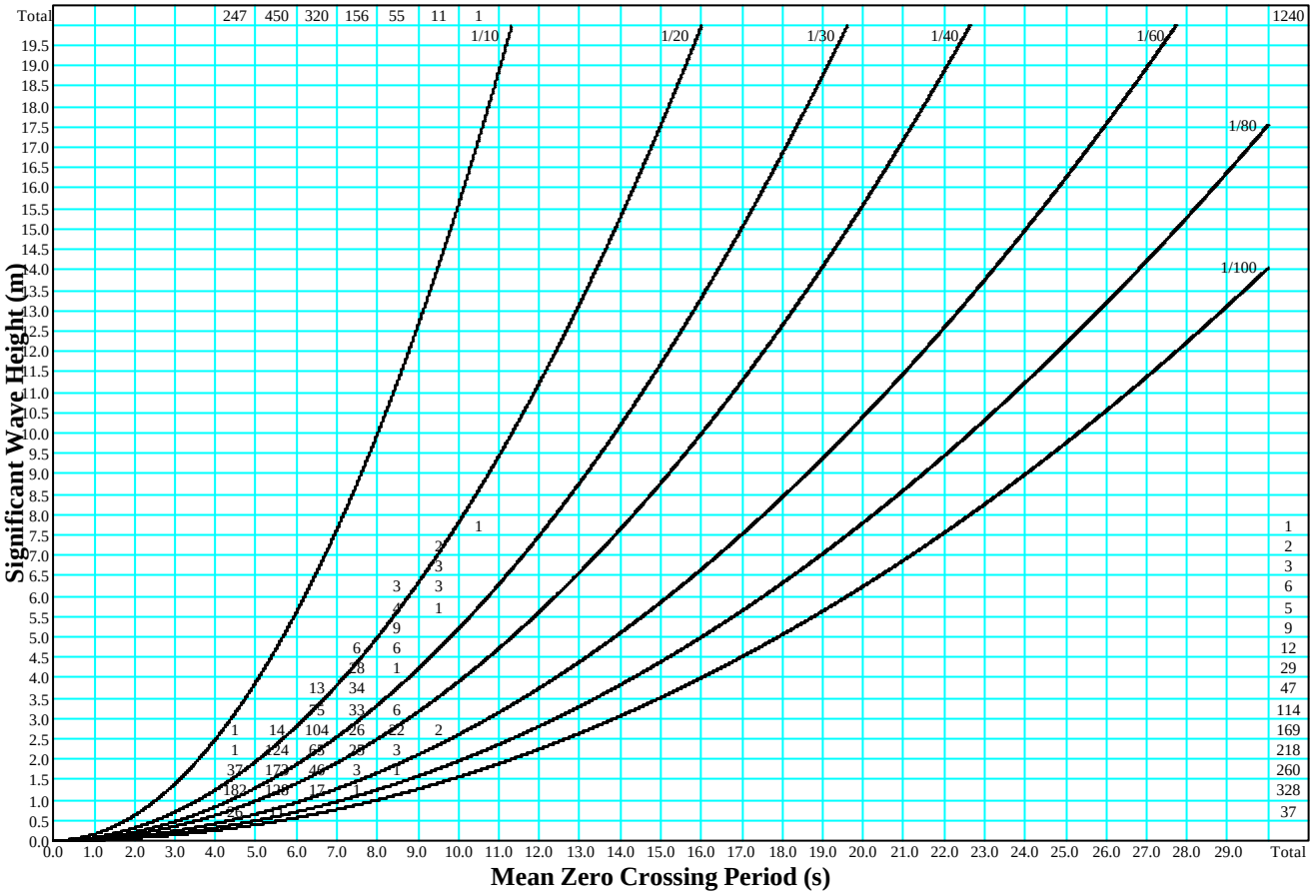
Figure B2.33 **Total Samples 1196**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_APRIL_94-99

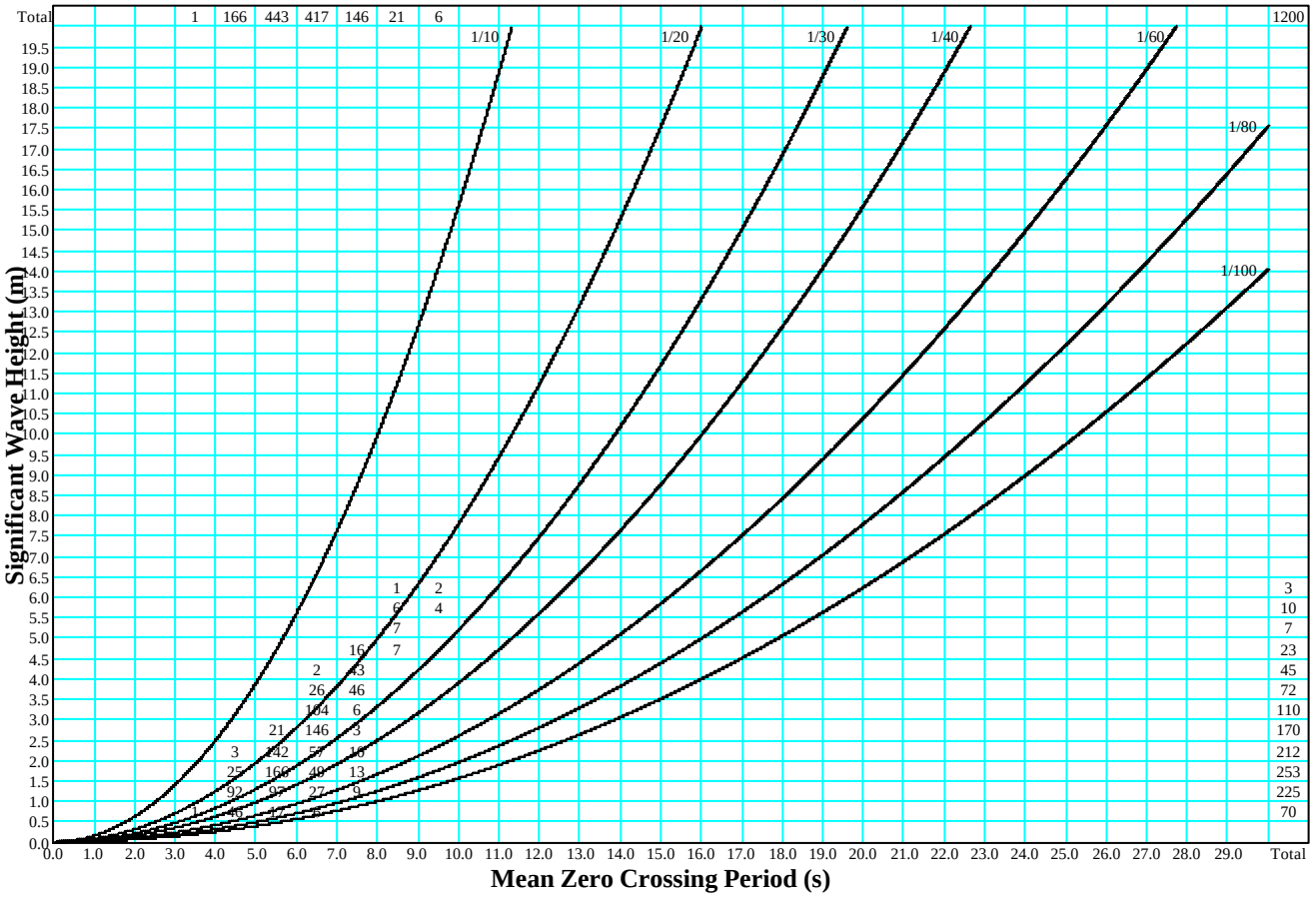
UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B2.34 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_MAY_94-99

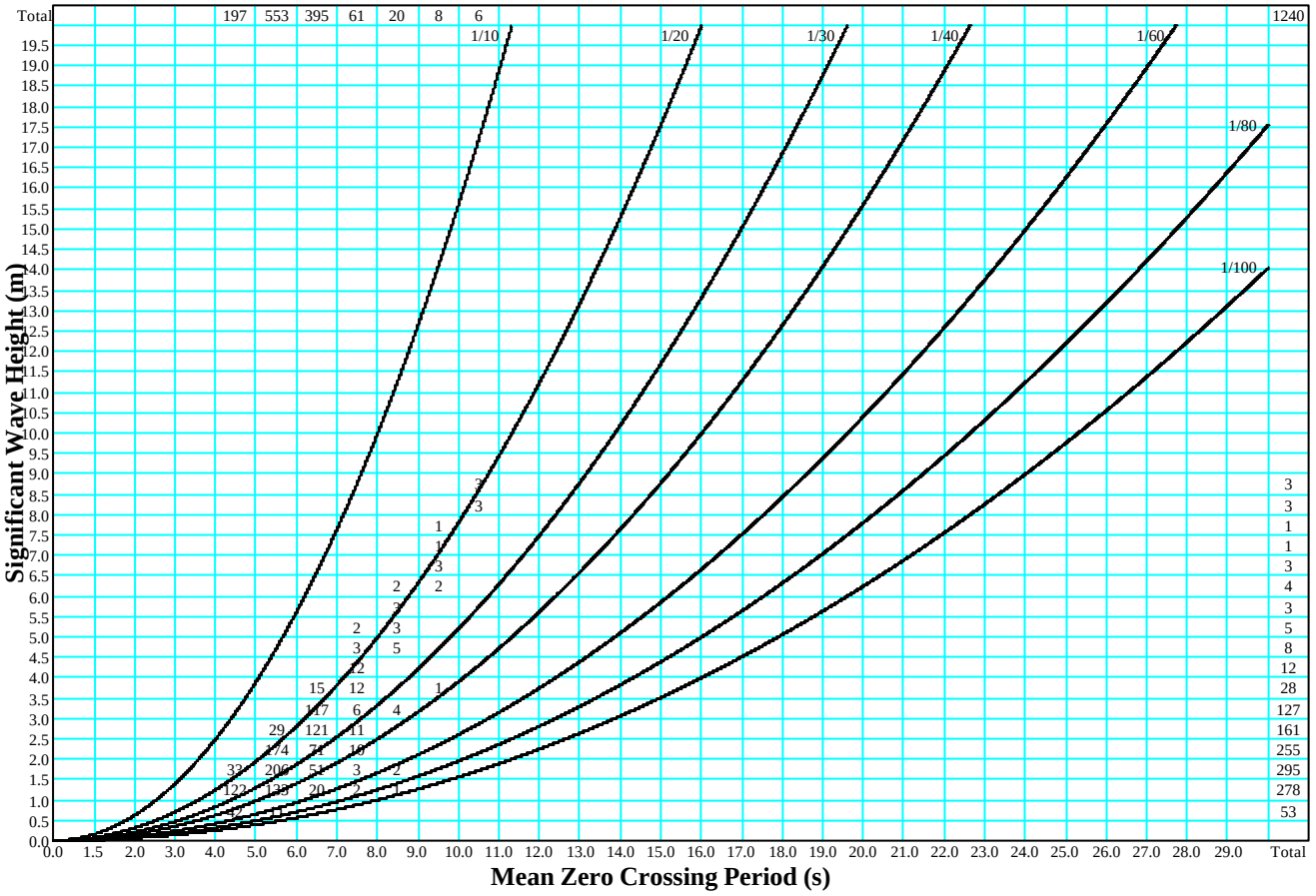
Figure B2.35 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_JUNE_94-99

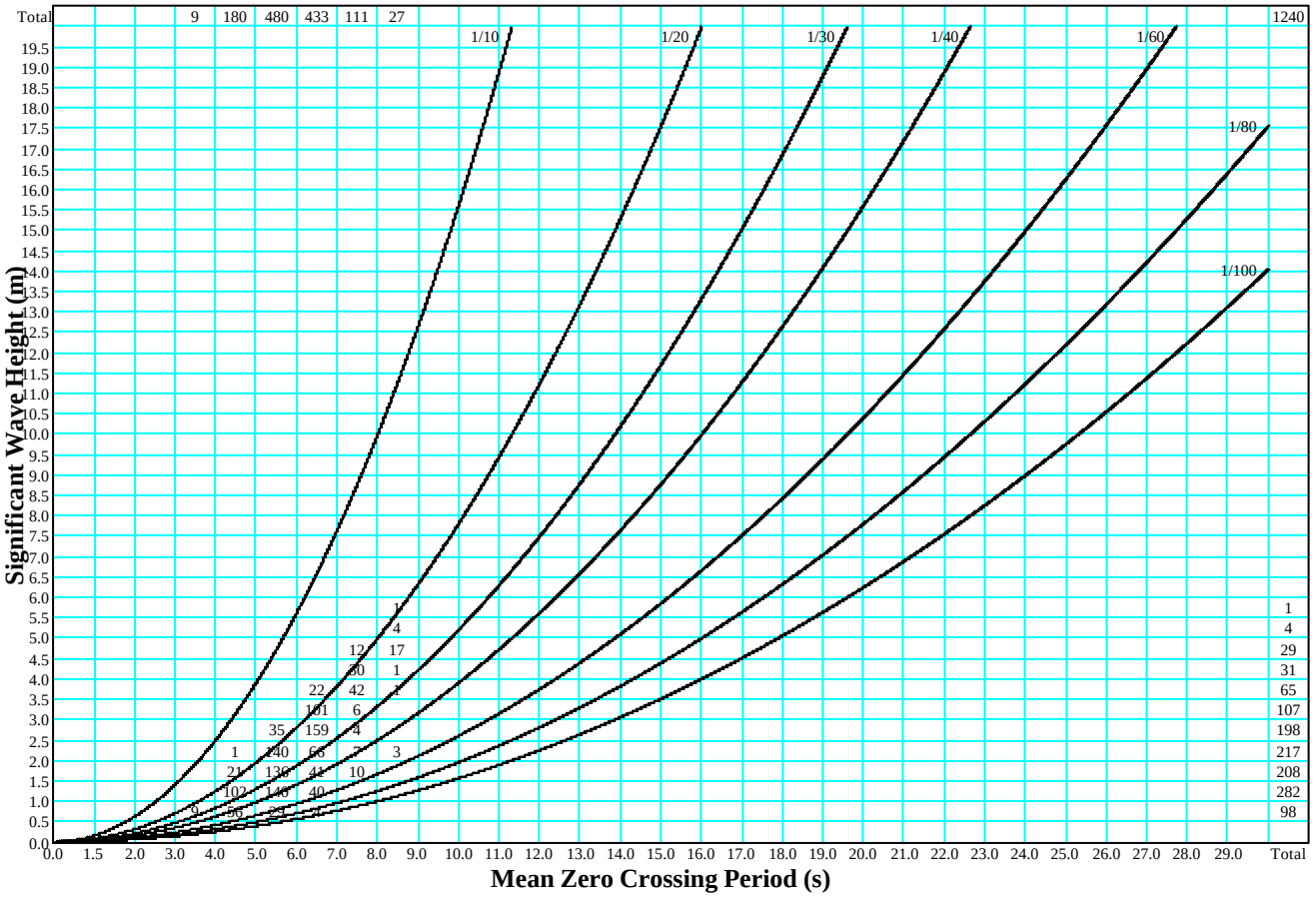
UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B2.36 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_JULY_94-99

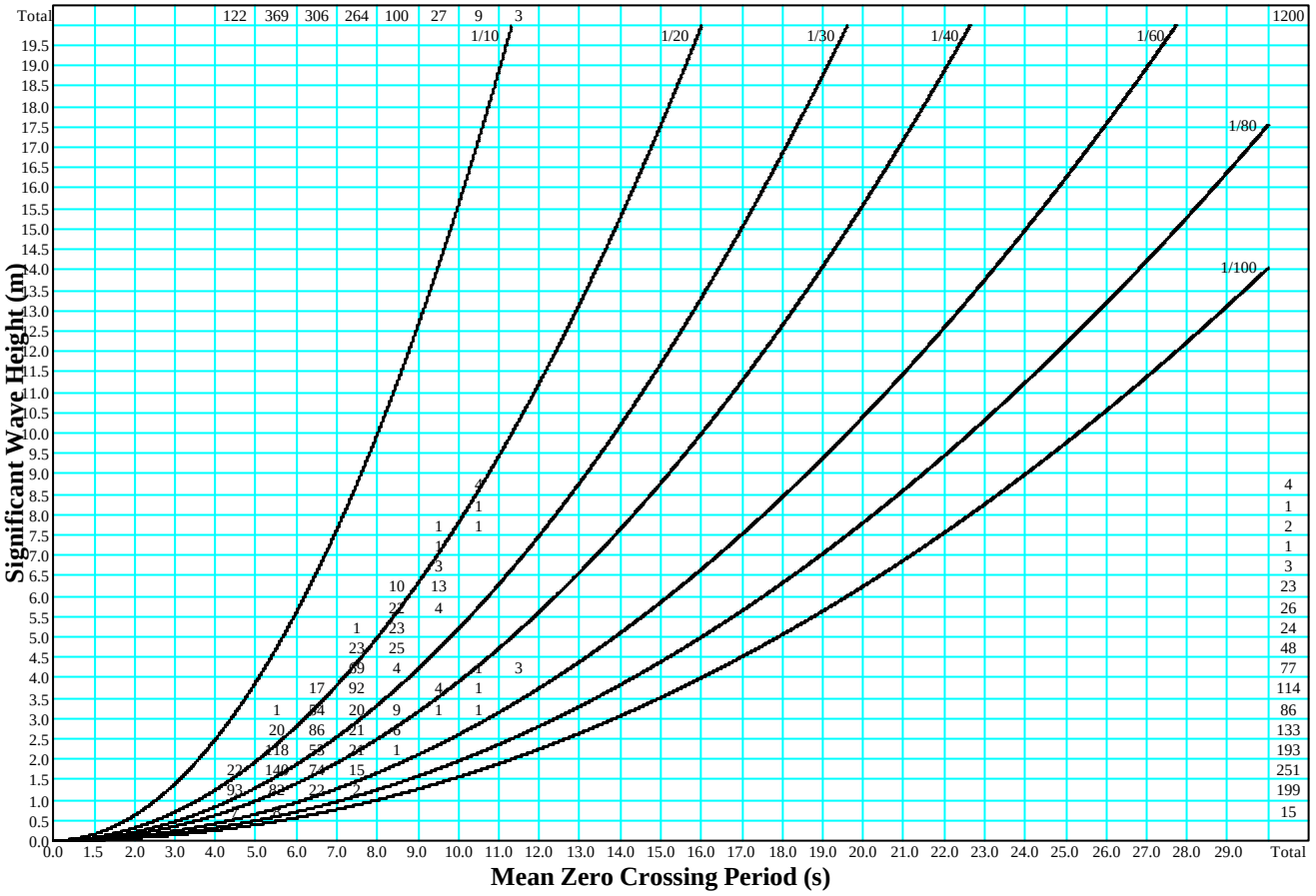
Figure B2.37 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_AUGUST_94-99

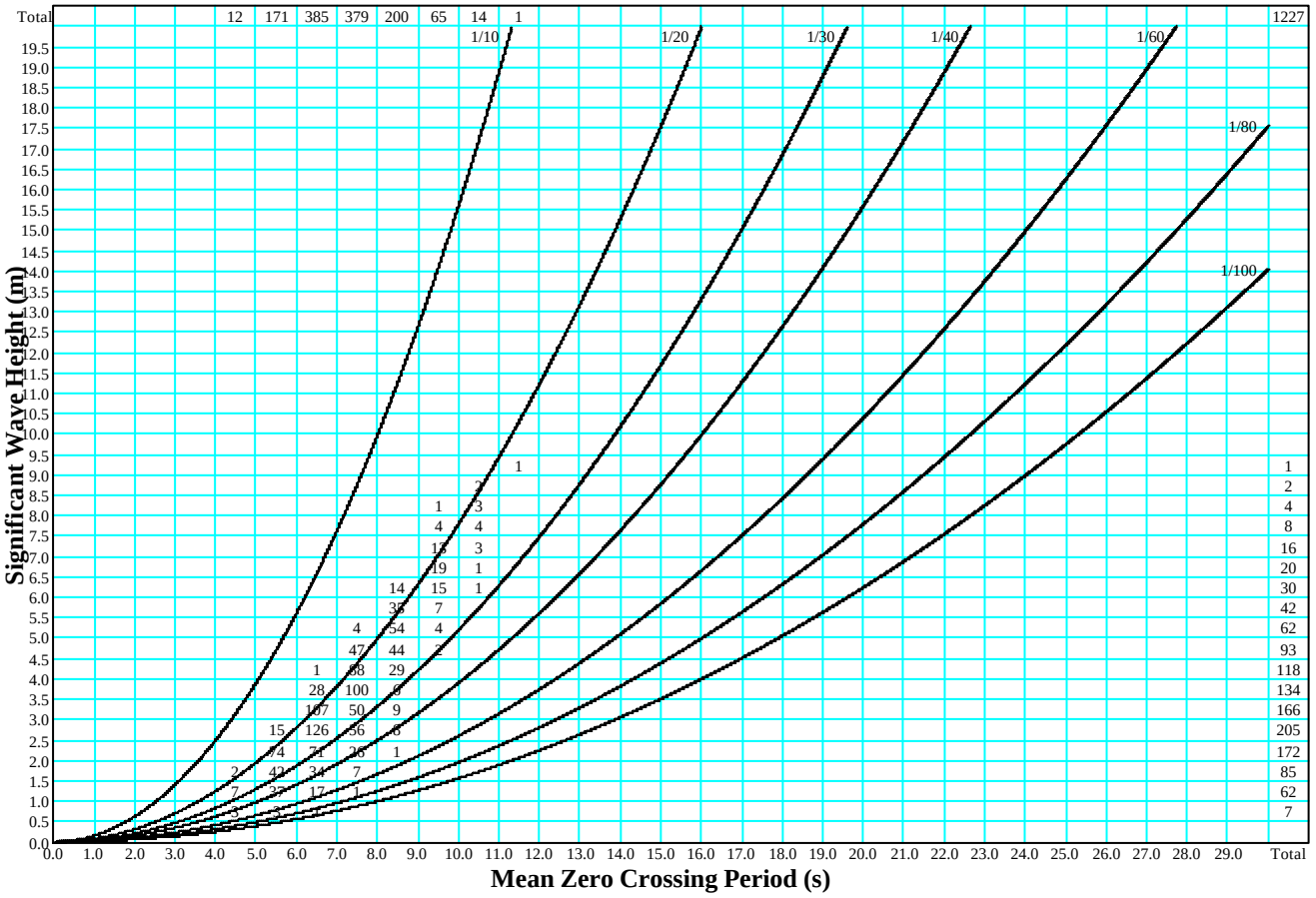
UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B2.38 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_SEPTEMBER_94-99

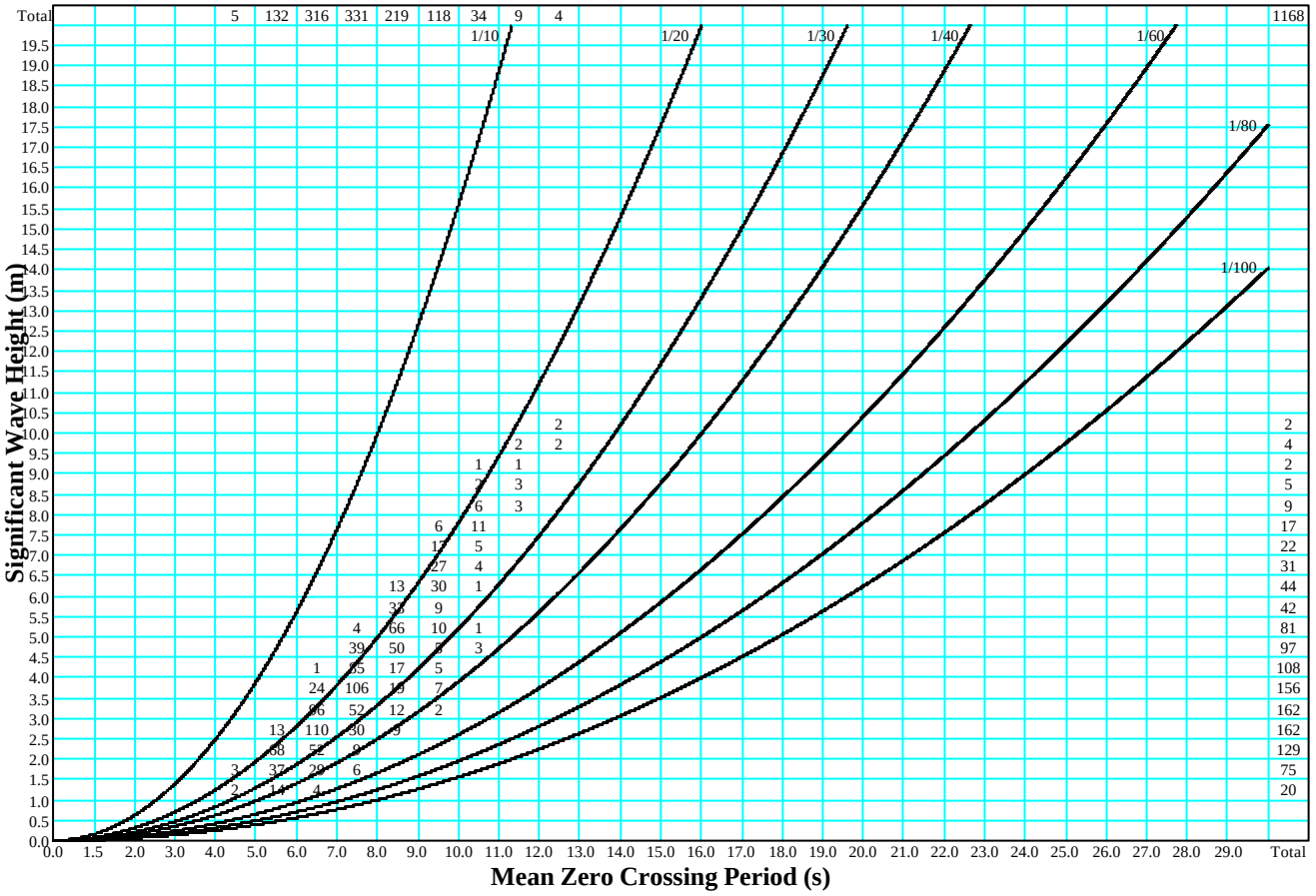
Figure B2.39 **Total Samples 1227**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_OCTOBER_94-99

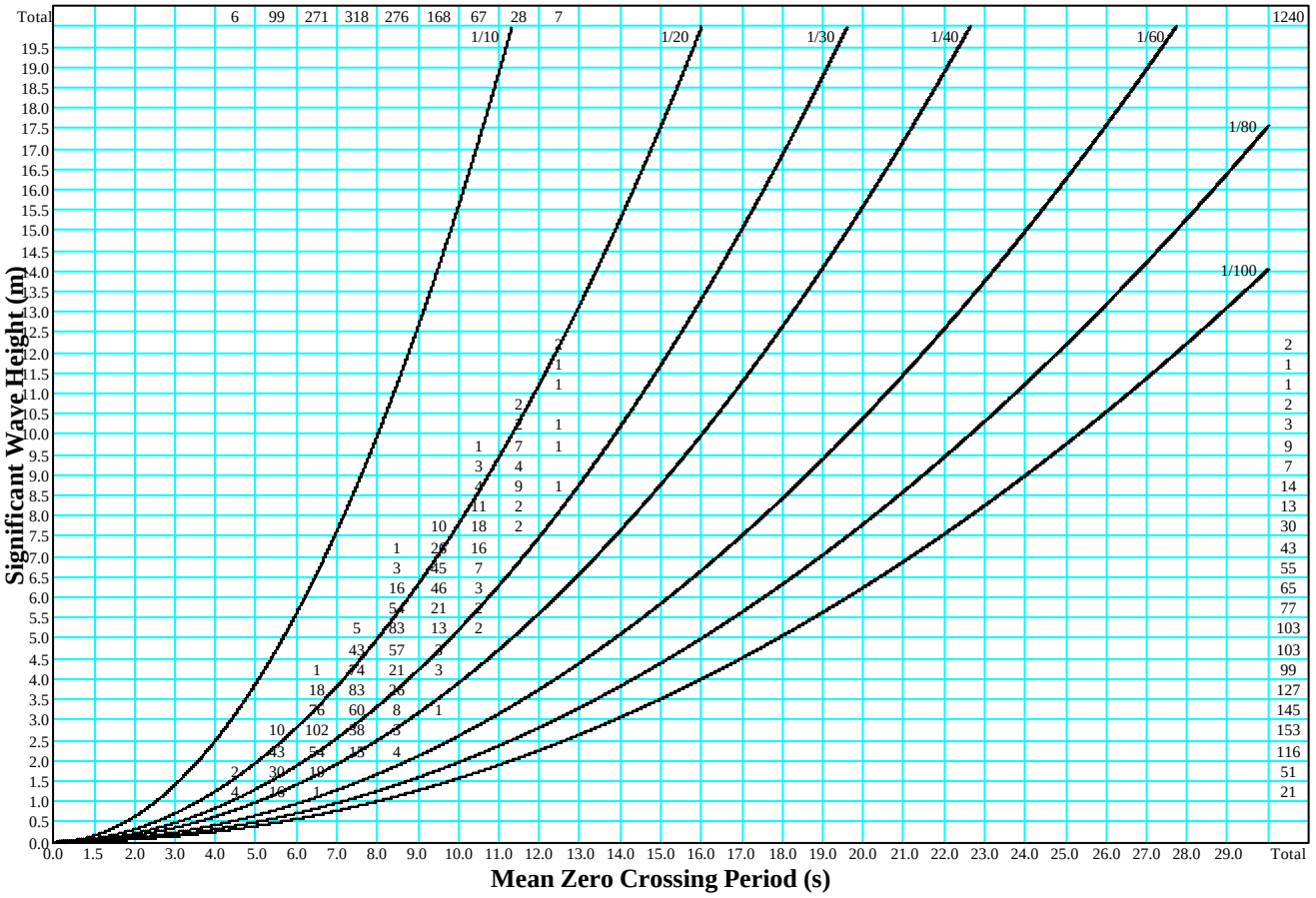
UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B2.40 **Total Samples 1168**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_NOVEMBER_94-99

Figure B2.41 **Total Samples 1240**

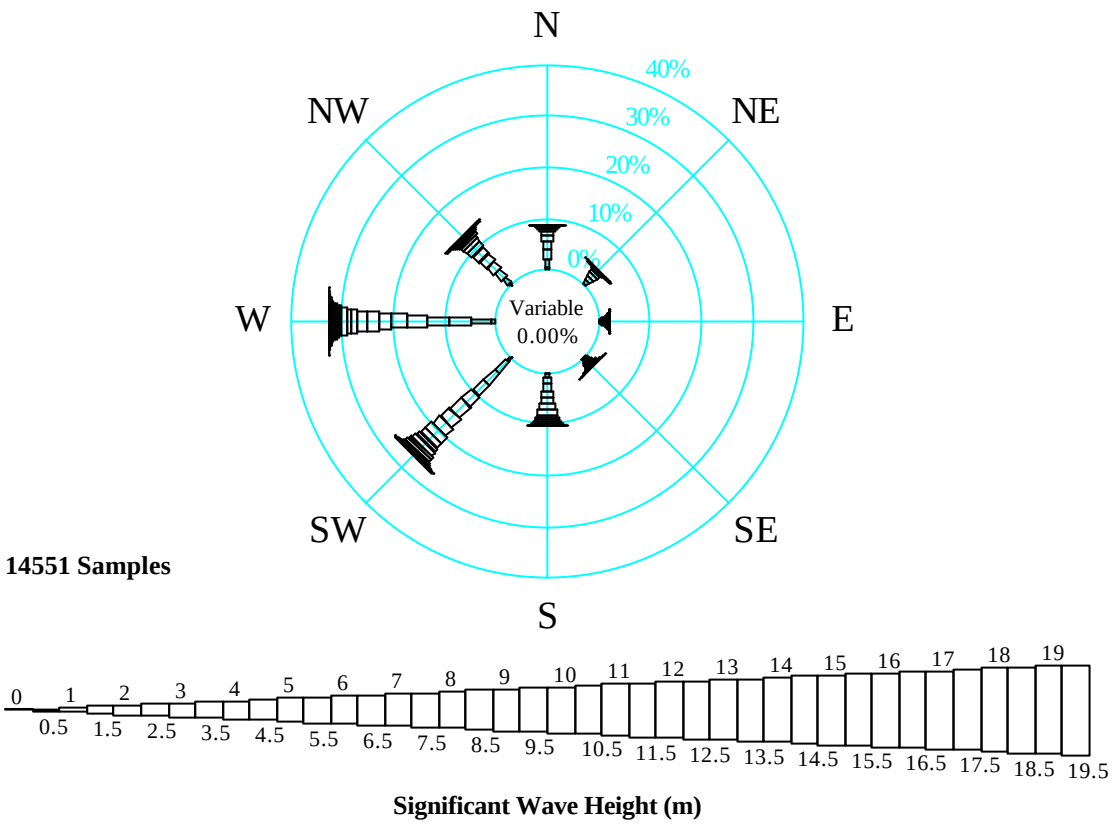


V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM2.mdb~F2S_GP2_Hs/Tz_DECEMBER_94-99

UKMO GWM 2 : 56.50°N, 13.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

APPENDIX B-3

Figure B3.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_ALLYEAR_5/94-4/99

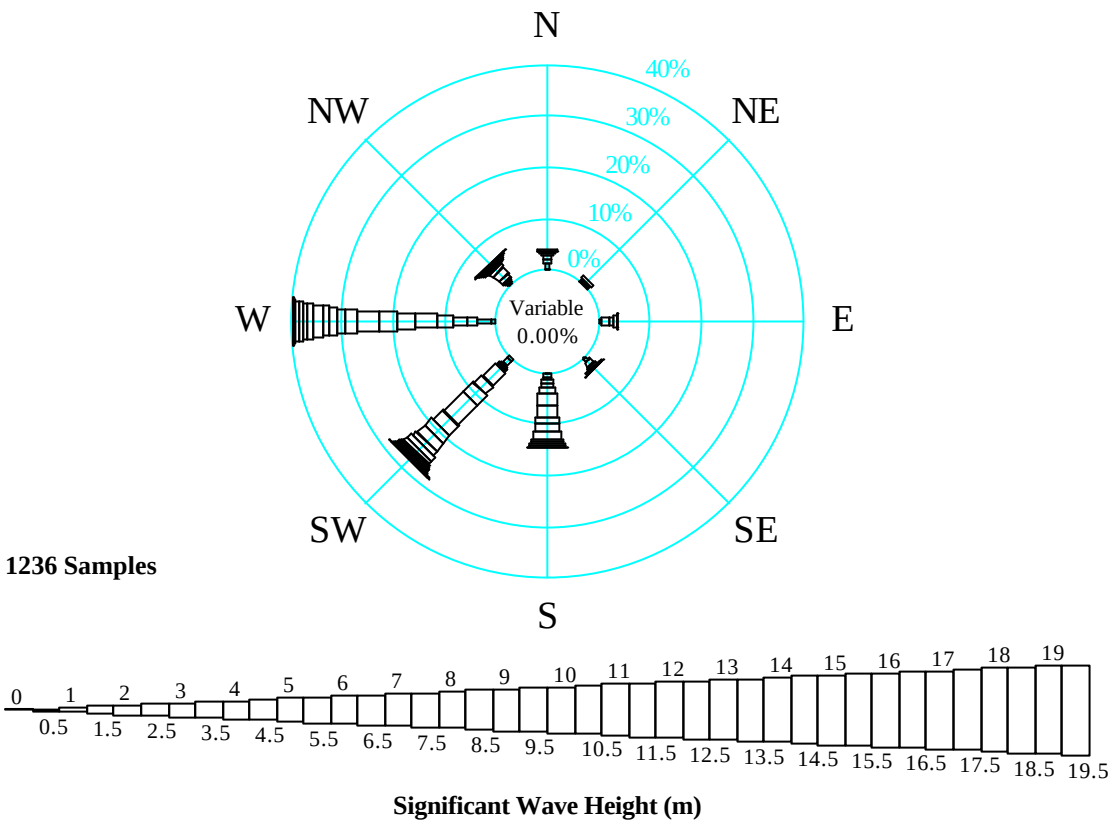
Figure B3.2

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5						1		1	2	14551
1.0	48	22	16	5	25	125	109	57	407	14549
1.5	243	109	61	48	100	426	569	208	1764	14142
2.0	300	131	80	70	159	432	646	282	2100	12378
2.5	213	128	61	61	228	422	601	278	1992	10278
3.0	186	89	49	51	197	396	580	262	1810	8286
3.5	113	56	6	27	184	442	465	247	1540	6476
4.0	68	25	6	39	171	345	360	188	1202	4936
4.5	35	6	16	20	136	281	337	120	951	3734
5.0	27	6	4	17	92	250	249	79	724	2783
5.5	9	4	5	2	63	191	177	64	515	2059
6.0	7	1	2	4	58	126	148	44	390	1544
6.5	9	1			38	132	128	31	339	1154
7.0	5	1		1	26	96	84	31	244	815
7.5	1	1		1	19	80	63	11	176	571
8.0	2	1		1	9	43	54	13	123	395
8.5					3	27	48	5	83	272
9.0					2	27	35	3	67	189
9.5						18	25	1	44	122
10.0						14	15	3	32	78
10.5						6	7	2	15	46
11.0						4	4	2	10	31
11.5						3	4		7	21
12.0						2	4		6	14
12.5						5	1		6	8
13.0							1		1	2
13.5										1
14.0										1
14.5										1
15.0										1
15.5							1		1	1
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	1266	581	306	347	1510	3894	4715	1932	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_ALLYEAR_5/94-4/99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : All Year

Figure B3.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_JANUARY_94-99

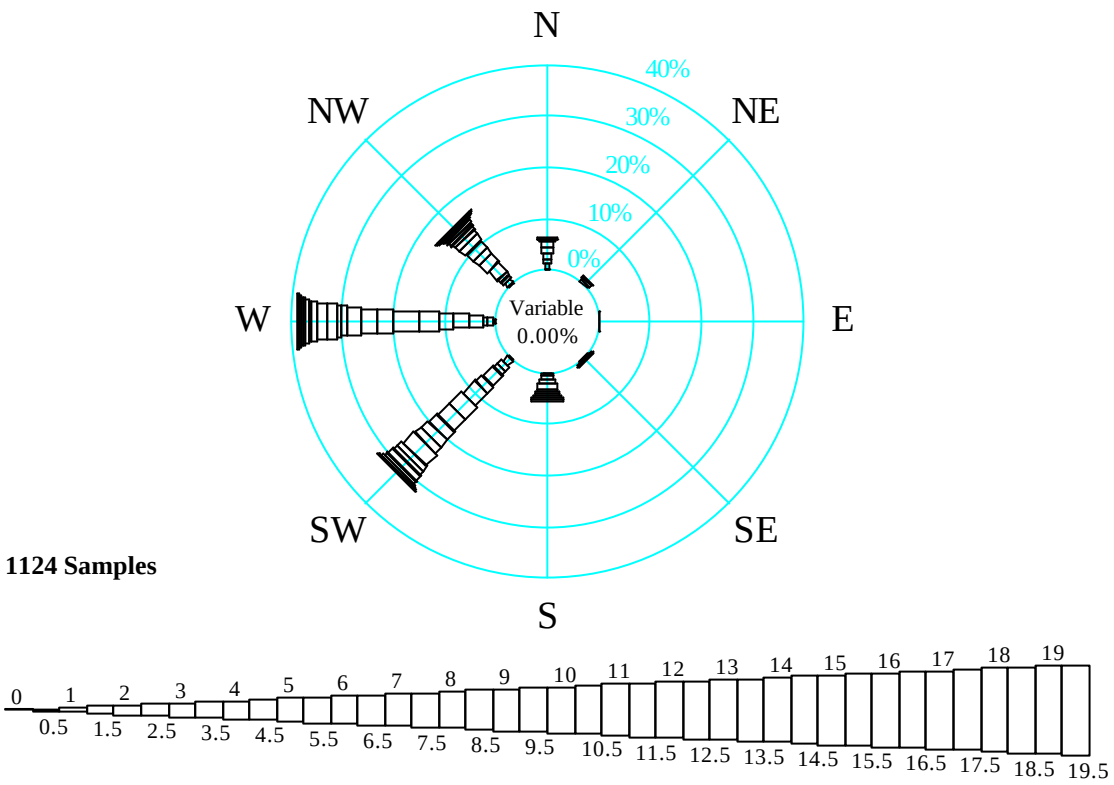
Figure B3.4

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1236
0.5	2			2	2		9	2	17	1236
1.0	12		6	9		6	34	3	70	1219
1.5	10		18	13	9	15	25	2	92	1149
2.0	9	1	11	3	5	7	34	7	77	1057
2.5		7	8	4	8	8	38	12	85	980
3.0	8	6	1		10	44	56	18	143	895
3.5	3		2	1	17	26	42	10	101	752
4.0	1				30	34	44	3	112	651
4.5	3			3	26	66	53	1	152	539
5.0					15	32	29	1	77	387
5.5				3	21	24	19	2	69	310
6.0					17	25	21	3	66	241
6.5					7	12	14	3	36	175
7.0					5	13	21	1	40	139
7.5					5	10	16	2	33	99
8.0					1	4	10	2	17	66
8.5					2	6	7		15	49
9.0						5	11	1	17	34
9.5						4	5		9	17
10.0						3	1		4	8
10.5							1		1	4
11.0						1			1	3
11.5										2
12.0						2			2	2
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	48	14	46	38	180	347	490	73	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_JANUARY_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : January

Figure B3.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_FEBRUARY_94-99

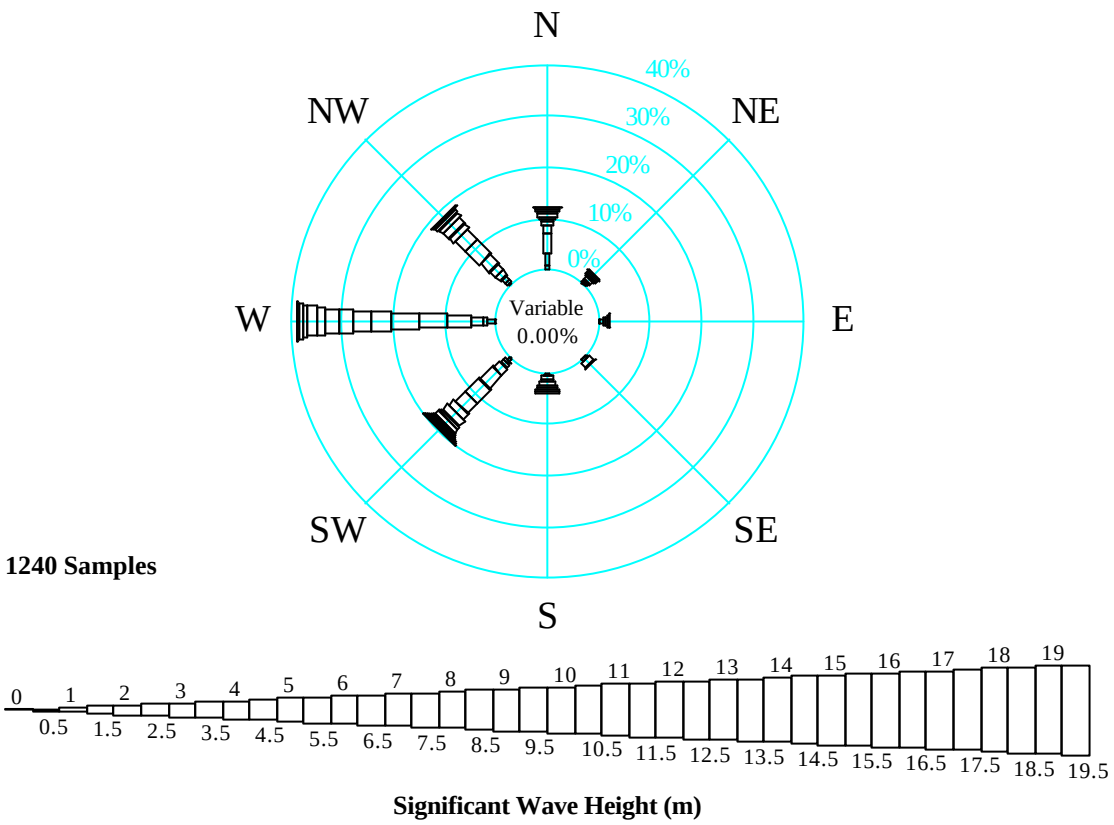
Figure B3.6

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1124
0.5	1						1		2	1124
1.0	12					2	3	1	18	1122
1.5	11					16	13	11	51	1104
2.0	11	5			3	12	13	7	51	1053
2.5	14	6		1	3	12	28	8	72	1002
3.0	13	1		1	10	31	37	28	121	930
3.5	5			1	7	18	28	25	84	809
4.0	2		1	3	12	39	47	15	119	725
4.5	2			2	8	36	55	20	123	606
5.0					4	36	35	17	92	483
5.5					3	24	36	12	75	391
6.0					5	22	28	8	63	316
6.5					5	17	14	7	43	253
7.0					3	34	10	6	53	210
7.5						14	20	5	39	157
8.0						11	24	2	37	118
8.5						14	12	2	28	81
9.0						8	6		14	53
9.5						6	7	1	14	39
10.0							5	2	7	25
10.5						1	3	2	6	18
11.0						2	4		6	12
11.5							4		4	6
12.0						1	1		2	2
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	71	12	1	8	63	356	434	179	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_FEBRUARY_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : February

Figure B3.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_MARCH_94-99

Figure B3.8

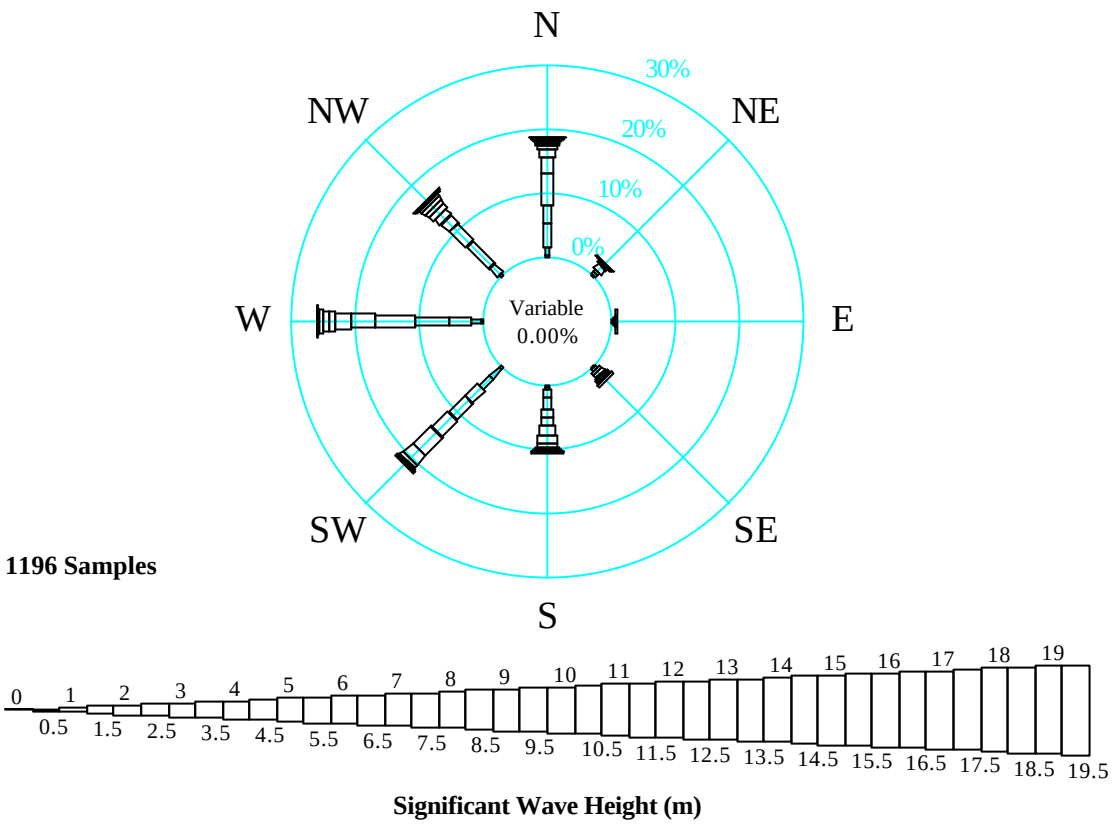
Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	9	1	4			2	2	6	24	1240
1.0	32	3	6	1	6	7	18	8	81	1216
1.5	46	7	8	5	3	6	13	11	99	1135
2.0	19	10	3	14		9	26	15	96	1036
2.5	12	3	5		6	23	61	18	128	940
3.0	4	8	1	1	8	42	64	30	158	812
3.5	7	4			10	48	70	48	187	654
4.0	6				2	32	48	33	121	467
4.5	9				4	18	41	17	89	346
5.0	4				7	18	34	18	81	257
5.5	1				4	9	34	12	60	176
6.0	1					10	23	8	42	116
6.5						6	20	5	31	74
7.0						4	13		17	43
7.5						4	7	1	12	26
8.0						2	6		8	14
8.5						1	1		2	6
9.0						2			2	4
9.5						1			1	2
10.0						1			1	1
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	150	36	27	21	50	245	481	230	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_MARCH_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : March

Figure B3.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_APRIL_94-99

Figure B3.10

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1196
0.5	2	1			5	5	3	4	20	1196
1.0	15	5	4	1	1	23	19	1	69	1176
1.5	47	6	3	6	17	27	42	22	170	1107
2.0	31	13		6	22	32	62	57	223	937
2.5	60	3	1	7	15	42	76	44	248	714
3.0	30	1		4	15	43	45	20	158	466
3.5	16			6	20	47	29	15	133	308
4.0	7	1		2	13	23	12	10	68	175
4.5	2	1		3	7	7	10	8	38	107
5.0	3	3	2		3	5	9	8	33	69
5.5	4				2	3	1	5	15	36
6.0	3				3		1	1	8	21
6.5	1				1		1	1	4	13
7.0	1				2		1	1	5	9
7.5	1							3	4	4
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
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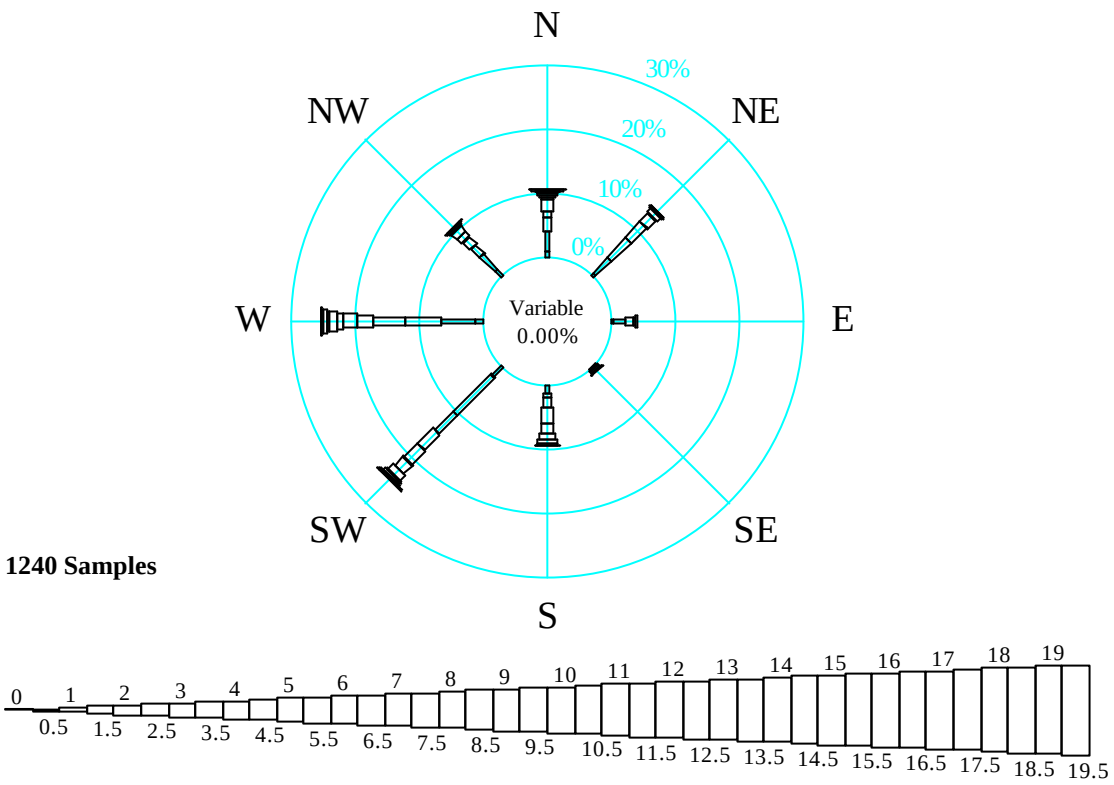
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	223	34	10	35	126	257	311	200	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_APRIL_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : April

Figure B3.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_MAY_94-99

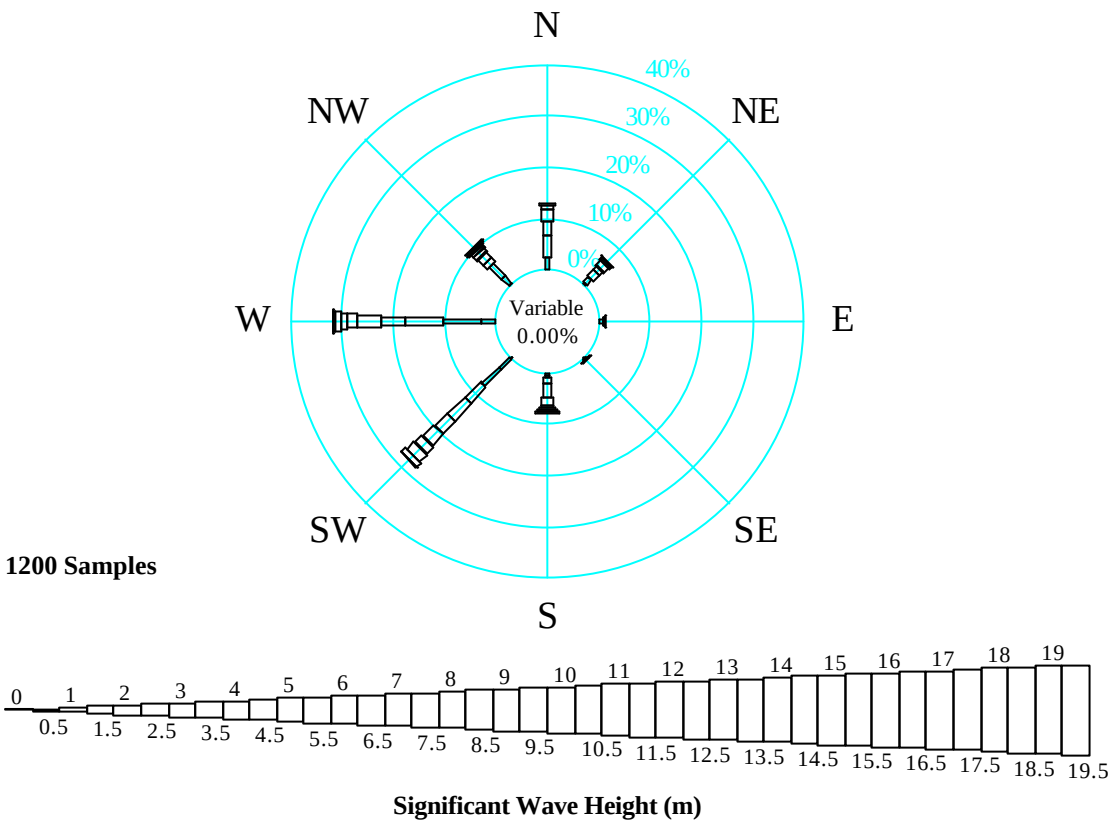
Figure B3.12

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	13	4	4			25	14	15	75	1240
1.0	35	42	21		16	102	66	40	322	1165
1.5	27	52	19	1	9	51	70	24	253	843
2.0	15	41	4	3	19	42	61	19	204	590
2.5	21	23	2	5	28	38	33	13	163	386
3.0	6	10		1	20	23	27	14	101	223
3.5	2	3		1	14	15	13	4	52	122
4.0	4	1			8	2	15	3	33	70
4.5	3				2	4	1	1	11	37
5.0	1					3	10		14	26
5.5	1				2		2		5	12
6.0						1	1		2	7
6.5	2					1			3	5
7.0						1			1	2
7.5	1								1	1
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	131	176	50	11	118	308	313	133	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_MAY_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : May

Figure B3.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_JUNE_94-99

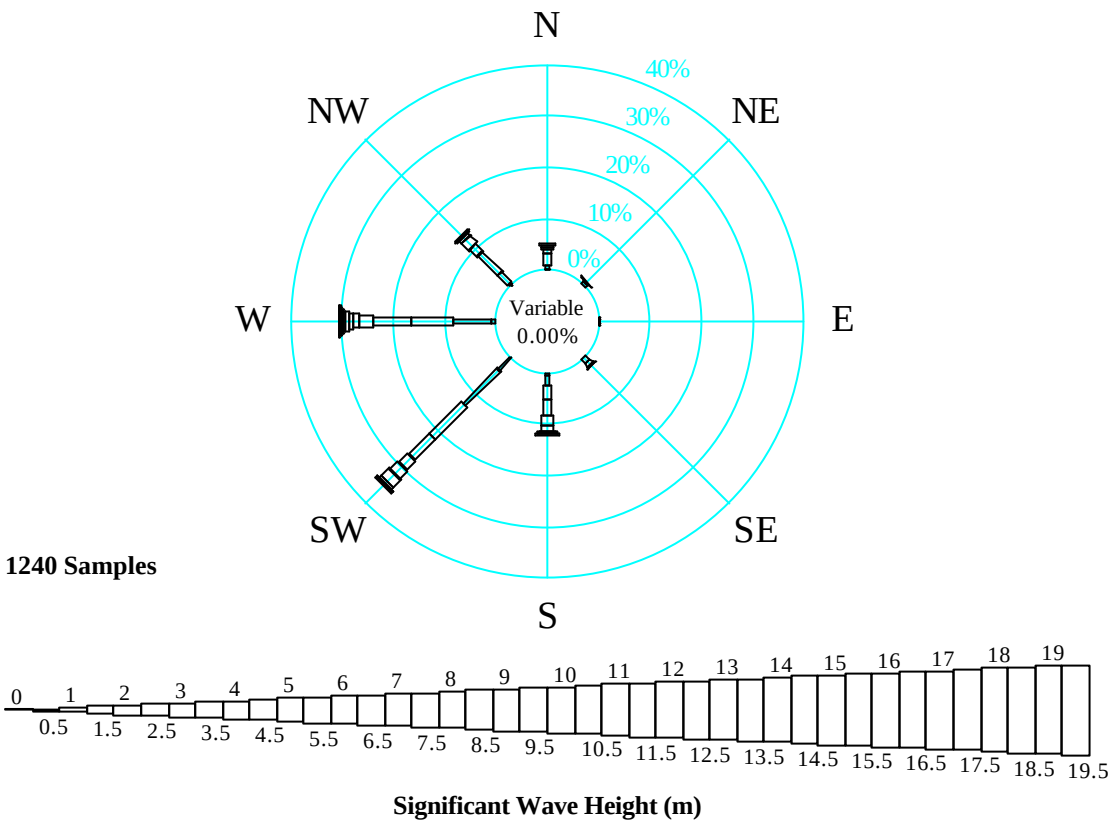
Figure B3.14

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5						1			1	1200
1.0		5		2	8	34	33	3	85	1199
1.5	31	16	10	3	5	55	88	23	231	1114
2.0	51	22	2	3	13	52	91	39	273	883
2.5	33	10	4		34	56	55	13	205	610
3.0	27	17	1	1	15	40	56	19	176	405
3.5	9	6			7	38	23	10	93	229
4.0	4	1			5	23	18	7	58	136
4.5					4	24	10	4	42	78
5.0					1	15	6	4	26	36
5.5					4	1	2	3	10	10
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	155	77	17	9	96	339	382	125	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_JUNE_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : June

Figure B3.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_JULY_94-99

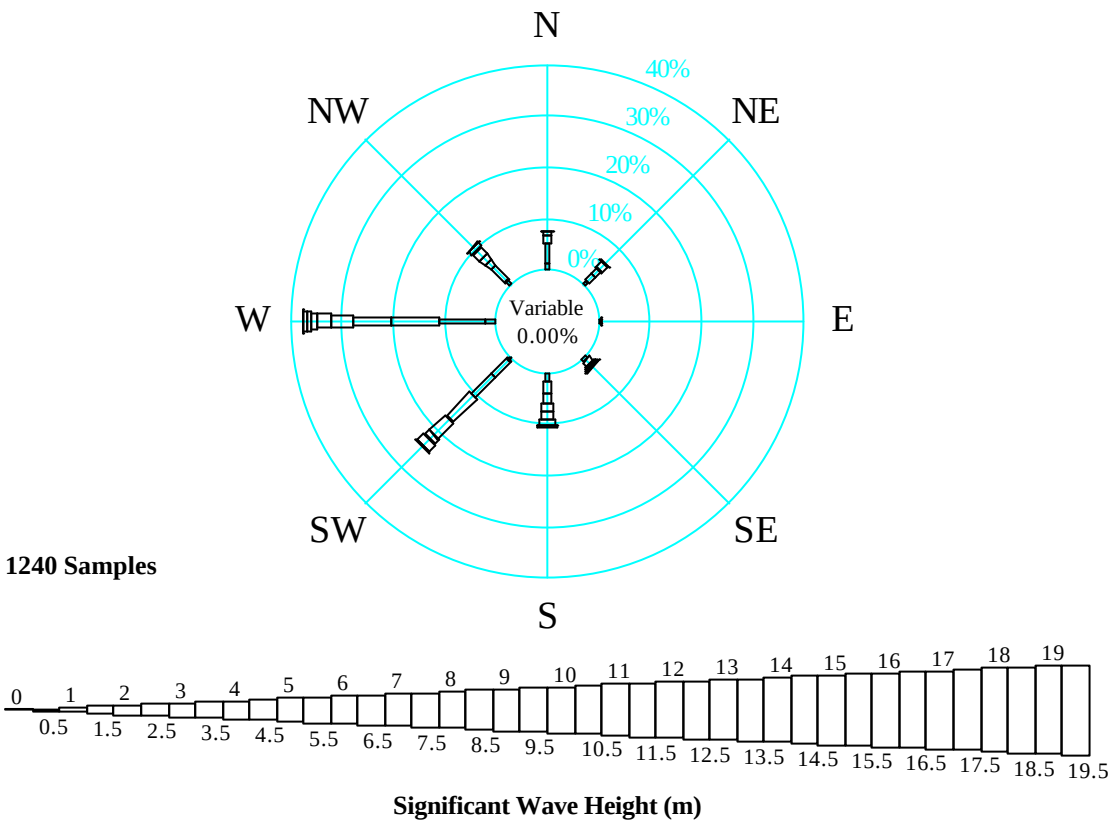
Figure B3.16

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5								1	1	1240
1.0	1		1		9	42	11	3	67	1239
1.5	10	7	1	13	22	119	90	34	296	1172
2.0	27	2	1	10	32	109	105	69	355	876
2.5	11		1	2	43	69	90	25	241	521
3.0	5			1	20	31	35	24	116	280
3.5	5				14	28	13	7	67	164
4.0	6	1			3	24	12	4	50	97
4.5					5	8	9	2	24	47
5.0					1	2	4		7	23
5.5					1	5	1		7	16
6.0							2		2	9
6.5							3		3	7
7.0							2		2	4
7.5							2		2	2
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	65	10	4	26	150	437	379	169	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_JULY_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : July

Figure B3.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_AUGUST_94-99

Figure B3.18

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5										1240
1.0	15	11	5			8	26	14	79	1240
1.5	50	22	1		21	52	109	47	302	1161
2.0	17	19	1	7	28	69	119	17	277	859
2.5	10	19		14	25	80	90	17	255	582
3.0	3	3		2	22	54	53	22	159	327
3.5				2	18	16	33	12	81	168
4.0				5	12	20	16	1	54	87
4.5				2	4	3	11		20	33
5.0					3		9		12	13
5.5							1		1	1
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
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15.0										
15.5										
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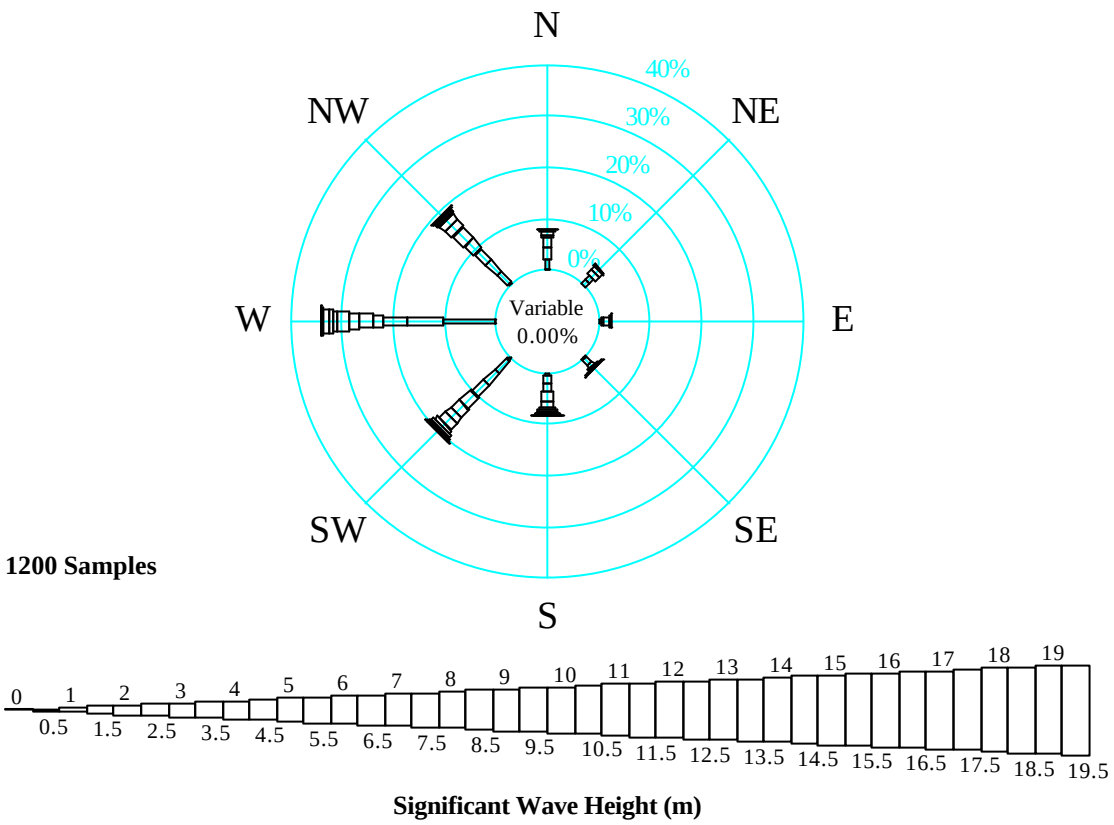
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	95	74	7	32	133	302	467	130	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_AUGUST_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : August

Figure B3.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_SEPTEMBER_94-99

Figure B3.20

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1200
0.5	1			1		8	3	5	18	1200
1.0	25	13	6	17	9	39	120	35	264	1182
1.5	27	12	6	11	15	34	86	36	227	918
2.0	21	13	14		20	39	54	34	195	691
2.5	6	12	3	3	24	35	23	31	137	496
3.0	8	2	1		13	27	33	35	119	359
3.5	7			1	7	17	24	22	78	240
4.0	1				3	20	27	15	66	162
4.5					4	9	13	6	32	96
5.0				1	1	6	8	6	22	64
5.5				1	4	4	14	3	26	42
6.0					1	2	2	1	6	16
6.5						4	4		8	10
7.0					1	1			2	2
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
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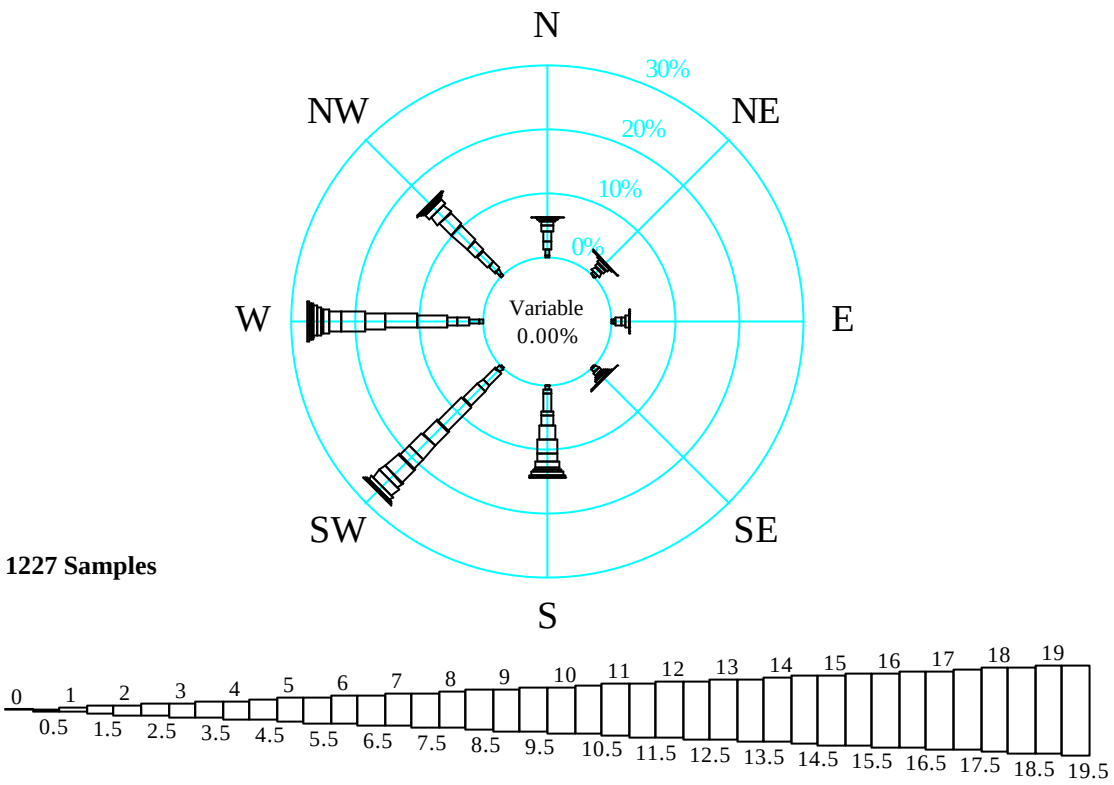
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	96	52	30	35	102	245	411	229	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_SEPTEMBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : September

Figure B3.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_OCTOBER_94-99

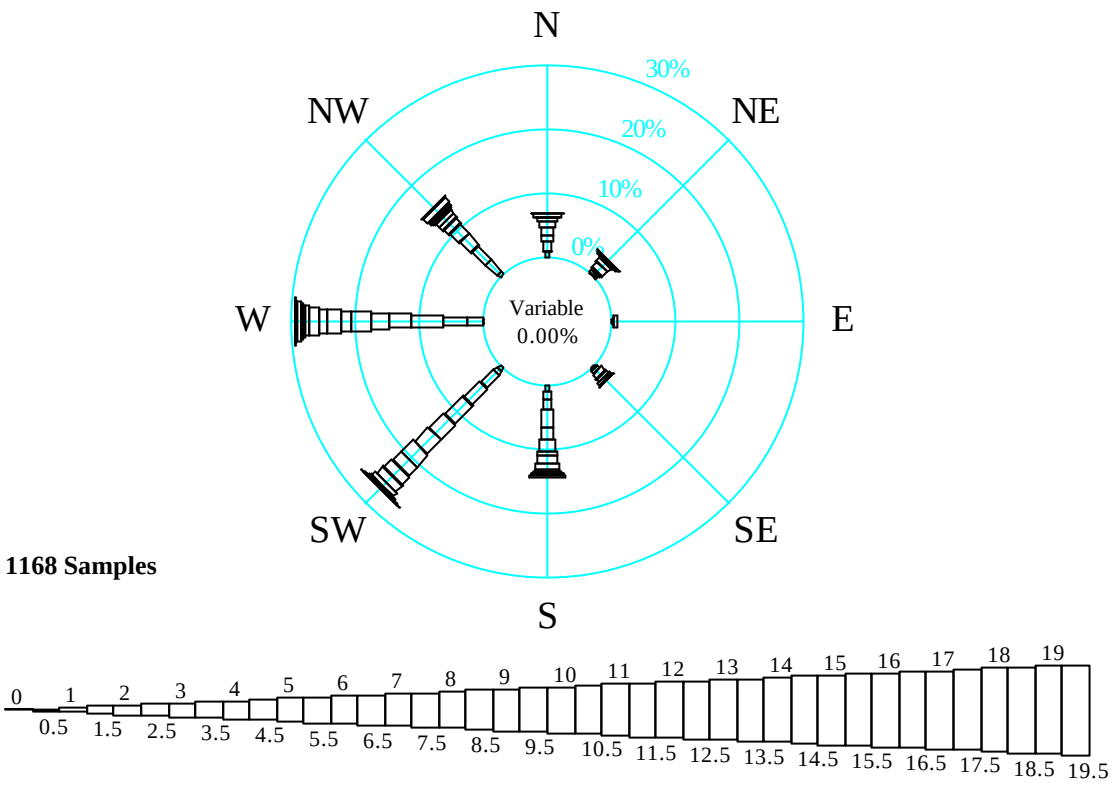
Figure B3.22

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1227
0.5	4		2		1	1	7	5	20	1227
1.0	9	1	4	3	5	10	21	9	62	1207
1.5	19	6	14	6	10	32	22	16	125	1145
2.0	18	9	7	8	32	13	20	30	137	1020
2.5	10	9	6	3	9	39	57	23	156	883
3.0	7	6	1	2	18	65	62	41	202	727
3.5	4	1		3	27	38	37	31	141	525
4.0	2	1	1	5	27	33	45	20	134	384
4.5	3	1			17	27	22	10	80	250
5.0			1	1	10	34	13	5	64	170
5.5	1				4	13	2	1	21	106
6.0					6	19	9	1	35	85
6.5	1				5	9	7	1	23	50
7.0		1			2	1	2	1	7	27
7.5		1		1	4	1	3	1	11	20
8.0					1		3		4	9
8.5						2	3		5	5
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	78	36	36	32	178	337	335	195	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_OCTOBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : October

Figure B3.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_NOVEMBER_94-99

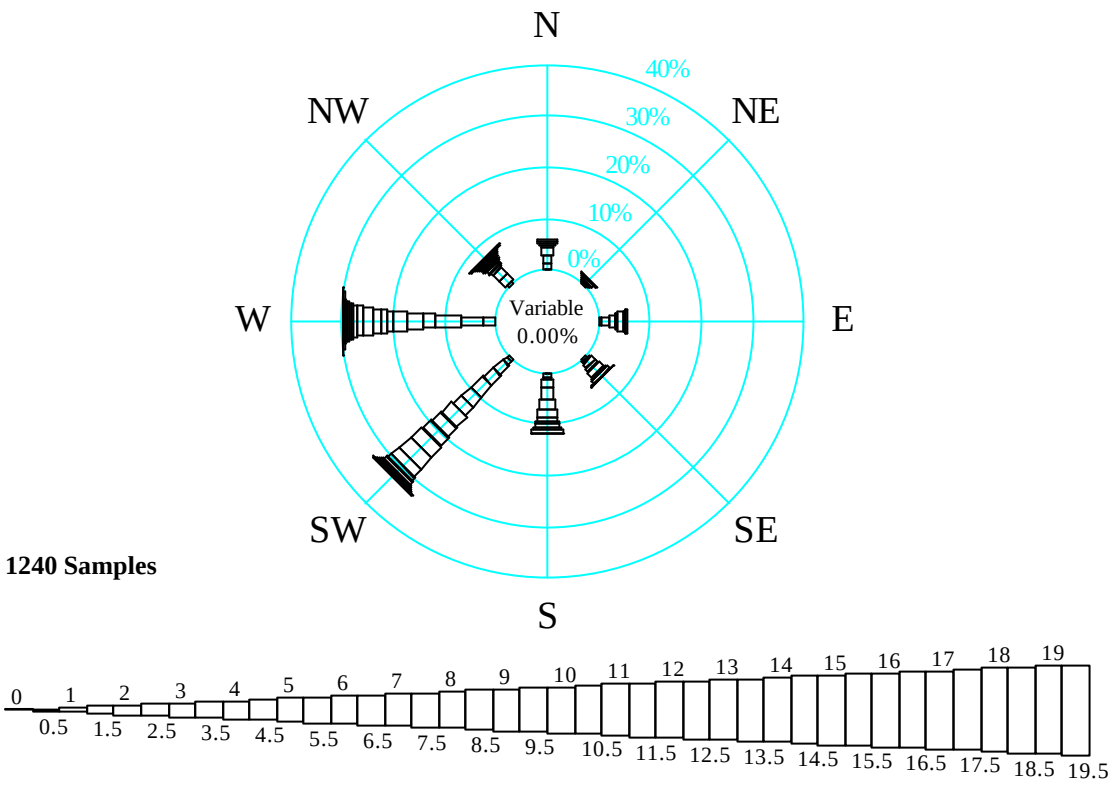
Figure B3.24

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1168
0.5										1168
1.0	10		2	1	12	6	1	7	39	1168
1.5	2	1		3	15	8	28	29	86	1129
2.0	17	5	1	6	18	33	45	34	159	1043
2.5	11	5	7	11	30	41	58	27	190	884
3.0	15	13		7	23	47	39	24	168	694
3.5	10	9		4	22	38	34	13	130	526
4.0	7	2		2	8	36	34	10	99	396
4.5	1	1		2	13	30	21	8	76	297
5.0	1	1			13	21	23	3	62	221
5.5		1			4	21	15	3	44	159
6.0	5	1			3	17	17	5	48	115
6.5	1	1			1	9	8	12	32	67
7.0					3	1	3	2	9	35
7.5						3	5		8	26
8.0					1	1	2		4	18
8.5							6		6	14
9.0							3		3	8
9.5							1		1	5
10.0						1	1		2	4
10.5						1			1	2
11.0										1
11.5						1			1	1
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	80	40	10	36	166	315	344	177	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_NOVEMBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : November

Figure B3.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_DECEMBER_94-99

Figure B3.26

Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5										1240
1.0										1240
1.5	2				3	5			10	1240
2.0	16	4	8	5	8	13	32	6	92	1230
2.5	18	2	16	5	7	30	51	20	149	1138
3.0	17	1	16	13	17	33	62	21	180	989
3.5	8	3	2	9	28	38	33	8	129	809
4.0	4	6	4	17	27	31	37	8	134	680
4.5	5	1	14	6	20	27	35	5	113	546
5.0	4	3	4	7	6	36	14	4	78	433
5.5			2		5	30	12	3	52	355
6.0			2		14	28	23	6	73	303
6.5					3	36	23	4	66	230
7.0				1	7	38	14	2	62	164
7.5				1	3	25	11		40	102
8.0						11	3	1	15	62
8.5						9	3	1	13	47
9.0						4	6	1	11	34
9.5						3	5		8	23
10.0						3	2	2	7	15
10.5						1			1	8
11.0						2			2	7
11.5										5
12.0						1			1	5
12.5						2			2	4
13.0							1		1	2
13.5										1
14.0										1
14.5										1
15.0										1
15.5							1		1	1
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	74	20	68	64	148	406	368	92	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_HS/WVD_DECEMBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Wave Rose and Frequency Table : December

UKMO GWM 3 (54.50°N, 11.66°W)

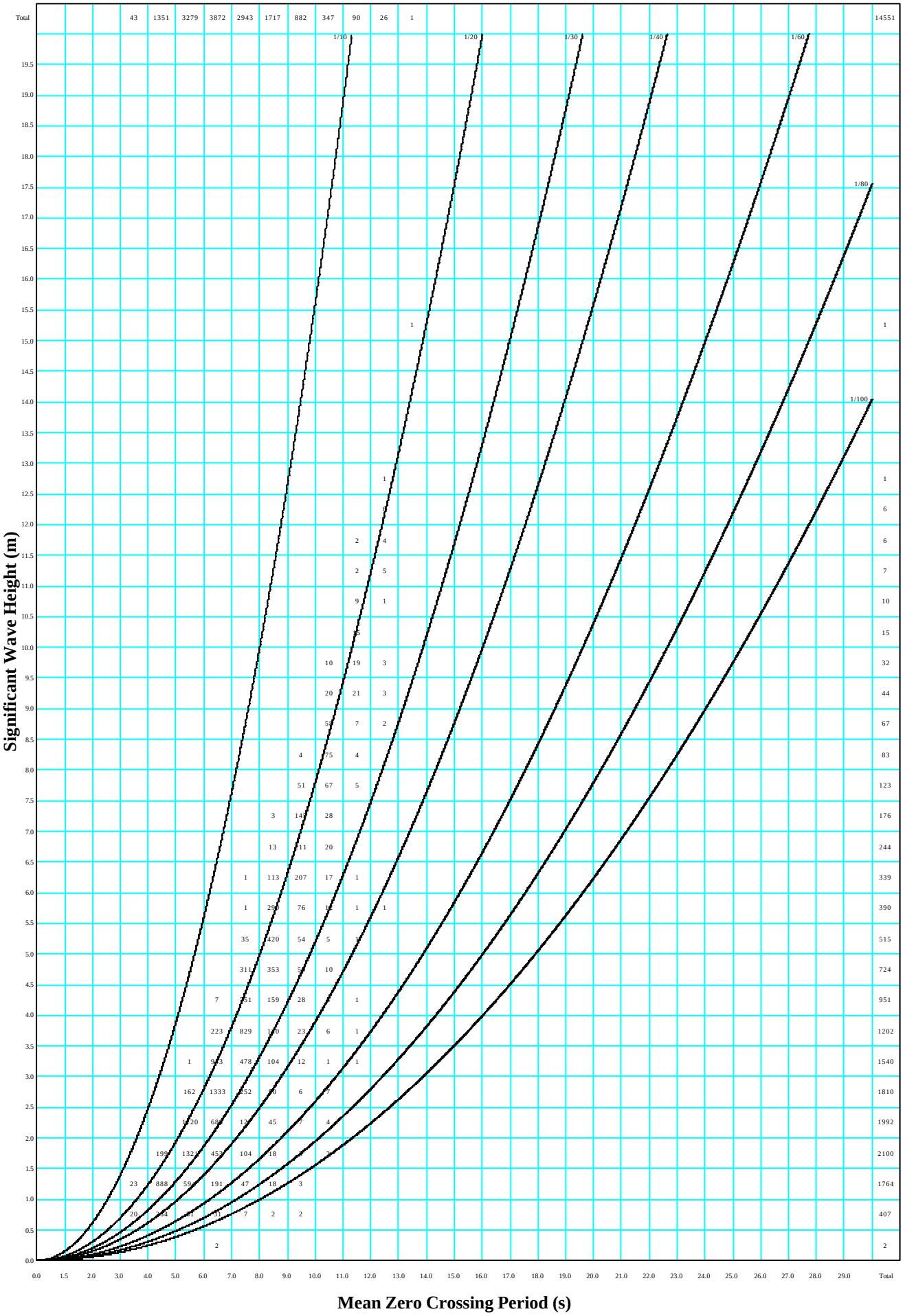
Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	99.92	99.92	100.00	100.00	100.00	100.00	100.00	99.99
1.0	98.62	99.82	98.06	98.33	93.95	92.83	94.52	93.63	98.50	98.37	100.00	100.00	97.19
1.5	92.96	98.22	91.53	92.56	67.98	73.58	70.65	69.27	76.50	93.32	96.66	99.19	85.07
2.0	85.52	93.68	83.55	78.34	47.58	50.83	42.02	46.94	57.58	83.13	89.30	91.77	70.63
2.5	79.29	89.15	75.81	59.70	31.13	33.75	22.58	26.37	41.33	71.96	75.68	79.76	56.94
3.0	72.41	82.74	65.48	38.96	17.98	19.08	13.23	13.55	29.92	59.25	59.42	65.24	44.51
3.5	60.84	71.98	52.74	25.75	9.84	11.33	7.82	7.02	20.00	42.79	45.03	54.84	33.92
4.0	52.67	64.50	37.66	14.63	5.65	6.50	3.79	2.66	13.50	31.30	33.90	44.03	25.66
4.5	43.61	53.91	27.90	8.95	2.98	3.00	1.85	1.05	8.00	20.37	25.43	34.92	19.13
5.0	31.31	42.97	20.73	5.77	2.10	0.83	1.29	0.08	5.33	13.85	18.92	28.63	14.15
5.5	25.08	34.79	14.19	3.01	0.97	0.00	0.73	0.00	3.50	8.64	13.61	24.44	10.61
6.0	19.50	28.11	9.35	1.76	0.56	0.00	0.56	0.00	1.33	6.93	9.85	18.55	7.93
6.5	14.16	22.51	5.97	1.09	0.40	0.00	0.32	0.00	0.83	4.07	5.74	13.23	5.60
7.0	11.25	18.68	3.47	0.75	0.16	0.00	0.16	0.00	0.17	2.20	3.00	8.23	3.92
7.5	8.01	13.97	2.10	0.33	0.08	0.00	0.00	0.00	0.00	1.63	2.23	5.00	2.71
8.0	5.34	10.50	1.13	0.00	0.00	0.00	0.00	0.00	0.00	0.73	1.54	3.79	1.87
8.5	3.96	7.21	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.41	1.20	2.74	1.30
9.0	2.75	4.72	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	1.85	0.84
9.5	1.38	3.47	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	1.21	0.54
10.0	0.65	2.22	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.65	0.32
10.5	0.32	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.56	0.21
11.0	0.24	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.40	0.14
11.5	0.16	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.40	0.10
12.0	0.16	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.05
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.01
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.01
Mean	**4.26**	**4.94**	**3.66**	**2.85**	**2.11**	**2.17**	**2.00**	**2.00**	**2.48**	**3.40**	**3.62**	**4.11**	**3.12**
Minimum	**0.60**	**0.70**	**0.60**	**0.80**	**0.60**	**0.40**	**0.40**	**0.50**	**0.80**	**0.60**	**1.00**	**1.10**	**0.40**
Maximum	**12.30**	**12.30**	**10.20**	**7.70**	**7.60**	**5.40**	**7.20**	**5.00**	**7.10**	**8.70**	**11.60**	**15.20**	**15.20**

Table B3.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : UKMO GWM 3

Height (m)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	99.97	100.00	99.95	99.99
1.0	96.21	96.21	94.77	98.56	98.34	96.76	97.69	97.00	97.19
1.5	77.01	77.45	74.84	84.73	91.72	85.82	85.62	86.23	85.07
2.0	53.32	54.91	48.69	64.55	81.19	74.73	71.92	71.64	70.63
2.5	36.49	32.87	28.76	46.97	66.09	63.89	59.17	57.25	56.94
3.0	21.80	17.56	12.75	32.28	53.05	53.72	46.87	43.69	44.51
3.5	12.88	7.92	10.78	24.50	40.86	42.37	37.01	30.90	33.92
4.0	7.50	3.61	8.82	13.26	29.54	33.51	29.37	21.17	25.66
4.5	4.74	2.58	3.59	7.49	20.53	26.30	22.23	14.96	19.13
5.0	2.61	1.55	2.29	2.59	14.44	19.88	16.95	10.87	14.15
5.5	1.90	0.86	0.65	2.02	10.26	14.97	13.19	7.56	10.61
6.0	1.34	0.69	0.00	0.86	6.42	11.74	10.05	5.28	7.93
6.5	0.63	0.52	0.00	0.86	3.91	8.35	7.34	3.67	5.60
7.0	0.24	0.34	0.00	0.58	2.19	5.88	5.56	2.07	3.92
7.5	0.16	0.17	0.00	0.29	0.93	3.83	4.22	1.50	2.71
8.0	0.00	0.00	0.00	0.00	0.33	2.03	3.08	0.83	1.87
8.5	0.00	0.00	0.00	0.00	0.13	1.34	2.06	0.57	1.30
9.0	0.00	0.00	0.00	0.00	0.00	0.87	1.31	0.41	0.84
9.5	0.00	0.00	0.00	0.00	0.00	0.51	0.78	0.36	0.54
10.0	0.00	0.00	0.00	0.00	0.00	0.36	0.47	0.21	0.32
10.5	0.00	0.00	0.00	0.00	0.00	0.26	0.32	0.10	0.21
11.0	0.00	0.00	0.00	0.00	0.00	0.18	0.23	0.00	0.14
11.5	0.00	0.00	0.00	0.00	0.00	0.13	0.15	0.00	0.10
12.0	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.05
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Mean	**2.29**	**2.20**	**2.14**	**2.60**	**3.30**	**3.46**	**3.28**	**2.98**	**3.12**
Minimum	**0.50**	**0.50**	**0.70**	**0.80**	**0.70**	**0.40**	**0.50**	**0.40**	**0.40**
Maximum	**7.60**	**7.90**	**5.80**	**7.70**	**8.60**	**12.30**	**15.20**	**10.70**	**15.20**

Table B3.28 - All Year Significant Wave Height - Percentage Exceedence by Direction : UKMO GWM 3

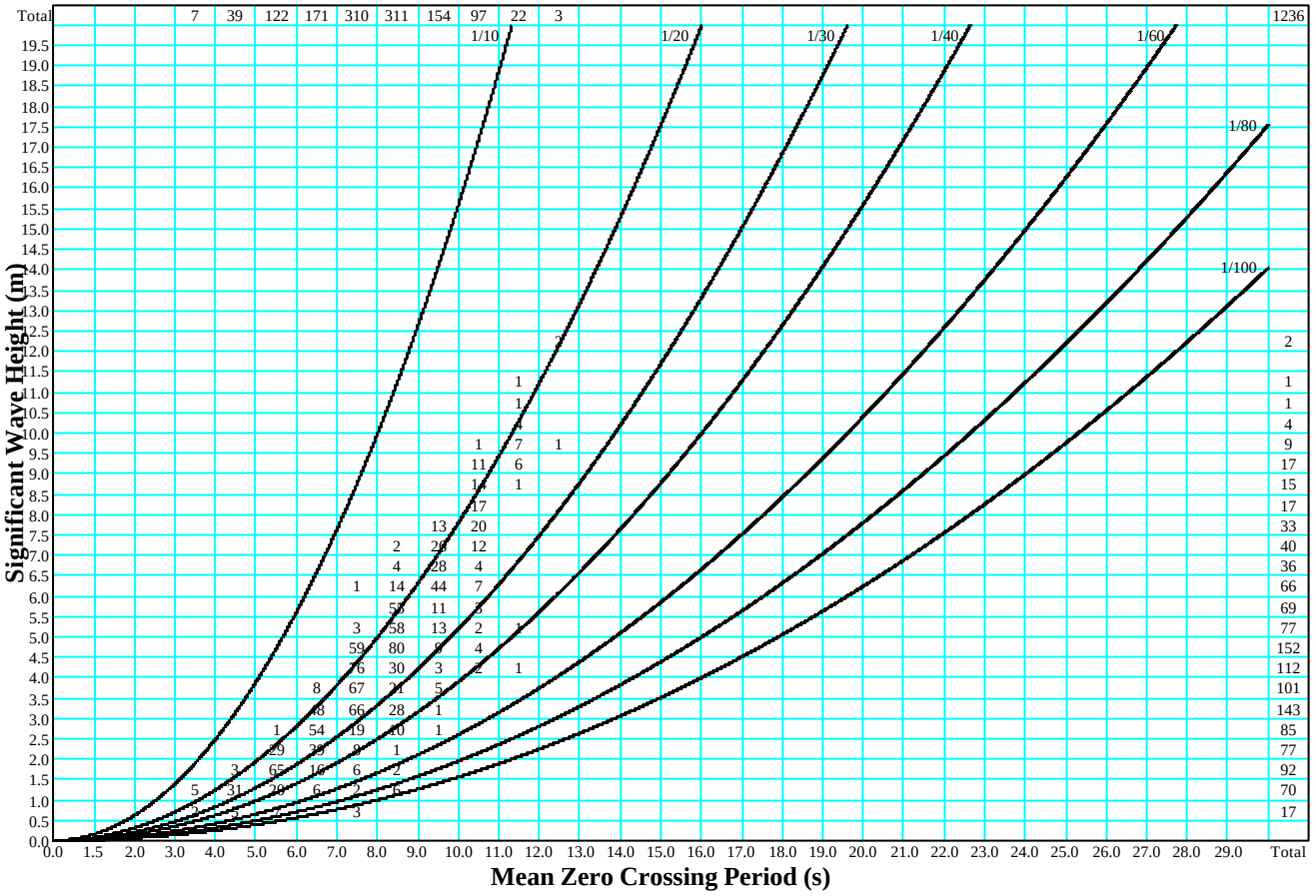
Figure B3.29 **Total Samples 14551**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_ALLYEAR_5/94-4/99

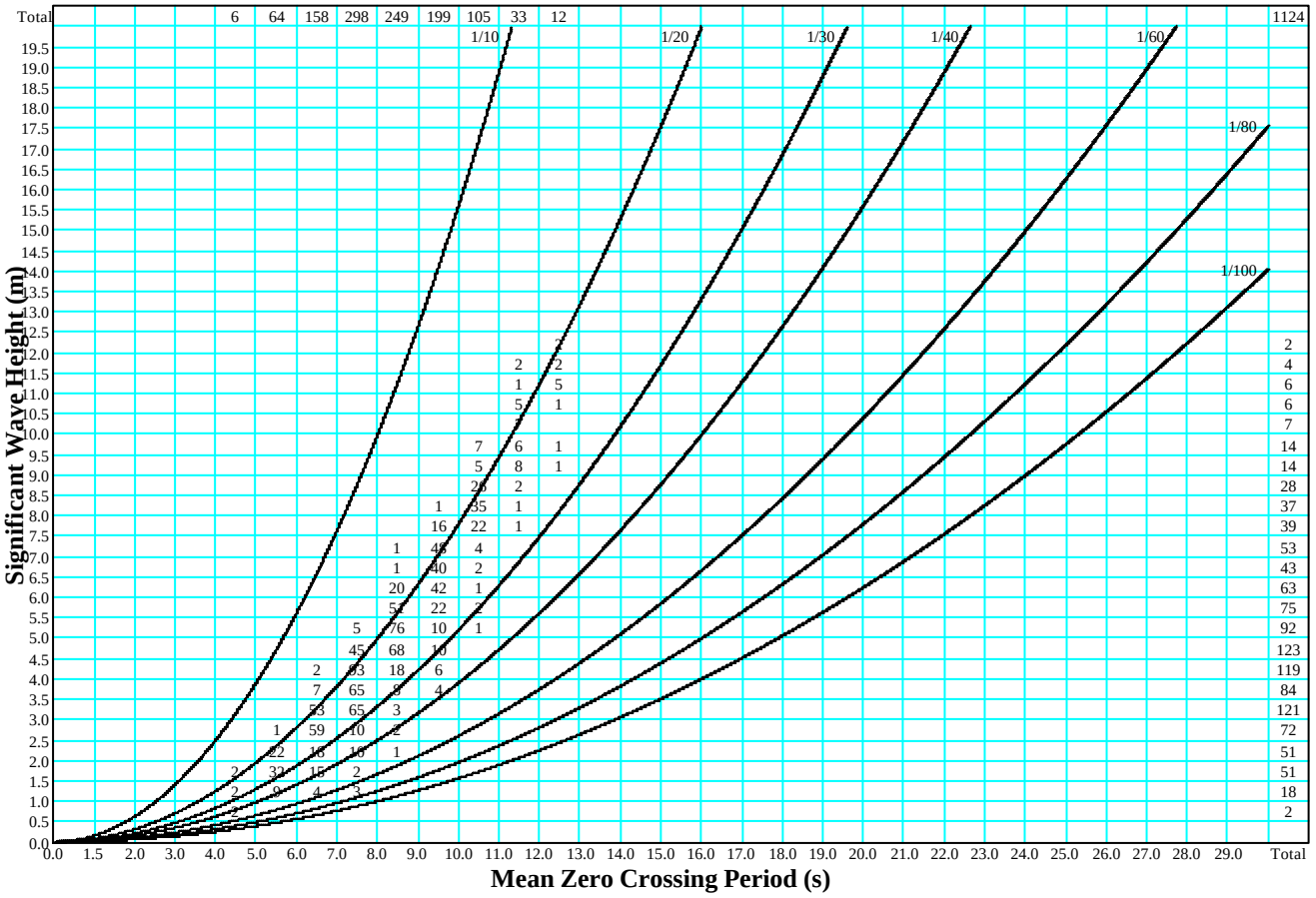
UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B3.30 **Total Samples 1236**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_JANUARY_94-99

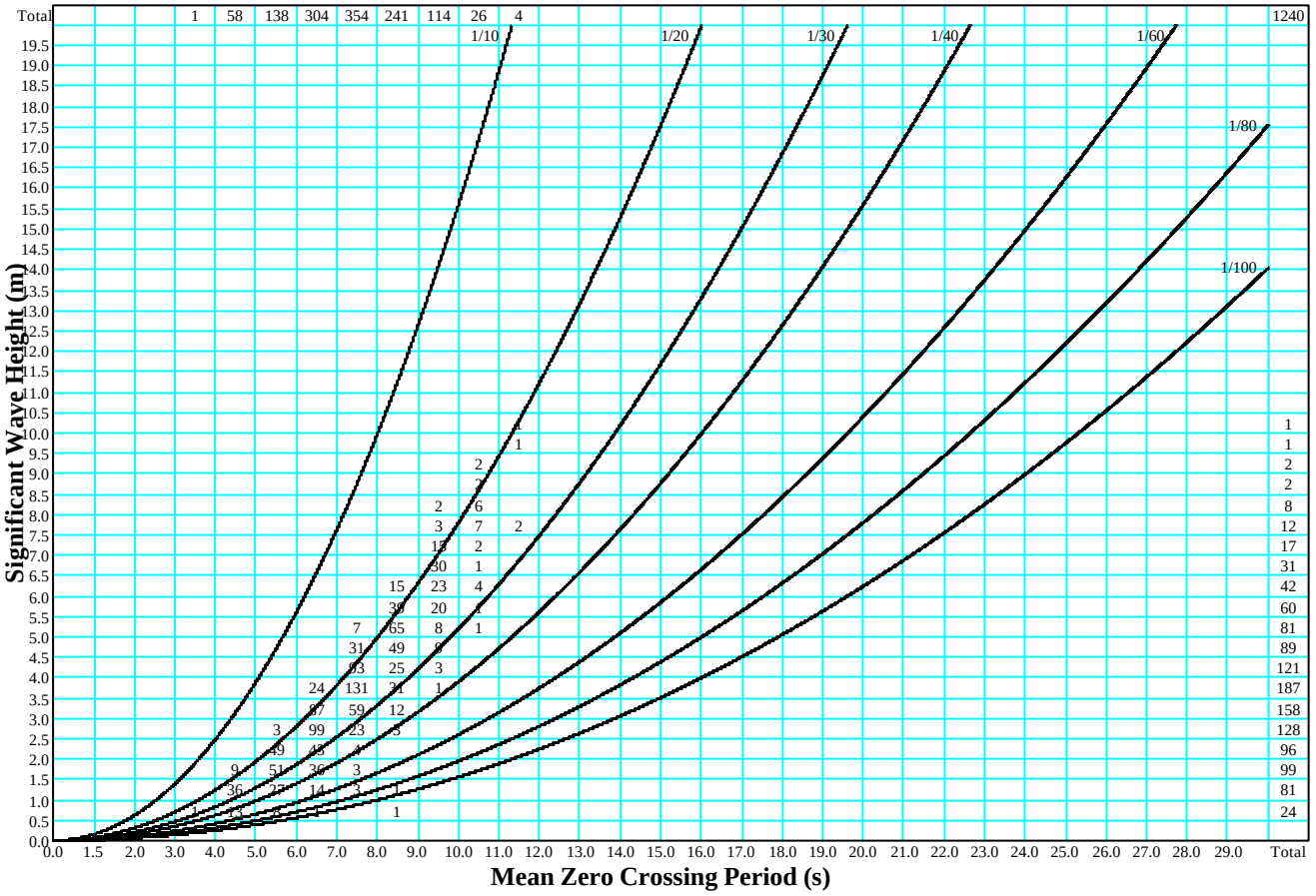
Figure B3.31 **Total Samples 1124**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_FEBRUARY_94-99

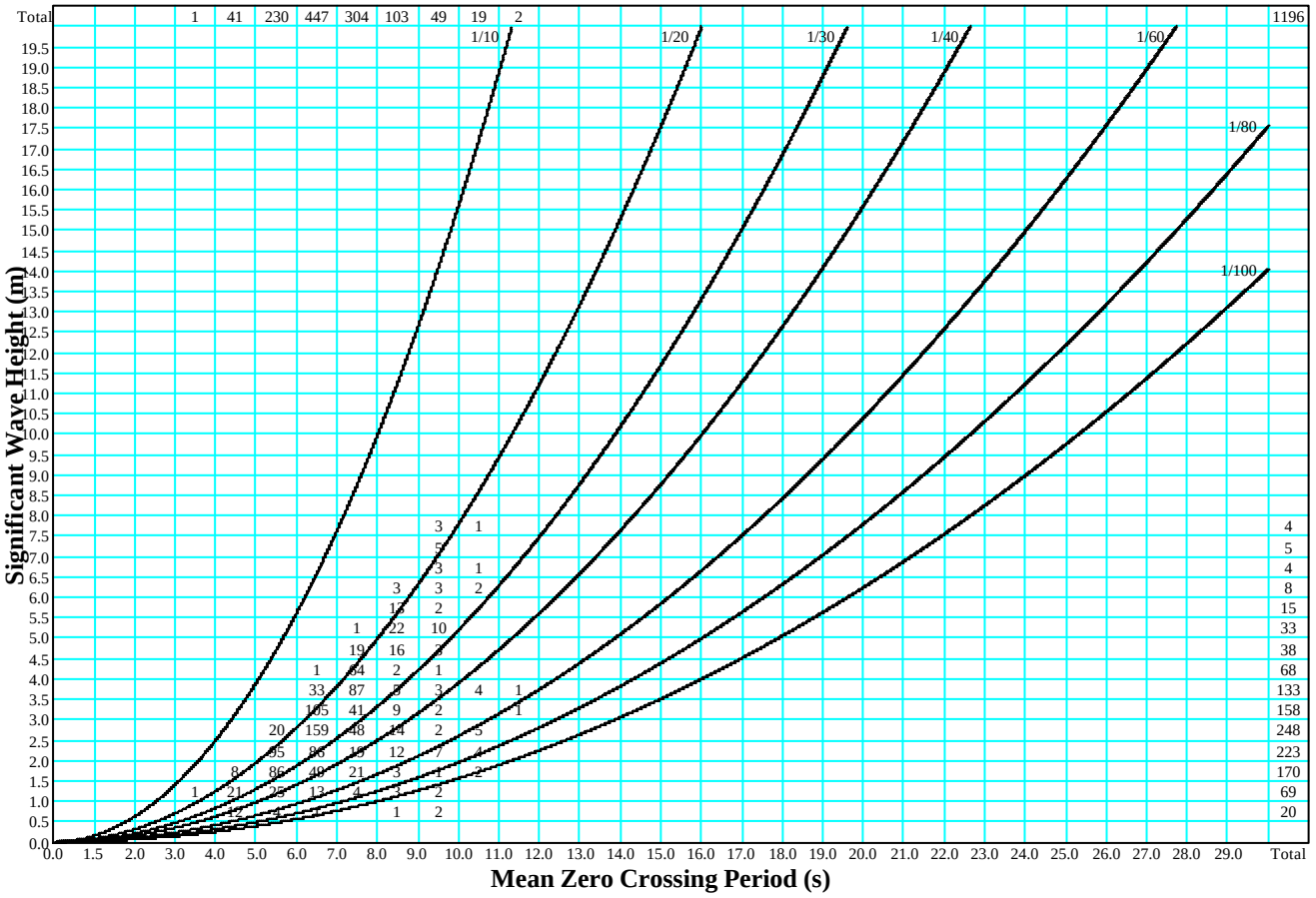
UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B3.32 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_MARCH_94-99

