IDEA - IRL
INTEGRATED DESIGN OF FLOATING WIND ARRAYS IRELAND

Reference Site Technical Report B: Reference Site 2 Preliminary Metocean Site Conditions Assessment (M5 Buoy)

Document number: WP1 D1B
Author(s): Dallán Friel, Sowmya Reddi Gudipati, Shauna Creane
Delivery date: 04/10/2024

Project partners

External links

This project is closely coordinated with the IEA Wind TCP Task 49 – Integrated Design of floating wind Arrays (IDeA)[1]

Disclaimer

The content of the publication herein is the sole responsibility of the authors and does not necessarily represent the views of the SEAI. While the information contained in the documents is believed to be accurate, the authors(s) make no warranty of any kind with regard to this material. Neither the IDEA-IRL Consortium nor any of its members, their officers, employees or agents shall be responsible or liable for any direct or indirect or consequential loss or damage caused by or arising from any information advice or inaccuracy or omission herein.

Document Information

Project Acronym	IDEA-IRL
Project Title	Integrated Design of Floating Wind Arrays Ireland
Award Number	22/RDD/804
Work Package	WP1
Deliverable Number	D1B
Deliverable Title	Reference site technical report B: Reference site 2 preliminary metocean site conditions assessment (M5 Buoy)
Due Date	September 2024
Delivery Date	04/10/2024
Primary Author(s)	Dallan Friel & Shauna Creane
Co-Author(s)	Sowmya Reddy Gudipati

---

[1] https://iea-wind.org/task49/

Version Control

Version No.	Date	Description	Prepared by	Checked by
0.1	20/08/2024	Draft circulated with Project Team for internal review	Dallán Friel, Shauna Creane, Sowmya Reddy Gudipati	Shauna Creane, Greg Bohan
0.2	19/09/2024	Final draft – issue to all IDEA-IRL project organisations for review	Dallán Friel, Shauna Creane, Sowmya Reddy Gudipati	Greg Bohan
1.0	04/10/2024	Final Report submitted to SEAI	Dallán Friel, Shauna Creane, Sowmya Reddy Gudipati	Greg Bohan, Mitra Kami Delivand

Executive Summary

This report presents a preliminary Front-End Engineering Design (FEED) Metocean Study for the Integrated Design of Floating Wind Arrays - Ireland's (IDEA-IRL) reference site 2. The results presented herein can only be considered as a pre-FEED study and are aimed to serve as input for preliminary design. This report will primarily serve as an appendix to the Summary Report for Work Package 1 (WP1) Deliverable (D1), which collates the various site conditions defined as part of WP1 D1. These conditions will be provided to WP2 of the IDEA-IRL project, to inform reference floating offshore wind farm designs.

Reference site 2 utilises the Marine Institute's M5 buoy as a reference point for data collection. It is located approximately 54.5 km from Kilmore Quay in County Wexford in the Celtic Sea.

To conduct a preliminary site characterisation study at this location, the following was utilised:

- 45-year time series from the ERA5 reanalysis dataset for both wind and wave conditions,
- 20-year measured wind time series from the M5 buoy,
- For wave variables, depending on the variable, data sets of up to 20-years from the M5 buoy.

The M5 data was found to possess gaps of various durations and in some cases insufficient length of data to study the long-term environmental trends. Therefore, the measured M5 dataset was used to calibrate the long-term numerically generated ERA5 dataset to remove any biases within the numerical dataset.

A 12-year modelled time series was extracted for water levels and currents from the three-dimensional Northeast Atlantic Model (NEATL), an implementation of the Regional Ocean Modelling System (ROMS) model.

Normal, extreme and severe metocean statistics and parameters were generated from these datasets. Operability statistics such as wind-wave persistence was also generated. A summary of the parameters most relevant to the design is presented in Table 1-1.

Table 1-1 Summary of metocean conditions at M5 metocean buoy

Variable	Value
High Still Water Level (50-year) (mMSL)	3.48
High Still Water Level (1-year) (mMSL)	2.49
Highest Astronomical Tide (HAT) (mMSL)	1.95
Lowest Astronomical Tide (LAT) (mMSL)	-1.92
Low Still Water Level (1-year) (mMSL)	-2.41
Low Still Water Level (50-year) (mMSL)	-2.95
Bottom current speed (m/s) (Normal Conditions)	Mean: 0.08 Max: 0.30 P25: 0.04

	P50: 0.07 P75: 0.12
Bottom current speed (m/s) (1-year)	0.25
Bottom current speed (m/s) (50-year)	0.32
Mid current speed (m/s) (Normal Conditions)	Mean: 0.16 Max: 0.62 P25: 0.08 P50: 0.14 P75: 0.22
Mid current speed (m/s) (1-year)	0.49
Mid current speed (m/s) (50-year)	0.61
Surface current speed (m/s) (Normal Conditions)	Mean: 0.21 Max: 1.06 P25: 0.12 P50: 0.19 P75: 0.28
Surface current speed (m/s) (1-year)	0.76
Surface current speed (m/s) (50-year)	1.35
Wind speed (150 m above sea level) (m/s) mean	13.1
Wind speed (150 m above sea level) (m/s) max	39.3
Wind speed (150 m above sea level) (m/s) P95	23.0
Wind direction (150 m above sea level) (°) mean	244.8
Wind speed (10 m above sea level) – Weibull parameters	A = 10.58; k = 2.58
Wind speed (150 m above sea level) – Weibull parameters	A = 15.39; k = 2.57
Extreme 10-min wind speed (150 m above sea level) (m/s) (1-year)	27.5
xtreme 10-min wind speed (150 m above sea level) (m/s) (50-year)	43.4
Extreme 10-min wind speed (150 m above sea level) (m/s) (100-year)	43.9

Normal Sea State (NSS)	See relevant report section
Extreme Sea State (ESS) – Significant wave height (1-year) (m)	5.1
ESS – Peak wave period (1-year) (s)	$8.89 \leq 9.60$
ESS – Individual maximum wave height (1-year) (m)	9.6
ESS – Period of maximum wave height (1-year) (s)	$8.0 \leq 10.4$
ESS – Significant wave height (50-year) (m)	11.4
ESS – Peak wave period (50-year) (s)	$13.22 \leq 17.11$
ESS – Individual maximum wave height (50-year) (m)	21.1
ESS – Period of maximum wave height (50-year) (s)	$11.9 \leq 15.4$
Severe Sea State	See relevant report section

Table of Contents

Table of Figures

Table of Tables

1 Introduction

This report has been prepared by the IDEA-IRL project as one of the deliverables for WP1 of the project. It primarily serves as an Appendix to the WP1 D1 Summary Report [1]. Specifically, this technical appendix delivers a preliminary metocean site characterisation study of reference site 2, selected based on a review of Ireland's Offshore Wind Policy and Marine Spatial Planning documents provided by WP4 [2], [3].