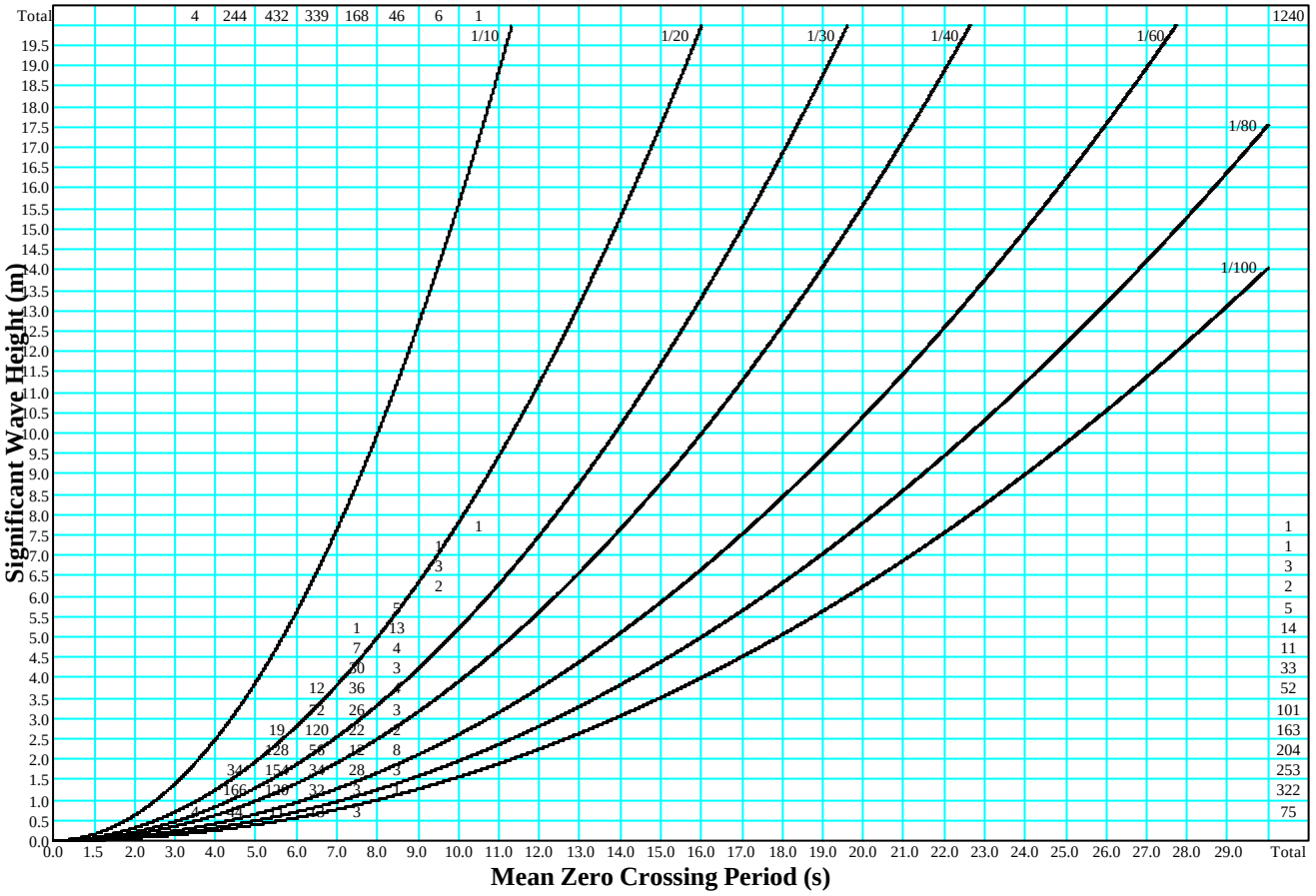
Figure B3.33 **Total Samples 1196**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_APRIL_94-99

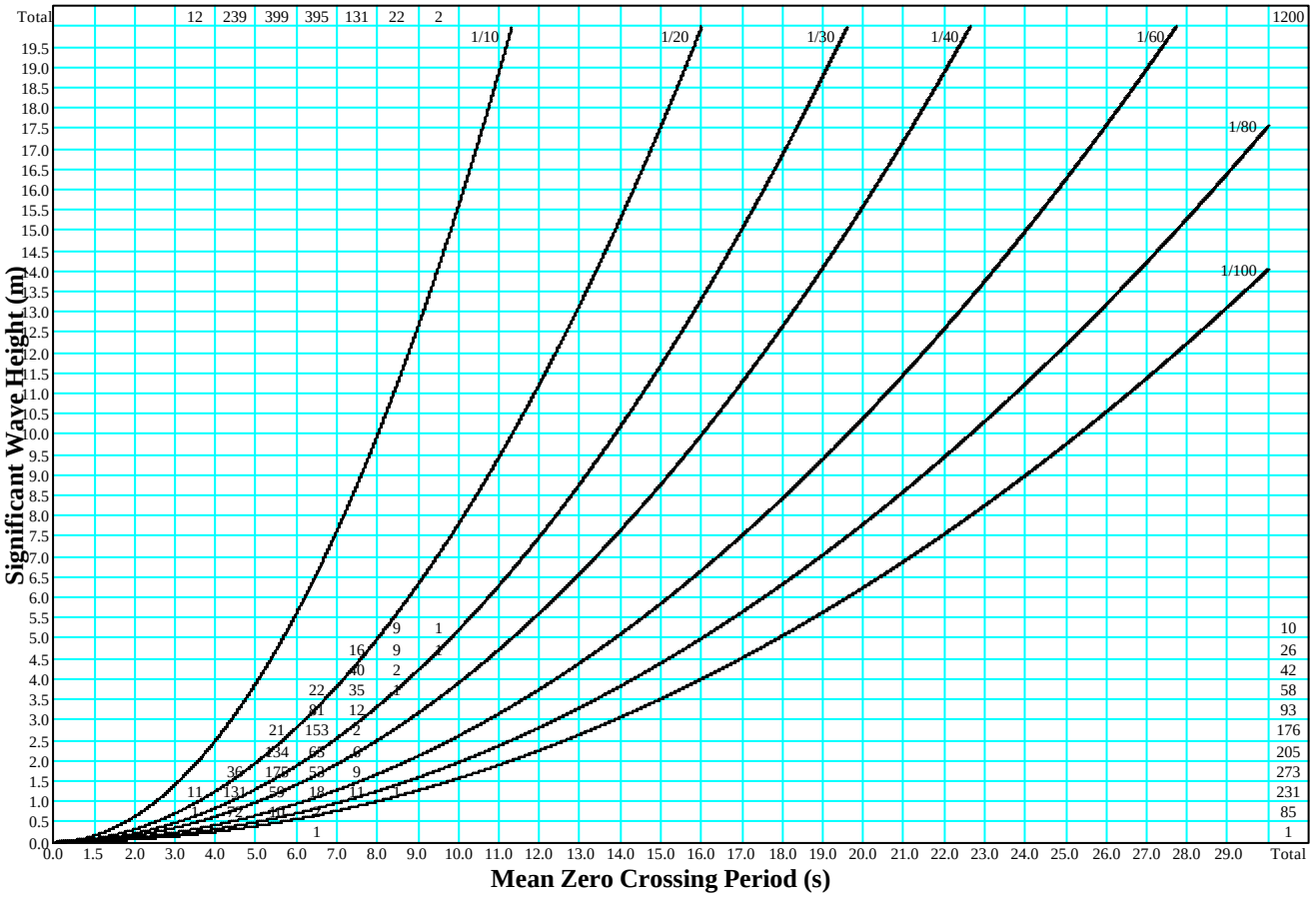
UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B3.34 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_MAY_94-99

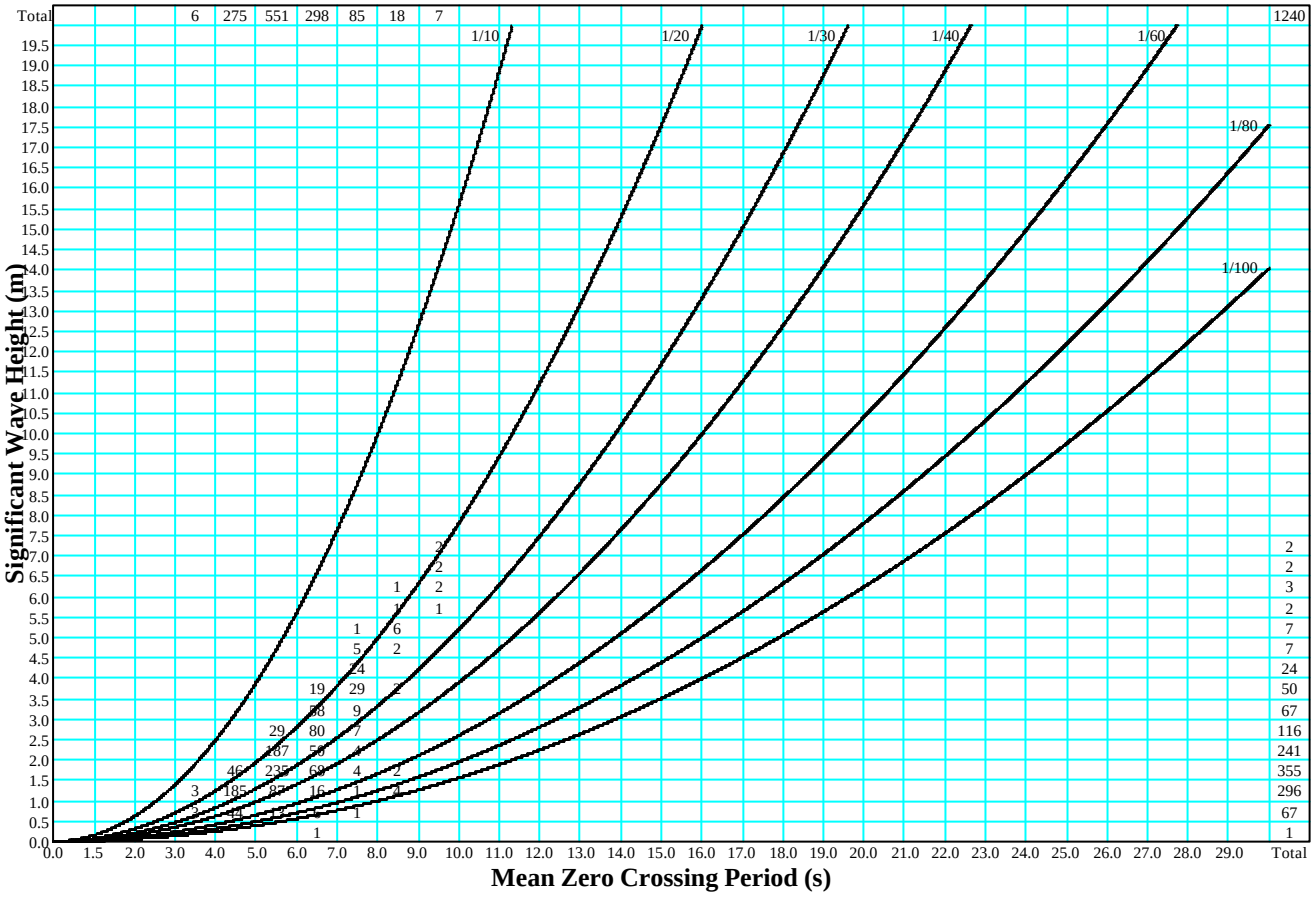
Figure B3.35 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_JUNE_94-99

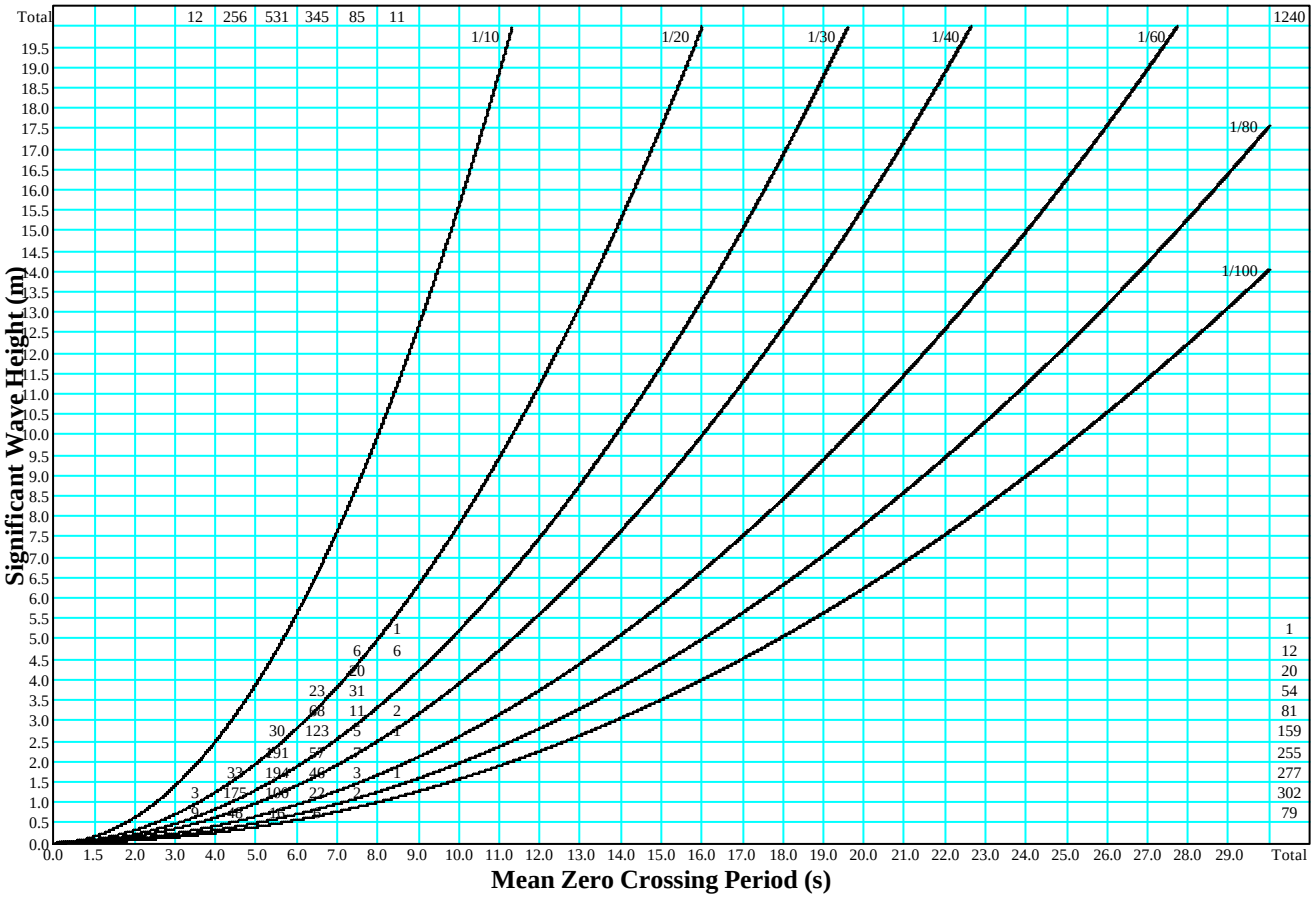
UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B3.36 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_JULY_94-99

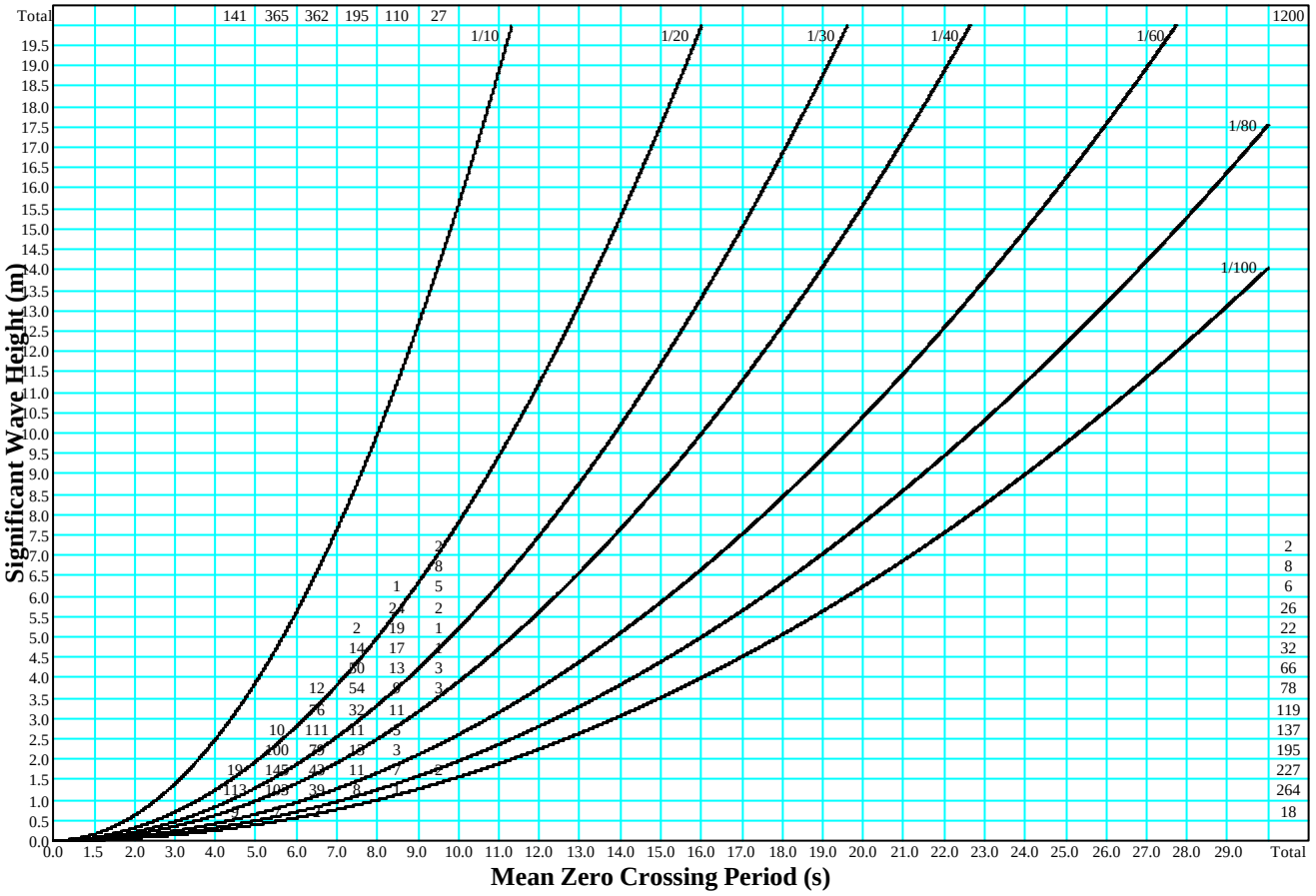
Figure B3.37 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_AUGUST_94-99

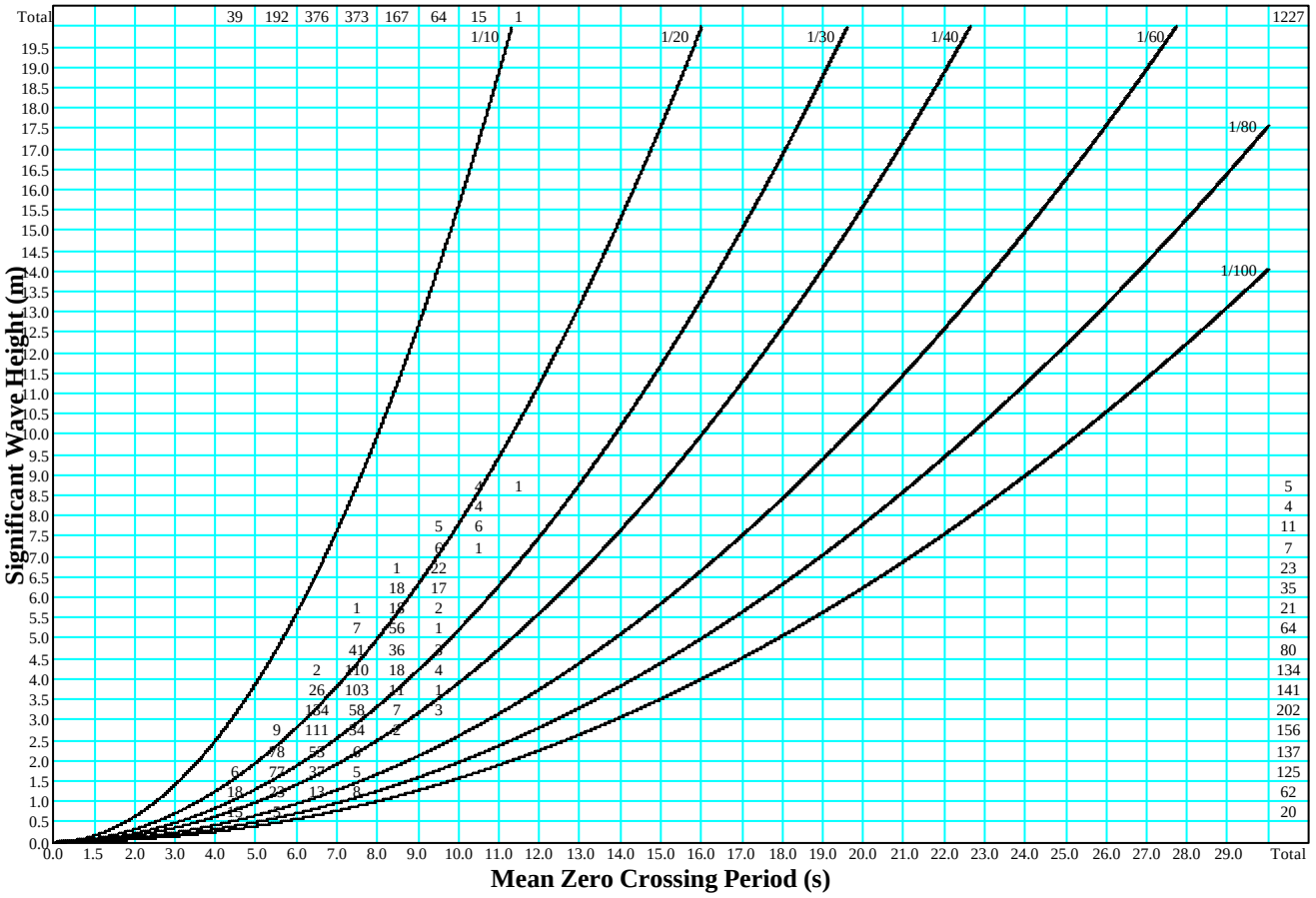
UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B3.38 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_SEPTEMBER_94-99

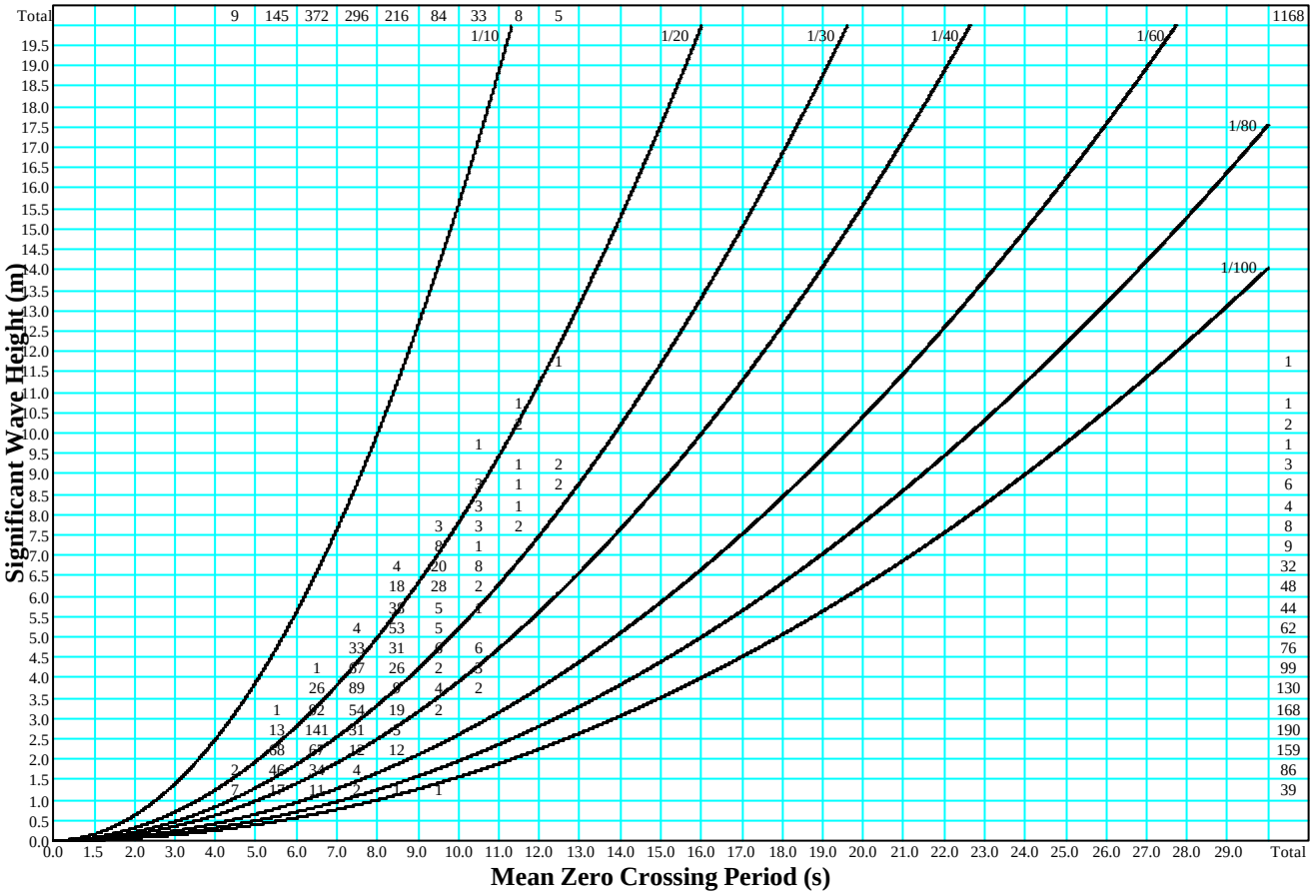
Figure B3.39 **Total Samples 1227**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_OCTOBER_94-99

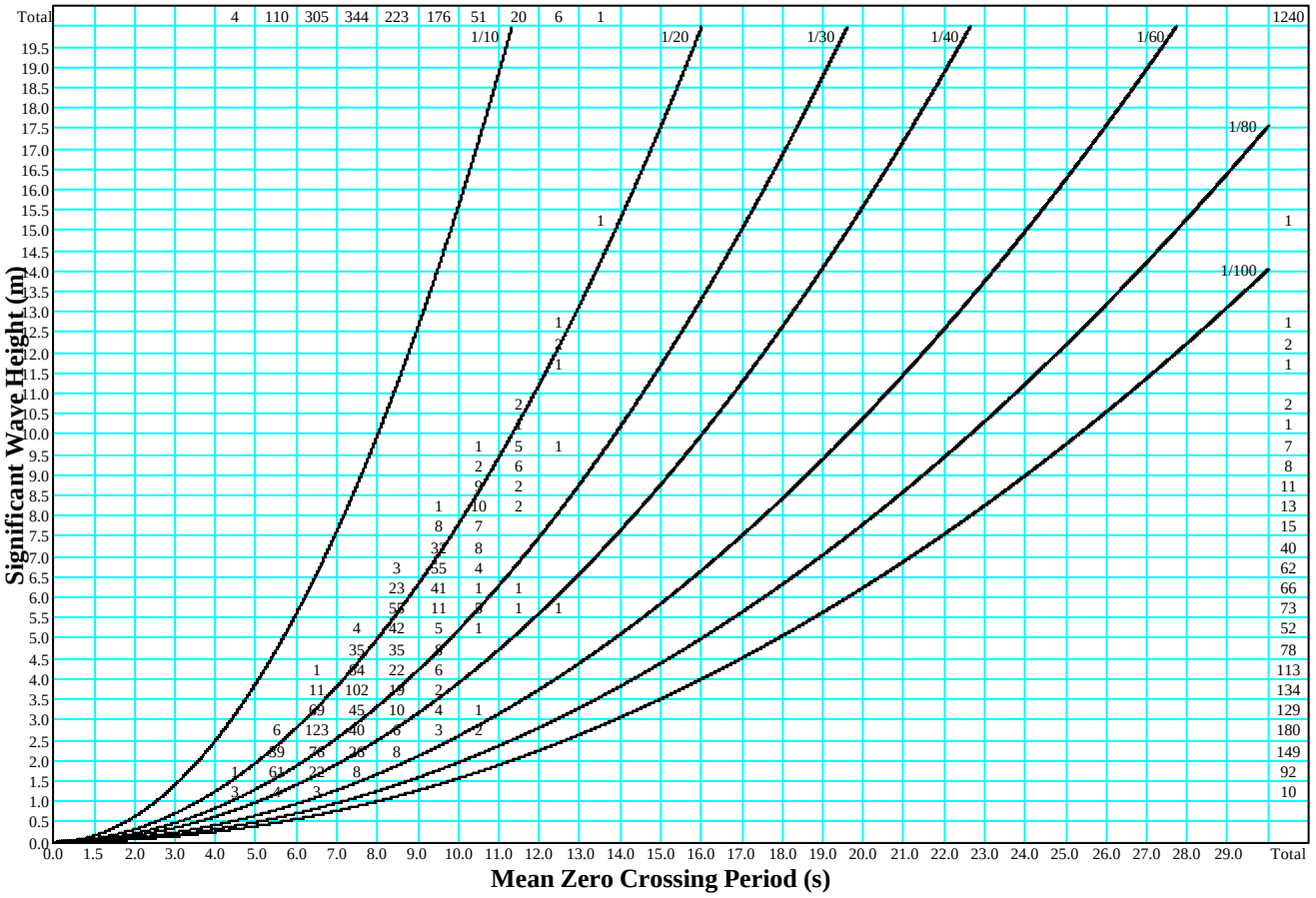
UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B3.40 **Total Samples 1168**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_NOVEMBER_94-99

Figure B3.41 **Total Samples 1240**

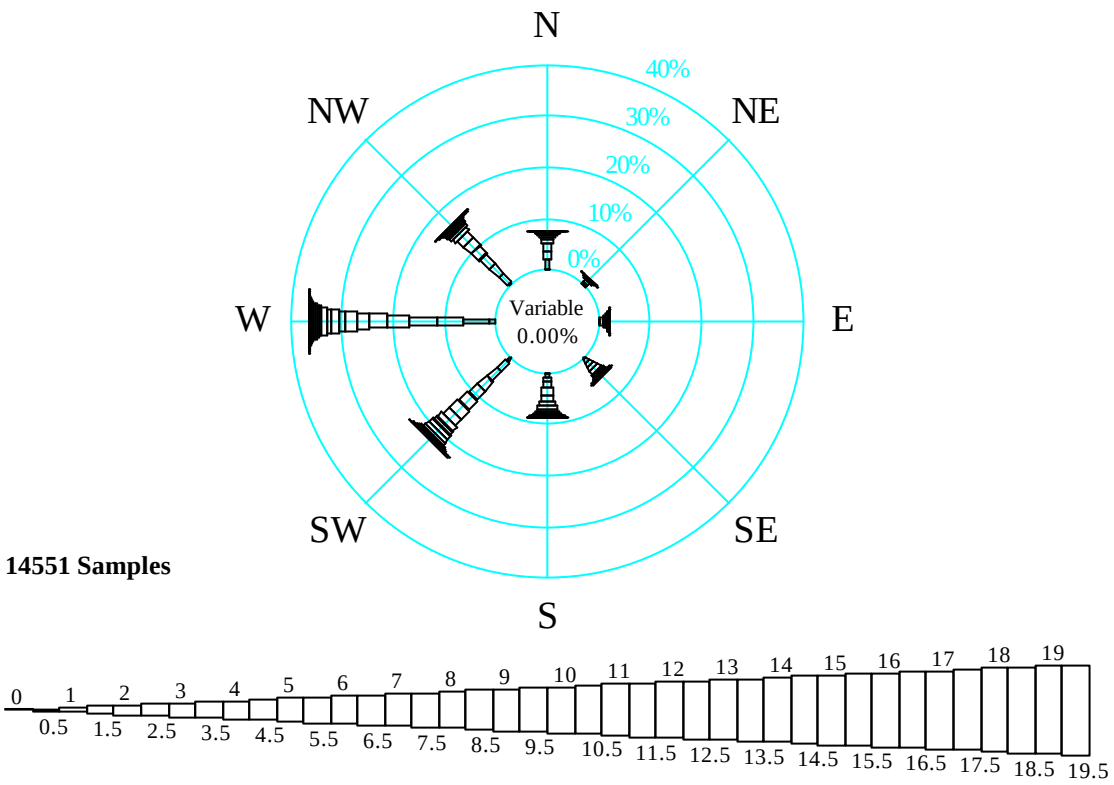


V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM3.mdb~F2S_GP3_Hs/Tz_DECEMBER_94-99

UKMO GWM 3 : 54.50°N, 11.66°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

APPENDIX B-4

Figure B4.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_ALLYEAR_5/94-4/99

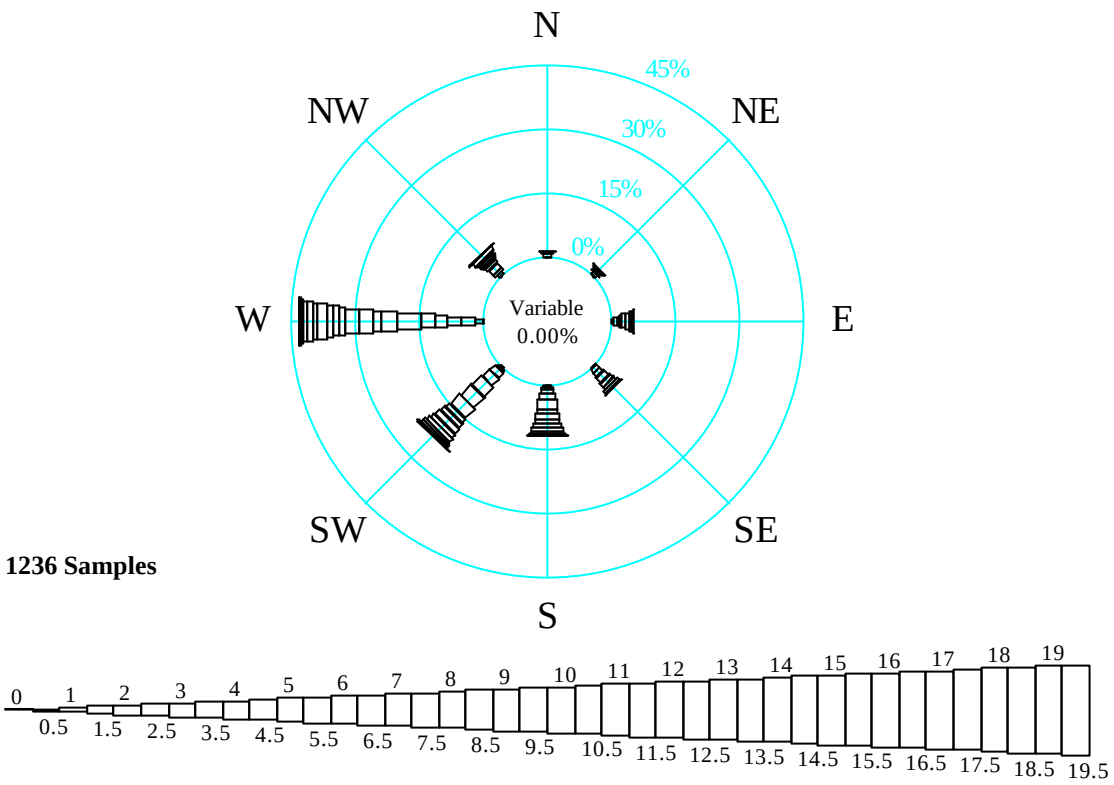
Figure B4.2

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										14551
0.5	42	4	11	21	25	140	218	65	526	14551
1.0	232	50	37	118	91	351	701	335	1915	14025
1.5	246	86	60	149	136	363	733	350	2123	12110
2.0	212	46	51	110	197	347	809	389	2161	9987
2.5	108	23	43	120	217	341	623	287	1762	7826
3.0	103	19	29	63	168	355	494	286	1517	6064
3.5	56	9	32	45	126	332	380	239	1219	4547
4.0	33	2	11	35	89	261	294	115	840	3328
4.5	14	2	9	28	58	170	187	90	558	2488
5.0	12	1	7	22	49	137	213	68	509	1930
5.5	11		1	10	27	128	154	49	380	1421
6.0	5		1	1	24	107	125	40	303	1041
6.5	5				19	86	99	28	237	738
7.0	4				18	51	61	17	151	501
7.5	1				8	29	55	10	103	350
8.0					1	19	39	9	68	247
8.5	1				9	12	34	4	60	179
9.0					1	7	27	2	37	119
9.5						6	23	4	33	82
10.0						7	13	1	21	49
10.5						5	8		13	28
11.0						1	4		5	15
11.5							3		3	10
12.0						1	2		3	7
12.5							1		1	4
13.0							1		1	3
13.5							1		1	2
14.0							1		1	1
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	1085	242	292	722	1263	3256	5303	2388	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_ALLYEAR_5/94-4/99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : All Year

Figure B4.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_JANUARY_94-99

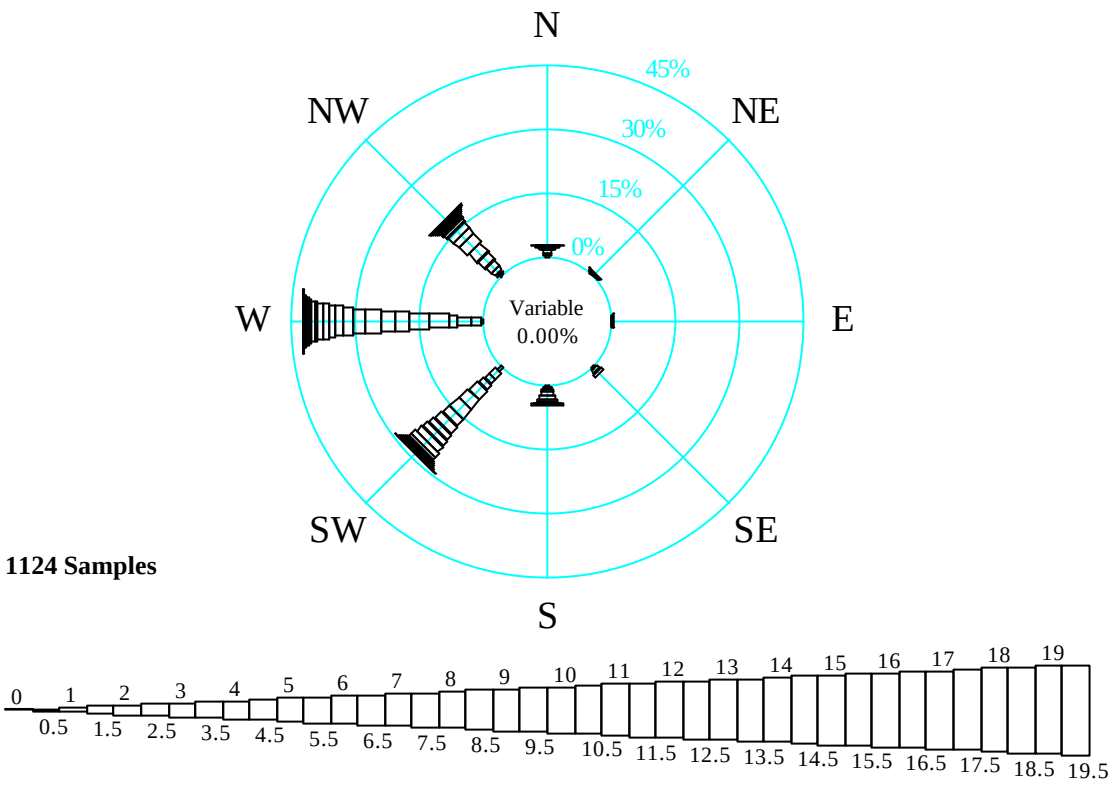
Figure B4.4

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1236
0.5						1	2		3	1236
1.0	1	3	6	1	1	3	21	3	39	1233
1.5	7	7	12	14		2	39	7	88	1194
2.0	2	6	6	14	5	4	40	9	86	1106
2.5		5	7	21	3	21	39	18	114	1020
3.0	4	3	8	13	14	29	40	10	121	906
3.5	1	1	12	10	19	39	69	4	155	785
4.0			7	7	25	44	44	7	134	630
4.5			4	2	16	38	25	8	93	496
5.0			1	1	15	16	41	6	80	403
5.5					12	18	38	12	80	323
6.0					11	19	19		49	243
6.5					14	15	18	1	48	194
7.0					5	13	16	1	35	146
7.5					5	8	29		42	111
8.0						7	13		20	69
8.5					1	3	14		18	49
9.0					1	2	13		16	31
9.5						1	8		9	15
10.0							4		4	6
10.5							2		2	2
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	15	25	63	83	147	283	534	86	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_JANUARY_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : January

Figure B4.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_FEBRUARY_94-99

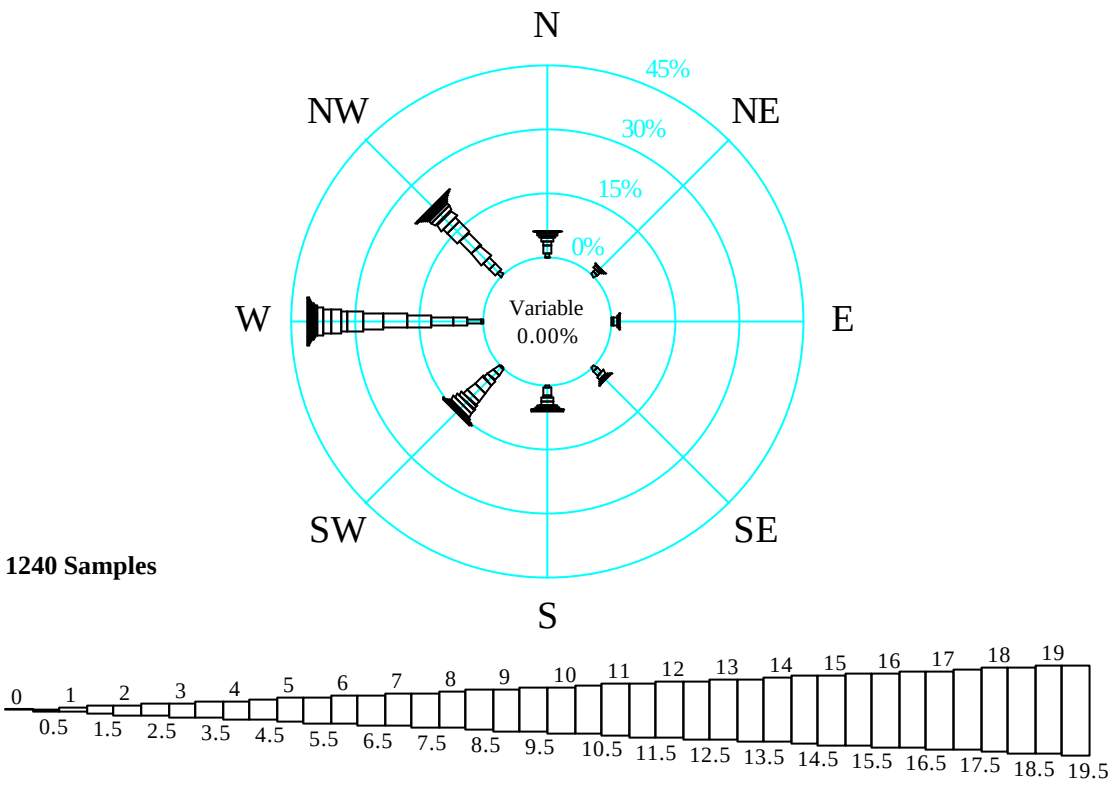
Figure B4.6

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1124
0.5										1124
1.0	7			5	3	13	7	5	40	1124
1.5	4	3		8	2	24	25	6	72	1084
2.0	9	1	1	2	3	16	35	14	81	1012
2.5	1	2	2	7	10	18	20	21	81	931
3.0	2	1	1		9	33	55	25	126	850
3.5	1	1			12	34	50	32	130	724
4.0	4				4	31	40	28	107	594
4.5					3	25	38	19	85	487
5.0	1				2	27	41	23	94	402
5.5	1					18	28	9	56	308
6.0					2	19	29	9	59	252
6.5					1	19	19	4	43	193
7.0	1					16	20	3	40	150
7.5						8	16	3	27	110
8.0						6	15	3	24	83
8.5						2	6	3	11	59
9.0						3	8	1	12	48
9.5						3	5	2	10	36
10.0						4	5		9	26
10.5						2	5		7	17
11.0						1	2		3	10
11.5							2		2	7
12.0						1	1		2	5
12.5										3
13.0							1		1	3
13.5							1		1	2
14.0							1		1	1
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	31	8	4	22	51	323	475	210	1124	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_FEBRUARY_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : February

Figure B4.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_MARCH_94-99

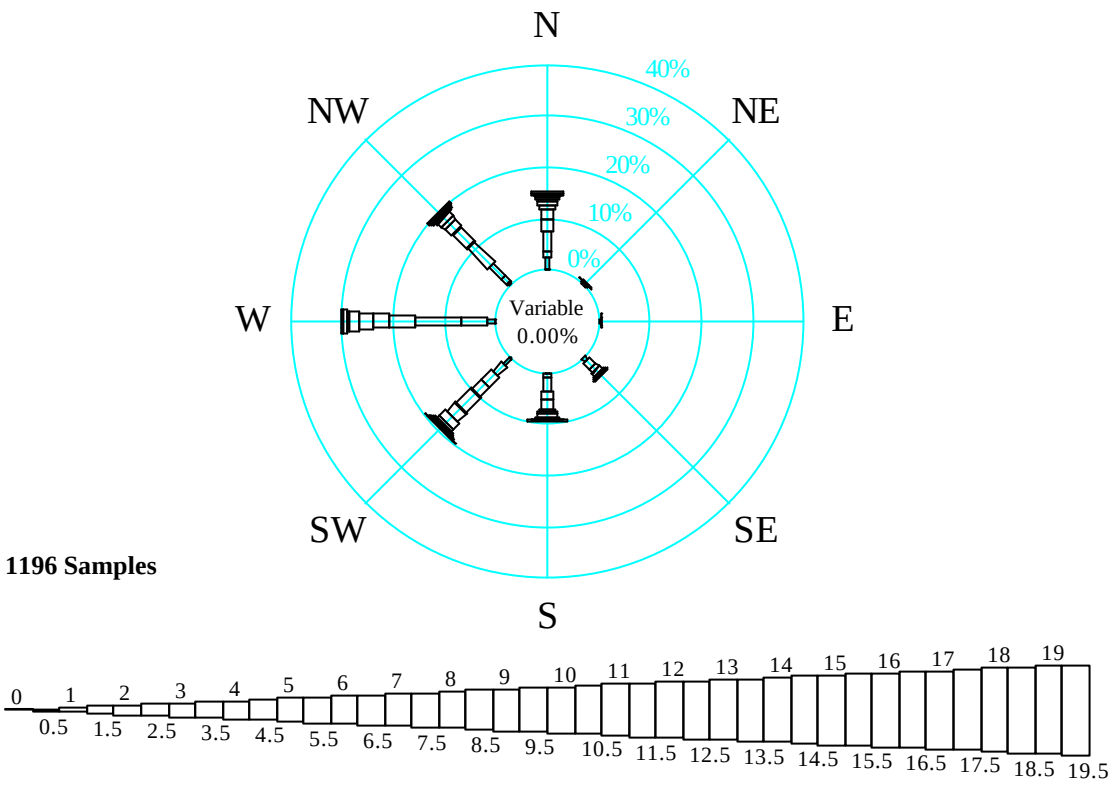
Figure B4.8

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	2						6		8	1240
1.0	10	10		12	5	3	38	15	93	1232
1.5	25	10	8	17	23	21	40	23	167	1139
2.0	10	8	8	12	7	19	66	26	156	972
2.5	9	2	4	5	11	17	71	45	164	816
3.0	4	1	2	4	14	30	70	49	174	652
3.5	4		2	2	1	28	54	41	132	478
4.0	4			1	3	15	47	18	88	346
4.5	5				2	13	22	21	63	258
5.0	1				1	13	25	15	55	195
5.5	2					14	27	10	53	140
6.0	1				3	4	13	7	28	87
6.5					2	3	9	4	18	59
7.0					3	2	4	5	14	41
7.5						1	3		4	27
8.0						2	4	1	7	23
8.5						2	4	1	7	16
9.0							2	1	3	9
9.5							1	2	3	6
10.0							2	1	3	3
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	77	31	24	53	75	187	508	285	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_MARCH_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : March

Figure B4.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_APRIL_94-99

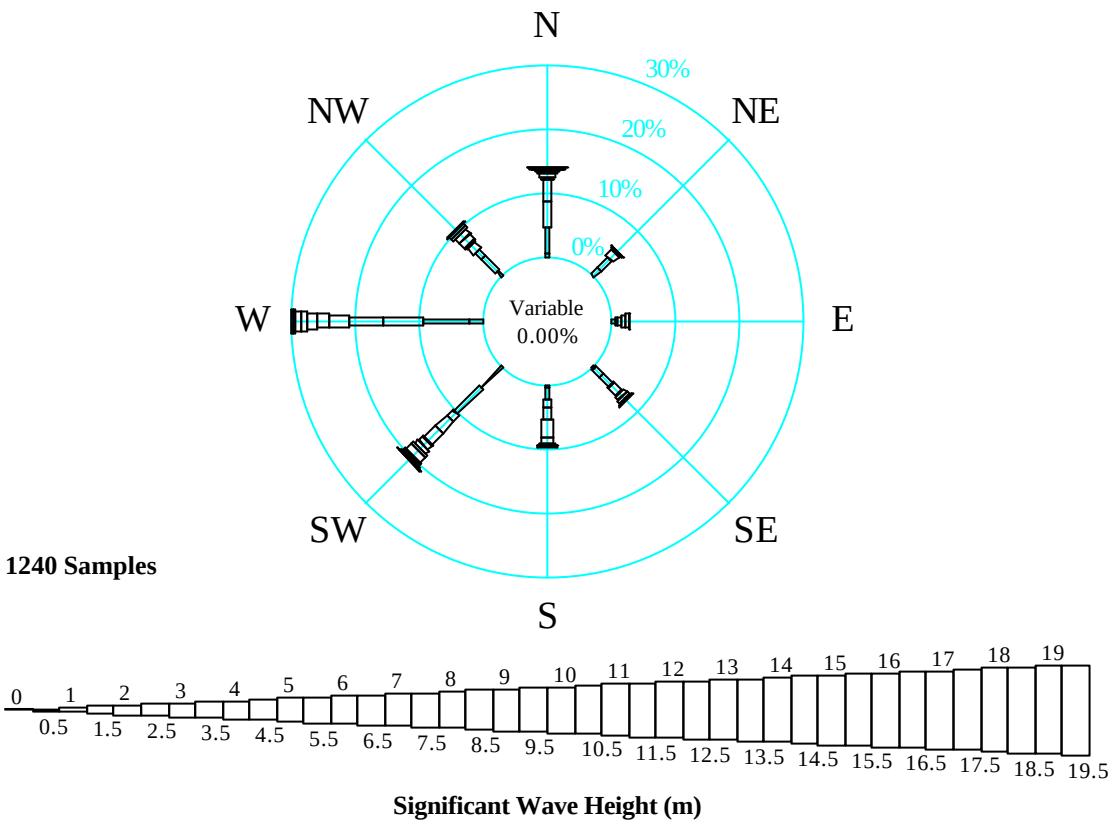
Figure B4.10

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1196
0.5	3					2	2	7	14	1196
1.0	27	1	4	10	1	20	20	19	102	1182
1.5	13	3		20	11	30	60	39	176	1080
2.0	45	3	1	10	30	33	106	68	296	904
2.5	29			11	21	31	62	45	199	608
3.0	26		1	2	21	49	37	22	158	409
3.5	9	1		3	8	29	30	11	91	251
4.0	7			2	5	19	27	11	71	160
4.5	5				8	7	4	5	29	89
5.0	5				5	5	7	1	23	60
5.5	4					1	4	1	10	37
6.0	2					2		5	9	27
6.5	4							4	8	18
7.0	2				1	1			4	10
7.5						3			3	6
8.0						1			1	3
8.5					1				1	2
9.0						1			1	1
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	181	8	6	58	112	234	359	238	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_APRIL_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : April

Figure B4.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_MAY_94-99

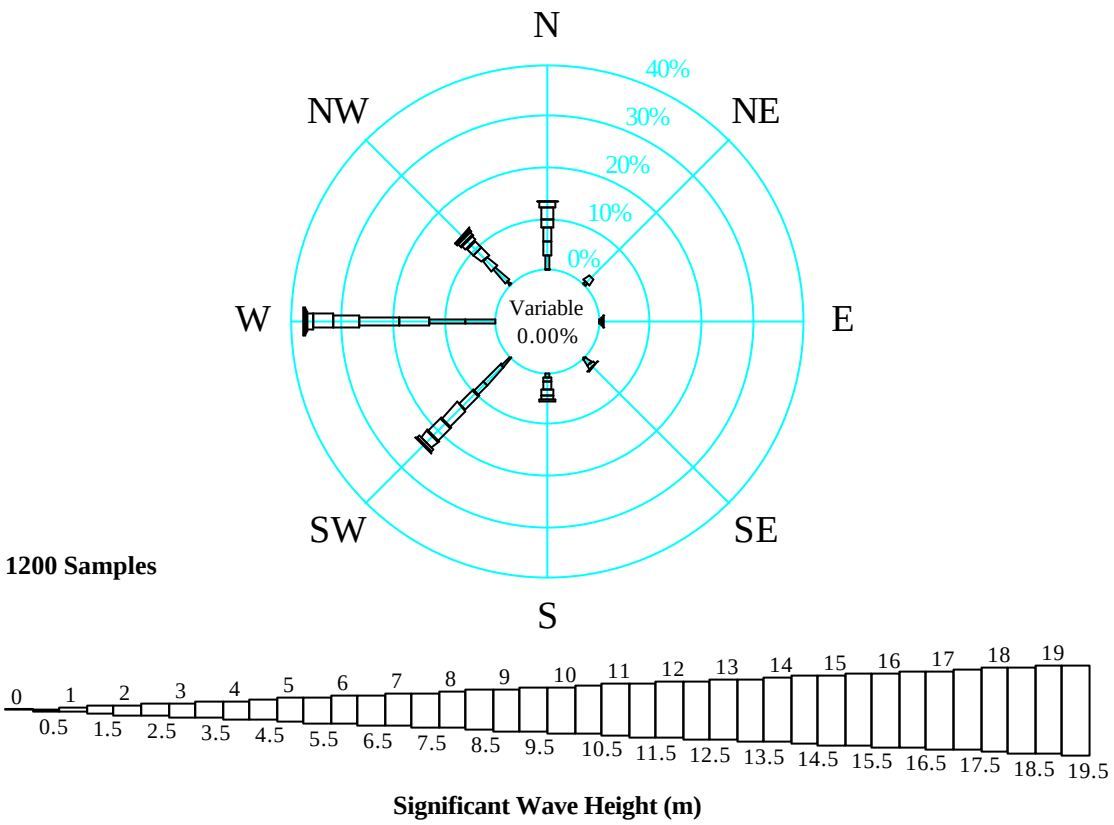
Figure B4.12

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	9			3	5	57	28	12	114	1240
1.0	47	19	8	21	23	69	87	40	314	1126
1.5	53	27	4	26	14	16	80	15	235	812
2.0	40	16	7	22	23	30	63	18	219	577
2.5	3	3	7	9	34	32	40	2	130	358
3.0	4	1	7	7	13	11	21	15	79	228
3.5	7	1	3	1	5	9	21	12	59	149
4.0	3			2	1	6	12	5	29	90
4.5	1				1	14	12	6	34	61
5.0	1					6	5	3	15	27
5.5	1					1	2		4	12
6.0						2			2	8
6.5	1					1			2	6
7.0	1					1			2	4
7.5	1								1	2
8.0										1
8.5	1								1	1
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	173	67	36	91	119	255	371	128	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_MAY_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : May

Figure B4.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_JUNE_94-99

Figure B4.14

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1200
0.5	3	2	3	3		28	71	12	122	1200
1.0	31	7	4	18	11	57	87	43	258	1078
1.5	32	16	2	9	8	32	69	31	199	820
2.0	35				19	45	93	26	218	621
2.5	19		1		16	53	63	20	172	403
3.0	27			2	8	44	45	14	140	231
3.5	12				7	22	12	10	63	91
4.0	2					7	5	6	20	28
4.5						2	1	1	4	8
5.0							2		2	4
5.5										2
6.0							2		2	2
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
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17.0										
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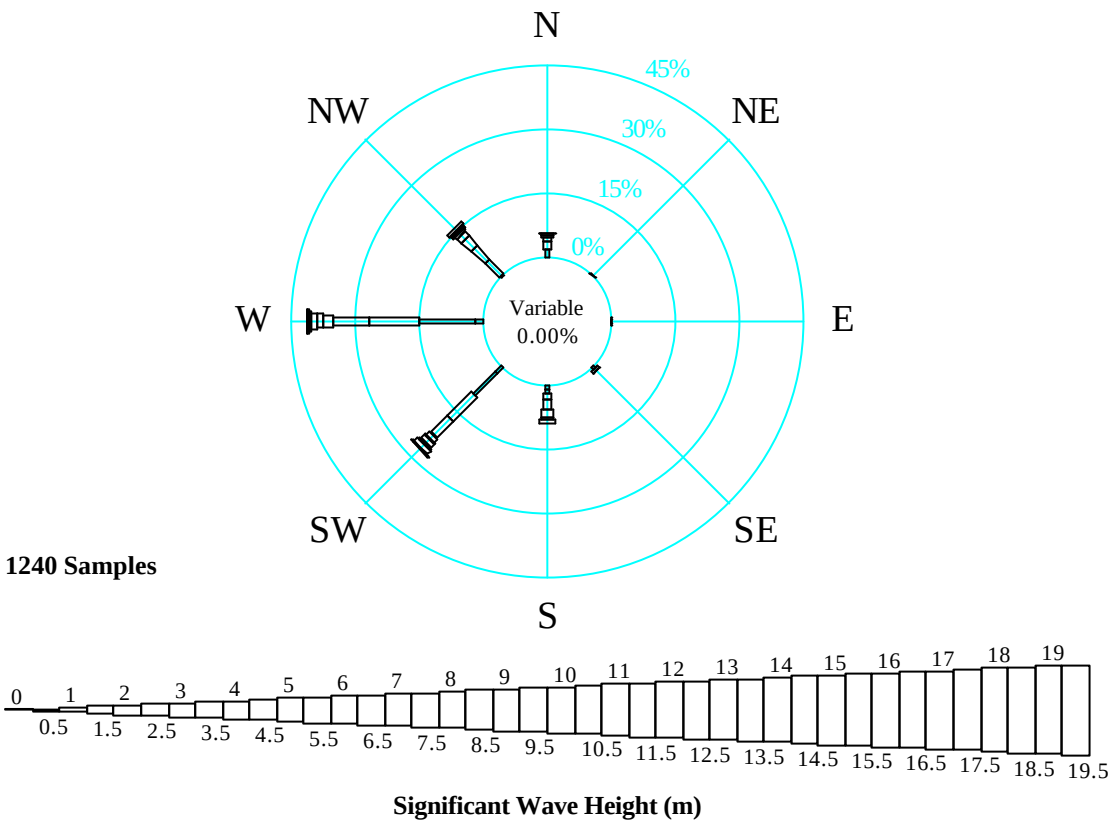
19.0										
19.5										
20.0										
Total	161	25	10	32	69	290	450	163	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_JUNE_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : June

Figure B4.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_JULY_94-99

Figure B4.16

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5				6	10	24	20	1	61	1240
1.0	24		1	1	13	90	166	59	354	1179
1.5	22	3	1	7	16	99	143	54	345	825
2.0	9			2	31	66	104	36	248	480
2.5	7				23	18	30	17	95	232
3.0	5				6	16	19	10	56	137
3.5	3				11	6	15	5	40	81
4.0						14	7	7	28	41
4.5						2	3	4	9	13
5.0						1	2		3	4
5.5							1		1	1
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
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14.5										
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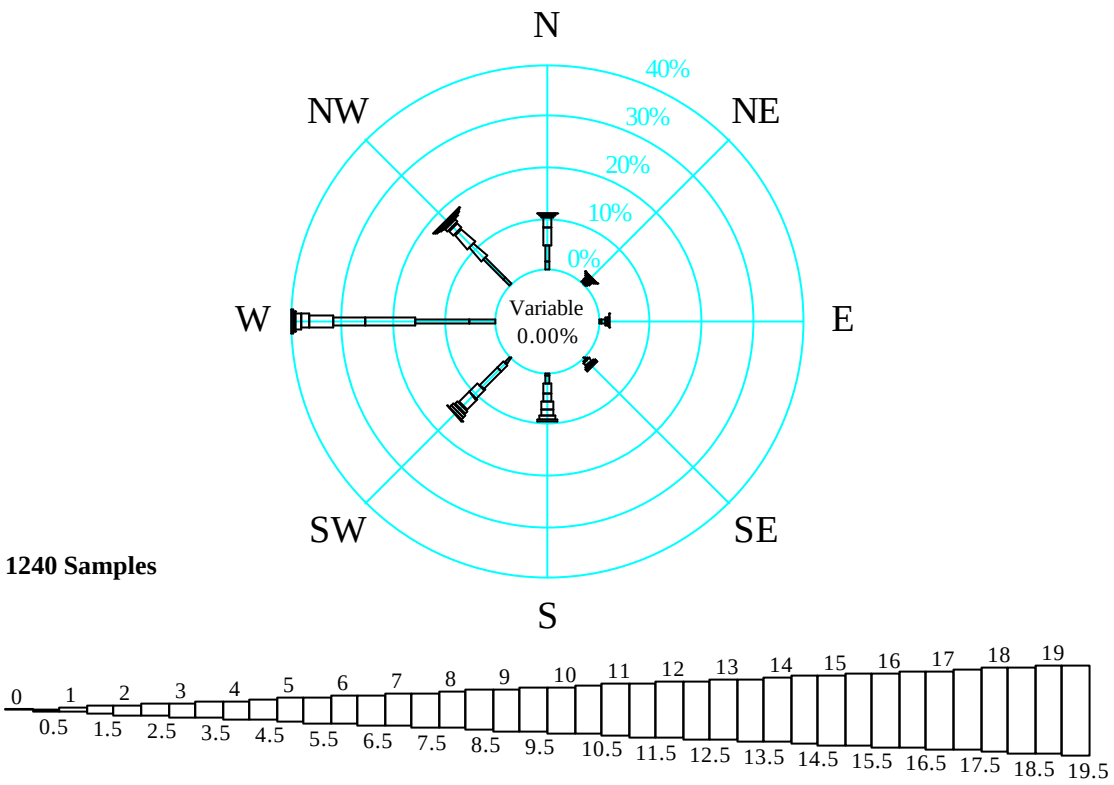
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	70	3	2	16	110	336	510	193	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_JULY_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : July

Figure B4.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_AUGUST_94-99

Figure B4.18

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	20	2	8	6	5	18	65	23	147	1240
1.0	39	2	8	4	19	23	129	68	292	1093
1.5	44	7	4	9	26	60	120	45	315	801
2.0	23	7	5	4	18	29	81	45	212	486
2.5	6	3		3	21	34	57	19	143	274
3.0	1	3	1	2	15	11	19	9	61	131
3.5	2	1			9	10	12	1	35	70
4.0	2	1			3	5	4	1	16	35
4.5						2	4	1	7	19
5.0							2		2	12
5.5								2	2	10
6.0								2	2	8
6.5								2	2	6
7.0										4
7.5								2	2	4
8.0								2	2	2
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
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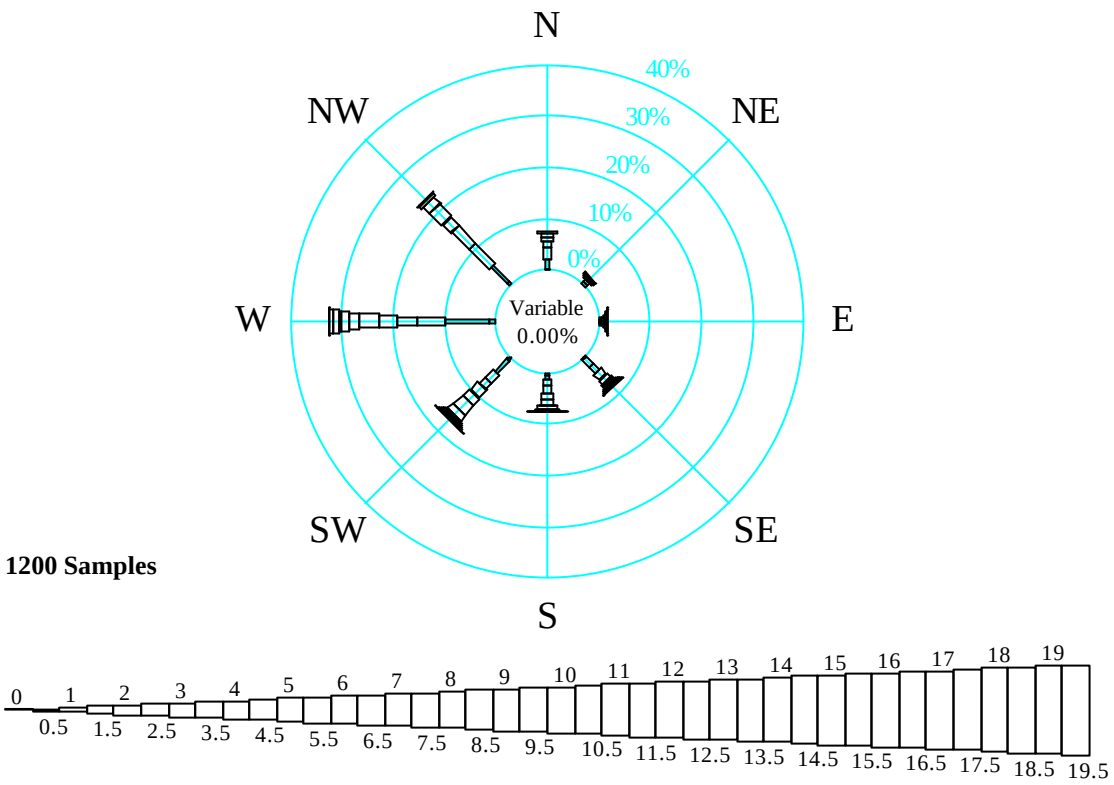
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	137	26	26	28	116	192	493	222	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_AUGUST_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : August

Figure B4.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_SEPTEMBER_94-99

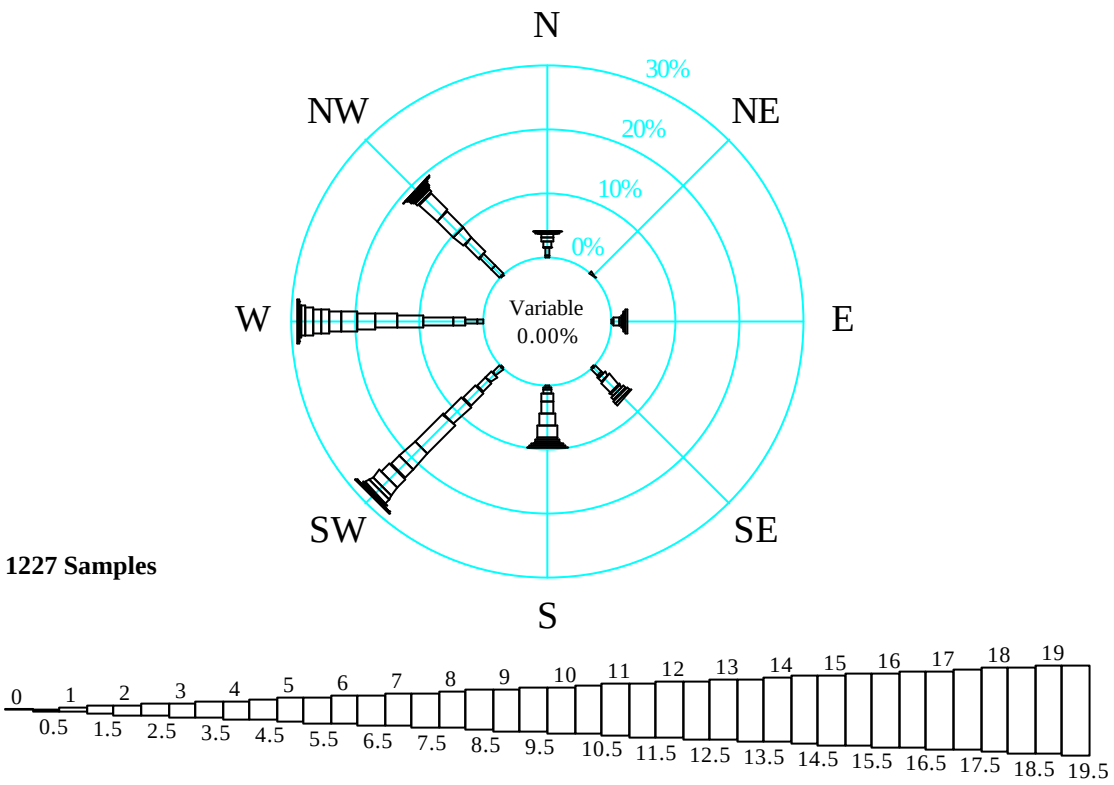
Figure B4.20

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1200
0.5	1			1	5	8	14	9	38	1200
1.0	26	7	1	25	10	40	106	53	268	1162
1.5	28	5	5	19	16	27	63	65	228	894
2.0	11	4	7	19	17	20	50	58	186	666
2.5	12	2	3	13	16	26	40	27	139	480
3.0	9	3	1	7	12	20	48	41	141	341
3.5		2	1	5	2	31	24	21	86	200
4.0	1		1	1	6	17	15	8	49	114
4.5				1	3	4	9	2	19	65
5.0				3		1	14		18	46
5.5			1	1	3	2	6		13	28
6.0			1	1	1	4	1		8	15
6.5						2			2	7
7.0						1			1	5
7.5					1	1			2	4
8.0										2
8.5					1	1			2	2
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	88	23	21	96	93	205	390	284	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_SEPTEMBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : September

Figure B4.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_OCTOBER_94-99

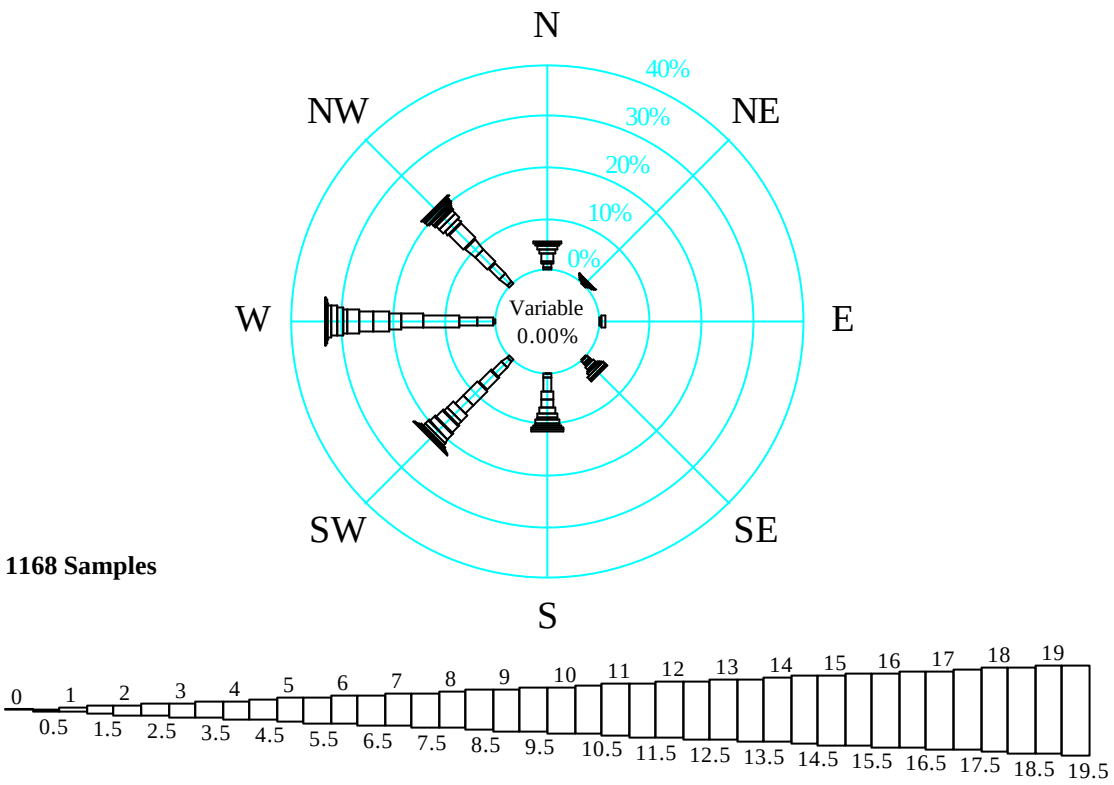
Figure B4.22

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1227
0.5	4			2		2	10	1	19	1227
1.0	14		5	16	3	18	24	22	102	1208
1.5	1	3	9	5	4	16	25	32	95	1106
2.0	11		6	9	10	24	54	38	152	1011
2.5	9		2	28	15	35	53	25	167	859
3.0	5		1	7	22	48	42	44	169	692
3.5	2		1	7	21	75	33	47	186	523
4.0				7	23	42	30	7	109	337
4.5	1		4	3	6	22	22	4	62	228
5.0	1		4		5	23	16	2	51	166
5.5	1				2	19	18	4	44	115
6.0	1				1	8	13	3	26	71
6.5						10	7	3	20	45
7.0					3	5	4	1	13	25
7.5					2	1			3	12
8.0								1	1	9
8.5					1		2		3	8
9.0										5
9.5						1	2		3	5
10.0						1			1	2
10.5						1			1	1
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	50	3	32	84	118	351	355	234	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_OCTOBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : October

Figure B4.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_NOVEMBER_94-99

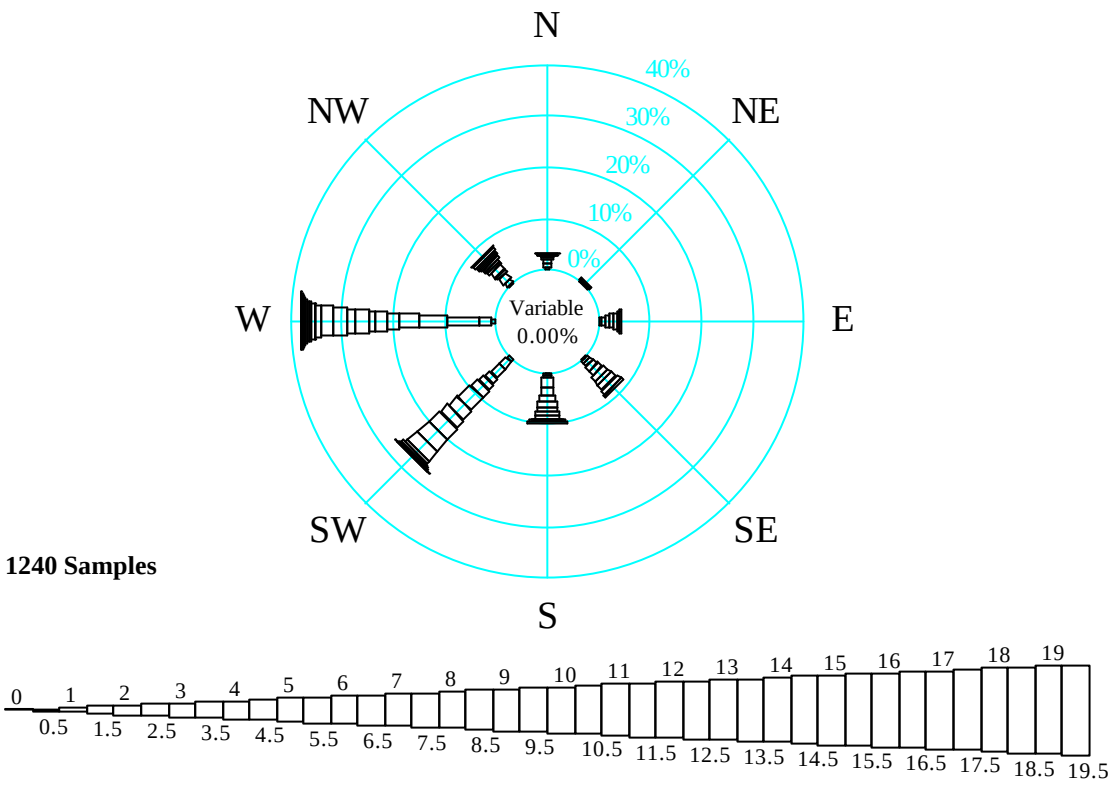
Figure B4.24

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1168
0.5										1168
1.0		1		2	1	7	7	6	24	1168
1.5	5	2	7	9	12	14	37	22	108	1144
2.0	8			6	28	32	40	34	148	1036
2.5	8	2	8	9	22	39	80	40	208	888
3.0	15	2		5	16	46	52	31	167	680
3.5	12	2		2	15	26	29	48	134	513
4.0	9	1		5	6	20	36	12	89	379
4.5	1	2		8	7	11	32	12	73	290
5.0	2	1		5	10	21	24	11	74	217
5.5	2				5	18	10	5	40	143
6.0	1				4	11	15	6	37	103
6.5					2	5	15	5	27	66
7.0					4	5	5	7	21	39
7.5						1	3	5	9	18
8.0						1	1	2	4	9
8.5						1			1	5
9.0										4
9.5							1		1	4
10.0						2	1		3	3
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	63	13	15	51	132	260	388	246	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_NOVEMBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : November

Figure B4.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_DECEMBER_94-99

Figure B4.26

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5										1240
1.0	6			3	1	8	9	2	29	1240
1.5	12		8	6	4	22	32	11	95	1211
2.0	9	1	10	10	6	29	77	17	159	1116
2.5	5	4	9	14	25	17	68	8	150	957
3.0	1	5	7	14	18	18	46	16	125	807
3.5	3		13	15	16	23	31	7	108	682
4.0	1		3	10	13	41	27	5	100	574
4.5	1		1	14	12	30	15	7	80	474
5.0	1		2	13	11	24	34	7	92	394
5.5				9	5	37	20	6	77	302
6.0					2	38	33	8	81	225
6.5						31	31	5	67	144
7.0					2	7	12		21	77
7.5						6	4		10	56
8.0					1	2	6		9	46
8.5					5	3	8		16	37
9.0						1	4		5	21
9.5						1	6		7	16
10.0							1		1	9
10.5						2	1		3	8
11.0							2		2	5
11.5							1		1	3
12.0							1		1	2
12.5							1		1	1
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	39	10	53	108	121	340	470	99	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_HS/WVD_DECEMBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Wave Rose and Frequency Table : December

UKMO GWM 4 (51.50°N, 12.46°W)

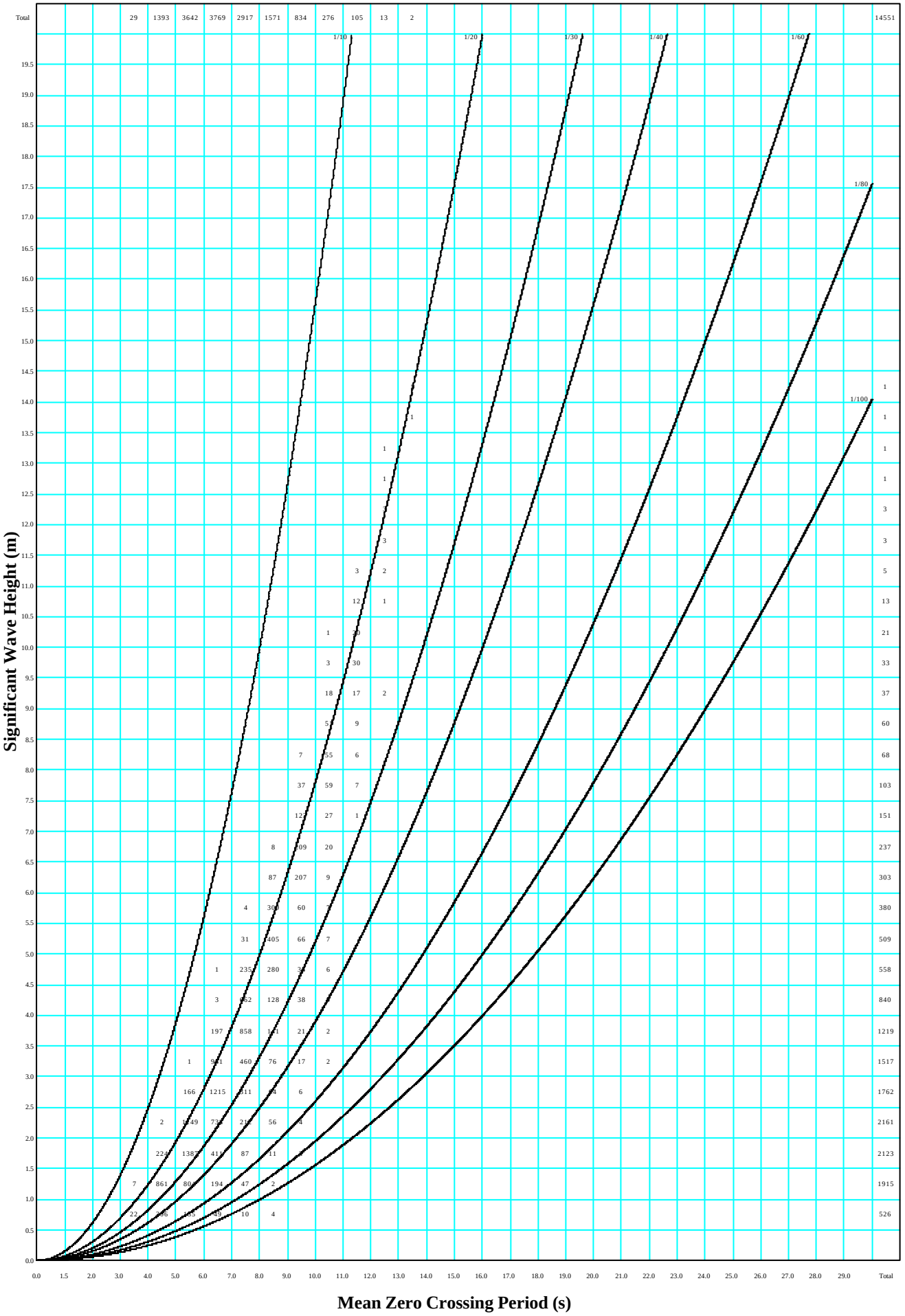
Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.0	99.76	100.00	99.35	98.83	90.81	89.83	95.08	88.15	96.83	98.45	100.00	100.00	96.39
1.5	96.60	96.44	91.85	90.30	65.48	68.33	66.53	64.60	74.50	90.14	97.95	97.66	83.22
2.0	89.48	90.04	78.39	75.59	46.53	51.75	38.71	39.19	55.50	82.40	88.70	90.00	68.63
2.5	82.52	82.83	65.81	50.84	28.87	33.58	18.71	22.10	40.00	70.01	76.03	77.18	53.78
3.0	73.30	75.62	52.58	34.20	18.39	19.25	11.05	10.56	28.42	56.40	58.22	65.08	41.67
3.5	63.51	64.41	38.55	20.99	12.02	7.58	6.53	5.65	16.67	42.62	43.92	55.00	31.25
4.0	50.97	52.85	27.90	13.38	7.26	2.33	3.31	2.82	9.50	27.47	32.45	46.29	22.87
4.5	40.13	43.33	20.81	7.44	4.92	0.67	1.05	1.53	5.42	18.58	24.83	38.23	17.10
5.0	32.61	35.77	15.73	5.02	2.18	0.33	0.32	0.97	3.83	13.53	18.58	31.77	13.26
5.5	26.13	27.40	11.29	3.09	0.97	0.17	0.08	0.81	2.33	9.37	12.24	24.35	9.77
6.0	19.66	22.42	7.02	2.26	0.65	0.17	0.00	0.65	1.25	5.79	8.82	18.15	7.15
6.5	15.70	17.17	4.76	1.51	0.48	0.00	0.00	0.48	0.58	3.67	5.65	11.61	5.07
7.0	11.81	13.35	3.31	0.84	0.32	0.00	0.00	0.32	0.42	2.04	3.34	6.21	3.44
7.5	8.98	9.79	2.18	0.50	0.16	0.00	0.00	0.32	0.33	0.98	1.54	4.52	2.41
8.0	5.58	7.38	1.85	0.25	0.08	0.00	0.00	0.16	0.17	0.73	0.77	3.71	1.70
8.5	3.96	5.25	1.29	0.17	0.08	0.00	0.00	0.00	0.17	0.65	0.43	2.98	1.23
9.0	2.51	4.27	0.73	0.08	0.00	0.00	0.00	0.00	0.00	0.41	0.34	1.69	0.82
9.5	1.21	3.20	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.34	1.29	0.56
10.0	0.49	2.31	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.26	0.73	0.34
10.5	0.16	1.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.65	0.19
11.0	0.00	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.10
11.5	0.00	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.07
12.0	0.00	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.05
12.5	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.03
13.0	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
13.5	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mean	**4.32**	**4.50**	**3.33**	**2.74**	**2.11**	**2.08**	**1.92**	**1.90**	**2.38**	**3.30**	**3.58**	**4.10**	**3.01**
Minimum	**0.90**	**1.00**	**0.80**	**0.70**	**0.60**	**0.50**	**0.60**	**0.60**	**0.70**	**0.60**	**1.00**	**1.10**	**0.50**
Maximum	**10.90**	**14.10**	**10.30**	**9.30**	**8.50**	**6.20**	**5.50**	**8.20**	**8.60**	**10.50**	**10.30**	**12.60**	**14.10**

Table B4.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : UKMO GWM 4

Height (m)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.0	96.13	98.35	96.23	97.09	98.02	95.70	95.89	97.28	96.39
1.5	74.75	335.12	83.56	80.75	90.82	84.92	82.67	83.25	83.22
2.0	52.07	233.47	63.01	60.11	80.05	73.77	68.85	68.59	68.63
2.5	32.53	145.87	45.55	44.88	64.45	63.11	53.59	52.30	53.78
3.0	22.58	101.24	30.82	28.25	47.27	52.64	41.84	40.28	41.67
3.5	13.09	58.68	20.89	19.53	33.97	41.74	32.53	28.31	31.25
4.0	7.93	35.54	9.93	13.30	23.99	31.54	25.36	18.30	22.87
4.5	4.88	21.90	6.16	8.45	16.94	23.53	19.82	13.48	17.10
5.0	3.59	16.12	3.08	4.57	12.35	18.30	16.29	9.72	13.26
5.5	2.49	11.16	0.68	1.52	8.47	14.10	12.28	6.87	9.77
6.0	1.47	6.61	0.34	0.14	6.33	10.17	9.37	4.82	7.15
6.5	1.01	4.55	0.00	0.00	4.43	6.88	7.01	3.14	5.07
7.0	0.55	2.48	0.00	0.00	2.93	4.24	5.15	1.97	3.44
7.5	0.18	0.83	0.00	0.00	1.50	2.67	4.00	1.26	2.41
8.0	0.09	0.41	0.00	0.00	0.87	1.78	2.96	0.84	1.70
8.5	0.09	0.41	0.00	0.00	0.79	1.20	2.23	0.46	1.23
9.0	0.00	0.00	0.00	0.00	0.08	0.83	1.58	0.29	0.82
9.5	0.00	0.00	0.00	0.00	0.00	0.61	1.07	0.21	0.56
10.0	0.00	0.00	0.00	0.00	0.00	0.43	0.64	0.04	0.34
10.5	0.00	0.00	0.00	0.00	0.00	0.21	0.40	0.00	0.19
11.0	0.00	0.00	0.00	0.00	0.00	0.06	0.25	0.00	0.10
11.5	0.00	0.00	0.00	0.00	0.00	0.03	0.17	0.00	0.07
12.0	0.00	0.00	0.00	0.00	0.00	0.03	0.11	0.00	0.05
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.03
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.02
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01
Mean	**2.27**	**2.02**	**2.51**	**2.50**	**3.17**	**3.35**	**3.13**	**2.87**	**3.01**
Minimum	**0.60**	**0.60**	**0.60**	**0.60**	**0.60**	**0.50**	**0.50**	**0.50**	**0.50**
Maximum	**8.50**	**5.20**	**6.20**	**6.10**	**9.00**	**12.10**	**14.10**	**10.00**	**14.10**

Table B4.28 - All Year Significant Wave Height - Percentage Exceedence by Direction : UKMO GWM 4

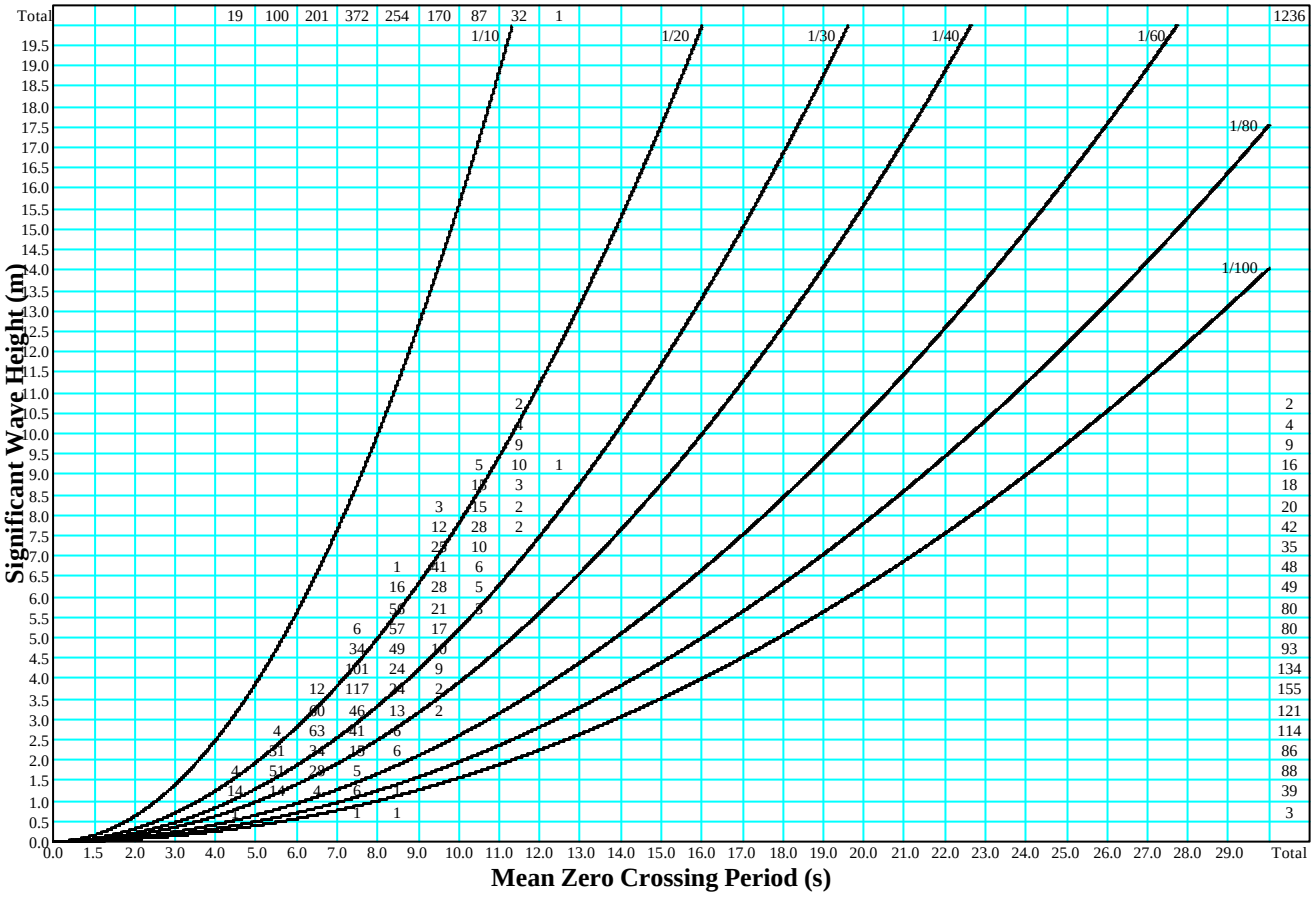
Figure B4.29 **Total Samples 14551**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_ALLYEAR_5/94-4/99

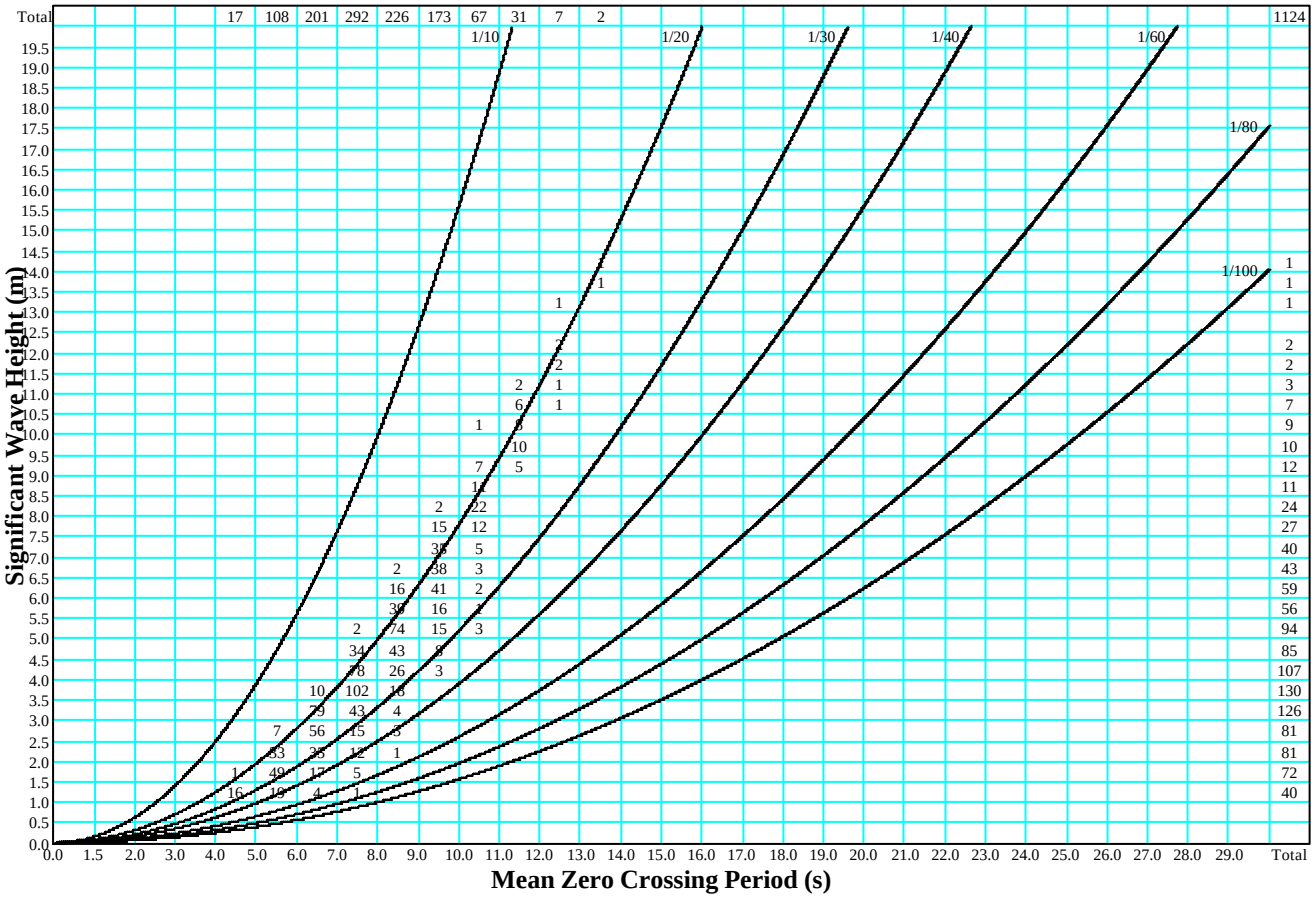
UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B4.30 **Total Samples 1236**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_JANUARY_94-99

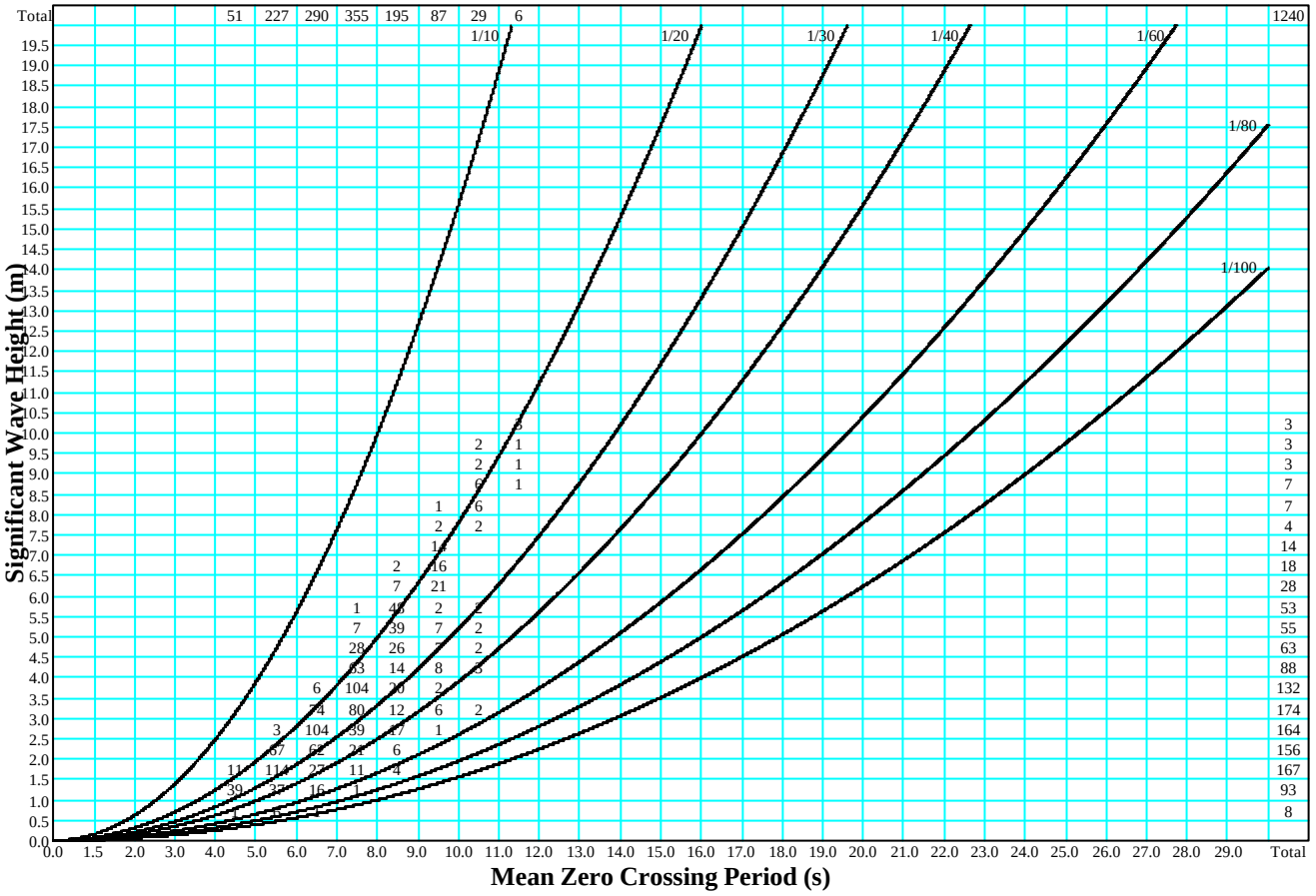
Figure B4.31 **Total Samples 1124**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_FEBRUARY_94-99

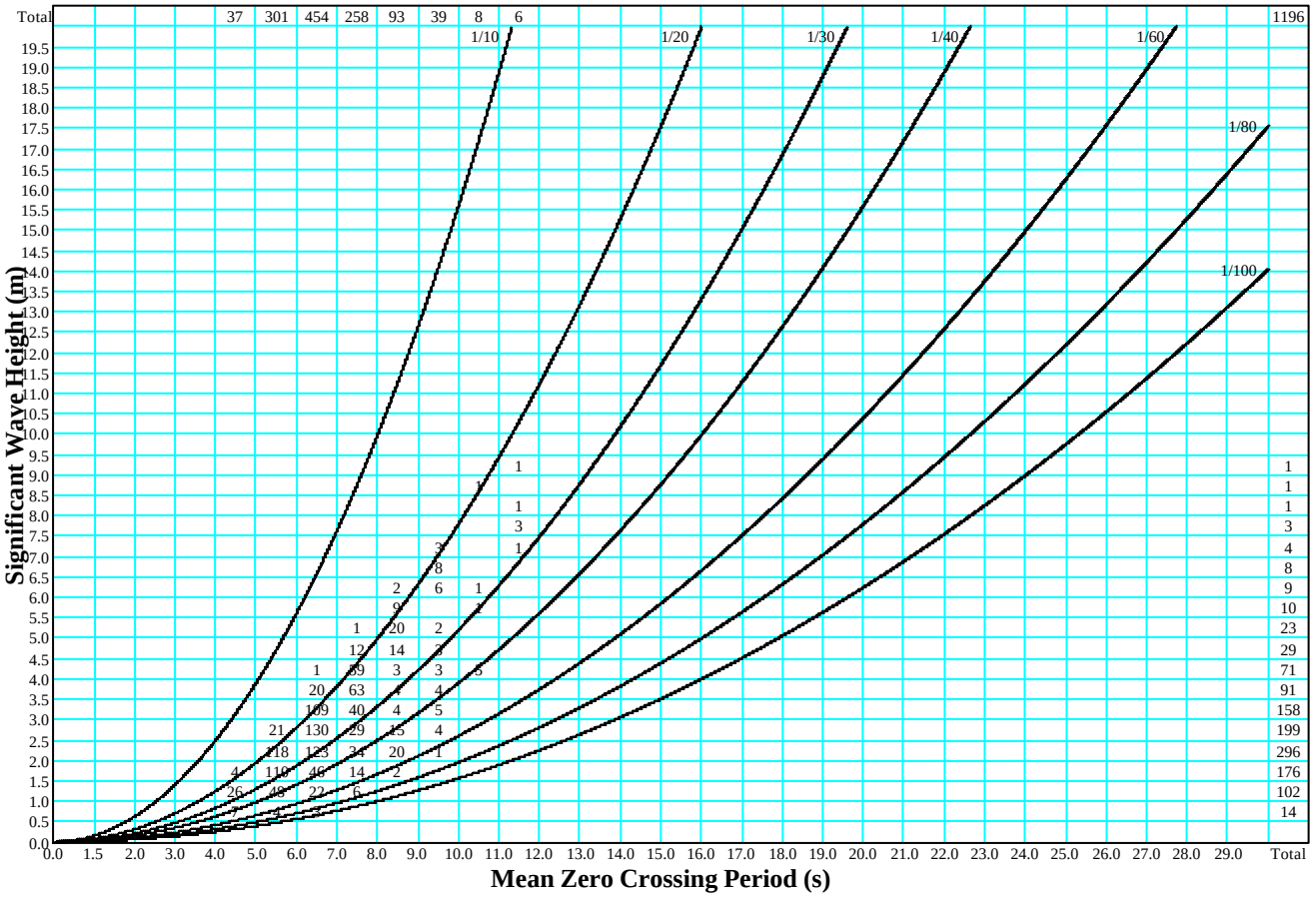
UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B4.32 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_MARCH_94-99

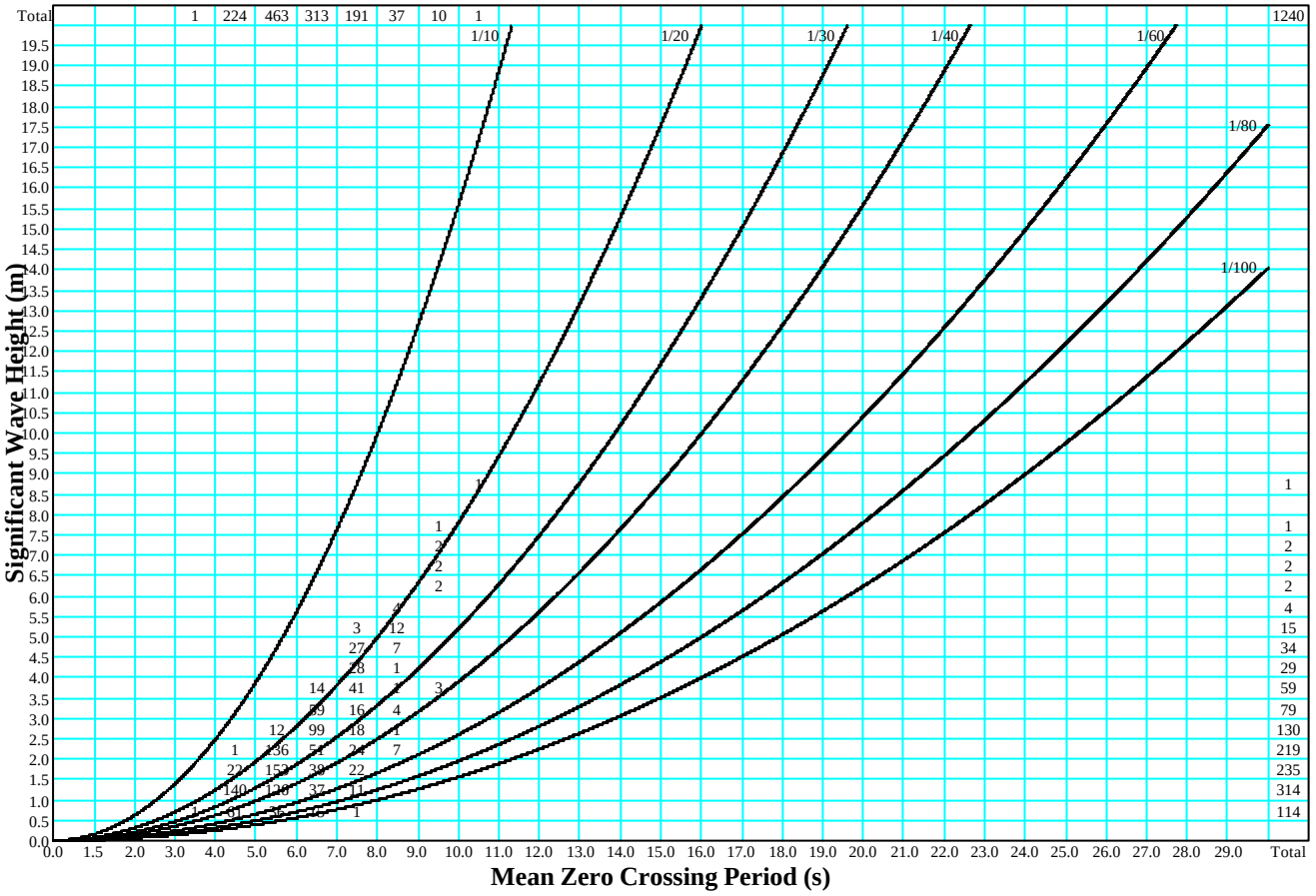
Figure B4.33 **Total Samples 1196**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_APRIL_94-99