This selection process is explained in Section 4 of [1], but in summary, at the time of writing, there is no exact clarity on when or where floating offshore wind will be developed in Ireland in the coming years. For IDEA-IRL, it was therefore decided to choose two reference sites off the Irish south coast (one on the south west, and one on the south east).

Reasons for this decision include:

- A west coast site was chosen for Reference Site 1, which will give a demonstration of Atlantic conditions (see [4])

- The east coast is seen as an area primarily for fixed-bottom Phase 1 development, and not expected to be a priority area for floating offshore wind long term

- The inclusion of a site on the north-west coast was considered, but this was not seen as a priority area for future floating offshore wind development

- The south coast is seen as an area of great interest for the future development of floating offshore wind in Ireland, where several projects had been planned under the developer-led regime, before the Phase 2 Policy Statement was released and the switch to a plan led delivery model was accelerated

- There was good data availability in the areas chosen

Therefore, IDEA-IRL's defined reference site 2 utilises the coordinates of the Marine Institute's M5 buoy (51.69°, -6.7°) as a reference point for data collation (Figure 1-1).
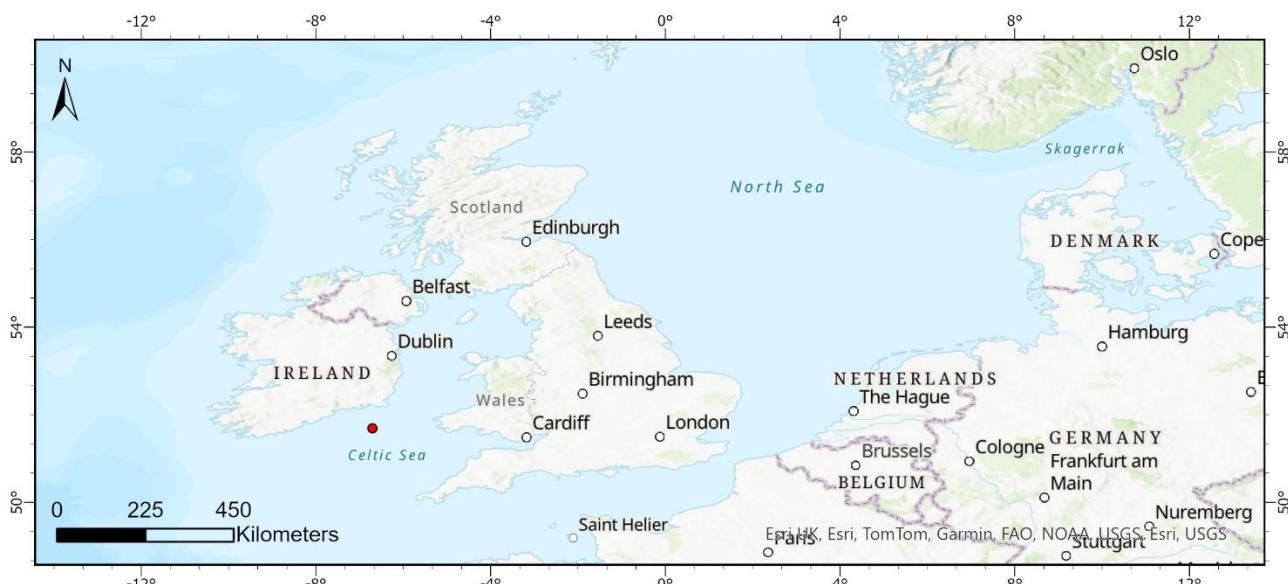
Figure 1-1: Marine Institute's M5 buoy location, chosen as IDEA-IRL reference site 2.

1.1   Scope of the report

The scope of this report is to conduct a preliminary FEED Metocean Study for IDEA-IRL reference site 2. The results presented herein can only be considered as a pre-FEED study and are aimed to serve as input for preliminary design, to be undertaken by WP2. Section 2 gives an overview of the data sources utilised; Section 3 provides the results of a preliminary metocean site characterisation. This includes the production of normal and extreme conditions of water levels, currents, wind and wave conditions, alongside operability statistics. Section 4 provides conclusions and recommendations.

2   Data Sources

The coordinates of the Marine Institute of Ireland's M5 buoy is used as a reference point for metocean data compilation. The European Centre for Medium-Range Weather Forecasts (ECMWF) ERA5 climate reanalysis model was identified as the best model to provide numerical datasets for gap filling measured wind and wave variables for this study. ERA5 is the fifth-generation atmospheric reanalysis model produced by Copernicus Climate Change Service (C3S) at the ECMWF and is based on the 2016 version of the integrated forecasting system (C3S, 2017). It produces data from 1950 to present. Its outputs include atmospheric, ocean wave and land surface data. The reanalysis combines model data with observations from across the world into a globally complete and consistent dataset. The horizontal resolution of the model is 0.25° x 0.25° (atmosphere variables) and 0.5° x 0.5° (ocean waves variables). Parameters of interest for this study are displayed in Table 2-1. Data from the closest grid point to the site were downloaded and analysed. A detailed description of the model and each parameter can be found on the ECMWF website [5].

Table 2-1 Wind and wave variables obtained from the ERA5 model

ERA5 code	Parameter	Metocean discipline	Units	Time frame	Temporal resolution (hours)	Data point
hmax	Maximum individual wave height	Wave	m	1979 – 2024	1	-7°, 51.5°
pp1d	Peak wave period	Wave	s	1979 – 2024	1	-7°, 51.5°
swh	Significant wave height of combined wind waves and swell	Wave	m	1979 – 2024	1	-7°, 51.5°
mwd	Mean wave direction	Wave	degrees	1979 – 2024	1	-7°, 51.5°
u10	10 m u-component of wind	Wind	m/s	1979 – 2024	1	-6.5°, 51.75°
v10	10 m v-component of wind	Wind	m/s	1979 – 2024	1	-6.5°, 51.75°
u100	10 m u-component of wind	Wind	m/s	1979 – 2024	1	-6.5°, 51.75°
v100	10 m v-component of wind	Wind	m/s	1979 – 2024	1	-6.5°, 51.75°

The M5 buoy is one of the buoys in the Irish Marine Observation Network. The wind and wave measurements provided by the buoy date back to 2004 and have 1-hour averaged temporal resolution. Both the wind and wave data have notable periods of missing data when no measurements were taken. The wave data has considerably longer gaps. An installed heave sensor is used for wave measurements. The gaps may be seen in Figure 2-1 to Figure 2-3. The peak wave period possesses a significantly shorter temporal range than the other variables, and sizeable gaps.
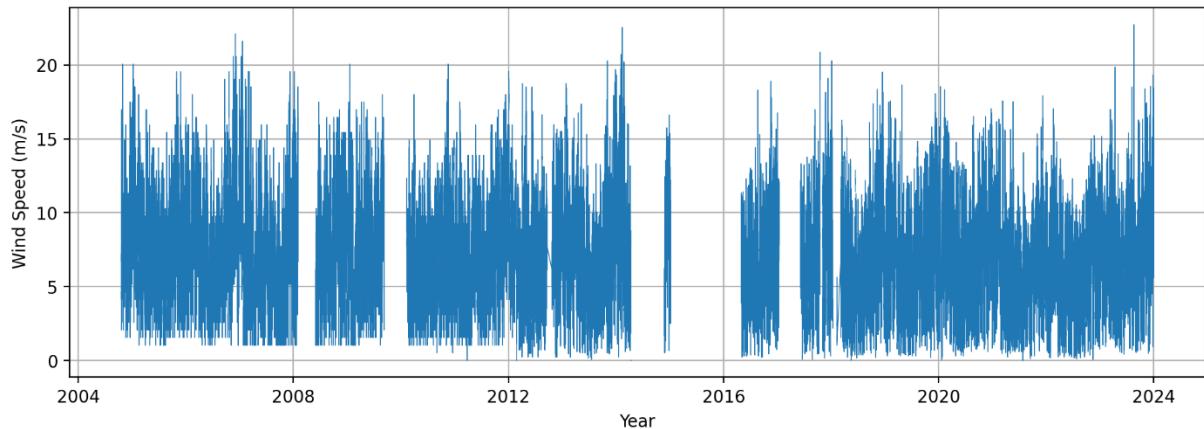
Figure 2-1 – M5 Buoy wind measurement gaps
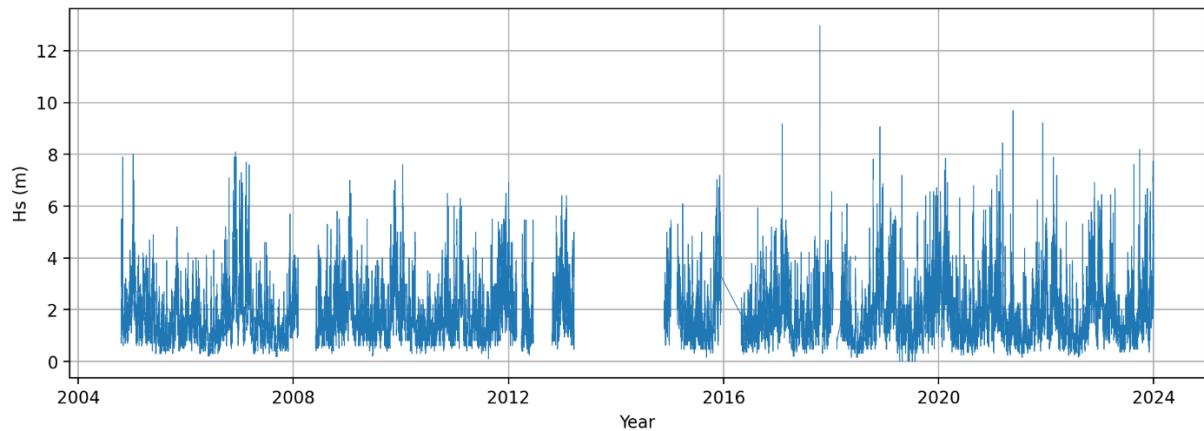
Figure 2-2 M5 Buoy significant wave height gaps
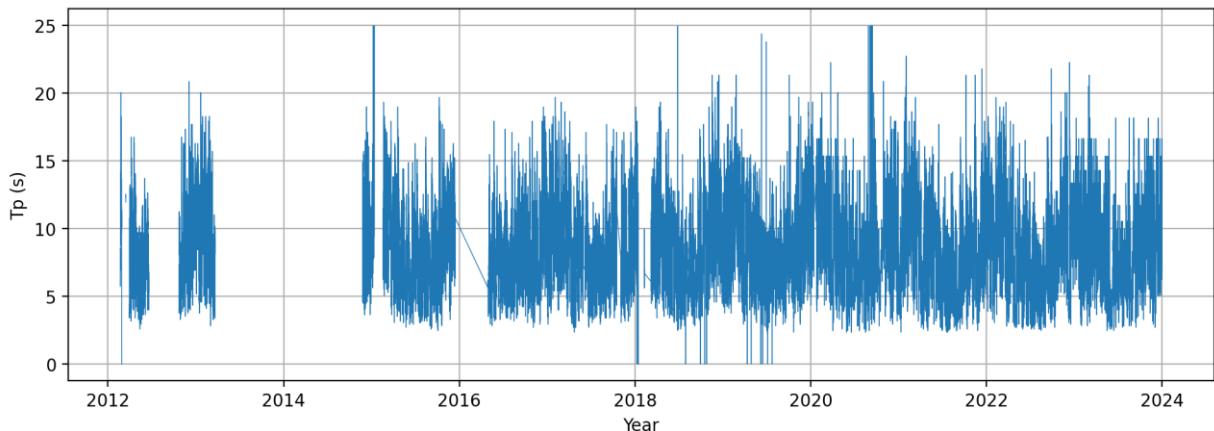
Figure 2-3 M5 Buoy peak wave period gaps

The M5 wind measurements were taken at the height of the gauge above sea level (3 m). For analysis and comparison with the ERA5 wind data scaling was required to extrapolate the wind speeds to 10 m, 100 m and 150 m. Scaling was achieved using the power law as recommended in IEC 61400-3-1: 2019 [6]. The buoy uses a cup anemometer and wind vane for wind measurements.