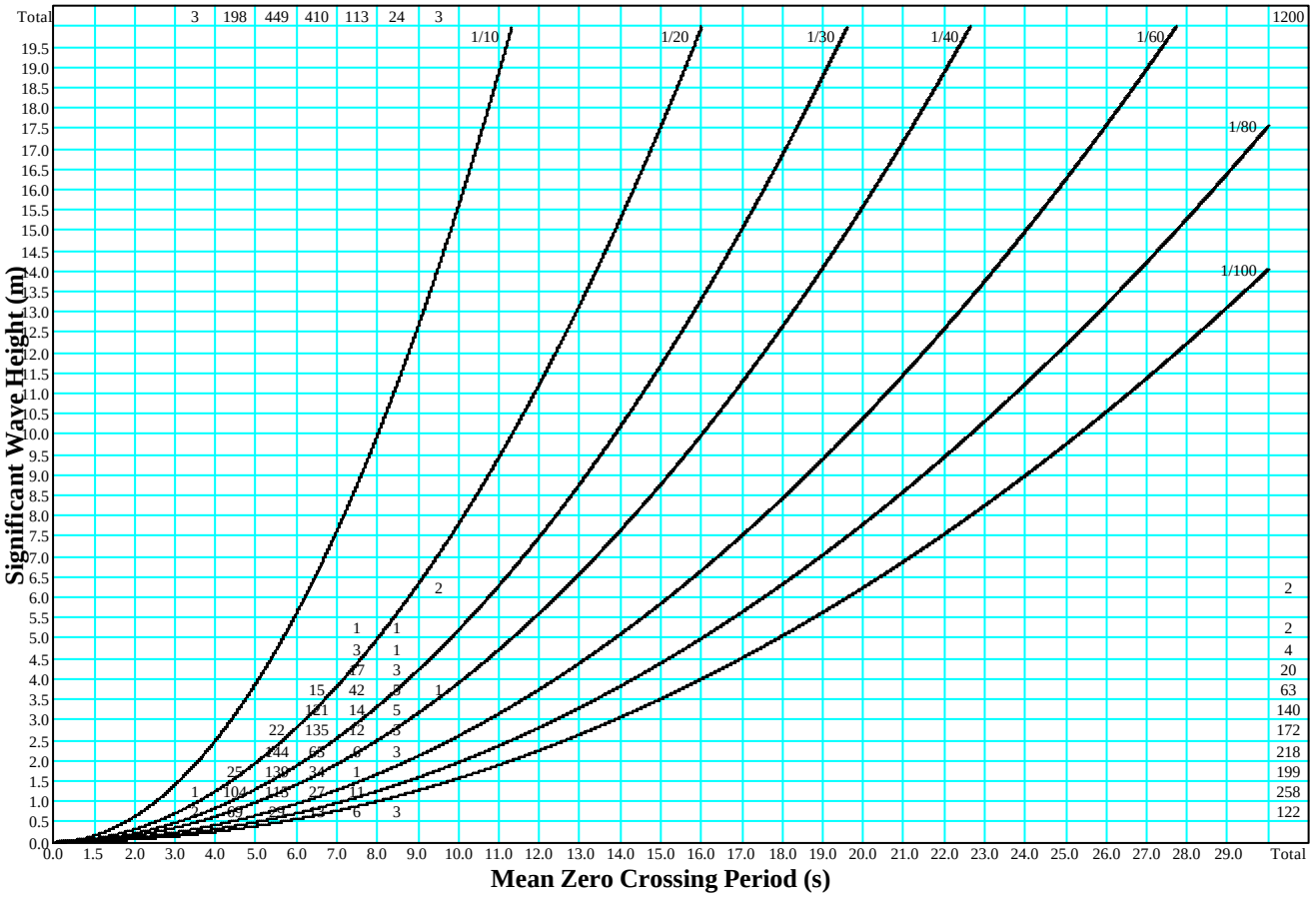
UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B4.34 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_MAY_94-99

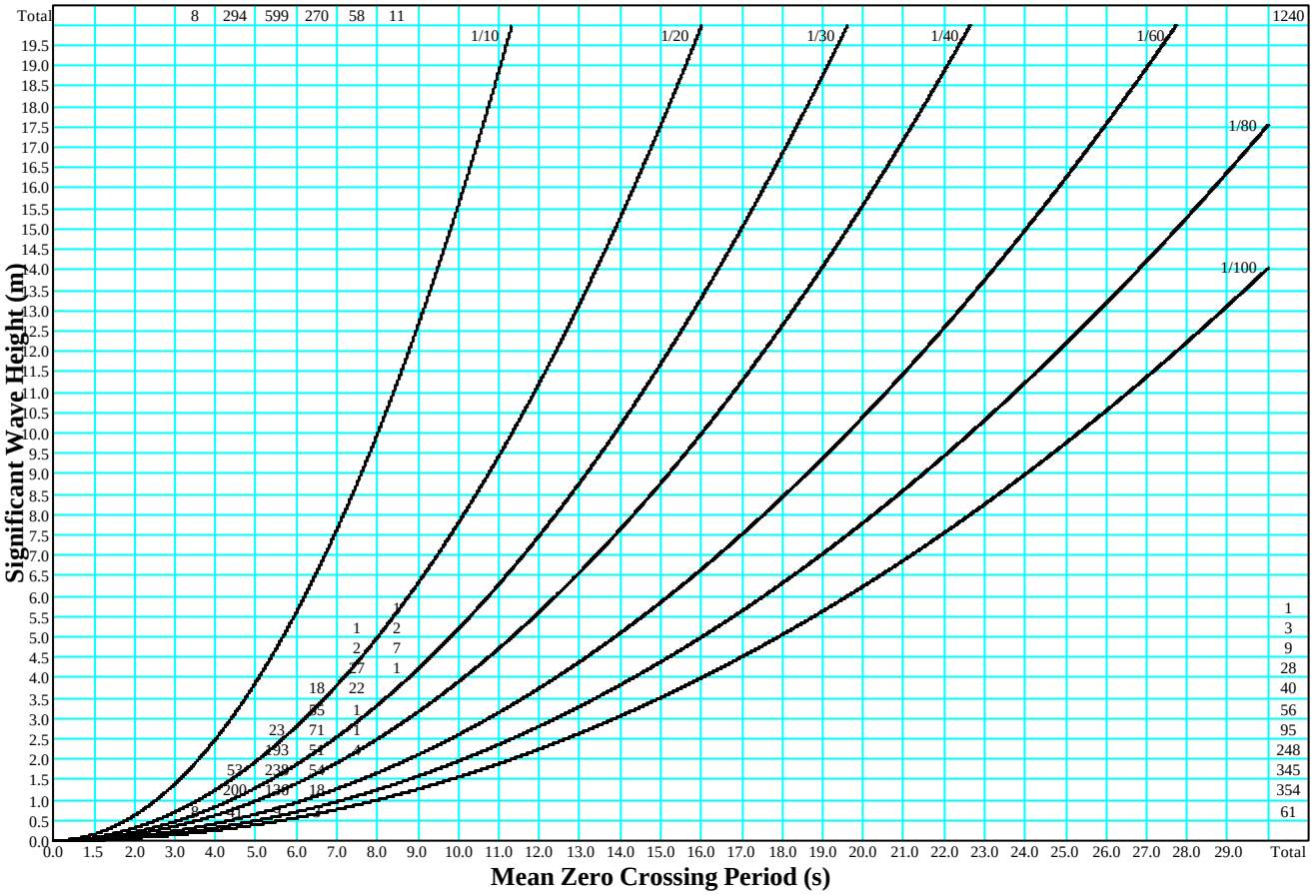
Figure B4.35 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_JUNE_94-99

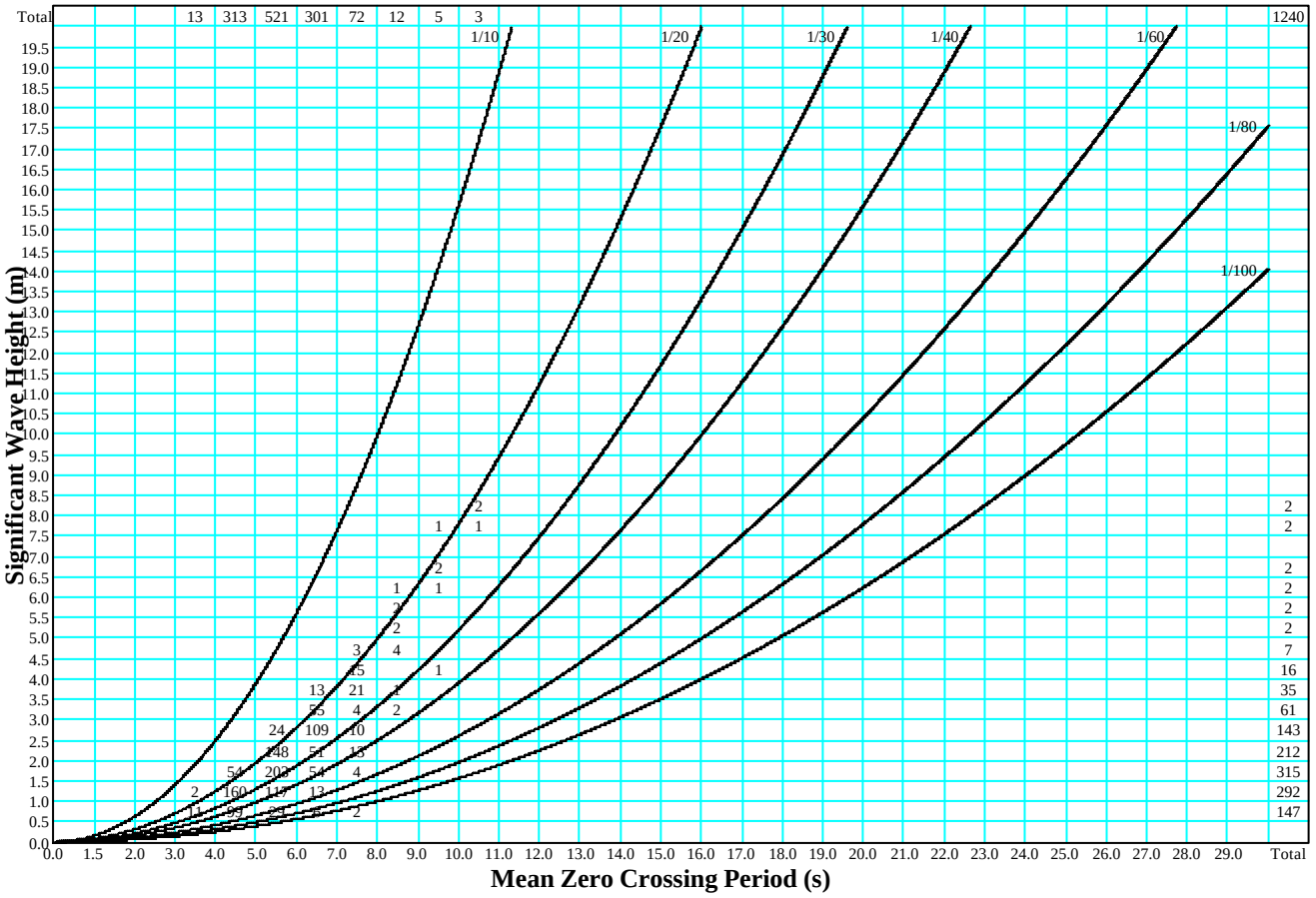
UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B4.36 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_JULY_94-99

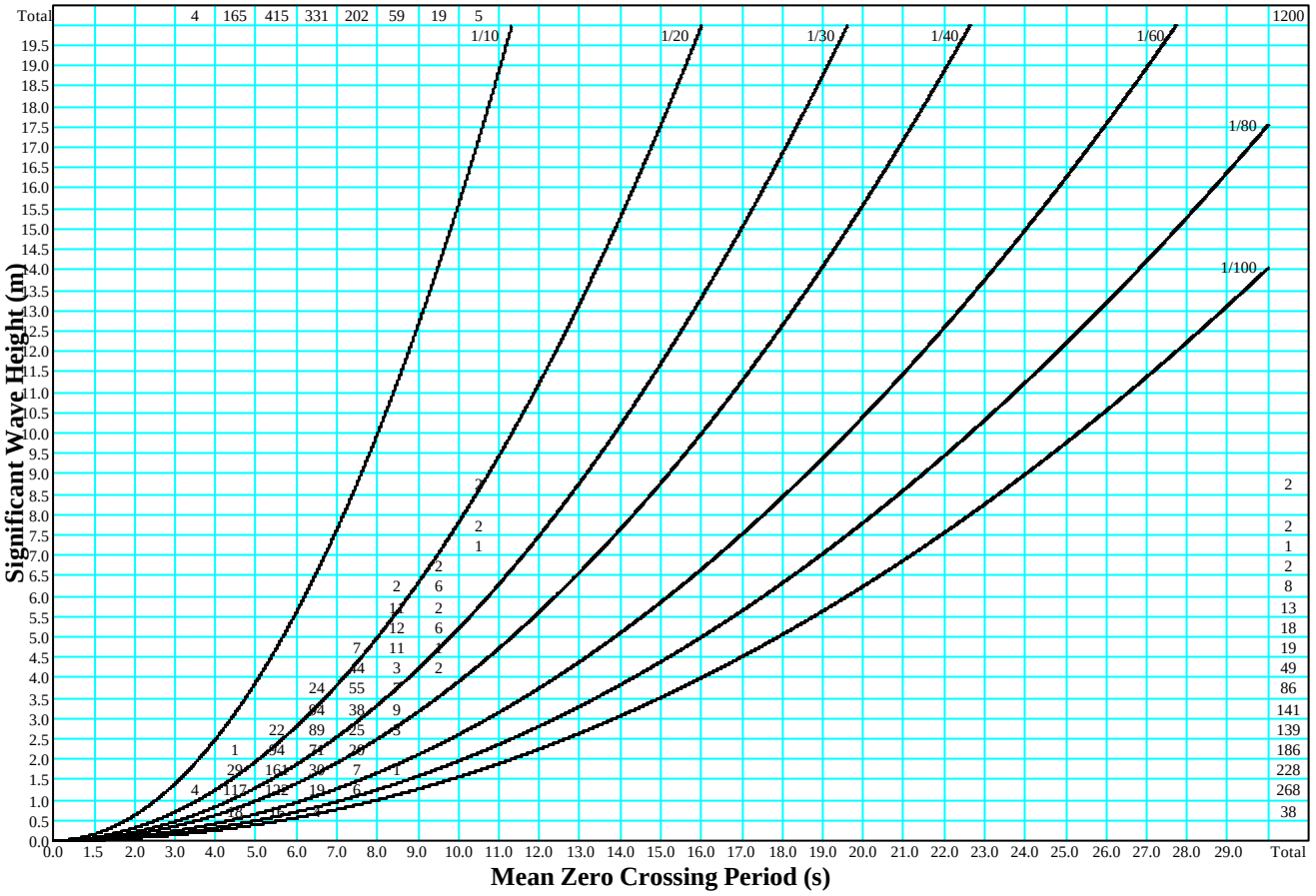
Figure B4.37 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_AUGUST_94-99

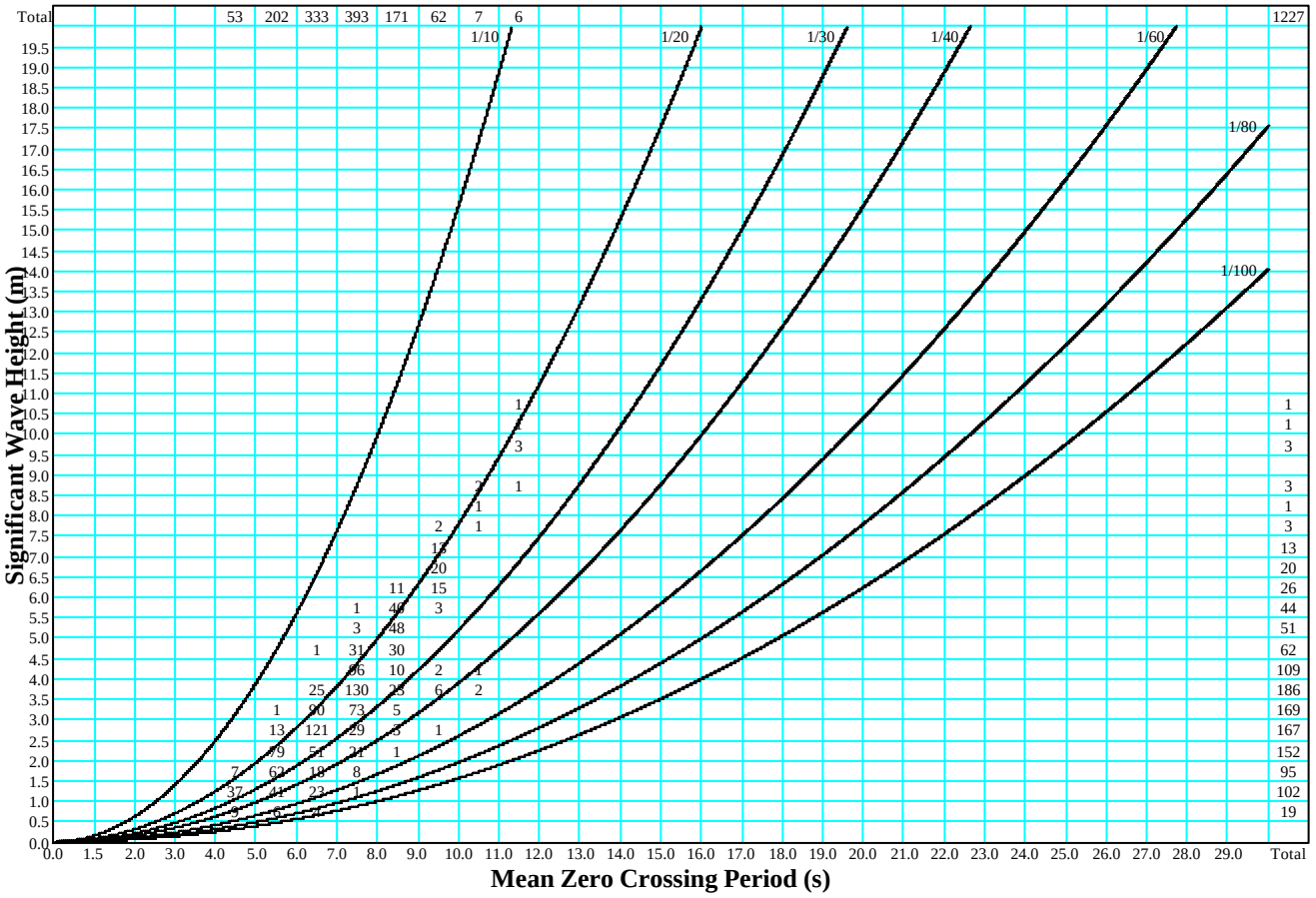
UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B4.38 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_SEPTEMBER_94-99

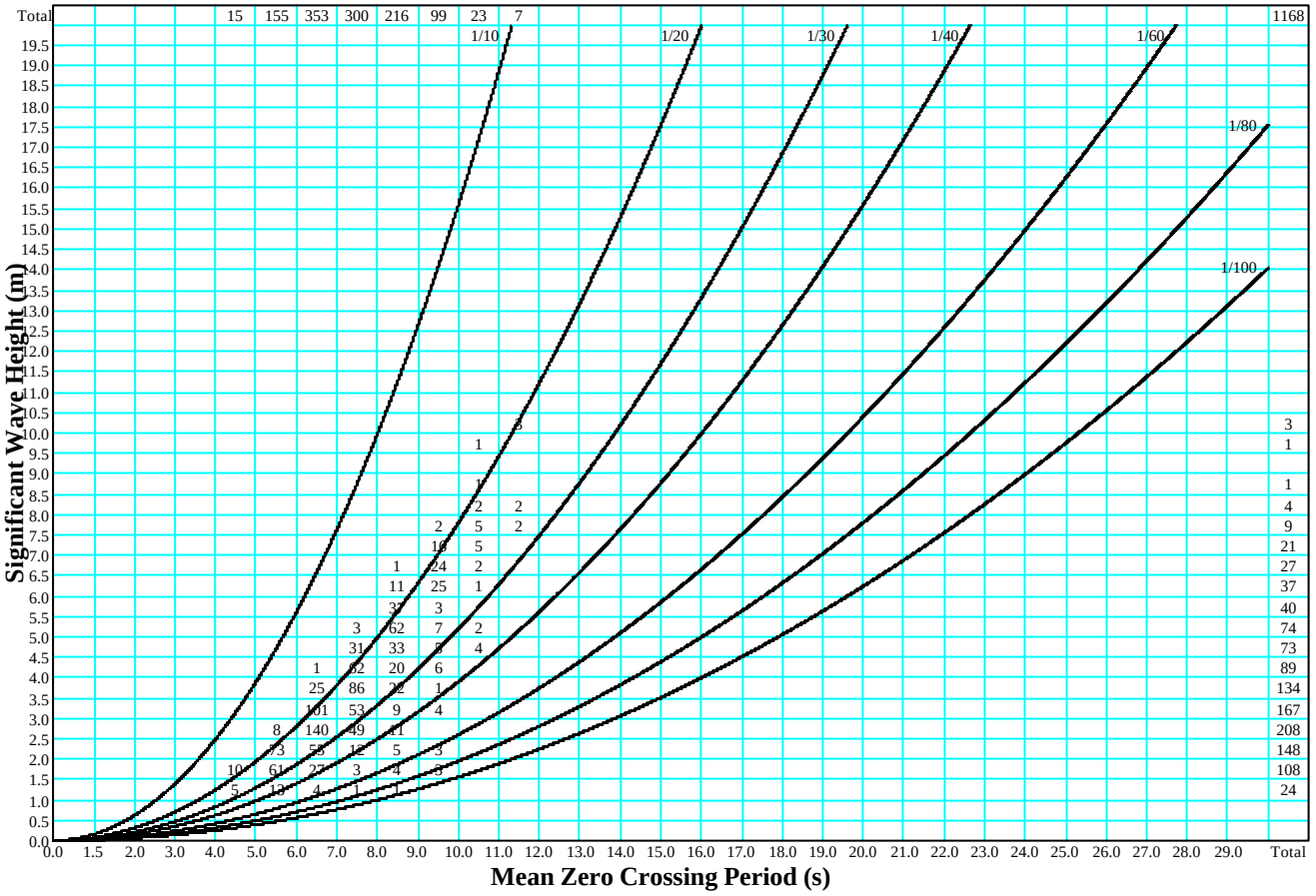
Figure B4.39 **Total Samples 1227**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_OCTOBER_94-99

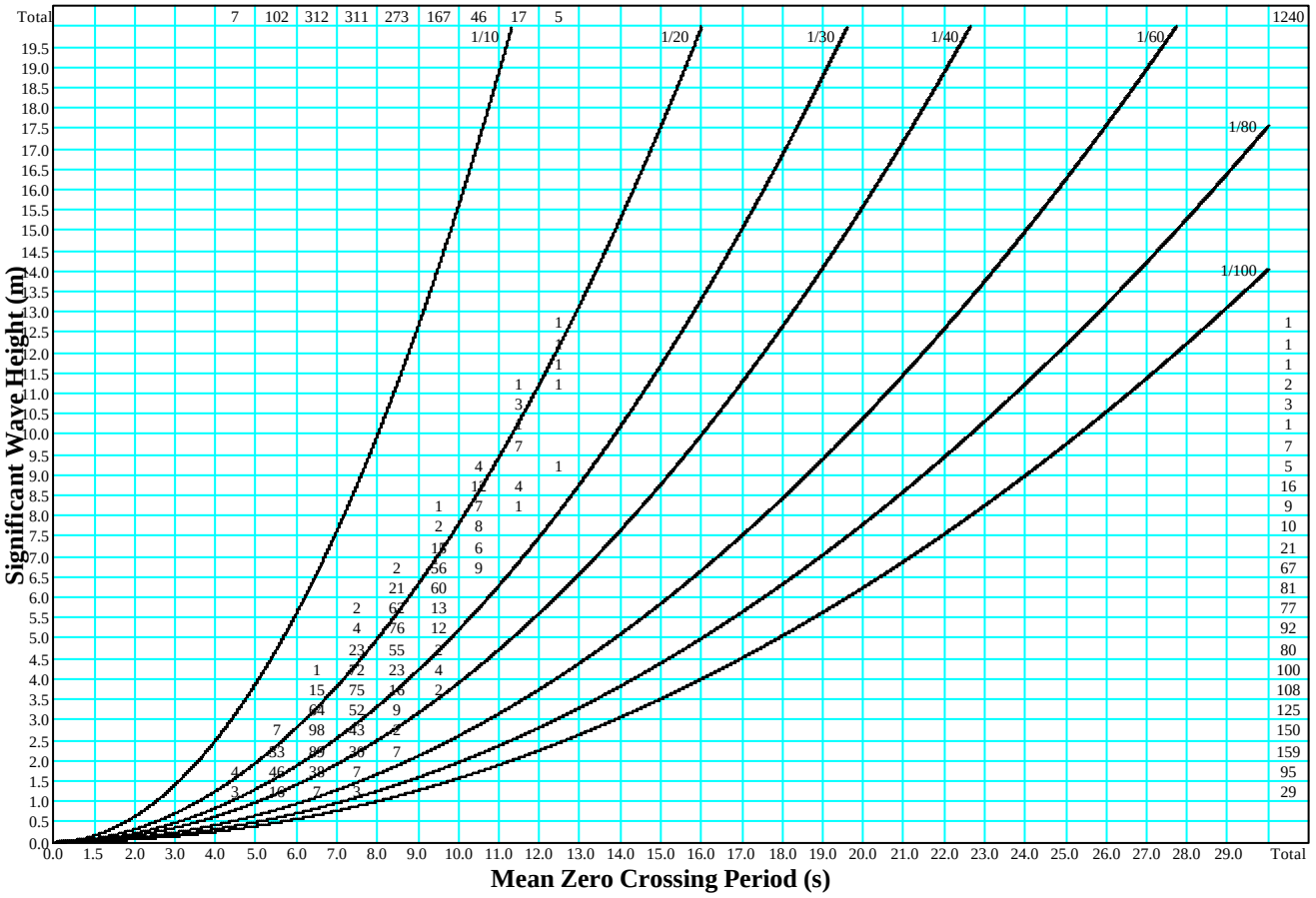
UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B4.40 **Total Samples 1168**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_NOVEMBER_94-99

Figure B4.41 **Total Samples 1240**

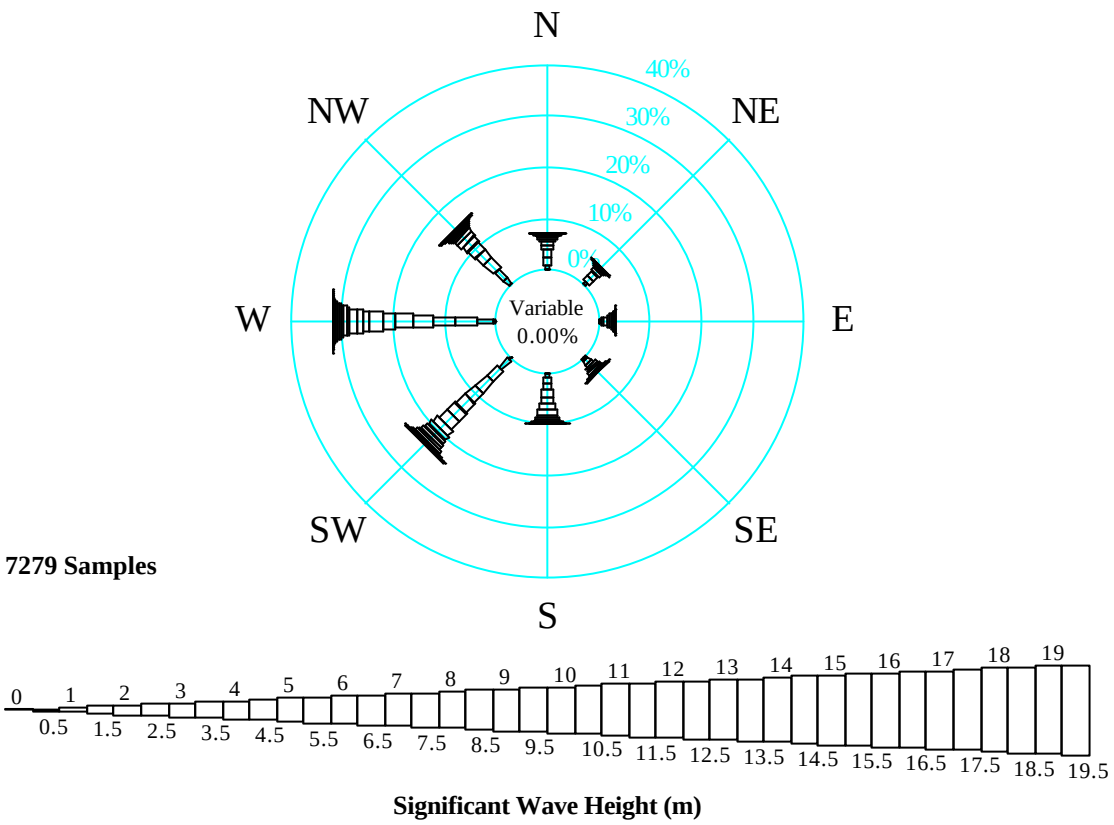


V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM4.mdb~F2S_GP4_Hs/Tz_DECEMBER_94-99

UKMO GWM 4 : 51.50°N, 12.46°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

APPENDIX B-5

Figure B5.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_ALLYEAR_5/94-4/99

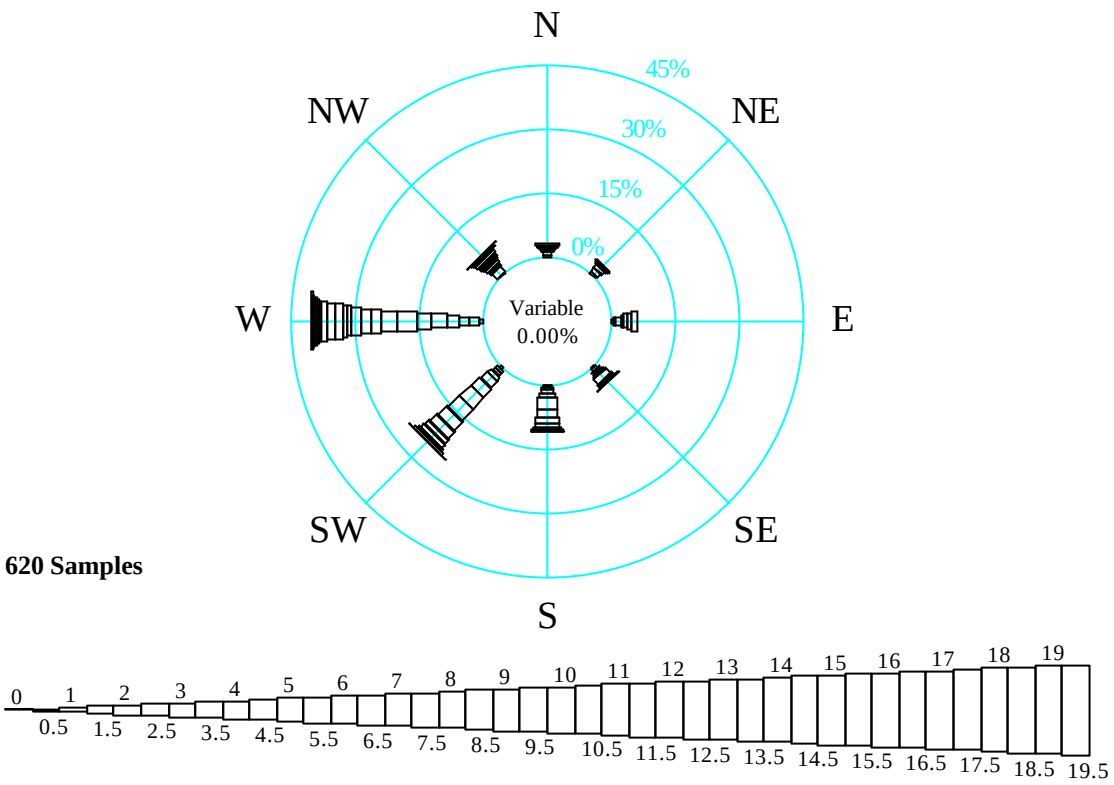
Figure B5.2

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0	2				1	1	1		5	7279
0.5	4	10	3	5	17	35	45	15	134	7274
1.0	69	43	36	31	53	179	222	100	733	7140
1.5	100	88	32	57	89	210	297	165	1038	6407
2.0	104	86	50	44	90	214	331	196	1115	5369
2.5	74	57	36	39	102	183	286	141	918	4254
3.0	51	29	24	23	92	187	249	144	799	3336
3.5	25	17	24	38	83	157	181	102	627	2537
4.0	34	11	13	16	73	151	178	71	547	1910
4.5	16	6	6	4	37	106	107	55	337	1363
5.0	15	5	5	12	28	67	85	34	251	1026
5.5	9	3	3	7	21	68	91	27	229	775
6.0	5			4	13	51	51	21	145	546
6.5	5		2	3	13	32	50	14	119	401
7.0	5			2	3	38	27	8	83	282
7.5	4				5	13	30	5	57	199
8.0	2				3	8	23	4	40	142
8.5						12	15	3	30	102
9.0						2	16	1	19	72
9.5					1	2	12	2	17	53
10.0						5	6	1	12	36
10.5						3	6		9	24
11.0						3	3		6	15
11.5						1			1	9
12.0							1		1	8
12.5						1	5		6	7
13.0										1
13.5							1		1	1
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	524	355	234	285	724	1729	2319	1109	7279	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_ALLYEAR_5/94-4/99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : All Year

Figure B5.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_JANUARY_94-99

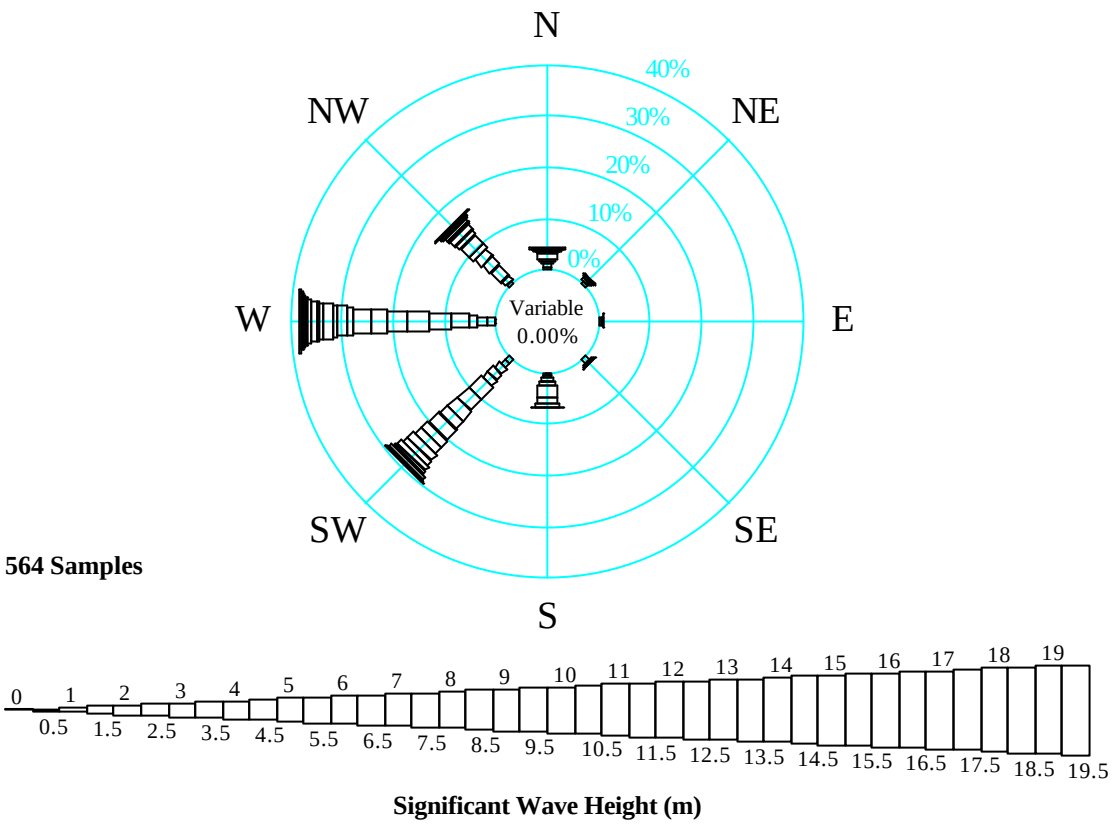
Figure B5.4

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										620
0.5										620
1.0			3	2		3	6		14	620
1.5	2	4	2	4	1	4	15	1	33	606
2.0	5	6	8	3	1	6	15		44	573
2.5	2	6	4	3	4	7	17	11	54	529
3.0	2	2	7	2	5	14	23	5	60	475
3.5	2	2	6	11	7	17	19	4	68	415
4.0	2	2	7	4	18	23	30	2	88	347
4.5	1				10	23	22	4	60	259
5.0	3			1	9	19	16	4	52	199
5.5					6	13	15	5	39	147
6.0					3	9	12	3	27	108
6.5				1	2	7	6		16	81
7.0					1	3	6	2	12	65
7.5						2	13		15	53
8.0							10		10	38
8.5						2	9	1	12	28
9.0							4		4	16
9.5							2		2	12
10.0							4		4	10
10.5							2		2	6
11.0						2	1		3	4
11.5										1
12.0										1
12.5							1		1	1
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	19	22	37	31	67	154	248	42	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_JANUARY_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : January

Figure B5.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_FEBRUARY_94-99

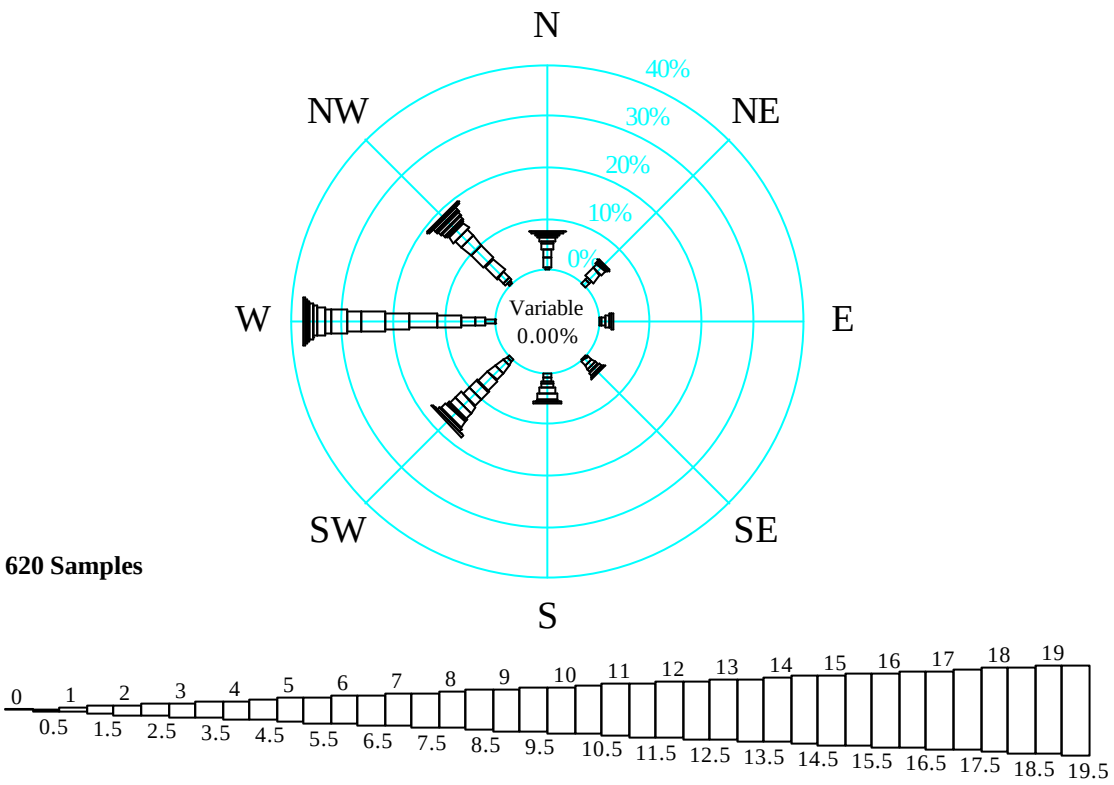
Figure B5.6

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										564
0.5										564
1.0		2			1	6	1		10	564
1.5	2	1	2	6	3	6	9	3	32	554
2.0	6	3	3		2	8	10	7	39	522
2.5	2	2		1	3	9	9	15	41	483
3.0		1	1	1	1	8	20	12	44	442
3.5	2	1		1	5	19	24	11	63	398
4.0	6				12	16	25	6	65	335
4.5	2				6	15	22	13	58	270
5.0	1				5	12	17	6	41	212
5.5						15	19	8	42	171
6.0	1					10	8	2	21	129
6.5					1	9	11	4	25	108
7.0	1					9	5		15	83
7.5						7	10	2	19	68
8.0	2					6	4	2	14	49
8.5						3	3		6	35
9.0						2	6		8	29
9.5							4		4	21
10.0						4	1	1	6	17
10.5						1	2		3	11
11.0						1	2		3	8
11.5						1			1	5
12.0							1		1	4
12.5							2		2	3
13.0										1
13.5							1		1	1
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	25	10	6	9	39	167	216	92	564	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_FEBRUARY_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : February

Figure B5.7



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_MARCH_94-99

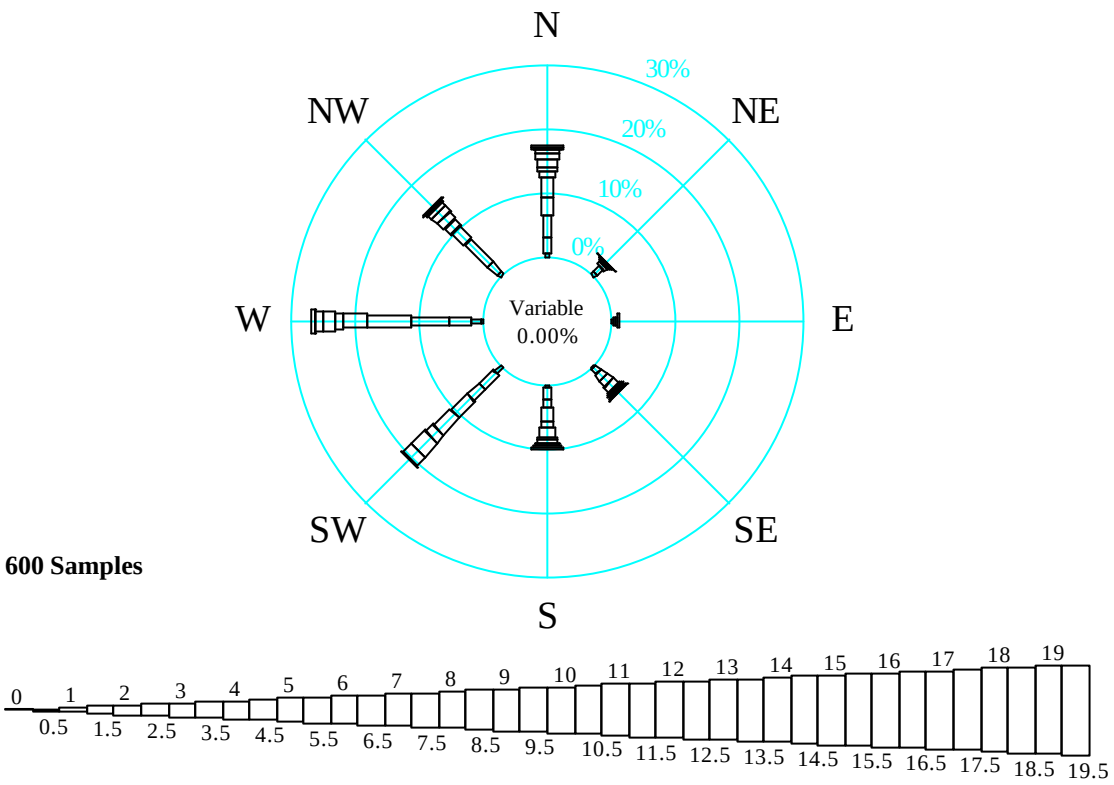
Figure B5.8

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										620
0.5							1	1	2	620
1.0	4	6		2		3	11	3	29	618
1.5	12	4	3	6	6	5	12	4	52	589
2.0	10	13	5	5	4	12	18	10	77	537
2.5	7	7	6	5	3	12	29	20	89	460
3.0	2	3	2	4	6	16	34	21	88	371
3.5	4	2	1	2	7	13	28	16	73	283
4.0	3			1	7	11	31	10	63	210
4.5	1				1	10	16	9	37	147
5.0	1					9	18	4	32	110
5.5	1				2	3	8	5	19	78
6.0					1	9	11	5	26	59
6.5	1					1	3	3	8	33
7.0						3	2	3	8	25
7.5	1						3	1	5	17
8.0						1	1		2	12
8.5							1		1	10
9.0							2	1	3	9
9.5						2	2	1	5	6
10.0										1
10.5							1		1	1
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	47	35	17	25	37	110	232	117	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_MARCH_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : March

Figure B5.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_APRIL_94-99

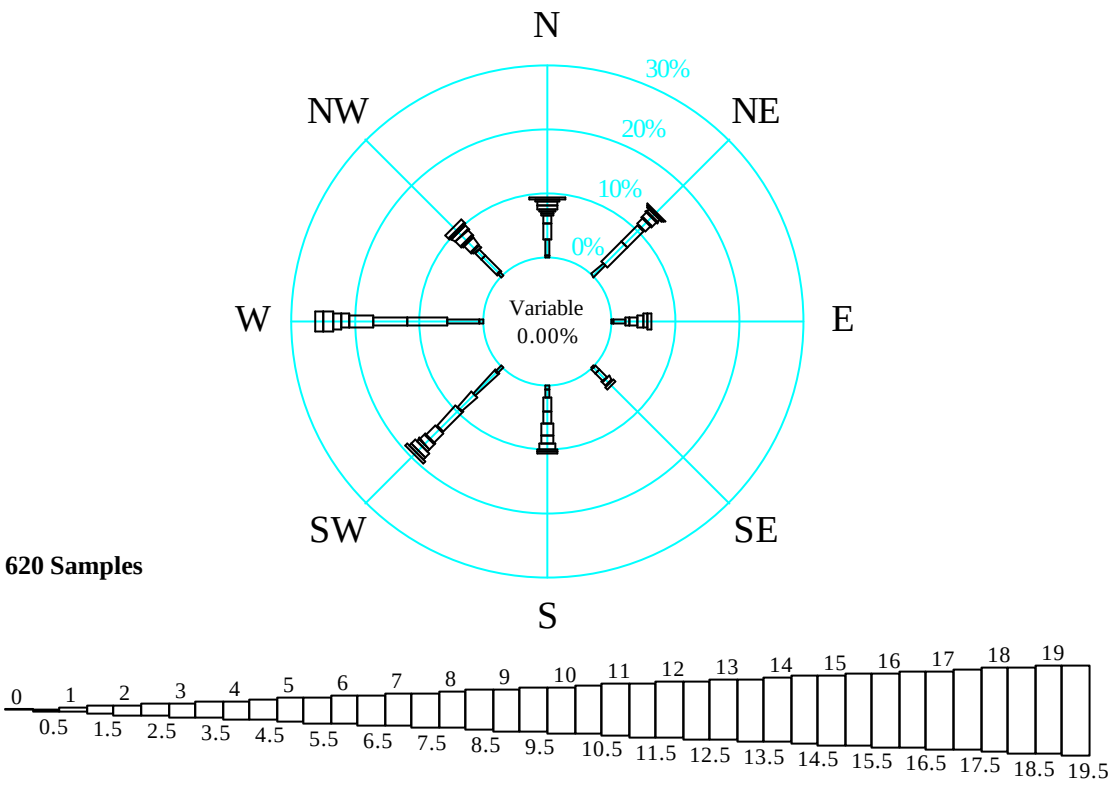
Figure B5.10

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5										600
1.0							1		1	600
1.5	3	3	2	1	2	8	10	4	33	599
2.0	16	8	1	6	11	18	20	11	91	566
2.5	20	3	2	7	8	15	37	30	122	475
3.0	17	1		7	12	21	40	16	114	353
3.5	18	1	2	7	6	22	22	8	86	239
4.0	6	1		1	9	9	9	8	43	153
4.5	4	1		1	2	18	11	7	44	110
5.0	7			2	4	11	7	5	36	66
5.5	7			1	1	1	1	1	12	30
6.0	2	1		1	1		3		8	18
6.5	1				2			2	5	10
7.0	1								1	5
7.5	3				1				4	4
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	105	19	7	34	59	123	161	92	600	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_APRIL_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : April

Figure B5.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_MAY_94-99

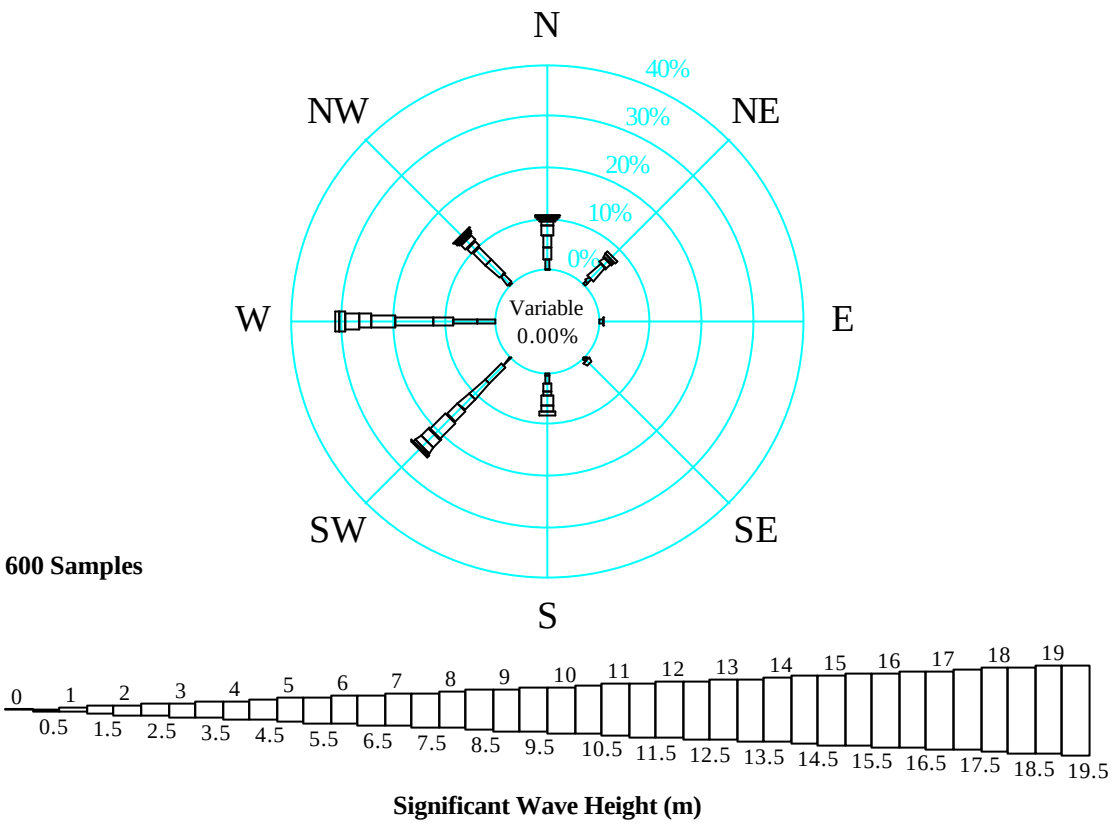
Figure B5.12

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										620
0.5	2		2	1	3	7	4	4	23	620
1.0	16	16	11	5	8	31	30	21	138	597
1.5	14	27	4	11	14	20	40	9	139	459
2.0	8	23	8	5	11	27	33	3	118	320
2.5	3	8	5	3	13	14	22	9	77	202
3.0	2	7	5		8	7	8	2	39	125
3.5	2	3	3		4	3	7	7	29	86
4.0	3	1			3	6	11	5	29	57
4.5	3	1			1	2	8	2	17	28
5.0		1						4	5	11
5.5	2					2			4	6
6.0										2
6.5										2
7.0										2
7.5	2								2	2
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	57	87	38	25	65	119	163	66	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_MAY_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : May

Figure B5.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_JUNE_94-99

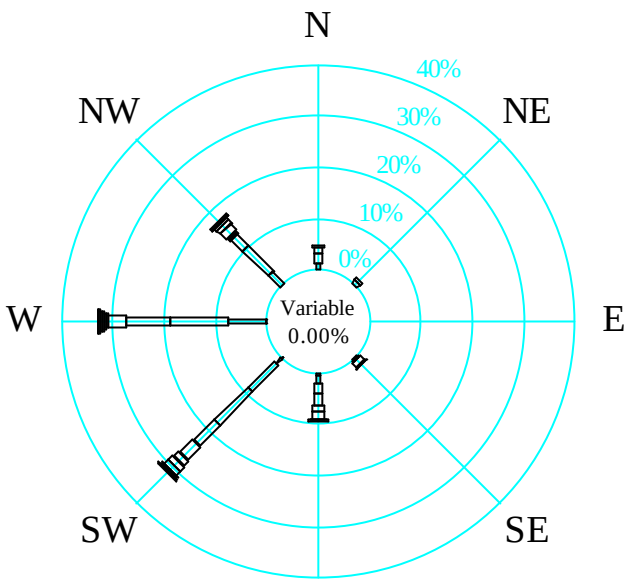
Figure B5.14

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5										600
1.0	1	5		1	3	13	23	2	48	600
1.5	11	6	5	3	10	27	28	13	103	552
2.0	15	21		6	8	24	22	22	118	449
2.5	14	8	1		6	18	44	21	112	331
3.0	12	4			12	18	28	9	83	219
3.5	3	4			7	26	16	8	64	136
4.0	3				4	13	15	3	38	72
4.5	2					8	7	2	19	34
5.0	1					3	5	1	10	15
5.5	1					2		1	4	5
6.0	1								1	1
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	64	48	6	10	50	152	188	82	600	

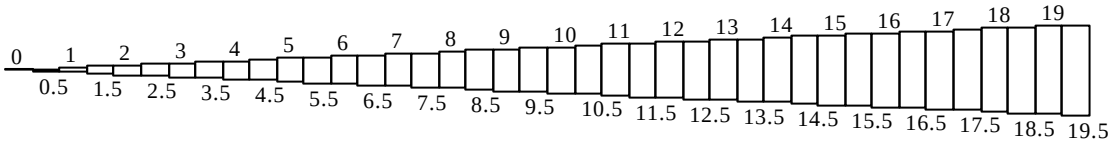
V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_JUNE_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : June

Figure B5.15



618 Samples



Significant Wave Height (m)

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_JULY_94-99

Figure B5.16

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0						1			1	618
0.5					3	9	2		14	617
1.0	7			2	10	44	45	19	127	603
1.5	14	5		1	12	56	69	43	200	476
2.0	6	4		7	15	35	54	20	141	276
2.5	3			1	7	23	21	4	59	135
3.0				1	9	8	3	10	31	76
3.5					1	8	2	6	17	45
4.0					2	7	3	3	15	28
4.5						2	1	1	4	13
5.0						1	3	2	6	9
5.5						2	1		3	3
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
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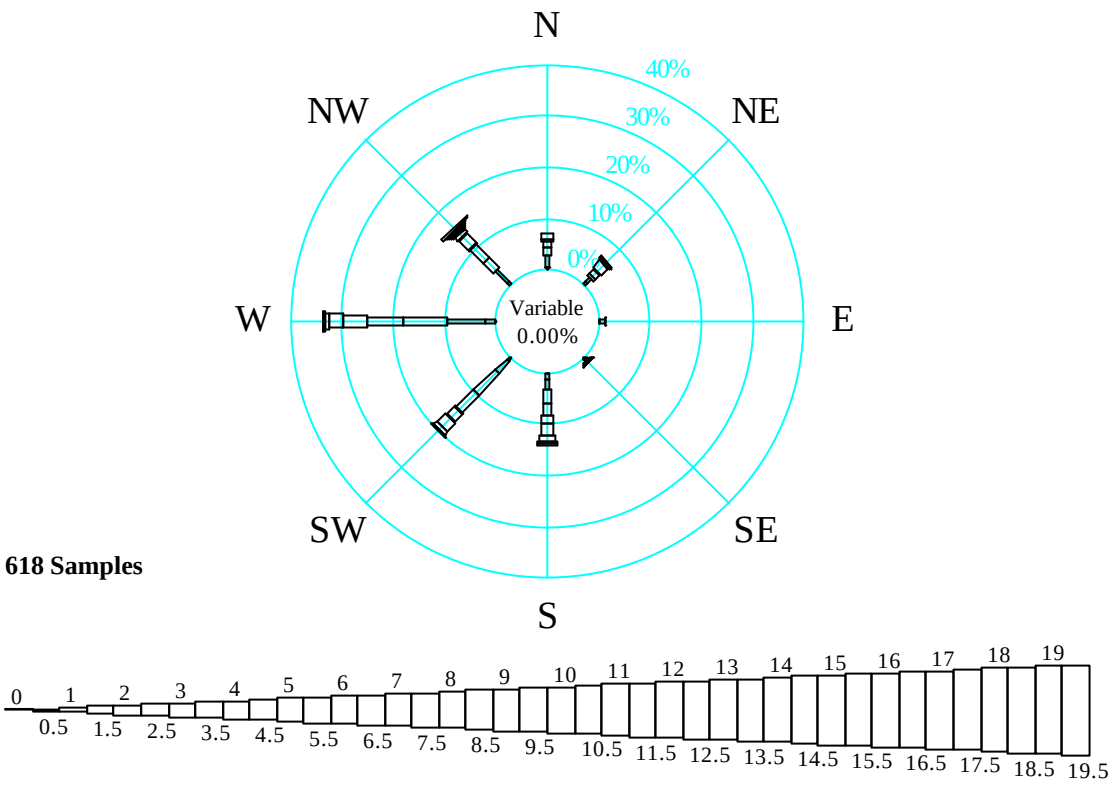
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	30	9		12	59	196	204	108	618	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_JULY_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : July

Figure B5.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_AUGUST_94-99

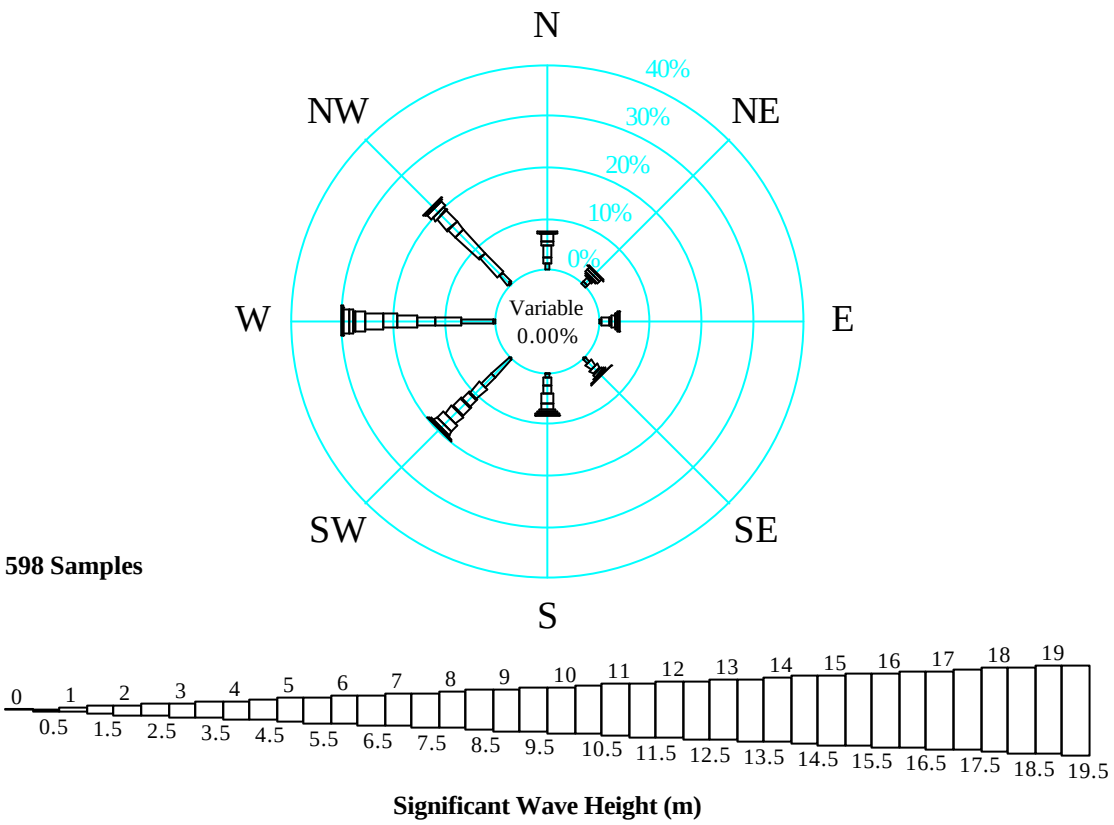
Figure B5.18

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5	2				1		1		4	618
1.0	1	5	1	2	7	5	12	5	38	614
1.5	15	6	7	3	13	18	46	20	128	576
2.0	10	4	1	1	17	36	52	17	138	448
2.5	7	7		1	13	30	44	23	125	310
3.0	3	13		1	11	14	30	17	89	185
3.5	5	3		1	14	14	17	6	60	96
4.0		1			6	5	4	2	18	36
4.5					4	2	2	1	9	18
5.0					1	1	1	2	5	9
5.5										4
6.0										4
6.5								2	2	4
7.0										2
7.5										2
8.0								2	2	2
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	43	39	9	9	87	125	209	97	618	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_AUGUST_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : August

Figure B5.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_SEPTEMBER_94-99

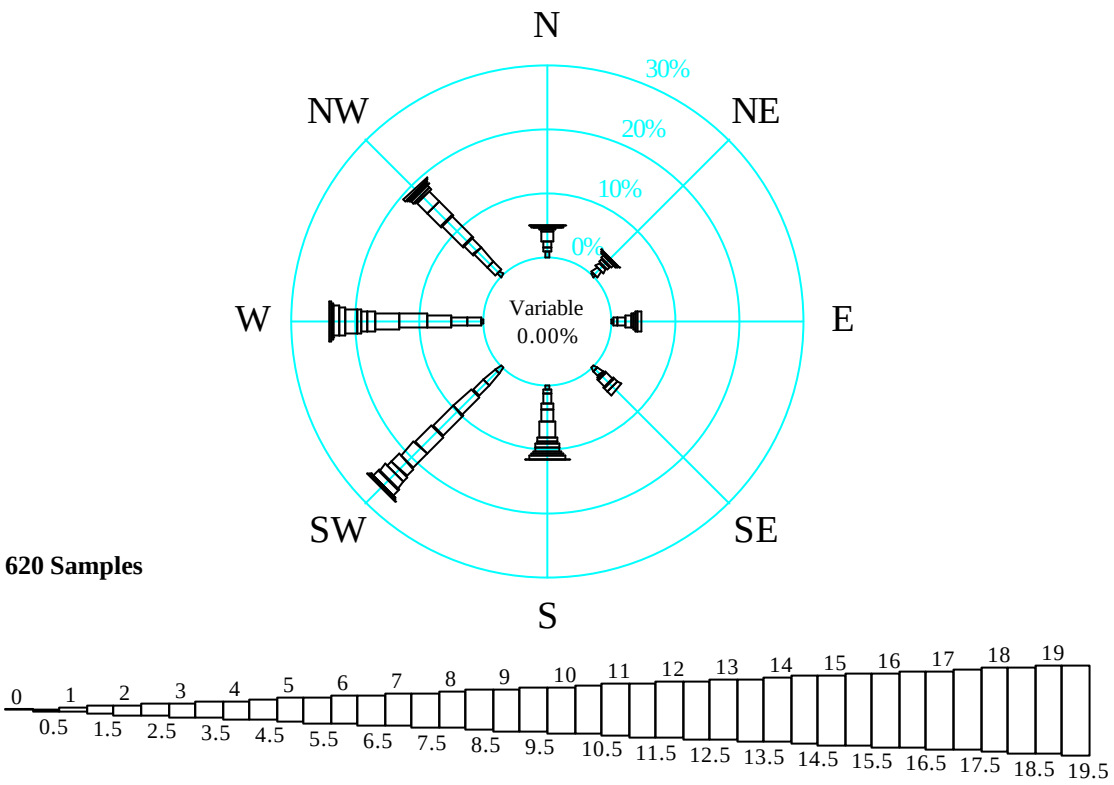
Figure B5.20

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5										598
1.0				1	1	1	2	3	8	598
1.5	7	2	3	7	5	29	39	14	106	590
2.0	8	7	9	8	8	16	29	31	116	484
2.5	14	2	3	6	11	17	21	37	111	368
3.0	5	2	4	4	12	12	24	12	75	257
3.5	8		1	1	7	13	16	18	64	182
4.0	1	3	1	1	2	12	21	5	46	118
4.5	2	3	2		1	10	12	6	36	72
5.0		1	2		1	5	3	2	14	36
5.5					2		4	1	7	22
6.0					1	2	6	1	10	15
6.5				1			2		3	5
7.0							1		1	2
7.5						1			1	1
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	45	20	25	29	51	118	180	130	598	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_SEPTEMBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : September

Figure B5.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_OCTOBER_94-99

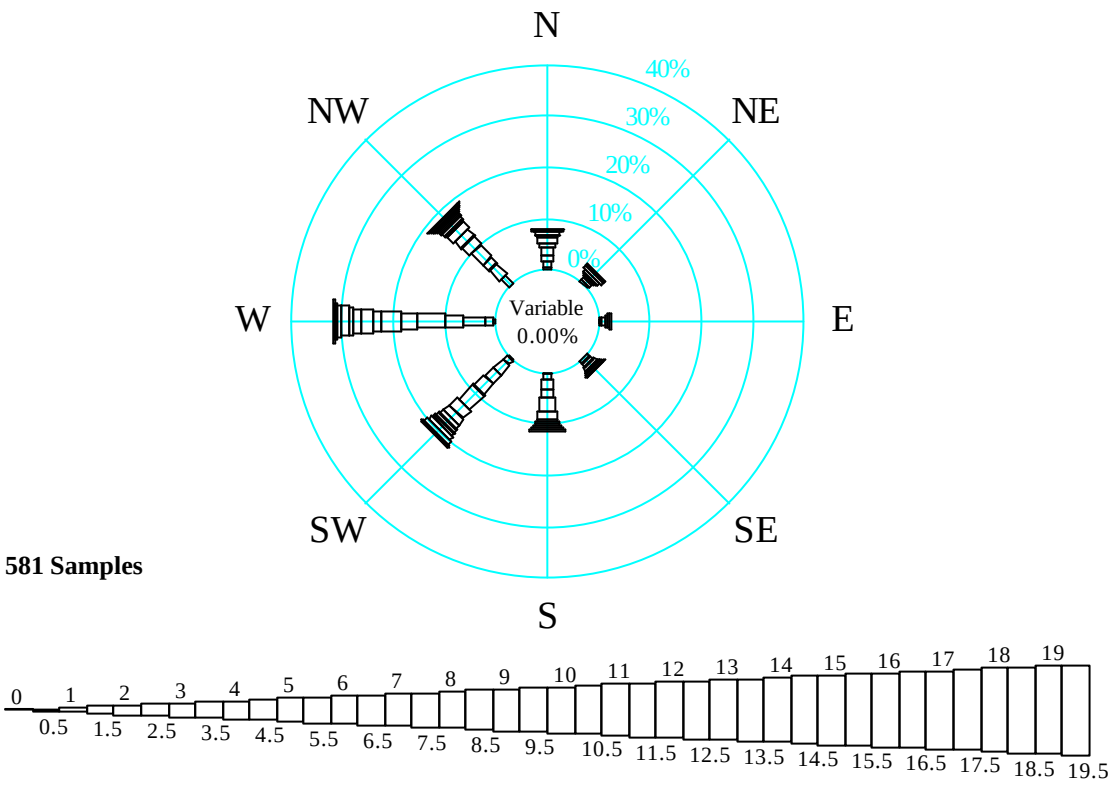
Figure B5.22

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5										620
1.0										620
1.5	6	2	1	4	4	7	2	5	31	620
2.0	3	7	5	6	4	15	13	11	64	589
2.5	7	5	8	3	9	14	15	18	79	525
3.0	9	4	5	9	6	24	25	13	95	446
3.5	2	4	3	5	12	28	27	28	109	351
4.0	1		1	5	15	23	22	19	86	242
4.5			2		4	19	8	14	47	156
5.0		1	3		2	10	6	2	24	109
5.5					4	6	3	3	16	85
6.0		1			4	9	13	2	29	69
6.5	1				1	7	5	2	16	40
7.0	1				2		5		8	24
7.5						1	1	2	4	16
8.0	1				4	1			6	12
8.5							2		2	6
9.0						2			2	4
9.5							1		1	2
10.0					1				1	1
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	31	24	28	32	72	166	148	119	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_OCTOBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : October

Figure B5.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_NOVEMBER_94-99

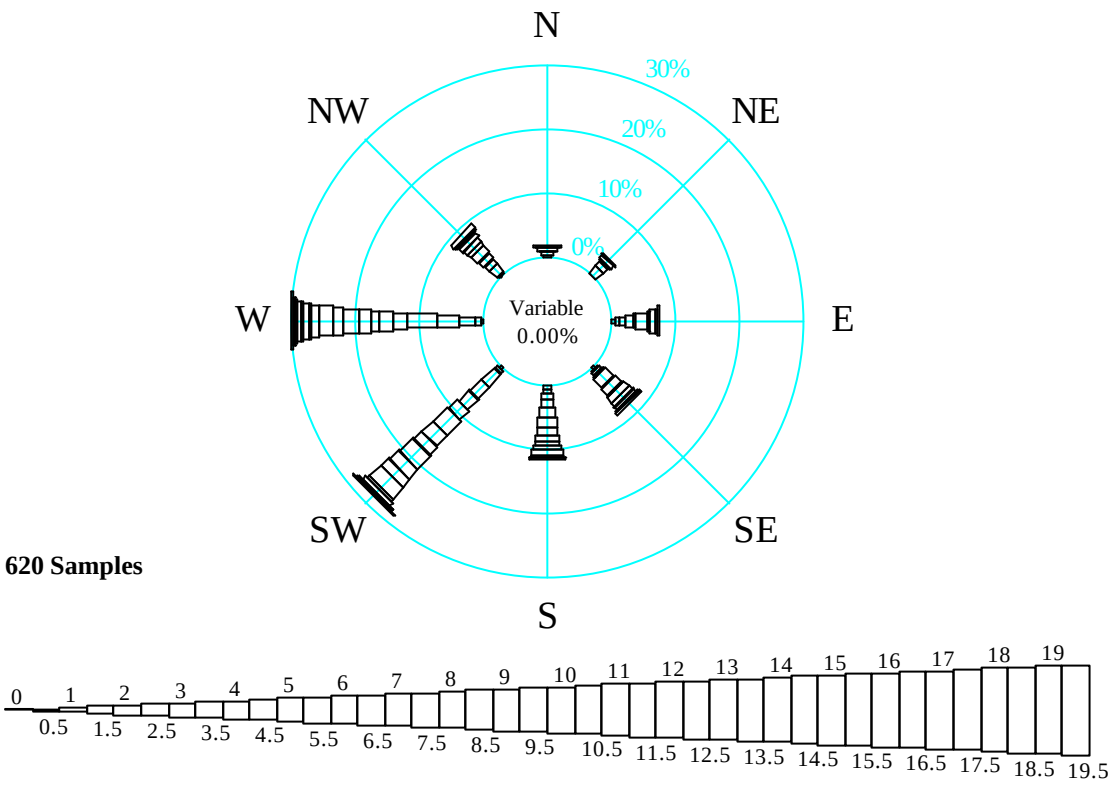
Figure B5.24

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										581
0.5										581
1.0			1			1	2		4	581
1.5	4		1		1	6	11	12	35	577
2.0	6	3	6	4	6	15	24	17	81	542
2.5	7	4	3	4	13	13	20	9	73	461
3.0	9	2	2		9	17	33	19	91	388
3.5	3		1	5	14	23	18	12	76	297
4.0	9	2		1	11	12	23	11	69	221
4.5	1	3		1	2	9	9	9	34	152
5.0	1	4		3	2	6	12	3	31	118
5.5	3	1		1	3	4	10	4	26	87
6.0	1				2	4	4	4	15	61
6.5	2				2	5	10	2	21	46
7.0	1					6	4	1	12	25
7.5							2		2	13
8.0					1	1	1	2	5	11
8.5						1		2	3	6
9.0										3
9.5							2	1	3	3
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	47	19	14	19	66	123	185	108	581	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_NOVEMBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : November

Figure B5.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_DECEMBER_94-99

Figure B5.26

Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										620
0.5										620
1.0			3	2		2	2	1	10	620
1.5			4	2	4	4	5	1	20	610
2.0	1	9	6	3	4	17	16	10	66	590
2.5	4	6	9	1	6	16	21	6	69	524
3.0		2	1	1	8	14	30	7	63	455
3.5	1	4	11	12	9	12	12	9	70	392
4.0	3	2	2	9	9	19	15	4	63	322
4.5			1	1	9	15	7	5	38	259
5.0	1		5	7	5	11	11	5	45	221
5.5			3	5	4	18	16	2	48	176
6.0	1			3	4	12	9	1	30	128
6.5			2	2	6	10	14	5	39	98
7.0				2	1	15	9		27	59
7.5					1	3	2		6	32
8.0					2		5		7	26
8.5						4	2		6	19
9.0							3		3	13
9.5							2		2	10
10.0						1	1		2	8
10.5						2	1		3	6
11.0										3
11.5										3
12.0										3
12.5						1	2		3	3
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	11	23	47	50	72	176	185	56	620	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_HS/WVD_DECEMBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Wave Rose and Frequency Table : December

UKMO GWM 5 (52.10°N, 15.63°W)

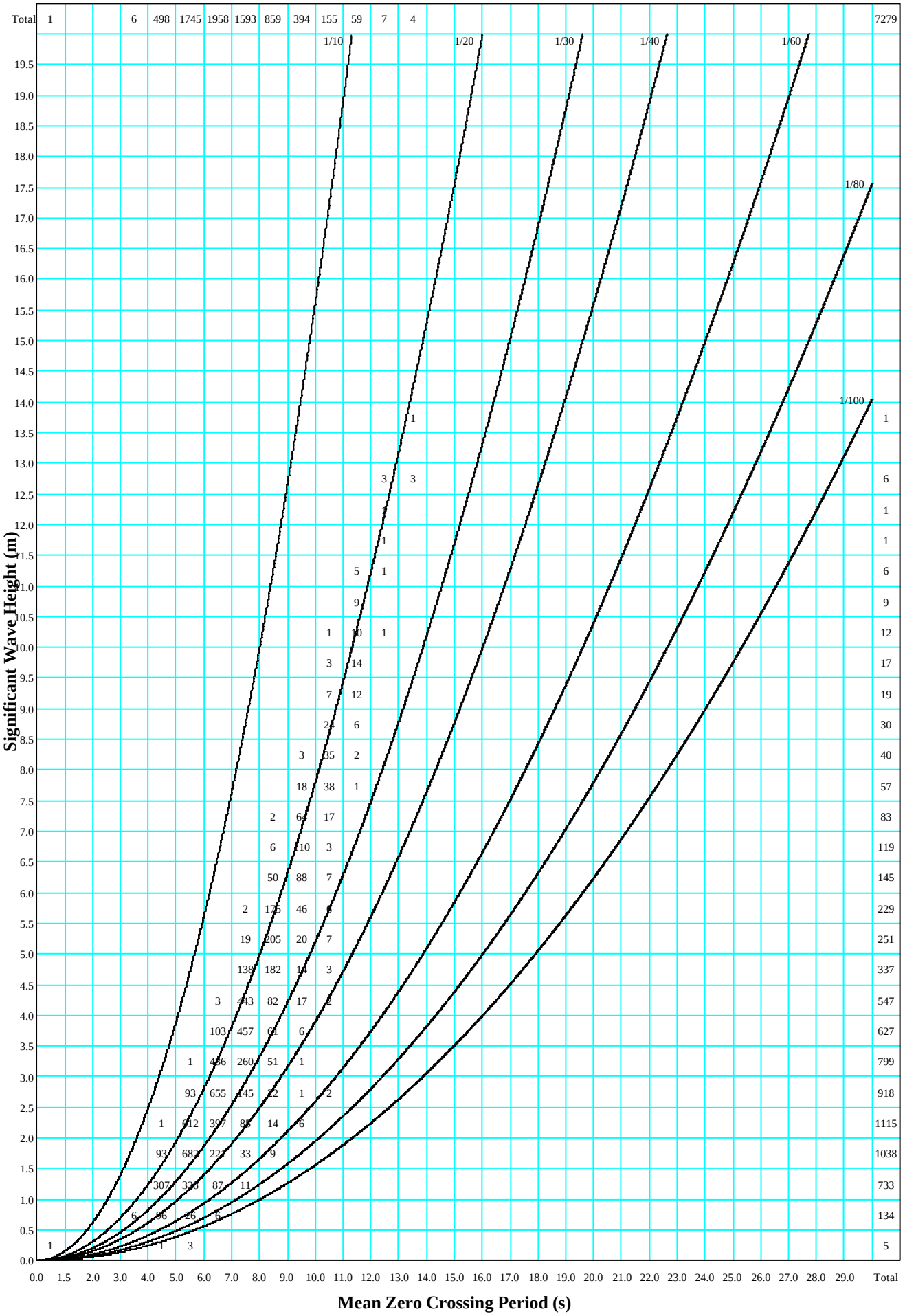
Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	100.00	99.84	99.35	100.00	100.00	100.00	100.00	99.93
1.0	100.00	100.00	99.68	99.83	96.29	92.00	97.57	93.20	98.66	100.00	100.00	100.00	98.09
1.5	97.74	98.23	95.00	94.33	74.03	74.83	77.02	72.49	80.94	95.00	99.31	98.39	88.02
2.0	92.42	92.55	86.61	79.17	51.61	55.17	44.66	50.16	61.54	84.68	93.29	95.16	72.67
2.5	85.32	85.64	74.19	58.83	32.58	36.50	21.84	29.94	42.98	71.94	79.35	84.52	57.14
3.0	76.61	78.37	59.84	39.83	20.16	22.67	12.30	15.53	30.43	56.61	66.78	73.39	44.33
3.5	66.94	70.57	45.65	25.50	13.87	12.00	7.28	5.83	19.73	39.03	51.12	63.23	33.67
4.0	55.97	59.40	33.87	18.33	9.19	5.67	4.53	2.91	12.04	25.16	38.04	51.94	25.59
4.5	41.77	47.87	23.71	11.00	4.52	2.50	2.10	1.46	6.02	17.58	26.16	41.77	18.40
5.0	32.10	37.59	17.74	5.00	1.77	0.83	1.46	0.65	3.68	13.71	20.31	35.65	13.88
5.5	23.71	30.32	12.58	3.00	0.97	0.17	0.49	0.65	2.51	11.13	14.97	28.39	10.25
6.0	17.42	22.87	9.52	1.67	0.32	0.00	0.00	0.65	0.84	6.45	10.50	20.65	7.28
6.5	13.06	19.15	5.32	0.83	0.32	0.00	0.00	0.32	0.33	3.87	7.92	15.81	5.40
7.0	10.48	14.72	4.03	0.67	0.32	0.00	0.00	0.32	0.17	2.58	4.30	9.52	3.82
7.5	8.55	12.06	2.74	0.00	0.32	0.00	0.00	0.32	0.00	1.94	2.24	5.16	2.62
8.0	6.13	8.69	1.94	0.00	0.00	0.00	0.00	0.00	0.00	0.97	1.89	4.19	1.92
8.5	4.52	6.21	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.65	1.03	3.06	1.37
9.0	2.58	5.14	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.52	2.10	0.98
9.5	1.94	3.72	0.97	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.52	1.61	0.71
10.0	1.61	3.01	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	0.49
10.5	0.97	1.95	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.33
11.0	0.65	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.21
11.5	0.16	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.12
12.0	0.16	0.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.11
12.5	0.16	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.48	0.10
13.0	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
13.5	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mean	**4.41**	**4.72**	**3.59**	**2.90**	**2.23**	**2.23**	**2.05**	**2.07**	**2.51**	**3.35**	**3.80**	**4.39**	**3.18**
Minimum	**1.10**	**1.10**	**0.80**	**0.90**	**0.60**	**0.60**	**0.40**	**0.00**	**0.60**	**1.00**	**1.20**	**1.30**	**0.00**
Maximum	**12.50**	**13.70**	**10.80**	**7.40**	**7.80**	**5.60**	**5.70**	**7.70**	**7.20**	**9.60**	**9.90**	**12.70**	**13.70**

Table B5.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : UKMO GWM 5

Height (m)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	99.62	100.00	100.00	100.00	99.86	99.94	99.96	100.00	99.93
1.0	98.85	97.18	98.72	98.25	97.51	97.92	98.02	98.65	98.09
1.5	85.69	85.07	83.33	87.37	90.19	87.57	88.44	89.63	88.02
2.0	66.60	60.28	69.66	67.37	77.90	75.42	75.64	74.75	73.76
2.5	46.76	36.06	48.29	51.93	65.47	63.04	61.36	57.08	58.44
3.0	32.63	20.00	32.91	38.25	51.38	52.46	49.03	44.36	45.83
3.5	22.90	11.83	22.65	30.18	38.67	41.64	38.29	31.38	34.85
4.0	18.13	7.04	12.39	16.84	27.21	32.56	30.49	22.18	26.24
4.5	11.64	3.94	6.84	11.23	17.13	23.83	22.81	15.78	18.73
5.0	8.59	2.25	4.27	9.82	12.02	17.70	18.20	10.82	14.10
5.5	5.73	0.85	2.14	5.61	8.15	13.82	14.53	7.75	10.65
6.0	4.01	0.00	0.85	3.16	5.25	9.89	10.61	5.32	7.50
6.5	3.05	0.00	0.85	1.75	3.45	6.94	8.41	3.43	5.51
7.0	2.10	0.00	0.00	0.70	1.66	5.09	6.25	2.16	3.87
7.5	1.15	0.00	0.00	0.00	1.24	2.89	5.09	1.44	2.73
8.0	0.38	0.00	0.00	0.00	0.55	2.14	3.79	0.99	1.95
8.5	0.00	0.00	0.00	0.00	0.14	1.68	2.80	0.63	1.40
9.0	0.00	0.00	0.00	0.00	0.14	0.98	2.16	0.36	0.99
9.5	0.00	0.00	0.00	0.00	0.14	0.87	1.47	0.27	0.73
10.0	0.00	0.00	0.00	0.00	0.00	0.75	0.95	0.09	0.49
10.5	0.00	0.00	0.00	0.00	0.00	0.46	0.69	0.00	0.33
11.0	0.00	0.00	0.00	0.00	0.00	0.12	0.43	0.00	0.16
11.5	0.00	0.00	0.00	0.00	0.00	0.06	0.30	0.00	0.11
12.0	0.00	0.00	0.00	0.00	0.00	0.06	0.30	0.00	0.11
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.08
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.01
Mean	**2.75**	**2.34**	**2.62**	**2.80**	**3.19**	**3.39**	**3.41**	**3.04**	**3.18**
Minimum	**0.00**	**0.60**	**0.80**	**0.60**	**0.40**	**0.40**	**0.40**	**0.60**	**0.00**
Maximum	**8.20**	**5.80**	**6.70**	**7.40**	**9.60**	**12.50**	**13.70**	**10.20**	**13.70**

Table B5.28 - All Year Significant Wave Height - Percentage Exceedence by Direction : UKMO GWM 5

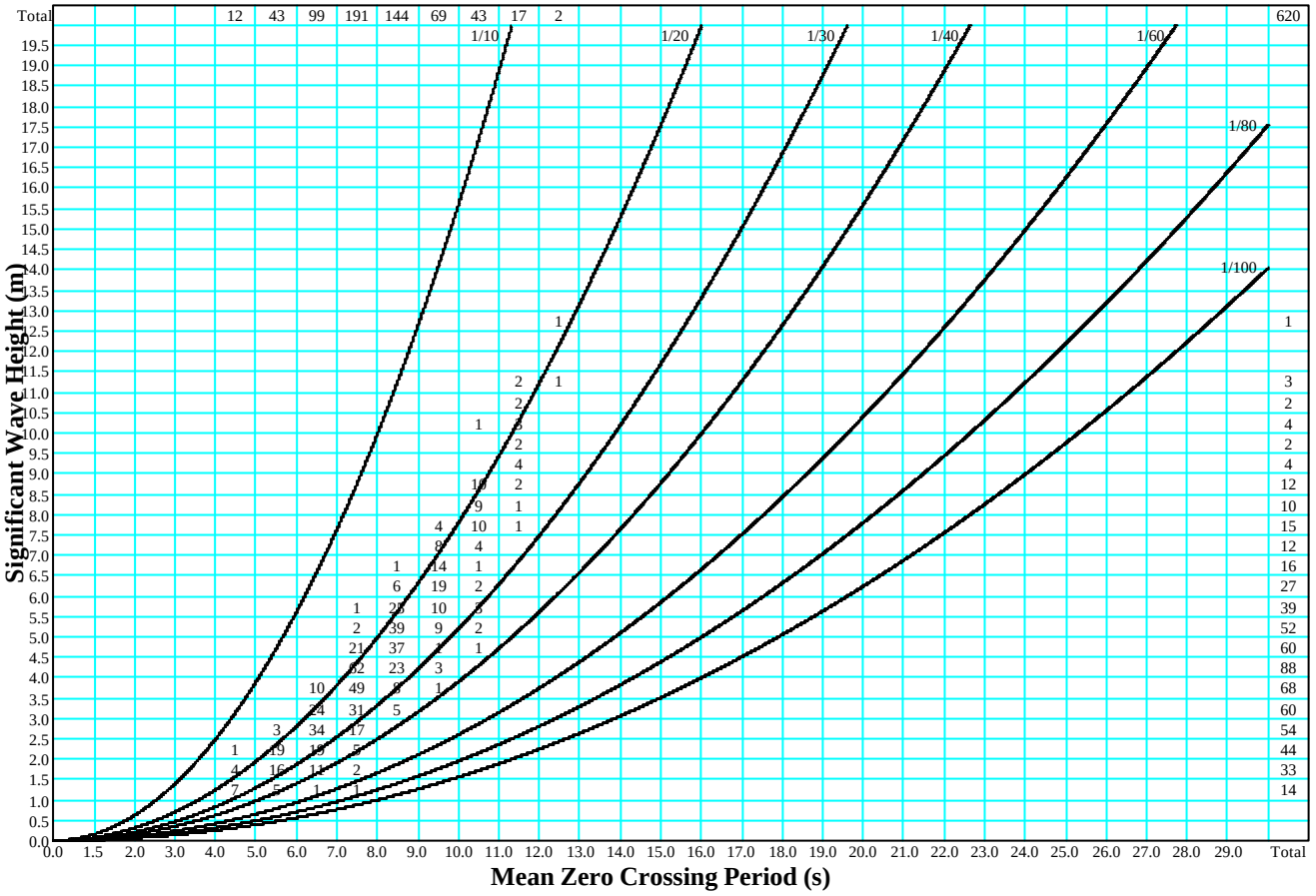
Figure B5.29 **Total Samples 7279**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_ALLYEAR_5/94-4/99

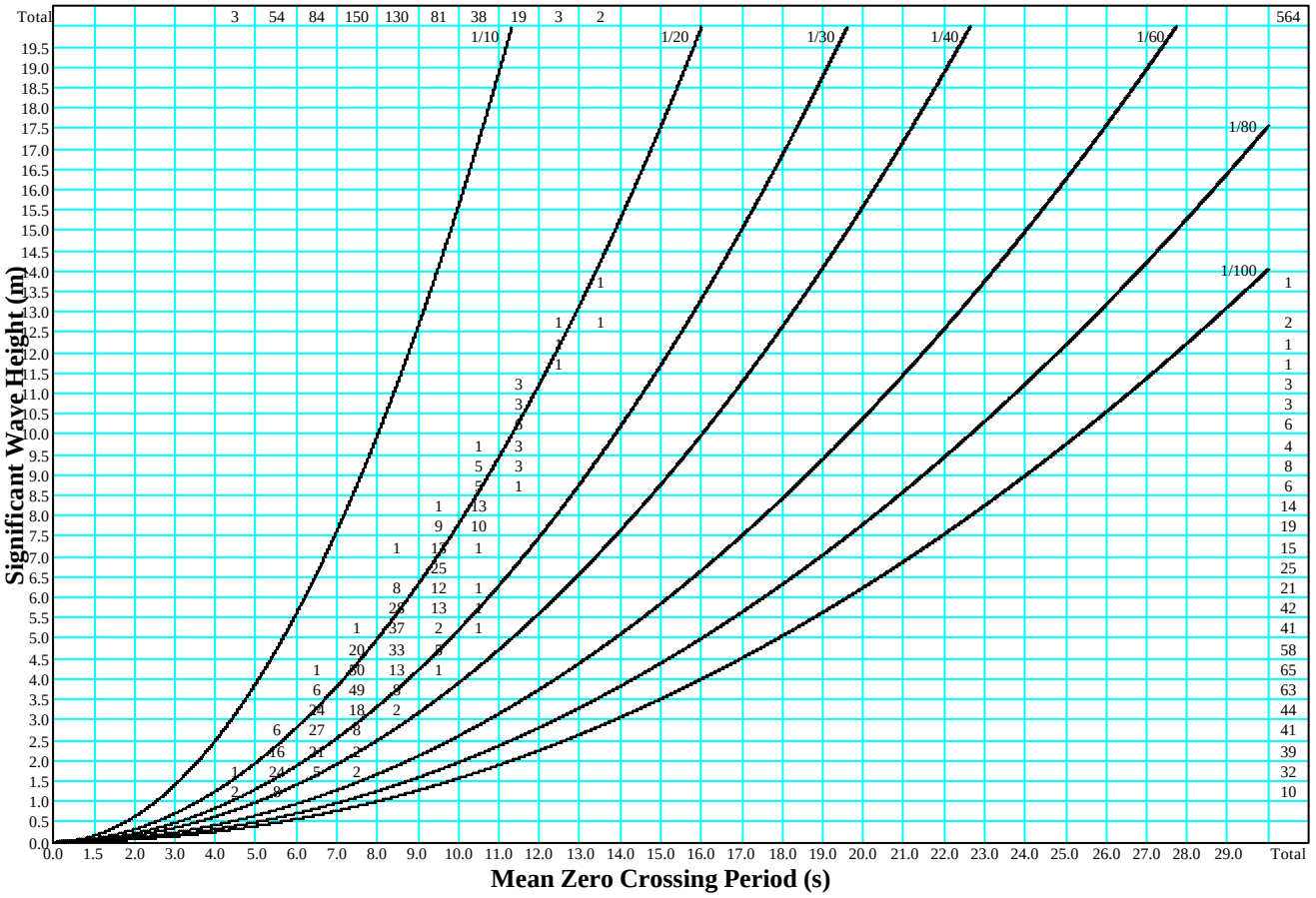
UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B5.30 **Total Samples 620**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_JANUARY_94-99

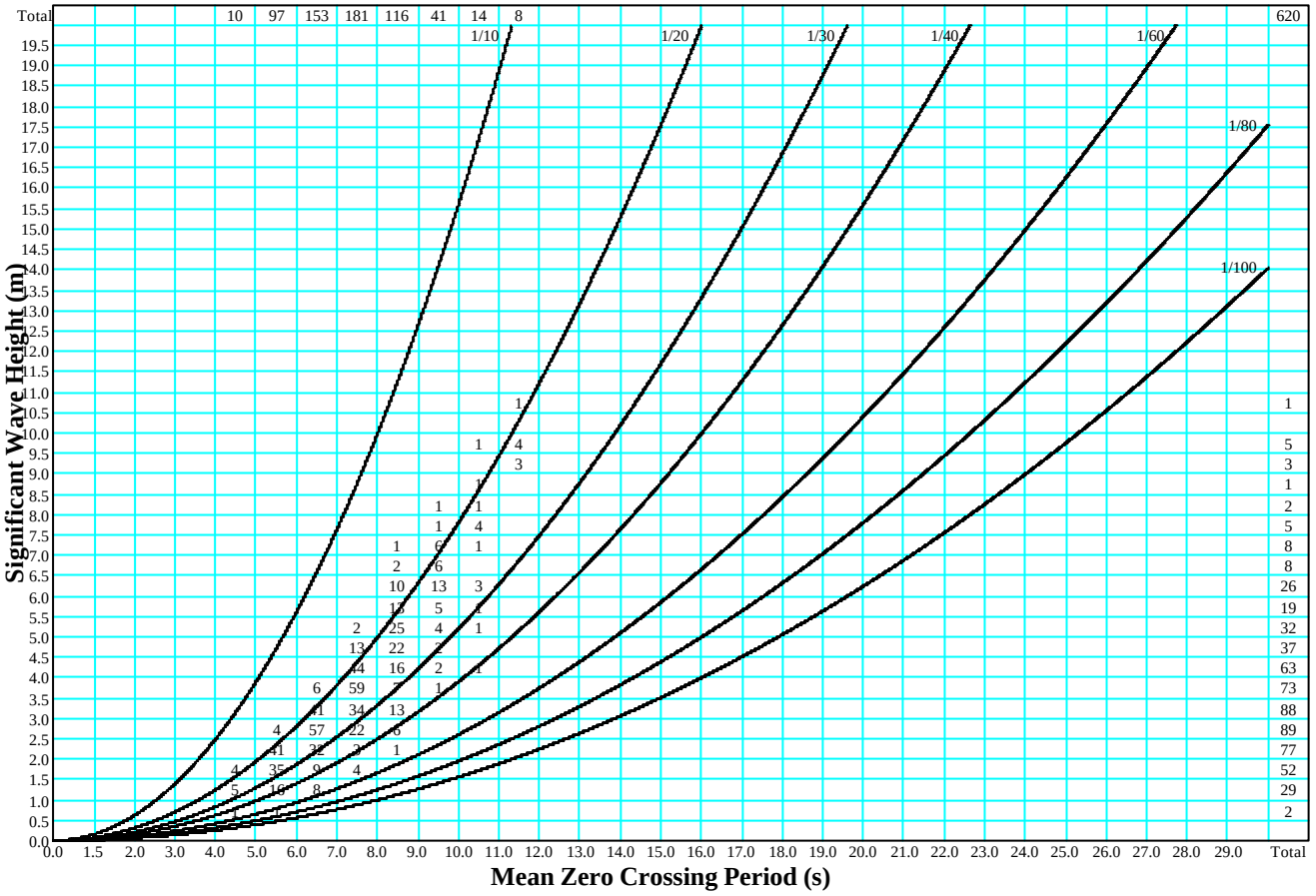
Figure B5.31 **Total Samples 564**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_FEBRUARY_94-99

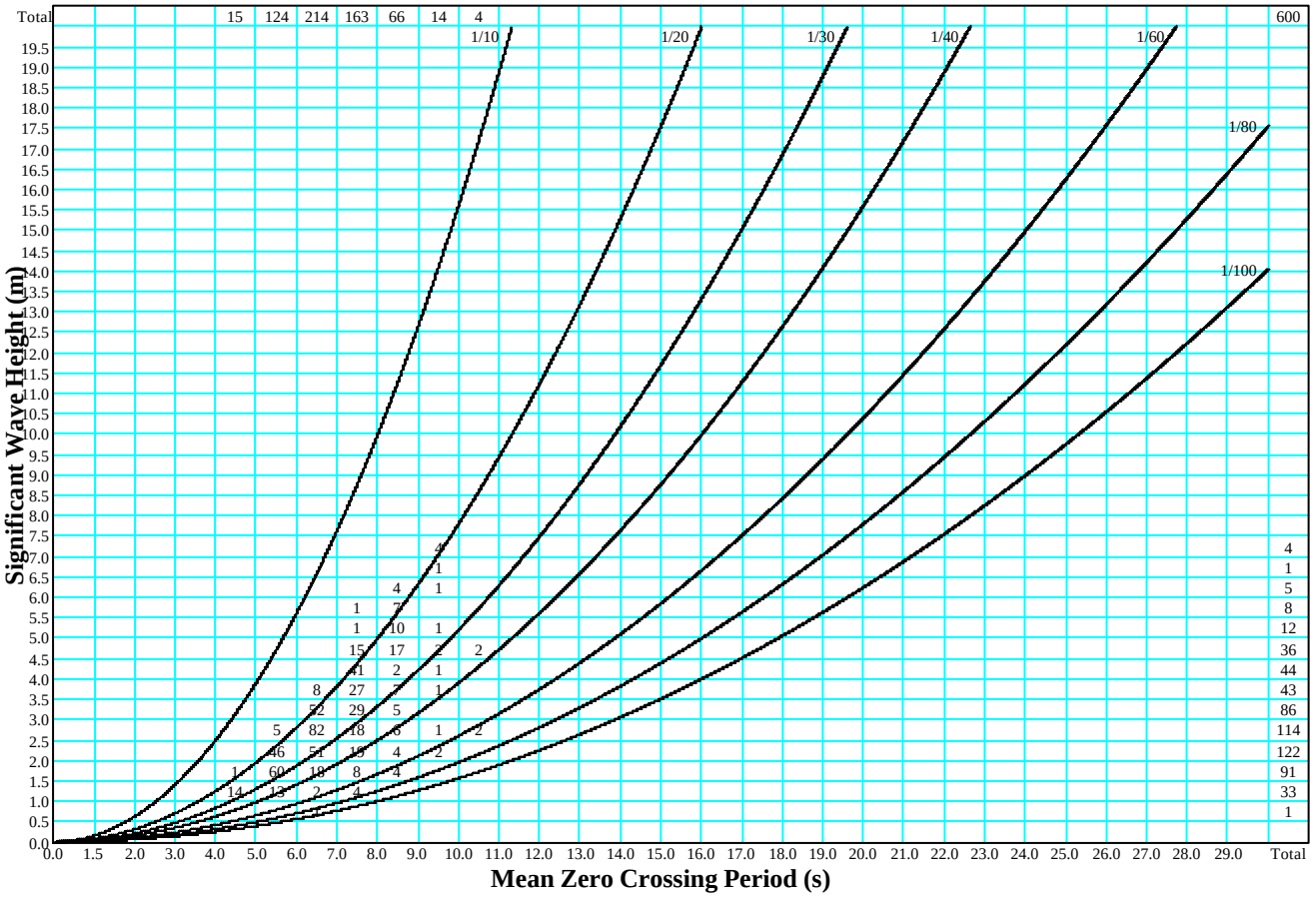
UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B5.32 **Total Samples 620**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_MARCH_94-99

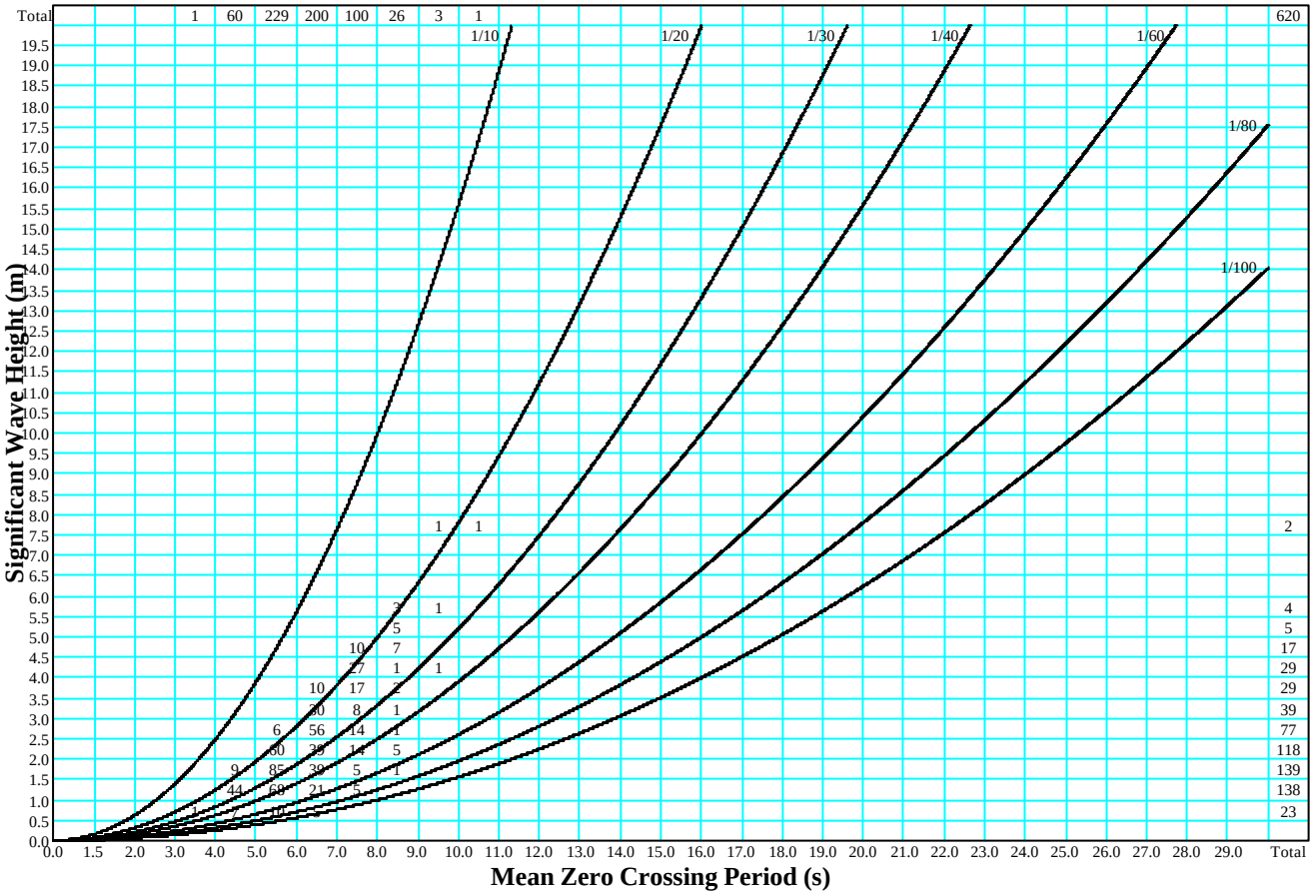
Figure B5.33 **Total Samples 600**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_APRIL_94-99

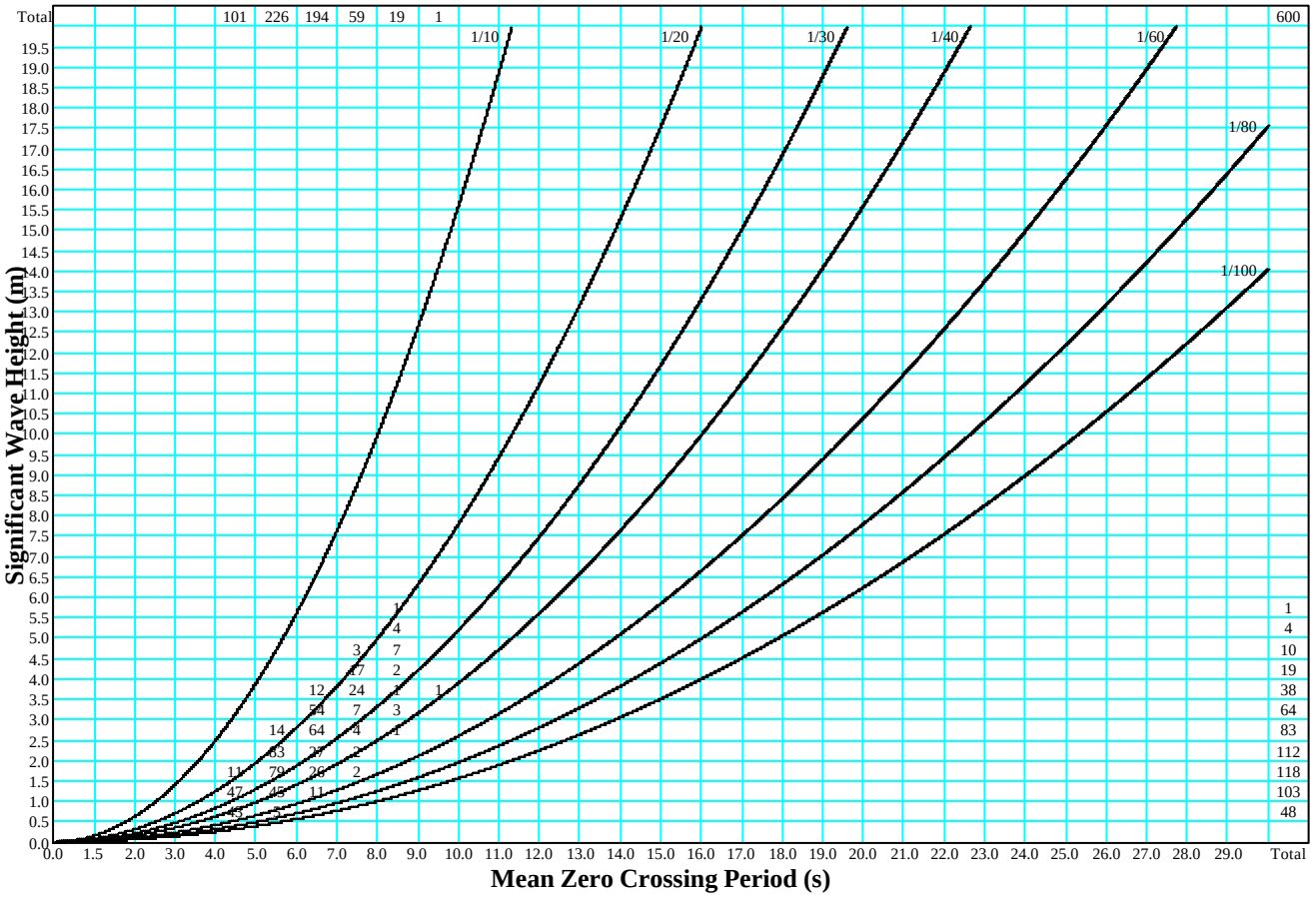
UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B5.34 **Total Samples 620**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_MAY_94-99