As significant gaps were observed in the measured M5 datasets, and due to the short temporal range of the M5 Tp dataset, a comparative analysis is conducted to assess the potential use of the ERA5 datasets for gap filling the M5 datasets.

The 20-year M5 buoy wind speed data was converted into meters per second from knots for comparison with the ERA5 dataset and analysis. To compare the observational and numerical wind and wave datasets, Quantile-Quantile (QQ) plots were prepared, and in an ideal scenario the two datasets would have a ratio of slope equal to 1. For the wind datasets the resulting slope was 0.914. It can be seen from Figure 2-4 that the ERA5 dataset underpredicts the wind speed. The difference becomes wider at higher speeds, especially after 15 m/s. The ERA5 data for wind speed was then corrected to remove any biases to produce better fits. The method used is discussed in the proceeding text.
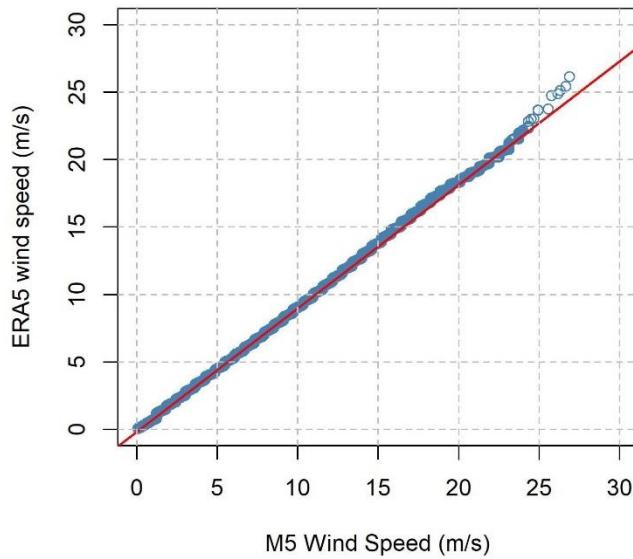
Figure 2-4 – QQ plot for wind speed comparing the ERA5 and M5 datasets

For the significant wave height, 20-years of time series data from the M5 buoy was compared with the ERA5 dataset. The QQ plot may be seen in Figure 2-5. With a slope ratio of 1.019 it can be seen that there is generally good agreement between the observational and modelled datasets. For this reason, the ERA5 Hs is considered to be a very good fit for gap filling the M5 dataset and also effective for extending the length of the data by substituting values from ERA5 prior to when M5 began recording measurements.
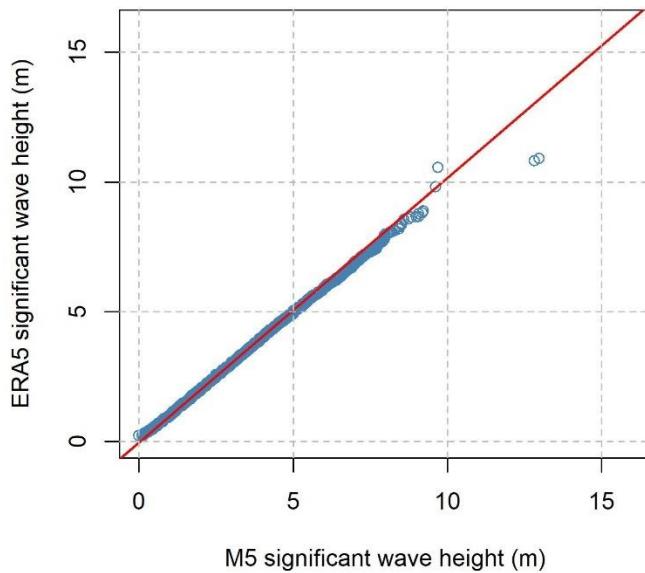
Figure 2-5 – QQ plot for significant wave height comparing the ERA5 and M5 datasets

For peak wave period (Tp), QQ plots were produced to compare the M5 and ERA5 datasets. Figure 2-6 presents the correlation between M5 and ERA5 datasets. The overall correlation is weak for Tp. However, the M5 data is not long enough to be used for reference site characterisation. Measurements for Tp began in 2012. Moreover, the measurements have significant intervals with no measurements. Therefore, for this assessment, ERA5 data will be used for the peak wave period.

The ERA5 data, however, will be corrected by using the readings from the M5 buoy with the date and time common with that of ERA5.
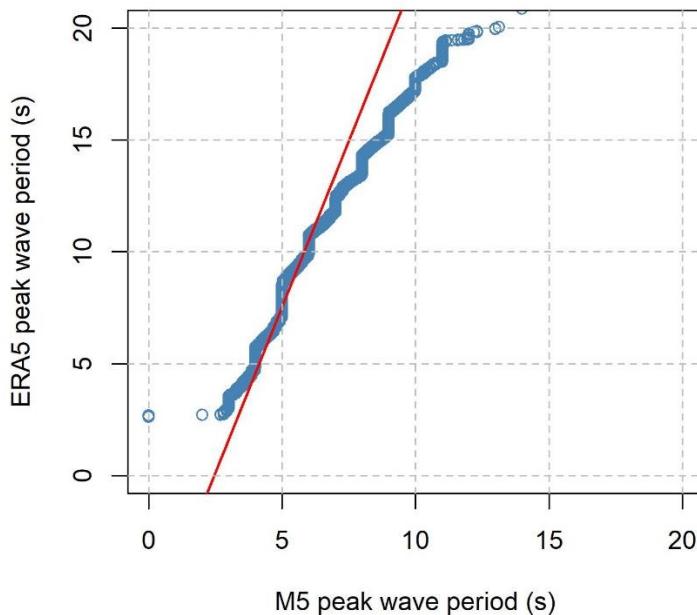
Figure 2-6 – QQ plot for peak wave period comparing the ERA5 and M5 datasets

To correct the bias in the ERA5 datasets, only the data points for the same date and time present in both time series are considered to extract the factor by which the data will be adjusted. Once the factor for adjustment has been calculated, the whole of ERA5 is corrected.

Bias correction techniques that remove the systematic bias from the time series are applied individually to each variable. Multivariate bias correction (MBC) is used to adjust the modelled data. MBC is a climate specific bias correction methodology.

The algorithm for MBC is available under R programming language. The ERA5 data therefore has been transformed using this library to provide better agreement with the M5.

Due to the lack of availability of measured water level and tidal current data for the site of interest, modelled data from the Marine Institute's North East Atlantic (NEATL) model was acquired and analysed (Table 2-2). This model is an implementation of ROMS for a domain covering the Irish coastal and oceanic waters held by the Marine Institute [7]. It is a hindcast and forecast 3D physics model with a curvilinear grid. Grid size is 1200 x 750 x 40 km with a variable data resolution from 1.2 to 2km. It should be noted that the NEATL model is not specifically validated using in situ datasets for this site therefore currents should be interpreted with caution until in situ measured data is collected. Data from the model grid point closest to the centre of the site was downloaded and utilised (-6.715°, 51.6875°).

Table 2-2 Parameters utilised from the NEATL model

Parameter	Units	Time frame	Temporal resolution (hours)
Surface elevation	m	2012 – 2017	3
		2017 – 2023	1
Bottom-water u component	m/s	2012 – 2017	3
		2017 – 2023	1
Bottom-water v component	m/s	2012 – 2017	3
		2017 – 2023	1
Mid-water u component	m/s	2012 – 2017	3
		2017 – 2023	1
Mid-water v component	m/s	2012 – 2017	3
		2017 – 2023	1
Surface-water u component	m/s	2012 – 2017	3
		2017 – 2023	1
Surface-water v component	m/s	2012 – 2017	3
		2017 – 2023	1

3   Preliminary Metocean Site Conditions Assessment

3.1   Water Levels

A 12-year time series of water levels was extracted from the three-dimensional NEATL Model [7]. The full dataset was interpolated to a 1-hour time series. This time series underwent tidal harmonic analysis to separate the tidal and non-tidal (residual) components. A representative spring-neap cycle of this water level time series is presented in Figure 3-1, while the statistics of the full dataset are presented in Table 3-1.

Extreme positive and negative surge values were calculated from this 12-year modelled dataset. A generalised extreme value (GEV) methodology was chosen as the best-fitting analysis to calculate the extreme surge values for this location. A peaks-over-threshold approach was chosen to extract discrete extreme events over the 12 years as input into the general extreme value analysis. Long-term global sea level rise is given by the Intergovernmental Panel on Climate Change (IPCC) Synthesis Report 2014 [8]. A 31-year dataset was predicted using the tidal harmonic results, from which long-term water level parameters ranging from Highest Astronomical Tide (HAT) to Lowest Astronomical Tide (LAT) were produced. Design water level parameters, ranging from High Still Water Level (HSWL) to Low Still Water Level (LSWL) are presented in Table 3-2.
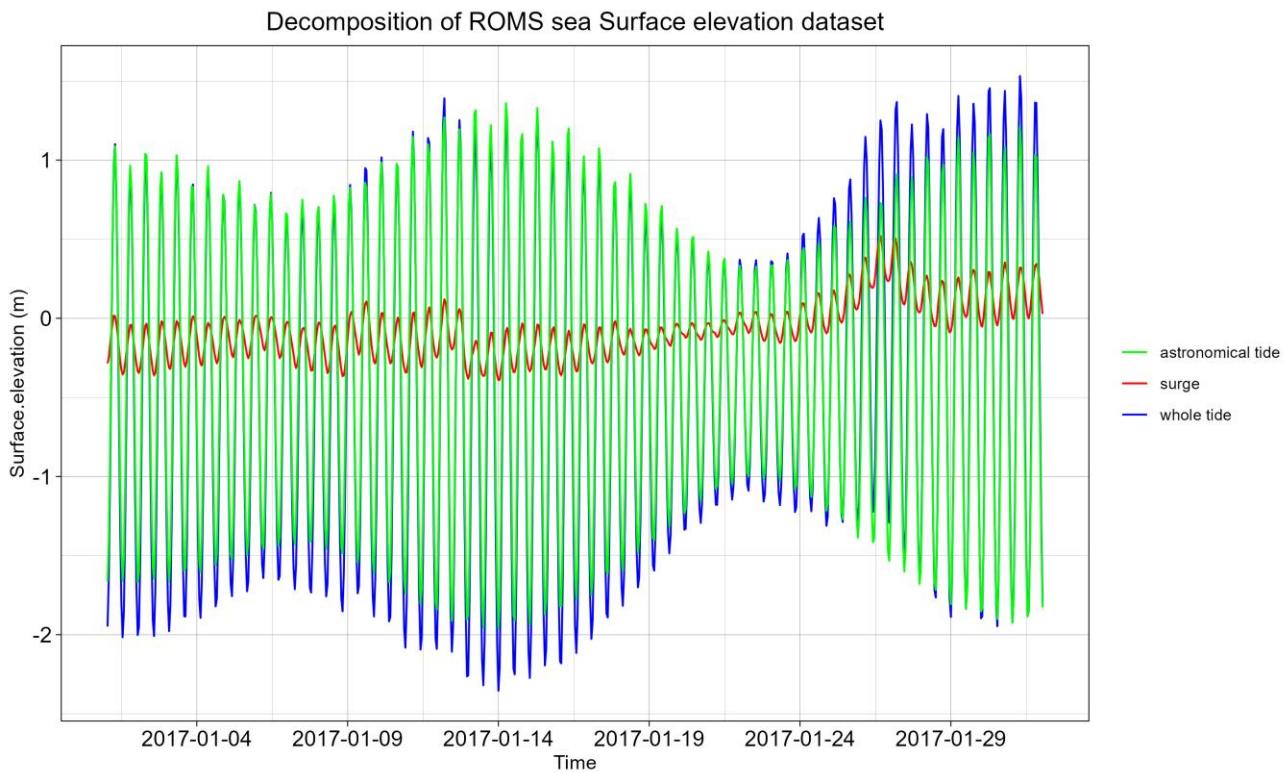
Figure 3-1 Separation of astronomical and residual components of the tide from NEATL-modelled sea surface elevation from 2012 to 2023. The figure displays 2017 snapshot.