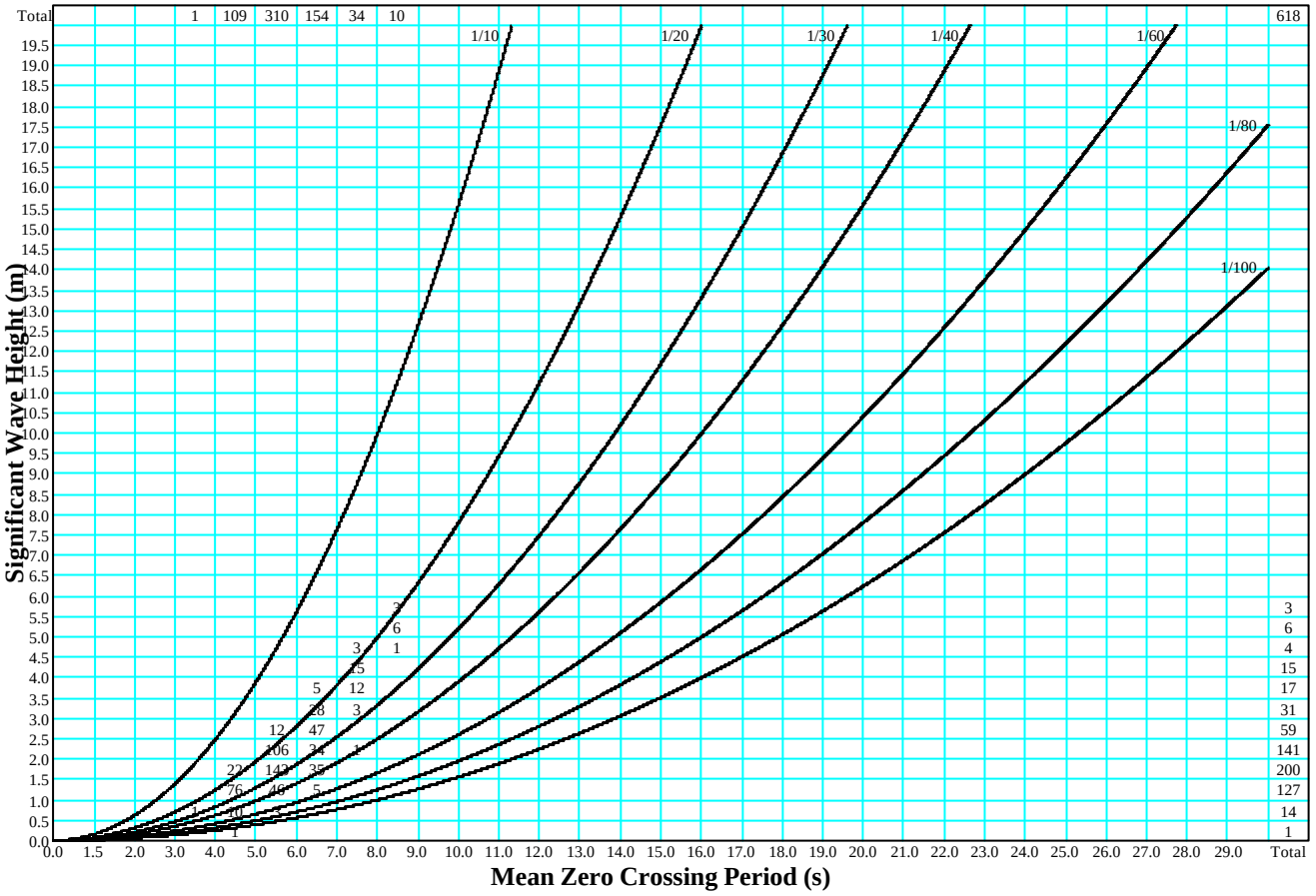
Figure B5.35 **Total Samples 600**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_JUNE_94-99

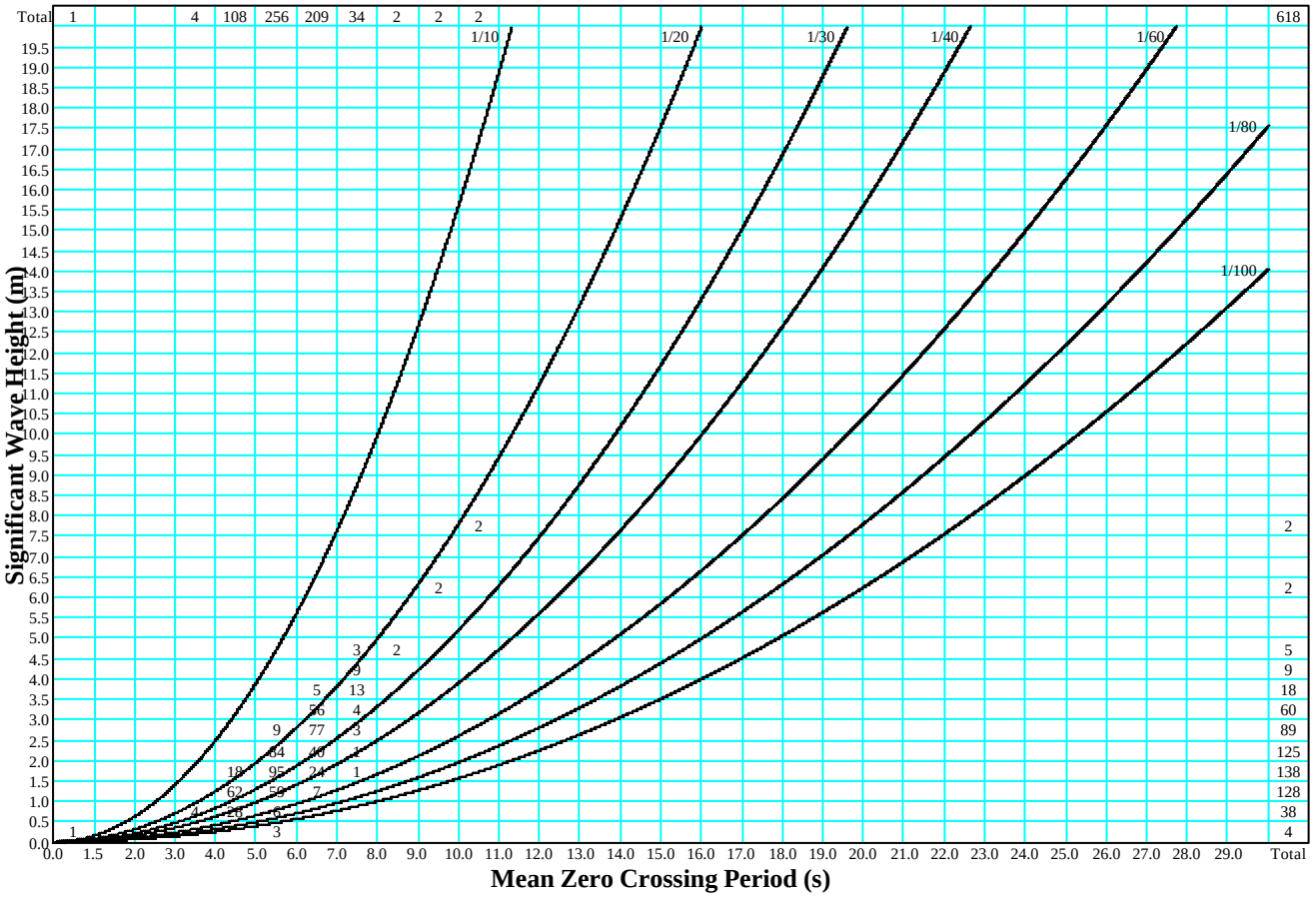
UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B5.36 **Total Samples 618**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_JULY_94-99

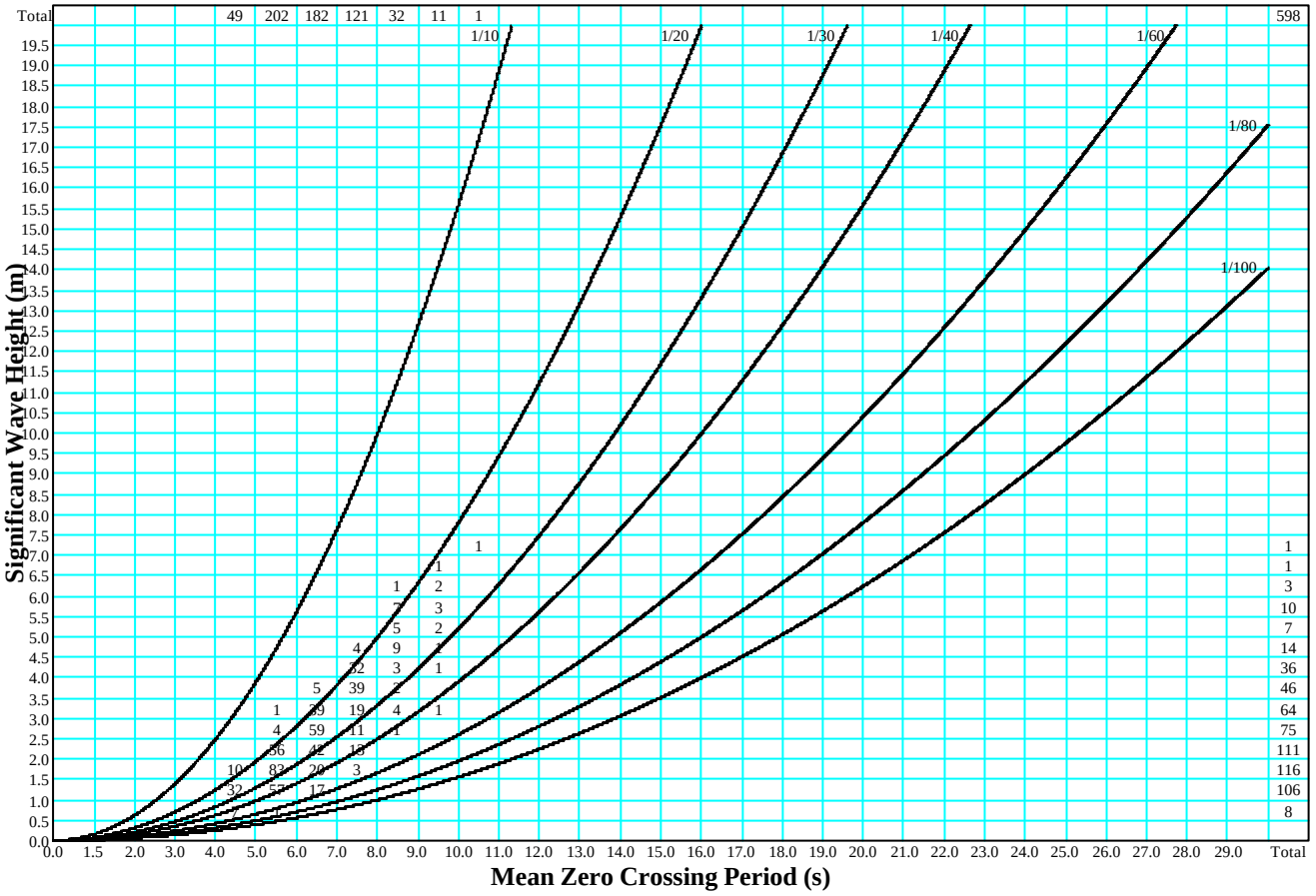
Figure B5.37 **Total Samples 618**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_AUGUST_94-99

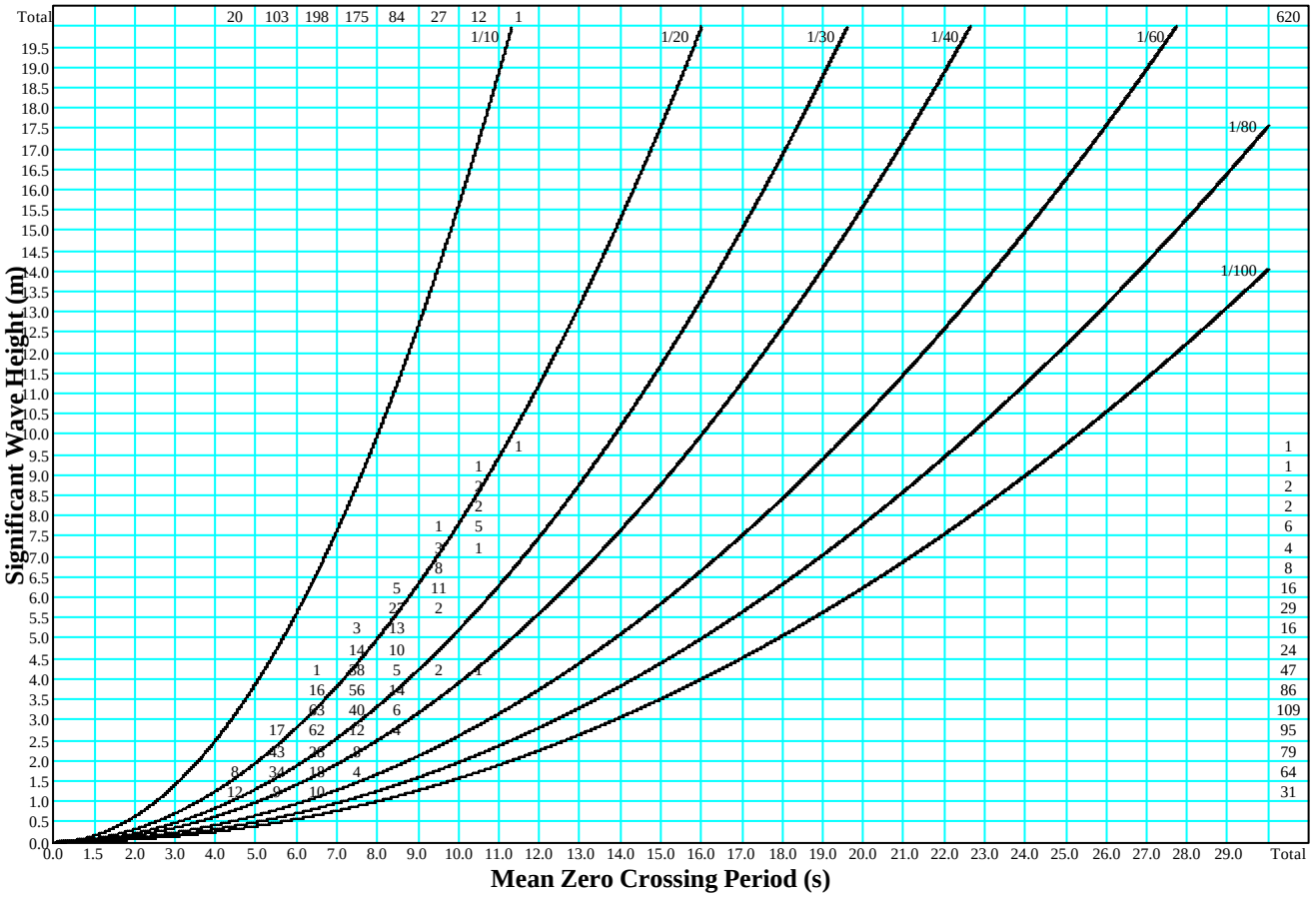
UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B5.38 **Total Samples 598**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_SEPTEMBER_94-99

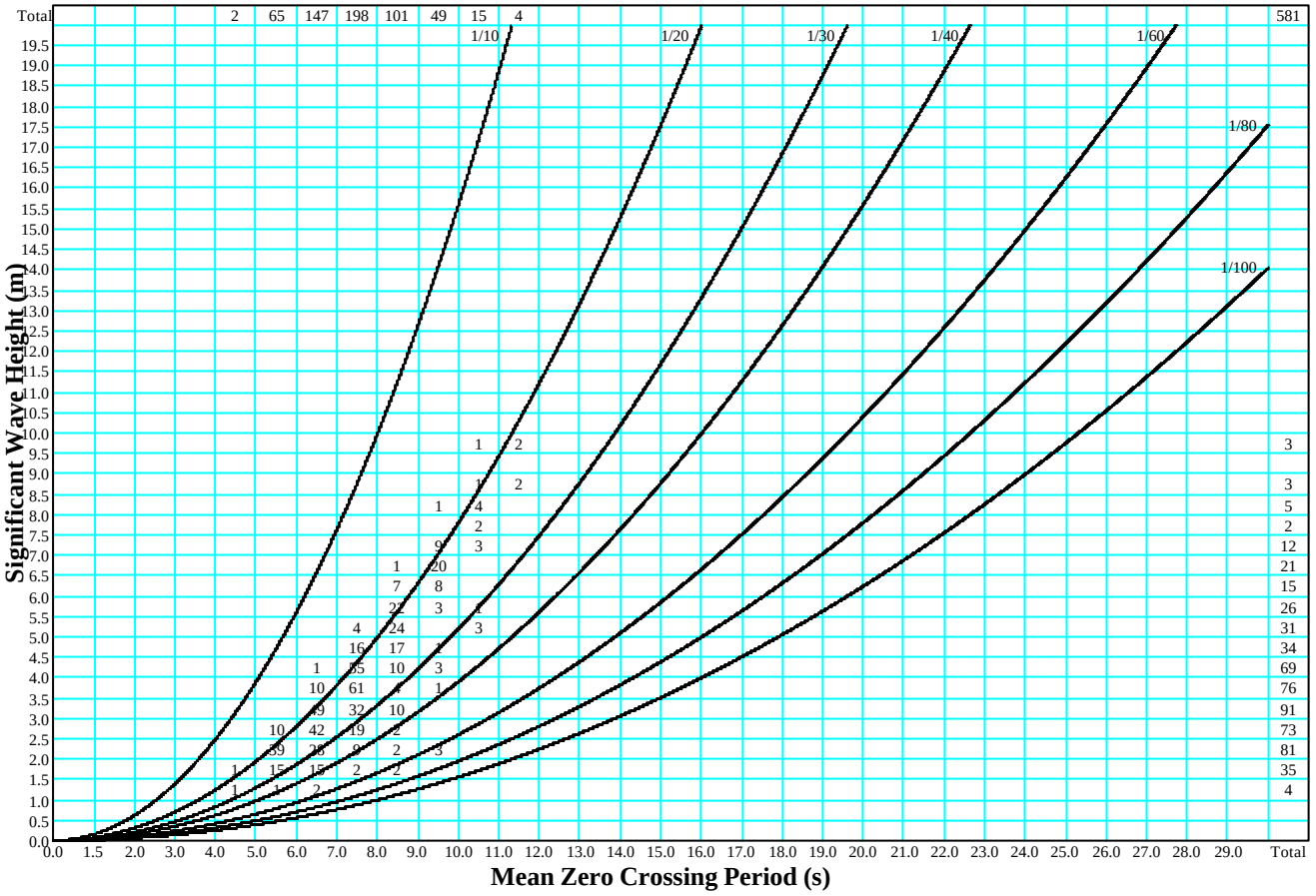
Figure B5.39 **Total Samples 620**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_OCTOBER_94-99

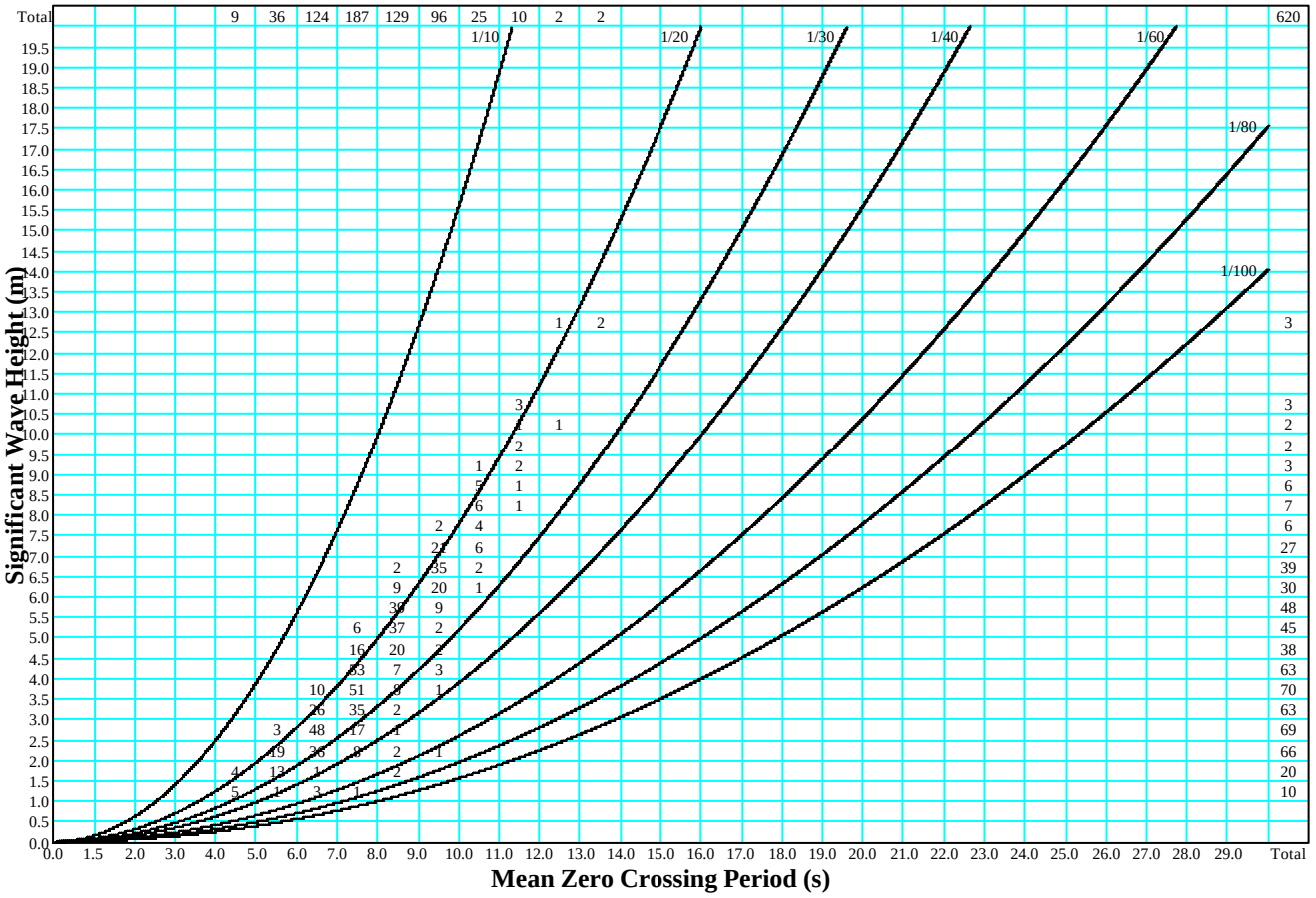
UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B5.40 **Total Samples 581**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_NOVEMBER_94-99

Figure B5.41 **Total Samples 620**

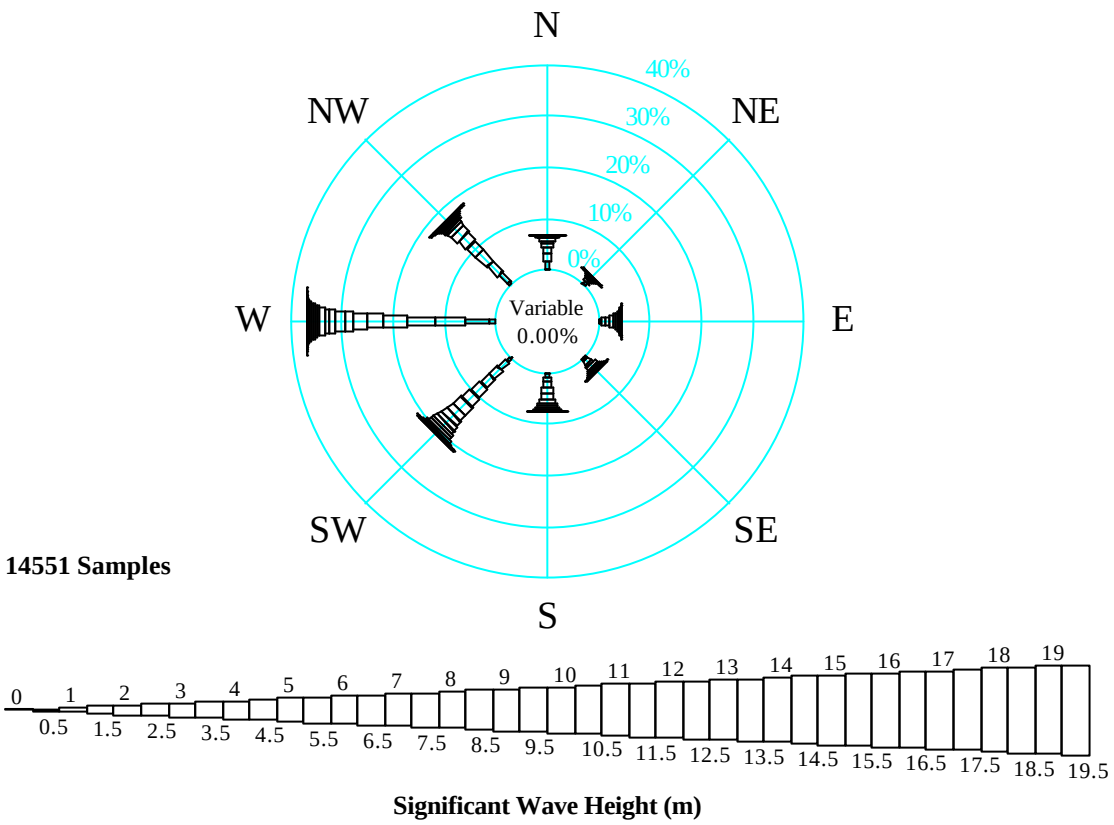


V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM5.mdb~F2S_GP5_Hs/Tz_DECEMBER_94-99

UKMO GWM 5 : 52.10°N, 15.63°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

APPENDIX B-6

Figure B6.1



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_ALLYEAR_5/94-4/99

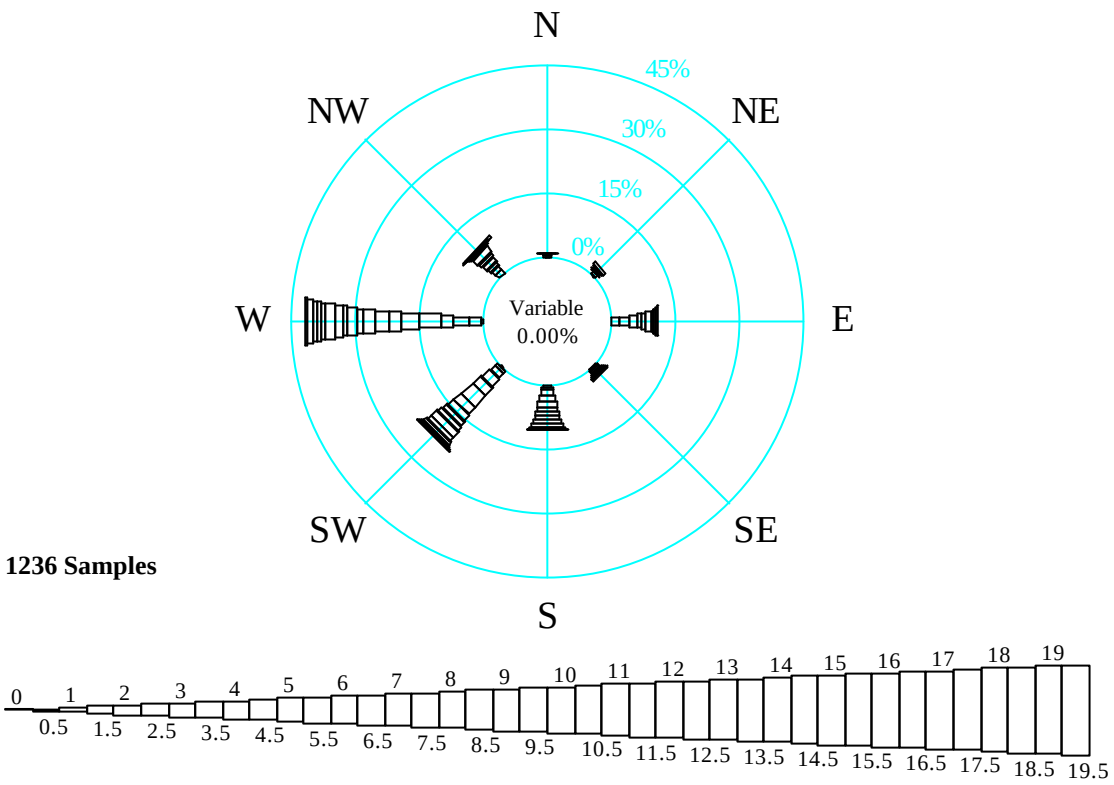
Figure B6.2

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0						7			7	14551
0.5	37	12	13	5	21	129	206	91	514	14544
1.0	202	85	75	85	102	312	690	352	1903	14030
1.5	258	73	126	112	133	324	820	402	2248	12127
2.0	171	48	92	65	187	321	819	424	2127	9879
2.5	89	42	108	91	170	351	640	344	1835	7752
3.0	75	20	61	57	137	327	477	304	1458	5917
3.5	67	28	44	34	119	304	375	222	1193	4459
4.0	34	4	44	22	73	225	272	117	791	3266
4.5	17	4	27	25	57	166	247	89	632	2475
5.0	12		8	14	37	143	187	65	466	1843
5.5	9	5	8	8	22	113	130	54	349	1377
6.0	4	2	11	7	17	87	138	37	303	1028
6.5	6		1	3	17	84	83	18	212	725
7.0	2		4	1	11	55	60	19	152	513
7.5	3		1		5	27	63	11	110	361
8.0	1					19	34	7	61	251
8.5					5	16	34	7	62	190
9.0					2	9	38	3	52	128
9.5						5	32	2	39	76
10.0						5	9	1	15	37
10.5						1	5	1	7	22
11.0						1	4		5	15
11.5						2	4		6	10
12.0										4
12.5							1		1	4
13.0							2		2	3
13.5										1
14.0										1
14.5							1		1	1
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	987	323	623	529	1115	3033	5371	2570	14551	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_ALLYEAR_5/94-4/99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : All Year

Figure B6.3



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_JANUARY_94-99

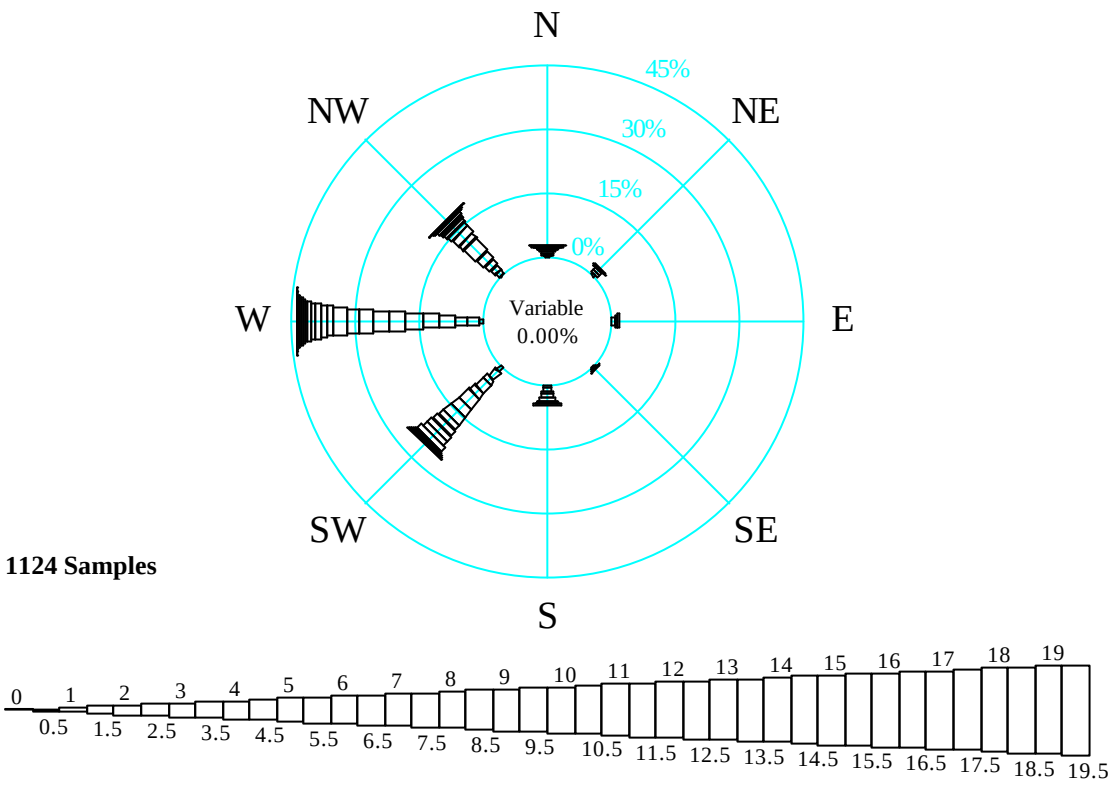
Figure B6.4

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1236
0.5						2			2	1236
1.0	1	3				1	8		13	1234
1.5	6	8	21	2			34	14	85	1221
2.0	1	4	33	4	7	9	42	15	115	1136
2.5		4	18	8	6	18	37	12	103	1021
3.0		5	13	4	18	32	65	17	154	918
3.5	2	8	15	4	16	31	53	9	138	764
4.0	1		15	4	16	44	30	5	115	626
4.5			6	4	12	28	44	19	113	511
5.0			3		14	24	34	7	82	398
5.5			4		7	18	18	1	48	316
6.0			5		14	15	28	1	63	268
6.5			1		10	23	12	2	48	205
7.0					4	14	22	2	42	157
7.5					2	10	29		41	115
8.0						4	13		17	74
8.5					1	5	11	1	18	57
9.0					1	1	14		16	39
9.5						1	17		18	23
10.0						1	4		5	5
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	11	32	134	30	128	281	515	105	1236	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_JANUARY_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : January

Figure B6.5



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_FEBRUARY_94-99

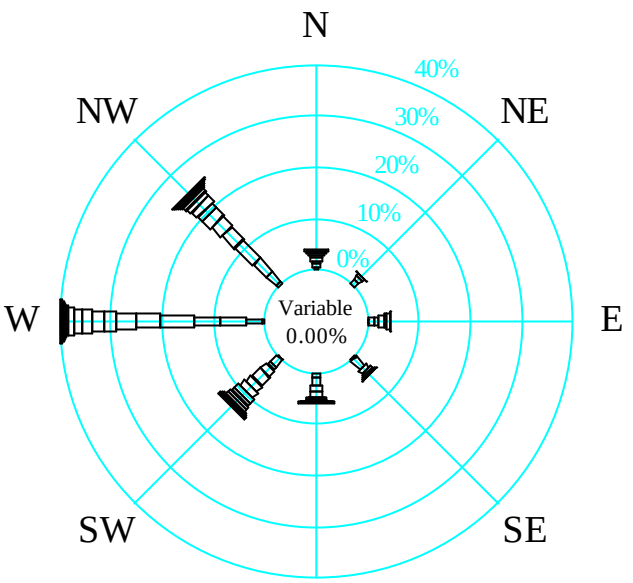
Figure B6.6

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1124
0.5										1124
1.0	2	6		2		15	8	2	35	1124
1.5	2	8	8	3	7	26	33	13	100	1089
2.0	2	7	4	2	8	14	33	15	85	989
2.5	3	3	4	2	8	29	41	19	109	904
3.0	5	2	4		9	18	44	27	109	795
3.5	7	1			11	36	47	43	145	686
4.0	2				1	26	41	16	86	541
4.5	3				4	24	40	22	93	455
5.0	1				1	18	38	15	73	362
5.5						19	32	10	61	289
6.0	1				2	16	35	7	61	228
6.5						15	18	4	37	167
7.0	1					14	14	6	35	130
7.5	1					5	15	2	23	95
8.0						4	11	2	17	72
8.5						2	11	2	15	55
9.0						2	8	1	11	40
9.5						3	6		9	29
10.0						2	4	1	7	20
10.5							2	1	3	13
11.0							2		2	10
11.5							4		4	8
12.0										4
12.5							1		1	4
13.0							2		2	3
13.5										1
14.0										1
14.5							1		1	1
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	30	27	20	9	51	288	491	208	1124	

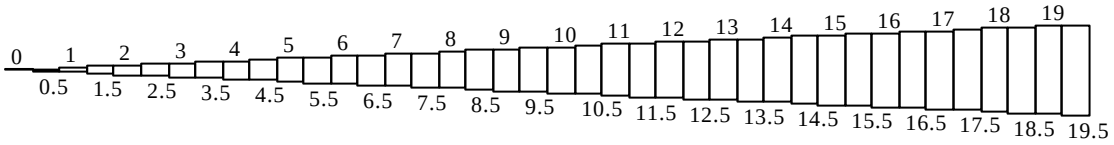
V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_FEBRUARY_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : February

Figure B6.7



1240 Samples



Significant Wave Height (m)

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_MARCH_94-99

Figure B6.8

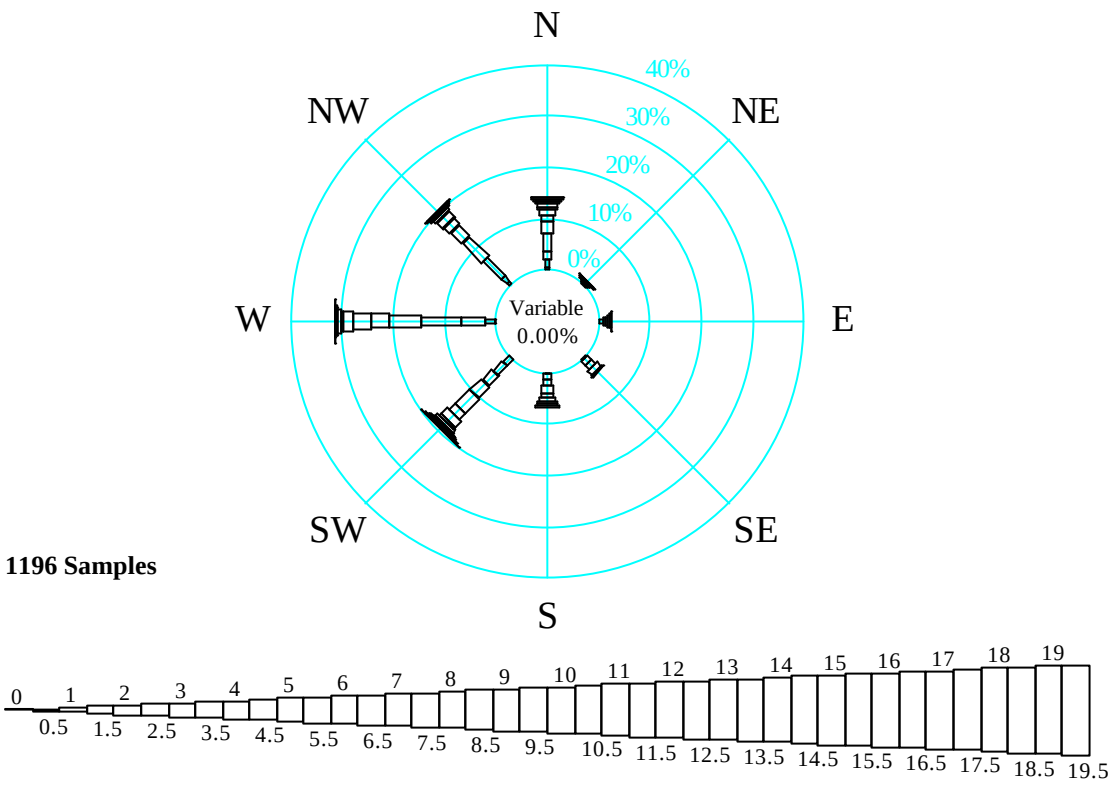
Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5										1240
1.0							7		7	1240
1.5	4	14	3	4		1	40	7	73	1233
2.0	11	8	13	30	10	21	61	29	183	1160
2.5	8	7	12	10	21	10	63	44	175	977
3.0	7		10	7	14	19	81	60	198	802
3.5	5	1	8	4	13	29	60	43	163	604
4.0	4		7	1	3	19	48	32	114	441
4.5	6		4	2	4	16	28	25	85	327
5.0	1				4	15	29	16	65	242
5.5	2					7	27	19	55	177
6.0						9	17	13	39	122
6.5						9	14	10	33	83
7.0					2	3	7	3	15	50
7.5					1		2	3	6	35
8.0					2	4	2	2	10	29
8.5						2	1	3	6	19
9.0							1	1	2	13
9.5							3	2	5	11
10.0							4	2	6	6
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	48	30	57	58	74	164	495	314	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_MARCH_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : March

Figure B6.9



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_APRIL_94-99

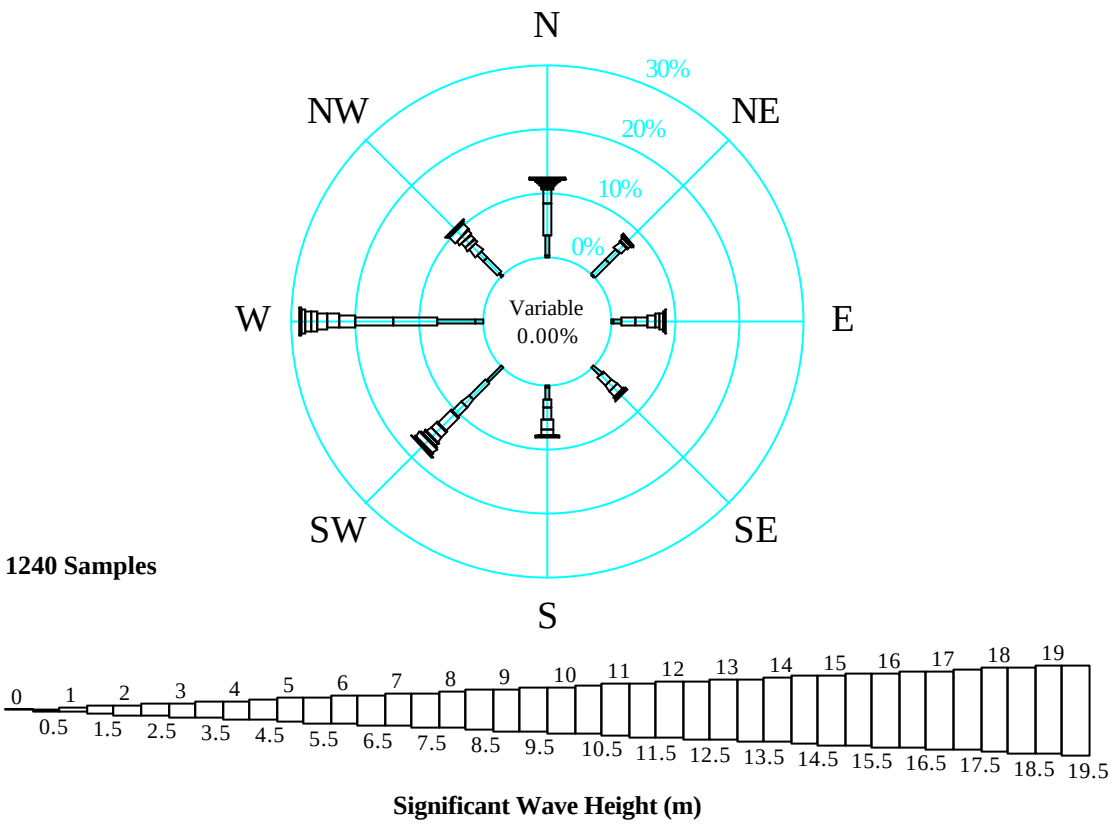
Figure B6.10

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1196
0.5	5						1	8	14	1196
1.0	21		11	2	3	21	22	18	98	1182
1.5	16	1	6	13	11	30	58	58	193	1084
2.0	45	5	3	14	18	32	93	64	274	891
2.5	27	2	6	14	17	38	74	38	216	617
3.0	14		2	2	11	46	45	19	139	401
3.5	11	2		3	9	21	38	20	104	262
4.0	9	1	1		4	18	23	7	63	158
4.5	5	1			5	7	9	2	29	95
5.0	5				5	7	7	1	25	66
5.5	4					2	1	4	11	41
6.0	3					2	1	2	8	30
6.5	5						1	2	8	22
7.0	1					2	1	1	5	14
7.5						1			1	9
8.0						1			1	8
8.5						2			2	7
9.0						1			1	5
9.5							1		1	4
10.0						1			1	3
10.5										2
11.0										2
11.5						2			2	2
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	171	12	29	48	83	234	375	244	1196	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_APRIL_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : April

Figure B6.11



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_MAY_94-99

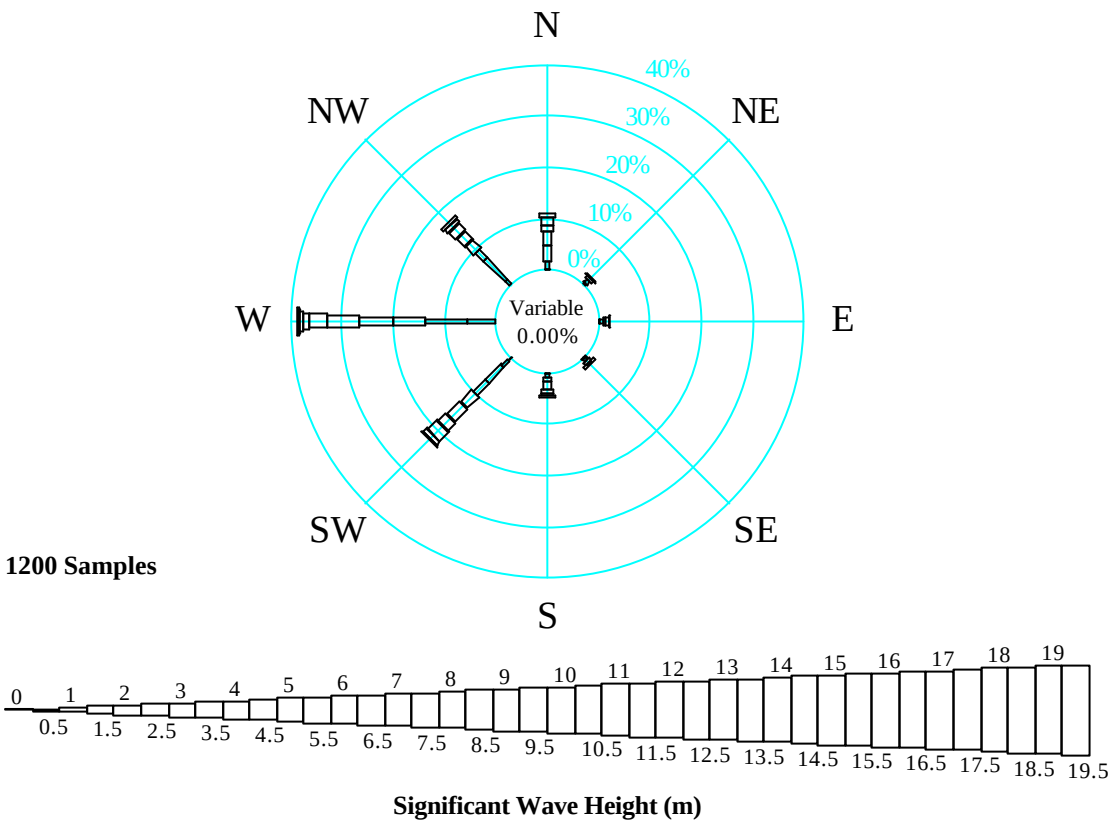
Figure B6.12

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	5	1	2		4	39	14	7	72	1240
1.0	36	38	18	22	25	45	75	39	298	1168
1.5	64	29	28	20	12	20	86	16	275	870
2.0	26	17	22	15	25	26	72	19	222	595
2.5	2	9	16	14	19	34	32	8	134	373
3.0	4	2	7	4	11	16	22	11	77	239
3.5	6	2	6	5	1	12	21	9	62	162
4.0	4		3		1	7	12	16	43	100
4.5			2			3	12	2	19	57
5.0	1		2			12	4	2	21	38
5.5	1				1	3	3	1	9	17
6.0							1		1	8
6.5	1					3			4	7
7.0										3
7.5	2								2	3
8.0	1								1	1
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	153	98	106	80	99	220	354	130	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_MAY_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : May

Figure B6.13



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_JUNE_94-99

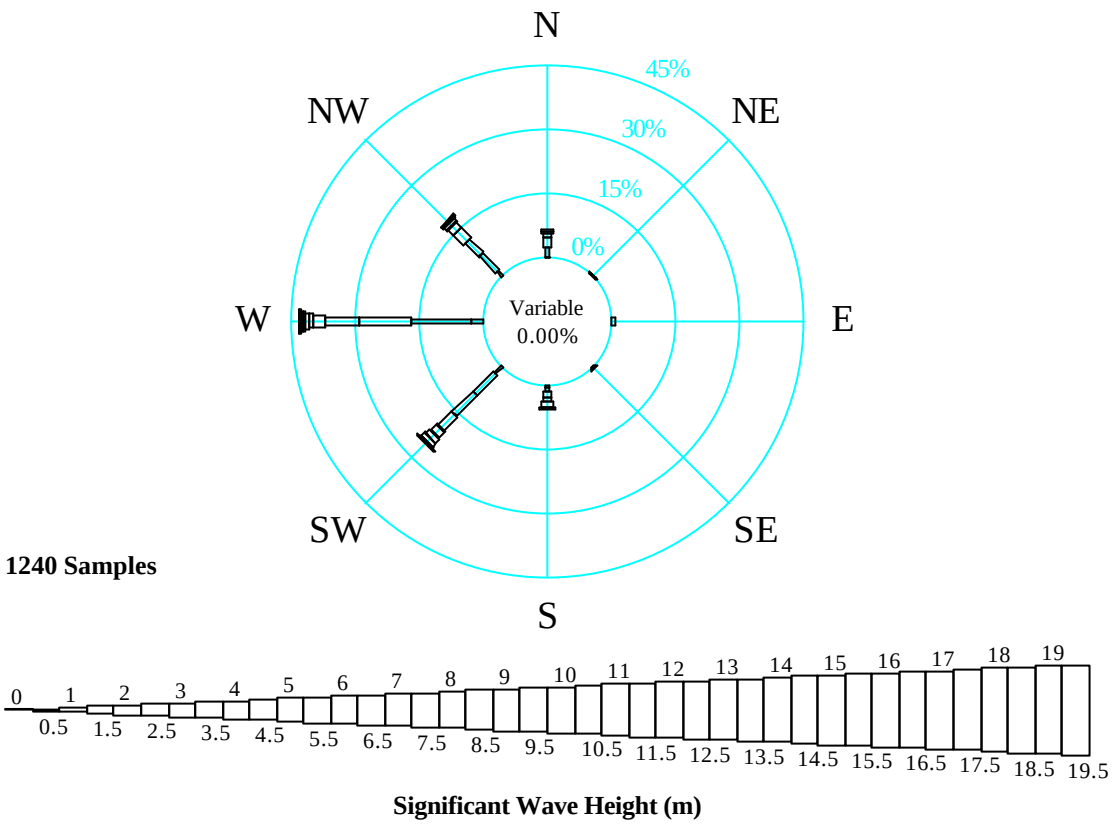
Figure B6.14

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										
0.5						7			7	1200
1.0	2	6	3	1	4	21	65	16	118	1193
1.5	16	10	8	7	9	52	99	68	269	1075
2.0	41	5	6	10	10	38	75	28	213	806
2.5	31	1	7		15	39	82	28	203	593
3.0	14	1	2		9	42	75	26	169	390
3.5	21			2	7	27	42	23	122	221
4.0	7				5	30	14	11	67	99
4.5						11	6	7	24	32
5.0						3	1		4	8
5.5							1		1	4
6.0							1		1	3
6.5							2		2	2
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	132	23	26	20	59	270	463	207	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_JUNE_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : June

Figure B6.15



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_JULY_94-99

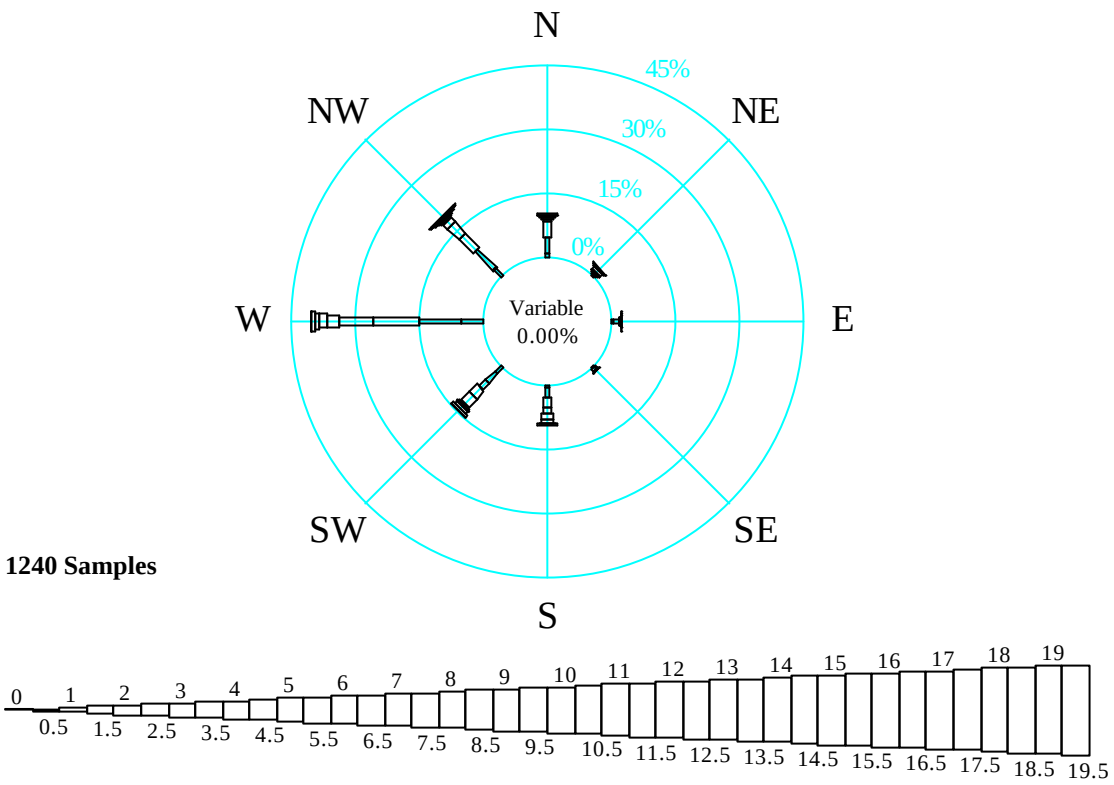
Figure B6.16

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	1				3	27	33	18	82	1240
1.0	30			2	13	83	175	69	372	1158
1.5	26	1	11	4	16	84	150	55	347	786
2.0	10	1			16	57	99	41	224	439
2.5	7				14	25	36	22	104	215
3.0	5				2	17	13	13	50	111
3.5					8	13	13	4	38	61
4.0						5	5	4	14	23
4.5							5		5	9
5.0						1	2		3	4
5.5							1		1	1
6.0										
6.5										
7.0										
7.5										
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	79	2	11	6	72	312	532	226	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_JULY_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : July

Figure B6.17



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_AUGUST_94-99

Figure B6.18

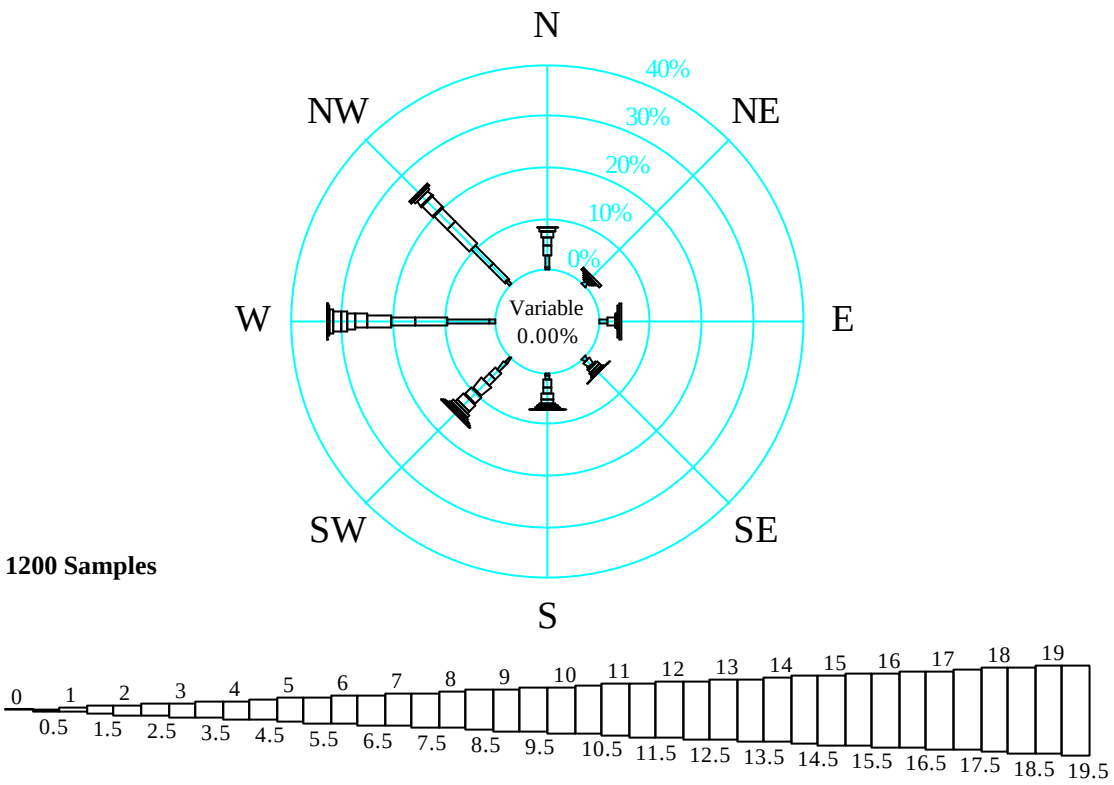
Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5	11	3	8	4	5	23	65	29	148	1240
1.0	45	4	13	7	30	36	121	77	333	1092
1.5	47	4	3	4	28	27	133	58	304	759
2.0	9	2	2	1	20	32	97	43	206	455
2.5	2	11	1		17	34	37	20	122	249
3.0	3	2	1		10	9	23	6	54	127
3.5	5	2			3	10	10	2	32	73
4.0	2	1			2	7	11	1	24	41
4.5	3		1			1	3	1	9	17
5.0								1	1	8
5.5								1	1	7
6.0								2	2	6
6.5										4
7.0								2	2	4
7.5								2	2	2
8.0										
8.5										
9.0										
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	127	29	29	16	115	179	500	245	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_AUGUST_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : August

Figure B6.19



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_SEPTEMBER_94-99

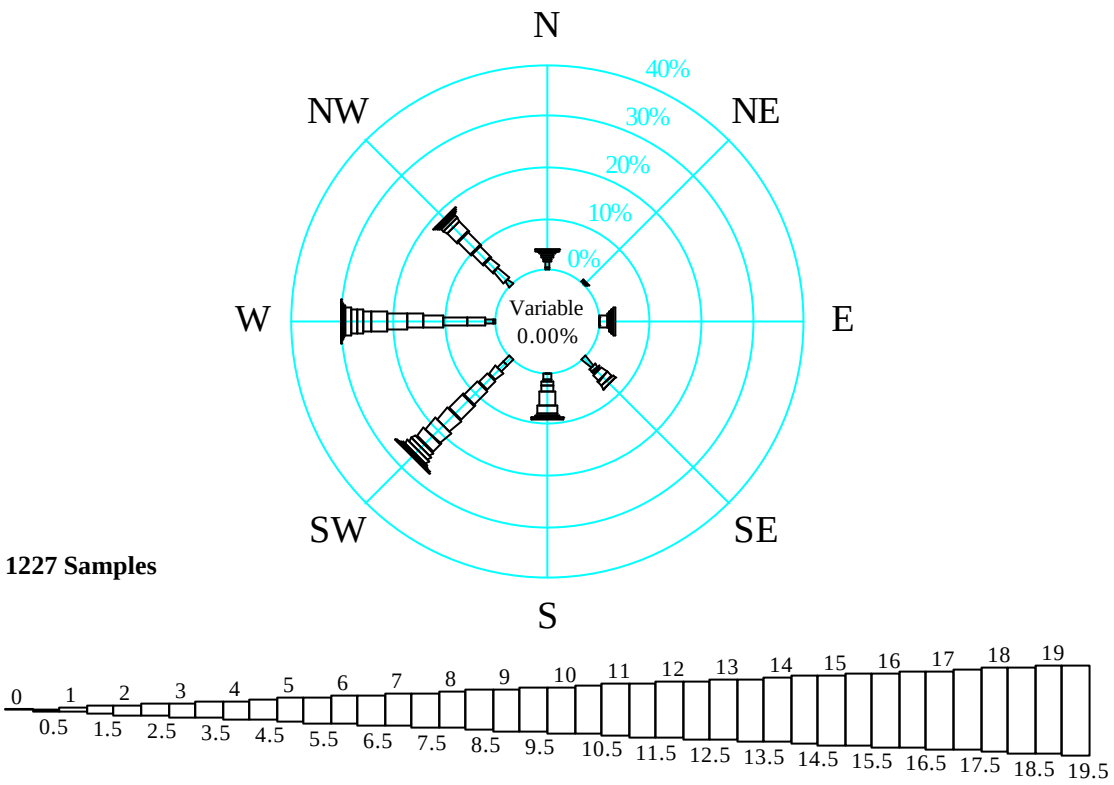
Figure B6.20

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1200
0.5	6				5	17	14	13	55	1200
1.0	26	8	21	10	13	26	99	51	254	1145
1.5	27	3	16	15	16	20	77	60	234	891
2.0	18		1	4	17	19	53	74	186	657
2.5	11	3	3	7	10	32	57	45	168	471
3.0	3	3	2	6	9	23	30	35	111	303
3.5	8	5	3	3	5	22	17	15	78	192
4.0	1	1		2	3	6	16	6	35	114
4.5		1			3	6	19	1	30	79
5.0					2	5	9	2	18	49
5.5		2		1	2	1	1	4	11	31
6.0						2			2	20
6.5					1		1		2	18
7.0			4	1		2			7	16
7.5			1		1		2		4	9
8.0						1	1		2	5
8.5						2			2	3
9.0						1			1	1
9.5										
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	100	26	51	49	87	185	396	306	1200	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_SEPTEMBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : September

Figure B6.21



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_OCTOBER_94-99

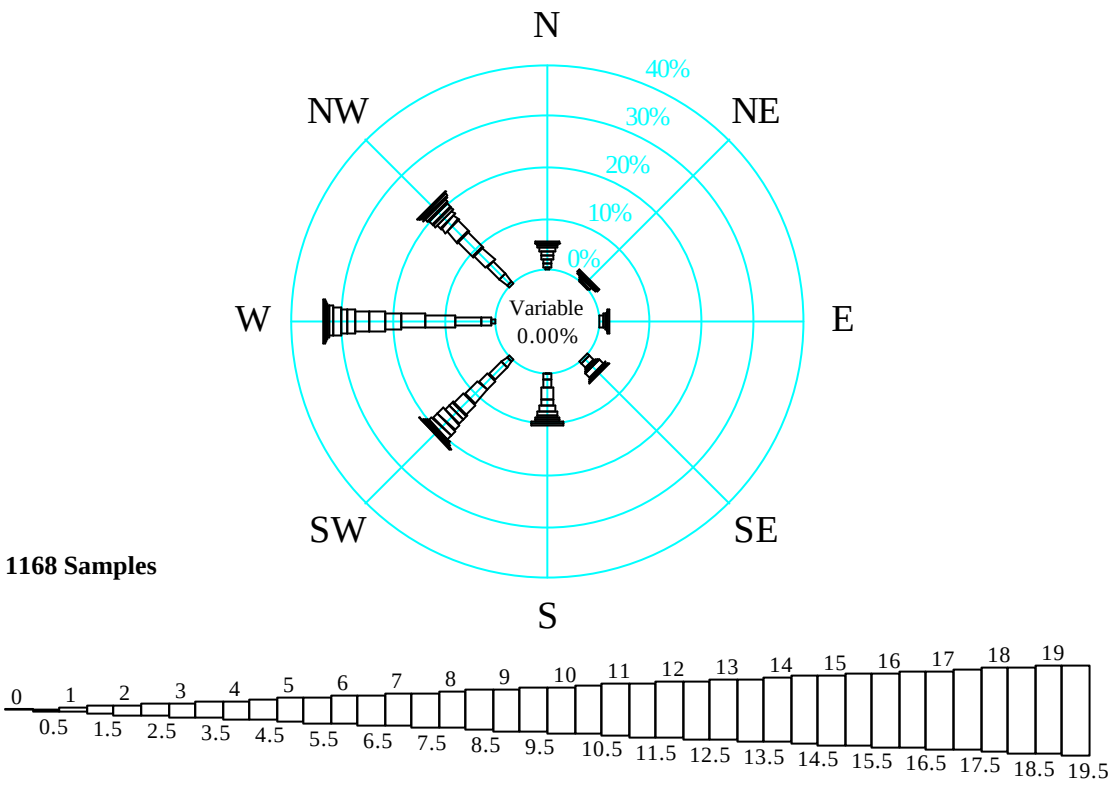
Figure B6.22

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1227
0.5	7	2					7		16	1227
1.0	13	2		29	4	19	20	15	102	1211
1.5	3	4	2	10	10	21	40	37	127	1109
2.0	6		2	5	8	25	60	30	136	982
2.5	8		17	20	9	31	48	36	169	846
3.0	3		3	14	14	47	39	44	164	677
3.5	4		1	8	32	48	48	32	173	513
4.0	1		3	2	19	39	34	12	110	340
4.5	1		1		6	36	23	7	74	230
5.0	1		2		5	26	14	5	53	156
5.5	1		2		1	12	15	2	33	103
6.0			6			10	11	5	32	70
6.5					1	11	6	2	20	38
7.0					2	2	2		6	18
7.5						3			3	12
8.0							2		2	9
8.5						1			1	7
9.0						1	2		3	6
9.5							1		1	3
10.0						1			1	2
10.5						1			1	1
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	48	8	39	88	111	334	372	227	1227	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_OCTOBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : October

Figure B6.23



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_NOVEMBER_94-99

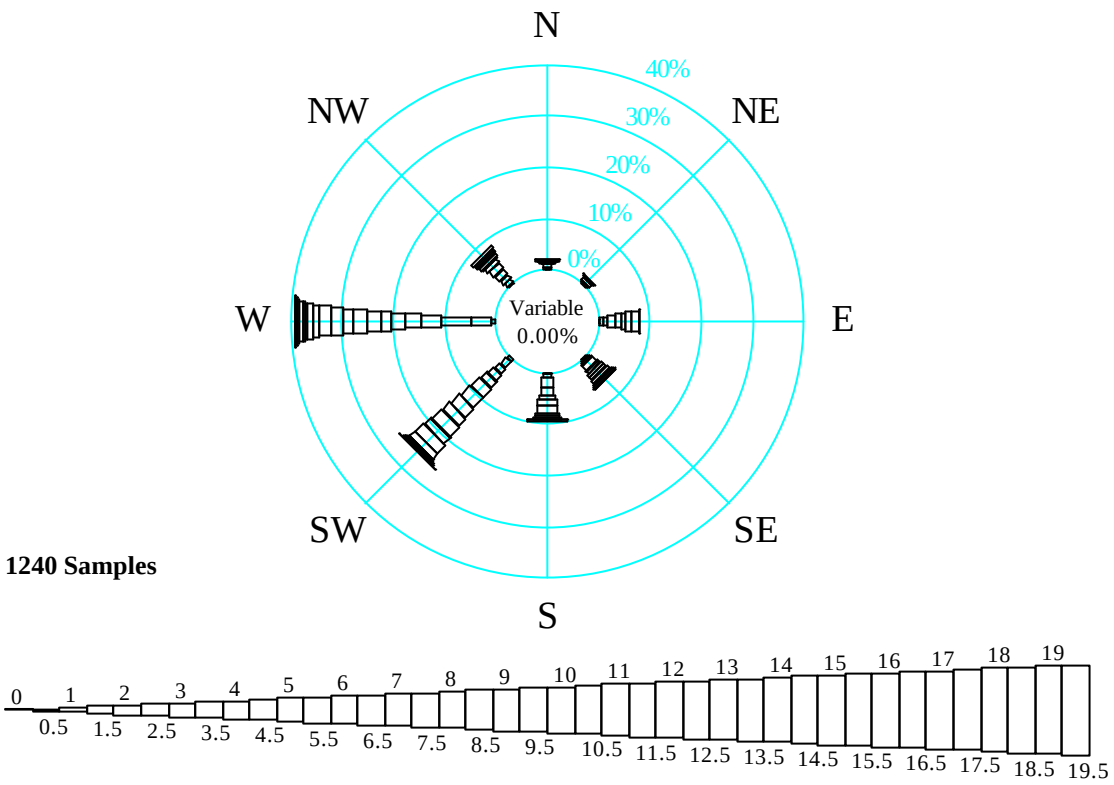
Figure B6.24

Significant Wave Height (m)	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1168
0.5										1168
1.0	5				4	5	10	5	29	1168
1.5	10				12	17	24	23	86	1139
2.0	9			6	20	40	57	39	171	1053
2.5	7	2	11	13	26	28	72	40	199	882
3.0	11	1	4	4	11	44	53	48	176	683
3.5	9	5	4	2	16	31	34	35	136	507
4.0	6	1	1	4	10	12	40	14	88	371
4.5	3	2	1	13	5	13	32	11	80	283
5.0	1			4	3	18	15	9	50	203
5.5	2	3	2	2	6	14	16	10	55	153
6.0		2		2		12	17	4	37	98
6.5					3	2	9	5	19	61
7.0					4	3	3	5	15	42
7.5						2	5	5	12	27
8.0						2	1	2	5	15
8.5						2	2	3	7	10
9.0							1		1	3
9.5						1	1		2	2
10.0										
10.5										
11.0										
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	63	16	23	50	120	246	392	258	1168	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_NOVEMBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : November

Figure B6.25



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_DECEMBER_94-99

Figure B6.26

Significant Wave Height (m)

	N	NE	E	SE	S	SW	W	NW	Total	CFD
0.0										1240
0.5										1240
1.0	3		1		1	8	13	1	27	1240
1.5	5	2	12	1	1	20	49	11	101	1213
2.0	6	4	6	4	12	18	68	12	130	1112
2.5	1	7	20	6	21	21	50	18	144	982
3.0	1	4	17	17	22	19	41	18	139	838
3.5	4	3	8	8	10	31	32	10	106	699
4.0	2		17	8	13	34	26	4	104	593
4.5	1		16	8	18	30	30	8	111	489
5.0	1		1	10	7	25	36	4	84	378
5.5	1			5	5	35	25	8	79	294
6.0				5	1	21	29	6	62	215
6.5				3		27	29		59	153
7.0						18	16		34	94
7.5						2	10		12	60
8.0						5	5		10	48
8.5					4	2	9		15	38
9.0					1	3	10		14	23
9.5							2		2	9
10.0							1		1	7
10.5							3		3	6
11.0						1	2		3	3
11.5										
12.0										
12.5										
13.0										
13.5										
14.0										
14.5										
15.0										
15.5										
16.0										
16.5										
17.0										
17.5										
18.0										
18.5										
19.0										
19.5										
20.0										
Total	25	20	98	75	116	320	486	100	1240	

V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_HS/WVD_DECEMBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Wave Rose and Frequency Table : December

UKMO GWM 6 (50.25°N, 12.86°W)

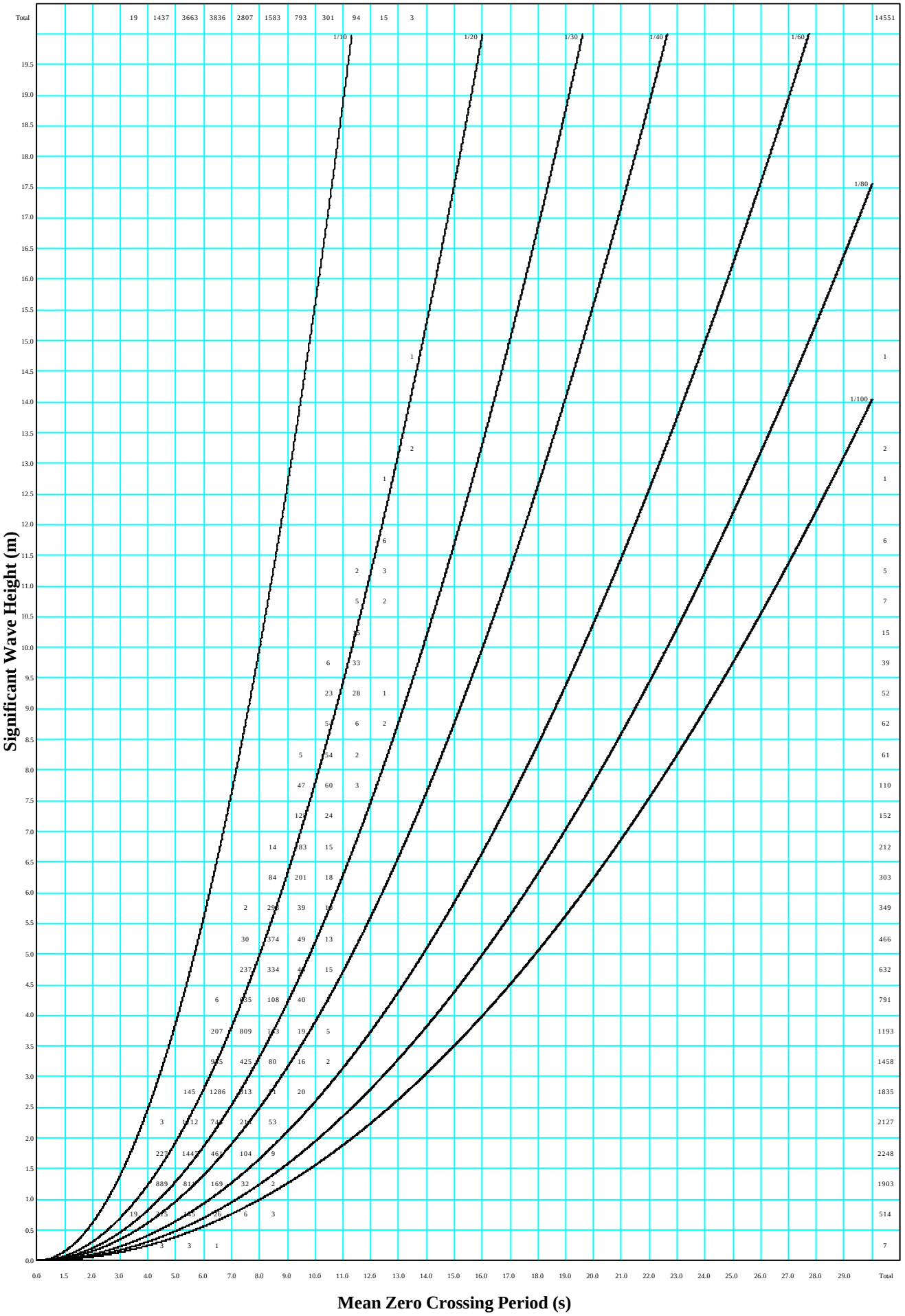
Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	99.42	100.00	100.00	100.00	100.00	100.00	100.00	99.95
1.0	99.84	100.00	99.44	98.83	94.19	89.58	93.39	88.06	95.42	98.70	100.00	100.00	96.42
1.5	98.79	96.89	93.55	90.64	70.16	67.17	63.39	61.21	74.25	90.38	97.52	97.82	83.34
2.0	91.91	87.99	78.79	74.50	47.98	49.42	35.40	36.69	54.75	80.03	90.15	89.68	67.89
2.5	82.61	80.43	64.68	51.59	30.08	32.50	17.34	20.08	39.25	68.95	75.51	79.19	53.27
3.0	74.27	70.73	48.71	33.53	19.27	18.42	8.95	10.24	25.25	55.18	58.48	67.58	40.66
3.5	61.81	61.03	35.56	21.91	13.06	8.25	4.92	5.89	16.00	41.81	43.41	56.37	30.64
4.0	50.65	48.13	26.37	13.21	8.06	2.67	1.85	3.31	9.50	27.71	31.76	47.82	22.45
4.5	41.34	40.48	19.52	7.94	4.60	0.67	0.73	1.37	6.58	18.74	24.23	39.44	17.01
5.0	32.20	32.21	14.27	5.52	3.06	0.33	0.32	0.65	4.08	12.71	17.38	30.48	12.67
5.5	25.57	25.71	9.84	3.43	1.37	0.25	0.08	0.56	2.58	8.39	13.10	23.71	9.46
6.0	21.68	20.28	6.69	2.51	0.65	0.17	0.00	0.48	1.67	5.70	8.39	17.34	7.06
6.5	16.59	14.86	4.03	1.84	0.56	0.00	0.00	0.32	1.50	3.10	5.22	12.34	4.98
7.0	12.70	11.57	2.82	1.17	0.24	0.00	0.00	0.32	1.33	1.47	3.60	7.58	3.53
7.5	9.30	8.45	2.34	0.75	0.24	0.00	0.00	0.16	0.75	0.98	2.31	4.84	2.48
8.0	5.99	6.41	1.53	0.67	0.08	0.00	0.00	0.00	0.42	0.73	1.28	3.87	1.72
8.5	4.61	4.89	1.05	0.59	0.00	0.00	0.00	0.00	0.25	0.57	0.86	3.06	1.31
9.0	3.16	3.56	0.89	0.42	0.00	0.00	0.00	0.00	0.08	0.49	0.26	1.85	0.88
9.5	1.86	2.58	0.48	0.33	0.00	0.00	0.00	0.00	0.00	0.24	0.17	0.73	0.52
10.0	0.40	1.78	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.56	0.25
10.5	0.00	1.16	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.48	0.15
11.0	0.00	0.89	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.10
11.5	0.00	0.71	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07
12.0	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
12.5	0.00	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03
13.0	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
13.5	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Mean	**4.38**	**4.31**	**3.26**	**2.75**	**2.18**	**2.05**	**1.84**	**1.85**	**2.37**	**3.29**	**3.57**	**4.13**	**2.99**
Minimum	**0.90**	**1.10**	**0.80**	**0.70**	**0.60**	**0.40**	**0.60**	**0.60**	**0.60**	**0.70**	**1.00**	**1.00**	**0.40**
Maximum	**10.40**	**14.60**	**9.90**	**11.90**	**8.40**	**6.30**	**5.50**	**7.60**	**9.00**	**10.80**	**9.80**	**11.20**	**14.60**

Table B6.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : UKMO GWM 6

Height (m)	N	NE	E	SE	S	SW	W	NW	Omni
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	99.97	100.00	100.00	99.95
1.0	96.25	96.28	97.91	99.05	98.12	95.52	96.16	96.46	96.42
1.5	75.79	69.97	85.87	82.99	88.97	85.23	83.32	82.76	83.34
2.0	49.65	47.37	65.65	61.81	77.04	74.55	68.05	67.12	67.89
2.5	32.32	32.51	50.88	49.53	60.27	63.96	52.80	50.62	53.27
3.0	23.30	19.50	33.55	32.33	45.02	52.39	40.89	37.24	40.66
3.5	15.70	13.31	23.76	21.55	32.74	41.61	32.01	25.41	30.64
4.0	8.92	4.64	16.69	15.12	22.06	31.59	25.02	16.77	22.45
4.5	5.47	3.41	9.63	10.96	15.52	24.17	19.96	12.22	17.01
5.0	3.75	2.17	5.30	6.24	10.40	18.69	15.36	8.75	12.67
5.5	2.53	2.17	4.01	3.59	7.09	13.98	11.88	6.23	9.46
6.0	1.62	0.62	2.73	2.08	5.11	10.25	9.46	4.12	7.06
6.5	1.22	0.00	0.96	0.76	3.59	7.39	6.89	2.68	4.98
7.0	0.61	0.00	0.80	0.19	2.06	4.62	5.34	1.98	3.53
7.5	0.41	0.00	0.16	0.00	1.08	2.80	4.23	1.25	2.48
8.0	0.10	0.00	0.00	0.00	0.63	1.91	3.05	0.82	1.72
8.5	0.00	0.00	0.00	0.00	0.63	1.29	2.42	0.54	1.31
9.0	0.00	0.00	0.00	0.00	0.18	0.76	1.79	0.27	0.88
9.5	0.00	0.00	0.00	0.00	0.00	0.46	1.08	0.16	0.52
10.0	0.00	0.00	0.00	0.00	0.00	0.30	0.48	0.08	0.25
10.5	0.00	0.00	0.00	0.00	0.00	0.13	0.32	0.04	0.15
11.0	0.00	0.00	0.00	0.00	0.00	0.10	0.22	0.00	0.10
11.5	0.00	0.00	0.00	0.00	0.00	0.07	0.15	0.00	0.07
12.0	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.03
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.03
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.02
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.01
Mean	**2.29**	**2.17**	**2.68**	**2.63**	**3.06**	**3.36**	**3.11**	**2.79**	**2.99**
Minimum	**0.70**	**0.60**	**0.60**	**0.60**	**0.60**	**0.40**	**0.50**	**0.60**	**0.40**
Maximum	**8.40**	**6.20**	**7.50**	**7.30**	**9.10**	**11.90**	**14.60**	**10.90**	**14.60**

Table B6.28 - All Year Significant Wave Height - Percentage Exceedence by Direction : UKMO GWM 6

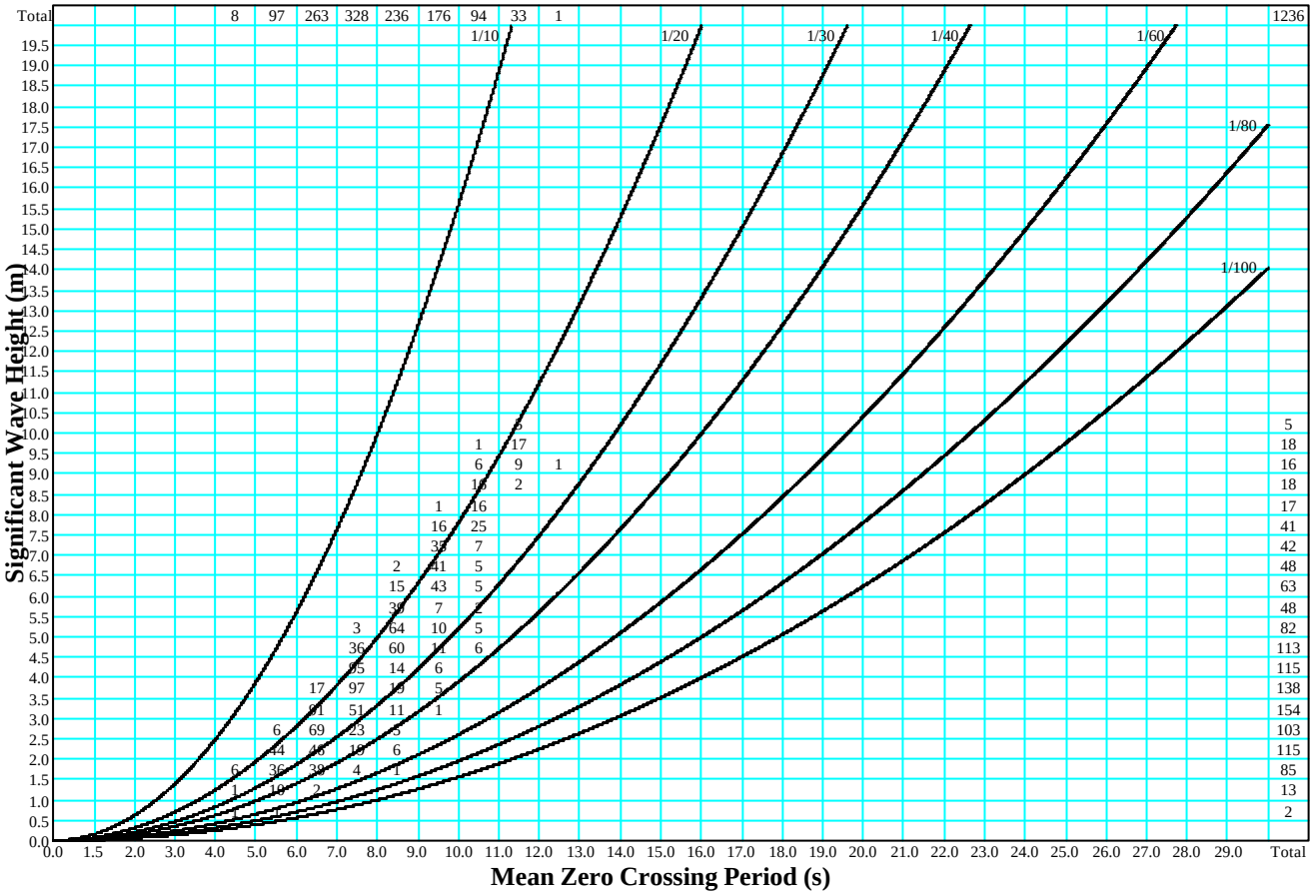
Figure B6.29 **Total Samples 14551**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_ALLYEAR_5/94-4/99

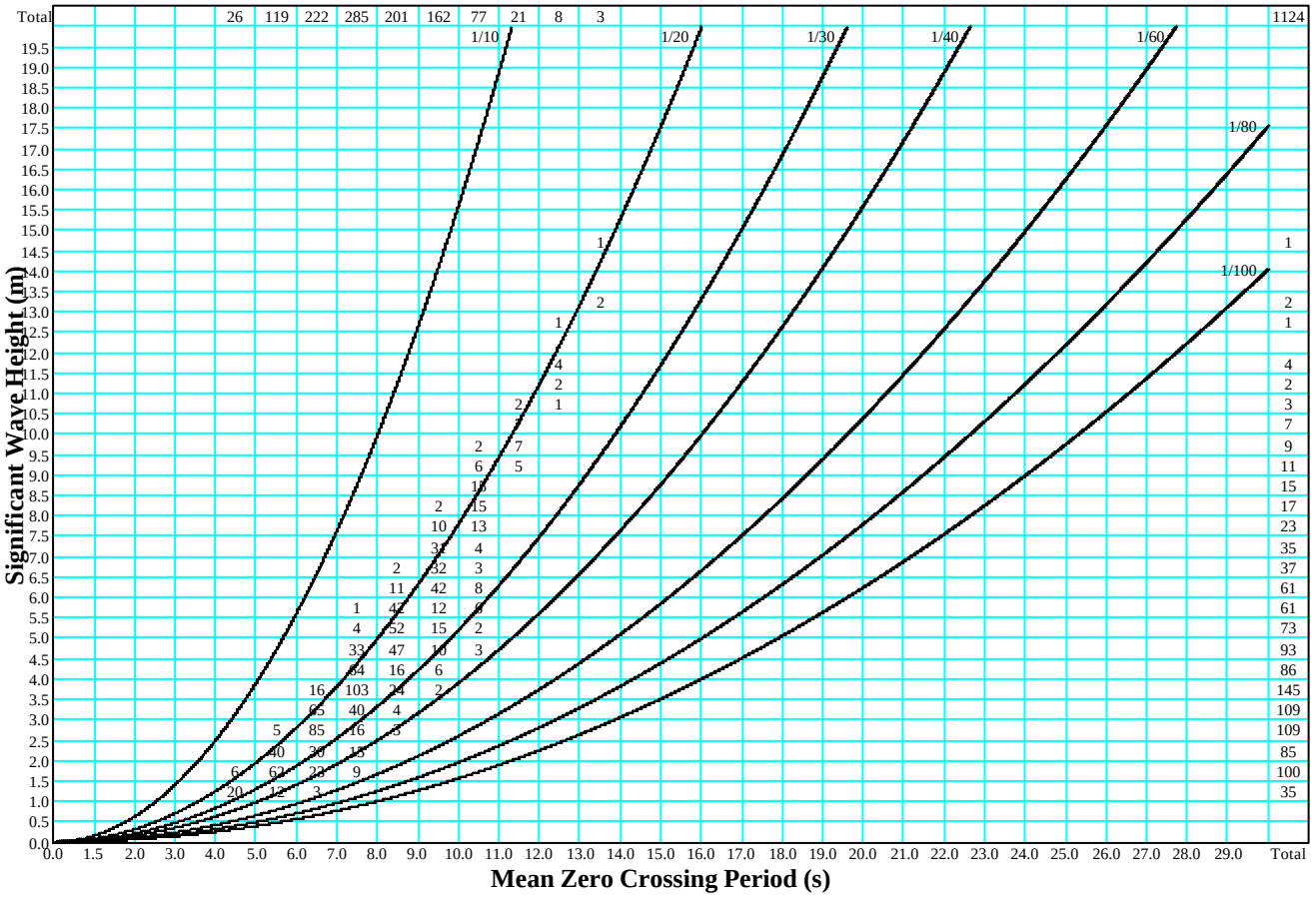
UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B6.30 **Total Samples 1236**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_JANUARY_94-99

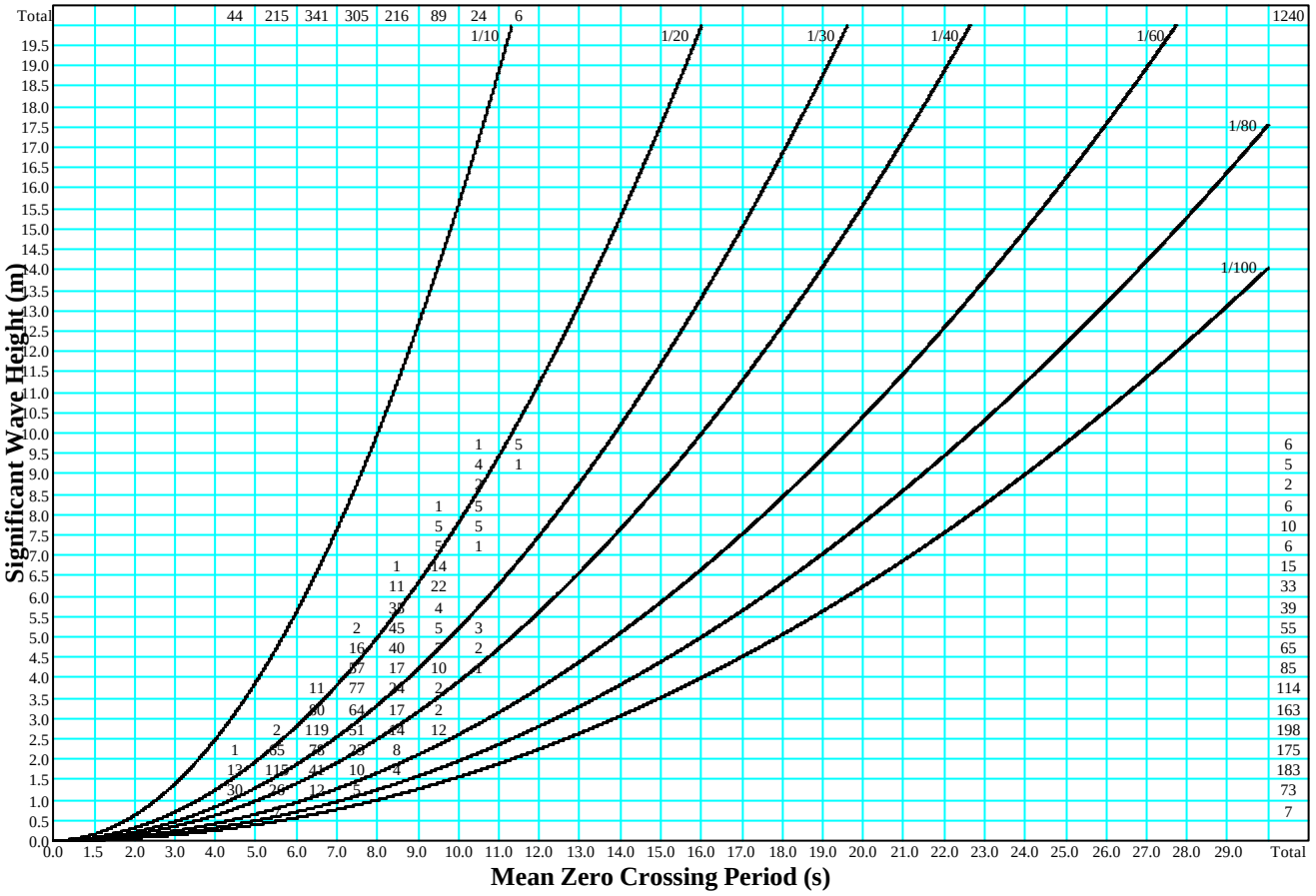
Figure B6.31 **Total Samples 1124**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_FEBRUARY_94-99

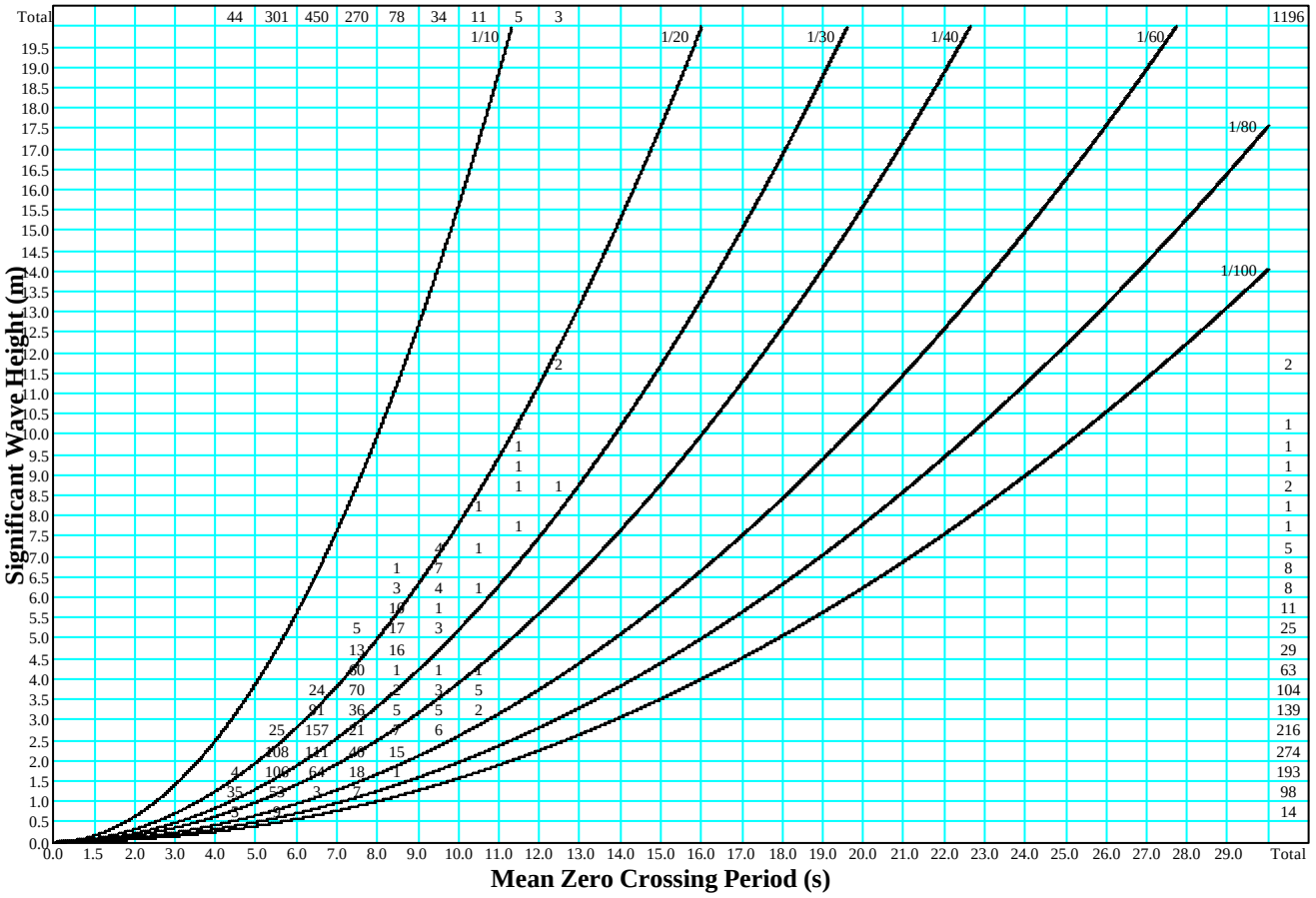
UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B6.32 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_MARCH_94-99

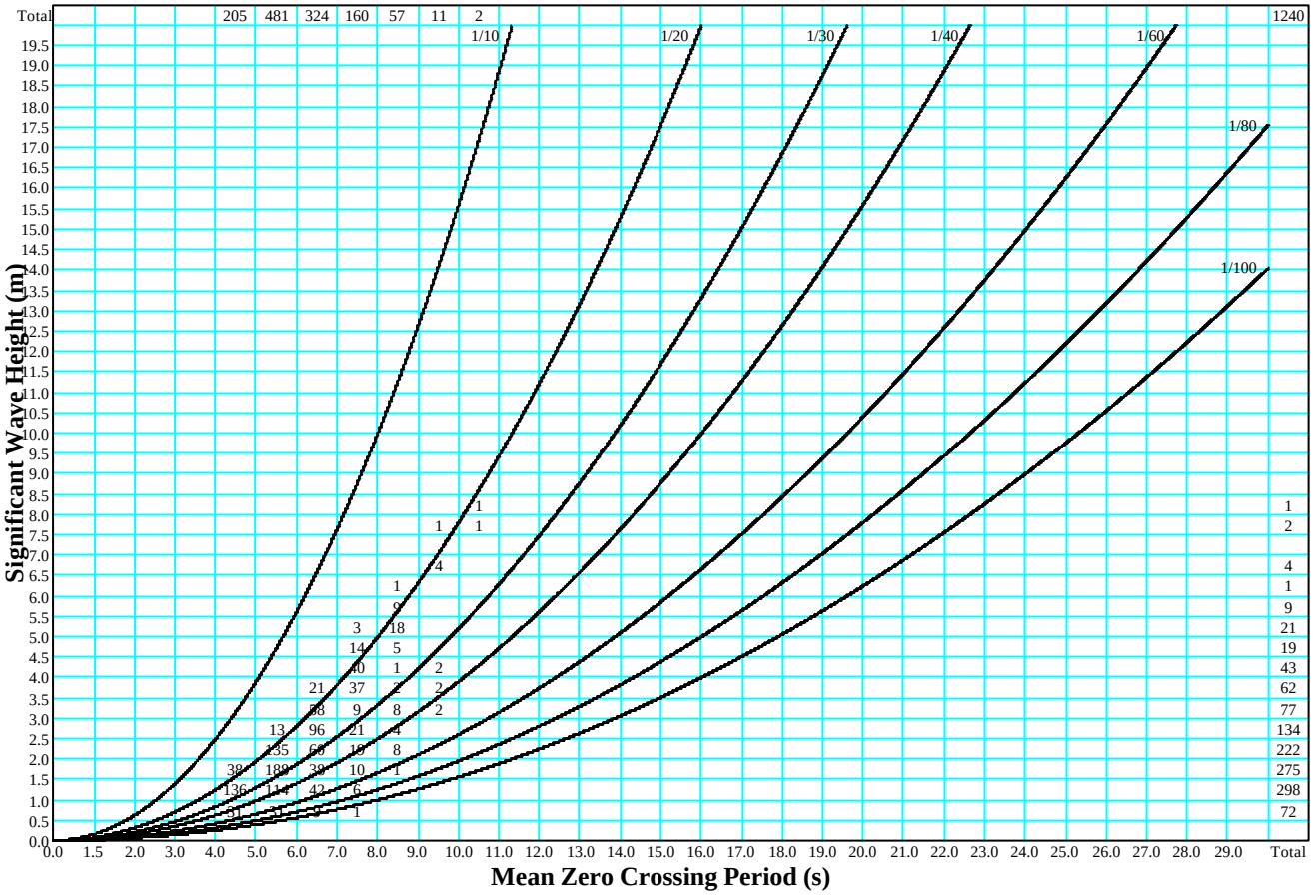
Figure B6.33 **Total Samples 1196**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_APRIL_94-99

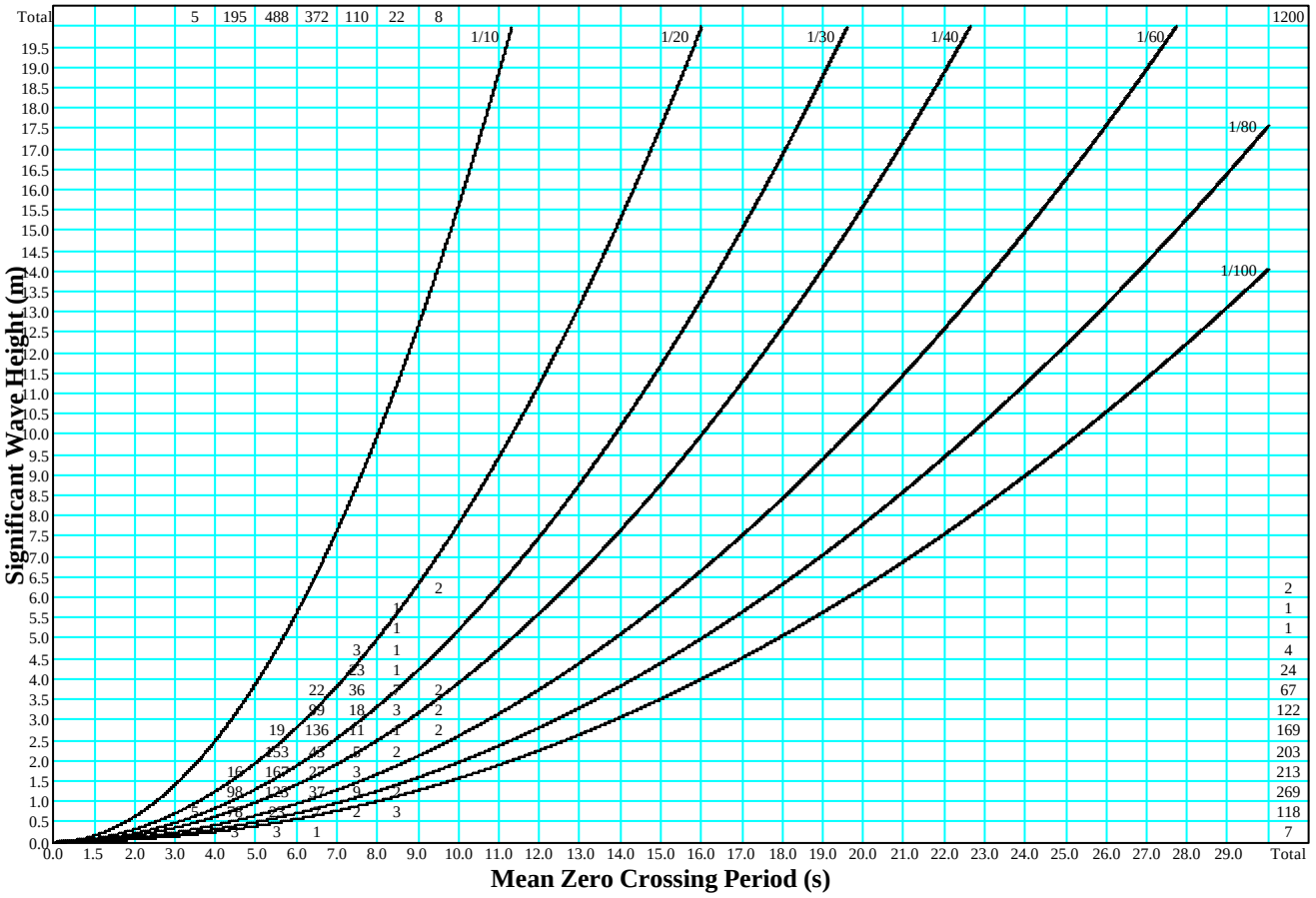
UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B6.34 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_MAY_94-99