Table 3-1 Statistics of water levels

Component	Statistic	Water Level (mMSL)
Total	max	2.06
	min	-2.60
	mean	-0.36
	standard deviation	0.94
Tide	max	1.59
	min	-2.28
	mean	-0.36
	standard deviation	0.92
Residual	max	0.86
	min	-0.65
	mean	0.00
	standard deviation	0.17

Table 3-2 Design Water Level

Parameter	Water Levels (mMSL)
High Still Water Level (50-year)	3.48
High Still Water Level (1-year)	2.49
Long-term Sea Level Rise	0.63
Positive storm surge (50-year)	0.90
Positive storm surge (1-year)	0.54
Highest Astronomical Tide (HAT)	1.95
Mean High Water Spring (MHWS)	1.58
Mean High Water Neap (MHWN)	0.76
Mean Sea Level (MSL)	0
Mean Low Water Neap (MLWN)	-0.76
Mean Low Water Spring (MLWS)	-1.58
Lowest Astronomical Tide (LAT)	-1.92
Negative storm surge (1-year)	-0.49
Negative storm surge (50-year)	-1.03
Low Still Water Level (1-year)	-2.41
Low Still Water Level (50-year)	-2.95

3.2   Normal Wind Conditions

The ERA5 provides wind speed and direction values at heights of 10 m and 100 m above sea level. The spatial resolution is 0.25° x 0.25° and temporal resolution is 1 hour. 10 m and 100 m timeseries was downloaded at -6.5°, 51.75° for a 45-year period (1979 to 2024). As discussed previously, the ERA5 dataset was corrected using the M5 buoy measurements and mean bias correction method. Both the 10 m and 100 m datasets were corrected, while the M5 measurements were extrapolated to the required heights above sea level prior to bias correction. The extrapolation method used prior to correction is discussed in the following paragraph.

A 15 MW reference turbine is assumed. Based on the technical report produced by IEA Wind TCP Task 39 [9], hub height is therefore assumed to be 150 m. The corrected ERA5 1-hour wind speeds at 100 m above sea level were extrapolated to hub height (150 m) using the power law with the shear exponent value 0.14 as recommended by IEC 61400-3-1: 2019 [6] for normal wind conditions:

$$V_{power\ law} = V_{ref} * \left(\frac{z}{z_{ref}}\right)^{\alpha}$$

Where $V_{power\ law}$ and V_{ref} are the wind speeds at z and z_{ref} respectively, and α is the shear exponent.

150 m and 10 m wind roses are displayed in Figure 3-2 and Figure 3-3 respectively. Monthly, annual and overall statistics of 150 m and 10 m wind speeds are presented in Table 3-3 to Table 3-6.
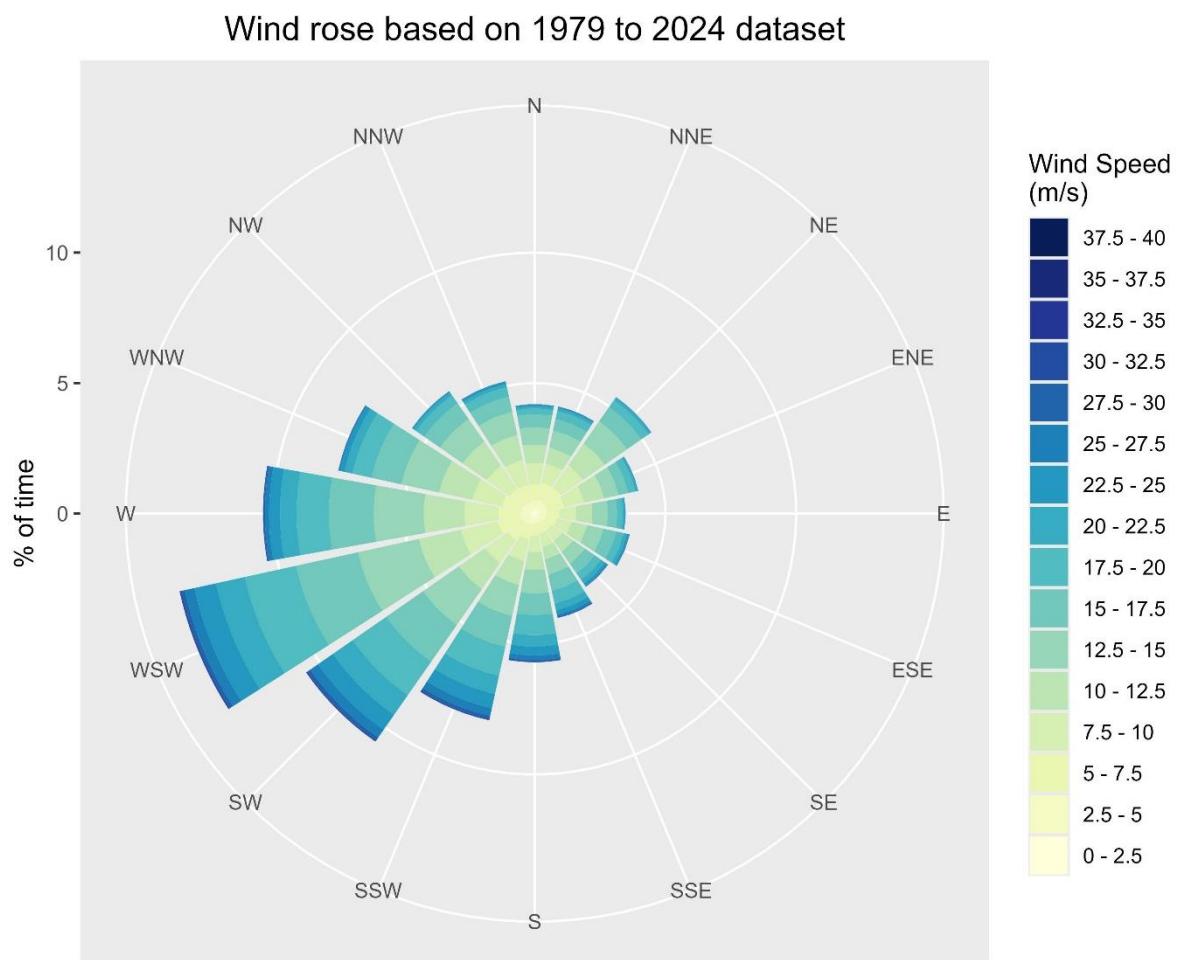
Figure 3-2 Rose plot of 1-hour averaged wind speed and direction at hub height (150 m) from 1979 to 2024 corrected ERA5 dataset