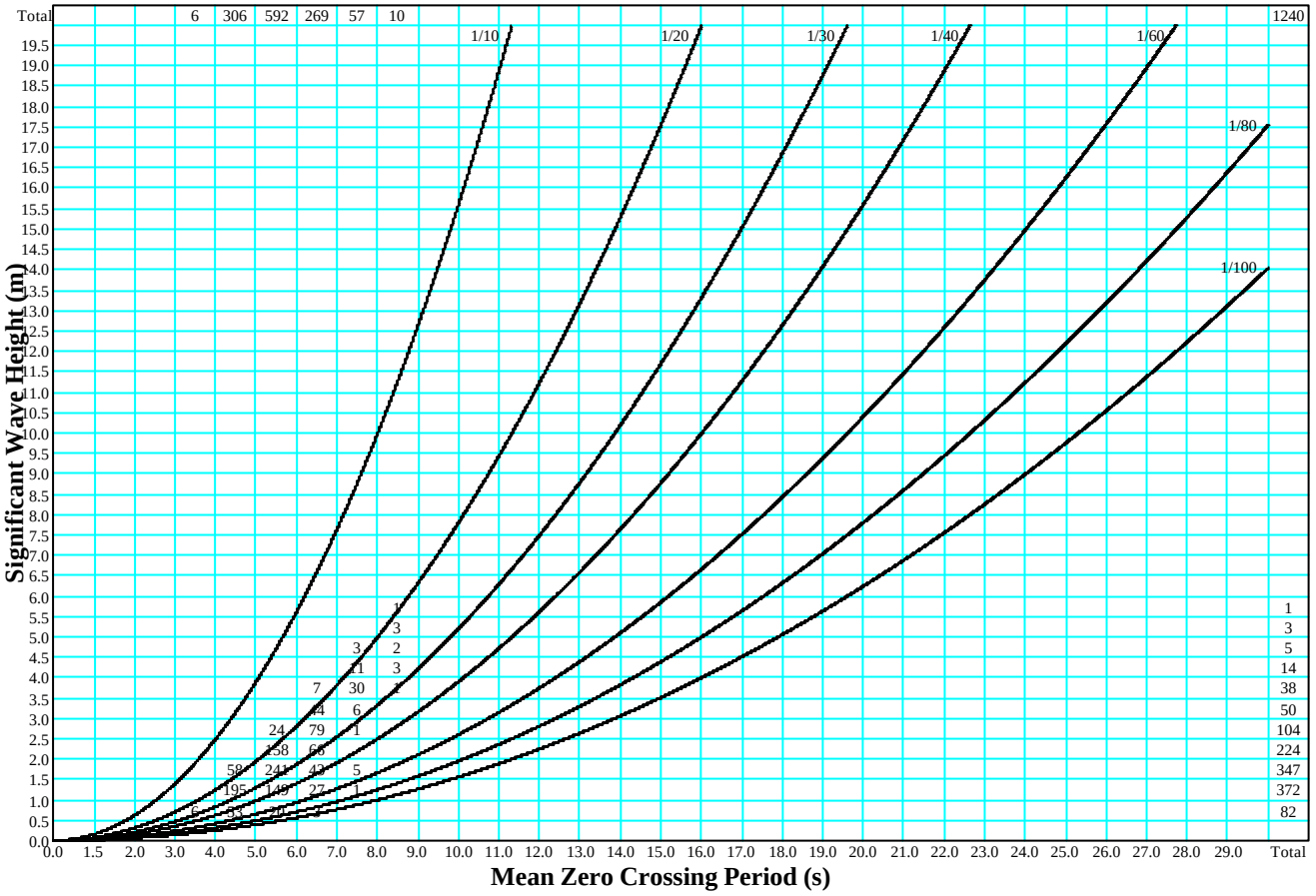
Figure B6.35 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_JUNE_94-99

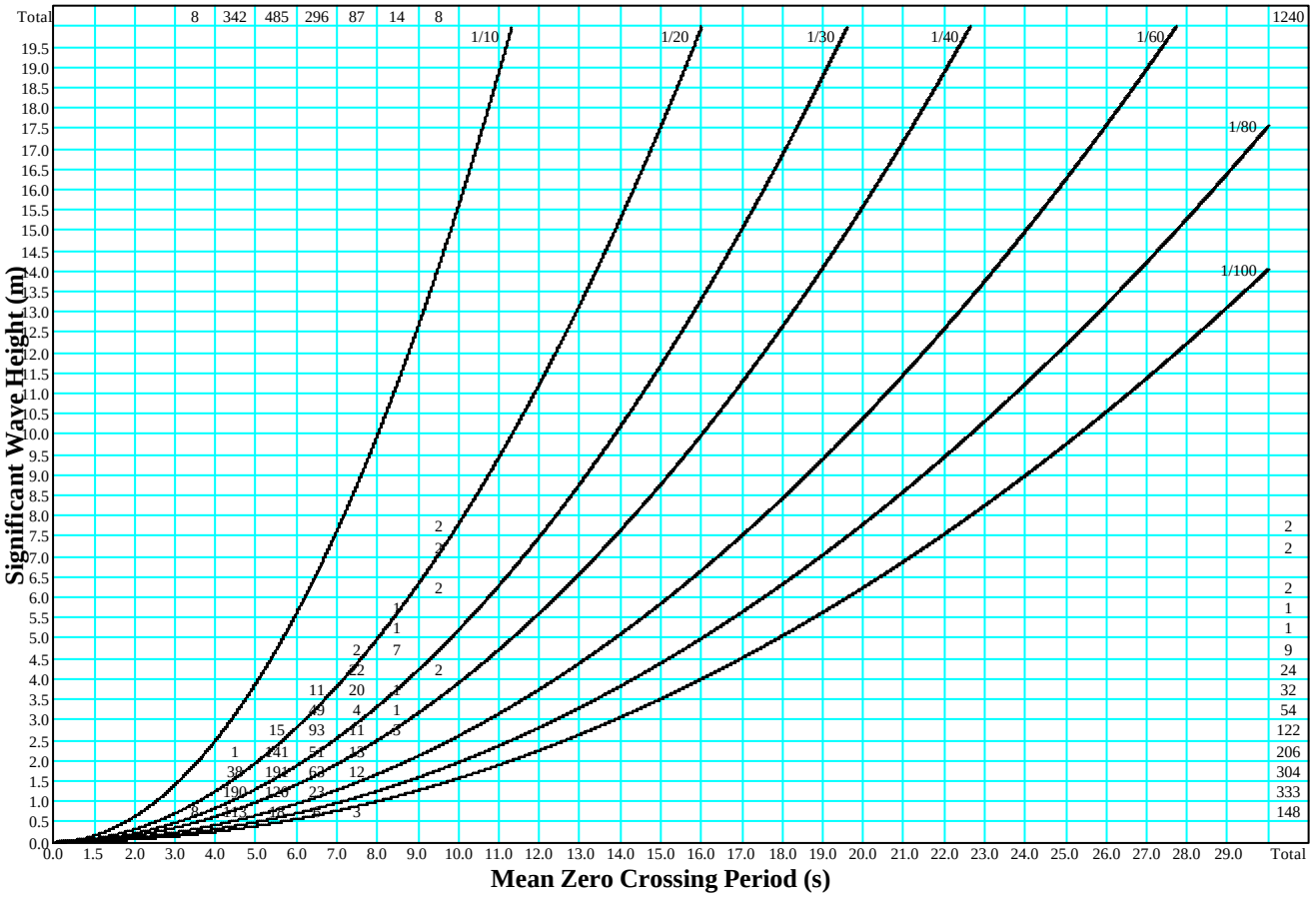
UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B6.36 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_JULY_94-99

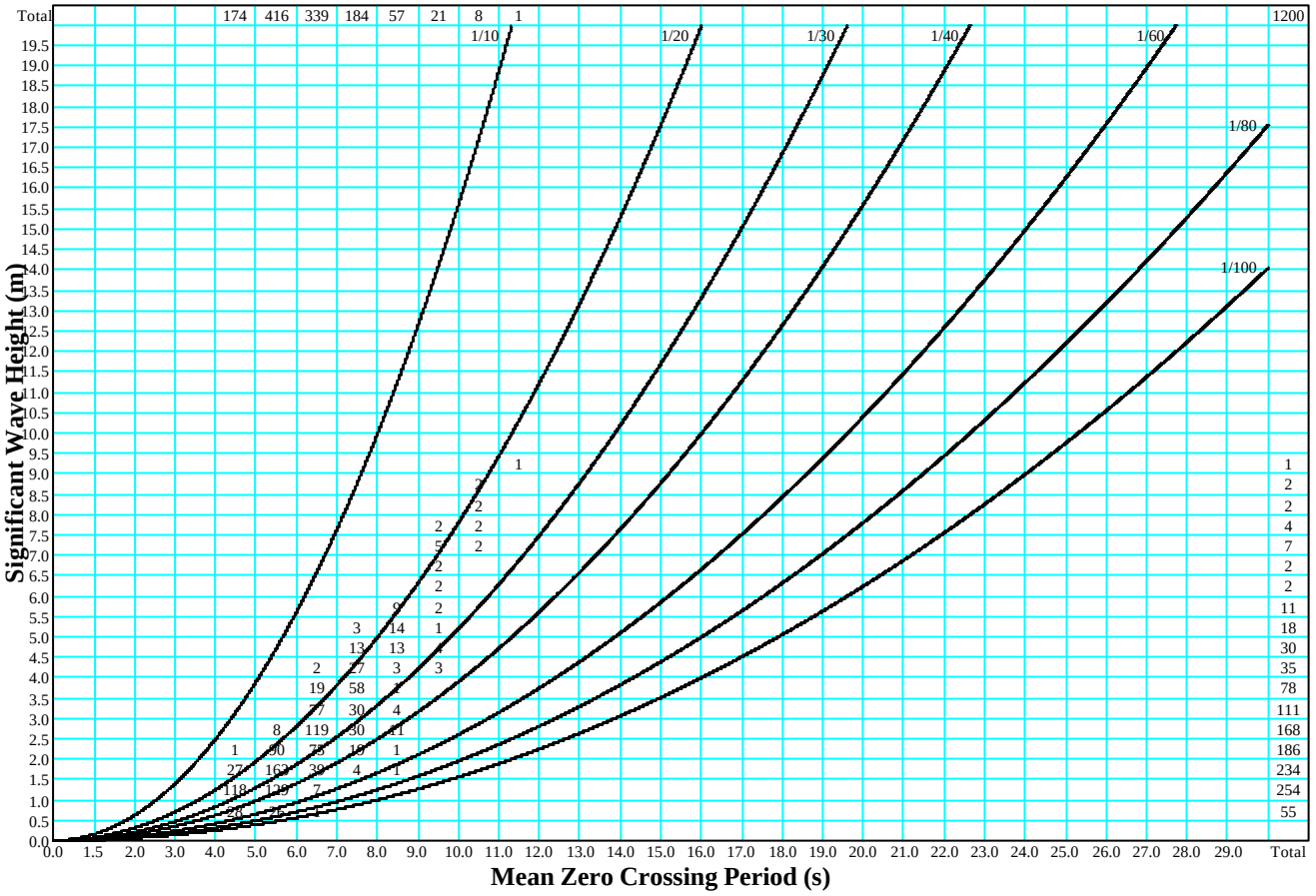
Figure B6.37 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_AUGUST_94-99

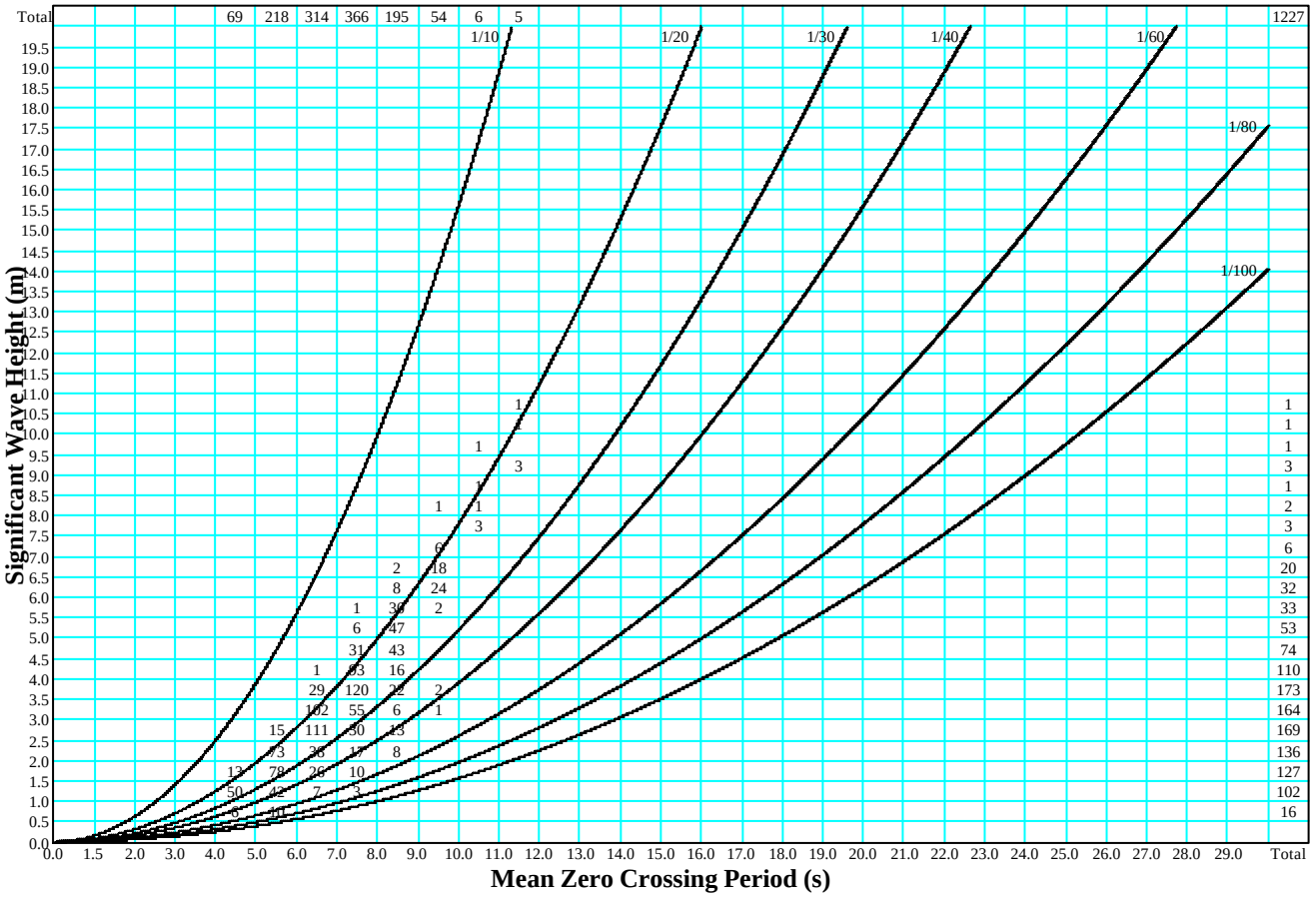
UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B6.38 **Total Samples 1200**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_SEPTEMBER_94-99

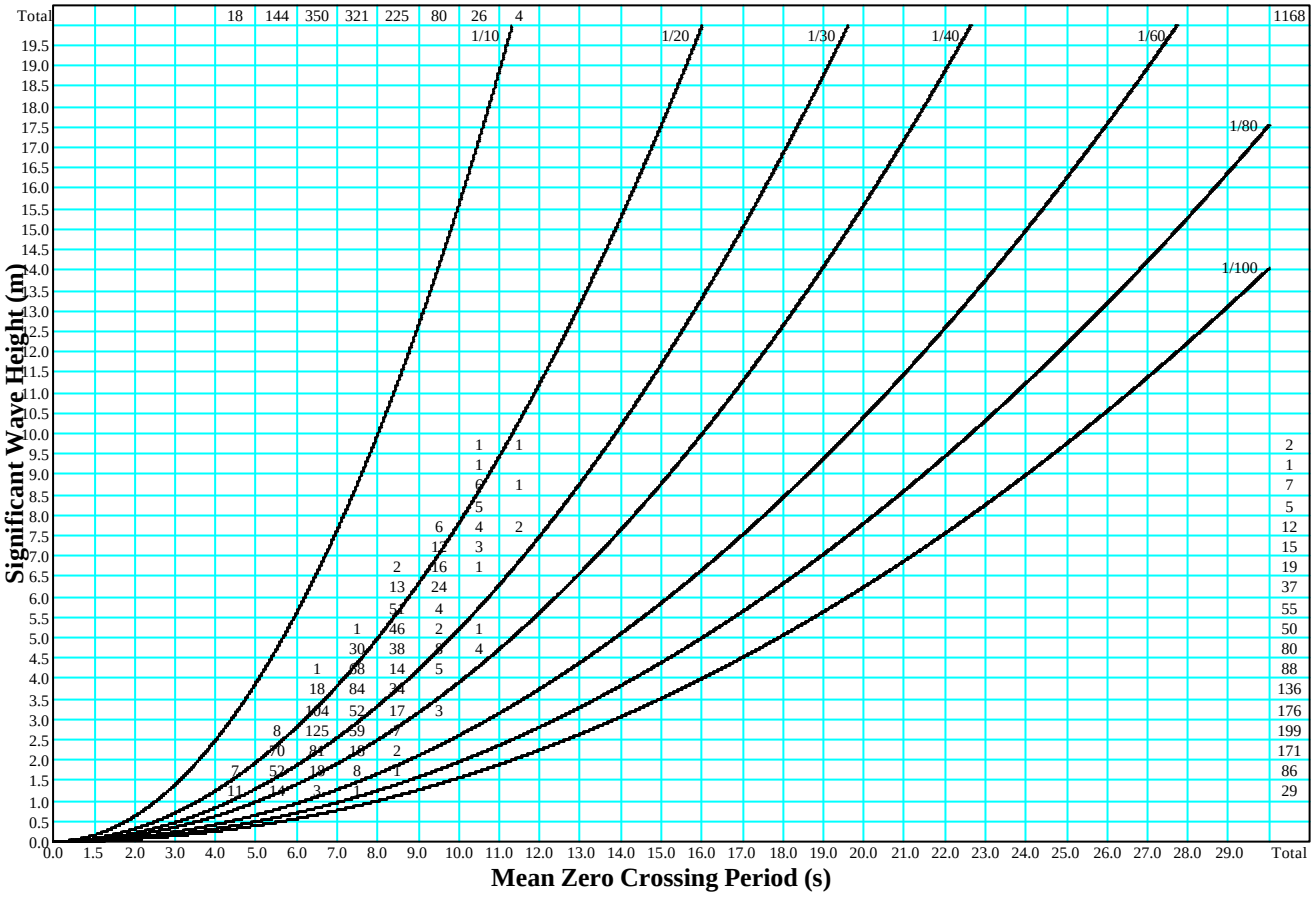
Figure B6.39 **Total Samples 1227**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_OCTOBER_94-99

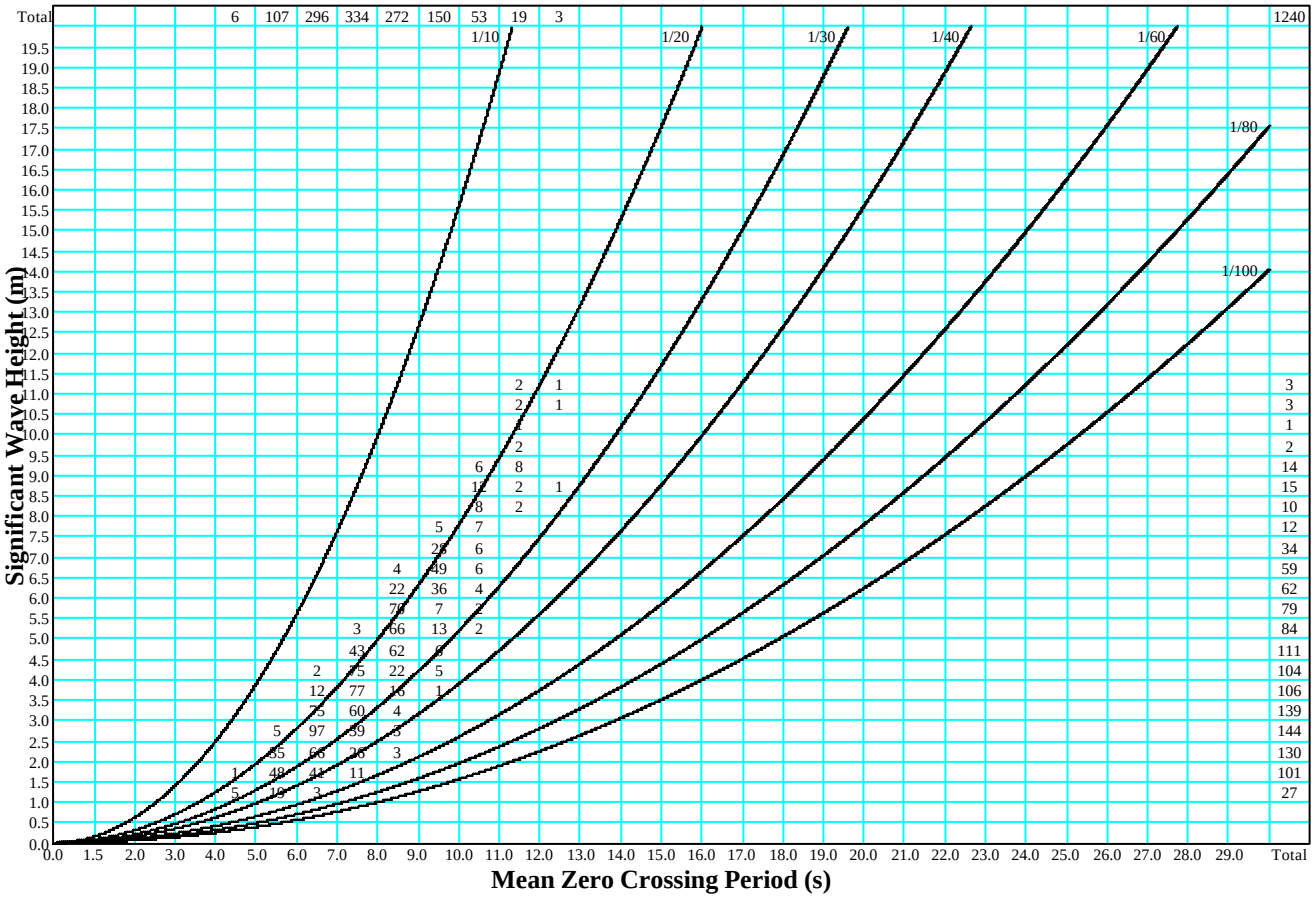
UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B6.40 **Total Samples 1168**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_NOVEMBER_94-99

Figure B6.41 **Total Samples 1240**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\GWM6.mdb~F2S_GP6_Hs/Tz_DECEMBER_94-99

UKMO GWM 6 : 50.25°N, 12.86°W
1/5/94-30/4/99
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

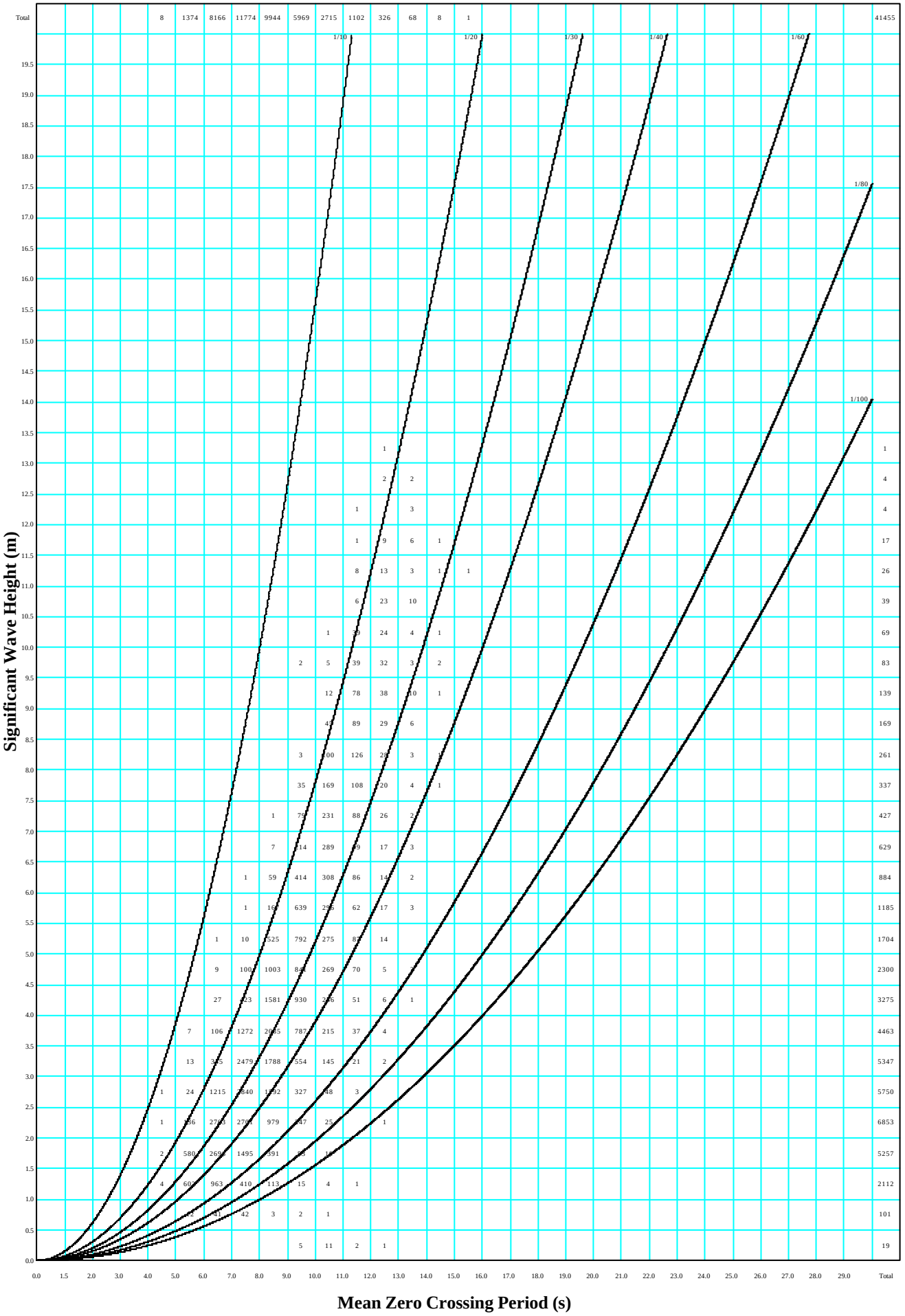
APPENDIX B-7

BUOY K2 (51.00°N, 13.30°W)

Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	99.91	100.00	100.00	99.47	100.00	100.00	100.00	100.00	100.00	99.95
1.0	100.00	100.00	100.00	99.91	99.40	98.21	99.29	99.77	99.92	99.97	100.00	100.00	99.71
1.5	100.00	99.97	99.46	99.08	89.40	84.24	87.00	84.95	94.45	98.94	99.61	100.00	94.63
2.0	98.66	97.51	95.91	91.23	68.22	60.80	56.75	60.77	76.25	90.65	93.58	98.84	81.98
2.5	90.90	90.27	80.37	71.01	44.37	39.38	31.25	35.84	57.00	78.43	83.76	90.34	65.49
3.0	83.69	83.58	67.40	51.31	26.48	23.74	17.98	18.36	42.10	62.03	72.82	79.28	51.63
3.5	74.58	74.61	51.82	34.10	16.23	11.71	8.56	8.79	26.69	43.12	58.04	67.62	38.73
4.0	62.84	60.06	37.33	19.52	10.03	5.00	3.11	4.04	15.44	29.35	43.94	55.46	27.97
4.5	50.64	47.59	26.35	10.75	5.33	2.78	1.13	2.01	8.60	19.90	30.49	44.54	20.06
5.0	39.22	39.04	18.58	6.26	2.62	1.24	0.39	1.10	4.75	13.23	20.09	35.73	14.48
5.5	29.53	30.90	13.21	3.72	1.33	0.61	0.03	0.68	2.76	9.00	12.05	27.70	10.36
6.0	22.28	23.83	9.56	2.63	0.75	0.43	0.00	0.47	1.78	6.01	7.78	19.99	7.47
6.5	16.97	17.73	6.96	1.95	0.54	0.35	0.00	0.37	1.16	3.60	4.99	13.99	5.33
7.0	13.21	13.34	5.37	1.24	0.45	0.14	0.00	0.29	0.44	1.90	3.46	9.54	3.80
7.5	10.28	10.29	3.68	0.80	0.39	0.09	0.00	0.10	0.18	1.29	2.22	6.92	2.77
8.0	7.96	7.03	2.77	0.27	0.33	0.03	0.00	0.00	0.03	0.79	1.53	5.00	1.96
8.5	5.71	4.99	1.86	0.12	0.15	0.00	0.00	0.00	0.03	0.56	0.84	3.32	1.33
9.0	3.69	3.81	1.45	0.03	0.06	0.00	0.00	0.00	0.00	0.38	0.52	2.33	0.93
9.5	2.19	2.74	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.32	1.40	0.59
10.0	1.53	1.91	0.44	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.20	0.90	0.39
10.5	0.72	1.18	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.10	0.64	0.22
11.0	0.29	0.76	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.10	0.38	0.13
11.5	0.23	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.06
12.0	0.07	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.02
12.5	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.01
13.0	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**4.62**	**4.60**	**3.67**	**3.01**	**2.38**	**2.19**	**2.11**	**2.16**	**2.73**	**3.37**	**3.75**	**4.36**	**3.21**
Minimum	**1.50**	**1.00**	**1.00**	**0.00**	**0.50**	**0.50**	**0.20**	**0.50**	**0.50**	**0.80**	**1.30**	**1.50**	**0.00**
Maximum	**12.00**	**13.00**	**11.00**	**9.20**	**9.20**	**8.20**	**5.50**	**7.50**	**8.50**	**11.10**	**11.20**	**12.80**	**13.00**

Table B7.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : BUOY K2

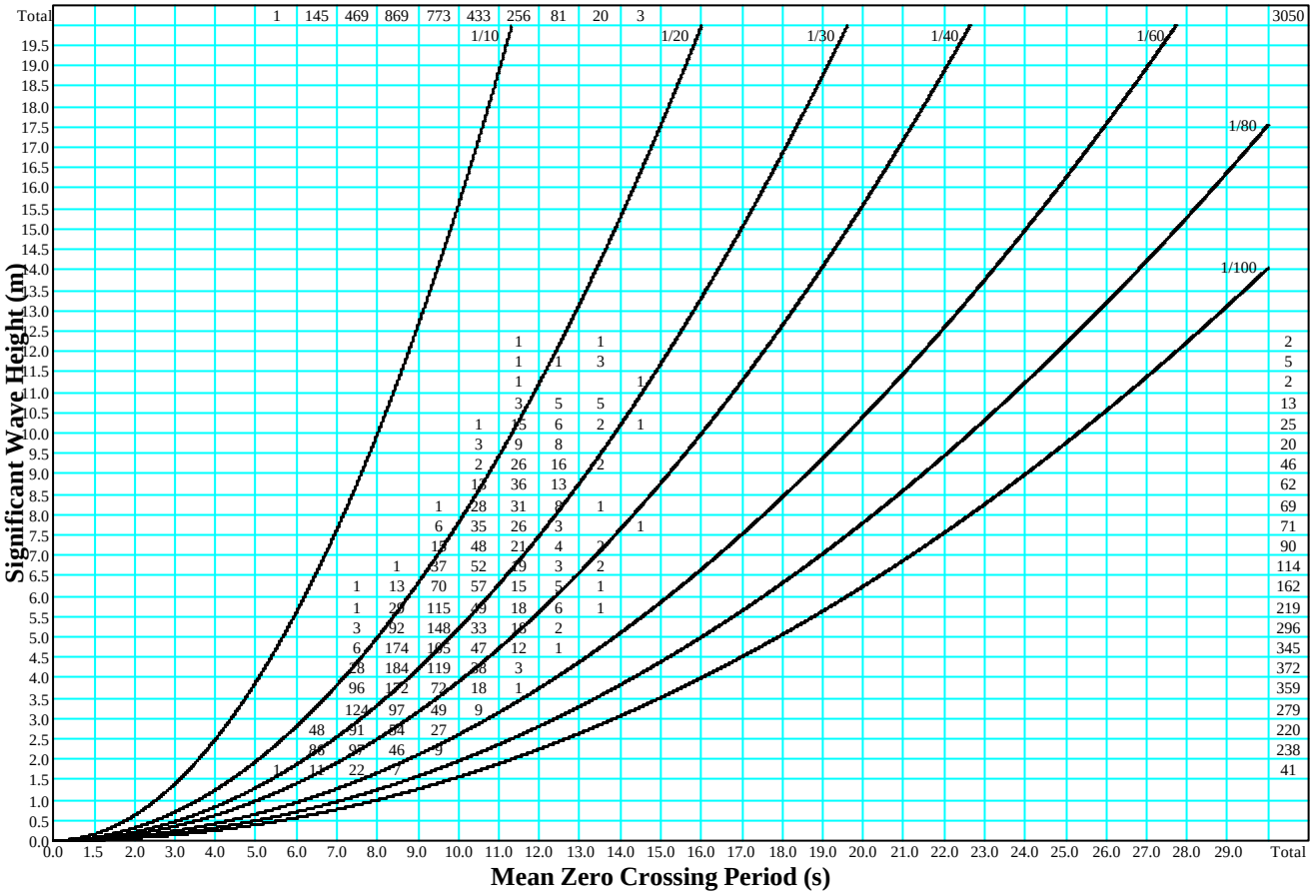
Figure B7.29 **Total Samples 41455**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_ALLYEAR_8/94-11/99

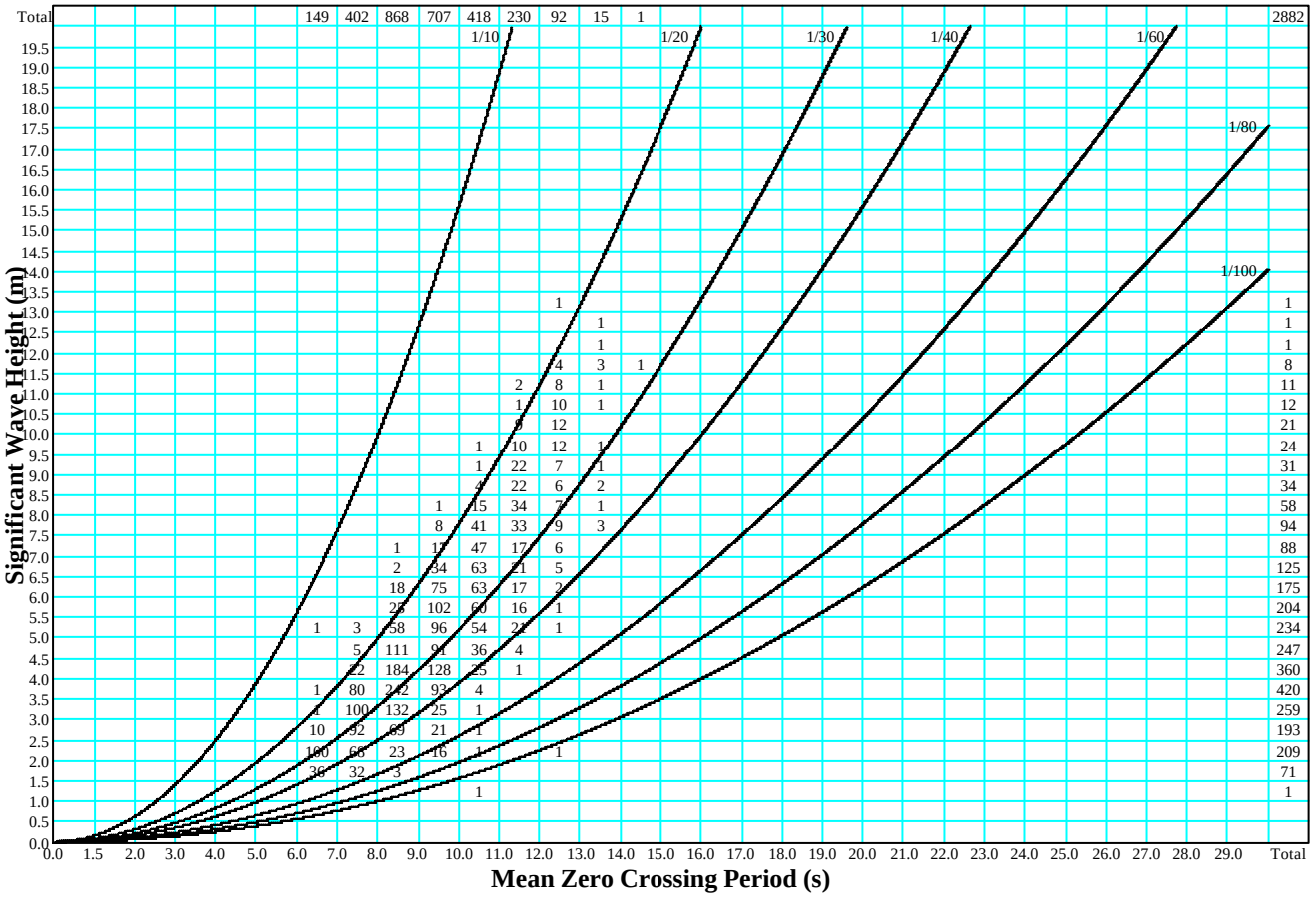
BUOY DATA K2 : 51.05°N, 13.30°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B7.30 **Total Samples 3050**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_JANUARY_94-99

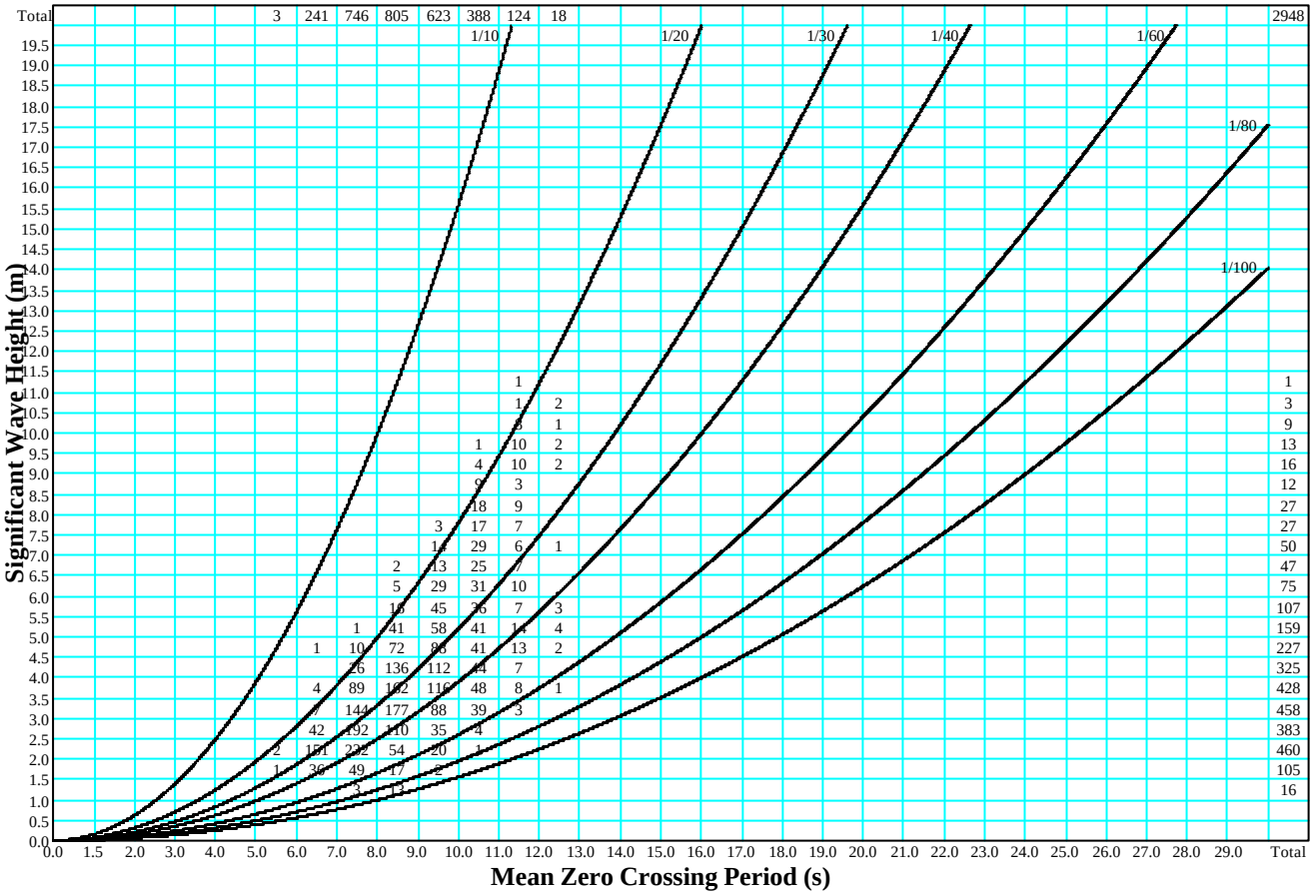
Figure B7.31 **Total Samples 2882**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_FEBRUARY_94-99

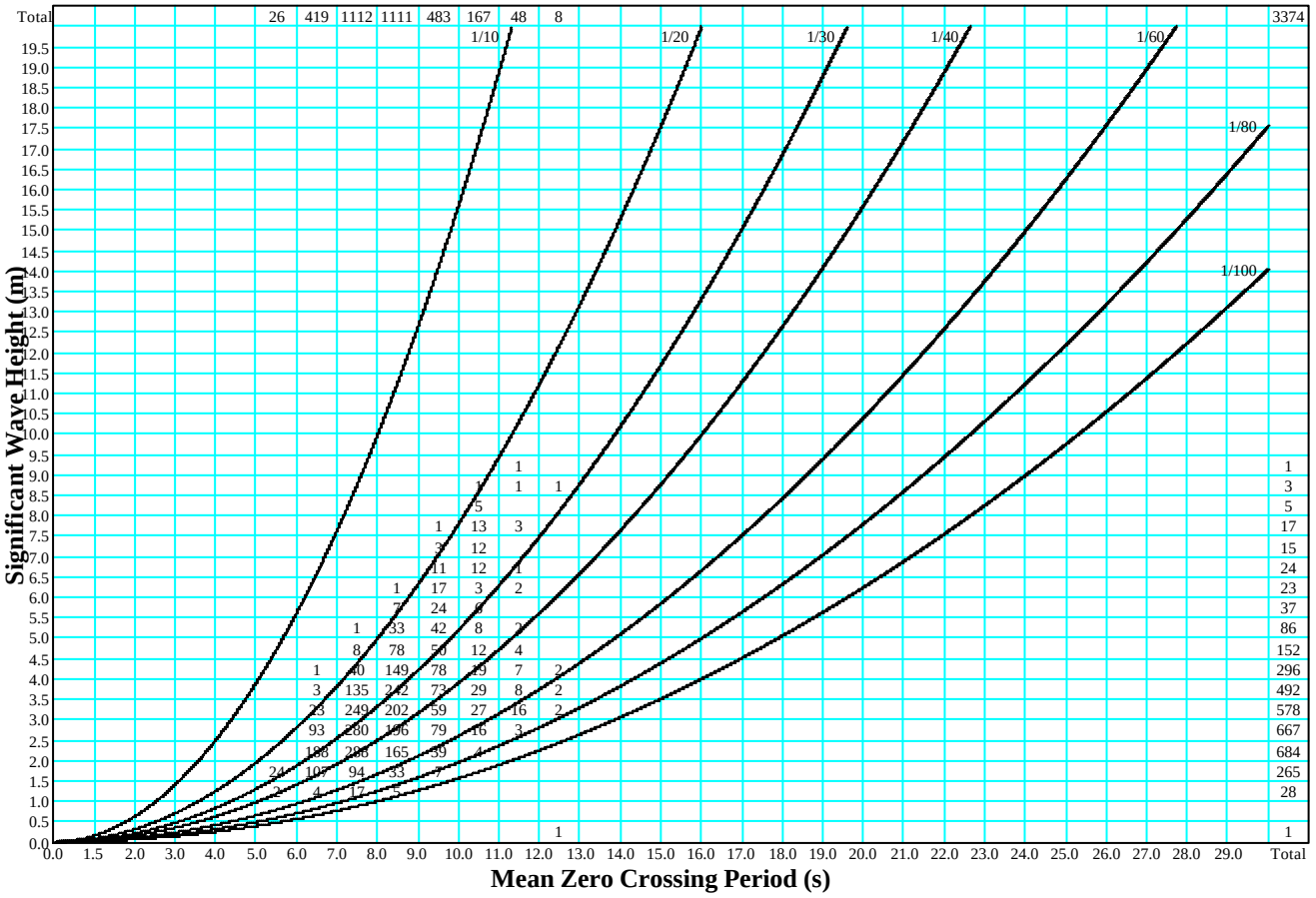
BUOY DATA K2 : 51.05°N, 13.30°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B7.32 **Total Samples 2948**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_MARCH_94-99

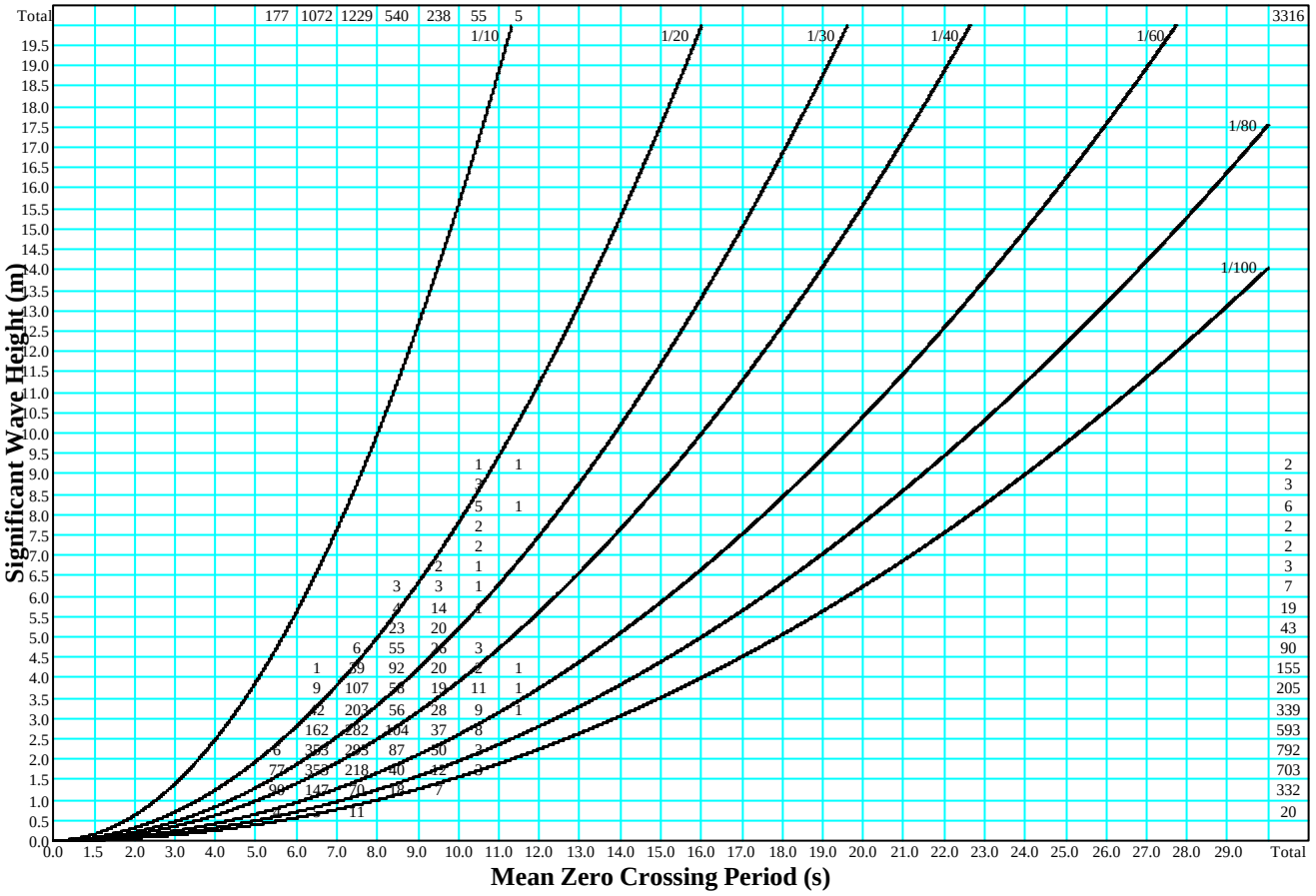
Figure B7.33 **Total Samples 3374**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_APRIL_94-99

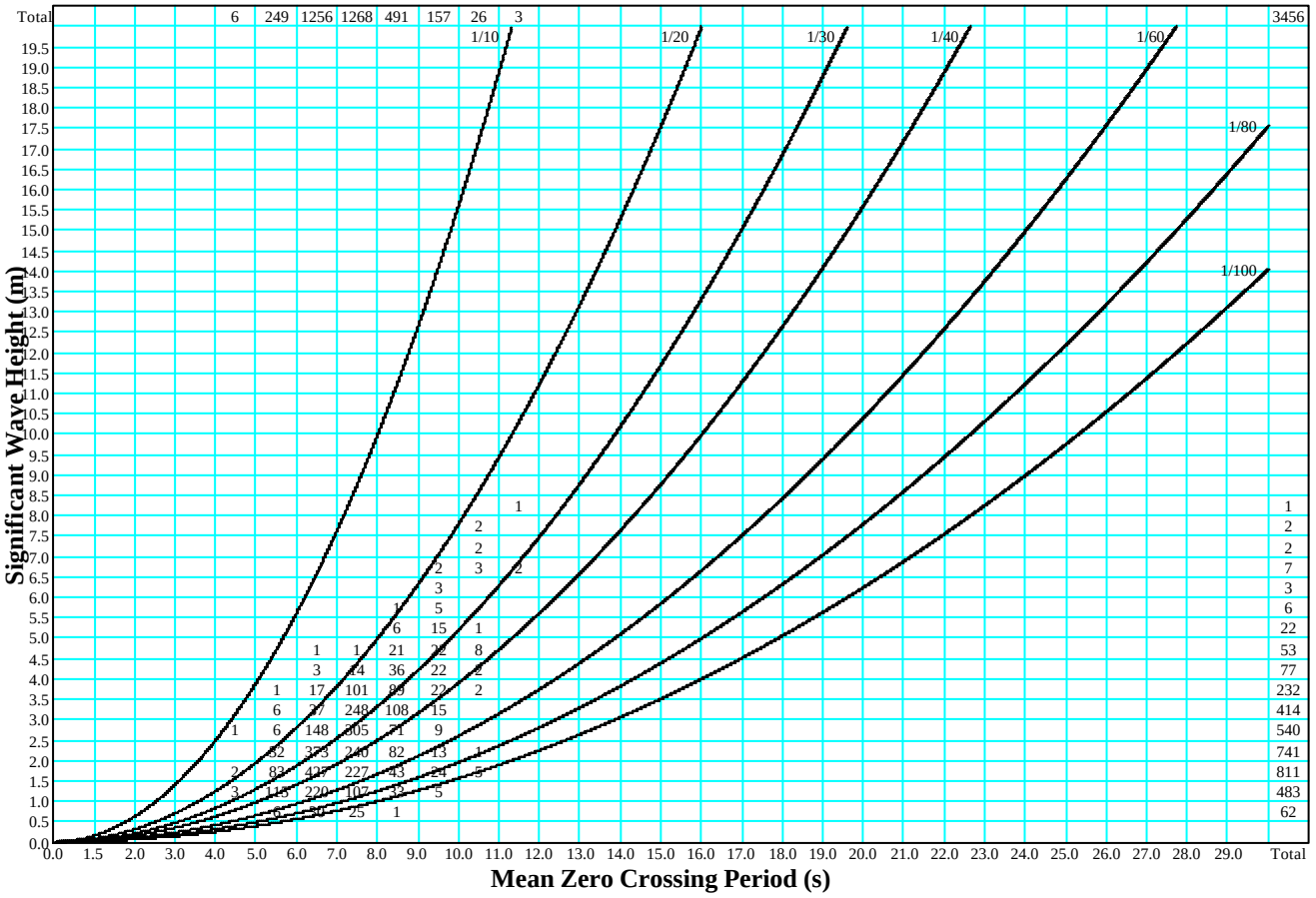
BUOY DATA K2 : 51.05°N, 13.30°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B7.34 **Total Samples 3316**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_MAY_94-99

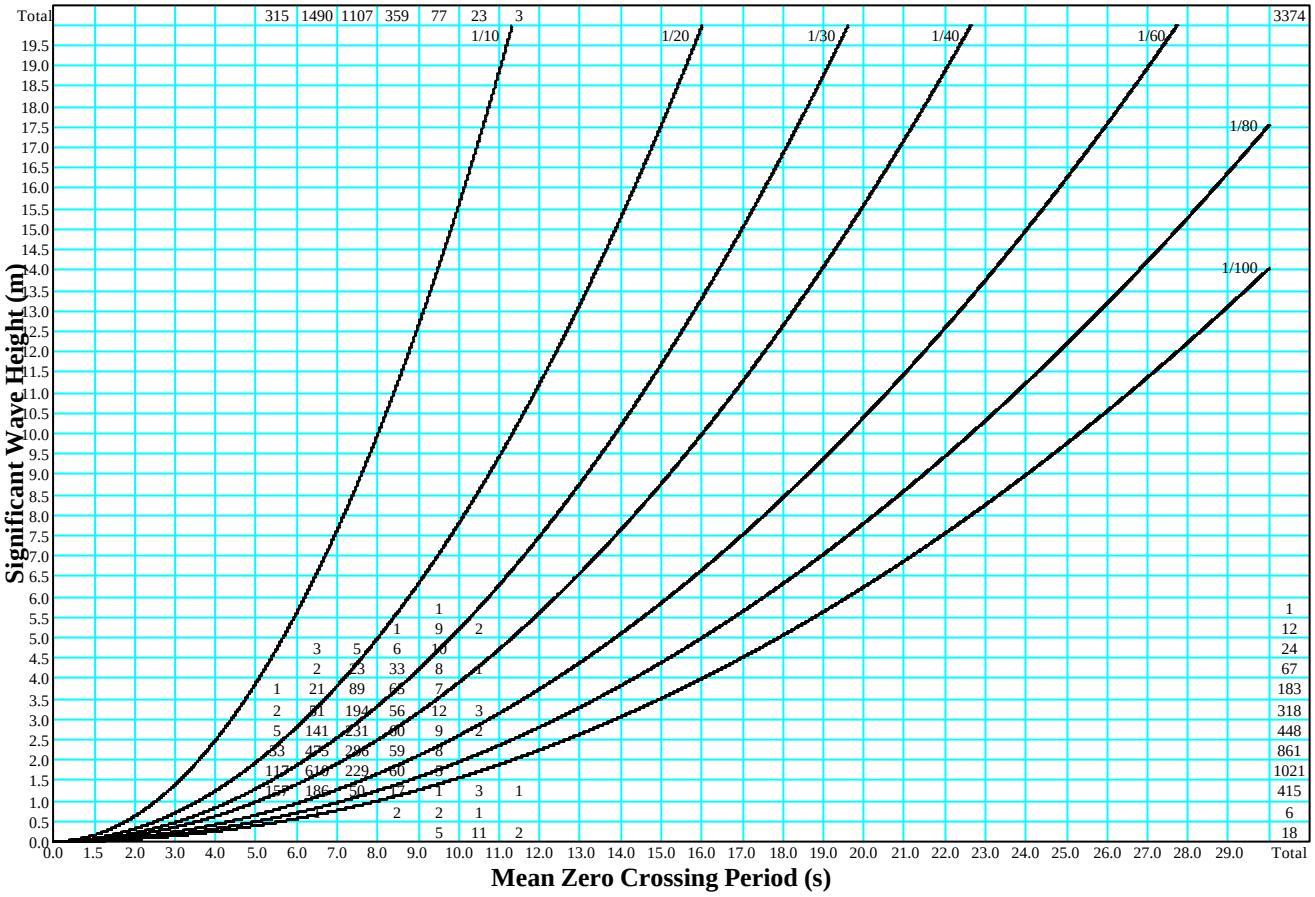
Figure B7.35 **Total Samples 3456**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_JUNE_94-99

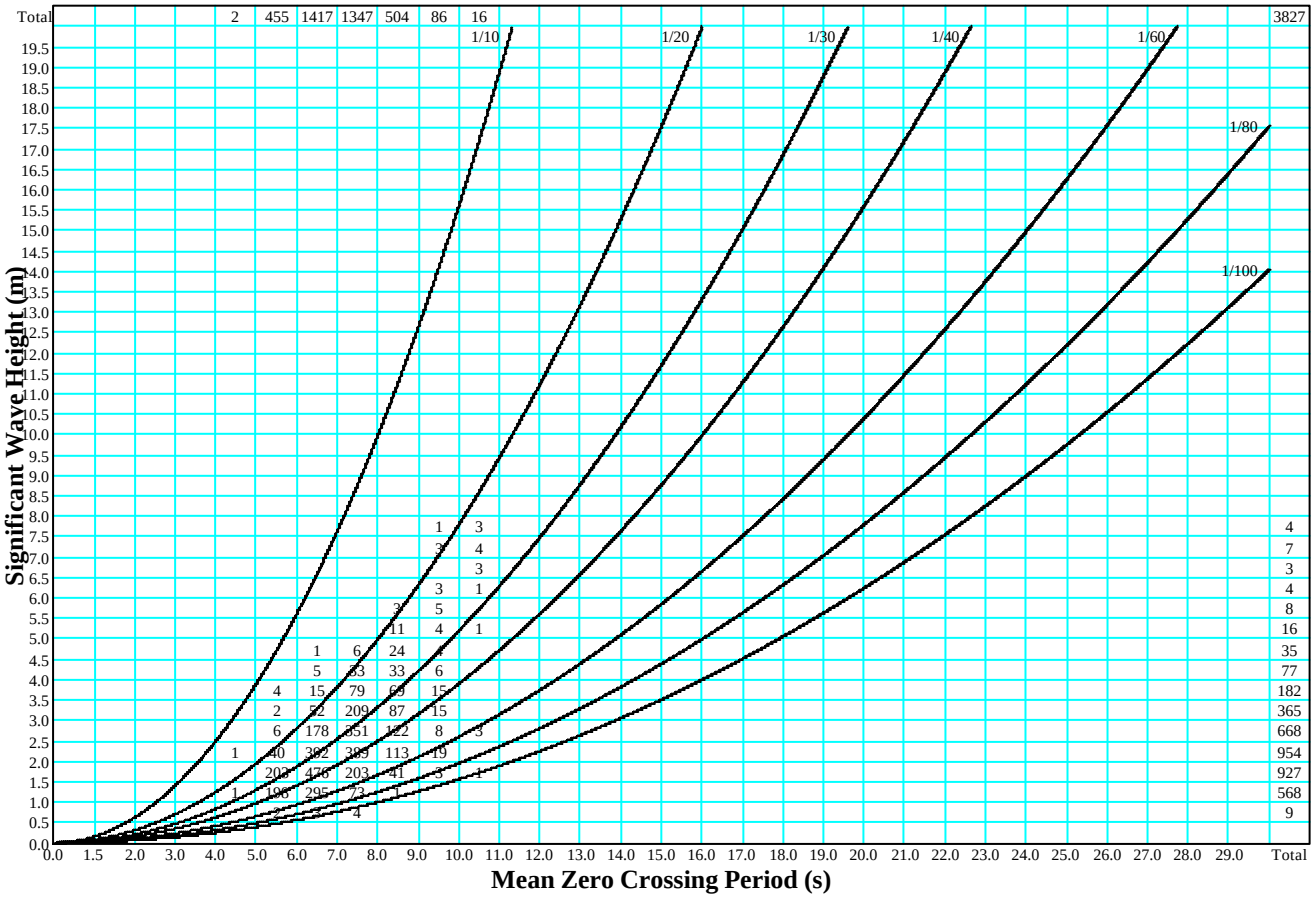
BUOY DATA K2 : 51.05°N, 13.30°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B7.36 **Total Samples 3374**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_JULY_94-99

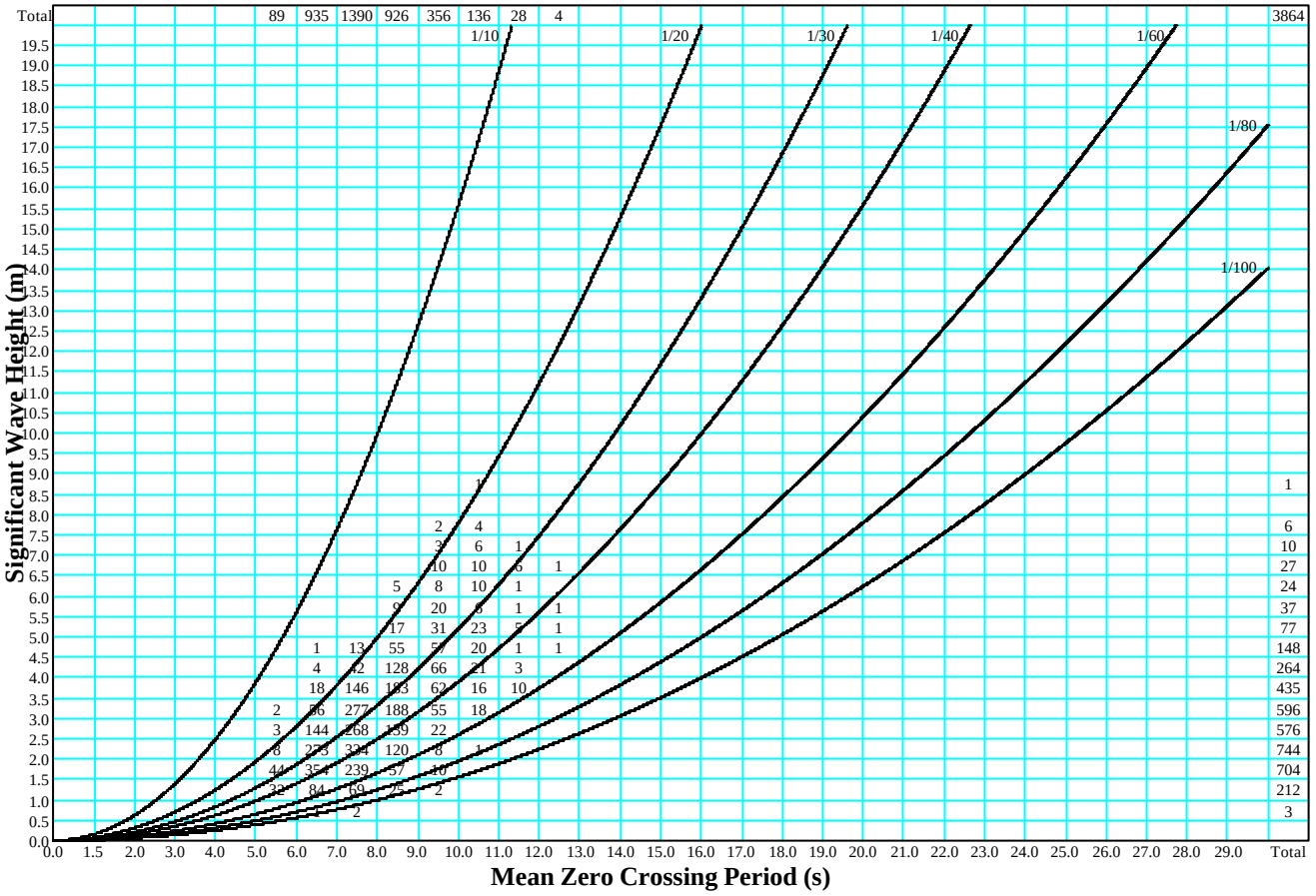
Figure B7.37 **Total Samples 3827**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_AUGUST_94-99

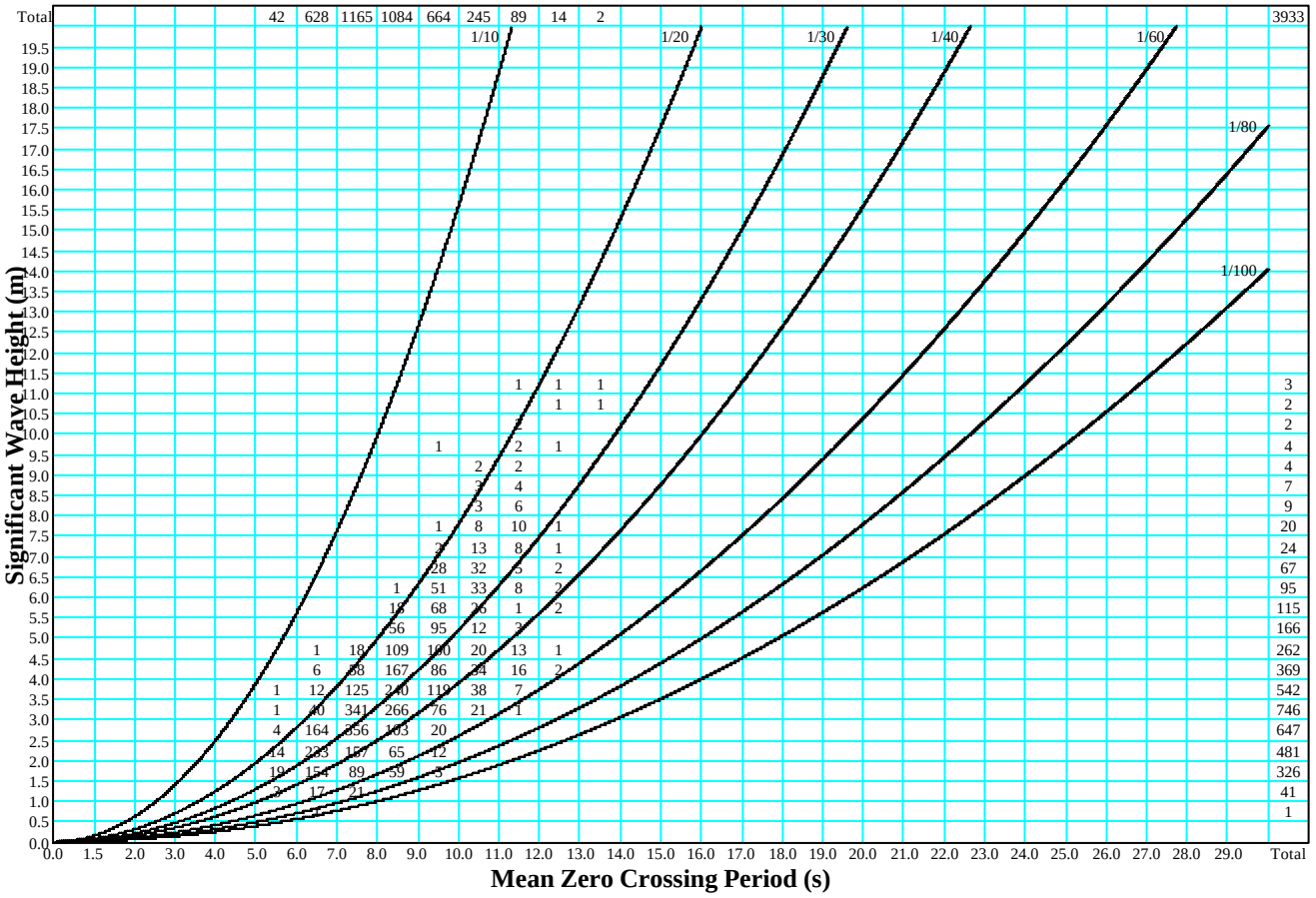
BUOY DATA K2 : 51.05°N, 13.30°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B7.38 **Total Samples 3864**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_SEPTEMBER_94-99

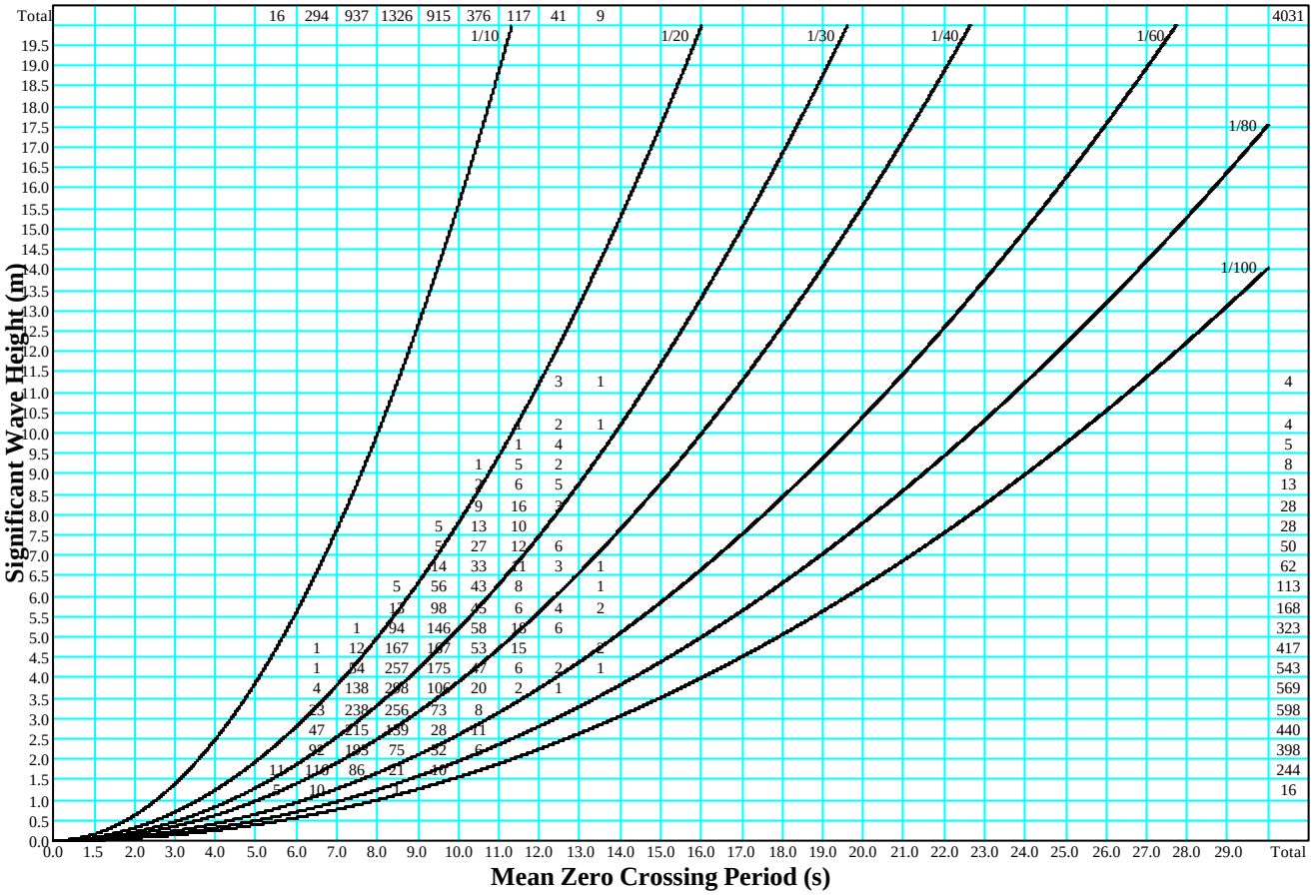
Figure B7.39 **Total Samples 3933**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_OCTOBER_94-99

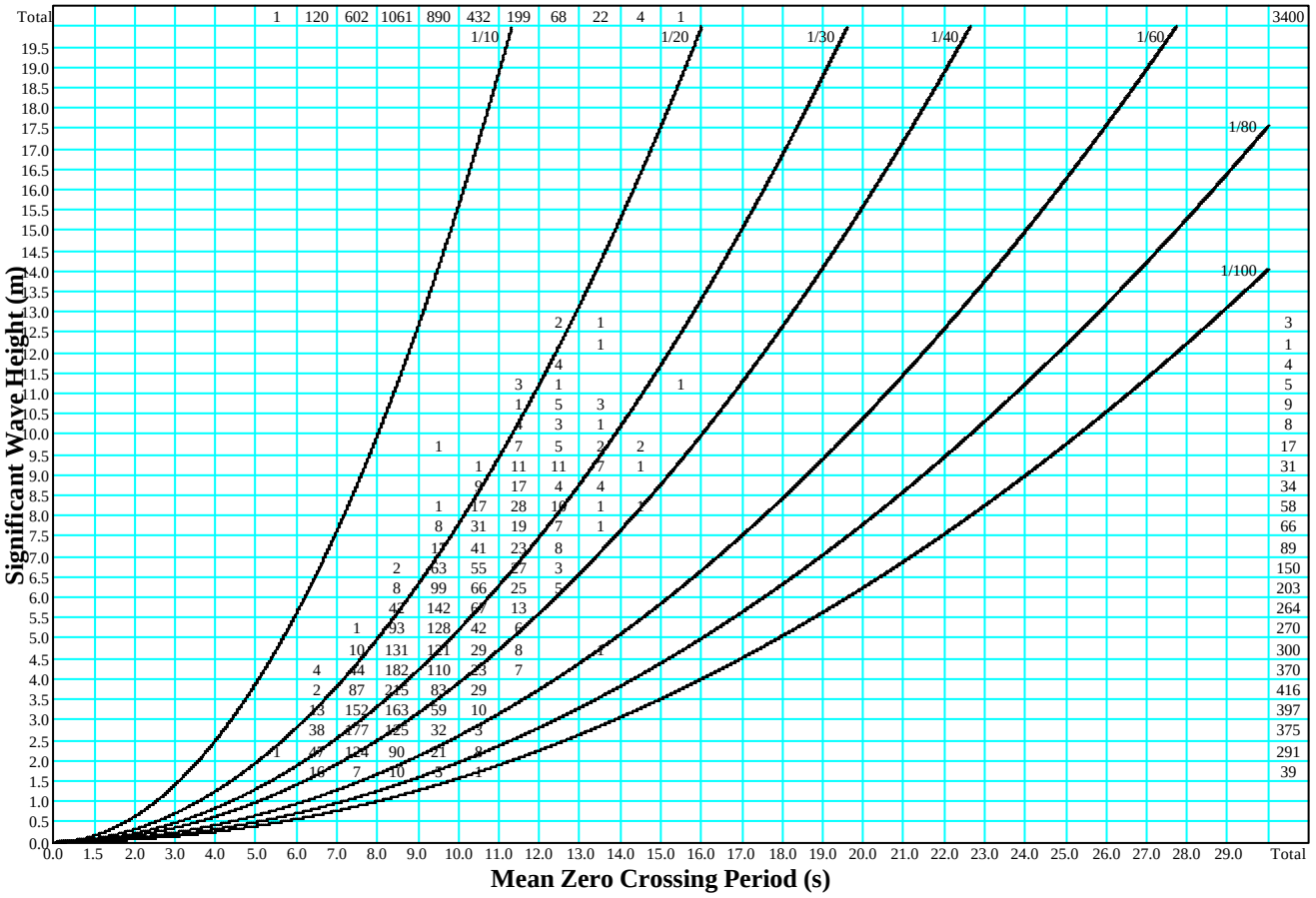
BUOY DATA K2 : 51.05°N, 13.30°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B7.40 **Total Samples 4031**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_NOVEMBER_94-99

Figure B7.41 **Total Samples 3400**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K2.mdb~F2S_K2_Hs/Tz_DECEMBER_94-99

BUOY DATA K2 : 51.05°N, 13.30°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

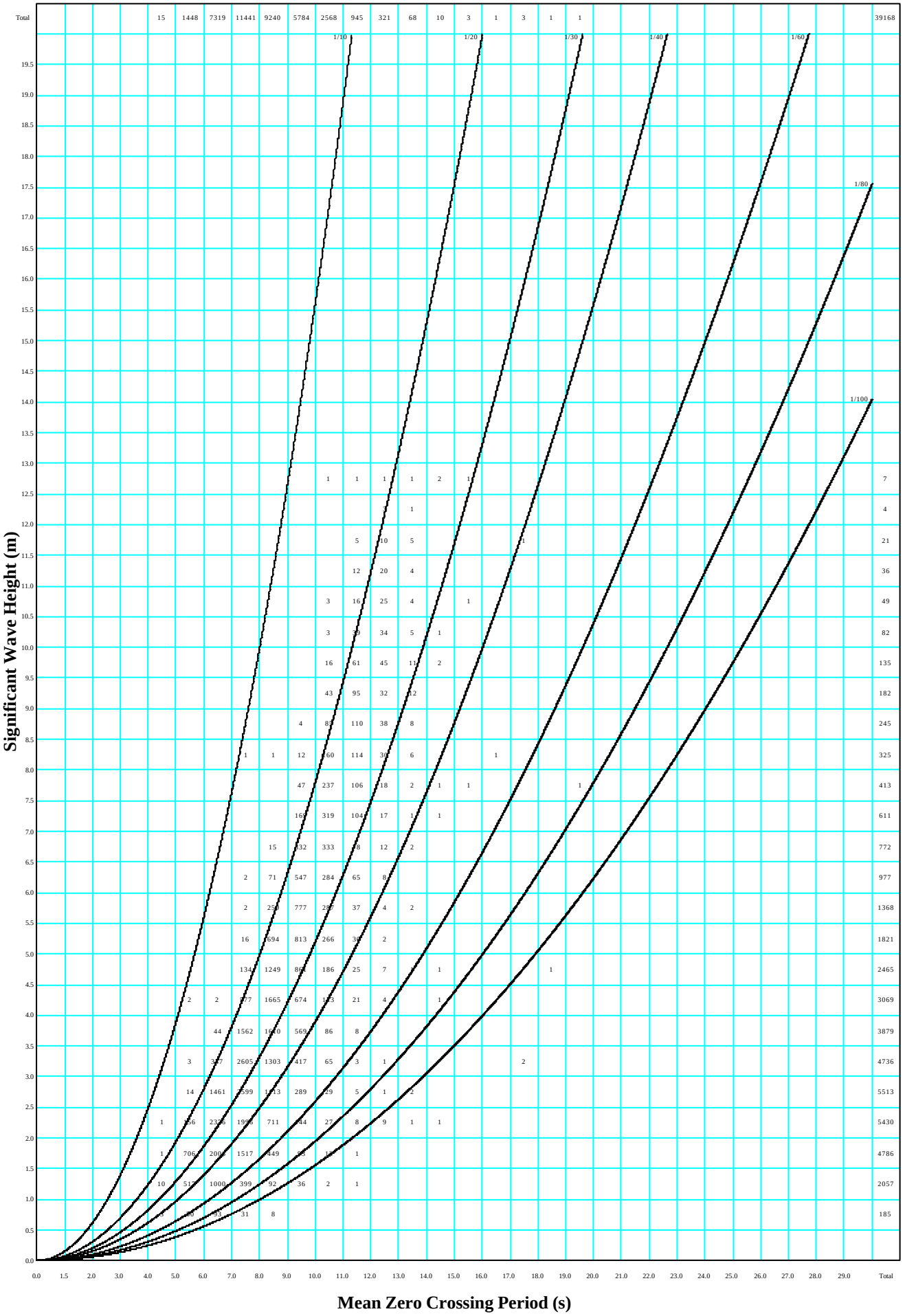
APPENDIX B-8

BUOY K4 (SEE SECTION 2.2 OF MAIN REPORT FOR POSITIONS)

Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	100.00	100.00
1.0	100.00	100.00	100.00	99.83	98.97	99.64	97.46	98.57	100.00	100.00	99.98	100.00	99.53
1.5	99.64	99.54	99.18	96.97	87.00	90.91	81.76	87.15	94.00	99.06	98.56	100.00	94.34
2.0	96.31	96.61	92.60	87.05	62.06	69.49	59.24	63.21	75.42	95.19	94.67	98.87	82.13
2.5	90.75	92.72	83.06	73.42	39.99	50.76	35.74	38.41	55.82	84.96	87.45	93.57	68.16
3.0	84.35	89.48	73.39	53.82	24.53	30.60	17.63	19.27	39.81	68.95	73.85	84.56	54.09
3.5	75.61	83.55	63.22	32.16	12.72	15.50	7.77	8.04	29.27	54.34	59.00	74.74	42.05
4.0	63.17	73.53	49.54	19.83	8.30	8.28	3.86	3.37	19.62	38.64	45.75	63.05	32.18
4.5	52.01	61.65	37.04	13.12	5.04	4.27	1.99	1.62	13.67	26.81	32.78	52.07	24.33
5.0	42.75	50.51	27.53	8.64	3.11	2.10	1.38	0.51	8.18	17.63	22.02	41.96	18.05
5.5	33.97	42.02	20.36	5.13	2.08	0.61	1.04	0.03	4.61	11.34	14.87	32.89	13.37
6.0	26.38	32.74	14.47	3.31	1.59	0.19	0.76	0.00	2.86	7.31	9.86	25.96	9.86
6.5	20.96	26.07	10.13	1.89	1.15	0.03	0.55	0.00	1.76	4.78	6.45	20.38	7.36
7.0	16.73	20.46	7.34	0.86	0.68	0.00	0.43	0.00	0.78	3.36	4.16	14.66	5.40
7.5	12.50	15.33	5.20	0.24	0.31	0.00	0.31	0.00	0.24	2.05	2.96	10.42	3.84
8.0	9.90	11.69	3.68	0.03	0.16	0.00	0.06	0.00	0.02	1.31	1.94	7.24	2.78
8.5	7.12	9.23	1.97	0.00	0.09	0.00	0.00	0.00	0.00	0.85	1.22	4.66	1.94
9.0	5.53	6.54	0.95	0.00	0.03	0.00	0.00	0.00	0.00	0.40	0.67	3.00	1.31
9.5	3.54	4.69	0.43	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.37	1.77	0.85
10.0	2.10	3.02	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.25	0.92	0.50
10.5	1.23	1.82	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.17	0.53	0.29
11.0	0.65	1.08	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.32	0.17
11.5	0.29	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.11	0.08
12.0	0.07	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.07	0.03
12.5	0.07	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**4.78**	**5.16**	**3.99**	**3.03**	**2.28**	**2.49**	**2.12**	**2.16**	**2.80**	**3.67**	**3.86**	**4.71**	**3.37**
Minimum	**1.00**	**1.00**	**1.00**	**0.90**	**0.50**	**0.50**	**0.50**	**0.50**	**1.00**	**1.00**	**0.10**	**1.50**	**0.10**
Maximum	**12.50**	**12.50**	**11.00**	**8.00**	**9.00**	**6.50**	**8.00**	**5.60**	**8.00**	**10.50**	**12.00**	**12.00**	**12.50**

Table B8.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : BUOY K4

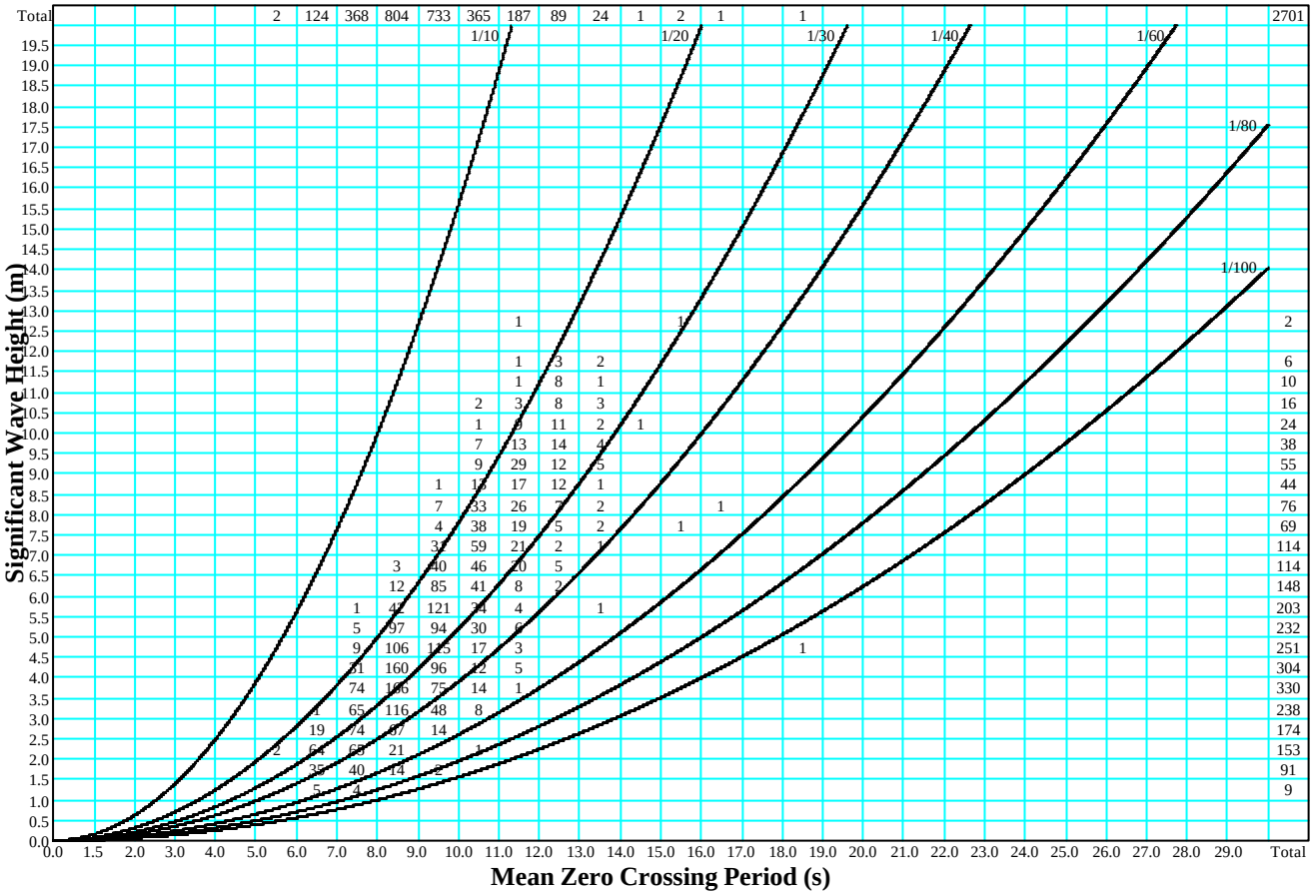
Figure B8.29 **Total Samples 39168**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_ALLYEAR_1/94-11/99

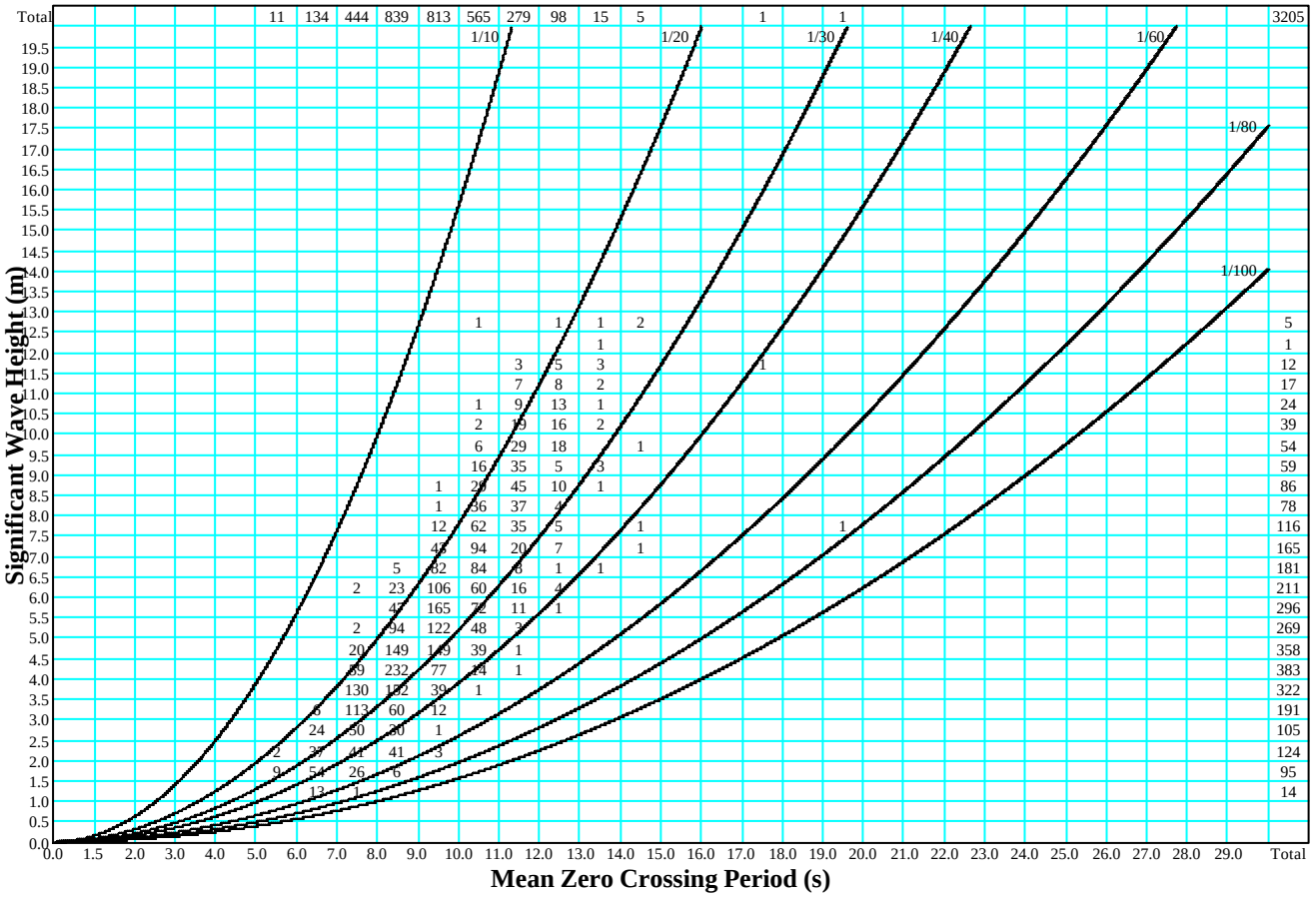
BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B8.30 **Total Samples 2701**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_JANUARY_94-99

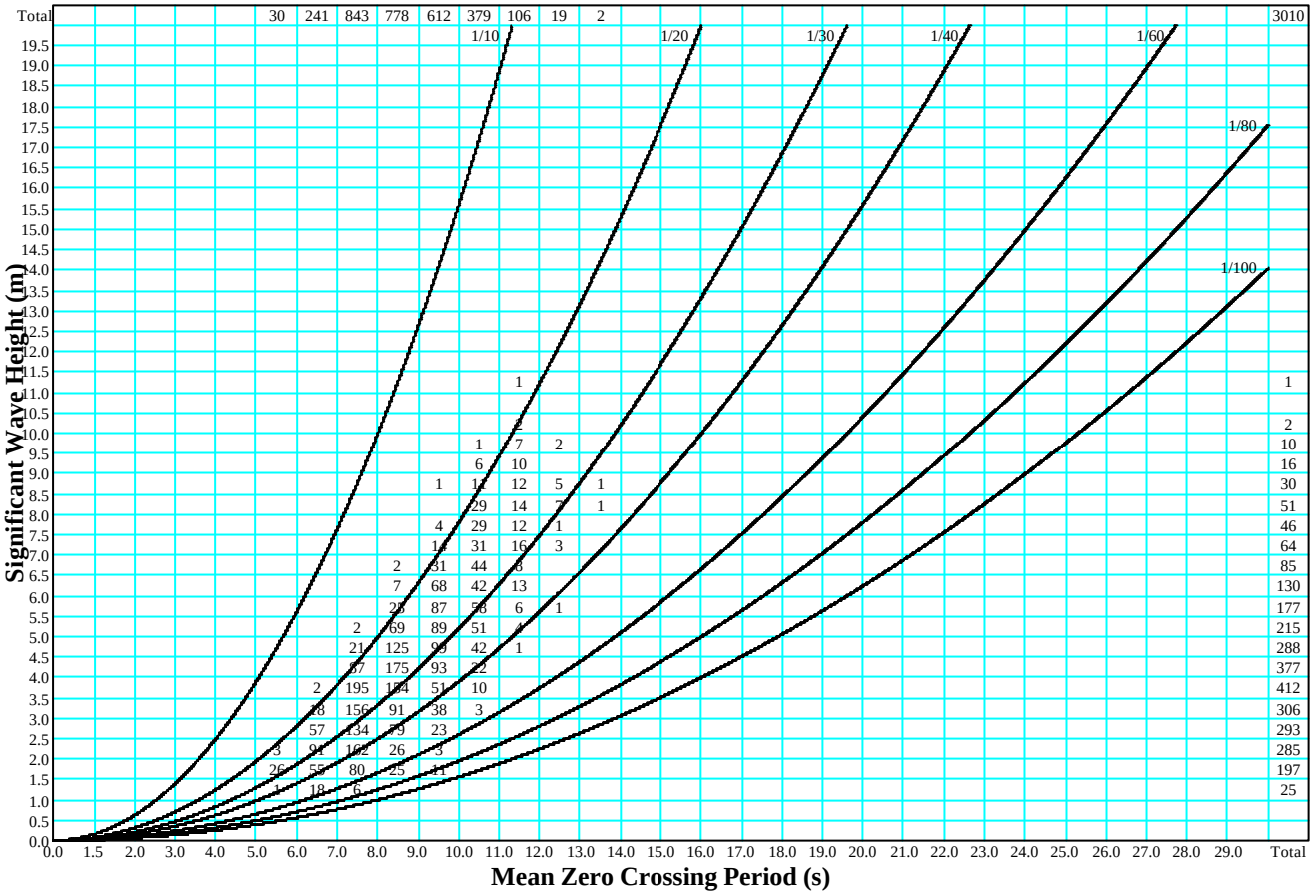
Figure B8.31 **Total Samples 3205**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_FEBRUARY_94-99

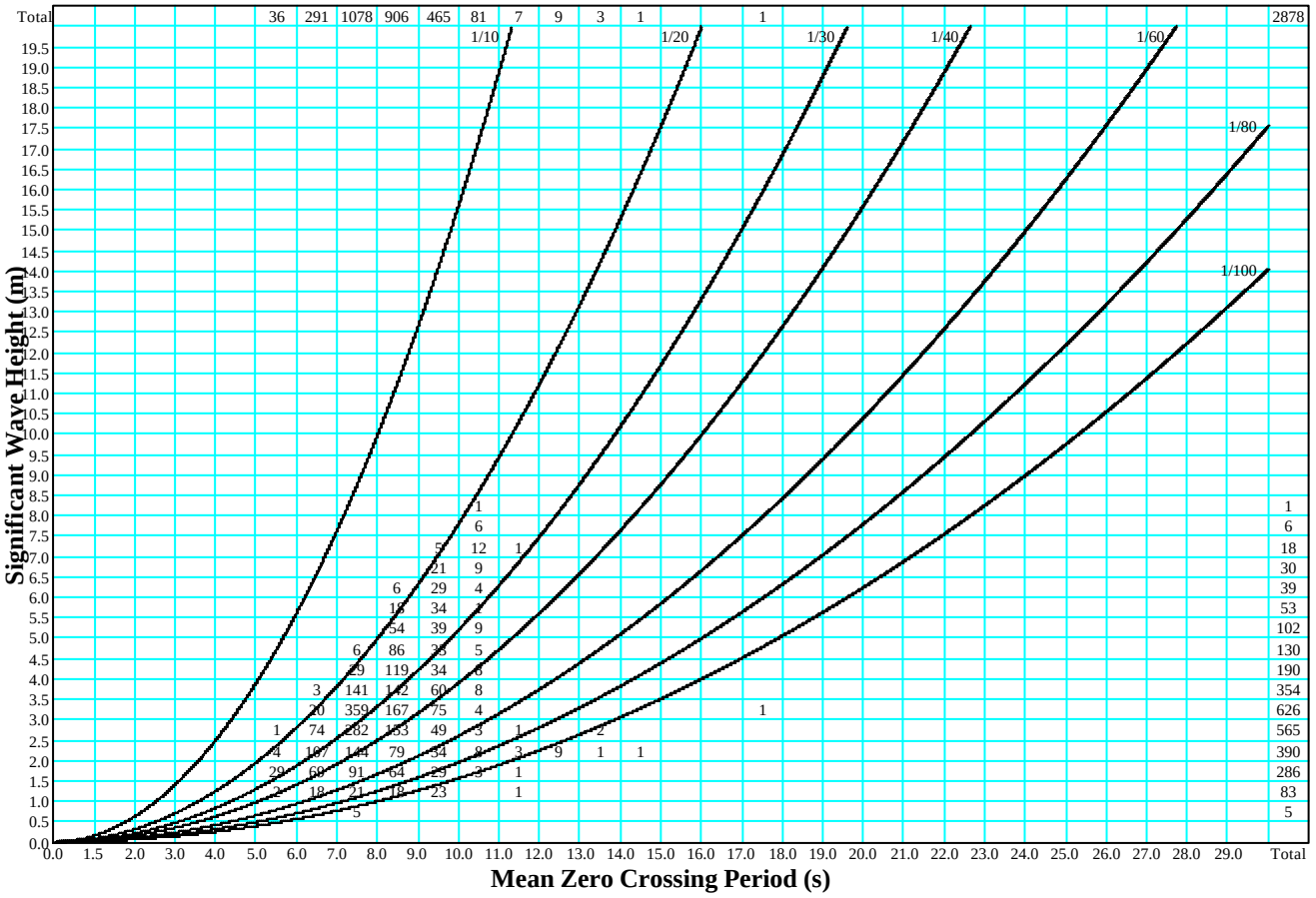
BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B8.32 **Total Samples 3010**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_MARCH_94-99

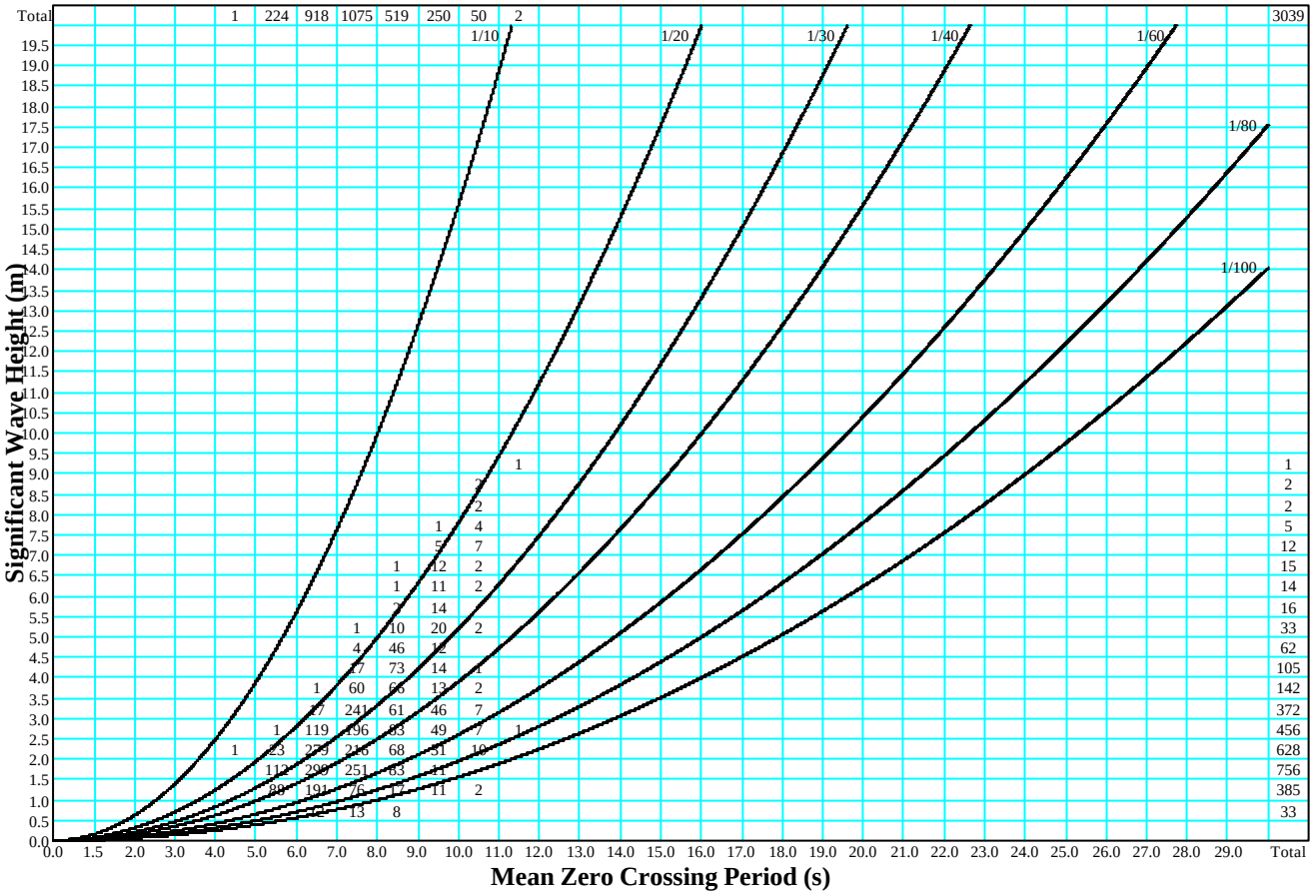
Figure B8.33 **Total Samples 2878**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_APRIL_94-99

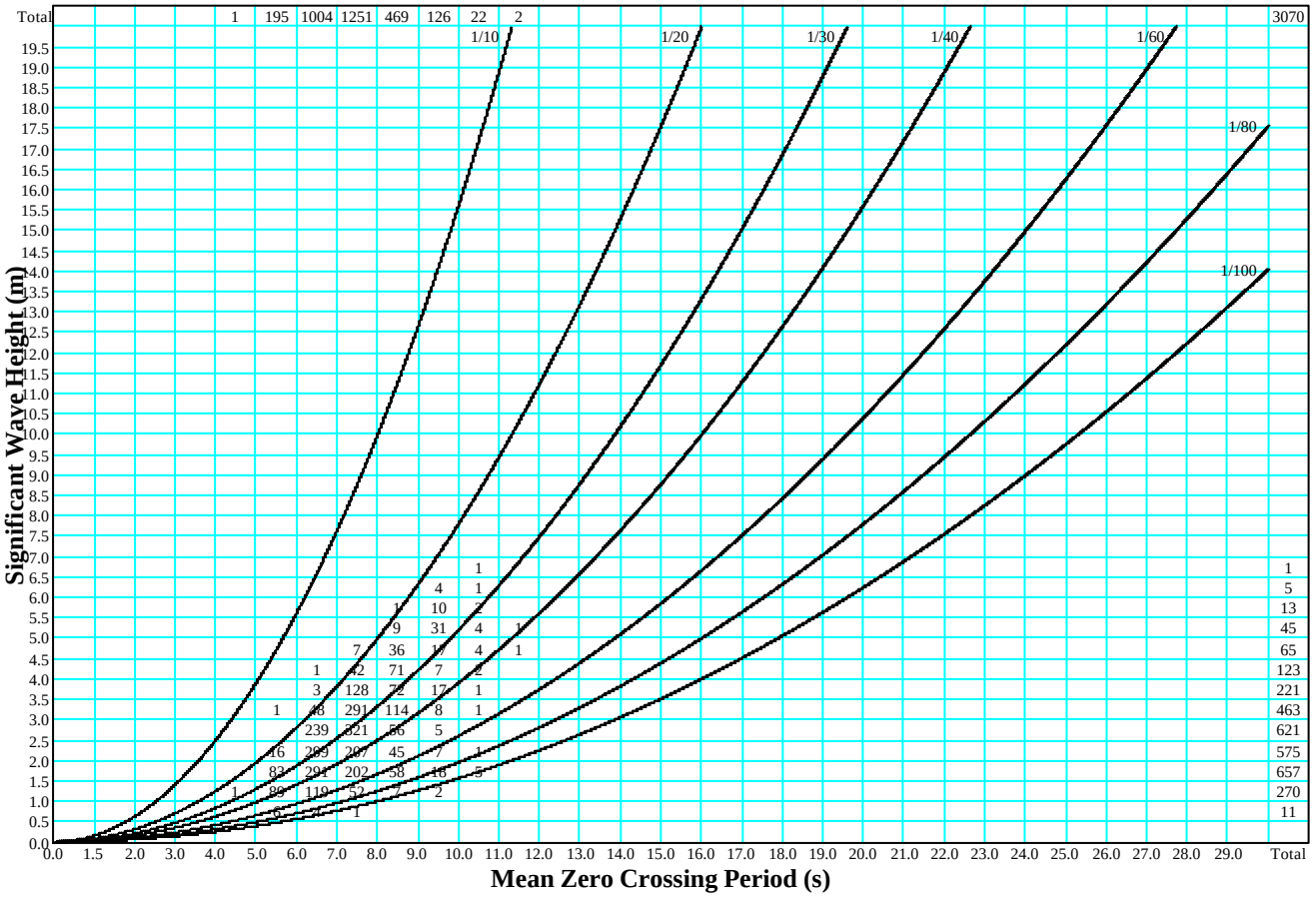
BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B8.34 **Total Samples 3039**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_MAY_94-99

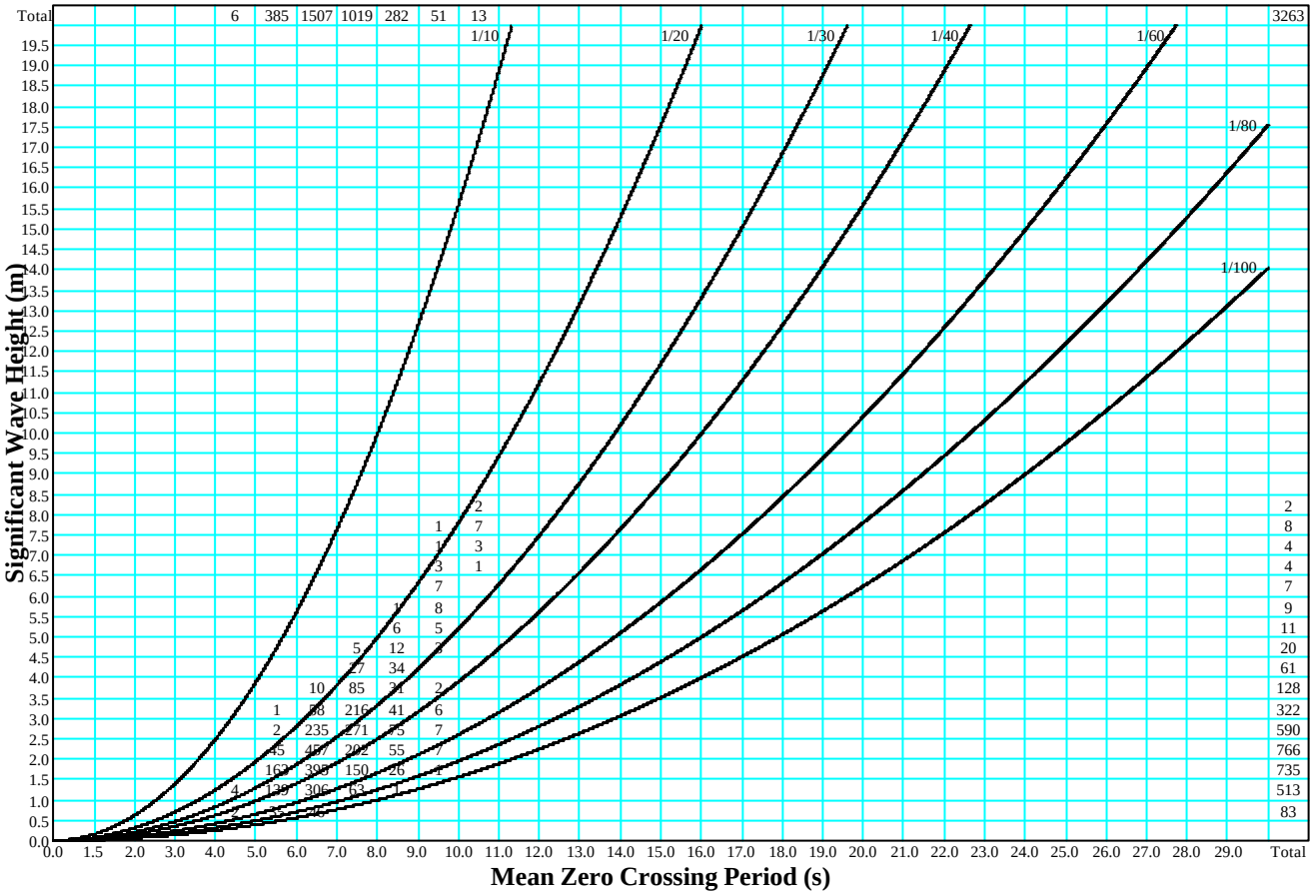
Figure B8.35 **Total Samples 3070**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_JUNE_94-99

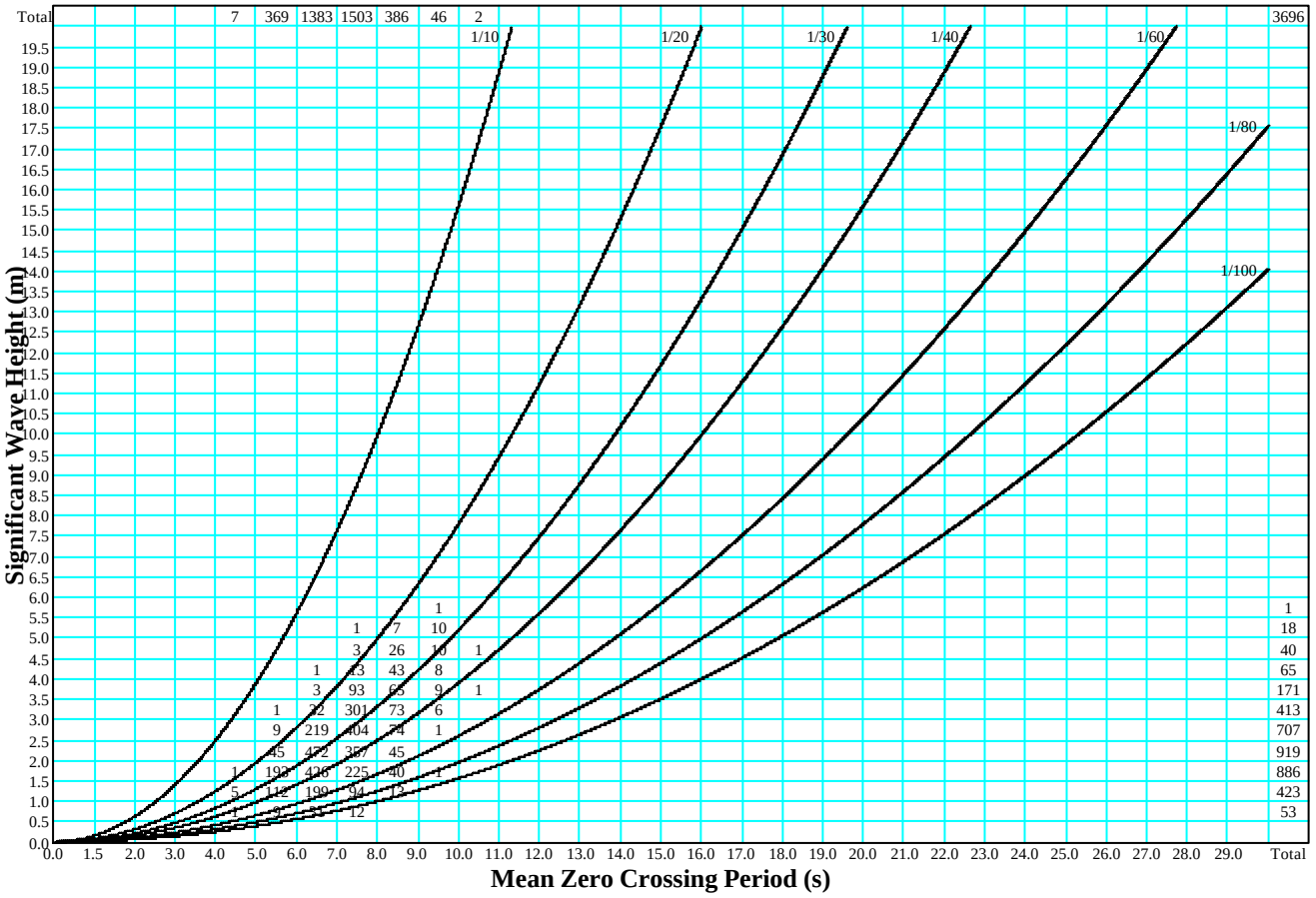
BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B8.36 **Total Samples 3263**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_JULY_94-99

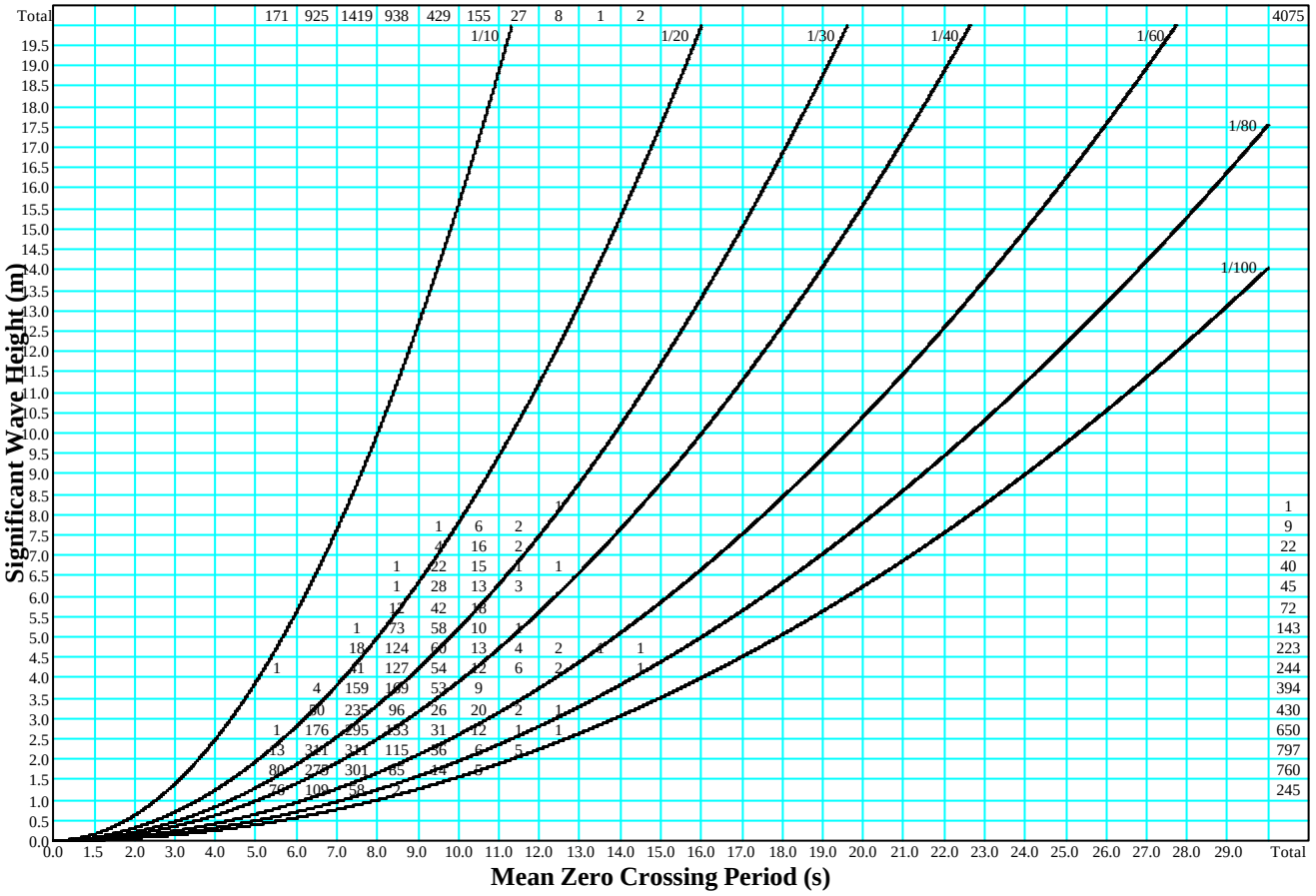
Figure B8.37 **Total Samples 3696**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_AUGUST_94-99

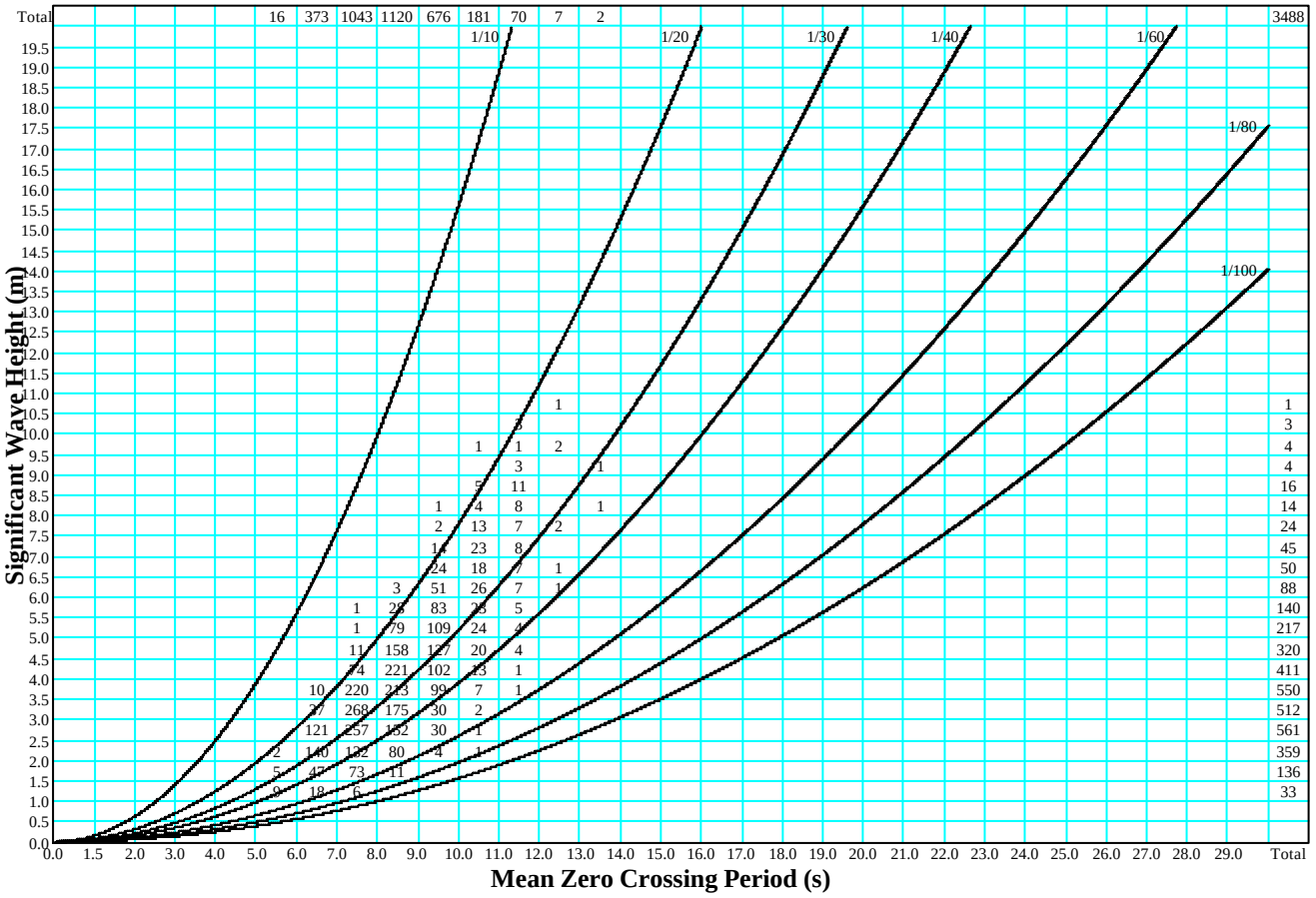
BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B8.38 **Total Samples 4075**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_SEPTEMBER_94-99

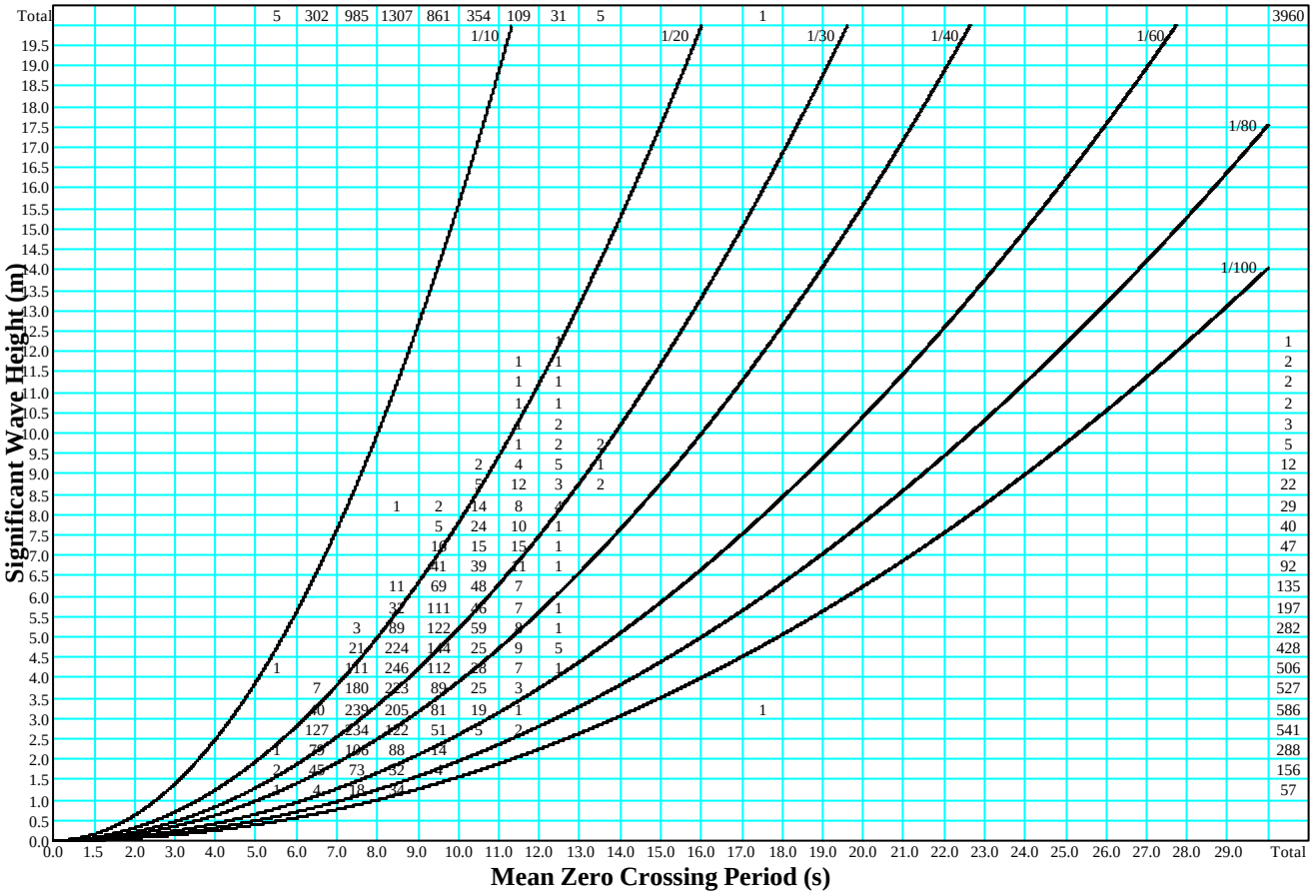
Figure B8.39 **Total Samples 3488**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_OCTOBER_94-99

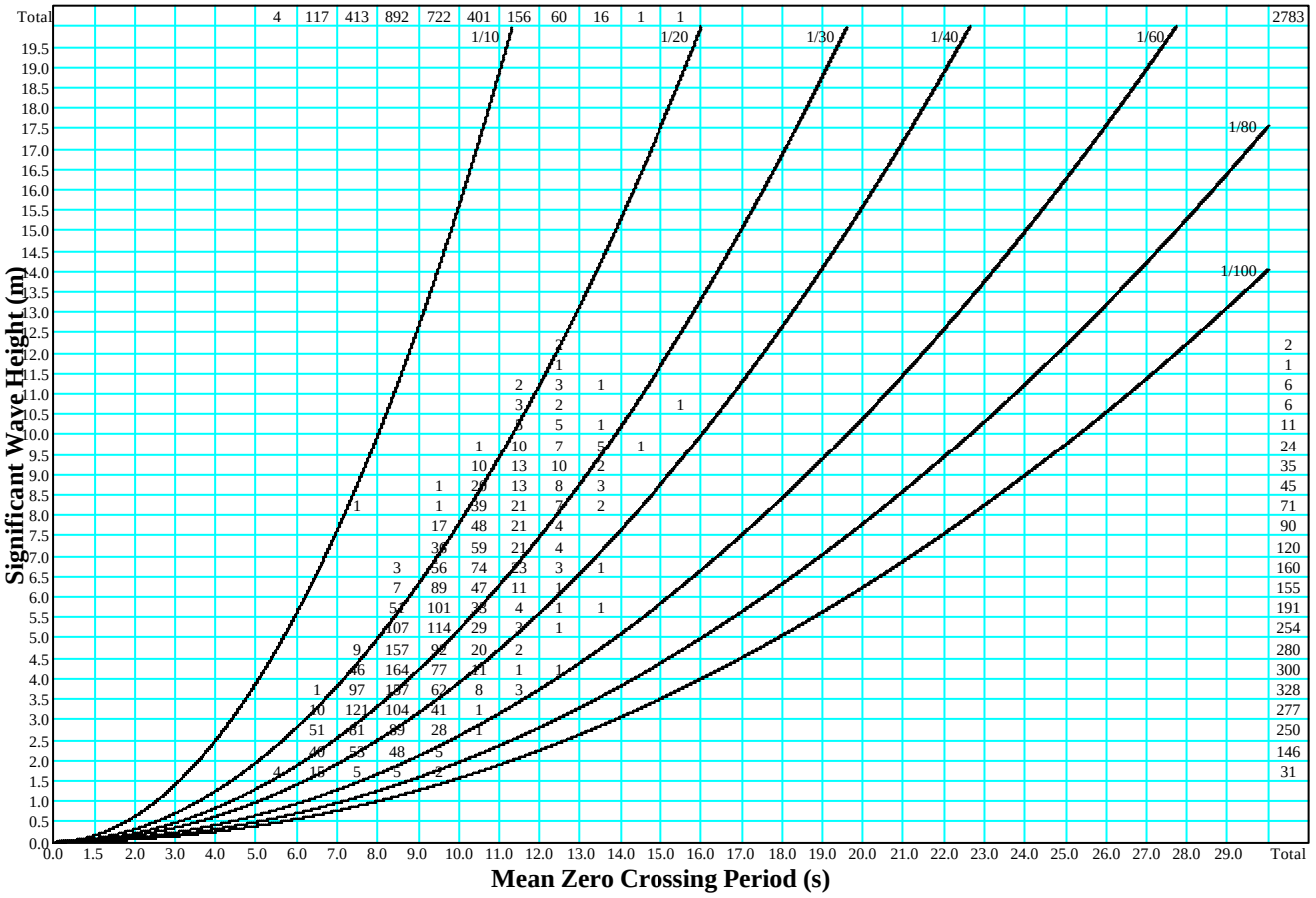
BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B8.40 **Total Samples 3960**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_NOVEMBER_94-99

Figure B8.41 **Total Samples 2783**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\K4.mdb~F2S_K4_HS/TZ_DECEMBER_94-99

BUOY DATA K4 : 56.05°N, 14.10°W & 55.55°N, 13.00°W
1/8/94-30/11/99
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

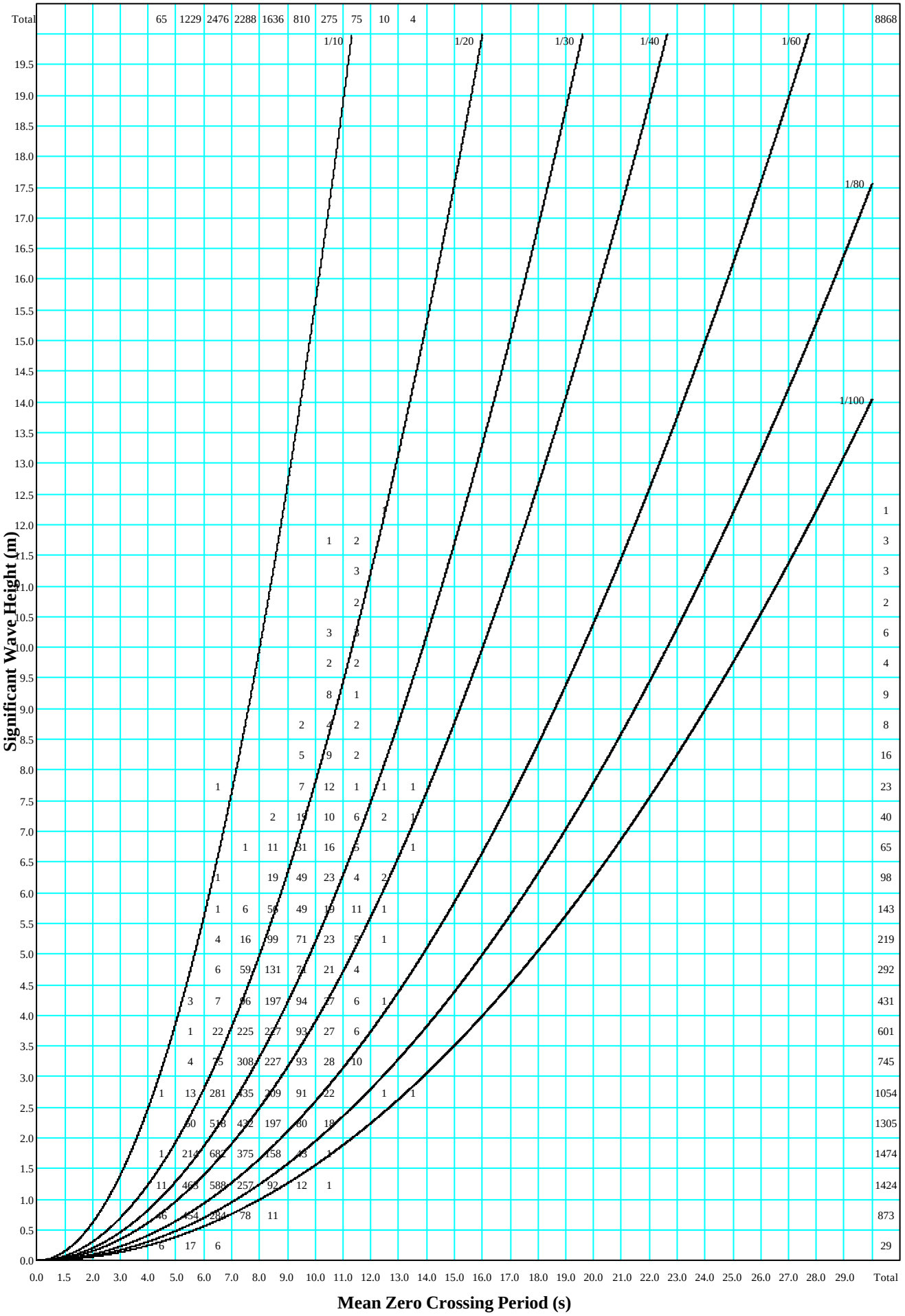
APPENDIX B-9

BUOY DB1 (48.72°N, 8.97°W)

Height (m)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
0.0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
0.5	100.00	100.00	100.00	99.55	100.00	99.66	99.25	99.09	98.77	100.00	100.00	100.00	99.67
1.0	100.00	100.00	98.99	91.63	89.51	75.85	76.77	76.00	85.54	94.79	99.69	99.59	89.83
1.5	96.93	97.37	93.21	69.21	66.85	46.94	48.45	43.43	70.12	80.02	96.92	97.67	73.77
2.0	86.55	91.30	85.69	43.05	42.52	25.74	21.24	22.63	52.25	66.34	85.21	89.85	57.15
2.5	69.01	79.97	73.70	24.22	24.76	13.72	8.70	7.77	34.11	50.48	65.64	82.72	42.43
3.0	51.90	67.82	64.31	11.66	13.29	6.80	2.73	2.63	17.46	33.05	45.76	71.33	30.55
3.5	39.33	50.08	54.48	6.88	7.13	3.17	0.50	1.49	9.69	21.55	27.58	60.77	22.15
4.0	26.90	30.87	42.92	3.89	3.78	1.25	0.00	0.69	4.09	13.20	16.18	52.13	15.37
4.5	17.69	17.24	32.95	2.09	1.82	0.68	0.00	0.57	1.91	8.60	8.47	41.15	10.51
5.0	11.99	10.51	22.08	1.20	1.26	0.57	0.00	0.46	0.68	5.69	3.24	32.37	7.22
5.5	7.02	6.24	15.90	0.00	0.56	0.23	0.00	0.34	0.41	3.87	0.92	24.01	4.75
6.0	3.36	3.45	10.26	0.00	0.14	0.00	0.00	0.11	0.14	2.54	0.15	18.93	3.13
6.5	2.49	2.13	6.50	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.15	12.62	2.03
7.0	1.46	1.48	3.76	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.00	8.50	1.30
7.5	1.17	0.82	2.60	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	5.62	0.85
8.0	0.73	0.49	1.59	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	4.39	0.59
8.5	0.58	0.49	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.74	0.41
9.0	0.29	0.33	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.33	0.32
9.5	0.15	0.33	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.21
10.0	0.15	0.00	0.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.10	0.17
10.5	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.55	0.10
11.0	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.08
11.5	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.05
12.0	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
12.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mean	**3.34**	**3.56**	**3.87**	**2.01**	**2.00**	**1.62**	**1.53**	**1.51**	**2.13**	**2.67**	**3.01**	**4.28**	**2.56**
Minimum	**1.00**	**1.13**	**0.87**	**0.42**	**0.58**	**0.48**	**0.44**	**0.30**	**0.43**	**0.62**	**0.86**	**0.79**	**0.30**
Maximum	**10.15**	**9.96**	**12.22**	**5.48**	**6.15**	**5.80**	**3.74**	**6.01**	**6.31**	**8.43**	**6.58**	**11.91**	**12.22**

Table B9.27 - Omnidirectional Significant Wave Height - Percentage Exceedence by Month : BUOY DB1

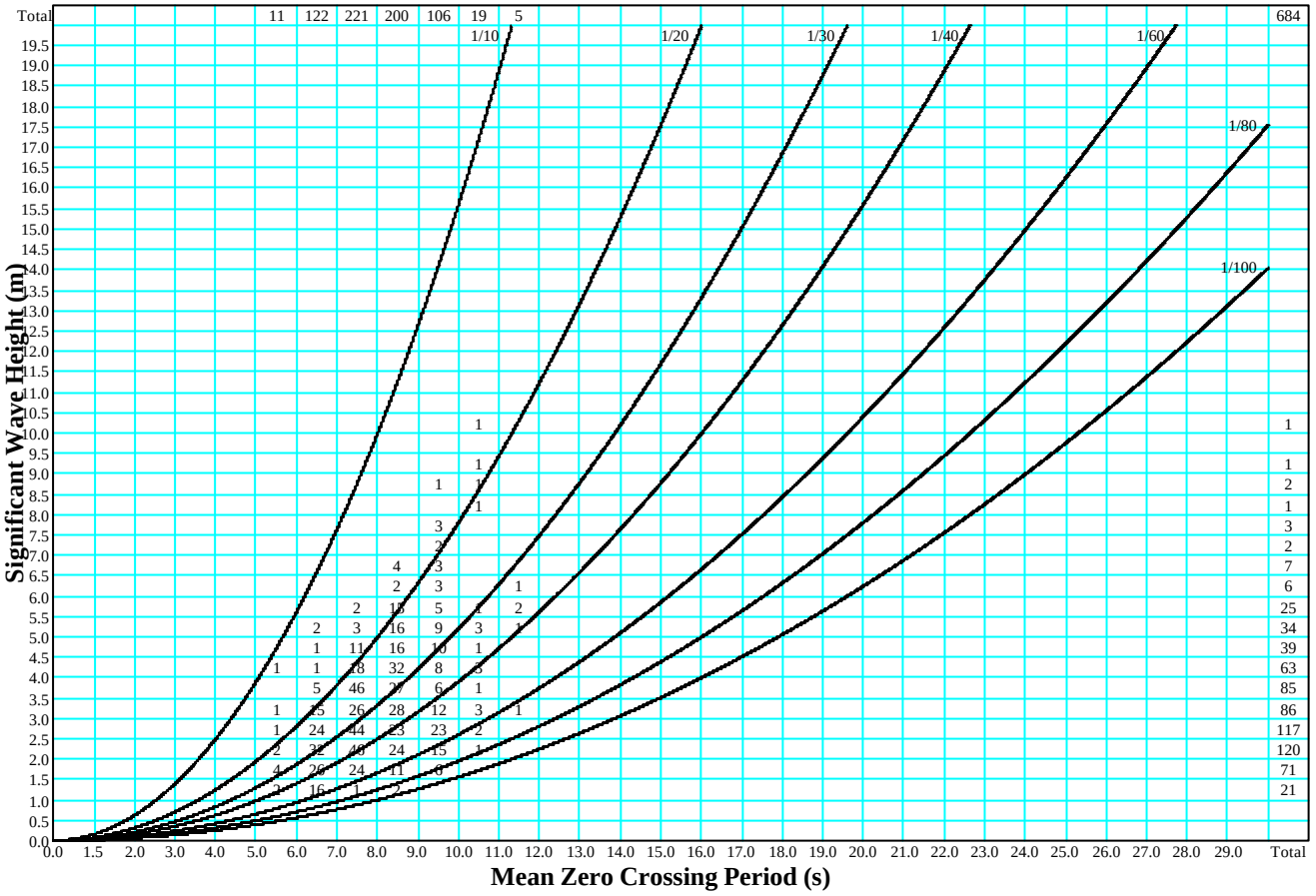
Figure B9.29 **Total Samples 8868**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_ALLYEAR_6/78-3/82

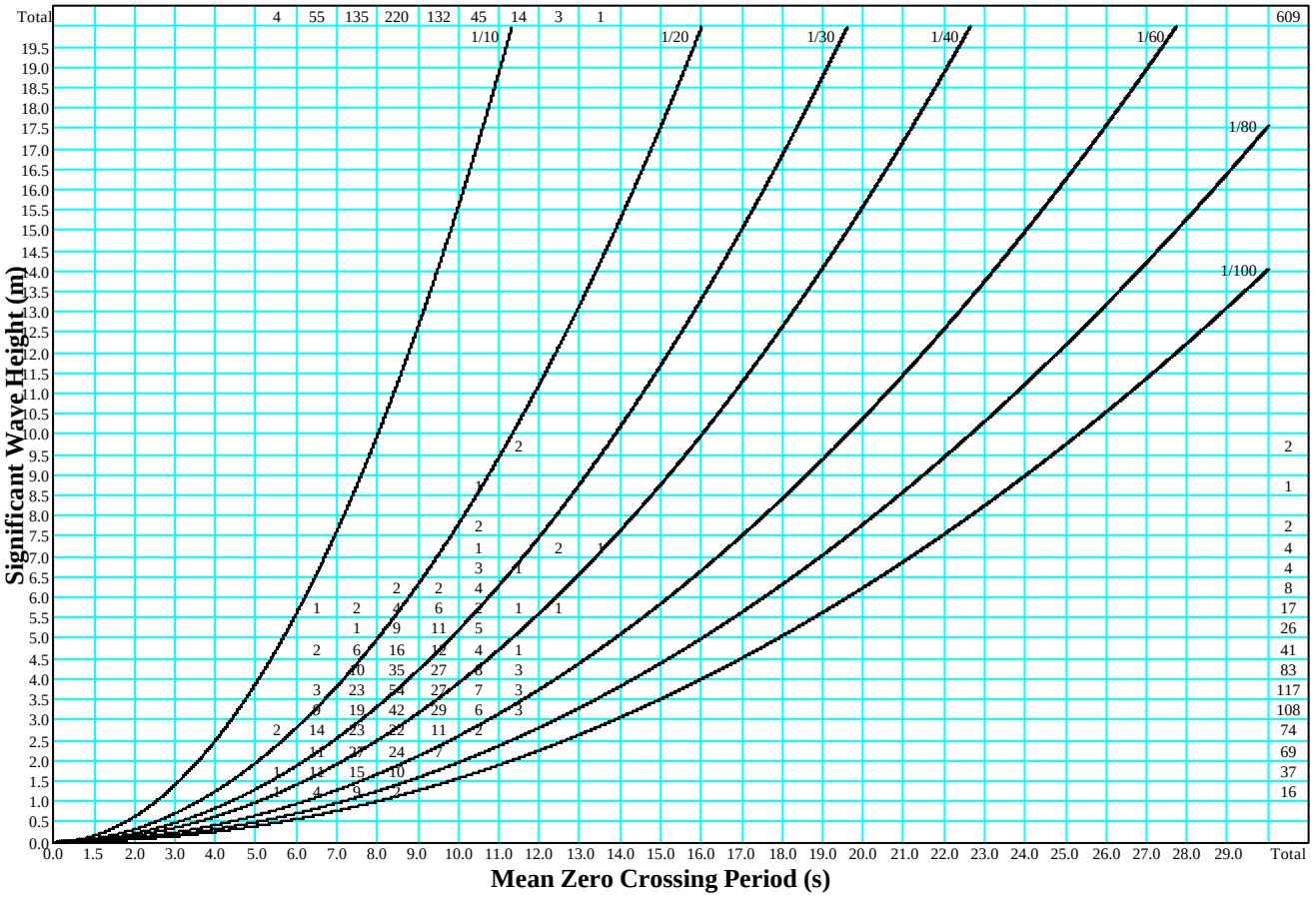
Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Hs/Tz Scatter Plots and Wave Steepness : All Year

Figure B9.30 **Total Samples 684**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_JANUARY_78-82

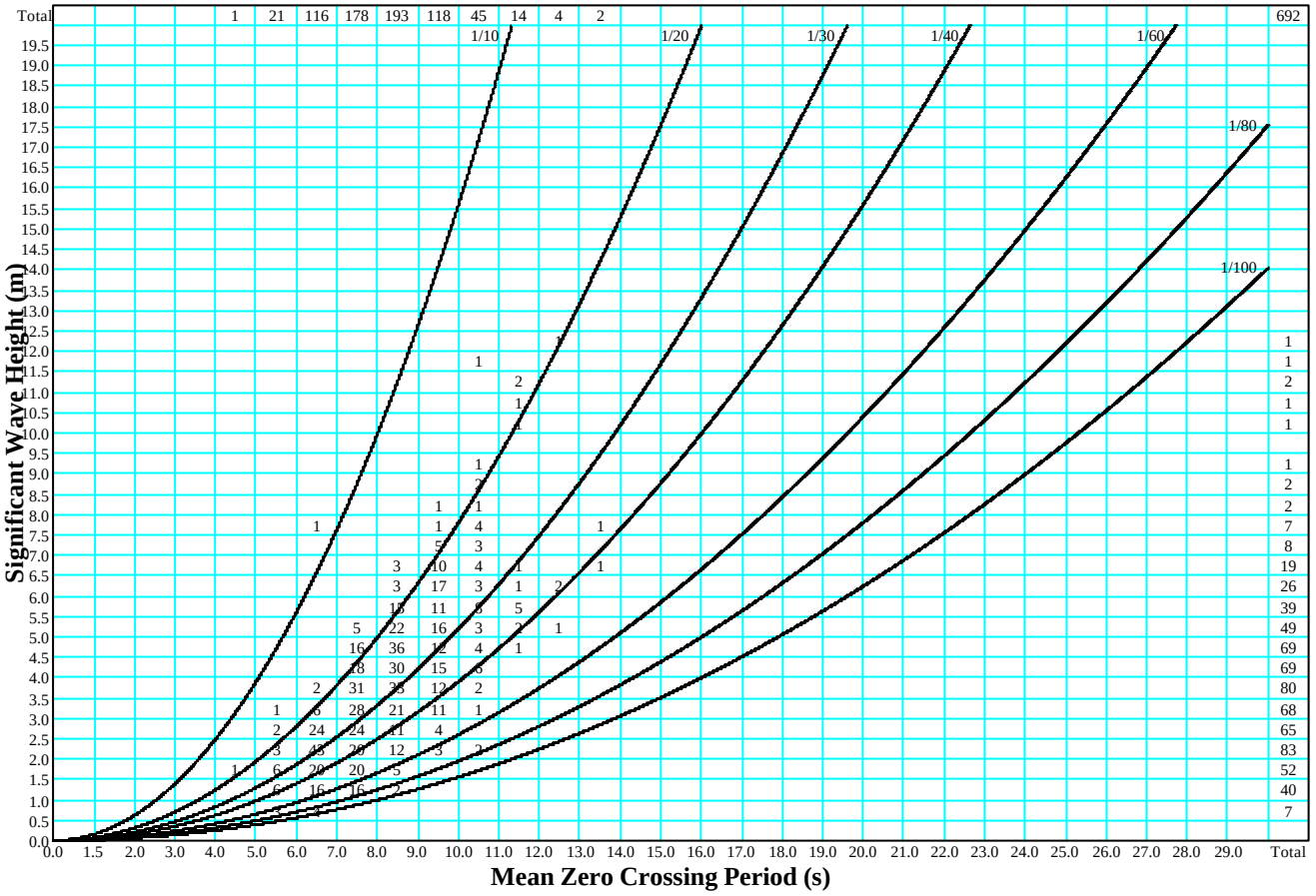
Figure B9.31 **Total Samples 609**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_FEBRUARY_78-82

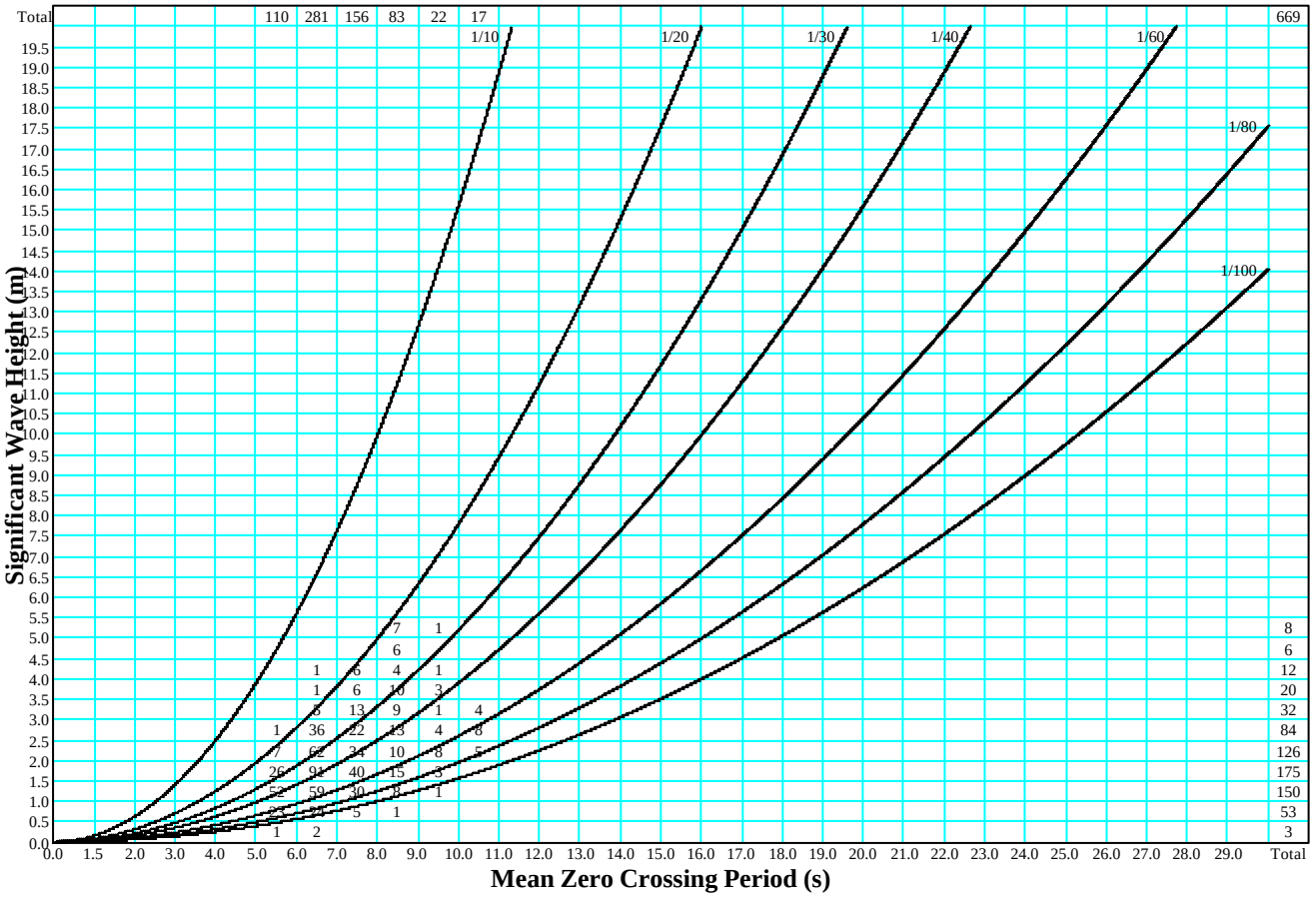
Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Hs/Tz Scatter Plots and Wave Steepness : January (top) : February (bottom)

Figure B9.32 **Total Samples 692**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_MARCH_78-82

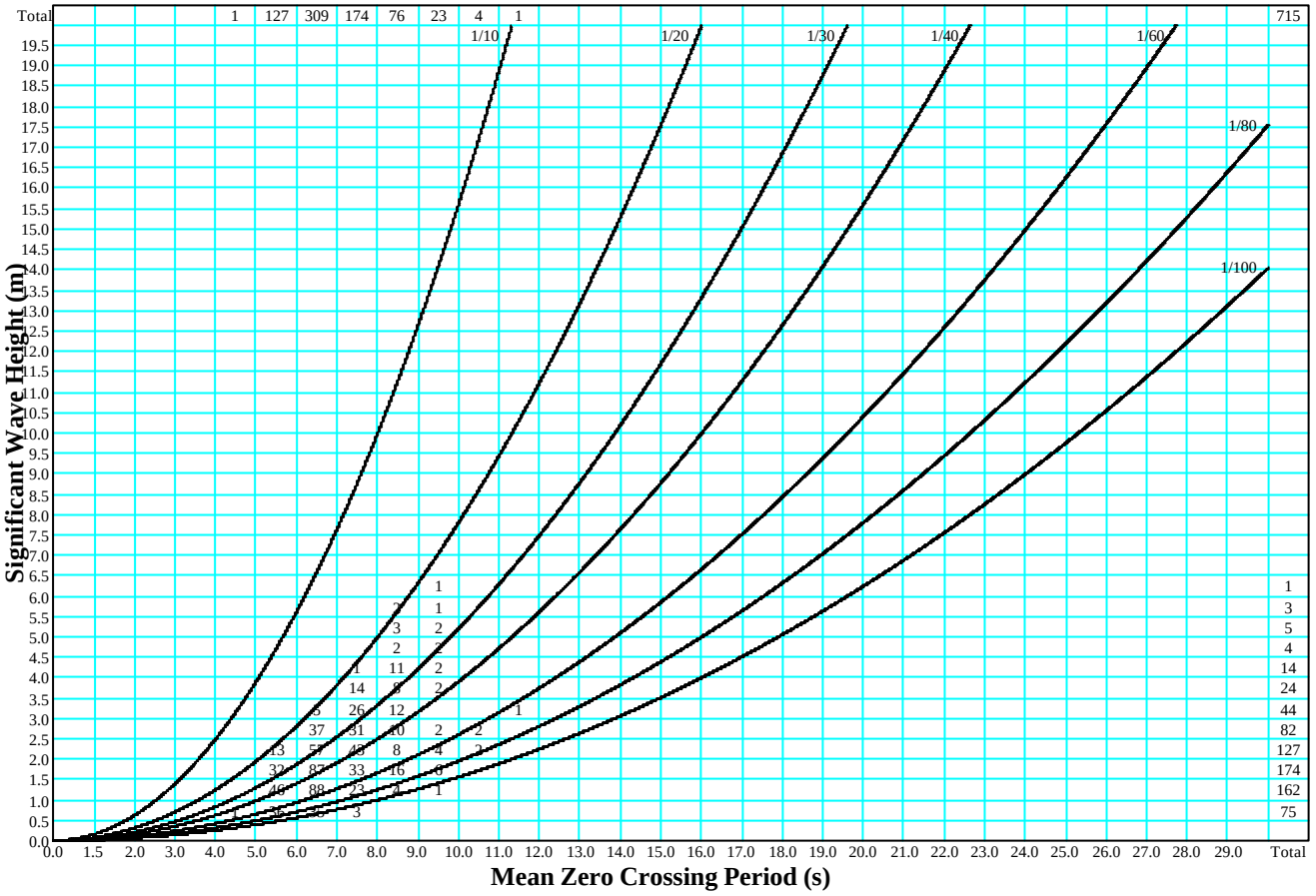
Figure B9.33 **Total Samples 669**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_APRIL_78-82

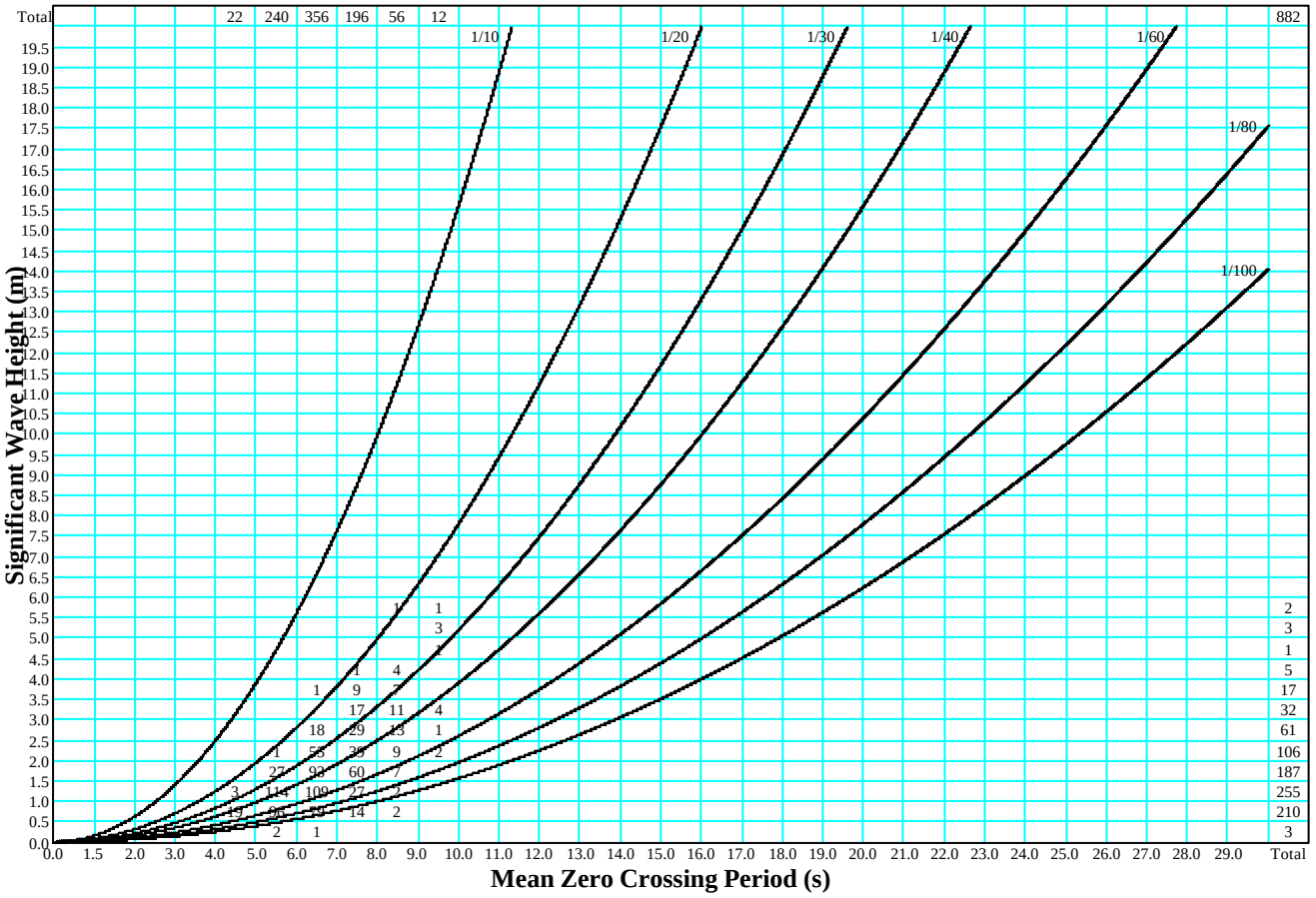
Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Hs/Tz Scatter Plots and Wave Steepness : March (top) : April (bottom)

Figure B9.34 **Total Samples 715**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_MAY_78-82

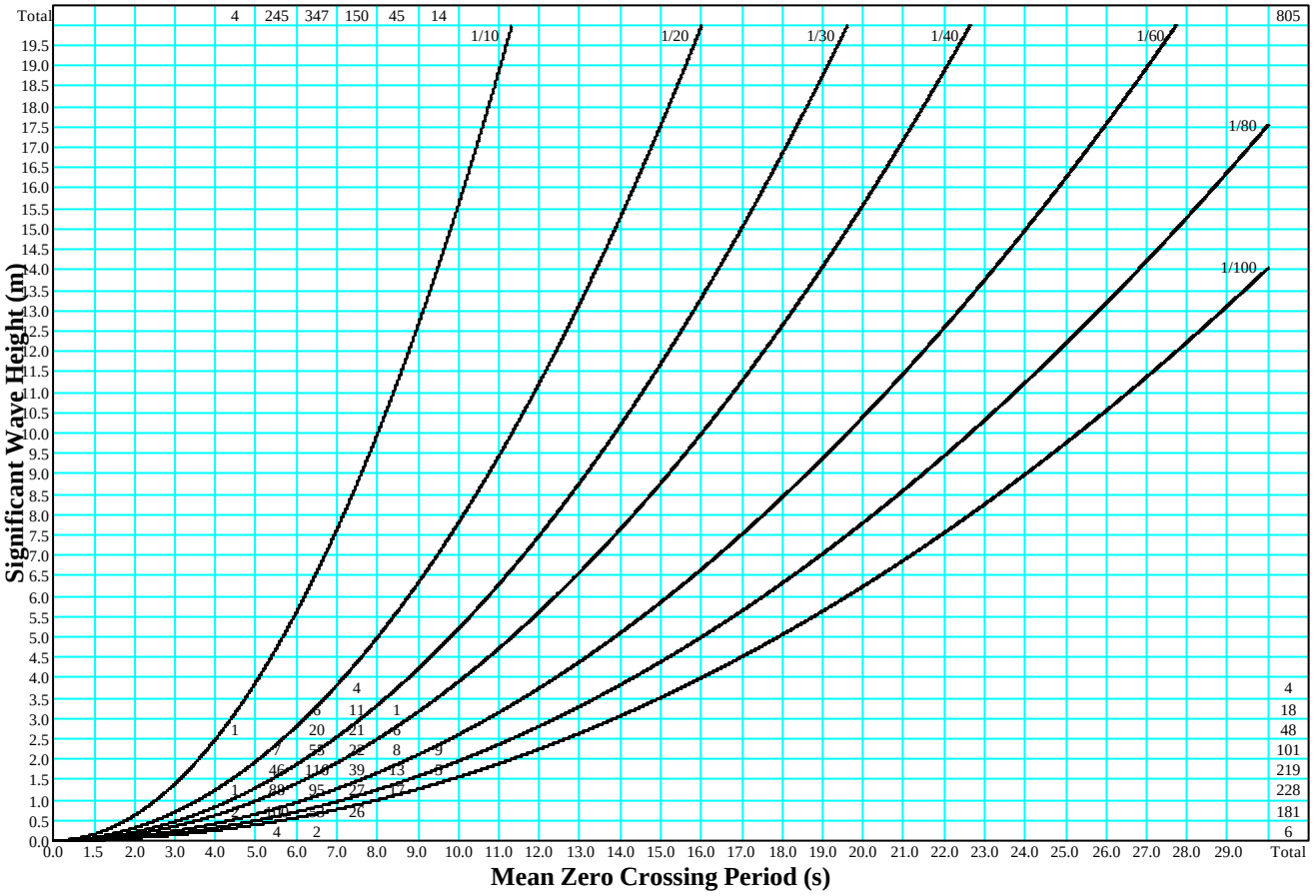
Figure B9.35 **Total Samples 882**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_JUNE_78-82

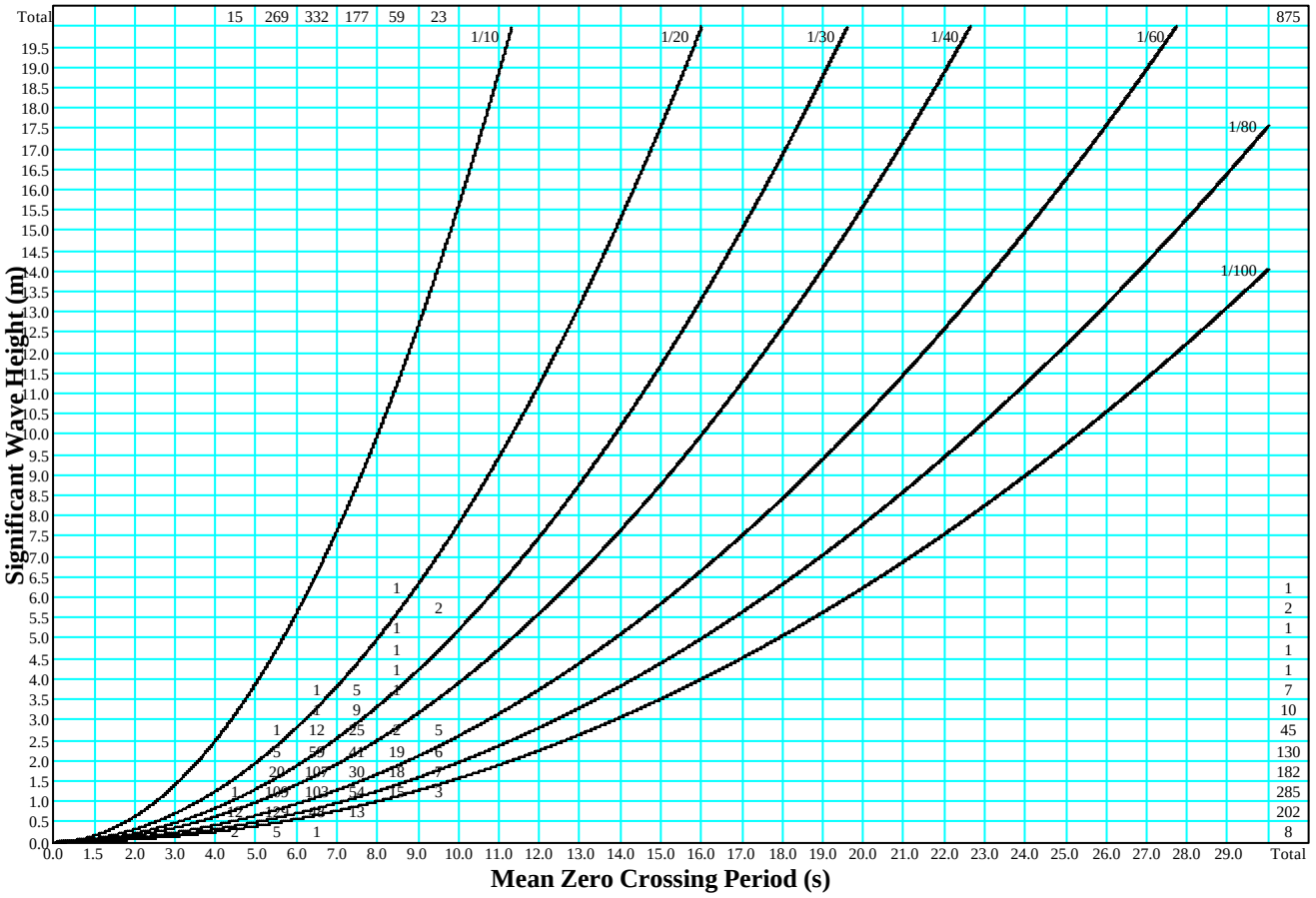
Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Hs/Tz Scatter Plots and Wave Steepness : May (top) : June (bottom)

Figure B9.36 **Total Samples 805**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_JULY_78-82

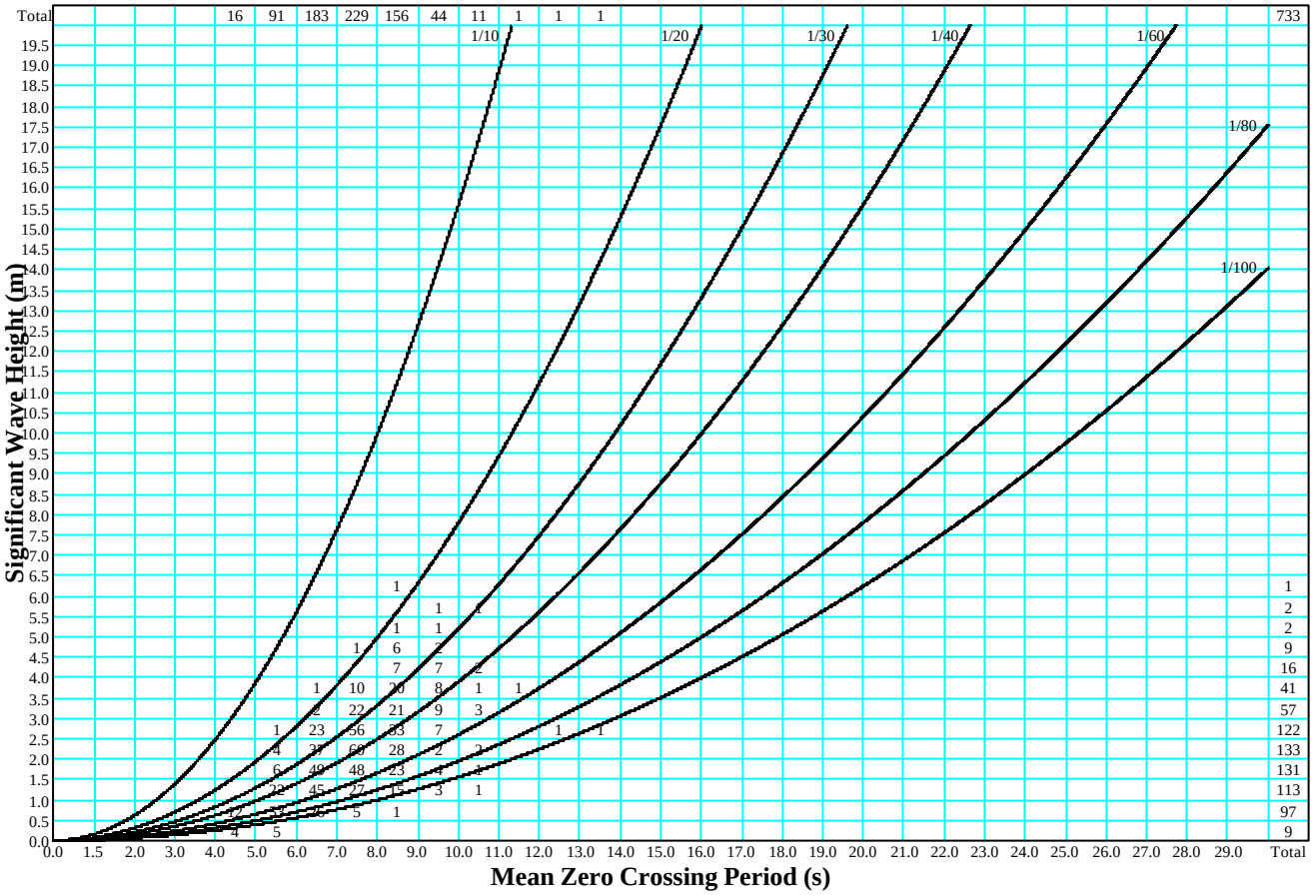
Figure B9.37 **Total Samples 875**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_AUGUST_78-82

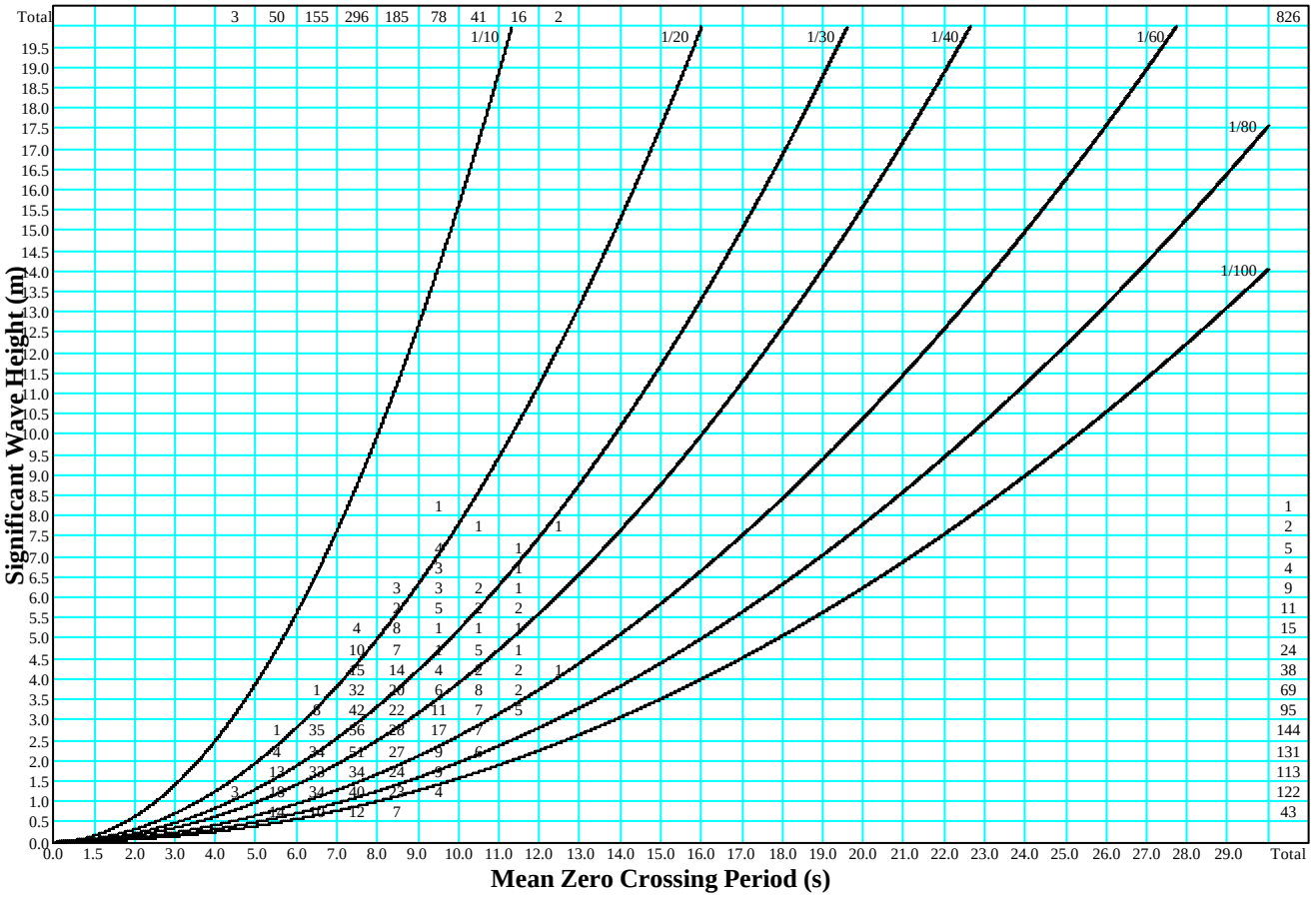
Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Hs/Tz Scatter Plots and Wave Steepness : July (top) : August (bottom)

Figure B9.38 **Total Samples 733**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_SEPTEMBER_78-82

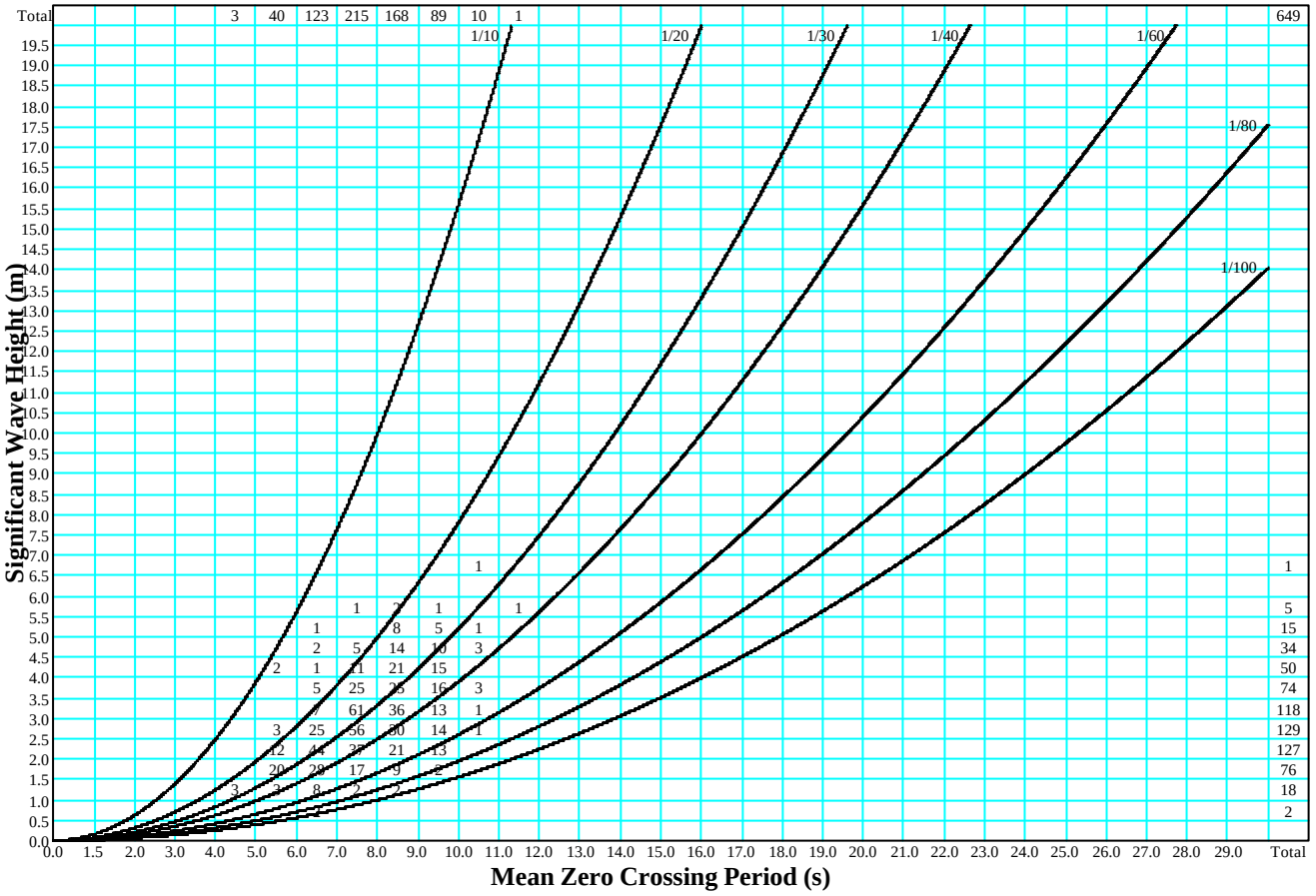
Figure B9.39 **Total Samples 826**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_OCTOBER_78-82

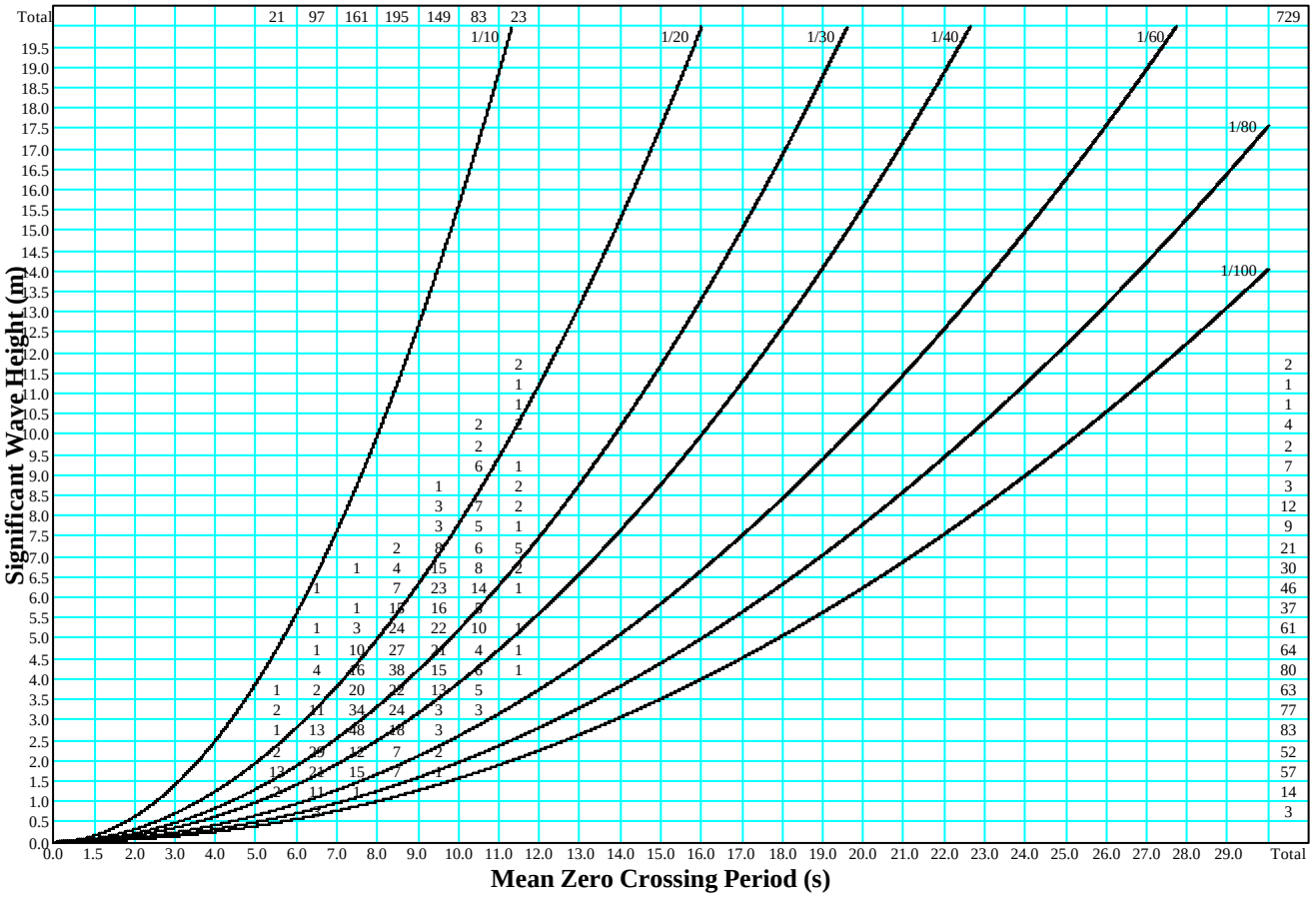
Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Hs/Tz Scatter Plots and Wave Steepness : September (top) : October (bottom)

Figure B9.40 **Total Samples 649**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_NOVEMBER_78-82

Figure B9.41 **Total Samples 729**



V7R6M0 - Q:\C50090\Worked up data\Wind and Wave Analyses\DB1.mdb~F2S_DB1_Hs/Tz_DECEMBER_78-82

Buoy DB1 : 48.72°N, 8.97°W
8/6/78-14/3/82
Hs/Tz Scatter Plots and Wave Steepness : November (top) : December (bottom)

APPENDIX C-1

(Porcupine Bank Region 200-500m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-1	5375	207	293
C-2	5376	29	471
C-3	5322	434	352
C-4	6335	230	275
C-5	6336	54	451
C-6	5373	446	332
C-7	5377	470	271

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	73	178	199	88	21	2	0	0	0	0	0	0	0	0	0	0	561
020 °T	65	149	119	38	7	0	0	0	0	0	0	0	0	0	0	0	378
040 °T	61	115	49	18	5	0	0	0	0	0	0	0	0	0	0	0	248
060 °T	69	106	16	0	0	0	0	0	0	0	0	0	0	0	0	0	191
080 °T	62	76	14	1	0	0	0	0	0	0	0	0	0	0	0	0	153
100 °T	77	118	68	12	20	5	0	0	0	0	0	0	0	0	0	0	300
120 °T	75	203	131	72	13	0	0	0	0	0	0	0	0	0	0	0	494
140 °T	115	224	267	97	9	0	0	0	0	0	0	0	0	0	0	0	712
160 °T	102	267	393	138	57	12	0	0	0	0	0	0	0	0	0	0	969
180 °T	86	324	455	193	40	14	0	0	0	0	0	0	0	0	0	0	1112
200 °T	87	308	221	95	34	6	0	0	0	0	0	0	0	0	0	0	751
220 °T	105	200	136	29	0	0	0	0	0	0	0	0	0	0	0	0	470
240 °T	103	204	77	17	0	0	0	0	0	0	0	0	0	0	0	0	401
260 °T	88	177	51	18	2	0	0	0	0	0	0	0	0	0	0	0	336
280 °T	94	191	50	16	0	0	0	0	0	0	0	0	0	0	0	0	351
300 °T	104	211	91	53	7	1	0	0	0	0	0	0	0	0	0	0	467
320 °T	81	192	152	50	21	0	0	0	0	0	0	0	0	0	0	0	496
340 °T	85	219	151	54	30	3	0	0	0	0	0	0	0	0	0	0	542
Column Total	1532	3462	2640	989	266	43	0	0	0	0	0	0	0	0	0	0	8932
	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.8	2.0	2.2	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
020 °T	0.7	1.7	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
040 °T	0.7	1.3	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
060 °T	0.8	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
080 °T	0.7	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
100 °T	0.9	1.3	0.8	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
120 °T	0.8	2.3	1.5	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
140 °T	1.3	2.5	3.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
160 °T	1.1	3.0	4.4	1.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
180 °T	1.0	3.6	5.1	2.2	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4
200 °T	1.0	3.4	2.5	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
220 °T	1.2	2.2	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
240 °T	1.2	2.3	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
260 °T	1.0	2.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
280 °T	1.1	2.1	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
300 °T	1.2	2.4	1.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
320 °T	0.9	2.1	1.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
340 °T	1.0	2.5	1.7	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
Column Total	17.2	38.8	29.6	11.1	3.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-1 - Current Statistics in 5 cm/s intervals for Mooring Reference 5375 at 51.693°N, 14.738°W at 207m Above Seabed (Instrument Depth 293m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	116	397	331	105	38	3	2	0	0	0	0	0	0	0	0	0	992
020 °T	103	270	221	64	8	1	0	0	0	0	0	0	0	0	0	0	667
040 °T	104	182	92	16	4	0	0	0	0	0	0	0	0	0	0	0	398
060 °T	97	151	72	14	5	0	0	0	0	0	0	0	0	0	0	0	339
080 °T	67	111	65	36	7	1	1	0	0	0	0	0	0	0	0	0	288
100 °T	73	106	56	20	4	3	1	0	0	0	0	0	0	0	0	0	263
120 °T	78	110	46	27	3	1	0	0	0	0	0	0	0	0	0	0	265
140 °T	83	165	43	10	2	0	0	0	0	0	0	0	0	0	0	0	303
160 °T	132	162	42	5	1	0	0	0	0	0	0	0	0	0	0	0	342
180 °T	133	144	47	19	1	1	0	0	0	0	0	0	0	0	0	0	345
200 °T	103	155	99	29	1	0	0	0	0	0	0	0	0	0	0	0	387
220 °T	95	196	101	33	8	0	0	0	0	0	0	0	0	0	0	0	433
240 °T	108	218	117	19	1	0	0	0	0	0	0	0	0	0	0	0	463
260 °T	81	217	90	25	6	0	0	0	0	0	0	0	0	0	0	0	419
280 °T	87	238	111	36	18	4	0	0	0	0	0	0	0	0	0	0	494
300 °T	107	315	181	68	21	2	1	0	0	0	0	0	0	0	0	0	695
320 °T	114	387	277	148	31	5	0	0	0	0	0	0	0	0	0	0	962
340 °T	144	452	375	164	69	27	3	0	0	0	0	0	0	0	0	0	1234
Column Total	1825	3976	2366	838	228	48	8	0	0	0	0	0	0	0	0	0	9289

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.2	4.3	3.6	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7
020 °T	1.1	2.9	2.4	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
040 °T	1.1	2.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
060 °T	1.0	1.6	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
080 °T	0.7	1.2	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
100 °T	0.8	1.1	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
120 °T	0.8	1.2	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
140 °T	0.9	1.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
160 °T	1.4	1.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
180 °T	1.4	1.6	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
200 °T	1.1	1.7	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
220 °T	1.0	2.1	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
240 °T	1.2	2.3	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
260 °T	0.9	2.3	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
280 °T	0.9	2.6	1.2	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
300 °T	1.2	3.4	1.9	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
320 °T	1.2	4.2	3.0	1.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
340 °T	1.6	4.9	4.0	1.8	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
Column Total	19.6	42.8	25.5	9.0	2.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-2 - Current Statistics in 5 cm/s intervals for Mooring Reference 5376 at 51.693°N, 14.738°W at 29m Above Seabed (Instrument Depth 471m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	90	314	383	655	773	573	282	157	64	22	9	0	0	0	0	0	3322
020 °T	58	228	195	231	215	182	73	23	1	0	0	0	0	0	0	0	1206
040 °T	45	152	84	46	53	18	12	2	2	0	0	0	0	0	0	0	414
060 °T	44	120	49	23	28	2	5	0	0	0	0	0	0	0	0	0	271
080 °T	40	61	19	22	29	8	0	0	0	0	0	0	0	0	0	0	179
100 °T	33	73	45	19	16	13	0	0	0	0	0	0	0	0	0	0	199
120 °T	32	41	9	18	8	2	0	0	0	0	0	0	0	0	0	0	110
140 °T	29	21	6	6	2	0	0	0	0	0	0	0	0	0	0	0	64
160 °T	26	21	4	2	0	0	0	0	0	0	0	0	0	0	0	0	53
180 °T	27	21	2	0	0	0	0	0	0	0	0	0	0	0	0	0	50
200 °T	28	29	19	7	2	0	0	0	0	0	0	0	0	0	0	0	85
220 °T	26	29	15	27	14	4	0	0	0	0	0	0	0	0	0	0	115
240 °T	29	41	25	37	36	15	18	23	7	9	1	0	0	0	0	0	241
260 °T	33	42	34	39	19	13	2	0	0	0	0	0	0	0	0	0	182
280 °T	45	69	26	42	12	4	3	1	0	0	0	0	0	0	0	0	202
300 °T	53	116	33	37	16	13	4	0	0	0	0	0	0	0	0	0	272
320 °T	60	179	166	131	154	92	26	8	0	0	0	0	0	0	0	0	816
340 °T	84	206	250	414	437	369	206	50	23	5	1	0	0	0	0	0	2045
Column Total	782	1763	1364	1756	1814	1308	631	264	97	36	11	0	0	0	0	0	9826

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.9	3.2	3.9	6.7	7.9	5.8	2.9	1.6	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	33.8
020 °T	0.6	2.3	2.0	2.4	2.2	1.9	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3
040 °T	0.5	1.5	0.9	0.5	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
060 °T	0.4	1.2	0.5	0.2	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
080 °T	0.4	0.6	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
100 °T	0.3	0.7	0.5	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
120 °T	0.3	0.4	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
140 °T	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
160 °T	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
180 °T	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
200 °T	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
220 °T	0.3	0.3	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
240 °T	0.3	0.4	0.3	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.5
260 °T	0.3	0.4	0.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
280 °T	0.5	0.7	0.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
300 °T	0.5	1.2	0.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
320 °T	0.6	1.8	1.7	1.3	1.6	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
340 °T	0.9	2.1	2.5	4.2	4.4	3.8	2.1	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	20.8
Column Total	8.0	17.9	13.9	17.9	18.5	13.3	6.4	2.7	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	100.0

Table C-3 - Current Statistics in 5 cm/s intervals for Mooring Reference 5322 at 51.690°N, 14.938°W at 434m Above Seabed (Instrument Depth 352m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	113	414	429	317	121	39	14	1	0	0	0	0	0	0	0	0	1448
020 °T	131	418	468	344	164	61	20	0	0	0	0	0	0	0	0	0	1606
040 °T	119	311	232	163	52	8	1	0	0	0	0	0	0	0	0	0	886
060 °T	89	156	84	35	19	1	0	0	0	0	0	0	0	0	0	0	384
080 °T	86	141	34	25	20	6	0	0	0	0	0	0	0	0	0	0	312
100 °T	78	97	45	22	1	0	0	0	0	0	0	0	0	0	0	0	243
120 °T	69	90	34	24	5	0	0	0	0	0	0	0	0	0	0	0	222
140 °T	60	83	68	38	24	3	0	0	0	0	0	0	0	0	0	0	276
160 °T	68	106	103	97	37	19	4	0	0	0	0	0	0	0	0	0	434
180 °T	51	129	120	102	73	29	13	1	0	0	0	0	0	0	0	0	518
200 °T	73	131	140	98	35	6	1	0	0	0	0	0	0	0	0	0	484
220 °T	59	148	113	49	12	0	0	0	0	0	0	0	0	0	0	0	381
240 °T	79	130	71	25	2	0	0	0	0	0	0	0	0	0	0	0	307
260 °T	93	119	80	33	6	2	0	0	0	0	0	0	0	0	0	0	333
280 °T	97	149	73	10	3	1	0	0	0	0	0	0	0	0	0	0	333
300 °T	107	178	86	34	3	0	0	0	0	0	0	0	0	0	0	0	408
320 °T	132	233	91	46	25	34	6	1	0	0	0	0	0	0	0	0	568
340 °T	115	294	230	98	52	15	4	0	0	0	0	0	0	0	0	0	808
Column Total	1619	3327	2501	1560	654	224	63	3	0	0	0	0	0	0	0	0	9951

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.1	4.2	4.3	3.2	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6
020 °T	1.3	4.2	4.7	3.5	1.6	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1
040 °T	1.2	3.1	2.3	1.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
060 °T	0.9	1.6	0.8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
080 °T	0.9	1.4	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
100 °T	0.8	1.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
120 °T	0.7	0.9	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
140 °T	0.6	0.8	0.7	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
160 °T	0.7	1.1	1.0	1.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
180 °T	0.5	1.3	1.2	1.0	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
200 °T	0.7	1.3	1.4	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
220 °T	0.6	1.5	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
240 °T	0.8	1.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
260 °T	0.9	1.2	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
280 °T	1.0	1.5	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
300 °T	1.1	1.8	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
320 °T	1.3	2.3	0.9	0.5	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
340 °T	1.2	3.0	2.3	1.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
Column Total	16.3	33.4	25.1	15.7	6.6	2.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-4 - Current Statistics in 5 cm/s intervals for Mooring Reference 6335 at 52.507°N, 14.740°W at 230m Above Seabed (Instrument Depth 275m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	97	429	569	568	396	127	25	6	0	0	0	0	0	0	0	0	2217
020 °T	119	353	474	571	421	164	67	5	0	0	0	0	0	0	0	0	2174
040 °T	83	215	259	163	109	32	6	3	0	0	0	0	0	0	0	0	870
060 °T	77	97	85	45	17	8	0	0	0	0	0	0	0	0	0	0	329
080 °T	45	71	35	11	2	0	0	0	0	0	0	0	0	0	0	0	164
100 °T	59	57	32	8	6	0	0	0	0	0	0	0	0	0	0	0	162
120 °T	40	55	33	13	4	0	0	0	0	0	0	0	0	0	0	0	145
140 °T	45	70	36	26	11	2	0	0	0	0	0	0	0	0	0	0	190
160 °T	43	70	63	55	15	0	0	0	0	0	0	0	0	0	0	0	246
180 °T	41	75	79	49	12	0	0	0	0	0	0	0	0	0	0	0	256
200 °T	51	82	40	35	10	1	0	0	0	0	0	0	0	0	0	0	219
220 °T	44	107	49	40	6	1	3	0	0	0	0	0	0	0	0	0	250
240 °T	61	99	46	11	4	1	0	0	0	0	0	0	0	0	0	0	222
260 °T	56	114	59	18	6	0	0	0	0	0	0	0	0	0	0	0	253
280 °T	70	153	85	14	5	3	4	0	0	0	0	0	0	0	0	0	334
300 °T	65	147	114	38	10	8	1	0	0	0	0	0	0	0	0	0	383
320 °T	81	184	139	84	32	12	0	0	0	0	0	0	0	0	0	0	532
340 °T	99	259	249	167	77	38	9	2	0	0	0	0	0	0	0	0	900
Column Total	1176	2637	2446	1916	1143	397	115	16	0	0	0	0	0	0	0	0	9846

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.0	4.4	5.8	5.8	4.0	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5
020 °T	1.2	3.6	4.8	5.8	4.3	1.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1
040 °T	0.8	2.2	2.6	1.7	1.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
060 °T	0.8	1.0	0.9	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
080 °T	0.5	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
100 °T	0.6	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
120 °T	0.4	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
140 °T	0.5	0.7	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
160 °T	0.4	0.7	0.6	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
180 °T	0.4	0.8	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
200 °T	0.5	0.8	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
220 °T	0.4	1.1	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
240 °T	0.6	1.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
260 °T	0.6	1.2	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
280 °T	0.7	1.6	0.9	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
300 °T	0.7	1.5	1.2	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
320 °T	0.8	1.9	1.4	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
340 °T	1.0	2.6	2.5	1.7	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
Column Total	11.9	26.8	24.8	19.5	11.6	4.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-5 - Current Statistics in 5 cm/s intervals for Mooring Reference 6336 at 52.507°N, 14.740°W at 54m Above Seabed (Instrument Depth 451m)

Direction (to)	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	Row Total
	Total Current Speed Counts																
000 °T	86	196	107	16	19	1	0	0	0	0	0	0	0	0	0	0	425
020 °T	75	247	92	15	2	0	0	0	0	0	0	0	0	0	0	0	431
040 °T	71	213	47	0	0	0	0	0	0	0	0	0	0	0	0	0	331
060 °T	58	119	15	0	0	0	0	0	0	0	0	0	0	0	0	0	192
080 °T	51	63	35	0	0	0	0	0	0	0	0	0	0	0	0	0	149
100 °T	40	52	23	9	0	0	0	0	0	0	0	0	0	0	0	0	124
120 °T	36	49	17	12	3	0	0	0	0	0	0	0	0	0	0	0	117
140 °T	37	49	17	31	9	2	0	0	0	0	0	0	0	0	0	0	145
160 °T	39	75	50	24	35	10	0	0	0	0	0	0	0	0	0	0	233
180 °T	41	74	78	38	16	8	0	0	0	0	0	0	0	0	0	0	255
200 °T	43	114	93	30	3	4	0	0	0	0	0	0	0	0	0	0	287
220 °T	66	133	74	31	5	0	0	0	0	0	0	0	0	0	0	0	309
240 °T	63	120	65	44	5	0	0	0	0	0	0	0	0	0	0	0	297
260 °T	56	42	12	10	0	0	0	0	0	0	0	0	0	0	0	0	120
280 °T	65	57	3	0	0	0	0	0	0	0	0	0	0	0	0	0	125
300 °T	78	91	13	0	0	0	0	0	0	0	0	0	0	0	0	0	182
320 °T	100	135	16	1	0	0	0	0	0	0	0	0	0	0	0	0	252
340 °T	98	185	81	14	15	1	0	0	0	0	0	0	0	0	0	0	394
Column Total	1103	2014	838	275	112	26	0	0	0	0	0	0	0	0	0	0	4368
	Total Current Speed as Percentage																
Direction (to)																	
000 °T	2.0	4.5	2.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
020 °T	1.7	5.7	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
040 °T	1.6	4.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
060 °T	1.3	2.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
080 °T	1.2	1.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
100 °T	0.9	1.2	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
120 °T	0.8	1.1	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
140 °T	0.8	1.1	0.4	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
160 °T	0.9	1.7	1.1	0.5	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
180 °T	0.9	1.7	1.8	0.9	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
200 °T	1.0	2.6	2.1	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
220 °T	1.5	3.0	1.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
240 °T	1.4	2.7	1.5	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
260 °T	1.3	1.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
280 °T	1.5	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
300 °T	1.8	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
320 °T	2.3	3.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
340 °T	2.2	4.2	1.9	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
Column Total	25.3	46.1	19.2	6.3	2.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-6 - Current Statistics in 5 cm/s intervals for Mooring Reference 5373 at 51.697°N, 14.955°W at 446m Above Seabed (Instrument Depth 332m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	124	308	163	24	4	0	0	0	0	0	0	0	0	0	0	0	623
020 °T	127	292	165	17	2	0	0	0	0	0	0	0	0	0	0	0	603
040 °T	147	329	150	18	10	1	1	0	0	0	0	0	0	0	0	0	656
060 °T	155	305	135	26	13	2	2	0	0	0	0	0	0	0	0	0	638
080 °T	148	310	165	26	14	3	0	0	0	0	0	0	0	0	0	0	666
100 °T	151	322	138	8	7	1	0	0	0	0	0	0	0	0	0	0	627
120 °T	149	281	124	24	11	0	0	0	0	0	0	0	0	0	0	0	589
140 °T	147	263	102	39	17	6	0	0	0	0	0	0	0	0	0	0	574
160 °T	140	327	160	47	10	11	0	0	0	0	0	0	0	0	0	0	695
180 °T	143	306	190	23	10	2	0	0	0	0	0	0	0	0	0	0	674
200 °T	128	201	142	16	3	0	0	0	0	0	0	0	0	0	0	0	490
220 °T	114	210	143	33	9	0	0	0	0	0	0	0	0	0	0	0	509
240 °T	113	182	86	15	5	2	0	0	0	0	0	0	0	0	0	0	403
260 °T	100	125	52	18	3	0	0	0	0	0	0	0	0	0	0	0	298
280 °T	94	139	31	3	0	0	0	0	0	0	0	0	0	0	0	0	267
300 °T	86	140	41	16	4	3	0	0	0	0	0	0	0	0	0	0	290
320 °T	120	226	68	21	17	1	0	0	0	0	0	0	0	0	0	0	453
340 °T	145	255	106	33	2	0	0	0	0	0	0	0	0	0	0	0	541
Column Total	2331	4521	2161	407	141	32	3	0	0	0	0	0	0	0	0	0	9596

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.3	3.2	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
020 °T	1.3	3.0	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
040 °T	1.5	3.4	1.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
060 °T	1.6	3.2	1.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
080 °T	1.5	3.2	1.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
100 °T	1.6	3.4	1.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
120 °T	1.6	2.9	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
140 °T	1.5	2.7	1.1	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
160 °T	1.5	3.4	1.7	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
180 °T	1.5	3.2	2.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
200 °T	1.3	2.1	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
220 °T	1.2	2.2	1.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
240 °T	1.2	1.9	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
260 °T	1.0	1.3	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
280 °T	1.0	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
300 °T	0.9	1.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
320 °T	1.3	2.4	0.7	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
340 °T	1.5	2.7	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Column Total	24.3	47.1	22.5	4.2	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-7 - Current Statistics in 5 cm/s intervals for Mooring Reference 5377 at 51.707°N, 14.915°W at 470m Above Seabed (Instrument Depth 271m)

APPENDIX C-2

(Porcupine Bank Region 500-1000m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-8	5323	29	757
C-9	5474	50	728
C-10	5379	730	979
C-11	5374	50	728
C-12	5378	30	711
C-13	7393	2377	601

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	48	153	347	339	319	201	95	24	5	1	0	0	0	0	0	0	1532
020 °T	38	102	218	236	208	117	45	8	3	1	0	0	0	0	0	0	976
040 °T	30	71	111	116	120	57	29	6	4	0	0	0	0	0	0	0	544
060 °T	15	32	34	28	27	26	19	10	1	2	0	0	0	0	0	0	194
080 °T	14	22	10	11	12	1	0	0	0	0	0	0	0	0	0	0	70
100 °T	7	18	10	2	1	1	0	1	1	0	0	0	0	0	0	0	41
120 °T	8	13	2	1	0	1	0	0	0	0	0	0	0	0	0	0	25
140 °T	8	9	3	1	1	0	0	0	0	0	0	0	0	0	0	0	22
160 °T	6	7	6	5	0	1	0	0	0	0	0	0	0	0	0	0	25
180 °T	2	17	5	4	2	2	0	0	0	0	0	0	0	0	0	0	32
200 °T	2	12	8	3	1	0	0	0	0	0	0	0	0	0	0	0	26
220 °T	4	26	25	7	1	0	0	0	0	0	0	0	0	0	0	0	63
240 °T	7	38	30	15	4	1	11	0	0	0	0	0	0	0	0	0	106
260 °T	8	51	44	32	38	25	9	0	0	0	0	0	0	0	0	0	207
280 °T	12	55	136	107	106	45	17	0	0	0	0	0	0	0	0	0	478
300 °T	25	115	293	320	218	139	37	3	1	0	0	0	0	0	0	0	1151
320 °T	48	201	420	560	426	322	151	49	5	5	0	0	0	0	0	0	2187
340 °T	53	203	438	423	360	271	185	71	9	3	0	0	0	0	0	0	2016
Column Total	335	1145	2140	2210	1844	1210	598	172	29	12	0	0	0	0	0	0	9695

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.5	1.6	3.6	3.5	3.3	2.1	1.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.8
020 °T	0.4	1.1	2.2	2.4	2.1	1.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
040 °T	0.3	0.7	1.1	1.2	1.2	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
060 °T	0.2	0.3	0.4	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
080 °T	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
100 °T	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
120 °T	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
140 °T	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
160 °T	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
180 °T	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
200 °T	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
220 °T	0.0	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
240 °T	0.1	0.4	0.3	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
260 °T	0.1	0.5	0.5	0.3	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
280 °T	0.1	0.6	1.4	1.1	1.1	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
300 °T	0.3	1.2	3.0	3.3	2.2	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9
320 °T	0.5	2.1	4.3	5.8	4.4	3.3	1.6	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	22.6
340 °T	0.5	2.1	4.5	4.4	3.7	2.8	1.9	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8
Column Total	3.5	11.8	22.1	22.8	19.0	12.5	6.2	1.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-8 - Current Statistics in 5 cm/s intervals for Mooring Reference 5323 at 51.690°N, 14.938°W at 29m Above Seabed (Instrument Depth 757m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	69	362	450	311	113	15	1	0	0	0	0	0	0	0	0	0	1321
020 °T	57	131	88	20	25	4	0	0	0	0	0	0	0	0	0	0	325
040 °T	25	51	8	3	0	0	0	0	0	0	0	0	0	0	0	0	87
060 °T	12	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
080 °T	12	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
100 °T	14	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
120 °T	15	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
140 °T	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
160 °T	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
180 °T	22	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
200 °T	15	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
220 °T	24	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
240 °T	32	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
260 °T	43	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70
280 °T	45	49	1	0	0	0	0	0	0	0	0	0	0	0	0	0	95
300 °T	79	139	27	1	0	0	0	0	0	0	0	0	0	0	0	0	246
320 °T	109	319	185	44	9	2	0	0	0	0	0	0	0	0	0	0	668
340 °T	128	453	447	210	68	9	0	0	0	0	0	0	0	0	0	0	1315
Column Total	720	1594	1206	589	215	30	1	0	0	0	0	0	0	0	0	0	4355

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.6	8.3	10.3	7.1	2.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.3
020 °T	1.3	3.0	2.0	0.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
040 °T	0.6	1.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
060 °T	0.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
080 °T	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
100 °T	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
120 °T	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
140 °T	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
160 °T	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
180 °T	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
200 °T	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
220 °T	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
240 °T	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
260 °T	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
280 °T	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
300 °T	1.8	3.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
320 °T	2.5	7.3	4.2	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3
340 °T	2.9	10.4	10.3	4.8	1.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.2
Column Total	16.5	36.6	27.7	13.5	4.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-9 - Current Statistics in 5 cm/s intervals for Mooring Reference 5474 at 51.697°N, 14.955°W at 50m Above Seabed (Instrument Depth 728m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	109	389	348	183	69	20	2	0	0	0	0	0	0	0	0	0	1120
020 °T	122	287	184	70	39	4	0	0	0	0	0	0	0	0	0	0	706
040 °T	109	197	83	18	4	0	0	0	0	0	0	0	0	0	0	0	411
060 °T	95	193	79	22	1	0	0	0	0	0	0	0	0	0	0	0	390
080 °T	74	128	57	4	0	0	0	0	0	0	0	0	0	0	0	0	263
100 °T	70	69	24	0	0	0	0	0	0	0	0	0	0	0	0	0	163
120 °T	61	46	17	0	0	0	0	0	0	0	0	0	0	0	0	0	124
140 °T	44	46	3	0	0	0	0	0	0	0	0	0	0	0	0	0	93
160 °T	60	41	11	0	2	0	0	0	0	0	0	0	0	0	0	0	114
180 °T	55	48	10	1	2	0	0	0	0	0	0	0	0	0	0	0	116
200 °T	42	81	17	4	1	0	0	0	0	0	0	0	0	0	0	0	145
220 °T	48	77	25	5	0	0	0	0	0	0	0	0	0	0	0	0	155
240 °T	71	121	48	3	1	0	0	0	0	0	0	0	0	0	0	0	244
260 °T	86	168	67	6	2	0	0	0	0	0	0	0	0	0	0	0	329
280 °T	89	210	120	12	4	0	0	0	0	0	0	0	0	0	0	0	435
300 °T	118	300	236	89	16	1	0	0	0	0	0	0	0	0	0	0	760
320 °T	139	381	383	180	61	5	1	0	0	0	0	0	0	0	0	0	1150
340 °T	115	508	440	268	111	37	6	1	0	0	0	0	0	0	0	0	1486
Column Total	1507	3290	2152	865	313	67	9	1	0	0	0	0	0	0	0	0	8204

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.3	4.7	4.2	2.2	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7
020 °T	1.5	3.5	2.2	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
040 °T	1.3	2.4	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
060 °T	1.2	2.4	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
080 °T	0.9	1.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
100 °T	0.9	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
120 °T	0.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
140 °T	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
160 °T	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
180 °T	0.7	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
200 °T	0.5	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
220 °T	0.6	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
240 °T	0.9	1.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
260 °T	1.0	2.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
280 °T	1.1	2.6	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
300 °T	1.4	3.7	2.9	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3
320 °T	1.7	4.6	4.7	2.2	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
340 °T	1.4	6.2	5.4	3.3	1.4	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.1
Column Total	18.4	40.1	26.2	10.5	3.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-10 - Current Statistics in 5 cm/s intervals for Mooring Reference 5379 at 51.712°N, 15.185°W at 730m Above Seabed (Instrument Depth 979m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	29	113	134	154	117	33	15	2	0	0	0	0	0	0	0	0	597
020 °T	25	77	101	114	70	25	2	0	0	0	0	0	0	0	0	0	414
040 °T	17	49	61	47	39	14	2	0	0	0	0	0	0	0	0	0	229
060 °T	12	24	32	27	14	2	1	0	0	0	0	0	0	0	0	0	112
080 °T	9	25	17	7	1	0	0	0	0	0	0	0	0	0	0	0	59
100 °T	12	15	8	2	0	0	0	0	0	0	0	0	0	0	0	0	37
120 °T	7	24	12	3	0	0	0	0	0	0	0	0	0	0	0	0	46
140 °T	17	41	14	1	0	0	0	0	0	0	0	0	0	0	0	0	73
160 °T	17	56	13	4	0	0	0	0	0	0	0	0	0	0	0	0	90
180 °T	19	57	33	12	1	0	0	0	0	0	0	0	0	0	0	0	122
200 °T	20	53	37	14	1	0	0	0	0	0	0	0	0	0	0	0	125
220 °T	22	69	26	9	1	0	0	0	0	0	0	0	0	0	0	0	127
240 °T	35	92	15	0	0	0	0	0	0	0	0	0	0	0	0	0	142
260 °T	36	100	23	0	0	0	0	0	0	0	0	0	0	0	0	0	159
280 °T	37	137	39	8	0	0	0	0	0	0	0	0	0	0	0	0	221
300 °T	32	167	91	50	7	0	0	0	0	0	0	0	0	0	0	0	347
320 °T	47	217	201	179	72	20	6	0	0	0	0	0	0	0	0	0	742
340 °T	42	194	185	173	98	27	5	2	0	0	0	0	0	0	0	0	726
Column Total	435	1510	1042	804	421	121	31	4	0	0	0	0	0	0	0	0	4368

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.7	2.6	3.1	3.5	2.7	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.7
020 °T	0.6	1.8	2.3	2.6	1.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
040 °T	0.4	1.1	1.4	1.1	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
060 °T	0.3	0.5	0.7	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
080 °T	0.2	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
100 °T	0.3	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
120 °T	0.2	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
140 °T	0.4	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
160 °T	0.4	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
180 °T	0.4	1.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
200 °T	0.5	1.2	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
220 °T	0.5	1.6	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
240 °T	0.8	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
260 °T	0.8	2.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
280 °T	0.8	3.1	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
300 °T	0.7	3.8	2.1	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9
320 °T	1.1	5.0	4.6	4.1	1.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0
340 °T	1.0	4.4	4.2	4.0	2.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6
Column Total	10.0	34.6	23.9	18.4	9.6	2.8	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-11 - Current Statistics in 5 cm/s intervals for Mooring Reference 5374 at 51.697°N, 14.955°W at 50m Above Seabed (Instrument Depth 728m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	308	313	413	435	341	239	133	38	2	0	0	0	0	0	0	0	2222
020 °T	158	155	179	199	158	91	30	5	1	0	0	0	0	0	0	0	976
040 °T	92	74	83	95	66	17	4	0	0	0	0	0	0	0	0	0	431
060 °T	69	49	53	36	23	4	0	0	0	0	0	0	0	0	0	0	234
080 °T	59	48	35	15	1	0	1	0	0	0	0	0	0	0	0	0	159
100 °T	36	21	27	7	2	0	0	0	0	0	0	0	0	0	0	0	93
120 °T	40	23	12	1	0	0	0	0	0	0	0	0	0	0	0	0	76
140 °T	47	32	11	0	0	0	0	0	0	0	0	0	0	0	0	0	90
160 °T	52	38	16	3	0	0	0	0	0	0	0	0	0	0	0	0	109
180 °T	65	47	19	2	0	0	0	0	0	0	0	0	0	0	0	0	133
200 °T	72	51	26	5	1	0	0	0	0	0	0	0	0	0	0	0	155
220 °T	84	85	53	20	2	0	0	0	0	0	0	0	0	0	0	0	244
240 °T	100	114	74	35	5	0	0	0	0	0	0	0	0	0	0	0	328
260 °T	98	142	95	19	2	0	0	0	0	0	0	0	0	0	0	0	356
280 °T	157	141	99	23	3	0	0	0	0	0	0	0	0	0	0	0	423
300 °T	168	170	119	29	1	0	0	0	0	0	0	0	0	0	0	0	487
320 °T	261	233	186	86	25	11	7	0	0	0	0	0	0	0	0	0	809
340 °T	415	362	424	349	246	168	85	23	2	0	0	0	0	0	0	0	2074
Column Total	2281	2098	1924	1359	876	530	260	66	5	0	0	0	0	0	0	0	9399