Table 3-3 Monthly wind statistics from corrected ERA5 dataset at 150 m hub height (1979 – 2024)

Data type	Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
wind speed at hub height (m/s)	mean	15.4	15.1	13.9	12.0	11.6	10.9	10.9	11.2	12.1	13.9	14.6	15.6
	median	15.4	14.9	13.7	11.8	11.7	10.8	10.8	11.0	11.9	14.0	14.5	15.3
	standard deviation	6.2	6.0	5.7	5.3	5.1	4.9	4.6	4.9	5.1	5.6	5.8	6.0
	max	37.1	39.3	35.2	33.0	32.9	30.4	29.4	33.8	33.8	38.8	37.6	38.2
	min	0.3	0.2	0.3	0.1	0.3	0.1	0.1	0.1	0.2	0.2	0.5	0.3
	P25	10.8	10.8	9.9	8.1	8.0	7.2	7.8	7.6	8.3	9.9	10.5	11.4
	P50	15.4	14.9	13.7	11.8	11.7	10.8	10.8	11.0	11.9	14.0	14.5	15.3
	P75	19.8	19.1	18.0	15.4	15.3	14.4	14.2	14.4	15.5	17.9	18.9	19.8
	P90	23.4	23.3	21.6	18.9	18.3	17.3	17.1	17.6	18.9	21.2	22.4	23.4
	P95	25.1	25.2	23.4	20.8	20.0	19.0	18.4	19.6	20.7	23.2	24.2	25.2
wind direction (°)	mean	240.9	236.1	246.0	264.1	244.2	253.8	256.1	251.0	246.1	230.8	248.0	240.2

Table 3-4 Annual and overall wind statistics from ERA5 at 150 m hub height (1979 – 2024)

Year	wind speed at hub height (m/s)										wind direction (°)
	mean	median	standard deviation	max	min	P25	P50	P75	P90	P95	mean
1979	13.2	12.8	5.6	34.3	0.3	9.1	12.8	17.1	20.7	22.5	252.5
1980	13.2	13.5	5.5	32.1	0.3	9.0	13.5	17.2	20.4	21.9	252.3
1981	13.0	12.7	5.6	37.3	0.1	9.0	12.7	17.1	20.3	22.5	250.5
1982	13.1	12.8	6.0	32.0	0.4	8.4	12.8	17.3	21.1	23.4	236.7
1983	13.0	12.6	6.0	33.8	0.3	8.5	12.6	17.1	21.0	23.4	247.8
1984	12.3	11.7	6.0	34.5	0.3	7.9	11.7	16.2	20.7	22.9	254.8
1985	13.2	13.1	5.3	31.2	0.4	9.4	13.1	16.5	20.4	22.1	236.5
1986	14.0	13.8	6.0	35.2	0.3	9.3	13.8	18.0	22.2	24.2	245.1
1987	12.5	12.6	5.4	32.8	0.1	8.8	12.6	16.2	19.3	21.2	238.9
1988	13.2	13.5	5.7	35.7	0.1	9.2	13.5	17.1	20.7	23.4	246.8
1989	13.1	12.7	5.8	34.2	0.4	8.8	12.7	17.1	20.7	23.4	238.9
1990	14.1	13.8	6.0	37.1	0.4	9.9	13.8	18.1	21.6	24.3	249.4
1991	13.2	12.8	6.0	35.4	0.3	8.6	12.8	17.1	21.3	24.0	242.0
1992	13.3	13.5	5.5	33.1	0.2	9.3	13.5	17.1	20.4	22.5	250.6
1993	13.3	13.0	5.7	36.0	0.3	9.0	13.0	17.0	20.7	23.4	246.5
1994	14.0	13.5	5.7	35.7	0.3	9.9	13.5	17.9	21.6	23.8	236.1
1995	13.1	12.6	5.6	34.3	0.3	9.0	12.6	16.7	20.7	23.2	244.2
1996	12.9	12.4	5.7	38.8	0.3	8.9	12.4	16.9	20.7	23.1	226.1
1997	12.8	12.6	5.8	38.2	0.3	8.8	12.6	16.4	20.7	23.4	217.9
1998	13.8	13.5	5.6	34.4	0.5	9.9	13.5	17.3	21.5	23.4	250.2
1999	13.6	13.5	5.7	35.3	0.4	9.6	13.5	17.2	20.9	23.4	252.1
2000	13.3	13.4	6.0	37.6	0.6	8.9	13.4	17.3	21.3	23.4	251.8
2001	12.1	11.9	5.6	29.5	0.3	8.0	11.9	16.2	19.7	21.8	254.1
2002	13.3	12.7	5.9	34.3	0.3	9.0	12.7	17.2	21.0	23.4	229.6
2003	12.8	12.8	5.4	32.8	0.1	9.0	12.8	16.5	19.8	21.6	224.1
2004	12.8	12.6	5.7	33.8	0.3	9.0	12.6	16.6	20.7	22.5	257.6
2005	13.1	12.9	5.5	34.7	0.5	9.0	12.9	16.9	20.5	22.1	254.4