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.3	3.3	4.4	4.6	3.6	2.5	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.6
020 °T	1.7	1.6	1.9	2.1	1.7	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
040 °T	1.0	0.8	0.9	1.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
060 °T	0.7	0.5	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
080 °T	0.6	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
100 °T	0.4	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
120 °T	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
140 °T	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
160 °T	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
180 °T	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
200 °T	0.8	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
220 °T	0.9	0.9	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
240 °T	1.1	1.2	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
260 °T	1.0	1.5	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
280 °T	1.7	1.5	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
300 °T	1.8	1.8	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
320 °T	2.8	2.5	2.0	0.9	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
340 °T	4.4	3.9	4.5	3.7	2.6	1.8	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1
Column Total	24.3	22.3	20.5	14.5	9.3	5.6	2.8	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-12 - Current Statistics in 5 cm/s intervals for Mooring Reference 5378 at 51.707°N, 14.915°W at 30m Above Seabed (Instrument Depth 711m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	94	301	399	191	56	5	0	0	0	0	0	0	0	0	0	0	1046
020 °T	49	251	253	101	31	5	1	0	0	0	0	0	0	0	0	0	691
040 °T	51	138	109	81	22	4	1	0	0	0	0	0	0	0	0	0	406
060 °T	61	65	44	36	6	1	0	0	0	0	0	0	0	0	0	0	213
080 °T	66	61	47	21	7	0	0	0	0	0	0	0	0	0	0	0	202
100 °T	44	80	43	23	9	0	0	0	0	0	0	0	0	0	0	0	199
120 °T	54	90	55	24	2	0	0	0	0	0	0	0	0	0	0	0	225
140 °T	48	65	45	1	0	0	0	0	0	0	0	0	0	0	0	0	159
160 °T	39	54	21	1	0	0	0	0	0	0	0	0	0	0	0	0	115
180 °T	29	62	30	2	1	0	0	0	0	0	0	0	0	0	0	0	124
200 °T	35	63	45	9	0	0	0	0	0	0	0	0	0	0	0	0	152
220 °T	51	92	47	13	1	0	0	0	0	0	0	0	0	0	0	0	204
240 °T	49	87	38	7	0	0	0	0	0	0	0	0	0	0	0	0	181
260 °T	58	125	51	5	0	0	0	0	0	0	0	0	0	0	0	0	239
280 °T	79	167	75	26	11	5	0	0	0	0	0	0	0	0	0	0	363
300 °T	102	293	251	138	53	10	0	0	0	0	0	0	0	0	0	0	847
320 °T	98	364	463	328	171	31	2	0	0	0	0	0	0	0	0	0	1457
340 °T	92	354	493	343	106	25	3	0	0	0	0	0	0	0	0	0	1416
Column Total	1099	2712	2509	1350	476	86	7	0	0	0	0	0	0	0	0	0	8239

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.1	3.7	4.8	2.3	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7
020 °T	0.6	3.0	3.1	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
040 °T	0.6	1.7	1.3	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
060 °T	0.7	0.8	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
080 °T	0.8	0.7	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
100 °T	0.5	1.0	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
120 °T	0.7	1.1	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
140 °T	0.6	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
160 °T	0.5	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
180 °T	0.4	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
200 °T	0.4	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
220 °T	0.6	1.1	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
240 °T	0.6	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
260 °T	0.7	1.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
280 °T	1.0	2.0	0.9	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
300 °T	1.2	3.6	3.0	1.7	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
320 °T	1.2	4.4	5.6	4.0	2.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.7
340 °T	1.1	4.3	6.0	4.2	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2
Column Total	13.3	32.9	30.5	16.4	5.8	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-13 - Current Statistics in 5 cm/s intervals for Mooring Reference 7393 at 51.048°N, 15.165°W at 2377m Above Seabed (Instrument Depth 601m)

APPENDIX C-3

(Porcupine Bank Region 1000-2000m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-14	5476	1105	1299
C-15	5475	50	1487
C-16	5380	30	1679
C-17	7394	1317	1661

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	43	62	18	2	0	0	0	0	0	0	0	0	0	0	0	0	125
020 °T	64	134	20	5	0	0	0	0	0	0	0	0	0	0	0	0	223
040 °T	38	78	13	2	0	0	0	0	0	0	0	0	0	0	0	0	131
060 °T	13	38	4	0	0	0	0	0	0	0	0	0	0	0	0	0	55
080 °T	26	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
100 °T	13	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
120 °T	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
140 °T	14	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
160 °T	33	30	3	0	0	0	0	0	0	0	0	0	0	0	0	0	66
180 °T	67	150	81	14	0	0	0	0	0	0	0	0	0	0	0	0	312
200 °T	64	201	95	13	0	0	0	0	0	0	0	0	0	0	0	0	373
220 °T	72	135	27	3	0	0	0	0	0	0	0	0	0	0	0	0	237
240 °T	53	43	2	0	0	0	0	0	0	0	0	0	0	0	0	0	98
260 °T	20	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
280 °T	21	25	1	0	0	0	0	0	0	0	0	0	0	0	0	0	47
300 °T	20	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	39
320 °T	17	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	37
340 °T	20	13	8	0	0	0	0	0	0	0	0	0	0	0	0	0	41
Column Total	603	1007	276	39	0	0	0	0	0	0	0	0	0	0	0	0	1925

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.2	3.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
020 °T	3.3	7.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6
040 °T	2.0	4.1	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
060 °T	0.7	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
080 °T	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
100 °T	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
120 °T	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
140 °T	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
160 °T	1.7	1.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
180 °T	3.5	7.8	4.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.2
200 °T	3.3	10.4	4.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.4
220 °T	3.7	7.0	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3
240 °T	2.8	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
260 °T	1.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
280 °T	1.1	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
300 °T	1.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
320 °T	0.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
340 °T	1.0	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
Column Total	31.3	52.3	14.3	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-14 - Current Statistics in 5 cm/s intervals for Mooring Reference 5476 at 51.702°N, 15.313°W at 1105m Above Seabed (Instrument Depth 1299m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	80	182	37	3	0	0	0	0	0	0	0	0	0	0	0	0	302
020 °T	79	274	198	47	8	0	0	0	0	0	0	0	0	0	0	0	606
040 °T	64	216	198	101	10	0	0	0	0	0	0	0	0	0	0	0	589
060 °T	36	120	69	21	1	0	0	0	0	0	0	0	0	0	0	0	247
080 °T	28	37	17	5	0	0	0	0	0	0	0	0	0	0	0	0	87
100 °T	23	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0	41
120 °T	22	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0	44
140 °T	6	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19
160 °T	14	29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	44
180 °T	5	50	15	4	0	0	0	0	0	0	0	0	0	0	0	0	74
200 °T	9	64	40	30	10	1	0	0	0	0	0	0	0	0	0	0	154
220 °T	18	74	101	103	37	6	0	0	0	0	0	0	0	0	0	0	339
240 °T	37	120	114	66	19	2	0	0	0	0	0	0	0	0	0	0	358
260 °T	40	147	123	37	5	0	0	0	0	0	0	0	0	0	0	0	352
280 °T	62	180	80	15	0	0	0	0	0	0	0	0	0	0	0	0	337
300 °T	65	139	66	4	0	0	0	0	0	0	0	0	0	0	0	0	274
320 °T	85	126	32	0	0	0	0	0	0	0	0	0	0	0	0	0	243
340 °T	84	142	17	2	0	0	0	0	0	0	0	0	0	0	0	0	245
Column Total	757	1947	1114	438	90	9	0	0	0	0	0	0	0	0	0	0	4355

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.8	4.2	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
020 °T	1.8	6.3	4.5	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.9
040 °T	1.5	5.0	4.5	2.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5
060 °T	0.8	2.8	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
080 °T	0.6	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
100 °T	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
120 °T	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
140 °T	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
160 °T	0.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
180 °T	0.1	1.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
200 °T	0.2	1.5	0.9	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
220 °T	0.4	1.7	2.3	2.4	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8
240 °T	0.8	2.8	2.6	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
260 °T	0.9	3.4	2.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
280 °T	1.4	4.1	1.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
300 °T	1.5	3.2	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
320 °T	2.0	2.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
340 °T	1.9	3.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Column Total	17.4	44.7	25.6	10.1	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-15 - Current Statistics in 5 cm/s intervals for Mooring Reference 5475 at 51.685°N, 15.212°W at 50m Above Seabed (Instrument Depth 1487m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	110	31	11	3	0	0	0	0	0	0	0	0	0	0	0	0	155
020 °T	120	54	10	15	8	7	0	2	1	0	0	0	0	0	0	0	217
040 °T	128	118	34	15	12	8	2	0	0	0	0	0	0	0	0	0	317
060 °T	191	301	182	83	25	5	0	0	0	0	0	0	0	0	0	0	787
080 °T	163	262	117	31	11	0	0	0	0	0	0	0	0	0	0	0	584
100 °T	115	109	29	4	0	0	0	0	0	0	0	0	0	0	0	0	257
120 °T	81	66	14	3	0	0	0	0	0	0	0	0	0	0	0	0	164
140 °T	79	55	18	5	0	0	0	0	0	0	0	0	0	0	0	0	157
160 °T	60	44	32	4	0	0	0	0	0	0	0	0	0	0	0	0	140
180 °T	67	69	45	11	3	0	0	0	0	0	0	0	0	0	0	0	195
200 °T	60	108	82	51	20	0	0	0	0	0	0	0	0	0	0	0	321
220 °T	62	147	137	71	29	0	0	0	0	0	0	0	0	0	0	0	446
240 °T	100	222	130	78	21	0	0	0	0	0	0	0	0	0	0	0	551
260 °T	126	294	169	70	8	0	0	0	0	0	0	0	0	0	0	0	667
280 °T	171	288	206	65	7	0	0	0	0	0	0	0	0	0	0	0	737
300 °T	177	231	58	11	0	0	0	0	0	0	0	0	0	0	0	0	477
320 °T	155	94	4	1	0	0	0	0	0	0	0	0	0	0	0	0	254
340 °T	140	40	6	0	0	0	0	0	0	0	0	0	0	0	0	0	186
Column Total	2105	2533	1284	521	144	20	2	2	1	0	0	0	0	0	0	0	6612

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
020 °T	1.8	0.8	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
040 °T	1.9	1.8	0.5	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
060 °T	2.9	4.6	2.8	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9
080 °T	2.5	4.0	1.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
100 °T	1.7	1.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
120 °T	1.2	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
140 °T	1.2	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
160 °T	0.9	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
180 °T	1.0	1.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
200 °T	0.9	1.6	1.2	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
220 °T	0.9	2.2	2.1	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
240 °T	1.5	3.4	2.0	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
260 °T	1.9	4.4	2.6	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
280 °T	2.6	4.4	3.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
300 °T	2.7	3.5	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
320 °T	2.3	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
340 °T	2.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
Column Total	31.8	38.3	19.4	7.9	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-16 - Current Statistics in 5 cm/s intervals for Mooring Reference 5380 at 51.712°N, 15.185°W at 30m Above Seabed (Instrument Depth 1679m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	137	290	121	73	17	5	0	0	0	0	0	0	0	0	0	0	643
020 °T	161	225	64	20	0	0	0	0	0	0	0	0	0	0	0	0	470
040 °T	175	163	15	3	0	0	0	0	0	0	0	0	0	0	0	0	356
060 °T	172	124	8	0	0	0	0	0	0	0	0	0	0	0	0	0	304
080 °T	165	106	7	0	0	0	0	0	0	0	0	0	0	0	0	0	278
100 °T	167	132	4	0	0	0	0	0	0	0	0	0	0	0	0	0	303
120 °T	155	250	31	2	0	0	0	0	0	0	0	0	0	0	0	0	438
140 °T	151	396	231	36	3	0	0	0	0	0	0	0	0	0	0	0	817
160 °T	104	346	225	99	17	0	0	0	0	0	0	0	0	0	0	0	791
180 °T	109	192	86	51	24	2	0	0	0	0	0	0	0	0	0	0	464
200 °T	91	176	58	28	5	0	0	0	0	0	0	0	0	0	0	0	358
220 °T	123	132	40	3	0	0	0	0	0	0	0	0	0	0	0	0	298
240 °T	126	97	15	4	2	0	0	0	0	0	0	0	0	0	0	0	244
260 °T	130	93	7	2	2	0	0	0	0	0	0	0	0	0	0	0	234
280 °T	140	106	21	15	11	3	0	0	0	0	0	0	0	0	0	0	296
300 °T	130	211	50	20	20	10	0	0	0	0	0	0	0	0	0	0	441
320 °T	124	300	138	45	22	17	0	0	0	0	0	0	0	0	0	0	646
340 °T	139	249	156	70	20	9	0	0	0	0	0	0	0	0	0	0	643
Column Total	2499	3588	1277	471	143	46	0	0	0	0	0	0	0	0	0	0	8024

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.7	3.6	1.5	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
020 °T	2.0	2.8	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
040 °T	2.2	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
060 °T	2.1	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
080 °T	2.1	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
100 °T	2.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
120 °T	1.9	3.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
140 °T	1.9	4.9	2.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
160 °T	1.3	4.3	2.8	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
180 °T	1.4	2.4	1.1	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
200 °T	1.1	2.2	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
220 °T	1.5	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
240 °T	1.6	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
260 °T	1.6	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
280 °T	1.7	1.3	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
300 °T	1.6	2.6	0.6	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
320 °T	1.5	3.7	1.7	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
340 °T	1.7	3.1	1.9	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
Column Total	31.1	44.7	15.9	5.9	1.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-17 - Current Statistics in 5 cm/s intervals for Mooring Reference 7394 at 51.048°N, 15.165°W at 1317m Above Seabed (Instrument Depth 1661m)

APPENDIX C-4

(Porcupine Bank Region >2000m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-18	6267	50	3517
C-19	6265	281	3286
C-20	6264	302	3265
C-21	6262	503	3064
C-22	6274	150	3284
C-23	6273	300	3134
C-24	6272	500	2934
C-25	6261	10	3304
C-26	6254	501	2813
C-27	6259	50	3264
C-28	6260	30	3284
C-29	6258	70	3244
C-30	6257	90	3224
C-31	7400	30	3190
C-32	7391	200	3142
C-33	7392	30	3312
C-34	7396	30	2948
C-35	7395	97	2881
C-36	7397	200	2745
C-37	7398	30	2915
C-38	7399	323	2897
C-39	5477	50	2354

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	314	424	93	8	2	0	0	0	0	0	0	0	0	0	0	0	841
020 °T	275	223	30	6	0	0	0	0	0	0	0	0	0	0	0	0	534
040 °T	262	163	18	6	0	0	0	0	0	0	0	0	0	0	0	0	449
060 °T	211	177	28	7	0	0	0	0	0	0	0	0	0	0	0	0	423
080 °T	236	248	29	3	0	0	0	0	0	0	0	0	0	0	0	0	516
100 °T	212	226	103	14	0	0	0	0	0	0	0	0	0	0	0	0	555
120 °T	268	265	151	35	0	0	0	0	0	0	0	0	0	0	0	0	719
140 °T	229	269	141	24	1	0	0	0	0	0	0	0	0	0	0	0	664
160 °T	218	217	108	28	6	0	0	0	0	0	0	0	0	0	0	0	577
180 °T	184	90	29	16	10	0	0	0	0	0	0	0	0	0	0	0	329
200 °T	189	80	14	1	0	0	0	0	0	0	0	0	0	0	0	0	284
220 °T	130	51	1	0	0	0	0	0	0	0	0	0	0	0	0	0	182
240 °T	139	63	1	0	0	0	0	0	0	0	0	0	0	0	0	0	203
260 °T	203	133	6	0	0	0	0	0	0	0	0	0	0	0	0	0	342
280 °T	241	247	72	7	1	1	0	0	0	0	0	0	0	0	0	0	569
300 °T	300	494	300	94	18	10	0	0	0	0	0	0	0	0	0	0	1216
320 °T	316	710	569	240	42	6	0	0	0	0	0	0	0	0	0	0	1883
340 °T	363	669	316	65	7	1	0	0	0	0	0	0	0	0	0	0	1421
Column Total	4290	4749	2009	554	87	18	0	0	0	0	0	0	0	0	0	0	11707

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.7	3.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
020 °T	2.3	1.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
040 °T	2.2	1.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
060 °T	1.8	1.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
080 °T	2.0	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
100 °T	1.8	1.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
120 °T	2.3	2.3	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
140 °T	2.0	2.3	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
160 °T	1.9	1.9	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
180 °T	1.6	0.8	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
200 °T	1.6	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
220 °T	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
240 °T	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
260 °T	1.7	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
280 °T	2.1	2.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
300 °T	2.6	4.2	2.6	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
320 °T	2.7	6.1	4.9	2.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.1
340 °T	3.1	5.7	2.7	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1
Column Total	36.6	40.6	17.2	4.7	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-18 - Current Statistics in 5 cm/s intervals for Mooring Reference 6267 at 50.538°N, 14.722°W at 50m Above Seabed (Instrument Depth 3517m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	355	214	22	0	0	0	0	0	0	0	0	0	0	0	0	0	591
020 °T	345	138	4	0	0	0	0	0	0	0	0	0	0	0	0	0	487
040 °T	317	118	24	0	0	0	0	0	0	0	0	0	0	0	0	0	459
060 °T	301	169	11	0	0	0	0	0	0	0	0	0	0	0	0	0	481
080 °T	333	240	26	0	0	0	0	0	0	0	0	0	0	0	0	0	599
100 °T	325	358	122	7	0	0	0	0	0	0	0	0	0	0	0	0	812
120 °T	344	386	143	19	0	0	0	0	0	0	0	0	0	0	0	0	892
140 °T	256	283	138	31	0	0	0	0	0	0	0	0	0	0	0	0	708
160 °T	260	199	28	0	0	0	0	0	0	0	0	0	0	0	0	0	487
180 °T	215	116	8	0	0	0	0	0	0	0	0	0	0	0	0	0	339
200 °T	222	68	1	0	0	0	0	0	0	0	0	0	0	0	0	0	291
220 °T	250	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	327
240 °T	246	121	7	0	0	0	0	0	0	0	0	0	0	0	0	0	374
260 °T	305	237	28	0	0	0	0	0	0	0	0	0	0	0	0	0	570
280 °T	387	495	141	6	0	0	0	0	0	0	0	0	0	0	0	0	1029
300 °T	372	615	283	28	14	1	0	0	0	0	0	0	0	0	0	0	1313
320 °T	417	521	191	31	2	0	0	0	0	0	0	0	0	0	0	0	1162
340 °T	369	315	83	13	0	0	0	0	0	0	0	0	0	0	0	0	780
Column Total	5619	4670	1260	135	16	1	0	0	0	0	0	0	0	0	0	0	11701

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.0	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
020 °T	2.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
040 °T	2.7	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
060 °T	2.6	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
080 °T	2.8	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
100 °T	2.8	3.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
120 °T	2.9	3.3	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
140 °T	2.2	2.4	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
160 °T	2.2	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
180 °T	1.8	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
200 °T	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
220 °T	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
240 °T	2.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
260 °T	2.6	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
280 °T	3.3	4.2	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
300 °T	3.2	5.3	2.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
320 °T	3.6	4.5	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
340 °T	3.2	2.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
Column Total	48.0	39.9	10.8	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-19 - Current Statistics in 5 cm/s intervals for Mooring Reference 6265 at 50.538°N, 14.722°W at 281m Above Seabed (Instrument Depth 3286m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	178	105	13	0	0	0	0	0	0	0	0	0	0	0	0	0	296
020 °T	156	79	2	0	0	0	0	0	0	0	0	0	0	0	0	0	237
040 °T	136	79	6	0	0	0	0	0	0	0	0	0	0	0	0	0	221
060 °T	128	80	5	0	0	0	0	0	0	0	0	0	0	0	0	0	213
080 °T	126	137	9	0	0	0	0	0	0	0	0	0	0	0	0	0	272
100 °T	127	229	62	1	0	0	0	0	0	0	0	0	0	0	0	0	419
120 °T	109	152	44	3	0	0	0	0	0	0	0	0	0	0	0	0	308
140 °T	96	114	37	2	0	0	0	0	0	0	0	0	0	0	0	0	249
160 °T	92	95	9	0	0	0	0	0	0	0	0	0	0	0	0	0	196
180 °T	91	63	2	0	0	0	0	0	0	0	0	0	0	0	0	0	156
200 °T	99	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140
220 °T	102	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	141
240 °T	106	57	4	0	0	0	0	0	0	0	0	0	0	0	0	0	167
260 °T	108	121	7	0	0	0	0	0	0	0	0	0	0	0	0	0	236
280 °T	134	264	45	1	0	0	0	0	0	0	0	0	0	0	0	0	444
300 °T	174	339	84	7	6	0	0	0	0	0	0	0	0	0	0	0	610
320 °T	176	258	69	17	0	0	0	0	0	0	0	0	0	0	0	0	520
340 °T	175	205	31	4	0	0	0	0	0	0	0	0	0	0	0	0	415
Column Total	2313	2457	429	35	6	0	0	0	0	0	0	0	0	0	0	0	5240

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.4	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
020 °T	3.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
040 °T	2.6	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
060 °T	2.4	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
080 °T	2.4	2.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
100 °T	2.4	4.4	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
120 °T	2.1	2.9	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
140 °T	1.8	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
160 °T	1.8	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
180 °T	1.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
200 °T	1.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
220 °T	1.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
240 °T	2.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
260 °T	2.1	2.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
280 °T	2.6	5.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
300 °T	3.3	6.5	1.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6
320 °T	3.4	4.9	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
340 °T	3.3	3.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9
Column Total	44.1	46.9	8.2	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-20 - Current Statistics in 5 cm/s intervals for Mooring Reference 6264 at 50.538°N, 14.722°W at 302m Above Seabed (Instrument Depth 3265m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	222	123	18	0	0	0	0	0	0	0	0	0	0	0	0	0	363
020 °T	194	76	12	0	0	0	0	0	0	0	0	0	0	0	0	0	282
040 °T	189	55	6	0	0	0	0	0	0	0	0	0	0	0	0	0	250
060 °T	130	92	6	0	0	0	0	0	0	0	0	0	0	0	0	0	228
080 °T	136	97	13	0	0	0	0	0	0	0	0	0	0	0	0	0	246
100 °T	167	112	26	0	0	0	0	0	0	0	0	0	0	0	0	0	305
120 °T	170	138	54	3	0	0	0	0	0	0	0	0	0	0	0	0	365
140 °T	187	107	25	0	0	0	0	0	0	0	0	0	0	0	0	0	319
160 °T	150	82	25	0	0	0	0	0	0	0	0	0	0	0	0	0	257
180 °T	134	68	7	0	0	0	0	0	0	0	0	0	0	0	0	0	209
200 °T	141	66	4	0	0	0	0	0	0	0	0	0	0	0	0	0	211
220 °T	153	64	4	0	0	0	0	0	0	0	0	0	0	0	0	0	221
240 °T	158	54	10	0	0	0	0	0	0	0	0	0	0	0	0	0	222
260 °T	184	109	11	0	0	0	0	0	0	0	0	0	0	0	0	0	304
280 °T	210	199	31	0	0	0	0	0	0	0	0	0	0	0	0	0	440
300 °T	255	252	73	3	0	0	0	0	0	0	0	0	0	0	0	0	583
320 °T	259	258	84	6	1	0	0	0	0	0	0	0	0	0	0	0	608
340 °T	226	179	32	4	0	0	0	0	0	0	0	0	0	0	0	0	441
Column Total	3265	2131	441	16	1	0	0	0	0	0	0	0	0	0	0	0	5854

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.8	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
020 °T	3.3	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
040 °T	3.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
060 °T	2.2	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
080 °T	2.3	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
100 °T	2.9	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
120 °T	2.9	2.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
140 °T	3.2	1.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
160 °T	2.6	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
180 °T	2.3	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
200 °T	2.4	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
220 °T	2.6	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
240 °T	2.7	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
260 °T	3.1	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
280 °T	3.6	3.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
300 °T	4.4	4.3	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
320 °T	4.4	4.4	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
340 °T	3.9	3.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
Column Total	55.8	36.4	7.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-21 - Current Statistics in 5 cm/s intervals for Mooring Reference 6262 at 50.538°N, 14.722°W at 503m Above Seabed (Instrument Depth 3064m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	97	106	6	0	0	0	0	0	0	0	0	0	0	0	0	0	209
020 °T	83	51	1	0	0	0	0	0	0	0	0	0	0	0	0	0	135
040 °T	88	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138
060 °T	72	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116
080 °T	62	28	1	0	0	0	0	0	0	0	0	0	0	0	0	0	91
100 °T	59	48	2	0	0	0	0	0	0	0	0	0	0	0	0	0	109
120 °T	53	77	7	0	0	0	0	0	0	0	0	0	0	0	0	0	137
140 °T	48	79	7	0	0	0	0	0	0	0	0	0	0	0	0	0	134
160 °T	58	49	5	0	0	0	0	0	0	0	0	0	0	0	0	0	112
180 °T	40	29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	70
200 °T	39	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
220 °T	47	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	58
240 °T	47	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
260 °T	45	38	3	0	0	0	0	0	0	0	0	0	0	0	0	0	86
280 °T	64	62	11	0	0	0	0	0	0	0	0	0	0	0	0	0	137
300 °T	69	213	56	6	0	0	0	0	0	0	0	0	0	0	0	0	344
320 °T	76	262	95	8	0	0	0	0	0	0	0	0	0	0	0	0	441
340 °T	97	203	33	1	0	0	0	0	0	0	0	0	0	0	0	0	334
Column Total	1144	1385	228	15	0	0	0	0	0	0	0	0	0	0	0	0	2772

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.5	3.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
020 °T	3.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
040 °T	3.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
060 °T	2.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
080 °T	2.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
100 °T	2.1	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
120 °T	1.9	2.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
140 °T	1.7	2.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
160 °T	2.1	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
180 °T	1.4	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
200 °T	1.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
220 °T	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
240 °T	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
260 °T	1.6	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
280 °T	2.3	2.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
300 °T	2.5	7.7	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4
320 °T	2.7	9.5	3.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.9
340 °T	3.5	7.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
Column Total	41.3	50.0	8.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-22 - Current Statistics in 5 cm/s intervals for Mooring Reference 6274 at 50.493°N, 14.620°W at 150m Above Seabed (Instrument Depth 3284m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	87	144	32	0	0	0	0	0	0	0	0	0	0	0	0	0	263
020 °T	84	120	13	0	0	0	0	0	0	0	0	0	0	0	0	0	217
040 °T	57	95	4	0	0	0	0	0	0	0	0	0	0	0	0	0	156
060 °T	56	75	6	0	0	0	0	0	0	0	0	0	0	0	0	0	137
080 °T	73	81	7	0	0	0	0	0	0	0	0	0	0	0	0	0	161
100 °T	57	96	11	0	0	0	0	0	0	0	0	0	0	0	0	0	164
120 °T	78	91	24	0	0	0	0	0	0	0	0	0	0	0	0	0	193
140 °T	59	65	12	1	0	0	0	0	0	0	0	0	0	0	0	0	137
160 °T	69	46	4	0	0	0	0	0	0	0	0	0	0	0	0	0	119
180 °T	55	39	8	0	0	0	0	0	0	0	0	0	0	0	0	0	102
200 °T	47	25	2	0	0	0	0	0	0	0	0	0	0	0	0	0	74
220 °T	56	48	1	0	0	0	0	0	0	0	0	0	0	0	0	0	105
240 °T	59	48	1	0	0	0	0	0	0	0	0	0	0	0	0	0	108
260 °T	42	92	5	0	0	0	0	0	0	0	0	0	0	0	0	0	139
280 °T	70	156	18	0	0	0	0	0	0	0	0	0	0	0	0	0	244
300 °T	78	194	69	9	0	0	0	0	0	0	0	0	0	0	0	0	350
320 °T	75	188	94	14	0	0	0	0	0	0	0	0	0	0	0	0	371
340 °T	100	187	59	6	0	0	0	0	0	0	0	0	0	0	0	0	352
Column Total	1202	1790	370	30	0	0	0	0	0	0	0	0	0	0	0	0	3392

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.6	4.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8
020 °T	2.5	3.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
040 °T	1.7	2.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
060 °T	1.7	2.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
080 °T	2.2	2.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
100 °T	1.7	2.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
120 °T	2.3	2.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
140 °T	1.7	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
160 °T	2.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
180 °T	1.6	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
200 °T	1.4	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
220 °T	1.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
240 °T	1.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
260 °T	1.2	2.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
280 °T	2.1	4.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
300 °T	2.3	5.7	2.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
320 °T	2.2	5.5	2.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
340 °T	2.9	5.5	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
Column Total	35.4	52.8	10.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-23 - Current Statistics in 5 cm/s intervals for Mooring Reference 6273 at 50.493°N, 14.620°W at 300m Above Seabed (Instrument Depth 3134m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	183	185	32	0	0	0	0	0	0	0	0	0	0	0	0	0	400
020 °T	169	124	14	0	0	0	0	0	0	0	0	0	0	0	0	0	307
040 °T	134	134	10	0	0	0	0	0	0	0	0	0	0	0	0	0	278
060 °T	140	111	5	0	0	0	0	0	0	0	0	0	0	0	0	0	256
080 °T	121	97	3	0	0	0	0	0	0	0	0	0	0	0	0	0	221
100 °T	108	117	10	0	0	0	0	0	0	0	0	0	0	0	0	0	235
120 °T	119	167	40	0	0	0	0	0	0	0	0	0	0	0	0	0	326
140 °T	134	166	33	1	0	0	0	0	0	0	0	0	0	0	0	0	334
160 °T	136	122	18	1	0	0	0	0	0	0	0	0	0	0	0	0	277
180 °T	137	100	5	0	0	0	0	0	0	0	0	0	0	0	0	0	242
200 °T	105	80	5	0	0	0	0	0	0	0	0	0	0	0	0	0	190
220 °T	125	75	4	0	0	0	0	0	0	0	0	0	0	0	0	0	204
240 °T	115	96	6	0	0	0	0	0	0	0	0	0	0	0	0	0	217
260 °T	122	132	12	0	0	0	0	0	0	0	0	0	0	0	0	0	266
280 °T	142	248	29	2	0	0	0	0	0	0	0	0	0	0	0	0	421
300 °T	174	256	74	12	1	0	0	0	0	0	0	0	0	0	0	0	517
320 °T	178	276	99	18	0	0	0	0	0	0	0	0	0	0	0	0	571
340 °T	185	250	116	30	3	0	0	0	0	0	0	0	0	0	0	0	584
Column Total	2527	2736	515	64	4	0	0	0	0	0	0	0	0	0	0	0	5846

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.1	3.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
020 °T	2.9	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
040 °T	2.3	2.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
060 °T	2.4	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
080 °T	2.1	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
100 °T	1.8	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
120 °T	2.0	2.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
140 °T	2.3	2.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
160 °T	2.3	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
180 °T	2.3	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
200 °T	1.8	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
220 °T	2.1	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
240 °T	2.0	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
260 °T	2.1	2.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
280 °T	2.4	4.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
300 °T	3.0	4.4	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
320 °T	3.0	4.7	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
340 °T	3.2	4.3	2.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
Column Total	43.2	46.8	8.8	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-24 - Current Statistics in 5 cm/s intervals for Mooring Reference 6272 at 50.493°N, 14.620°W at 500m Above Seabed (Instrument Depth 2934m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	47	39	1	0	0	0	0	0	0	0	0	0	0	0	0	0	87
020 °T	51	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
040 °T	55	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61
060 °T	40	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
080 °T	56	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
100 °T	48	42	6	0	0	0	0	0	0	0	0	0	0	0	0	0	96
120 °T	80	88	57	10	0	0	0	0	0	0	0	0	0	0	0	0	235
140 °T	113	166	82	4	0	0	0	0	0	0	0	0	0	0	0	0	365
160 °T	114	94	32	0	0	0	0	0	0	0	0	0	0	0	0	0	240
180 °T	96	100	19	0	0	0	0	0	0	0	0	0	0	0	0	0	215
200 °T	121	84	16	0	0	0	0	0	0	0	0	0	0	0	0	0	221
220 °T	126	110	23	0	0	0	0	0	0	0	0	0	0	0	0	0	259
240 °T	153	121	22	4	0	0	0	0	0	0	0	0	0	0	0	0	300
260 °T	149	149	24	3	0	0	0	0	0	0	0	0	0	0	0	0	325
280 °T	175	218	54	0	0	0	0	0	0	0	0	0	0	0	0	0	447
300 °T	156	372	173	30	0	0	0	0	0	0	0	0	0	0	0	0	731
320 °T	138	355	202	23	0	0	0	0	0	0	0	0	0	0	0	0	718
340 °T	97	132	49	5	0	0	0	0	0	0	0	0	0	0	0	0	283
Column Total	1815	2125	760	79	0	0	0	0	0	0	0	0	0	0	0	0	4779

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
020 °T	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
040 °T	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
060 °T	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
080 °T	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
100 °T	1.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
120 °T	1.7	1.8	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
140 °T	2.4	3.5	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
160 °T	2.4	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
180 °T	2.0	2.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
200 °T	2.5	1.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
220 °T	2.6	2.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
240 °T	3.2	2.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
260 °T	3.1	3.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
280 °T	3.7	4.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4
300 °T	3.3	7.8	3.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.3
320 °T	2.9	7.4	4.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
340 °T	2.0	2.8	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
Column Total	38.0	44.5	15.9	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-25 - Current Statistics in 5 cm/s intervals for Mooring Reference 6261 at 50.557°N, 14.690°W at 10m Above Seabed (Instrument Depth 3304m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	34	180	105	3	0	0	0	0	0	0	0	0	0	0	0	0	322
020 °T	24	156	85	7	0	0	0	0	0	0	0	0	0	0	0	0	272
040 °T	33	145	68	5	0	0	0	0	0	0	0	0	0	0	0	0	251
060 °T	34	142	104	6	0	0	0	0	0	0	0	0	0	0	0	0	286
080 °T	24	135	131	7	0	0	0	0	0	0	0	0	0	0	0	0	297
100 °T	20	166	186	20	0	0	0	0	0	0	0	0	0	0	0	0	392
120 °T	17	148	224	37	0	0	0	0	0	0	0	0	0	0	0	0	426
140 °T	23	162	164	30	0	0	0	0	0	0	0	0	0	0	0	0	379
160 °T	22	146	75	10	0	0	0	0	0	0	0	0	0	0	0	0	253
180 °T	28	135	40	2	0	0	0	0	0	0	0	0	0	0	0	0	205
200 °T	17	130	38	0	0	0	0	0	0	0	0	0	0	0	0	0	185
220 °T	16	133	44	1	0	0	0	0	0	0	0	0	0	0	0	0	194
240 °T	18	120	74	3	0	0	0	0	0	0	0	0	0	0	0	0	215
260 °T	34	106	83	15	1	0	0	0	0	0	0	0	0	0	0	0	239
280 °T	22	136	153	49	13	0	0	0	0	0	0	0	0	0	0	0	373
300 °T	13	163	281	106	29	2	0	0	0	0	0	0	0	0	0	0	594
320 °T	11	167	239	82	16	0	0	0	0	0	0	0	0	0	0	0	515
340 °T	25	198	171	17	0	0	0	0	0	0	0	0	0	0	0	0	411
Column Total	415	2668	2265	400	59	2	0	0	0	0	0	0	0	0	0	0	5809

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.6	3.1	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
020 °T	0.4	2.7	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
040 °T	0.6	2.5	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
060 °T	0.6	2.4	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
080 °T	0.4	2.3	2.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
100 °T	0.3	2.9	3.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
120 °T	0.3	2.5	3.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
140 °T	0.4	2.8	2.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
160 °T	0.4	2.5	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
180 °T	0.5	2.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
200 °T	0.3	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
220 °T	0.3	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
240 °T	0.3	2.1	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
260 °T	0.6	1.8	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
280 °T	0.4	2.3	2.6	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
300 °T	0.2	2.8	4.8	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
320 °T	0.2	2.9	4.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
340 °T	0.4	3.4	2.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
Column Total	7.1	45.9	39.0	6.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-26 - Current Statistics in 5 cm/s intervals for Mooring Reference 6254 at 50.557°N, 14.690°W at 501m Above Seabed (Instrument Depth 2813m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	237	140	3	0	0	0	0	0	0	0	0	0	0	0	0	0	380
020 °T	207	46	6	0	0	0	0	0	0	0	0	0	0	0	0	0	259
040 °T	184	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	232
060 °T	151	71	3	0	0	0	0	0	0	0	0	0	0	0	0	0	225
080 °T	188	91	7	0	0	0	0	0	0	0	0	0	0	0	0	0	286
100 °T	223	186	40	0	0	0	0	0	0	0	0	0	0	0	0	0	449
120 °T	236	353	202	39	4	0	0	0	0	0	0	0	0	0	0	0	834
140 °T	267	332	168	29	1	0	0	0	0	0	0	0	0	0	0	0	797
160 °T	210	195	28	2	0	0	0	0	0	0	0	0	0	0	0	0	435
180 °T	183	62	1	1	0	0	0	0	0	0	0	0	0	0	0	0	247
200 °T	162	48	1	1	0	0	0	0	0	0	0	0	0	0	0	0	212
220 °T	191	71	2	2	0	0	0	0	0	0	0	0	0	0	0	0	266
240 °T	253	129	14	0	0	0	0	0	0	0	0	0	0	0	0	0	396
260 °T	316	280	51	2	0	0	0	0	0	0	0	0	0	0	0	0	649
280 °T	359	544	204	22	2	0	0	0	0	0	0	0	0	0	0	0	1131
300 °T	447	915	517	171	11	2	0	0	0	0	0	0	0	0	0	0	2063
320 °T	463	932	583	122	11	0	0	0	0	0	0	0	0	0	0	0	2111
340 °T	309	393	68	3	0	0	0	0	0	0	0	0	0	0	0	0	773
Column Total	4586	4836	1898	394	29	2	0	0	0	0	0	0	0	0	0	0	11745

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
020 °T	1.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
040 °T	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
060 °T	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
080 °T	1.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
100 °T	1.9	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
120 °T	2.0	3.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
140 °T	2.3	2.8	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
160 °T	1.8	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
180 °T	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
200 °T	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
220 °T	1.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
240 °T	2.2	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
260 °T	2.7	2.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
280 °T	3.1	4.6	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
300 °T	3.8	7.8	4.4	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6
320 °T	3.9	7.9	5.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0
340 °T	2.6	3.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
Column Total	39.0	41.2	16.2	3.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-27 - Current Statistics in 5 cm/s intervals for Mooring Reference 6259 at 50.557°N, 14.690°W at 50m Above Seabed (Instrument Depth 3264m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	205	124	4	0	0	0	0	0	0	0	0	0	0	0	0	0	333
020 °T	142	39	5	0	0	0	0	0	0	0	0	0	0	0	0	0	186
040 °T	132	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162
060 °T	137	34	4	0	0	0	0	0	0	0	0	0	0	0	0	0	175
080 °T	141	75	11	0	0	0	0	0	0	0	0	0	0	0	0	0	227
100 °T	169	149	31	0	0	0	0	0	0	0	0	0	0	0	0	0	349
120 °T	211	299	171	31	1	0	0	0	0	0	0	0	0	0	0	0	713
140 °T	243	330	174	29	0	0	0	0	0	0	0	0	0	0	0	0	776
160 °T	247	203	51	3	0	0	0	0	0	0	0	0	0	0	0	0	504
180 °T	207	133	11	1	0	0	0	0	0	0	0	0	0	0	0	0	352
200 °T	208	81	3	1	0	0	0	0	0	0	0	0	0	0	0	0	293
220 °T	220	116	6	1	0	0	0	0	0	0	0	0	0	0	0	0	343
240 °T	296	174	27	1	0	0	0	0	0	0	0	0	0	0	0	0	498
260 °T	362	298	73	7	0	0	0	0	0	0	0	0	0	0	0	0	740
280 °T	389	470	229	28	5	0	0	0	0	0	0	0	0	0	0	0	1121
300 °T	514	857	498	173	17	3	0	0	0	0	0	0	0	0	0	0	2062
320 °T	403	900	635	156	12	0	0	0	0	0	0	0	0	0	0	0	2106
340 °T	325	386	86	11	0	0	0	0	0	0	0	0	0	0	0	0	808
Column Total	4551	4698	2019	442	35	3	0	0	0	0	0	0	0	0	0	0	11748

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
020 °T	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
040 °T	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
060 °T	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
080 °T	1.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
100 °T	1.4	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
120 °T	1.8	2.5	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
140 °T	2.1	2.8	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
160 °T	2.1	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
180 °T	1.8	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
200 °T	1.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
220 °T	1.9	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
240 °T	2.5	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
260 °T	3.1	2.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
280 °T	3.3	4.0	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
300 °T	4.4	7.3	4.2	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.6
320 °T	3.4	7.7	5.4	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.9
340 °T	2.8	3.3	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
Column Total	38.7	40.0	17.2	3.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-28 - Current Statistics in 5 cm/s intervals for Mooring Reference 6260 at 50.557°N, 14.690°W at 30m Above Seabed (Instrument Depth 3284m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	255	91	6	0	0	0	0	0	0	0	0	0	0	0	0	0	352
020 °T	210	54	3	0	0	0	0	0	0	0	0	0	0	0	0	0	267
040 °T	211	63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	274
060 °T	163	64	2	0	0	0	0	0	0	0	0	0	0	0	0	0	229
080 °T	246	157	19	0	0	0	0	0	0	0	0	0	0	0	0	0	422
100 °T	181	142	38	3	0	0	0	0	0	0	0	0	0	0	0	0	364
120 °T	306	464	231	34	5	0	0	0	0	0	0	0	0	0	0	0	1040
140 °T	224	231	81	10	0	0	0	0	0	0	0	0	0	0	0	0	546
160 °T	223	193	58	6	0	0	0	0	0	0	0	0	0	0	0	0	480
180 °T	131	42	2	0	0	0	0	0	0	0	0	0	0	0	0	0	175
200 °T	150	26	1	2	0	0	0	0	0	0	0	0	0	0	0	0	179
220 °T	188	47	3	0	0	0	0	0	0	0	0	0	0	0	0	0	238
240 °T	231	84	7	0	0	0	0	0	0	0	0	0	0	0	0	0	322
260 °T	381	419	131	13	0	0	0	0	0	0	0	0	0	0	0	0	944
280 °T	377	411	158	32	1	0	0	0	0	0	0	0	0	0	0	0	979
300 °T	664	1079	614	144	10	0	0	0	0	0	0	0	0	0	0	0	2511
320 °T	419	561	290	57	7	0	0	0	0	0	0	0	0	0	0	0	1334
340 °T	457	486	142	4	0	0	0	0	0	0	0	0	0	0	0	0	1089
Column Total	5017	4614	1786	305	23	0	0	0	0	0	0	0	0	0	0	0	11745
	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.2	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
020 °T	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
040 °T	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
060 °T	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
080 °T	2.1	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
100 °T	1.5	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
120 °T	2.6	4.0	2.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
140 °T	1.9	2.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
160 °T	1.9	1.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
180 °T	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
200 °T	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
220 °T	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
240 °T	2.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
260 °T	3.2	3.6	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
280 °T	3.2	3.5	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
300 °T	5.7	9.2	5.2	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.4
320 °T	3.6	4.8	2.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4
340 °T	3.9	4.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3
Column Total	42.7	39.3	15.2	2.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-29 - Current Statistics in 5 cm/s intervals for Mooring Reference 6258 at 50.557°N, 14.690°W at 70m Above Seabed (Instrument Depth 3244m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	307	118	7	0	0	0	0	0	0	0	0	0	0	0	0	0	432
020 °T	236	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	298
040 °T	204	47	1	0	0	0	0	0	0	0	0	0	0	0	0	0	252
060 °T	220	85	4	0	0	0	0	0	0	0	0	0	0	0	0	0	309
080 °T	219	129	7	0	0	0	0	0	0	0	0	0	0	0	0	0	355
100 °T	256	216	46	1	0	0	0	0	0	0	0	0	0	0	0	0	519
120 °T	327	386	192	41	3	0	0	0	0	0	0	0	0	0	0	0	949
140 °T	230	325	150	12	0	0	0	0	0	0	0	0	0	0	0	0	717
160 °T	220	157	21	1	0	0	0	0	0	0	0	0	0	0	0	0	399
180 °T	147	47	3	0	0	0	0	0	0	0	0	0	0	0	0	0	197
200 °T	138	22	4	0	0	0	0	0	0	0	0	0	0	0	0	0	164
220 °T	141	30	3	0	0	0	0	0	0	0	0	0	0	0	0	0	174
240 °T	208	68	6	0	0	0	0	0	0	0	0	0	0	0	0	0	282
260 °T	328	219	54	0	0	0	0	0	0	0	0	0	0	0	0	0	601
280 °T	416	580	240	35	0	0	0	0	0	0	0	0	0	0	0	0	1271
300 °T	525	1019	553	188	13	0	0	0	0	0	0	0	0	0	0	0	2298
320 °T	540	811	436	33	0	0	0	0	0	0	0	0	0	0	0	0	1820
340 °T	374	290	48	0	0	0	0	0	0	0	0	0	0	0	0	0	712
Column Total	5036	4611	1775	311	16	0	0	0	0	0	0	0	0	0	0	0	11749

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.6	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
020 °T	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
040 °T	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
060 °T	1.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
080 °T	1.9	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
100 °T	2.2	1.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
120 °T	2.8	3.3	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
140 °T	2.0	2.8	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
160 °T	1.9	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
180 °T	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
200 °T	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
220 °T	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
240 °T	1.8	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
260 °T	2.8	1.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
280 °T	3.5	4.9	2.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
300 °T	4.5	8.7	4.7	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.6
320 °T	4.6	6.9	3.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5
340 °T	3.2	2.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
Column Total	42.9	39.2	15.1	2.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-30 - Current Statistics in 5 cm/s intervals for Mooring Reference 6257 at 50.557°N, 14.690°W at 90m Above Seabed (Instrument Depth 3224m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	256	297	47	3	0	0	0	0	0	0	0	0	0	0	0	0	603
020 °T	240	206	8	1	2	0	0	0	0	0	0	0	0	0	0	0	457
040 °T	226	144	6	1	0	0	0	0	0	0	0	0	0	0	0	0	377
060 °T	195	99	3	0	0	0	0	0	0	0	0	0	0	0	0	0	297
080 °T	174	106	4	0	0	0	0	0	0	0	0	0	0	0	0	0	284
100 °T	152	108	1	0	0	0	0	0	0	0	0	0	0	0	0	0	261
120 °T	202	208	7	0	0	0	0	0	0	0	0	0	0	0	0	0	417
140 °T	150	137	15	4	0	0	0	0	0	0	0	0	0	0	0	0	306
160 °T	98	84	15	12	3	0	0	0	0	0	0	0	0	0	0	0	212
180 °T	133	90	19	23	5	0	0	0	0	0	0	0	0	0	0	0	270
200 °T	129	139	23	6	0	0	0	0	0	0	0	0	0	0	0	0	297
220 °T	140	149	27	2	0	0	0	0	0	0	0	0	0	0	0	0	318
240 °T	150	140	17	0	0	0	0	0	0	0	0	0	0	0	0	0	307
260 °T	155	123	6	0	0	0	0	0	0	0	0	0	0	0	0	0	284
280 °T	150	173	5	0	0	0	0	0	0	0	0	0	0	0	0	0	328
300 °T	203	337	11	0	0	0	0	0	0	0	0	0	0	0	0	0	551
320 °T	223	508	54	0	0	0	0	0	0	0	0	0	0	0	0	0	785
340 °T	235	507	70	6	0	0	0	0	0	0	0	0	0	0	0	0	818
Column Total	3211	3555	338	58	10	0	0	0	0	0	0	0	0	0	0	0	7172

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.6	4.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
020 °T	3.3	2.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
040 °T	3.2	2.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
060 °T	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
080 °T	2.4	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
100 °T	2.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
120 °T	2.8	2.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
140 °T	2.1	1.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
160 °T	1.4	1.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
180 °T	1.9	1.3	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
200 °T	1.8	1.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
220 °T	2.0	2.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
240 °T	2.1	2.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
260 °T	2.2	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
280 °T	2.1	2.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
300 °T	2.8	4.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
320 °T	3.1	7.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
340 °T	3.3	7.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4
Column Total	44.8	49.6	4.7	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-31 - Current Statistics in 5 cm/s intervals for Mooring Reference 7400 at 51.052°N, 15.237°W at 30m Above Seabed (Instrument Depth 3190m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	285	113	5	0	0	0	0	0	0	0	0	0	0	0	0	0	403
020 °T	209	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	263
040 °T	202	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	256
060 °T	182	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	233
080 °T	167	90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	257
100 °T	215	203	12	1	0	0	0	0	0	0	0	0	0	0	0	0	431
120 °T	217	319	43	2	0	0	0	0	0	0	0	0	0	0	0	0	581
140 °T	210	286	31	0	0	0	0	0	0	0	0	0	0	0	0	0	527
160 °T	192	124	18	1	0	0	0	0	0	0	0	0	0	0	0	0	335
180 °T	172	67	6	2	0	0	0	0	0	0	0	0	0	0	0	0	247
200 °T	177	39	4	0	0	0	0	0	0	0	0	0	0	0	0	0	220
220 °T	138	48	1	0	0	0	0	0	0	0	0	0	0	0	0	0	187
240 °T	169	69	1	0	0	0	0	0	0	0	0	0	0	0	0	0	239
260 °T	216	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	324
280 °T	322	268	7	0	0	0	0	0	0	0	0	0	0	0	0	0	597
300 °T	413	635	107	11	0	0	0	0	0	0	0	0	0	0	0	0	1166
320 °T	384	688	187	19	1	0	0	0	0	0	0	0	0	0	0	0	1279
340 °T	307	294	25	0	0	0	0	0	0	0	0	0	0	0	0	0	626
Column Total	4177	3510	447	36	1	0	0	0	0	0	0	0	0	0	0	0	8171

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.5	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
020 °T	2.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
040 °T	2.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
060 °T	2.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
080 °T	2.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
100 °T	2.6	2.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
120 °T	2.7	3.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
140 °T	2.6	3.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
160 °T	2.3	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
180 °T	2.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
200 °T	2.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
220 °T	1.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
240 °T	2.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
260 °T	2.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
280 °T	3.9	3.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
300 °T	5.1	7.8	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3
320 °T	4.7	8.4	2.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.7
340 °T	3.8	3.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
Column Total	51.1	43.0	5.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-32 - Current Statistics in 5 cm/s intervals for Mooring Reference 7391 at 50.555°N, 14.697°W at 200m Above Seabed (Instrument Depth 3142m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	525	312	25	0	0	0	0	0	0	0	0	0	0	0	0	0	862
020 °T	374	131	10	0	0	0	0	0	0	0	0	0	0	0	0	0	515
040 °T	263	98	2	0	0	0	0	0	0	0	0	0	0	0	0	0	363
060 °T	255	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	311
080 °T	220	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	259
100 °T	188	64	0	0	0	0	0	0	0	0	0	0	0	0	0	0	252
120 °T	210	114	7	2	0	0	0	0	0	0	0	0	0	0	0	0	333
140 °T	113	76	6	0	0	0	0	0	0	0	0	0	0	0	0	0	195
160 °T	89	40	11	1	0	0	0	0	0	0	0	0	0	0	0	0	141
180 °T	55	37	4	0	0	0	0	0	0	0	0	0	0	0	0	0	96
200 °T	78	47	3	0	0	0	0	0	0	0	0	0	0	0	0	0	128
220 °T	125	63	7	0	0	0	0	0	0	0	0	0	0	0	0	0	195
240 °T	152	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	198
260 °T	174	73	6	0	0	0	0	0	0	0	0	0	0	0	0	0	253
280 °T	224	151	20	3	0	0	0	0	0	0	0	0	0	0	0	0	398
300 °T	318	441	183	45	3	0	0	0	0	0	0	0	0	0	0	0	990
320 °T	429	706	271	60	3	0	0	0	0	0	0	0	0	0	0	0	1469
340 °T	558	588	86	2	0	0	0	0	0	0	0	0	0	0	0	0	1234
Column Total	4350	3082	641	113	6	0	0	0	0	0	0	0	0	0	0	0	8192

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	6.4	3.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
020 °T	4.6	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
040 °T	3.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
060 °T	3.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
080 °T	2.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
100 °T	2.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
120 °T	2.6	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
140 °T	1.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
160 °T	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
180 °T	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
200 °T	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
220 °T	1.5	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
240 °T	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
260 °T	2.1	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
280 °T	2.7	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
300 °T	3.9	5.4	2.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1
320 °T	5.2	8.6	3.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.9
340 °T	6.8	7.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1
Column Total	53.1	37.6	7.8	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-33 - Current Statistics in 5 cm/s intervals for Mooring Reference 7392 at 50.555°N, 14.697°W at 30m Above Seabed (Instrument Depth 3312m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	474	565	79	13	2	0	0	0	0	0	0	0	0	0	0	0	1133
020 °T	352	181	9	2	0	0	0	0	0	0	0	0	0	0	0	0	544
040 °T	245	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	304
060 °T	192	23	1	0	0	0	0	0	0	0	0	0	0	0	0	0	216
080 °T	156	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	184
100 °T	146	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	174
120 °T	130	47	1	0	0	0	0	0	0	0	0	0	0	0	0	0	178
140 °T	176	98	2	0	0	0	0	0	0	0	0	0	0	0	0	0	276
160 °T	224	228	27	3	0	0	0	0	0	0	0	0	0	0	0	0	482
180 °T	260	185	11	1	0	0	0	0	0	0	0	0	0	0	0	0	457
200 °T	198	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	270
220 °T	217	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	232
240 °T	260	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	278
260 °T	230	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	244
280 °T	229	37	2	0	0	0	0	0	0	0	0	0	0	0	0	0	268
300 °T	286	97	9	0	0	0	0	0	0	0	0	0	0	0	0	0	392
320 °T	472	389	43	6	0	0	0	0	0	0	0	0	0	0	0	0	910
340 °T	541	974	127	15	1	0	0	0	0	0	0	0	0	0	0	0	1658
Column Total	4788	3058	311	40	3	0	0	0	0	0	0	0	0	0	0	0	8200
	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	5.8	6.9	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.8
020 °T	4.3	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
040 °T	3.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
060 °T	2.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
080 °T	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
100 °T	1.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
120 °T	1.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
140 °T	2.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
160 °T	2.7	2.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
180 °T	3.2	2.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
200 °T	2.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
220 °T	2.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
240 °T	3.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
260 °T	2.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
280 °T	2.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
300 °T	3.5	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
320 °T	5.8	4.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
340 °T	6.6	11.9	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.2
Column Total	58.4	37.3	3.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-34 - Current Statistics in 5 cm/s intervals for Mooring Reference 7396 at 51.048°N, 15.165°W at 30m Above Seabed (Instrument Depth 2948m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	472	604	119	14	2	0	0	0	0	0	0	0	0	0	0	0	1211
020 °T	417	214	10	1	0	0	0	0	0	0	0	0	0	0	0	0	642
040 °T	260	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332
060 °T	190	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	214
080 °T	151	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	163
100 °T	120	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	137
120 °T	147	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168
140 °T	172	79	5	0	0	0	0	0	0	0	0	0	0	0	0	0	256
160 °T	141	70	16	3	0	0	0	0	0	0	0	0	0	0	0	0	230
180 °T	150	45	2	1	0	0	0	0	0	0	0	0	0	0	0	0	198
200 °T	179	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210
220 °T	150	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157
240 °T	173	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	183
260 °T	192	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215
280 °T	226	47	2	0	0	0	0	0	0	0	0	0	0	0	0	0	275
300 °T	327	143	5	0	0	0	0	0	0	0	0	0	0	0	0	0	475
320 °T	501	586	63	5	0	0	0	0	0	0	0	0	0	0	0	0	1155
340 °T	489	842	267	36	2	0	0	0	0	0	0	0	0	0	0	0	1636
Column Total	4457	2847	489	60	4	0	0	0	0	0	0	0	0	0	0	0	7857
	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	6.0	7.7	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.4
020 °T	5.3	2.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
040 °T	3.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
060 °T	2.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
080 °T	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
100 °T	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
120 °T	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
140 °T	2.2	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
160 °T	1.8	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
180 °T	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
200 °T	2.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
220 °T	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
240 °T	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
260 °T	2.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
280 °T	2.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
300 °T	4.2	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
320 °T	6.4	7.5	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7
340 °T	6.2	10.7	3.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8
Column Total	56.7	36.2	6.2	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-35 - Current Statistics in 5 cm/s intervals for Mooring Reference 7395 at 51.048°N, 15.165°W at 97m Above Seabed (Instrument Depth 2881m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	153	135	3	0	0	0	0	0	0	0	0	0	0	0	0	0	291
020 °T	161	47	3	0	0	0	0	0	0	0	0	0	0	0	0	0	211
040 °T	206	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	283
060 °T	168	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	224
080 °T	189	85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	274
100 °T	192	203	14	0	0	0	0	0	0	0	0	0	0	0	0	0	409
120 °T	222	431	67	2	0	0	0	0	0	0	0	0	0	0	0	0	722
140 °T	222	529	101	8	0	0	0	0	0	0	0	0	0	0	0	0	860
160 °T	204	278	20	2	0	0	0	0	0	0	0	0	0	0	0	0	504
180 °T	190	146	2	0	0	0	0	0	0	0	0	0	0	0	0	0	338
200 °T	206	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	305
220 °T	213	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	281
240 °T	203	57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	260
260 °T	230	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	321
280 °T	256	254	14	0	0	0	0	0	0	0	0	0	0	0	0	0	524
300 °T	230	482	97	6	0	0	0	0	0	0	0	0	0	0	0	0	815
320 °T	187	418	121	6	0	0	0	0	0	0	0	0	0	0	0	0	732
340 °T	267	494	110	5	0	0	0	0	0	0	0	0	0	0	0	0	876
Column Total	3699	3950	552	29	0	0	0	0	0	0	0	0	0	0	0	0	8230

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
020 °T	2.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
040 °T	2.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
060 °T	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
080 °T	2.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
100 °T	2.3	2.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
120 °T	2.7	5.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
140 °T	2.7	6.4	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
160 °T	2.5	3.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
180 °T	2.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
200 °T	2.5	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
220 °T	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
240 °T	2.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
260 °T	2.8	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
280 °T	3.1	3.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
300 °T	2.8	5.9	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
320 °T	2.3	5.1	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
340 °T	3.2	6.0	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6
Column Total	44.9	48.0	6.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-36 - Current Statistics in 5 cm/s intervals for Mooring Reference 7397 at 50.997°N, 15.093°W at 200m Above Seabed (Instrument Depth 2745m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	231	374	57	0	0	0	0	0	0	0	0	0	0	0	0	0	662
020 °T	210	154	9	0	0	0	0	0	0	0	0	0	0	0	0	0	373
040 °T	205	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	266
060 °T	220	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	252
080 °T	213	26	1	0	0	0	0	0	0	0	0	0	0	0	0	0	240
100 °T	255	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	302
120 °T	380	165	4	0	0	0	0	0	0	0	0	0	0	0	0	0	549
140 °T	178	141	4	0	0	0	0	0	0	0	0	0	0	0	0	0	323
160 °T	117	63	4	0	0	0	0	0	0	0	0	0	0	0	0	0	184
180 °T	134	88	6	0	0	0	0	0	0	0	0	0	0	0	0	0	228
200 °T	200	173	12	0	0	0	0	0	0	0	0	0	0	0	0	0	385
220 °T	202	111	2	0	0	0	0	0	0	0	0	0	0	0	0	0	315
240 °T	164	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203
260 °T	201	44	2	0	0	0	0	0	0	0	0	0	0	0	0	0	247
280 °T	200	76	19	0	0	0	0	0	0	0	0	0	0	0	0	0	295
300 °T	266	280	97	10	0	0	0	0	0	0	0	0	0	0	0	0	653
320 °T	313	691	241	48	6	0	0	0	0	0	0	0	0	0	0	0	1299
340 °T	256	751	150	14	0	0	0	0	0	0	0	0	0	0	0	0	1171
Column Total	3945	3316	608	72	6	0	0	0	0	0	0	0	0	0	0	0	7947

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.9	4.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
020 °T	2.6	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
040 °T	2.6	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
060 °T	2.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
080 °T	2.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
100 °T	3.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
120 °T	4.8	2.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
140 °T	2.2	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
160 °T	1.5	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
180 °T	1.7	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
200 °T	2.5	2.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
220 °T	2.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
240 °T	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
260 °T	2.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
280 °T	2.5	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
300 °T	3.3	3.5	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
320 °T	3.9	8.7	3.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.3
340 °T	3.2	9.5	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.7
Column Total	49.6	41.7	7.7	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-37 - Current Statistics in 5 cm/s intervals for Mooring Reference 7398 at 50.997°N, 15.093°W at 30m Above Seabed (Instrument Depth 2915m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	341	242	18	0	0	0	0	0	0	0	0	0	0	0	0	0	601
020 °T	298	143	2	0	0	0	0	0	0	0	0	0	0	0	0	0	443
040 °T	314	117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	431
060 °T	356	104	1	0	0	0	0	0	0	0	0	0	0	0	0	0	461
080 °T	316	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	415
100 °T	326	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	402
120 °T	373	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	474
140 °T	378	189	1	0	0	0	0	0	0	0	0	0	0	0	0	0	568
160 °T	307	169	8	4	0	0	0	0	0	0	0	0	0	0	0	0	488
180 °T	275	149	16	1	0	0	0	0	0	0	0	0	0	0	0	0	441
200 °T	278	122	3	0	0	0	0	0	0	0	0	0	0	0	0	0	403
220 °T	226	90	3	0	0	0	0	0	0	0	0	0	0	0	0	0	319
240 °T	216	74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	290
260 °T	241	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	291
280 °T	233	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	295
300 °T	263	123	1	0	0	0	0	0	0	0	0	0	0	0	0	0	387
320 °T	297	210	5	0	0	0	0	0	0	0	0	0	0	0	0	0	512
340 °T	351	318	27	0	0	0	0	0	0	0	0	0	0	0	0	0	696
Column Total	5389	2438	85	5	0	0	0	0	0	0	0	0	0	0	0	0	7917

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	4.3	3.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
020 °T	3.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
040 °T	4.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
060 °T	4.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
080 °T	4.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
100 °T	4.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
120 °T	4.7	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
140 °T	4.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
160 °T	3.9	2.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
180 °T	3.5	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
200 °T	3.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
220 °T	2.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
240 °T	2.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
260 °T	3.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
280 °T	2.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
300 °T	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
320 °T	3.8	2.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
340 °T	4.4	4.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
Column Total	68.1	30.8	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-38 - Current Statistics in 5 cm/s intervals for Mooring Reference 7399 at 51.052°N, 15.237°W at 323m Above Seabed (Instrument Depth 2897m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	7	33	37	15	3	1	0	0	0	0	0	0	0	0	0	0	96
020 °T	3	20	19	0	0	0	0	0	0	0	0	0	0	0	0	0	42
040 °T	4	27	8	1	0	0	0	0	0	0	0	0	0	0	0	0	40
060 °T	6	26	11	2	0	0	0	0	0	0	0	0	0	0	0	0	45
080 °T	8	17	7	0	0	0	0	0	0	0	0	0	0	0	0	0	32
100 °T	6	31	3	0	0	0	0	0	0	0	0	0	0	0	0	0	40
120 °T	7	34	18	0	0	0	0	0	0	0	0	0	0	0	0	0	59
140 °T	7	82	95	53	4	0	0	0	0	0	0	0	0	0	0	0	241
160 °T	14	125	205	156	47	2	0	0	0	0	0	0	0	0	0	0	549
180 °T	15	95	57	48	19	0	0	0	0	0	0	0	0	0	0	0	234
200 °T	33	59	38	18	3	0	0	0	0	0	0	0	0	0	0	0	151
220 °T	34	64	27	12	5	1	0	0	0	0	0	0	0	0	0	0	143
240 °T	33	74	28	10	5	3	0	0	0	0	0	0	0	0	0	0	153
260 °T	25	113	38	13	0	0	0	0	0	0	0	0	0	0	0	0	189
280 °T	20	121	118	21	2	0	0	0	0	0	0	0	0	0	0	0	282
300 °T	12	101	241	126	18	3	0	0	0	0	0	0	0	0	0	0	501
320 °T	7	87	312	343	159	68	24	5	0	0	0	0	0	0	0	0	1005
340 °T	3	52	139	141	125	53	21	7	4	0	0	0	0	0	0	0	545
Column Total	244	1161	1401	959	390	131	45	12	4	0	0	0	0	0	0	0	4347

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.2	0.8	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
020 °T	0.1	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
040 °T	0.1	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
060 °T	0.1	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
080 °T	0.2	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
100 °T	0.1	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
120 °T	0.2	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
140 °T	0.2	1.9	2.2	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
160 °T	0.3	2.9	4.7	3.6	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6
180 °T	0.3	2.2	1.3	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
200 °T	0.8	1.4	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
220 °T	0.8	1.5	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
240 °T	0.8	1.7	0.6	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
260 °T	0.6	2.6	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
280 °T	0.5	2.8	2.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
300 °T	0.3	2.3	5.5	2.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
320 °T	0.2	2.0	7.2	7.9	3.7	1.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1
340 °T	0.1	1.2	3.2	3.2	2.9	1.2	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5
Column Total	5.6	26.7	32.2	22.1	9.0	3.0	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-39 - Current Statistics in 5 cm/s intervals for Mooring Reference 5477 at 51.702°N, 15.313°W at 50m Above Seabed (Instrument Depth 2354m)

APPENDIX C-5

(Porcupine Sea Bight Region 0-200m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-40	PORCA3	357	3
C-41	PORCA30	330	30
C-42	PORCA130	230	130
C-43	PORCB30	800	30
C-44	PORCC3	497	3
C-45	PORCC30	470	30
C-46	PORCC183	317	183
C-47	SEDCO3	482	3
C-48	SEDCO28	457	28
C-49	SEDCO30	455	30
C-50	SEDCO177	308	177
C-51	Jack Bates 35/30-1	613	83

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1	12	32	37	31	18	10	16	1	4	1	0	0	0	0	0	163
020 °T	3	52	94	63	53	37	35	21	8	5	1	0	0	0	0	0	372
040 °T	10	40	100	30	33	20	16	10	7	2	1	0	0	0	0	0	269
060 °T	6	43	62	20	19	12	9	10	4	1	1	0	0	0	0	0	187
080 °T	7	43	42	18	15	16	10	6	4	1	2	2	0	2	0	0	168
100 °T	2	36	27	16	25	11	16	7	6	0	0	1	1	3	4	0	155
120 °T	0	52	24	10	8	6	6	3	2	0	0	0	2	1	2	0	116
140 °T	6	39	30	16	10	6	8	6	2	0	2	3	1	1	0	0	130
160 °T	2	38	33	19	19	19	10	11	4	1	0	0	2	1	0	0	159
180 °T	7	34	50	39	31	12	15	17	9	4	2	2	3	1	0	0	226
200 °T	7	36	29	37	30	25	7	14	4	5	4	1	0	0	0	0	199
220 °T	3	22	61	28	26	16	11	9	7	2	0	0	0	0	1	0	186
240 °T	5	25	56	36	33	19	19	10	5	1	0	0	0	0	0	0	209
260 °T	7	26	53	31	14	14	17	14	6	4	1	0	0	0	0	0	187
280 °T	4	43	52	29	22	16	14	5	2	1	0	0	0	0	0	0	188
300 °T	6	50	52	56	51	14	14	4	1	2	0	0	0	1	0	0	251
320 °T	17	124	66	75	55	54	33	20	14	16	8	4	5	3	1	3	499
340 °T	5	41	41	25	29	28	19	13	17	5	2	2	0	0	2	1	230
Column Total	98	756	904	585	504	343	269	196	103	54	25	15	14	13	10	4	3894

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.0	0.3	0.8	1.0	0.8	0.5	0.3	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.2
020 °T	0.1	1.3	2.4	1.6	1.4	1.0	0.9	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.6
040 °T	0.3	1.0	2.6	0.8	0.8	0.5	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6.9
060 °T	0.2	1.1	1.6	0.5	0.5	0.3	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
080 °T	0.2	1.1	1.1	0.5	0.4	0.4	0.3	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	4.3
100 °T	0.1	0.9	0.7	0.4	0.6	0.3	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0	4.0
120 °T	0.0	1.3	0.6	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	3.0
140 °T	0.2	1.0	0.8	0.4	0.3	0.2	0.2	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	3.3
160 °T	0.1	1.0	0.8	0.5	0.5	0.5	0.3	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	4.1
180 °T	0.2	0.9	1.3	1.0	0.8	0.3	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	5.8
200 °T	0.2	0.9	0.7	1.0	0.8	0.6	0.2	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	5.1
220 °T	0.1	0.6	1.6	0.7	0.7	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.8
240 °T	0.1	0.6	1.4	0.9	0.8	0.5	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
260 °T	0.2	0.7	1.4	0.8	0.4	0.4	0.4	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.8
280 °T	0.1	1.1	1.3	0.7	0.6	0.4	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
300 °T	0.2	1.3	1.3	1.4	1.3	0.4	0.4	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6.4
320 °T	0.4	3.2	1.7	1.9	1.4	1.4	0.8	0.5	0.4	0.4	0.2	0.1	0.1	0.1	0.0	0.1	12.8
340 °T	0.1	1.1	1.1	0.6	0.7	0.7	0.5	0.3	0.4	0.1	0.1	0.1	0.0	0.0	0.1	0.0	5.9
Column Total	2.5	19.4	23.2	15.0	12.9	8.8	6.9	5.0	2.6	1.4	0.6	0.4	0.4	0.3	0.3	0.1	100.0

Table C-40 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCA3 at 53.135°N, 12.652°W at 357m Above Seabed (Instrument Depth 3m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0	15	61	126	272	212	46	12	6	1	0	0	0	0	0	0	751
020 °T	0	12	57	144	240	162	61	17	9	0	0	0	0	0	0	0	702
040 °T	2	17	52	89	137	73	25	11	8	0	0	0	0	0	0	0	414
060 °T	0	11	35	70	92	22	3	3	1	0	0	0	0	0	0	0	237
080 °T	0	18	22	40	95	17	3	2	1	0	0	0	0	0	0	0	198
100 °T	0	13	35	44	89	22	5	1	0	0	0	0	0	0	0	0	209
120 °T	2	13	35	52	115	37	7	2	0	0	0	0	0	0	0	0	263
140 °T	0	6	25	70	126	74	24	2	0	0	0	0	0	0	0	0	327
160 °T	0	24	46	123	184	105	32	5	0	0	0	0	0	0	0	0	519
180 °T	0	24	46	116	251	137	64	12	0	0	0	0	0	0	0	0	650
200 °T	1	20	35	119	241	168	52	18	2	0	0	0	0	0	0	0	656
220 °T	2	9	25	88	167	141	35	11	4	0	0	0	0	0	0	0	482
240 °T	0	6	21	68	132	89	23	8	0	0	0	0	0	0	0	0	347
260 °T	0	5	17	60	91	29	11	4	3	0	0	0	0	0	0	0	220
280 °T	0	3	16	46	130	34	12	3	0	0	0	0	0	0	0	0	244
300 °T	1	1	16	61	115	25	16	2	0	0	0	0	0	0	0	0	237
320 °T	0	9	18	94	117	43	11	2	2	1	0	0	0	0	0	0	297
340 °T	0	14	38	161	243	128	28	6	9	1	0	0	0	0	0	0	628
Column Total	8	220	600	1571	2837	1518	458	121	45	3	0	0	0	0	0	0	7381

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.0	0.2	0.8	1.7	3.7	2.9	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
020 °T	0.0	0.2	0.8	2.0	3.3	2.2	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
040 °T	0.0	0.2	0.7	1.2	1.9	1.0	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
060 °T	0.0	0.1	0.5	0.9	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
080 °T	0.0	0.2	0.3	0.5	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
100 °T	0.0	0.2	0.5	0.6	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
120 °T	0.0	0.2	0.5	0.7	1.6	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
140 °T	0.0	0.1	0.3	0.9	1.7	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
160 °T	0.0	0.3	0.6	1.7	2.5	1.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
180 °T	0.0	0.3	0.6	1.6	3.4	1.9	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
200 °T	0.0	0.3	0.5	1.6	3.3	2.3	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
220 °T	0.0	0.1	0.3	1.2	2.3	1.9	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
240 °T	0.0	0.1	0.3	0.9	1.8	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
260 °T	0.0	0.1	0.2	0.8	1.2	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
280 °T	0.0	0.0	0.2	0.6	1.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
300 °T	0.0	0.0	0.2	0.8	1.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
320 °T	0.0	0.1	0.2	1.3	1.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
340 °T	0.0	0.2	0.5	2.2	3.3	1.7	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
Column Total	0.1	3.0	8.1	21.3	38.4	20.6	6.2	1.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-41 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCA30 at 53.135°N, 12.652°W at 330m Above Seabed (Instrument Depth 30m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	22	211	450	230	163	37	1	0	0	0	0	0	0	0	0	0	1114
020 °T	29	186	346	179	146	52	13	0	0	0	0	0	0	0	0	0	951
040 °T	35	145	175	84	30	16	8	0	0	0	0	0	0	0	0	0	493
060 °T	44	118	87	16	1	0	0	0	0	0	0	0	0	0	0	0	266
080 °T	35	96	42	4	1	0	0	0	0	0	0	0	0	0	0	0	178
100 °T	30	109	46	8	0	0	0	0	0	0	0	0	0	0	0	0	193
120 °T	24	144	61	7	0	0	1	0	0	0	0	0	0	0	0	0	237
140 °T	29	183	93	14	2	0	0	0	0	0	0	0	0	0	0	0	321
160 °T	60	217	204	85	11	1	0	0	0	0	0	0	0	0	0	0	578
180 °T	48	260	368	264	145	37	4	0	0	0	0	0	0	0	0	0	1126
200 °T	34	279	455	332	164	27	12	0	0	0	0	0	0	0	0	0	1303
220 °T	40	243	388	145	37	5	1	0	0	0	0	0	0	0	0	0	859
240 °T	41	186	182	15	4	0	0	0	0	0	0	0	0	0	0	0	428
260 °T	41	169	96	15	1	0	0	0	0	0	0	0	0	0	0	0	322
280 °T	45	167	67	1	0	0	0	0	0	0	0	0	0	0	0	0	280
300 °T	40	218	89	8	0	0	0	0	0	0	0	0	0	0	0	0	355
320 °T	50	200	122	17	0	0	0	0	0	0	0	0	0	0	0	0	389
340 °T	54	340	413	197	34	1	0	0	0	0	0	0	0	0	0	0	1039
Column Total	701	3471	3684	1621	739	176	40	0	0	0	0	0	0	0	0	0	10432

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.2	2.0	4.3	2.2	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7
020 °T	0.3	1.8	3.3	1.7	1.4	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
040 °T	0.3	1.4	1.7	0.8	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
060 °T	0.4	1.1	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
080 °T	0.3	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
100 °T	0.3	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
120 °T	0.2	1.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
140 °T	0.3	1.8	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
160 °T	0.6	2.1	2.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
180 °T	0.5	2.5	3.5	2.5	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
200 °T	0.3	2.7	4.4	3.2	1.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5
220 °T	0.4	2.3	3.7	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
240 °T	0.4	1.8	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
260 °T	0.4	1.6	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
280 °T	0.4	1.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
300 °T	0.4	2.1	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
320 °T	0.5	1.9	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
340 °T	0.5	3.3	4.0	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
Column Total	6.7	33.3	35.3	15.5	7.1	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-42 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCA130 at 53.135°N, 12.652°W at 230m Above Seabed (Inst. Depth 130m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0	38	97	79	59	45	10	2	0	0	0	0	0	0	0	0	330
020 °T	0	35	83	107	83	49	18	5	1	0	0	0	0	0	0	0	381
040 °T	1	27	56	61	69	41	15	3	1	0	0	0	0	0	0	0	274
060 °T	1	22	34	64	46	30	6	0	0	0	0	0	0	0	0	0	203
080 °T	0	16	37	51	43	13	10	0	0	0	0	0	0	0	0	0	170
100 °T	1	17	45	72	63	18	5	1	0	0	0	0	0	0	0	0	222
120 °T	1	7	45	57	56	24	2	0	0	0	0	0	0	0	0	0	192
140 °T	1	12	32	69	72	54	15	6	0	0	0	0	0	0	0	0	261
160 °T	1	16	25	55	82	62	29	5	2	0	0	0	0	0	0	0	277
180 °T	0	19	33	67	94	76	25	19	3	1	0	0	0	0	0	0	337
200 °T	0	23	48	76	78	74	24	10	7	1	0	0	0	0	0	0	341
220 °T	0	22	30	60	106	80	18	10	2	0	0	0	0	0	0	0	328
240 °T	0	18	41	58	80	45	23	7	0	0	0	0	0	0	0	0	272
260 °T	0	18	30	69	84	51	18	16	0	0	0	0	0	0	0	0	286
280 °T	0	19	39	54	61	37	16	5	3	0	0	0	0	0	0	0	234
300 °T	0	21	38	68	57	27	10	7	0	0	0	0	0	0	0	0	228
320 °T	0	29	46	53	49	30	14	4	2	0	0	0	0	0	0	0	227
340 °T	1	31	55	71	76	47	13	3	1	0	0	0	0	0	0	0	298
Column Total	7	390	814	1191	1258	803	271	103	22	2	0	0	0	0	0	0	4861

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.0	0.8	2.0	1.6	1.2	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
020 °T	0.0	0.7	1.7	2.2	1.7	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8
040 °T	0.0	0.6	1.2	1.3	1.4	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
060 °T	0.0	0.5	0.7	1.3	0.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
080 °T	0.0	0.3	0.8	1.0	0.9	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
100 °T	0.0	0.3	0.9	1.5	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
120 °T	0.0	0.1	0.9	1.2	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
140 °T	0.0	0.2	0.7	1.4	1.5	1.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
160 °T	0.0	0.3	0.5	1.1	1.7	1.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
180 °T	0.0	0.4	0.7	1.4	1.9	1.6	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
200 °T	0.0	0.5	1.0	1.6	1.6	1.5	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
220 °T	0.0	0.5	0.6	1.2	2.2	1.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
240 °T	0.0	0.4	0.8	1.2	1.6	0.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
260 °T	0.0	0.4	0.6	1.4	1.7	1.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
280 °T	0.0	0.4	0.8	1.1	1.3	0.8	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
300 °T	0.0	0.4	0.8	1.4	1.2	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
320 °T	0.0	0.6	0.9	1.1	1.0	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
340 °T	0.0	0.6	1.1	1.5	1.6	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
Column Total	0.1	8.0	16.7	24.5	25.9	16.5	5.6	2.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-43 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCB30 at 52.125°N, 12.645°W at 800m Above Seabed (Inst. Depth 30m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	14	63	88	69	36	25	13	4	3	1	1	0	0	0	0	0	317
020 °T	11	78	140	145	115	60	35	20	10	6	1	0	0	0	0	0	621
040 °T	31	95	162	180	110	79	28	7	10	0	0	0	0	0	0	0	702
060 °T	15	84	129	134	103	53	21	6	0	0	1	0	0	0	0	0	546
080 °T	10	98	125	122	113	67	23	4	2	0	0	0	0	0	0	0	564
100 °T	24	68	84	126	121	53	26	14	1	0	0	0	0	0	0	0	517
120 °T	21	70	113	145	147	87	39	16	5	0	0	0	0	0	0	0	643
140 °T	12	49	93	106	104	75	59	25	6	1	0	0	0	0	0	0	530
160 °T	17	50	82	109	71	47	41	17	7	0	1	0	0	0	0	0	442
180 °T	14	59	107	94	102	60	26	11	2	0	0	0	0	0	0	0	475
200 °T	12	44	61	87	125	64	29	5	0	0	0	0	0	0	0	0	427
220 °T	7	47	77	62	59	31	11	3	1	0	0	0	0	0	0	0	298
240 °T	17	118	171	129	74	32	16	3	0	1	0	0	0	0	0	0	561
260 °T	19	196	341	199	98	55	27	10	4	3	3	2	0	0	0	0	957
280 °T	43	157	264	219	145	57	34	7	6	2	0	0	0	0	0	0	934
300 °T	37	110	163	146	122	57	9	3	0	0	0	0	0	0	0	0	647
320 °T	27	87	143	232	185	97	55	7	3	0	0	0	0	0	0	0	836
340 °T	9	40	48	65	40	34	16	6	1	0	0	0	0	0	0	0	259
Column Total	340	1513	2391	2369	1870	1033	508	168	61	14	7	2	0	0	0	0	10276

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.1	0.6	0.9	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
020 °T	0.1	0.8	1.4	1.4	1.1	0.6	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	6.0
040 °T	0.3	0.9	1.6	1.8	1.1	0.8	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
060 °T	0.1	0.8	1.3	1.3	1.0	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
080 °T	0.1	1.0	1.2	1.2	1.1	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
100 °T	0.2	0.7	0.8	1.2	1.2	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
120 °T	0.2	0.7	1.1	1.4	1.4	0.8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
140 °T	0.1	0.5	0.9	1.0	1.0	0.7	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
160 °T	0.2	0.5	0.8	1.1	0.7	0.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
180 °T	0.1	0.6	1.0	0.9	1.0	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
200 °T	0.1	0.4	0.6	0.8	1.2	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
220 °T	0.1	0.5	0.7	0.6	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
240 °T	0.2	1.1	1.7	1.3	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
260 °T	0.2	1.9	3.3	1.9	1.0	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3
280 °T	0.4	1.5	2.6	2.1	1.4	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
300 °T	0.4	1.1	1.6	1.4	1.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
320 °T	0.3	0.8	1.4	2.3	1.8	0.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
340 °T	0.1	0.4	0.5	0.6	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Column Total	3.3	14.7	23.3	23.1	18.2	10.1	4.9	1.6	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	100.0

Table C-44 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCC3 at 52.662°N, 12.748°W at 497m Above Seabed (Inst. Depth 3m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0	35	260	540	390	186	126	85	27	6	0	0	0	0	0	0	1655
020 °T	0	51	250	437	292	147	77	72	39	18	1	0	0	0	0	0	1384
040 °T	0	43	240	262	238	112	64	46	38	4	0	0	0	0	0	0	1047
060 °T	0	42	182	201	181	105	52	14	4	0	0	0	0	0	0	0	781
080 °T	0	42	190	186	161	80	30	4	1	0	0	0	0	0	0	0	694
100 °T	0	49	176	199	151	94	33	7	0	0	0	0	0	0	0	0	709
120 °T	0	52	219	237	168	115	53	11	0	0	0	0	0	0	0	0	855
140 °T	1	56	185	262	225	118	89	23	8	2	0	0	0	0	0	0	969
160 °T	0	36	233	318	258	157	86	31	12	1	0	0	0	0	0	0	1132
180 °T	0	24	218	359	356	204	85	32	7	0	0	0	0	0	0	0	1285
200 °T	1	24	200	269	361	180	95	43	10	0	0	0	0	0	0	0	1183
220 °T	0	26	127	192	200	99	46	17	4	0	0	0	0	0	0	0	711
240 °T	0	14	141	206	160	79	29	3	4	0	0	0	0	0	0	0	636
260 °T	0	16	110	190	131	59	14	10	2	1	0	0	0	0	0	0	533
280 °T	0	20	98	193	164	50	17	10	0	1	0	0	0	0	0	0	553
300 °T	0	15	110	217	163	35	29	17	6	0	0	0	0	0	0	0	592
320 °T	2	17	121	219	198	72	44	23	7	3	0	0	0	0	0	0	706
340 °T	1	30	266	513	322	170	116	81	9	0	0	0	0	0	0	0	1508
Column Total	5	592	3326	5000	4119	2062	1085	529	178	36	1	0	0	0	0	0	16933

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.0	0.2	1.5	3.2	2.3	1.1	0.7	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
020 °T	0.0	0.3	1.5	2.6	1.7	0.9	0.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	8.2
040 °T	0.0	0.3	1.4	1.5	1.4	0.7	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
060 °T	0.0	0.2	1.1	1.2	1.1	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
080 °T	0.0	0.2	1.1	1.1	1.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
100 °T	0.0	0.3	1.0	1.2	0.9	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
120 °T	0.0	0.3	1.3	1.4	1.0	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
140 °T	0.0	0.3	1.1	1.5	1.3	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
160 °T	0.0	0.2	1.4	1.9	1.5	0.9	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
180 °T	0.0	0.1	1.3	2.1	2.1	1.2	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
200 °T	0.0	0.1	1.2	1.6	2.1	1.1	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
220 °T	0.0	0.2	0.8	1.1	1.2	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
240 °T	0.0	0.1	0.8	1.2	0.9	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
260 °T	0.0	0.1	0.6	1.1	0.8	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
280 °T	0.0	0.1	0.6	1.1	1.0	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
300 °T	0.0	0.1	0.6	1.3	1.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
320 °T	0.0	0.1	0.7	1.3	1.2	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
340 °T	0.0	0.2	1.6	3.0	1.9	1.0	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
Column Total	0.0	3.5	19.6	29.5	24.3	12.2	6.4	3.1	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-45 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCC30 at 52.662°N, 12.748°W at 470m Above Seabed (Inst. Depth 30m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	177	376	426	206	43	41	8	8	0	0	0	0	0	0	0	0	1285
020 °T	132	400	321	171	38	15	0	0	0	0	0	0	0	0	0	0	1077
040 °T	133	412	235	73	5	5	0	0	0	0	0	0	0	0	0	0	863
060 °T	150	318	130	33	7	0	0	0	0	0	0	0	0	0	0	0	638
080 °T	136	283	105	20	4	0	0	0	0	0	0	0	0	0	0	0	548
100 °T	126	239	105	15	1	0	0	0	0	0	0	0	0	0	0	0	486
120 °T	137	248	65	33	12	1	0	0	0	0	0	0	0	0	0	0	496
140 °T	134	354	106	63	51	24	7	0	0	0	0	0	0	0	0	0	739
160 °T	171	324	222	103	46	34	11	8	0	0	0	0	0	0	0	0	919
180 °T	151	384	336	261	108	31	7	0	0	0	0	0	0	0	0	0	1278
200 °T	216	417	330	249	43	3	0	0	0	0	0	0	0	0	0	0	1258
220 °T	144	294	93	87	5	0	0	0	0	0	0	0	0	0	0	0	623
240 °T	142	171	83	52	0	0	0	0	0	0	0	0	0	0	0	0	448
260 °T	121	160	46	13	0	0	0	0	0	0	0	0	0	0	0	0	340
280 °T	107	165	51	7	0	0	0	0	0	0	0	0	0	0	0	0	330
300 °T	127	169	77	25	0	0	0	0	0	0	0	0	0	0	0	0	398
320 °T	119	217	104	73	6	0	0	0	0	0	0	0	0	0	0	0	519
340 °T	182	460	320	107	41	0	0	0	0	0	0	0	0	0	0	0	1110
Column Total	2605	5391	3155	1591	410	154	33	16	0	0	0	0	0	0	0	0	13355

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.3	2.8	3.2	1.5	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
020 °T	1.0	3.0	2.4	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
040 °T	1.0	3.1	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
060 °T	1.1	2.4	1.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
080 °T	1.0	2.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
100 °T	0.9	1.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
120 °T	1.0	1.9	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
140 °T	1.0	2.7	0.8	0.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
160 °T	1.3	2.4	1.7	0.8	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
180 °T	1.1	2.9	2.5	2.0	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
200 °T	1.6	3.1	2.5	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4
220 °T	1.1	2.2	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
240 °T	1.1	1.3	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
260 °T	0.9	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
280 °T	0.8	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
300 °T	1.0	1.3	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
320 °T	0.9	1.6	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
340 °T	1.4	3.4	2.4	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
Column Total	19.5	40.4	23.6	11.9	3.1	1.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-46 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCC183 at 52.662°N, 12.748°W at 317m Above Seabed (Inst. Depth 183m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1	3	3	6	14	8	7	0	0	0	0	0	0	0	0	0	42
020 °T	6	16	9	14	12	8	2	2	1	0	0	0	0	0	0	0	70
040 °T	5	21	15	18	12	3	2	0	0	0	0	0	0	0	0	0	76
060 °T	0	13	10	6	5	6	0	1	0	0	0	0	0	0	0	0	41
080 °T	3	3	10	12	4	1	0	0	0	0	0	0	0	0	0	0	33
100 °T	2	11	11	6	5	2	0	0	0	0	0	0	0	0	0	0	37
120 °T	3	12	12	7	6	1	1	0	0	0	0	0	0	0	0	0	42
140 °T	4	10	13	14	4	1	0	0	0	0	0	0	0	0	0	0	46
160 °T	5	9	20	11	14	4	0	0	0	0	0	0	0	0	0	0	63
180 °T	8	14	10	18	14	6	3	3	0	0	0	0	0	0	0	0	76
200 °T	6	9	15	18	17	10	3	1	0	0	0	0	0	0	0	0	79
220 °T	1	7	17	16	10	9	4	3	0	0	0	0	0	0	0	0	67
240 °T	2	13	19	24	10	8	3	7	0	0	0	0	0	0	0	0	86
260 °T	5	15	15	14	8	4	3	4	0	0	0	0	0	0	0	0	68
280 °T	9	11	7	11	6	6	3	3	0	0	0	0	0	0	0	0	56
300 °T	5	16	7	16	10	3	3	0	0	0	0	0	0	0	0	0	60
320 °T	11	26	26	22	18	17	10	1	1	0	0	0	0	0	0	0	132
340 °T	8	28	35	22	33	21	14	1	0	0	0	0	0	0	0	0	162
Column Total	84	237	254	255	202	118	58	26	2	0	0	0	0	0	0	0	1236

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.1	0.2	0.2	0.5	1.1	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
020 °T	0.5	1.3	0.7	1.1	1.0	0.6	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
040 °T	0.4	1.7	1.2	1.5	1.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
060 °T	0.0	1.1	0.8	0.5	0.4	0.5	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
080 °T	0.2	0.2	0.8	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
100 °T	0.2	0.9	0.9	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
120 °T	0.2	1.0	1.0	0.6	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
140 °T	0.3	0.8	1.1	1.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
160 °T	0.4	0.7	1.6	0.9	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
180 °T	0.6	1.1	0.8	1.5	1.1	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
200 °T	0.5	0.7	1.2	1.5	1.4	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
220 °T	0.1	0.6	1.4	1.3	0.8	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
240 °T	0.2	1.1	1.5	1.9	0.8	0.6	0.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
260 °T	0.4	1.2	1.2	1.1	0.6	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
280 °T	0.7	0.9	0.6	0.9	0.5	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
300 °T	0.4	1.3	0.6	1.3	0.8	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
320 °T	0.9	2.1	2.1	1.8	1.5	1.4	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7
340 °T	0.6	2.3	2.8	1.8	2.7	1.7	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1
Column Total	6.8	19.2	20.6	20.6	16.3	9.5	4.7	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-47 - Current Statistics in 5 cm/s intervals for Mooring Reference SEDCO3 at 52.598°N, 12.420°W at 482m Above Seabed (Inst. Depth 3m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	19	68	114	57	15	3	0	1	0	0	0	0	0	0	0	0	277
020 °T	23	96	127	75	19	1	1	0	0	0	0	0	0	0	0	0	342
040 °T	22	61	23	16	3	1	0	0	0	0	0	0	0	0	0	0	126
060 °T	14	20	4	1	1	0	0	0	0	0	0	0	0	0	0	0	40
080 °T	19	20	4	3	0	0	0	0	0	0	0	0	0	0	0	0	46
100 °T	10	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	25
120 °T	17	35	2	1	0	0	0	0	0	0	0	0	0	0	0	0	55
140 °T	23	47	18	2	0	0	0	0	0	0	0	0	0	0	0	0	90
160 °T	20	89	56	3	0	0	0	0	0	0	0	0	0	0	0	0	168
180 °T	26	116	116	32	3	0	0	0	0	0	0	0	0	0	0	0	293
200 °T	20	101	90	23	4	0	0	0	0	0	0	0	0	0	0	0	238
220 °T	17	59	36	8	0	0	0	0	0	0	0	0	0	0	0	0	120
240 °T	16	52	13	0	0	0	0	0	0	0	0	0	0	0	0	0	81
260 °T	22	46	8	3	0	0	0	0	0	0	0	0	0	0	0	0	79
280 °T	65	121	38	4	2	0	0	0	0	0	0	0	0	0	0	0	230
300 °T	25	51	22	2	0	0	0	0	0	0	0	0	0	0	0	0	100
320 °T	24	86	43	8	10	1	0	0	0	0	0	0	0	0	0	0	172
340 °T	35	111	144	73	21	4	0	0	0	0	0	0	0	0	0	0	388
Column Total	417	1192	860	311	78	10	1	1	0	0	0	0	0	0	0	0	2870

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.7	2.4	4.0	2.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
020 °T	0.8	3.3	4.4	2.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9
040 °T	0.8	2.1	0.8	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
060 °T	0.5	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
080 °T	0.7	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
100 °T	0.3	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
120 °T	0.6	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
140 °T	0.8	1.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
160 °T	0.7	3.1	2.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
180 °T	0.9	4.0	4.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
200 °T	0.7	3.5	3.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
220 °T	0.6	2.1	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
240 °T	0.6	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
260 °T	0.8	1.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
280 °T	2.3	4.2	1.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
300 °T	0.9	1.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
320 °T	0.8	3.0	1.5	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
340 °T	1.2	3.9	5.0	2.5	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.5
Column Total	14.5	41.5	30.0	10.8	2.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-48 - Current Statistics in 5 cm/s intervals for Mooring Reference SEDCO28 at 52.598°N, 12.420°W at 457m Above Seabed (Inst. Depth 28m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	14	86	296	425	404	270	138	98	50	32	10	9	9	0	0	0	1841
020 °T	12	120	279	404	326	230	129	84	47	21	13	7	7	1	0	0	1680
040 °T	6	94	242	251	172	118	108	61	28	12	6	9	6	0	0	0	1113
060 °T	5	106	195	132	112	95	72	42	32	14	8	6	2	0	0	0	821
080 °T	7	68	191	131	91	88	34	45	22	15	8	2	1	0	0	0	703
100 °T	6	73	156	120	108	65	37	56	35	13	1	1	0	0	0	0	671
120 °T	2	74	141	126	128	79	61	52	19	18	6	1	0	0	0	0	707
140 °T	5	59	166	168	125	99	84	75	34	15	5	0	0	0	0	0	835
160 °T	6	92	201	223	220	140	97	89	39	23	6	0	0	0	0	0	1136
180 °T	7	111	216	286	283	214	145	88	53	21	7	1	0	0	0	0	1432
200 °T	14	75	249	266	297	243	150	93	43	25	15	3	0	0	0	0	1473
220 °T	16	81	229	264	213	257	95	89	39	11	13	7	1	0	0	0	1315
240 °T	15	82	150	176	181	131	63	53	22	13	13	5	4	0	0	0	908
260 °T	8	51	134	131	143	112	55	49	27	14	6	2	0	0	0	0	732
280 °T	9	66	144	149	120	80	51	41	26	8	1	0	0	0	0	0	695
300 °T	6	74	182	201	124	83	68	48	22	12	1	0	0	0	0	0	821
320 °T	9	94	181	224	143	82	72	46	30	18	7	1	0	0	0	0	907
340 °T	18	132	367	436	358	253	179	90	49	26	12	12	1	0	0	0	1933
Column Total	165	1538	3719	4113	3548	2639	1638	1199	617	311	138	66	31	1	0	0	19723

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.1	0.4	1.5	2.2	2.0	1.4	0.7	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	9.3
020 °T	0.1	0.6	1.4	2.0	1.7	1.2	0.7	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	8.5
040 °T	0.0	0.5	1.2	1.3	0.9	0.6	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.6
060 °T	0.0	0.5	1.0	0.7	0.6	0.5	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.2
080 °T	0.0	0.3	1.0	0.7	0.5	0.4	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.6
100 °T	0.0	0.4	0.8	0.6	0.5	0.3	0.2	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.4
120 °T	0.0	0.4	0.7	0.6	0.6	0.4	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.6
140 °T	0.0	0.3	0.8	0.9	0.6	0.5	0.4	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.2
160 °T	0.0	0.5	1.0	1.1	1.1	0.7	0.5	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.8
180 °T	0.0	0.6	1.1	1.5	1.4	1.1	0.7	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	7.3
200 °T	0.1	0.4	1.3	1.3	1.5	1.2	0.8	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	7.5
220 °T	0.1	0.4	1.2	1.3	1.1	1.3	0.5	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	6.7
240 °T	0.1	0.4	0.8	0.9	0.9	0.7	0.3	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	4.6
260 °T	0.0	0.3	0.7	0.7	0.7	0.6	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.7
280 °T	0.0	0.3	0.7	0.8	0.6	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
300 °T	0.0	0.4	0.9	1.0	0.6	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.2
320 °T	0.0	0.5	0.9	1.1	0.7	0.4	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.6
340 °T	0.1	0.7	1.9	2.2	1.8	1.3	0.9	0.5	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	9.8
Column Total	0.8	7.8	18.9	20.9	18.0	13.4	8.3	6.1	3.1	1.6	0.7	0.3	0.2	0.0	0.0	0.0	100.0

Table C-49 - Current Statistics in 5 cm/s intervals for Mooring Reference SEDCO30 at 52.598°N, 12.420°W at 455m Above Seabed (Inst. Depth 30m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	353	887	887	427	58	0	0	0	0	0	0	0	0	0	0	0	2612
020 °T	328	547	416	127	7	0	0	0	0	0	0	0	0	0	0	0	1425
040 °T	206	223	55	7	1	0	0	0	0	0	0	0	0	0	0	0	492
060 °T	160	128	31	0	0	0	0	0	0	0	0	0	0	0	0	0	319
080 °T	139	95	13	0	0	0	0	0	0	0	0	0	0	0	0	0	247
100 °T	127	86	1	0	0	0	0	0	0	0	0	0	0	0	0	0	214
120 °T	155	107	7	0	0	0	0	0	0	0	0	0	0	0	0	0	269
140 °T	221	229	16	0	0	0	0	0	0	0	0	0	0	0	0	0	466
160 °T	325	548	158	8	0	0	0	0	0	0	0	0	0	0	0	0	1039
180 °T	452	917	619	121	7	0	0	0	0	0	0	0	0	0	0	0	2116
200 °T	400	635	556	163	8	0	0	0	0	0	0	0	0	0	0	0	1762
220 °T	245	236	67	4	0	0	0	0	0	0	0	0	0	0	0	0	552
240 °T	154	110	12	0	0	0	0	0	0	0	0	0	0	0	0	0	276
260 °T	135	84	17	0	0	0	0	0	0	0	0	0	0	0	0	0	236
280 °T	162	68	17	0	0	0	0	0	0	0	0	0	0	0	0	0	247
300 °T	178	83	20	0	0	0	0	0	0	0	0	0	0	0	0	0	281
320 °T	282	153	32	0	0	0	0	0	0	0	0	0	0	0	0	0	467
340 °T	516	672	306	77	20	1	0	0	0	0	0	0	0	0	0	0	1592
Column Total	4538	5808	3230	934	101	1	0	0	0	0	0	0	0	0	0	0	14612

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.4	6.1	6.1	2.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.9
020 °T	2.2	3.7	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
040 °T	1.4	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
060 °T	1.1	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
080 °T	1.0	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
100 °T	0.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
120 °T	1.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
140 °T	1.5	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
160 °T	2.2	3.8	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
180 °T	3.1	6.3	4.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5
200 °T	2.7	4.3	3.8	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1
220 °T	1.7	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
240 °T	1.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
260 °T	0.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
280 °T	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
300 °T	1.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
320 °T	1.9	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
340 °T	3.5	4.6	2.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
Column Total	31.1	39.7	22.1	6.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-50 - Current Statistics in 5 cm/s intervals for Mooring Reference SEDCO177 at 52.598°N, 12.420°W at 308m Above Seabed (Inst. Depth 177m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	135	298	191	113	38	16	2	0	0	0	0	0	0	0	0	0	**793**
020 °T	114	331	332	229	100	63	15	0	0	0	0	0	0	0	0	0	**1184**
040 °T	108	339	305	176	66	29	6	0	0	0	0	0	0	0	0	0	**1029**
060 °T	97	271	261	92	33	2	0	0	0	0	0	0	0	0	0	0	**756**
080 °T	106	205	135	41	13	1	0	0	0	0	0	0	0	0	0	0	**501**
100 °T	94	199	104	34	1	1	0	0	0	0	0	0	0	0	0	0	**433**
120 °T	85	223	109	22	2	0	0	0	0	0	0	0	0	0	0	0	**441**
140 °T	80	226	142	49	2	1	0	0	0	0	0	0	0	0	0	0	**500**
160 °T	111	286	233	135	17	1	0	0	0	0	0	0	0	0	0	0	**783**
180 °T	112	309	315	227	72	11	8	0	0	0	0	0	0	0	0	0	**1054**
200 °T	101	267	277	198	132	56	6	0	0	0	0	0	0	0	0	0	**1037**
220 °T	108	207	252	244	116	49	7	0	0	0	0	0	0	0	0	0	**983**
240 °T	95	192	158	93	30	10	1	0	0	0	0	0	0	0	0	0	**579**
260 °T	100	162	73	49	11	3	0	0	0	0	0	0	0	0	0	0	**398**
280 °T	92	122	50	20	4	0	0	0	0	0	0	0	0	0	0	0	**288**
300 °T	99	103	27	8	1	0	0	0	0	0	0	0	0	0	0	0	**238**
320 °T	97	128	41	10	0	0	0	0	0	0	0	0	0	0	0	0	**276**
340 °T	97	159	69	43	4	0	0	0	0	0	0	0	0	0	0	0	**372**
Column Total	**1831**	**4027**	**3074**	**1783**	**642**	**243**	**45**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11645**

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.2	2.6	1.6	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
020 °T	1.0	2.8	2.9	2.0	0.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
040 °T	0.9	2.9	2.6	1.5	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
060 °T	0.8	2.3	2.2	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
080 °T	0.9	1.8	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
100 °T	0.8	1.7	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
120 °T	0.7	1.9	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
140 °T	0.7	1.9	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
160 °T	1.0	2.5	2.0	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
180 °T	1.0	2.7	2.7	1.9	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
200 °T	0.9	2.3	2.4	1.7	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
220 °T	0.9	1.8	2.2	2.1	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
240 °T	0.8	1.6	1.4	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
260 °T	0.9	1.4	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
280 °T	0.8	1.0	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
300 °T	0.9	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
320 °T	0.8	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
340 °T	0.8	1.4	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
Column Total	**15.7**	**34.6**	**26.4**	**15.3**	**5.5**	**2.1**	**0.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100.0**

Table C-51 - Current Statistics in 5 cm/s intervals for Mooring Jack Bates 35/30-1 at 52.095°N, 12.123°W at 613m Above Seabed (Inst. Depth 83m)

APPENDIX C-6

(Porcupine Sea Bight Region 200-500m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-52	PORCA230	130	230
C-53	PORCA350	10	350
C-54	PORCB300	530	300
C-55	PORCC336	164	336
C-56	PORCC489	11	489
C-57	SEDCO324	161	324
C-58	SEDCO471	14	471
C-59	Jack Bates 35/30-1	485	215
C-60	Jack Bates 35/30-1	341	359
C-61	Jack Bates 35/30-1	213	487

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	31	51	35	21	4	2	0	0	0	0	0	0	0	0	0	0	144
020 °T	84	61	52	26	22	12	0	0	0	0	0	0	0	0	0	0	257
040 °T	15	37	7	16	2	0	0	0	0	0	0	0	0	0	0	0	77
060 °T	11	13	8	4	0	0	0	0	0	0	0	0	0	0	0	0	36
080 °T	8	6	5	2	0	0	0	0	0	0	0	0	0	0	0	0	21
100 °T	16	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	28
120 °T	82	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	93
140 °T	14	20	8	0	0	0	0	0	0	0	0	0	0	0	0	0	42
160 °T	17	32	20	0	0	0	0	0	0	0	0	0	0	0	0	0	69
180 °T	190	57	30	15	4	0	0	0	0	0	0	0	0	0	0	0	296
200 °T	67	94	60	13	0	0	0	0	0	0	0	0	0	0	0	0	234
220 °T	55	65	44	0	0	0	0	0	0	0	0	0	0	0	0	0	164
240 °T	51	32	7	0	0	0	0	0	0	0	0	0	0	0	0	0	90
260 °T	32	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	47
280 °T	39	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	57
300 °T	65	24	6	0	0	0	0	0	0	0	0	0	0	0	0	0	95
320 °T	100	26	14	0	0	0	0	0	0	0	0	0	0	0	0	0	140
340 °T	132	27	24	30	4	0	0	0	0	0	0	0	0	0	0	0	217
Column Total	1009	590	331	127	36	14	0	0	0	0	0	0	0	0	0	0	2107
	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.5	2.4	1.7	1.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
020 °T	4.0	2.9	2.5	1.2	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2
040 °T	0.7	1.8	0.3	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
060 °T	0.5	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
080 °T	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
100 °T	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
120 °T	3.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
140 °T	0.7	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
160 °T	0.8	1.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
180 °T	9.0	2.7	1.4	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
200 °T	3.2	4.5	2.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
220 °T	2.6	3.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8
240 °T	2.4	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
260 °T	1.5	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
280 °T	1.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
300 °T	3.1	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
320 °T	4.7	1.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
340 °T	6.3	1.3	1.1	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
Column Total	47.9	28.0	15.7	6.0	1.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-52 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCA230 at 53.135°N, 12.652°W at 130m Above Seabed (Inst. Depth 230m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	36	212	237	205	101	9	0	0	0	0	0	0	0	0	0	0	800
020 °T	13	181	210	111	27	2	0	0	0	0	0	0	0	0	0	0	544
040 °T	38	154	59	23	0	0	0	0	0	0	0	0	0	0	0	0	274
060 °T	29	66	21	0	0	0	0	0	0	0	0	0	0	0	0	0	116
080 °T	47	52	6	0	0	0	0	0	0	0	0	0	0	0	0	0	105
100 °T	53	44	5	0	0	0	0	0	0	0	0	0	0	0	0	0	102
120 °T	49	76	10	0	0	0	0	0	0	0	0	0	0	0	0	0	135
140 °T	54	108	24	1	0	0	0	0	0	0	0	0	0	0	0	0	187
160 °T	42	163	83	8	0	0	0	0	0	0	0	0	0	0	0	0	296
180 °T	80	167	198	128	57	1	0	0	0	0	0	0	0	0	0	0	631
200 °T	48	194	300	359	217	31	0	0	0	0	0	0	0	0	0	0	1149
220 °T	98	204	226	120	54	3	0	0	0	0	0	0	0	0	0	0	705
240 °T	85	171	63	8	0	0	0	0	0	0	0	0	0	0	0	0	327
260 °T	53	103	24	0	0	0	0	0	0	0	0	0	0	0	0	0	180
280 °T	34	89	40	0	0	0	0	0	0	0	0	0	0	0	0	0	163
300 °T	40	113	29	0	0	0	0	0	0	0	0	0	0	0	0	0	182
320 °T	60	164	64	8	0	0	0	0	0	0	0	0	0	0	0	0	296
340 °T	66	285	241	120	36	0	0	0	0	0	0	0	0	0	0	0	748
Column Total	925	2546	1840	1091	492	46	0	0	0	0	0	0	0	0	0	0	6940

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.5	3.1	3.4	3.0	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
020 °T	0.2	2.6	3.0	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8
040 °T	0.5	2.2	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
060 °T	0.4	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
080 °T	0.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
100 °T	0.8	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
120 °T	0.7	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
140 °T	0.8	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
160 °T	0.6	2.3	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
180 °T	1.2	2.4	2.9	1.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
200 °T	0.7	2.8	4.3	5.2	3.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6
220 °T	1.4	2.9	3.3	1.7	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
240 °T	1.2	2.5	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
260 °T	0.8	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
280 °T	0.5	1.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
300 °T	0.6	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
320 °T	0.9	2.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
340 °T	1.0	4.1	3.5	1.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
Column Total	13.3	36.7	26.5	15.7	7.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-53 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCA350 at 53.135°N, 12.652°W at 10m Above Seabed (Inst. Depth 350m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	56	226	152	51	29	0	0	0	0	0	0	0	0	0	0	0	514
020 °T	80	134	53	13	5	0	0	0	0	0	0	0	0	0	0	0	285
040 °T	45	48	11	0	0	0	0	0	0	0	0	0	0	0	0	0	104
060 °T	35	33	11	0	0	0	0	0	0	0	0	0	0	0	0	0	79
080 °T	64	65	1	0	0	0	0	0	0	0	0	0	0	0	0	0	130
100 °T	68	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106
120 °T	56	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83
140 °T	58	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	141
160 °T	79	123	27	2	0	0	0	0	0	0	0	0	0	0	0	0	231
180 °T	147	277	202	97	18	0	0	0	0	0	0	0	0	0	0	0	741
200 °T	118	304	225	76	2	0	0	0	0	0	0	0	0	0	0	0	725
220 °T	142	228	63	0	0	0	0	0	0	0	0	0	0	0	0	0	433
240 °T	85	88	11	0	0	0	0	0	0	0	0	0	0	0	0	0	184
260 °T	68	34	2	0	0	0	0	0	0	0	0	0	0	0	0	0	104
280 °T	90	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126
300 °T	77	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154
320 °T	101	126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	227
340 °T	100	233	45	15	8	0	0	0	0	0	0	0	0	0	0	0	401
Column Total	1469	2180	803	254	62	0	0	0	0	0	0	0	0	0	0	0	4768

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.2	4.7	3.2	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
020 °T	1.7	2.8	1.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
040 °T	0.9	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
060 °T	0.7	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
080 °T	1.3	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
100 °T	1.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
120 °T	1.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
140 °T	1.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
160 °T	1.7	2.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
180 °T	3.1	5.8	4.2	2.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.5
200 °T	2.5	6.4	4.7	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.2
220 °T	3.0	4.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
240 °T	1.8	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
260 °T	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
280 °T	1.9	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
300 °T	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
320 °T	2.1	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
340 °T	2.1	4.9	0.9	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
Column Total	30.8	45.7	16.8	5.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-54 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCB300 at 53.125°N, 12.645°W at 530m Above Seabed (Inst. Depth 300m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	243	514	505	381	119	47	8	1	0	0	0	0	0	0	0	0	1818
020 °T	161	493	415	250	68	25	2	0	0	0	0	0	0	0	0	0	1414
040 °T	181	325	257	47	2	1	0	0	0	0	0	0	0	0	0	0	813
060 °T	241	284	128	27	0	0	0	0	0	0	0	0	0	0	0	0	680
080 °T	213	209	71	19	2	0	0	0	0	0	0	0	0	0	0	0	514
100 °T	176	233	88	23	6	2	0	0	0	0	0	0	0	0	0	0	528
120 °T	178	243	51	45	3	10	0	0	0	0	0	0	0	0	0	0	530
140 °T	178	297	83	50	38	14	2	0	0	0	0	0	0	0	0	0	662
160 °T	170	410	225	129	57	41	10	0	0	0	0	0	0	0	0	0	1042
180 °T	215	522	488	279	87	39	16	2	0	0	0	0	0	0	0	0	1648
200 °T	293	515	485	324	100	14	0	0	0	0	0	0	0	0	0	0	1731
220 °T	201	439	264	121	21	2	2	1	1	0	0	0	0	0	0	0	1052
240 °T	180	409	74	61	11	0	0	0	0	0	0	0	0	0	0	0	735
260 °T	155	219	56	17	0	0	0	0	0	0	0	0	0	0	0	0	447
280 °T	141	226	52	15	0	0	0	0	0	0	0	0	0	0	0	0	434
300 °T	171	236	63	25	0	0	0	0	0	0	0	0	0	0	0	0	495
320 °T	250	271	142	62	9	4	0	0	0	0	0	0	0	0	0	0	738
340 °T	289	557	555	165	32	2	3	0	0	0	0	0	0	0	0	0	1603
Column Total	3636	6402	4002	2040	555	201	43	4	1	0	0	0	0	0	0	0	16884

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.4	3.0	3.0	2.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
020 °T	1.0	2.9	2.5	1.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
040 °T	1.1	1.9	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
060 °T	1.4	1.7	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
080 °T	1.3	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
100 °T	1.0	1.4	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
120 °T	1.1	1.4	0.3	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
140 °T	1.1	1.8	0.5	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
160 °T	1.0	2.4	1.3	0.8	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
180 °T	1.3	3.1	2.9	1.7	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
200 °T	1.7	3.1	2.9	1.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
220 °T	1.2	2.6	1.6	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
240 °T	1.1	2.4	0.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
260 °T	0.9	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
280 °T	0.8	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
300 °T	1.0	1.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
320 °T	1.5	1.6	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
340 °T	1.7	3.3	3.3	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
Column Total	21.5	37.9	23.7	12.1	3.3	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-55 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCC336 at 52.662°N, 12.748°W at 164m Above Seabed (Inst. Depth 336m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	149	366	381	288	112	77	20	5	0	0	0	0	0	0	0	0	1398
020 °T	156	482	481	187	67	28	9	3	0	0	0	0	0	0	0	0	1413
040 °T	184	449	257	47	2	1	0	0	0	0	0	0	0	0	0	0	940
060 °T	202	330	55	18	0	0	0	0	0	0	0	0	0	0	0	0	605
080 °T	266	353	121	27	0	0	0	0	0	0	0	0	0	0	0	0	767
100 °T	198	262	59	5	0	0	0	0	0	0	0	0	0	0	0	0	524
120 °T	155	239	55	13	3	1	0	0	0	0	0	0	0	0	0	0	466
140 °T	118	315	135	37	9	14	0	0	0	0	0	0	0	0	0	0	628
160 °T	139	341	245	111	63	21	0	0	0	0	0	0	0	0	0	0	920
180 °T	130	387	369	257	57	26	9	0	0	0	0	0	0	0	0	0	1235
200 °T	197	358	400	263	143	11	0	0	0	0	0	0	0	0	0	0	1372
220 °T	152	457	389	170	18	1	0	0	0	0	0	0	0	0	0	0	1187
240 °T	187	353	183	39	28	9	0	0	0	0	0	0	0	0	0	0	799
260 °T	151	301	121	39	5	0	0	0	0	0	0	0	0	0	0	0	617
280 °T	168	313	99	28	0	0	0	0	0	0	0	0	0	0	0	0	608
300 °T	140	277	106	9	0	0	0	0	0	0	0	0	0	0	0	0	532
320 °T	115	304	204	41	2	0	0	0	0	0	0	0	0	0	0	0	666
340 °T	220	563	516	185	43	8	0	0	0	0	0	0	0	0	0	0	1535
Column Total	3027	6450	4176	1764	552	197	38	8	0	0	0	0	0	0	0	0	16212

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.9	2.3	2.4	1.8	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
020 °T	1.0	3.0	3.0	1.2	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
040 °T	1.1	2.8	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
060 °T	1.2	2.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
080 °T	1.6	2.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
100 °T	1.2	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
120 °T	1.0	1.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
140 °T	0.7	1.9	0.8	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
160 °T	0.9	2.1	1.5	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
180 °T	0.8	2.4	2.3	1.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
200 °T	1.2	2.2	2.5	1.6	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
220 °T	0.9	2.8	2.4	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
240 °T	1.2	2.2	1.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
260 °T	0.9	1.9	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
280 °T	1.0	1.9	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
300 °T	0.9	1.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
320 °T	0.7	1.9	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
340 °T	1.4	3.5	3.2	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
Column Total	18.7	39.8	25.8	10.9	3.4	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-56 - Current Statistics in 5 cm/s intervals for Mooring Reference PORCC489 at 52.662°N, 12.748°W at 11m Above Seabed (Inst. Depth 489m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	259	721	801	292	35	0	0	0	0	0	0	0	0	0	0	0	2108
020 °T	153	459	324	94	3	0	0	0	0	0	0	0	0	0	0	0	1033
040 °T	117	171	34	0	0	0	0	0	0	0	0	0	0	0	0	0	322
060 °T	76	62	2	0	0	0	0	0	0	0	0	0	0	0	0	0	140
080 °T	83	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	118
100 °T	86	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109
120 °T	89	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155
140 °T	145	79	2	0	0	0	0	0	0	0	0	0	0	0	0	0	226
160 °T	211	342	49	1	0	0	0	0	0	0	0	0	0	0	0	0	603
180 °T	221	605	247	67	1	0	0	0	0	0	0	0	0	0	0	0	1141
200 °T	216	615	490	139	20	0	0	0	0	0	0	0	0	0	0	0	1480
220 °T	176	291	97	24	0	0	0	0	0	0	0	0	0	0	0	0	588
240 °T	138	120	12	0	0	0	0	0	0	0	0	0	0	0	0	0	270
260 °T	98	126	2	0	0	0	0	0	0	0	0	0	0	0	0	0	226
280 °T	102	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160
300 °T	107	60	5	0	0	0	0	0	0	0	0	0	0	0	0	0	172
320 °T	163	121	6	0	0	0	0	0	0	0	0	0	0	0	0	0	290
340 °T	255	572	149	15	0	0	0	0	0	0	0	0	0	0	0	0	991
Column Total	2695	4526	2220	632	59	0	0	0	0	0	0	0	0	0	0	0	10132

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.6	7.1	7.9	2.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.8
020 °T	1.5	4.5	3.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
040 °T	1.2	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
060 °T	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
080 °T	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
100 °T	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
120 °T	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
140 °T	1.4	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
160 °T	2.1	3.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
180 °T	2.2	6.0	2.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
200 °T	2.1	6.1	4.8	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.6
220 °T	1.7	2.9	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
240 °T	1.4	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
260 °T	1.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
280 °T	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
300 °T	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
320 °T	1.6	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
340 °T	2.5	5.6	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
Column Total	26.6	44.7	21.9	6.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-57 - Current Statistics in 5 cm/s intervals for Mooring Reference SEDCO324 at 52.598°N, 12.420°W at 161m Above Seabed (Inst. Depth 324m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	161	731	575	310	80	9	0	0	0	0	0	0	0	0	0	0	1866
020 °T	191	463	504	226	18	1	0	0	0	0	0	0	0	0	0	0	1403
040 °T	195	188	13	0	0	0	0	0	0	0	0	0	0	0	0	0	396
060 °T	196	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	239
080 °T	154	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	170
100 °T	146	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	166
120 °T	149	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	192
140 °T	150	135	4	0	0	0	0	0	0	0	0	0	0	0	0	0	289
160 °T	156	340	53	26	3	0	0	0	0	0	0	0	0	0	0	0	578
180 °T	150	528	350	105	1	0	0	0	0	0	0	0	0	0	0	0	1134
200 °T	125	458	351	251	67	2	0	0	0	0	0	0	0	0	0	0	1254
220 °T	151	436	339	90	5	0	0	0	0	0	0	0	0	0	0	0	1021
240 °T	203	332	37	7	0	0	0	0	0	0	0	0	0	0	0	0	579
260 °T	138	132	9	0	0	0	0	0	0	0	0	0	0	0	0	0	279
280 °T	133	87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220
300 °T	194	114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	308
320 °T	210	239	31	16	0	0	0	0	0	0	0	0	0	0	0	0	496
340 °T	310	787	430	173	28	0	0	0	0	0	0	0	0	0	0	0	1728
Column Total	3112	5091	2697	1204	202	12	0	0	0	0	0	0	0	0	0	0	12318
	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.3	5.9	4.7	2.5	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.1
020 °T	1.6	3.8	4.1	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4
040 °T	1.6	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
060 °T	1.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
080 °T	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
100 °T	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
120 °T	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
140 °T	1.2	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
160 °T	1.3	2.8	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
180 °T	1.2	4.3	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2
200 °T	1.0	3.7	2.8	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
220 °T	1.2	3.5	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
240 °T	1.6	2.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
260 °T	1.1	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
280 °T	1.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
300 °T	1.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
320 °T	1.7	1.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
340 °T	2.5	6.4	3.5	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0
Column Total	25.3	41.3	21.9	9.8	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-58 - Current Statistics in 5 cm/s intervals for Mooring Reference SEDCO471 at 52.598°N, 12.420°W at 14m Above Seabed (Inst. Depth 471m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	120	275	259	231	74	25	0	0	0	0	0	0	0	0	0	0	**984**
020 °T	127	451	485	274	40	10	0	0	0	0	0	0	0	0	0	0	**1387**
040 °T	104	429	470	257	38	15	2	0	0	0	0	0	0	0	0	0	**1315**
060 °T	97	372	265	73	9	5	0	0	0	0	0	0	0	0	0	0	**821**
080 °T	118	217	110	5	6	0	0	0	0	0	0	0	0	0	0	0	**456**
100 °T	106	147	45	8	0	0	0	0	0	0	0	0	0	0	0	0	**306**
120 °T	116	131	29	3	0	0	0	0	0	0	0	0	0	0	0	0	**279**
140 °T	116	170	44	6	1	0	0	0	0	0	0	0	0	0	0	0	**337**
160 °T	131	289	122	24	3	0	0	0	0	0	0	0	0	0	0	0	**569**
180 °T	140	440	345	188	85	12	0	0	0	0	0	0	0	0	0	0	**1210**
200 °T	103	399	406	342	117	47	4	0	0	0	0	0	0	0	0	0	**1418**
220 °T	116	295	296	151	35	5	1	0	0	0	0	0	0	0	0	0	**899**
240 °T	92	203	113	39	4	0	0	0	0	0	0	0	0	0	0	0	**451**
260 °T	80	138	44	1	0	0	0	0	0	0	0	0	0	0	0	0	**263**
280 °T	83	86	12	0	0	0	0	0	0	0	0	0	0	0	0	0	**181**
300 °T	67	86	24	2	0	0	0	0	0	0	0	0	0	0	0	0	**179**
320 °T	93	125	35	2	0	0	0	0	0	0	0	0	0	0	0	0	**255**
340 °T	100	157	112	55	11	0	0	0	0	0	0	0	0	0	0	0	**435**
Column Total	**1909**	**4410**	**3216**	**1661**	**423**	**119**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11745**

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.0	2.3	2.2	2.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.4
020 °T	1.1	3.8	4.1	2.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8
040 °T	0.9	3.7	4.0	2.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
060 °T	0.8	3.2	2.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
080 °T	1.0	1.8	0.9	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
100 °T	0.9	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
120 °T	1.0	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
140 °T	1.0	1.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
160 °T	1.1	2.5	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
180 °T	1.2	3.7	2.9	1.6	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
200 °T	0.9	3.4	3.5	2.9	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1
220 °T	1.0	2.5	2.5	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
240 °T	0.8	1.7	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
260 °T	0.7	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
280 °T	0.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
300 °T	0.6	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
320 °T	0.8	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
340 °T	0.9	1.3	1.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
Column Total	**16.3**	**37.5**	**27.4**	**14.1**	**3.6**	**1.0**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100.0**

Table C-59 - Current Statistics in 5 cm/s intervals for Mooring Jack Bates 35/30-1 at 52.095°N, 12.123°W at 485m Above Seabed (Inst. Depth 215m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	184	381	427	185	33	1	0	0	0	0	0	0	0	0	0	0	**1211**
020 °T	159	634	664	252	20	0	0	0	0	0	0	0	0	0	0	0	**1729**
040 °T	146	572	506	102	19	5	0	0	0	0	0	0	0	0	0	0	**1350**
060 °T	163	372	228	65	6	1	0	0	0	0	0	0	0	0	0	0	**835**
080 °T	176	256	81	12	0	0	0	0	0	0	0	0	0	0	0	0	**525**
100 °T	152	160	32	3	0	0	0	0	0	0	0	0	0	0	0	0	**347**
120 °T	129	196	27	2	0	1	0	0	0	0	0	0	0	0	0	0	**355**
140 °T	172	255	74	0	1	0	0	0	0	0	0	0	0	0	0	0	**502**
160 °T	191	392	226	56	4	0	0	0	0	0	0	0	0	0	0	0	**869**
180 °T	173	570	558	295	69	12	0	0	0	0	0	0	0	0	0	0	**1677**
200 °T	145	494	506	274	91	31	1	0	0	0	0	0	0	0	0	0	**1542**
220 °T	143	334	148	78	12	5	5	0	0	0	0	0	0	0	0	0	**725**
240 °T	115	163	29	3	0	0	0	0	0	0	0	0	0	0	0	0	**310**
260 °T	100	91	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**193**
280 °T	71	67	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**140**
300 °T	92	68	4	0	0	0	0	0	0	0	0	0	0	0	0	0	**164**
320 °T	92	87	18	0	0	0	0	0	0	0	0	0	0	0	0	0	**197**
340 °T	129	186	104	41	0	0	0	0	0	0	0	0	0	0	0	0	**460**
Column Total	**2532**	**5278**	**3636**	**1368**	**255**	**56**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**13131**

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.4	2.9	3.3	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2
020 °T	1.2	4.8	5.1	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2
040 °T	1.1	4.4	3.9	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
060 °T	1.2	2.8	1.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
080 °T	1.3	1.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
100 °T	1.2	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
120 °T	1.0	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
140 °T	1.3	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
160 °T	1.5	3.0	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
180 °T	1.3	4.3	4.2	2.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8
200 °T	1.1	3.8	3.9	2.1	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7
220 °T	1.1	2.5	1.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
240 °T	0.9	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
260 °T	0.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
280 °T	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
300 °T	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
320 °T	0.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
340 °T	1.0	1.4	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Column Total	**19.3**	**40.2**	**27.7**	**10.4**	**1.9**	**0.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100.0**

Table C-60 - Current Statistics in 5 cm/s intervals for Mooring Jack Bates 35/30-1 at 52.095°N, 12.123°W at 341m Above Seabed (Inst. Depth 359m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	150	464	438	113	0	0	0	0	0	0	0	0	0	0	0	0	**1165**
020 °T	198	651	548	111	5	0	0	0	0	0	0	0	0	0	0	0	**1513**
040 °T	226	602	317	26	0	0	0	0	0	0	0	0	0	0	0	0	**1171**
060 °T	185	392	154	21	0	0	0	0	0	0	0	0	0	0	0	0	**752**
080 °T	223	302	47	2	0	0	0	0	0	0	0	0	0	0	0	0	**574**
100 °T	236	239	33	2	0	0	0	0	0	0	0	0	0	0	0	0	**510**
120 °T	200	248	45	0	0	0	0	0	0	0	0	0	0	0	0	0	**493**
140 °T	196	383	76	4	0	0	0	0	0	0	0	0	0	0	0	0	**659**
160 °T	229	533	300	37	2	0	0	0	0	0	0	0	0	0	0	0	**1101**
180 °T	225	691	677	220	34	0	0	0	0	0	0	0	0	0	0	0	**1847**
200 °T	148	485	357	188	62	17	0	0	0	0	0	0	0	0	0	0	**1257**
220 °T	114	205	106	16	17	2	0	0	0	0	0	0	0	0	0	0	**460**
240 °T	124	100	11	1	0	0	0	0	0	0	0	0	0	0	0	0	**236**
260 °T	119	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**171**
280 °T	89	48	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**138**
300 °T	82	58	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**141**
320 °T	121	122	16	1	0	0	0	0	0	0	0	0	0	0	0	0	**260**
340 °T	142	210	133	6	0	0	0	0	0	0	0	0	0	0	0	0	**491**
Column Total	**3007**	**5785**	**3260**	**748**	**120**	**19**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12939**

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.2	3.6	3.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
020 °T	1.5	5.0	4.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.7
040 °T	1.7	4.7	2.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
060 °T	1.4	3.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
080 °T	1.7	2.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
100 °T	1.8	1.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
120 °T	1.5	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
140 °T	1.5	3.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
160 °T	1.8	4.1	2.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
180 °T	1.7	5.3	5.2	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.3
200 °T	1.1	3.7	2.8	1.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
220 °T	0.9	1.6	0.8	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
240 °T	1.0	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
260 °T	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
280 °T	0.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
300 °T	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
320 °T	0.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
340 °T	1.1	1.6	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
Column Total	**23.2**	**44.7**	**25.2**	**5.8**	**0.9**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100.0**

Table C-61 - Current Statistics in 5 cm/s intervals for Mooring Jack Bates 35/30-1 at 52.095°N, 12.123°W at 213m Above Seabed (Inst. Depth 487m)

APPENDIX C-7

(Porcupine Sea Bight Region 500-1000m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-62	Jack Bates 35/30-1	69	631

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	191	374	152	35	2	0	0	0	0	0	0	0	0	0	0	0	**754**
020 °T	145	318	166	15	0	0	0	0	0	0	0	0	0	0	0	0	**644**
040 °T	146	340	89	25	0	0	0	0	0	0	0	0	0	0	0	0	**600**
060 °T	145	305	158	25	0	0	0	0	0	0	0	0	0	0	0	0	**633**
080 °T	178	316	77	19	0	0	0	0	0	0	0	0	0	0	0	0	**590**
100 °T	162	385	95	22	0	0	0	0	0	0	0	0	0	0	0	0	**664**
120 °T	186	498	213	39	0	0	0	0	0	0	0	0	0	0	0	0	**936**
140 °T	155	597	293	94	9	0	0	0	0	0	0	0	0	0	0	0	**1148**
160 °T	169	690	495	186	34	1	0	0	0	0	0	0	0	0	0	0	**1575**
180 °T	196	506	443	217	23	1	0	0	0	0	0	0	0	0	0	0	**1386**
200 °T	106	376	190	101	4	0	0	0	0	0	0	0	0	0	0	0	**777**
220 °T	87	204	81	12	0	0	0	0	0	0	0	0	0	0	0	0	**384**
240 °T	118	172	50	23	0	0	0	0	0	0	0	0	0	0	0	0	**363**
260 °T	127	166	37	2	0	0	0	0	0	0	0	0	0	0	0	0	**332**
280 °T	115	159	15	0	0	0	0	0	0	0	0	0	0	0	0	0	**289**
300 °T	110	179	31	3	0	0	0	0	0	0	0	0	0	0	0	0	**323**
320 °T	130	248	65	13	0	0	0	0	0	0	0	0	0	0	0	0	**456**
340 °T	133	264	137	12	0	0	0	0	0	0	0	0	0	0	0	0	**546**
Column Total	**2599**	**6097**	**2787**	**843**	**72**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12400**

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.5	3.0	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
020 °T	1.2	2.6	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
040 °T	1.2	2.7	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
060 °T	1.2	2.5	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
080 °T	1.4	2.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
100 °T	1.3	3.1	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
120 °T	1.5	4.0	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
140 °T	1.3	4.8	2.4	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3
160 °T	1.4	5.6	4.0	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7
180 °T	1.6	4.1	3.6	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
200 °T	0.9	3.0	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
220 °T	0.7	1.6	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
240 °T	1.0	1.4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
260 °T	1.0	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
280 °T	0.9	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
300 °T	0.9	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
320 °T	1.0	2.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
340 °T	1.1	2.1	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Column Total	**21.0**	**49.2**	**22.5**	**6.8**	**0.6**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**100.0**

Table C-62 - Current Statistics in 5 cm/s intervals for Mooring Jack Bates at 52.095°N, 12.123°W at 69m Above Seabed (Instrument Depth 631m)

APPENDIX C-8

(OMEX Region 0-200m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-63	3664	185	23
C-64	3665	134	74
C-65	3157	115	50
C-66	9592	800	196
C-67	9591	112	30
C-68	9590	112	30
C-69	9589	42	100

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0	8	37	52	49	63	61	36	25	27	12	6	3	3	3	0	385
020 °T	0	18	42	50	61	69	83	80	50	34	38	12	10	8	3	0	559
040 °T	0	12	34	42	62	79	86	93	54	41	32	23	19	18	9	7	616
060 °T	0	10	28	31	47	78	79	54	49	48	45	27	24	15	10	4	555
080 °T	1	9	17	22	45	58	54	48	41	34	22	16	18	16	5	1	409
100 °T	0	7	8	23	28	45	45	58	33	24	11	8	8	0	1	0	299
120 °T	0	4	9	21	26	39	45	38	34	12	10	3	2	0	0	0	243
140 °T	1	3	13	21	40	51	51	42	29	25	5	3	3	1	0	0	288
160 °T	0	7	13	32	42	68	50	73	43	31	17	5	0	1	0	0	382
180 °T	1	4	27	41	47	83	87	95	71	51	34	17	5	7	3	2	575
200 °T	1	2	11	43	91	122	141	115	108	75	41	17	19	8	2	0	796
220 °T	0	12	26	48	81	82	100	66	60	48	29	15	8	7	1	0	583
240 °T	0	4	26	48	74	67	72	50	21	21	10	0	2	1	0	0	396
260 °T	0	7	29	42	77	68	44	24	21	3	7	0	1	0	0	0	323
280 °T	0	4	31	39	50	40	21	13	17	4	2	0	0	0	0	0	221
300 °T	1	9	32	51	37	34	28	14	16	5	0	1	0	0	0	0	228
320 °T	0	3	38	33	38	33	28	15	9	9	0	0	0	0	0	0	206
340 °T	0	17	31	42	48	48	27	21	15	8	4	3	2	0	0	0	266
Column Total	5	140	452	681	943	1127	1102	935	696	500	319	156	124	85	37	14	7330

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.0	0.1	0.5	0.7	0.7	0.9	0.8	0.5	0.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	5.3
020 °T	0.0	0.2	0.6	0.7	0.8	0.9	1.1	1.1	0.7	0.5	0.5	0.2	0.1	0.1	0.0	0.0	7.6
040 °T	0.0	0.2	0.5	0.6	0.8	1.1	1.2	1.3	0.7	0.6	0.4	0.3	0.3	0.2	0.1	0.1	8.4
060 °T	0.0	0.1	0.4	0.4	0.6	1.1	1.1	0.7	0.7	0.7	0.6	0.4	0.3	0.2	0.1	0.1	7.6
080 °T	0.0	0.1	0.2	0.3	0.6	0.8	0.7	0.7	0.6	0.5	0.3	0.2	0.2	0.2	0.1	0.0	5.6
100 °T	0.0	0.1	0.1	0.3	0.4	0.6	0.6	0.8	0.5	0.3	0.2	0.1	0.1	0.0	0.0	0.0	4.1
120 °T	0.0	0.1	0.1	0.3	0.4	0.5	0.6	0.5	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	3.3
140 °T	0.0	0.0	0.2	0.3	0.5	0.7	0.7	0.6	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	3.9
160 °T	0.0	0.1	0.2	0.4	0.6	0.9	0.7	1.0	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	5.2
180 °T	0.0	0.1	0.4	0.6	0.6	1.1	1.2	1.3	1.0	0.7	0.5	0.2	0.1	0.1	0.0	0.0	7.8
200 °T	0.0	0.0	0.2	0.6	1.2	1.7	1.9	1.6	1.5	1.0	0.6	0.2	0.3	0.1	0.0	0.0	10.9
220 °T	0.0	0.2	0.4	0.7	1.1	1.1	1.4	0.9	0.8	0.7	0.4	0.2	0.1	0.1	0.0	0.0	8.0
240 °T	0.0	0.1	0.4	0.7	1.0	0.9	1.0	0.7	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	5.4
260 °T	0.0	0.1	0.4	0.6	1.1	0.9	0.6	0.3	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	4.4
280 °T	0.0	0.1	0.4	0.5	0.7	0.5	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.0
300 °T	0.0	0.1	0.4	0.7	0.5	0.5	0.4	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.1
320 °T	0.0	0.0	0.5	0.5	0.5	0.5	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.8
340 °T	0.0	0.2	0.4	0.6	0.7	0.7	0.4	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	3.6
Column Total	0.1	1.9	6.2	9.3	12.9	15.4	15.0	12.8	9.5	6.8	4.4	2.1	1.7	1.2	0.5	0.2	100.0

Table C-63 - Current Statistics in 5 cm/s intervals for Mooring Reference 3664 at 48.683°N, 9.607°W at 185m Above Seabed (Instrument Depth 23m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0	12	39	66	45	35	18	14	11	8	5	3	0	0	0	0	256
020 °T	0	13	40	77	97	86	65	35	19	5	4	2	0	0	0	0	443
040 °T	0	11	51	92	157	135	157	126	46	25	9	4	2	0	0	0	815
060 °T	0	4	36	96	106	79	65	55	38	20	14	4	0	0	0	0	517
080 °T	0	9	51	82	61	52	39	19	22	9	2	2	0	0	0	0	348
100 °T	0	15	53	62	59	38	20	12	4	0	0	0	0	0	0	0	263
120 °T	0	9	48	68	32	31	13	9	1	0	0	0	0	0	0	0	211
140 °T	0	19	50	79	46	28	11	7	1	0	0	0	0	0	0	0	241
160 °T	0	5	42	123	83	44	16	5	1	0	0	0	0	0	0	0	319
180 °T	0	11	47	104	112	73	32	12	5	1	0	0	0	0	0	0	397
200 °T	0	10	54	111	160	100	63	35	15	6	0	0	0	0	0	0	554
220 °T	0	11	39	68	82	54	29	20	11	10	3	0	0	0	0	0	327
240 °T	0	10	37	59	51	38	13	6	10	12	5	0	0	0	0	0	241
260 °T	0	8	48	42	35	33	10	14	8	7	2	1	0	0	0	0	208
280 °T	0	10	18	30	20	25	10	20	9	3	0	0	0	0	0	0	145
300 °T	0	9	31	28	23	15	12	13	5	0	0	0	0	0	0	0	136
320 °T	0	11	30	27	24	20	12	10	8	2	0	0	0	0	0	0	144
340 °T	0	11	32	54	35	20	18	14	5	3	0	0	0	0	0	0	192
Column Total	0	188	746	1268	1228	906	603	426	219	111	44	16	2	0	0	0	5757

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.0	0.2	0.7	1.1	0.8	0.6	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	4.4
020 °T	0.0	0.2	0.7	1.3	1.7	1.5	1.1	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	7.7
040 °T	0.0	0.2	0.9	1.6	2.7	2.3	2.7	2.2	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	14.2
060 °T	0.0	0.1	0.6	1.7	1.8	1.4	1.1	1.0	0.7	0.3	0.2	0.1	0.0	0.0	0.0	0.0	9.0
080 °T	0.0	0.2	0.9	1.4	1.1	0.9	0.7	0.3	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	6.0
100 °T	0.0	0.3	0.9	1.1	1.0	0.7	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
120 °T	0.0	0.2	0.8	1.2	0.6	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
140 °T	0.0	0.3	0.9	1.4	0.8	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
160 °T	0.0	0.1	0.7	2.1	1.4	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
180 °T	0.0	0.2	0.8	1.8	1.9	1.3	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
200 °T	0.0	0.2	0.9	1.9	2.8	1.7	1.1	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.6
220 °T	0.0	0.2	0.7	1.2	1.4	0.9	0.5	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	5.7
240 °T	0.0	0.2	0.6	1.0	0.9	0.7	0.2	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	4.2
260 °T	0.0	0.1	0.8	0.7	0.6	0.6	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.6
280 °T	0.0	0.2	0.3	0.5	0.3	0.4	0.2	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.5
300 °T	0.0	0.2	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
320 °T	0.0	0.2	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
340 °T	0.0	0.2	0.6	0.9	0.6	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Column Total	0.0	3.3	13.0	22.0	21.3	15.7	10.5	7.4	3.8	1.9	0.8	0.3	0.0	0.0	0.0	0.0	100.0

Table C-64 - Current Statistics in 5 cm/s intervals for Mooring Reference 3665 at 48.683°N, 9.607°W at 134m Above Seabed (Instrument Depth 74m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	9	18	64	173	279	242	291	342	384	197	37	0	0	0	0	0	2036
020 °T	8	12	40	104	220	323	409	423	438	408	287	113	2	0	0	0	2787
040 °T	2	5	18	109	144	236	395	582	542	637	272	269	9	0	0	0	3220
060 °T	1	4	48	114	214	257	304	492	517	433	301	18	0	0	0	0	2703
080 °T	4	7	38	105	206	238	373	398	307	139	9	0	0	0	0	0	1824
100 °T	2	10	38	108	162	281	294	344	146	14	1	0	0	0	0	0	1400
120 °T	0	11	38	142	166	266	357	281	70	6	1	0	0	0	0	0	1338
140 °T	1	12	52	166	174	279	326	360	74	10	0	0	0	0	0	0	1454
160 °T	4	5	48	130	191	274	365	474	209	44	5	2	0	0	0	0	1751
180 °T	4	4	37	86	213	290	532	482	532	188	52	7	0	0	0	0	2427
200 °T	3	12	57	69	182	267	427	546	463	523	225	35	1	0	0	0	2810
220 °T	5	7	32	64	161	355	326	402	484	616	341	78	6	0	0	0	2877
240 °T	1	16	25	143	300	281	207	299	501	499	211	27	0	0	0	0	2510
260 °T	1	21	74	170	221	163	238	308	348	136	8	0	0	0	0	0	1688
280 °T	1	12	113	149	124	171	274	295	123	3	0	0	0	0	0	0	1265
300 °T	3	20	92	161	166	201	251	182	39	0	0	0	0	0	0	0	1115
320 °T	0	19	101	215	128	223	247	242	29	0	0	0	0	0	0	0	1204
340 °T	8	26	82	226	182	248	273	283	133	28	0	0	0	0	0	0	1489
Column Total	57	221	997	2434	3433	4595	5889	6735	5339	3881	1750	549	18	0	0	0	35898

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.0	0.1	0.2	0.5	0.8	0.7	0.8	1.0	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	5.7
020 °T	0.0	0.0	0.1	0.3	0.6	0.9	1.1	1.2	1.2	1.1	0.8	0.3	0.0	0.0	0.0	0.0	7.8
040 °T	0.0	0.0	0.1	0.3	0.4	0.7	1.1	1.6	1.5	1.8	0.8	0.7	0.0	0.0	0.0	0.0	9.0
060 °T	0.0	0.0	0.1	0.3	0.6	0.7	0.8	1.4	1.4	1.2	0.8	0.1	0.0	0.0	0.0	0.0	7.5
080 °T	0.0	0.0	0.1	0.3	0.6	0.7	1.0	1.1	0.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	5.1
100 °T	0.0	0.0	0.1	0.3	0.5	0.8	0.8	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
120 °T	0.0	0.0	0.1	0.4	0.5	0.7	1.0	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
140 °T	0.0	0.0	0.1	0.5	0.5	0.8	0.9	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
160 °T	0.0	0.0	0.1	0.4	0.5	0.8	1.0	1.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.9
180 °T	0.0	0.0	0.1	0.2	0.6	0.8	1.5	1.3	1.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	6.8
200 °T	0.0	0.0	0.2	0.2	0.5	0.7	1.2	1.5	1.3	1.5	0.6	0.1	0.0	0.0	0.0	0.0	7.8
220 °T	0.0	0.0	0.1	0.2	0.4	1.0	0.9	1.1	1.3	1.7	0.9	0.2	0.0	0.0	0.0	0.0	8.0
240 °T	0.0	0.0	0.1	0.4	0.8	0.8	0.6	0.8	1.4	1.4	0.6	0.1	0.0	0.0	0.0	0.0	7.0
260 °T	0.0	0.1	0.2	0.5	0.6	0.5	0.7	0.9	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	4.7
280 °T	0.0	0.0	0.3	0.4	0.3	0.5	0.8	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
300 °T	0.0	0.1	0.3	0.4	0.5	0.6	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
320 °T	0.0	0.1	0.3	0.6	0.4	0.6	0.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
340 °T	0.0	0.1	0.2	0.6	0.5	0.7	0.8	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.1
Column Total	0.2	0.6	2.8	6.8	9.6	12.8	16.4	18.8	14.9	10.8	4.9	1.5	0.1	0.0	0.0	0.0	100.0

Table C-65 - Current Statistics in 5 cm/s intervals for Mooring Reference 3157 at 48.710°N, 8.962°W at 115m Above Seabed (Inst. Depth 50m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	206	356	259	141	41	7	0	0	0	0	0	0	0	0	0	0	1010
020 °T	181	281	227	106	38	4	0	0	0	0	0	0	0	0	0	0	837
040 °T	138	250	163	84	38	4	3	0	0	0	0	0	0	0	0	0	680
060 °T	133	218	152	89	37	4	3	0	0	0	0	0	0	0	0	0	636
080 °T	100	146	100	44	24	14	8	0	0	0	0	0	0	0	0	0	436
100 °T	95	156	86	44	14	10	1	0	0	0	0	0	0	0	0	0	406
120 °T	83	129	81	24	3	2	1	0	0	0	0	0	0	0	0	0	323
140 °T	107	139	116	47	22	9	1	0	0	0	0	0	0	0	0	0	441
160 °T	92	157	118	75	21	12	5	0	0	0	0	0	0	0	0	0	480
180 °T	122	182	125	77	47	33	9	6	0	0	0	0	0	0	0	0	601
200 °T	145	202	169	92	44	27	9	3	0	0	0	0	0	0	0	0	691
220 °T	179	222	172	85	38	15	3	0	0	0	0	0	0	0	0	0	714
240 °T	174	169	143	77	26	7	0	0	0	0	0	0	0	0	0	0	596
260 °T	168	199	133	75	17	1	0	0	0	0	0	0	0	0	0	0	593
280 °T	177	231	141	66	26	2	0	0	0	0	0	0	0	0	0	0	643
300 °T	194	272	171	89	27	3	0	0	0	0	0	0	0	0	0	0	756
320 °T	220	317	196	124	49	18	0	0	0	0	0	0	0	0	0	0	924
340 °T	195	307	251	123	37	5	1	0	0	0	0	0	0	0	0	0	919
Column Total	2709	3933	2803	1462	549	177	44	9	0	0	0	0	0	0	0	0	11686

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.8	3.0	2.2	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
020 °T	1.5	2.4	1.9	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
040 °T	1.2	2.1	1.4	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
060 °T	1.1	1.9	1.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
080 °T	0.9	1.2	0.9	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
100 °T	0.8	1.3	0.7	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
120 °T	0.7	1.1	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
140 °T	0.9	1.2	1.0	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
160 °T	0.8	1.3	1.0	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
180 °T	1.0	1.6	1.1	0.7	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
200 °T	1.2	1.7	1.4	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
220 °T	1.5	1.9	1.5	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
240 °T	1.5	1.4	1.2	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
260 °T	1.4	1.7	1.1	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
280 °T	1.5	2.0	1.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
300 °T	1.7	2.3	1.5	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
320 °T	1.9	2.7	1.7	1.1	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9
340 °T	1.7	2.6	2.1	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9
Column Total	23.2	33.7	24.0	12.5	4.7	1.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-66 - Current Statistics in 5 cm/s intervals for Mooring Reference 9592 at 49.108°N, 12.181°W at 800m Above Seabed (Instrument Depth 196m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	7	7	14	11	14	4	3	2	1	0	0	0	0	0	0	0	63
020 °T	0	4	14	13	21	22	16	5	2	4	0	0	0	0	0	0	101
040 °T	1	9	9	12	14	14	16	20	16	3	1	2	0	0	0	0	117
060 °T	6	5	6	14	15	10	8	13	8	6	2	1	0	0	0	0	94
080 °T	1	4	3	4	5	8	7	8	9	2	2	3	1	0	0	0	57
100 °T	1	3	5	6	3	6	9	6	7	5	4	2	0	0	0	0	57
120 °T	1	7	4	12	3	4	4	9	3	3	4	2	0	0	0	0	56
140 °T	2	1	4	7	8	13	9	8	6	5	1	0	0	0	0	0	64
160 °T	3	5	4	4	6	5	10	4	8	9	0	3	0	0	0	0	61
180 °T	3	8	3	6	7	13	13	11	3	4	4	2	0	0	0	0	77
200 °T	3	5	11	9	8	14	3	7	6	5	0	0	0	0	0	0	71
220 °T	0	10	4	12	15	8	8	5	2	1	3	0	0	0	0	0	68
240 °T	8	4	12	6	11	6	7	1	2	1	0	0	0	0	0	0	58
260 °T	2	9	11	10	6	4	0	2	0	0	0	0	0	0	0	0	44
280 °T	0	5	9	4	5	0	1	2	0	0	0	0	0	0	0	0	26
300 °T	3	6	10	6	3	2	0	0	0	0	0	0	0	0	0	0	30
320 °T	3	9	6	8	2	2	2	0	0	0	0	0	0	0	0	0	32
340 °T	1	14	9	10	3	2	0	1	0	0	0	0	0	0	0	0	40
Column Total	45	115	138	154	149	137	116	104	73	48	21	15	1	0	0	0	1116

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.6	0.6	1.3	1.0	1.3	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
020 °T	0.0	0.4	1.3	1.2	1.9	2.0	1.4	0.4	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	9.1
040 °T	0.1	0.8	0.8	1.1	1.3	1.3	1.4	1.8	1.4	0.3	0.1	0.2	0.0	0.0	0.0	0.0	10.5
060 °T	0.5	0.4	0.5	1.3	1.3	0.9	0.7	1.2	0.7	0.5	0.2	0.1	0.0	0.0	0.0	0.0	8.4
080 °T	0.1	0.4	0.3	0.4	0.4	0.7	0.6	0.7	0.8	0.2	0.2	0.3	0.1	0.0	0.0	0.0	5.1
100 °T	0.1	0.3	0.4	0.5	0.3	0.5	0.8	0.5	0.6	0.4	0.4	0.2	0.0	0.0	0.0	0.0	5.1
120 °T	0.1	0.6	0.4	1.1	0.3	0.4	0.4	0.8	0.3	0.3	0.4	0.2	0.0	0.0	0.0	0.0	5.0
140 °T	0.2	0.1	0.4	0.6	0.7	1.2	0.8	0.7	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	5.7
160 °T	0.3	0.4	0.4	0.4	0.5	0.4	0.9	0.4	0.7	0.8	0.0	0.3	0.0	0.0	0.0	0.0	5.5
180 °T	0.3	0.7	0.3	0.5	0.6	1.2	1.2	1.0	0.3	0.4	0.4	0.2	0.0	0.0	0.0	0.0	6.9
200 °T	0.3	0.4	1.0	0.8	0.7	1.3	0.3	0.6	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	6.4
220 °T	0.0	0.9	0.4	1.1	1.3	0.7	0.7	0.4	0.2	0.1	0.3	0.0	0.0	0.0	0.0	0.0	6.1
240 °T	0.7	0.4	1.1	0.5	1.0	0.5	0.6	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.2
260 °T	0.2	0.8	1.0	0.9	0.5	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
280 °T	0.0	0.4	0.8	0.4	0.4	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
300 °T	0.3	0.5	0.9	0.5	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
320 °T	0.3	0.8	0.5	0.7	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
340 °T	0.1	1.3	0.8	0.9	0.3	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
Column Total	4.0	10.3	12.4	13.8	13.4	12.3	10.4	9.3	6.5	4.3	1.9	1.3	0.1	0.0	0.0	0.0	100.0

Table C-67 - Current Statistics in 5 cm/s intervals for Mooring Reference 9591 at 49.146°N, 10.520°W at 112m Above Seabed (Instrument Depth 30m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3	14	15	15	23	19	9	9	2	0	1	0	0	0	0	0	110
020 °T	3	14	24	33	22	28	29	19	11	4	2	2	0	0	0	0	191
040 °T	6	10	21	26	40	40	32	31	24	8	4	3	2	0	0	0	247
060 °T	1	11	20	14	29	35	35	20	11	8	3	2	0	0	0	0	189
080 °T	1	7	10	14	27	17	13	9	4	2	1	1	0	1	0	0	107
100 °T	4	4	7	9	21	19	9	6	2	1	1	0	0	0	0	0	83
120 °T	2	5	7	8	16	19	11	5	1	2	0	0	0	0	0	0	76
140 °T	2	9	9	21	15	12	14	10	4	1	0	0	0	0	0	0	97
160 °T	1	8	10	14	22	20	8	6	1	0	0	0	0	0	0	0	90
180 °T	2	5	7	19	19	19	14	8	4	0	0	0	0	0	0	0	97
200 °T	2	5	11	14	19	21	21	7	4	0	0	0	0	0	0	0	104
220 °T	3	7	8	20	24	12	20	5	5	0	0	0	0	0	0	0	104
240 °T	5	6	4	20	22	8	2	5	3	0	0	0	0	0	0	0	75
260 °T	4	10	14	20	12	8	11	1	1	0	0	0	0	0	0	0	81
280 °T	4	9	11	15	9	7	6	0	0	0	0	0	0	0	0	0	61
300 °T	2	9	12	22	10	11	1	1	1	0	0	0	0	0	0	0	69
320 °T	1	14	11	12	13	8	6	2	1	0	0	0	0	0	0	0	68
340 °T	2	12	19	16	16	14	5	4	0	0	0	0	0	0	0	0	88
Column Total	48	159	220	312	359	317	246	148	79	26	12	8	2	1	0	0	1937

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.2	0.7	0.8	0.8	1.2	1.0	0.5	0.5	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	5.7
020 °T	0.2	0.7	1.2	1.7	1.1	1.4	1.5	1.0	0.6	0.2	0.1	0.1	0.0	0.0	0.0	0.0	9.9
040 °T	0.3	0.5	1.1	1.3	2.1	2.1	1.7	1.6	1.2	0.4	0.2	0.2	0.1	0.0	0.0	0.0	12.8
060 °T	0.1	0.6	1.0	0.7	1.5	1.8	1.8	1.0	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	9.8
080 °T	0.1	0.4	0.5	0.7	1.4	0.9	0.7	0.5	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	5.5
100 °T	0.2	0.2	0.4	0.5	1.1	1.0	0.5	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	4.3
120 °T	0.1	0.3	0.4	0.4	0.8	1.0	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	3.9
140 °T	0.1	0.5	0.5	1.1	0.8	0.6	0.7	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.0
160 °T	0.1	0.4	0.5	0.7	1.1	1.0	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
180 °T	0.1	0.3	0.4	1.0	1.0	1.0	0.7	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
200 °T	0.1	0.3	0.6	0.7	1.0	1.1	1.1	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
220 °T	0.2	0.4	0.4	1.0	1.2	0.6	1.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
240 °T	0.3	0.3	0.2	1.0	1.1	0.4	0.1	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
260 °T	0.2	0.5	0.7	1.0	0.6	0.4	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
280 °T	0.2	0.5	0.6	0.8	0.5	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
300 °T	0.1	0.5	0.6	1.1	0.5	0.6	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
320 °T	0.1	0.7	0.6	0.6	0.7	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
340 °T	0.1	0.6	1.0	0.8	0.8	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
Column Total	2.5	8.2	11.4	16.1	18.5	16.4	12.7	7.6	4.1	1.3	0.6	0.4	0.1	0.1	0.0	0.0	100.0

Table C-68 - Current Statistics in 5 cm/s intervals for Mooring Reference 9590 at 49.151°N, 10.514°W at 112m Above Seabed (Instrument Depth 30m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2	7	4	21	23	26	21	14	2	0	0	0	0	0	0	0	120
020 °T	5	5	9	16	25	32	38	33	13	2	0	0	0	0	0	0	178
040 °T	4	12	11	17	20	38	28	34	20	3	0	0	0	0	0	0	187
060 °T	1	7	6	17	23	35	31	16	4	2	0	0	0	0	0	0	142
080 °T	4	7	10	17	19	13	13	7	1	0	0	0	0	0	0	0	91
100 °T	3	5	11	28	14	12	3	2	0	0	0	0	0	0	0	0	78
120 °T	6	5	9	10	14	6	5	0	0	0	0	0	0	0	0	0	55
140 °T	1	3	11	17	16	8	1	0	0	0	0	0	0	0	0	0	57
160 °T	3	5	12	16	11	17	4	2	0	0	0	0	0	0	0	0	70
180 °T	2	9	8	15	26	23	15	7	3	1	0	0	0	0	0	0	109
200 °T	4	11	15	19	25	30	28	17	11	3	0	0	0	0	0	0	163
220 °T	1	9	18	25	29	38	24	26	7	3	1	0	0	0	0	0	181
240 °T	2	12	18	17	24	29	19	7	2	1	1	0	0	0	0	0	132
260 °T	2	14	12	9	19	9	5	5	0	0	0	0	0	0	0	0	75
280 °T	8	9	16	20	13	5	5	0	0	0	0	0	0	0	0	0	76
300 °T	8	9	17	12	17	8	0	3	0	0	0	0	0	0	0	0	74
320 °T	6	9	6	15	19	11	1	0	0	0	0	0	0	0	0	0	67
340 °T	5	4	11	16	15	21	8	2	0	0	0	0	0	0	0	0	82
Column Total	67	142	204	307	352	361	249	175	63	15	2	0	0	0	0	0	1937

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.1	0.4	0.2	1.1	1.2	1.3	1.1	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
020 °T	0.3	0.3	0.5	0.8	1.3	1.7	2.0	1.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.2
040 °T	0.2	0.6	0.6	0.9	1.0	2.0	1.4	1.8	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	9.7
060 °T	0.1	0.4	0.3	0.9	1.2	1.8	1.6	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	7.3
080 °T	0.2	0.4	0.5	0.9	1.0	0.7	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
100 °T	0.2	0.3	0.6	1.4	0.7	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
120 °T	0.3	0.3	0.5	0.5	0.7	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
140 °T	0.1	0.2	0.6	0.9	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
160 °T	0.2	0.3	0.6	0.8	0.6	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
180 °T	0.1	0.5	0.4	0.8	1.3	1.2	0.8	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.6
200 °T	0.2	0.6	0.8	1.0	1.3	1.5	1.4	0.9	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	8.4
220 °T	0.1	0.5	0.9	1.3	1.5	2.0	1.2	1.3	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	9.3
240 °T	0.1	0.6	0.9	0.9	1.2	1.5	1.0	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	6.8
260 °T	0.1	0.7	0.6	0.5	1.0	0.5	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
280 °T	0.4	0.5	0.8	1.0	0.7	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
300 °T	0.4	0.5	0.9	0.6	0.9	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
320 °T	0.3	0.5	0.3	0.8	1.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
340 °T	0.3	0.2	0.6	0.8	0.8	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
Column Total	3.5	7.3	10.5	15.8	18.2	18.6	12.9	9.0	3.3	0.8	0.1	0.0	0.0	0.0	0.0	0.0	100.0

Table C-69 - Current Statistics in 5 cm/s intervals for Mooring Reference 9589 at 49.151°N, 10.514°W at 42m Above Seabed (Instrument Depth 100m)

APPENDIX C-9

(OMEX Region 200-500m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-70	5871	310	330
C-71	9593	500	496

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	22	118	129	86	41	15	9	2	0	0	0	0	0	0	0	0	422
020 °T	21	137	109	54	33	8	4	0	0	0	0	0	0	0	0	0	366
040 °T	22	126	110	60	13	3	1	0	0	0	0	0	0	0	0	0	335
060 °T	16	130	122	66	19	9	1	0	0	0	0	0	0	0	0	0	363
080 °T	13	109	153	89	40	6	2	0	0	0	0	0	0	0	0	0	412
100 °T	23	102	160	96	57	25	5	0	0	0	0	0	0	0	0	0	468
120 °T	20	65	113	116	55	25	2	1	0	0	0	0	0	0	0	0	397
140 °T	24	76	104	99	52	15	5	1	0	0	0	0	0	0	0	0	376
160 °T	19	84	109	74	39	3	3	0	0	0	0	0	0	0	0	0	331
180 °T	20	101	90	53	17	2	0	0	0	0	0	0	0	0	0	0	283
200 °T	25	92	105	50	6	0	0	0	0	0	0	0	0	0	0	0	278
220 °T	25	118	82	26	7	0	0	0	0	0	0	0	0	0	0	0	258
240 °T	27	105	79	23	9	2	0	0	0	0	0	0	0	0	0	0	245
260 °T	37	118	96	60	14	2	2	0	0	0	0	0	0	0	0	0	329
280 °T	28	119	120	98	27	8	2	0	0	0	0	0	0	0	0	0	402
300 °T	26	114	184	138	58	24	9	5	0	0	0	0	0	0	0	0	558
320 °T	16	116	169	168	71	26	14	13	0	2	0	0	0	0	0	0	595
340 °T	22	121	148	104	57	22	21	5	1	0	0	0	0	0	0	0	501
Column Total	406	1951	2182	1460	615	195	80	27	1	2	0	0	0	0	0	0	6919

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.3	1.7	1.9	1.2	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1
020 °T	0.3	2.0	1.6	0.8	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
040 °T	0.3	1.8	1.6	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
060 °T	0.2	1.9	1.8	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
080 °T	0.2	1.6	2.2	1.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
100 °T	0.3	1.5	2.3	1.4	0.8	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
120 °T	0.3	0.9	1.6	1.7	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
140 °T	0.3	1.1	1.5	1.4	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
160 °T	0.3	1.2	1.6	1.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
180 °T	0.3	1.5	1.3	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
200 °T	0.4	1.3	1.5	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
220 °T	0.4	1.7	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
240 °T	0.4	1.5	1.1	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
260 °T	0.5	1.7	1.4	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
280 °T	0.4	1.7	1.7	1.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
300 °T	0.4	1.6	2.7	2.0	0.8	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
320 °T	0.2	1.7	2.4	2.4	1.0	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
340 °T	0.3	1.7	2.1	1.5	0.8	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
Column Total	5.9	28.2	31.5	21.1	8.9	2.8	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-70 - Current Statistics in 5 cm/s intervals for Mooring Reference 5871 at 48.192°N, 9.663°W at 310m Above Seabed (Instrument Depth 330m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	135	282	350	187	48	12	1	0	0	0	0	0	0	0	0	0	1015
020 °T	131	283	206	91	18	7	2	1	0	0	0	0	0	0	0	0	739
040 °T	171	198	141	39	7	4	0	0	0	0	0	0	0	0	0	0	560
060 °T	122	159	88	54	20	2	0	0	0	0	0	0	0	0	0	0	445
080 °T	105	145	84	33	15	2	0	0	0	0	0	0	0	0	0	0	384
100 °T	115	132	77	35	9	1	0	0	0	0	0	0	0	0	0	0	369
120 °T	111	140	89	33	8	0	0	0	0	0	0	0	0	0	0	0	381
140 °T	131	164	77	53	14	3	0	0	0	0	0	0	0	0	0	0	442
160 °T	118	155	117	45	12	6	1	0	0	0	0	0	0	0	0	0	454
180 °T	122	228	187	77	26	10	4	0	0	0	0	0	0	0	0	0	654
200 °T	118	200	205	109	30	7	3	1	2	0	0	0	0	0	0	0	675
220 °T	137	229	230	115	24	11	4	0	1	0	0	0	0	0	0	0	751
240 °T	133	215	190	98	20	7	1	2	0	0	0	0	0	0	0	0	666
260 °T	138	205	198	64	14	7	3	1	0	0	0	0	0	0	0	0	630
280 °T	167	217	159	70	21	1	0	1	0	0	0	0	0	0	0	0	636
300 °T	139	224	180	84	38	5	3	0	0	0	0	0	0	0	0	0	673
320 °T	150	248	258	144	51	15	3	0	0	0	0	0	0	0	0	0	869
340 °T	155	308	321	213	65	8	7	0	0	0	0	0	0	0	0	0	1077
Column Total	2398	3732	3157	1544	440	108	32	6	3	0	0	0	0	0	0	0	11420

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.2	2.5	3.1	1.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
020 °T	1.1	2.5	1.8	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5
040 °T	1.5	1.7	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
060 °T	1.1	1.4	0.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
080 °T	0.9	1.3	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
100 °T	1.0	1.2	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
120 °T	1.0	1.2	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
140 °T	1.1	1.4	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
160 °T	1.0	1.4	1.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
180 °T	1.1	2.0	1.6	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
200 °T	1.0	1.8	1.8	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
220 °T	1.2	2.0	2.0	1.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
240 °T	1.2	1.9	1.7	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
260 °T	1.2	1.8	1.7	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
280 °T	1.5	1.9	1.4	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
300 °T	1.2	2.0	1.6	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
320 °T	1.3	2.2	2.3	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
340 °T	1.4	2.7	2.8	1.9	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4
Column Total	21.0	32.7	27.6	13.5	3.9	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-71 - Current Statistics in 5 cm/s intervals for Mooring Reference 9593 at 49.108°N, 12.181°W at 500m Above Seabed (Instrument Depth 496m)

APPENDIX C-10

(OMEX Region 500-1000m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-72	5868	1085	980
C-73	5873	750	715
C-74	5869	850	790
C-75	5872	50	590
C-76	9417	3070	600
C-77	9594	50	946
C-78	9627	836	620
C-79	9632	776	620
C-80	9415	827	591
C-81	9622	825	620

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	95	252	171	66	30	2	1	0	0	0	0	0	0	0	0	0	617
020 °T	91	185	82	23	2	0	0	0	0	0	0	0	0	0	0	0	383
040 °T	74	153	57	11	1	0	0	0	0	0	0	0	0	0	0	0	296
060 °T	68	148	52	7	1	0	0	0	0	0	0	0	0	0	0	0	276
080 °T	68	132	50	8	0	0	0	0	0	0	0	0	0	0	0	0	258
100 °T	54	115	42	6	1	0	0	0	0	0	0	0	0	0	0	0	218
120 °T	55	84	41	7	1	0	0	0	0	0	0	0	0	0	0	0	188
140 °T	52	106	42	13	0	0	0	0	0	0	0	0	0	0	0	0	213
160 °T	52	92	38	26	0	0	0	0	0	0	0	0	0	0	0	0	208
180 °T	36	78	53	23	1	0	0	0	0	0	0	0	0	0	0	0	191
200 °T	35	89	50	26	6	0	0	0	0	0	0	0	0	0	0	0	206
220 °T	48	103	79	28	1	0	0	0	0	0	0	0	0	0	0	0	259
240 °T	57	142	84	26	7	1	1	0	0	0	0	0	0	0	0	0	318
260 °T	65	186	139	68	16	2	0	1	0	0	0	0	0	0	0	0	477
280 °T	87	205	202	101	28	4	3	0	0	0	0	0	0	0	0	0	630
300 °T	102	350	344	185	54	11	0	0	0	0	0	0	0	0	0	0	1046
320 °T	106	416	456	298	104	25	0	0	0	0	0	0	0	0	0	0	1405
340 °T	110	365	337	214	68	22	4	0	0	0	0	0	0	0	0	0	1120
Column Total	1255	3201	2319	1136	321	67	9	1	0	0	0	0	0	0	0	0	8309

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.4	2.9	2.5	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
020 °T	1.3	2.4	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
040 °T	1.3	2.2	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
060 °T	1.2	2.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
080 °T	1.2	2.6	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
100 °T	1.4	3.1	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
120 °T	0.9	3.5	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
140 °T	1.0	3.5	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
160 °T	1.3	2.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
180 °T	1.2	2.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
200 °T	1.4	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
220 °T	1.4	2.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
240 °T	1.1	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
260 °T	1.4	2.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
280 °T	1.2	3.5	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
300 °T	1.4	3.7	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
320 °T	1.0	3.7	2.3	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
340 °T	1.0	3.6	3.2	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
Column Total	22.2	50.0	19.5	7.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-72 - Current Statistics in 5 cm/s intervals for Mooring Reference 5868 at 48.085°N, 9.835°W at 1085m Above Seabed (Instrument Depth 980m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	39	149	113	46	8	0	0	0	0	0	0	0	0	0	0	0	355
020 °T	36	119	88	37	8	0	0	0	0	0	0	0	0	0	0	0	288
040 °T	42	74	69	27	11	2	0	0	0	0	0	0	0	0	0	0	225
060 °T	35	71	44	17	4	1	0	0	0	0	0	0	0	0	0	0	172
080 °T	51	77	33	13	1	0	0	0	0	0	0	0	0	0	0	0	175
100 °T	45	60	38	9	1	0	0	0	0	0	0	0	0	0	0	0	153
120 °T	37	76	61	12	5	0	0	0	0	0	0	0	0	0	0	0	191
140 °T	23	86	74	35	11	0	0	0	0	0	0	0	0	0	0	0	229
160 °T	40	142	107	50	20	0	0	0	0	0	0	0	0	0	0	0	359
180 °T	30	162	151	86	27	4	0	0	0	0	0	0	0	0	0	0	460
200 °T	40	169	207	127	32	6	1	0	0	0	0	0	0	0	0	0	582
220 °T	48	208	245	155	42	15	3	0	0	0	0	0	0	0	0	0	716
240 °T	57	242	310	181	79	15	5	0	0	0	0	0	0	0	0	0	889
260 °T	70	264	294	165	60	16	3	0	0	0	0	0	0	0	0	0	872
280 °T	71	267	282	151	40	14	0	0	0	0	0	0	0	0	0	0	825
300 °T	48	229	285	123	32	5	0	0	0	0	0	0	0	0	0	0	722
320 °T	59	254	220	85	16	2	0	0	0	0	0	0	0	0	0	0	636
340 °T	41	212	161	50	11	1	0	0	0	0	0	0	0	0	0	0	476
Column Total	812	2861	2782	1369	408	81	12	0	0	0	0	0	0	0	0	0	8325

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.5	1.8	1.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
020 °T	0.4	1.4	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
040 °T	0.5	0.9	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
060 °T	0.4	0.9	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
080 °T	0.6	0.9	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
100 °T	0.5	0.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
120 °T	0.4	0.9	0.7	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
140 °T	0.3	1.0	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
160 °T	0.5	1.7	1.3	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
180 °T	0.4	1.9	1.8	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
200 °T	0.5	2.0	2.5	1.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
220 °T	0.6	2.5	2.9	1.9	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
240 °T	0.7	2.9	3.7	2.2	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7
260 °T	0.8	3.2	3.5	2.0	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
280 °T	0.9	3.2	3.4	1.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
300 °T	0.6	2.8	3.4	1.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.7
320 °T	0.7	3.1	2.6	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
340 °T	0.5	2.5	1.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
Column Total	9.8	34.4	33.4	16.4	4.9	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-73 - Current Statistics in 5 cm/s intervals for Mooring Reference 5873 at 48.123°N, 9.283°W at 750m Above Seabed (Instrument Depth 715m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	23	109	136	170	167	89	30	5	0	0	0	0	0	0	0	0	729
020 °T	14	91	157	156	98	42	5	0	0	0	0	0	0	0	0	0	563
040 °T	17	76	142	114	71	14	3	0	0	0	0	0	0	0	0	0	437
060 °T	17	82	97	86	30	7	1	0	0	0	0	0	0	0	0	0	320
080 °T	21	71	79	43	13	4	0	0	0	0	0	0	0	0	0	0	231
100 °T	14	78	63	20	9	1	0	0	0	0	0	0	0	0	0	0	185
120 °T	16	94	54	23	7	3	0	0	0	0	0	0	0	0	0	0	197
140 °T	20	106	59	27	1	3	0	0	0	0	0	0	0	0	0	0	216
160 °T	20	87	72	25	11	1	0	0	0	0	0	0	0	0	0	0	216
180 °T	25	76	75	22	10	2	1	0	0	0	0	0	0	0	0	0	211
200 °T	9	64	85	37	7	3	0	0	0	0	0	0	0	0	0	0	205
220 °T	15	75	103	57	20	2	0	0	0	0	0	0	0	0	0	0	272
240 °T	13	80	139	102	56	20	3	0	0	0	0	0	0	0	0	0	413
260 °T	19	120	164	167	112	47	11	0	0	0	0	0	0	0	0	0	640
280 °T	23	109	154	188	164	101	24	9	0	0	0	0	0	0	0	0	772
300 °T	29	121	158	195	189	120	49	10	1	0	0	0	0	0	0	0	872
320 °T	43	127	172	181	223	157	43	11	2	0	0	0	0	0	0	0	959
340 °T	25	128	169	165	183	136	50	5	0	0	0	0	0	0	0	0	861
Column Total	363	1694	2078	1778	1371	752	220	40	3	0	0	0	0	0	0	0	8299

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.3	1.3	1.6	2.0	2.0	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
020 °T	0.2	1.1	1.9	1.9	1.2	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
040 °T	0.2	0.9	1.7	1.4	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
060 °T	0.2	1.0	1.2	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
080 °T	0.3	0.9	1.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
100 °T	0.2	0.9	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
120 °T	0.2	1.1	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
140 °T	0.2	1.3	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
160 °T	0.2	1.0	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
180 °T	0.3	0.9	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
200 °T	0.1	0.8	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
220 °T	0.2	0.9	1.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
240 °T	0.2	1.0	1.7	1.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
260 °T	0.2	1.4	2.0	2.0	1.3	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
280 °T	0.3	1.3	1.9	2.3	2.0	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.3
300 °T	0.3	1.5	1.9	2.3	2.3	1.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
320 °T	0.5	1.5	2.1	2.2	2.7	1.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6
340 °T	0.3	1.5	2.0	2.0	2.2	1.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4
Column Total	4.4	20.4	25.0	21.4	16.5	9.1	2.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-74 - Current Statistics in 5 cm/s intervals for Mooring Reference 5869 at 48.138°N, 9.752°W at 850m Above Seabed (Inst. Depth 790m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	9	61	85	119	127	101	51	43	12	4	1	0	0	0	0	0	613
020 °T	11	60	125	168	165	148	75	30	4	1	0	0	0	0	0	0	787
040 °T	7	93	145	182	121	60	15	4	1	0	0	0	0	0	0	0	628
060 °T	11	78	120	88	56	24	5	0	0	0	0	0	0	0	0	0	382
080 °T	9	64	79	55	20	5	1	0	0	0	0	0	0	0	0	0	233
100 °T	8	64	67	44	10	6	0	0	0	0	0	0	0	0	0	0	199
120 °T	15	38	72	38	15	3	0	0	0	0	0	0	0	0	0	0	181
140 °T	11	67	76	46	18	0	0	0	0	0	0	0	0	0	0	0	218
160 °T	16	54	57	37	19	2	0	0	0	0	0	0	0	0	0	0	185
180 °T	9	68	69	43	10	1	0	0	0	0	0	0	0	0	0	0	200
200 °T	5	40	96	51	13	5	1	0	0	0	0	0	0	0	0	0	211
220 °T	8	54	104	81	69	23	11	5	2	0	0	0	0	0	0	0	357
240 °T	4	40	71	117	83	102	54	49	11	3	0	1	0	0	0	0	535
260 °T	2	32	55	90	101	121	90	65	26	7	1	0	0	0	0	0	590
280 °T	3	31	34	59	85	110	67	34	10	2	1	0	0	0	0	0	436
300 °T	13	39	44	55	100	80	43	23	10	1	0	0	0	0	0	0	408
320 °T	18	54	40	63	84	57	32	17	5	0	0	0	0	0	0	0	370
340 °T	16	46	65	68	78	52	33	16	12	1	0	0	0	0	0	0	387
Column Total	175	983	1404	1404	1174	900	478	286	93	19	3	1	0	0	0	0	6920

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.1	0.9	1.2	1.7	1.8	1.5	0.7	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	8.9
020 °T	0.2	0.9	1.8	2.4	2.4	2.1	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4
040 °T	0.1	1.3	2.1	2.6	1.7	0.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
060 °T	0.2	1.1	1.7	1.3	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
080 °T	0.1	0.9	1.1	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
100 °T	0.1	0.9	1.0	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
120 °T	0.2	0.5	1.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
140 °T	0.2	1.0	1.1	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
160 °T	0.2	0.8	0.8	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
180 °T	0.1	1.0	1.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
200 °T	0.1	0.6	1.4	0.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
220 °T	0.1	0.8	1.5	1.2	1.0	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
240 °T	0.1	0.6	1.0	1.7	1.2	1.5	0.8	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
260 °T	0.0	0.5	0.8	1.3	1.5	1.7	1.3	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	8.5
280 °T	0.0	0.4	0.5	0.9	1.2	1.6	1.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
300 °T	0.2	0.6	0.6	0.8	1.4	1.2	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
320 °T	0.3	0.8	0.6	0.9	1.2	0.8	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
340 °T	0.2	0.7	0.9	1.0	1.1	0.8	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Column Total	2.5	14.2	20.3	20.3	17.0	13.0	6.9	4.1	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-75 - Current Statistics in 5 cm/s intervals for Mooring Reference 5872 at 49.192°N, 9.663°W at 50m Above Seabed (Instrument Depth 590m)

Direction (to)	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	Row Total
	Total Current Speed Counts																
000 °T	81	90	89	75	30	4	0	0	0	0	0	0	0	0	0	0	369
020 °T	56	40	46	18	2	0	0	0	0	0	0	0	0	0	0	0	162
040 °T	51	18	34	14	1	0	0	0	0	0	0	0	0	0	0	0	118
060 °T	29	17	10	2	0	0	0	0	0	0	0	0	0	0	0	0	58
080 °T	28	28	5	1	0	0	0	0	0	0	0	0	0	0	0	0	62
100 °T	23	24	5	1	0	0	0	0	0	0	0	0	0	0	0	0	53
120 °T	27	20	6	1	1	0	0	0	0	0	0	0	0	0	0	0	55
140 °T	25	28	13	3	0	0	0	0	0	0	0	0	0	0	0	0	69
160 °T	29	28	20	5	0	0	0	0	0	0	0	0	0	0	0	0	82
180 °T	37	41	29	3	1	0	0	0	0	0	0	0	0	0	0	0	111
200 °T	65	64	51	13	2	0	0	0	0	0	0	0	0	0	0	0	195
220 °T	73	71	89	26	3	0	0	0	0	0	0	0	0	0	0	0	262
240 °T	88	100	90	44	11	0	0	0	0	0	0	0	0	0	0	0	333
260 °T	75	122	149	65	9	1	0	0	0	0	0	0	0	0	0	0	421
280 °T	103	130	141	68	11	1	0	0	0	0	0	0	0	0	0	0	454
300 °T	95	121	179	102	12	2	0	0	0	0	0	0	0	0	0	0	511
320 °T	97	135	209	166	41	9	0	0	0	0	0	0	0	0	0	0	657
340 °T	89	98	159	171	61	10	1	0	0	0	0	0	0	0	0	0	589
Column Total	1071	1175	1324	778	185	27	1	0	0	0	0	0	0	0	0	0	4561
	Total Current Speed as Percentage																
Direction (to)																	
000 °T	1.8	2.0	2.0	1.6	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
020 °T	1.2	0.9	1.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
040 °T	1.1	0.4	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
060 °T	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
080 °T	0.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
100 °T	0.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
120 °T	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
140 °T	0.5	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
160 °T	0.6	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
180 °T	0.8	0.9	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
200 °T	1.4	1.4	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
220 °T	1.6	1.6	2.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
240 °T	1.9	2.2	2.0	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
260 °T	1.6	2.7	3.3	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2
280 °T	2.3	2.9	3.1	1.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
300 °T	2.1	2.7	3.9	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
320 °T	2.1	3.0	4.6	3.6	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.4
340 °T	2.0	2.1	3.5	3.7	1.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.9
Column Total	23.5	25.8	29.0	17.1	4.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-76 - Current Statistics in 5 cm/s intervals for Mooring Reference 9417 at 49.088°N, 13.390°W at 3070m Above Seabed (Instrument Depth 600m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	95	220	263	168	99	23	10	4	0	0	0	0	0	0	0	0	882
020 °T	90	184	218	133	51	14	6	4	1	0	0	0	0	0	0	0	701
040 °T	103	162	157	91	36	12	4	0	0	0	0	0	0	0	0	0	565
060 °T	68	167	143	94	20	14	3	0	0	0	0	0	0	0	0	0	509
080 °T	58	149	128	65	15	3	2	0	0	0	0	0	0	0	0	0	420
100 °T	85	157	162	71	22	3	1	1	0	0	0	0	0	0	0	0	502
120 °T	93	161	188	113	32	7	1	1	0	0	0	0	0	0	0	0	596
140 °T	88	222	266	153	56	14	5	0	0	0	0	0	0	0	0	0	804
160 °T	91	170	194	118	52	17	2	1	0	0	0	0	0	0	0	0	645
180 °T	82	164	192	113	42	13	4	1	0	0	0	0	0	0	0	0	611
200 °T	70	155	142	97	32	15	3	1	0	0	0	0	0	0	0	0	515
220 °T	98	155	105	70	28	8	1	0	0	0	0	0	0	0	0	0	465
240 °T	97	162	119	81	32	6	2	0	0	0	0	0	0	0	0	0	499
260 °T	89	188	155	84	35	12	6	1	0	0	0	0	0	0	0	0	570
280 °T	82	222	204	114	57	13	7	1	0	0	0	0	0	0	0	0	700
300 °T	92	259	264	171	69	24	5	2	0	0	0	0	0	0	0	0	886
320 °T	104	273	307	234	97	34	8	5	1	0	0	0	0	0	0	0	1063
340 °T	109	263	317	234	121	36	17	5	1	0	0	0	0	0	0	0	1103
Column Total	1594	3433	3524	2204	896	268	87	27	3	0	0	0	0	0	0	0	12036

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.8	1.8	2.2	1.4	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
020 °T	0.7	1.5	1.8	1.1	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
040 °T	0.9	1.3	1.3	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
060 °T	0.6	1.4	1.2	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
080 °T	0.5	1.2	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
100 °T	0.7	1.3	1.3	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
120 °T	0.8	1.3	1.6	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
140 °T	0.7	1.8	2.2	1.3	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
160 °T	0.8	1.4	1.6	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
180 °T	0.7	1.4	1.6	0.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
200 °T	0.6	1.3	1.2	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
220 °T	0.8	1.3	0.9	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
240 °T	0.8	1.3	1.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
260 °T	0.7	1.6	1.3	0.7	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
280 °T	0.7	1.8	1.7	0.9	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
300 °T	0.8	2.2	2.2	1.4	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4
320 °T	0.9	2.3	2.6	1.9	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
340 °T	0.9	2.2	2.6	1.9	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2
Column Total	13.2	28.5	29.3	18.3	7.4	2.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-77 - Current Statistics in 5 cm/s intervals for Mooring Reference 9594 at 49.108°N, 12.181°W at 50m Above Seabed (Instrument Depth 946m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	50	68	37	14	0	0	0	0	0	0	0	0	0	0	0	0	169
020 °T	48	86	74	16	0	0	0	0	0	0	0	0	0	0	0	0	224
040 °T	58	129	97	16	0	0	0	0	0	0	0	0	0	0	0	0	300
060 °T	64	91	60	28	0	0	0	0	0	0	0	0	0	0	0	0	243
080 °T	56	58	56	35	5	0	0	0	0	0	0	0	0	0	0	0	210
100 °T	50	77	44	37	18	2	0	0	0	0	0	0	0	0	0	0	228
120 °T	37	68	75	90	32	1	0	0	0	0	0	0	0	0	0	0	303
140 °T	32	60	70	61	40	10	0	0	0	0	0	0	0	0	0	0	273
160 °T	65	76	110	56	24	3	0	0	0	0	0	0	0	0	0	0	334
180 °T	44	70	79	37	4	4	0	0	0	0	0	0	0	0	0	0	238
200 °T	38	73	62	15	1	0	0	0	0	0	0	0	0	0	0	0	189
220 °T	38	50	52	14	0	0	0	0	0	0	0	0	0	0	0	0	154
240 °T	31	33	39	11	0	0	0	0	0	0	0	0	0	0	0	0	114
260 °T	14	29	18	6	0	0	0	0	0	0	0	0	0	0	0	0	67
280 °T	13	25	21	2	0	0	0	0	0	0	0	0	0	0	0	0	61
300 °T	19	29	18	4	0	0	0	0	0	0	0	0	0	0	0	0	70
320 °T	25	28	17	6	0	0	0	0	0	0	0	0	0	0	0	0	76
340 °T	43	46	29	12	2	0	0	0	0	0	0	0	0	0	0	0	132
Column Total	725	1096	958	460	126	20	0	0	0	0	0	0	0	0	0	0	3385

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.5	2.0	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
020 °T	1.4	2.5	2.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
040 °T	1.7	3.8	2.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
060 °T	1.9	2.7	1.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
080 °T	1.7	1.7	1.7	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
100 °T	1.5	2.3	1.3	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7
120 °T	1.1	2.0	2.2	2.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
140 °T	0.9	1.8	2.1	1.8	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.1
160 °T	1.9	2.2	3.2	1.7	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.9
180 °T	1.3	2.1	2.3	1.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
200 °T	1.1	2.2	1.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
220 °T	1.1	1.5	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
240 °T	0.9	1.0	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
260 °T	0.4	0.9	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
280 °T	0.4	0.7	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
300 °T	0.6	0.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
320 °T	0.7	0.8	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
340 °T	1.3	1.4	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
Column Total	21.4	32.4	28.3	13.6	3.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-78 - Current Statistics in 5 cm/s intervals for Mooring Reference 9627 at 49.187°N, 12.819°W at 836m Above Seabed (Instrument Depth 620m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	25	77	86	71	18	3	0	0	0	0	0	0	0	0	0	0	280
020 °T	15	49	102	60	26	1	0	0	0	0	0	0	0	0	0	0	253
040 °T	25	54	82	71	24	2	0	0	0	0	0	0	0	0	0	0	258
060 °T	16	25	37	28	8	4	0	0	0	0	0	0	0	0	0	0	118
080 °T	17	20	21	4	0	0	0	0	0	0	0	0	0	0	0	0	62
100 °T	14	10	20	0	0	0	0	0	0	0	0	0	0	0	0	0	44
120 °T	8	8	13	1	0	0	0	0	0	0	0	0	0	0	0	0	30
140 °T	5	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	10
160 °T	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	7
180 °T	6	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	14
200 °T	10	13	9	3	2	0	0	0	0	0	0	0	0	0	0	0	37
220 °T	10	18	28	9	2	0	0	0	0	0	0	0	0	0	0	0	67
240 °T	27	34	23	16	1	0	0	0	0	0	0	0	0	0	0	0	101
260 °T	16	39	40	20	6	0	0	0	0	0	0	0	0	0	0	0	121
280 °T	22	34	53	24	8	1	0	0	0	0	0	0	0	0	0	0	142
300 °T	23	67	67	44	7	0	0	0	0	0	0	0	0	0	0	0	208
320 °T	26	66	63	54	23	5	0	0	0	0	0	0	0	0	0	0	237
340 °T	33	60	83	49	37	5	2	0	0	0	0	0	0	0	0	0	269
Column Total	302	582	734	455	162	21	2	0	0	0	0	0	0	0	0	0	2258

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.1	3.4	3.8	3.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4
020 °T	0.7	2.2	4.5	2.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
040 °T	1.1	2.4	3.6	3.1	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4
060 °T	0.7	1.1	1.6	1.2	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
080 °T	0.8	0.9	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
100 °T	0.6	0.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
120 °T	0.4	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
140 °T	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
160 °T	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
180 °T	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
200 °T	0.4	0.6	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
220 °T	0.4	0.8	1.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
240 °T	1.2	1.5	1.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
260 °T	0.7	1.7	1.8	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
280 °T	1.0	1.5	2.3	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
300 °T	1.0	3.0	3.0	1.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.2
320 °T	1.2	2.9	2.8	2.4	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
340 °T	1.5	2.7	3.7	2.2	1.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9
Column Total	13.4	25.8	32.5	20.2	7.2	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-79 - Current Statistics in 5 cm/s intervals for Mooring Reference 9632 at 49.188°N, 12.795°W at 776m Above Seabed (Instrument Depth 620m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	85	105	140	103	38	6	1	1	0	0	0	0	0	0	0	0	479
020 °T	65	94	73	53	25	5	2	0	0	0	0	0	0	0	0	0	317
040 °T	36	38	38	23	5	0	0	1	0	0	0	0	0	0	0	0	141
060 °T	33	27	15	7	0	1	1	1	0	0	0	0	0	0	0	0	85
080 °T	23	21	9	7	1	0	0	0	0	0	0	0	0	0	0	0	61
100 °T	21	14	4	3	0	0	0	0	0	0	0	0	0	0	0	0	42
120 °T	23	24	9	2	0	0	0	0	0	0	0	0	0	0	0	0	58
140 °T	20	11	5	4	1	1	0	0	0	0	0	0	0	0	0	0	42
160 °T	27	19	6	4	0	1	0	0	0	0	0	0	0	0	0	0	57
180 °T	41	28	15	4	3	0	0	0	0	0	0	0	0	0	0	0	91
200 °T	42	40	25	19	1	0	0	0	0	0	0	0	0	0	0	0	127
220 °T	65	61	32	27	15	8	4	0	0	0	0	0	0	0	0	0	212
240 °T	67	94	73	38	26	9	0	0	0	0	0	0	0	0	0	0	307
260 °T	49	114	121	76	29	7	1	0	0	0	0	0	0	0	0	0	397
280 °T	81	95	174	109	29	2	0	1	0	0	0	0	0	0	0	0	491
300 °T	71	122	188	131	33	3	1	0	0	0	0	0	0	0	0	0	549
320 °T	83	134	180	141	35	4	2	1	0	0	0	0	0	0	0	0	580
340 °T	58	154	150	97	31	6	2	1	0	0	0	0	0	0	0	0	499
Column Total	890	1195	1257	848	272	53	14	6	0	0	0	0	0	0	0	0	4535

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.9	2.3	3.1	2.3	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6
020 °T	1.4	2.1	1.6	1.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
040 °T	0.8	0.8	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
060 °T	0.7	0.6	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
080 °T	0.5	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
100 °T	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
120 °T	0.5	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
140 °T	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
160 °T	0.6	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
180 °T	0.9	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
200 °T	0.9	0.9	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
220 °T	1.4	1.3	0.7	0.6	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
240 °T	1.5	2.1	1.6	0.8	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8
260 °T	1.1	2.5	2.7	1.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
280 °T	1.8	2.1	3.8	2.4	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
300 °T	1.6	2.7	4.1	2.9	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1
320 °T	1.8	3.0	4.0	3.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.8
340 °T	1.3	3.4	3.3	2.1	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
Column Total	19.6	26.4	27.7	18.7	6.0	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-80 - Current Statistics in 5 cm/s intervals for Mooring Reference 9415 at 49.191°N, 12.800°W at 827m Above Seabed (Instrument Depth 591m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	88	253	348	181	25	3	0	0	0	0	0	0	0	0	0	0	898
020 °T	61	101	129	48	14	0	0	0	0	0	0	0	0	0	0	0	353
040 °T	43	30	29	8	0	0	0	0	0	0	0	0	0	0	0	0	110
060 °T	16	11	5	1	0	0	0	0	0	0	0	0	0	0	0	0	33
080 °T	23	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	29
100 °T	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
120 °T	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
140 °T	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
160 °T	39	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
180 °T	32	21	2	0	0	0	0	0	0	0	0	0	0	0	0	0	55
200 °T	29	28	9	1	0	0	0	0	0	0	0	0	0	0	0	0	67
220 °T	42	64	18	7	1	0	0	0	0	0	0	0	0	0	0	0	132
240 °T	72	76	38	11	2	1	0	0	0	0	0	0	0	0	0	0	200
260 °T	69	106	66	18	3	0	0	0	0	0	0	0	0	0	0	0	262
280 °T	101	135	106	24	2	0	0	0	0	0	0	0	0	0	0	0	368
300 °T	99	192	150	33	1	0	0	0	0	0	0	0	0	0	0	0	475
320 °T	98	233	209	65	3	0	0	0	0	0	0	0	0	0	0	0	608
340 °T	88	291	371	147	23	1	0	0	0	0	0	0	0	0	0	0	921
Column Total	948	1557	1481	544	74	5	0	0	0	0	0	0	0	0	0	0	4609

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.9	5.5	7.6	3.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.5
020 °T	1.3	2.2	2.8	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7
040 °T	0.9	0.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
060 °T	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
080 °T	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
100 °T	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
120 °T	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
140 °T	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
160 °T	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
180 °T	0.7	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
200 °T	0.6	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
220 °T	0.9	1.4	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
240 °T	1.6	1.6	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
260 °T	1.5	2.3	1.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
280 °T	2.2	2.9	2.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
300 °T	2.1	4.2	3.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
320 °T	2.1	5.1	4.5	1.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.2
340 °T	1.9	6.3	8.0	3.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
Column Total	20.6	33.8	32.1	11.8	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-81 - Current Statistics in 5 cm/s intervals for Mooring Reference 9622 at 49.287°N, 12.819°W at 825m Above Seabed (Instrument Depth 620m)

APPENDIX C-11

(OMEX Region 1000-2000m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-82	5874	50	1415
C-83	5870	50	1590
C-84	9418	2161	1509
C-85	9626	386	1070
C-86	9631	326	1070
C-87	9416	369	1049
C-88	9621	375	1070

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	7	32	26	5	9	1	0	0	0	0	0	0	0	0	0	0	80
020 °T	16	37	19	8	2	2	1	0	0	0	0	0	0	0	0	0	85
040 °T	22	30	11	5	1	0	1	0	0	0	0	0	0	0	0	0	70
060 °T	20	43	18	4	0	0	0	0	0	0	0	0	0	0	0	0	85
080 °T	23	70	27	2	0	0	0	0	0	0	0	0	0	0	0	0	122
100 °T	47	150	68	11	0	0	0	0	0	0	0	0	0	0	0	0	276
120 °T	90	258	217	101	20	1	0	0	0	0	0	0	0	0	0	0	687
140 °T	204	390	504	527	206	23	0	0	0	0	0	0	0	0	0	0	1854
160 °T	175	335	475	472	303	94	16	2	0	0	0	0	0	0	0	0	1872
180 °T	60	143	150	113	78	30	6	4	0	0	0	0	0	0	0	0	584
200 °T	45	102	83	45	31	4	1	0	0	0	0	0	0	0	0	0	311
220 °T	49	92	85	49	18	4	6	0	0	0	0	0	0	0	0	0	303
240 °T	43	73	64	44	23	10	6	1	1	0	0	0	0	0	0	0	265
260 °T	20	59	47	56	46	59	39	24	12	5	3	0	0	0	0	0	370
280 °T	38	75	47	94	116	120	83	42	15	3	1	0	0	0	0	0	634
300 °T	13	45	63	77	82	66	48	28	4	0	0	0	0	0	0	0	426
320 °T	12	35	35	36	28	10	4	4	0	0	0	0	0	0	0	0	164
340 °T	11	39	39	30	9	6	2	1	0	0	0	0	0	0	0	0	137
Column Total	895	2008	1978	1679	972	430	213	106	32	8	4	0	0	0	0	0	8325

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.1	0.4	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
020 °T	0.2	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
040 °T	0.3	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
060 °T	0.2	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
080 °T	0.3	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
100 °T	0.6	1.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
120 °T	1.1	3.1	2.6	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
140 °T	2.5	4.7	6.1	6.3	2.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.3
160 °T	2.1	4.0	5.7	5.7	3.6	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5
180 °T	0.7	1.7	1.8	1.4	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0
200 °T	0.5	1.2	1.0	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
220 °T	0.6	1.1	1.0	0.6	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
240 °T	0.5	0.9	0.8	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
260 °T	0.2	0.7	0.6	0.7	0.6	0.7	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.4
280 °T	0.5	0.9	0.6	1.1	1.4	1.4	1.0	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6
300 °T	0.2	0.5	0.8	0.9	1.0	0.8	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
320 °T	0.1	0.4	0.4	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
340 °T	0.1	0.5	0.5	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Column Total	10.8	24.1	23.8	20.2	11.7	5.2	2.6	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-82 - Current Statistics in 5 cm/s intervals for Mooring Reference 5874 at 48.123°N, 9.283°W at 50m Above Seabed (Instrument Depth 1415m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	19	67	44	48	56	62	28	18	11	3	1	0	0	0	0	0	357
020 °T	20	83	141	181	225	264	256	200	108	34	11	0	0	0	0	0	1523
040 °T	17	77	131	144	113	98	90	33	14	5	0	0	0	0	0	0	722
060 °T	20	90	56	23	13	1	0	2	0	2	0	0	0	0	0	0	207
080 °T	34	93	29	9	7	1	0	0	1	0	0	0	0	0	0	0	174
100 °T	52	105	35	7	3	1	0	0	0	0	0	0	0	0	0	0	203
120 °T	56	101	15	3	1	0	0	0	0	0	0	0	0	0	0	0	176
140 °T	36	91	15	11	2	2	0	0	0	0	0	0	0	0	0	0	157
160 °T	18	104	77	30	11	4	2	0	0	1	0	0	0	0	0	0	247
180 °T	14	204	316	233	134	46	19	11	1	2	0	0	0	0	0	0	980
200 °T	31	264	579	485	193	41	9	5	2	0	0	0	0	0	0	0	1609
220 °T	38	226	385	207	38	5	1	2	1	0	0	0	0	0	0	0	903
240 °T	33	121	68	17	8	0	1	0	0	0	0	0	0	0	0	0	248
260 °T	32	97	23	10	2	0	1	0	0	0	0	0	0	0	0	0	165
280 °T	47	86	28	13	5	2	2	0	1	0	1	0	0	0	0	0	185
300 °T	61	82	22	12	4	0	1	0	0	0	0	0	0	0	0	0	182
320 °T	44	55	15	11	7	1	0	0	0	0	0	0	0	0	0	0	133
340 °T	26	44	19	12	18	5	5	0	0	0	0	0	0	0	0	0	129
Column Total	598	1990	1998	1456	840	533	415	271	139	47	13	0	0	0	0	0	8300

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	0.2	0.8	0.5	0.6	0.7	0.7	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
020 °T	0.2	1.0	1.7	2.2	2.7	3.2	3.1	2.4	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	18.3
040 °T	0.2	0.9	1.6	1.7	1.4	1.2	1.1	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	8.7
060 °T	0.2	1.1	0.7	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
080 °T	0.4	1.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
100 °T	0.6	1.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
120 °T	0.7	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
140 °T	0.4	1.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
160 °T	0.2	1.3	0.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
180 °T	0.2	2.5	3.8	2.8	1.6	0.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8
200 °T	0.4	3.2	7.0	5.8	2.3	0.5	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.4
220 °T	0.5	2.7	4.6	2.5	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
240 °T	0.4	1.5	0.8	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
260 °T	0.4	1.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
280 °T	0.6	1.0	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
300 °T	0.7	1.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
320 °T	0.5	0.7	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
340 °T	0.3	0.5	0.2	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Column Total	7.2	24.0	24.1	17.5	10.1	6.4	5.0	3.3	1.7	0.6	0.2	0.0	0.0	0.0	0.0	0.0	100.0

Table C-83 - Current Statistics in 5 cm/s intervals for Mooring Reference 5870 at 48.138°N, 9.752°W at 50m Above Seabed (Instrument Depth 1590m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	50	58	37	7	1	0	0	0	0	0	0	0	0	0	0	0	153
020 °T	42	50	20	3	0	0	0	0	0	0	0	0	0	0	0	0	115
040 °T	30	31	3	0	0	0	0	0	0	0	0	0	0	0	0	0	64
060 °T	36	38	1	0	0	0	0	0	0	0	0	0	0	0	0	0	75
080 °T	32	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	61
100 °T	36	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	48
120 °T	28	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38
140 °T	22	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	37
160 °T	36	19	5	0	0	0	0	0	0	0	0	0	0	0	0	0	60
180 °T	48	43	20	0	0	0	0	0	0	0	0	0	0	0	0	0	111
200 °T	36	59	20	0	0	0	0	0	0	0	0	0	0	0	0	0	115
220 °T	46	52	13	1	0	0	0	0	0	0	0	0	0	0	0	0	112
240 °T	35	39	8	1	0	0	0	0	0	0	0	0	0	0	0	0	83
260 °T	27	35	6	0	0	0	0	0	0	0	0	0	0	0	0	0	68
280 °T	17	19	5	0	0	0	0	0	0	0	0	0	0	0	0	0	41
300 °T	36	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	47
320 °T	39	26	4	2	0	0	0	0	0	0	0	0	0	0	0	0	71
340 °T	40	33	23	1	0	0	0	0	0	0	0	0	0	0	0	0	97
Column Total	636	570	174	15	1	0	0	0	0	0	0	0	0	0	0	0	1396

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.6	4.2	2.7	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
020 °T	3.0	3.6	1.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
040 °T	2.1	2.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
060 °T	2.6	2.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
080 °T	2.3	1.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
100 °T	2.6	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
120 °T	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
140 °T	1.6	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
160 °T	2.6	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
180 °T	3.4	3.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
200 °T	2.6	4.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
220 °T	3.3	3.7	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0
240 °T	2.5	2.8	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
260 °T	1.9	2.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9
280 °T	1.2	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
300 °T	2.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
320 °T	2.8	1.9	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
340 °T	2.9	2.4	1.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
Column Total	45.6	40.8	12.5	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-84 - Current Statistics in 5 cm/s intervals for Mooring Reference 9418 at 49.088°N, 13.390°W at 2161m Above Seabed (Inst. Depth 1509m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	88	133	95	20	3	3	0	0	0	0	0	0	0	0	0	0	342
020 °T	78	67	23	1	1	0	0	0	0	0	0	0	0	0	0	0	170
040 °T	79	50	12	1	0	0	0	0	0	0	0	0	0	0	0	0	142
060 °T	60	47	17	7	0	0	0	0	0	0	0	0	0	0	0	0	131
080 °T	55	49	32	6	0	0	0	0	0	0	0	0	0	0	0	0	142
100 °T	50	42	31	9	0	0	0	0	0	0	0	0	0	0	0	0	132
120 °T	42	58	25	2	0	0	0	0	0	0	0	0	0	0	0	0	127
140 °T	55	53	17	0	0	0	0	0	0	0	0	0	0	0	0	0	125
160 °T	49	50	10	0	0	0	0	0	0	0	0	0	0	0	0	0	109
180 °T	38	29	11	0	0	0	0	0	0	0	0	0	0	0	0	0	78
200 °T	41	38	9	1	0	0	0	0	0	0	0	0	0	0	0	0	89
220 °T	41	43	11	1	0	0	0	0	0	0	0	0	0	0	0	0	96
240 °T	54	43	9	1	0	0	0	0	0	0	0	0	0	0	0	0	107
260 °T	50	43	14	1	0	0	0	0	0	0	0	0	0	0	0	0	108
280 °T	73	64	30	3	0	0	0	0	0	0	0	0	0	0	0	0	170
300 °T	83	130	87	25	5	1	0	0	0	0	0	0	0	0	0	0	331
320 °T	104	209	196	77	6	0	0	0	0	0	0	0	0	0	0	0	592
340 °T	107	230	196	79	13	2	1	0	0	0	0	0	0	0	0	0	628
Column Total	1147	1378	825	234	28	6	1	0	0	0	0	0	0	0	0	0	3619

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.4	3.7	2.6	0.6	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
020 °T	2.2	1.9	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
040 °T	2.2	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
060 °T	1.7	1.3	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
080 °T	1.5	1.4	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
100 °T	1.4	1.2	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
120 °T	1.2	1.6	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
140 °T	1.5	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
160 °T	1.4	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
180 °T	1.1	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
200 °T	1.1	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
220 °T	1.1	1.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
240 °T	1.5	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
260 °T	1.4	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
280 °T	2.0	1.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7
300 °T	2.3	3.6	2.4	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
320 °T	2.9	5.8	5.4	2.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.4
340 °T	3.0	6.4	5.4	2.2	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4
Column Total	31.7	38.1	22.8	6.5	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-85 - Current Statistics in 5 cm/s intervals for Mooring Reference 9626 at 49.187°N, 12.819°W at 386m Above Seabed (Instrument Depth 1070m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	61	84	63	35	4	0	0	0	0	0	0	0	0	0	0	0	247
020 °T	51	47	43	8	0	0	0	0	0	0	0	0	0	0	0	0	149
040 °T	48	49	29	3	0	0	0	0	0	0	0	0	0	0	0	0	129
060 °T	28	50	23	2	0	0	0	0	0	0	0	0	0	0	0	0	103
080 °T	26	36	21	6	1	0	0	0	0	0	0	0	0	0	0	0	90
100 °T	21	25	30	9	0	0	0	0	0	0	0	0	0	0	0	0	85
120 °T	18	15	8	6	0	0	0	0	0	0	0	0	0	0	0	0	47
140 °T	8	22	5	1	2	0	0	0	0	0	0	0	0	0	0	0	38
160 °T	17	13	1	1	1	0	0	0	0	0	0	0	0	0	0	0	33
180 °T	20	17	7	2	0	0	0	0	0	0	0	0	0	0	0	0	46
200 °T	21	17	6	0	0	0	0	0	0	0	0	0	0	0	0	0	44
220 °T	19	21	12	0	0	0	0	0	0	0	0	0	0	0	0	0	52
240 °T	16	35	14	3	0	0	0	0	0	0	0	0	0	0	0	0	68
260 °T	16	25	19	5	1	0	0	0	0	0	0	0	0	0	0	0	66
280 °T	30	50	29	17	5	1	1	0	0	0	0	0	0	0	0	0	133
300 °T	43	75	65	22	9	3	0	0	0	0	0	0	0	0	0	0	217
320 °T	46	76	102	68	28	12	1	0	0	0	0	0	0	0	0	0	333
340 °T	49	90	111	86	32	7	0	0	0	0	0	0	0	0	0	0	375
Column Total	538	747	588	274	83	23	2	0	0	0	0	0	0	0	0	0	2255

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.7	3.7	2.8	1.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.0
020 °T	2.3	2.1	1.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
040 °T	2.1	2.2	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7
060 °T	1.2	2.2	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
080 °T	1.2	1.6	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
100 °T	0.9	1.1	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
120 °T	0.8	0.7	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
140 °T	0.4	1.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
160 °T	0.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
180 °T	0.9	0.8	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
200 °T	0.9	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
220 °T	0.8	0.9	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
240 °T	0.7	1.6	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
260 °T	0.7	1.1	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
280 °T	1.3	2.2	1.3	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9
300 °T	1.9	3.3	2.9	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6
320 °T	2.0	3.4	4.5	3.0	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.8
340 °T	2.2	4.0	4.9	3.8	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.6
Column Total	23.9	33.1	26.1	12.2	3.7	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-86 - Current Statistics in 5 cm/s intervals for Mooring Reference 9631 at 49.188°N, 12.795°W at 326m Above Seabed (Instrument Depth 1070m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	95	159	159	97	15	2	0	0	0	0	0	0	0	0	0	0	527
020 °T	67	94	49	20	4	1	0	0	0	0	0	0	0	0	0	0	235
040 °T	49	45	26	7	0	0	0	0	0	0	0	0	0	0	0	0	127
060 °T	56	46	8	2	1	0	0	0	0	0	0	0	0	0	0	0	113
080 °T	44	39	7	1	0	0	0	0	0	0	0	0	0	0	0	0	91
100 °T	47	26	8	0	1	0	0	0	0	0	0	0	0	0	0	0	82
120 °T	36	34	7	1	1	0	0	0	0	0	0	0	0	0	0	0	79
140 °T	53	30	12	1	0	0	0	0	0	0	0	0	0	0	0	0	96
160 °T	51	41	7	2	0	0	0	0	0	0	0	0	0	0	0	0	101
180 °T	35	46	16	1	0	0	0	0	0	0	0	0	0	0	0	0	98
200 °T	49	61	11	2	0	0	0	0	0	0	0	0	0	0	0	0	123
220 °T	56	71	24	2	0	0	0	0	0	0	0	0	0	0	0	0	153
240 °T	78	81	35	7	0	0	0	0	0	0	0	0	0	0	0	0	201
260 °T	72	85	24	4	1	0	0	0	0	0	0	0	0	0	0	0	186
280 °T	90	103	59	15	3	1	0	0	0	0	0	0	0	0	0	0	271
300 °T	117	178	123	42	12	2	0	0	0	0	0	0	0	0	0	0	474
320 °T	121	222	197	77	36	4	1	0	0	0	0	0	0	0	0	0	658
340 °T	117	214	228	145	48	11	1	0	0	0	0	0	0	0	0	0	764
Column Total	1233	1575	1000	426	122	21	2	0	0	0	0	0	0	0	0	0	4379

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	2.2	3.6	3.6	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
020 °T	1.5	2.1	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
040 °T	1.1	1.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
060 °T	1.3	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
080 °T	1.0	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
100 °T	1.1	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
120 °T	0.8	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
140 °T	1.2	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
160 °T	1.2	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3
180 °T	0.8	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2
200 °T	1.1	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
220 °T	1.3	1.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
240 °T	1.8	1.8	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
260 °T	1.6	1.9	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
280 °T	2.1	2.4	1.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
300 °T	2.7	4.1	2.8	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
320 °T	2.8	5.1	4.5	1.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0
340 °T	2.7	4.9	5.2	3.3	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.4
Column Total	28.2	36.0	22.8	9.7	2.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-87 - Current Statistics in 5 cm/s intervals for Mooring Reference 9416 at 49.191°N, 12.800°W at 369m Above Seabed (Instrument Depth 1049m)

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	133	194	152	64	2	0	0	0	0	0	0	0	0	0	0	0	545
020 °T	83	85	24	8	0	0	0	0	0	0	0	0	0	0	0	0	200
040 °T	65	57	15	1	0	0	0	0	0	0	0	0	0	0	0	0	138
060 °T	43	30	5	0	0	0	0	0	0	0	0	0	0	0	0	0	78
080 °T	37	20	4	0	0	0	0	0	0	0	0	0	0	0	0	0	61
100 °T	35	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
120 °T	29	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	35
140 °T	17	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	26
160 °T	22	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
180 °T	34	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
200 °T	33	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36
220 °T	28	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	36
240 °T	56	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	74
260 °T	66	34	4	0	0	0	0	0	0	0	0	0	0	0	0	0	104
280 °T	71	46	8	2	0	0	0	0	0	0	0	0	0	0	0	0	127
300 °T	121	128	70	24	2	0	0	0	0	0	0	0	0	0	0	0	345
320 °T	133	213	283	174	65	16	1	0	0	0	0	0	0	0	0	0	885
340 °T	141	283	345	199	66	7	0	0	0	0	0	0	0	0	0	0	1041
Column Total	1147	1144	917	472	135	23	1	0	0	0	0	0	0	0	0	0	3839

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	3.5	5.1	4.0	1.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.2
020 °T	2.2	2.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
040 °T	1.7	1.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
060 °T	1.1	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
080 °T	1.0	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
100 °T	0.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
120 °T	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
140 °T	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
160 °T	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
180 °T	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
200 °T	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
220 °T	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
240 °T	1.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
260 °T	1.7	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
280 °T	1.8	1.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
300 °T	3.2	3.3	1.8	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
320 °T	3.5	5.5	7.4	4.5	1.7	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.1
340 °T	3.7	7.4	9.0	5.2	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.1
Column Total	29.9	29.8	23.9	12.3	3.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-88 - Current Statistics in 5 cm/s intervals for Mooring Reference 9621 at 49.287°N, 12.819°W at 375m Above Seabed (Instrument Depth 1070m)

APPENDIX C-12

(OMEX Region >2000m)

Figure / Table No.	Mooring Reference	Instrument HASB (m)	Instrument Depth (m)
C-89	4825	50	2049

	Total Current Speed Counts																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	119	249	216	118	32	0	0	0	0	0	0	0	0	0	0	0	734
020 °T	108	202	112	29	3	0	0	0	0	0	0	0	0	0	0	0	454
040 °T	114	192	69	9	0	0	0	0	0	0	0	0	0	0	0	0	384
060 °T	102	173	73	9	1	0	0	0	0	0	0	0	0	0	0	0	358
080 °T	106	219	86	20	1	0	0	0	0	0	0	0	0	0	0	0	432
100 °T	119	263	114	41	0	0	0	0	0	0	0	0	0	0	0	0	537
120 °T	79	296	93	32	0	0	0	0	0	0	0	0	0	0	0	0	500
140 °T	89	297	76	8	0	0	0	0	0	0	0	0	0	0	0	0	470
160 °T	113	223	30	6	0	0	0	0	0	0	0	0	0	0	0	0	372
180 °T	103	188	19	5	0	0	0	0	0	0	0	0	0	0	0	0	315
200 °T	121	145	21	1	0	0	0	0	0	0	0	0	0	0	0	0	288
220 °T	119	184	19	1	0	0	0	0	0	0	0	0	0	0	0	0	323
240 °T	97	187	25	0	0	0	0	0	0	0	0	0	0	0	0	0	309
260 °T	116	225	48	3	0	0	0	0	0	0	0	0	0	0	0	0	392
280 °T	105	297	75	14	1	0	0	0	0	0	0	0	0	0	0	0	492
300 °T	121	316	122	47	4	0	0	0	0	0	0	0	0	0	0	0	610
320 °T	86	313	196	89	20	1	0	0	0	0	0	0	0	0	0	0	705
340 °T	84	312	271	183	27	2	0	0	0	0	0	0	0	0	0	0	879
Column Total	1901	4281	1665	615	89	3	0	0	0	0	0	0	0	0	0	0	8554

	Total Current Speed as Percentage																
Direction (to)	**0-5**	**5-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	Row Total
000 °T	1.4	2.9	2.5	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
020 °T	1.3	2.4	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3
040 °T	1.3	2.2	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
060 °T	1.2	2.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
080 °T	1.2	2.6	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1
100 °T	1.4	3.1	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.3
120 °T	0.9	3.5	1.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
140 °T	1.0	3.5	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.5
160 °T	1.3	2.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
180 °T	1.2	2.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7
200 °T	1.4	1.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
220 °T	1.4	2.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
240 °T	1.1	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6
260 °T	1.4	2.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
280 °T	1.2	3.5	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8
300 °T	1.4	3.7	1.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1
320 °T	1.0	3.7	2.3	1.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
340 °T	1.0	3.6	3.2	2.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
Column Total	22.2	50.0	19.5	7.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0

Table C-89 - Current Statistics in 5 cm/s intervals for Mooring Reference 4825 at 48.987°N, 12.875°W at 50m Above Seabed (Instrument Depth 2049m)