2006	13.0	12.7	5.8	36.4	0.1	9.0	12.7	16.9	20.7	23.4	232.0
2007	12.7	12.3	5.8	34.5	0.4	8.2	12.3	16.2	20.7	23.4	255.9
2008	13.6	13.5	5.6	32.9	0.3	9.6	13.5	17.7	20.9	23.0	250.0
2009	13.1	12.8	5.6	35.4	0.2	9.0	12.8	17.1	20.7	22.5	236.0
2010	11.9	11.7	5.0	32.1	0.2	8.5	11.7	14.7	18.1	21.1	269.5
2011	13.3	13.0	5.7	31.2	0.3	9.0	13.0	17.2	20.7	22.5	238.4
2012	12.8	12.6	5.3	33.8	0.4	9.0	12.6	16.2	19.8	22.2	251.7
2013	13.1	12.6	5.6	34.5	0.1	9.0	12.6	16.7	20.3	22.9	242.9
2014	13.0	12.5	5.9	39.3	0.3	9.0	12.5	16.9	20.8	23.4	241.6
2015	13.7	13.5	5.9	34.3	0.3	9.6	13.5	17.5	21.8	24.3	242.9
2016	12.9	12.6	5.5	34.4	0.3	9.0	12.6	16.4	20.2	22.5	248.0
2017	13.0	13.0	5.5	36.6	0.1	9.0	13.0	16.9	20.2	22.4	252.8
2018	12.8	12.6	5.7	35.4	0.3	8.8	12.6	17.1	20.2	22.5	234.9
2019	13.0	12.6	5.6	33.0	0.4	8.8	12.6	17.1	20.5	22.5	245.9
2020	13.9	13.6	6.2	34.6	0.1	9.2	13.6	18.4	22.0	24.2	250.0
2021	12.3	11.7	5.8	37.7	0.3	8.1	11.7	16.2	19.8	22.5	248.1
2022	12.7	12.6	5.9	37.2	0.1	8.2	12.6	17.1	20.6	22.5	240.0
2023	13.2	13.1	5.6	33.8	0.3	9.2	13.1	17.1	20.7	22.6	242.6
Overall	13.1	12.8	5.7	39.3	0.1	9.0	12.8	17.1	20.7	23.0	244.8
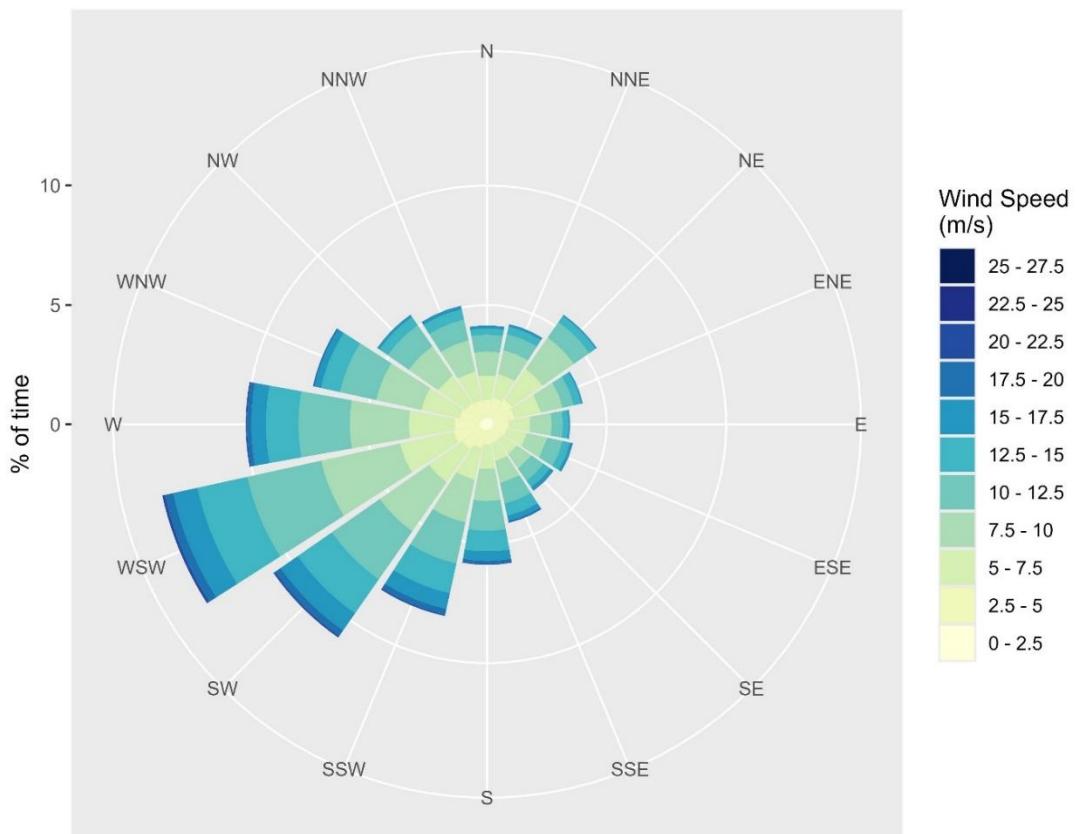
Figure 3-3 Rose plot of 1-hour averaged wind speed and direction at hub height (10 m) from corrected ERA5 1979 to 2024 dataset

11

Table 3-5 Monthly wind statistics from ERA5 at 10 m above sea level (1979 – 2024)

Data type	Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
wind speed at 10 m above sea level (m/s)	mean	10.8	10.5	9.5	8.1	7.7	7.2	7.2	7.5	8.3	9.7	10.3	11.0
	median	11.0	10.5	9.3	8.0	7.6	7.2	7.3	7.4	8.1	9.8	10.5	11.1
	standard deviation	4.1	4.1	3.8	3.6	3.4	3.3	3.1	3.3	3.4	3.7	3.9	4.0
	max	25.9	26.9	24.3	23.1	22.6	20.4	20.2	22.9	23.6	26.5	25.9	26.1
	min	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.1	0.3	0.0
	P25	7.9	7.5	6.8	5.5	5.1	4.8	4.9	5.1	5.7	7.1	7.5	8.1
	P50	11.0	10.5	9.3	8.0	7.6	7.2	7.3	7.4	8.1	9.8	10.5	11.1
	P75	13.6	13.2	12.3	10.5	10.1	9.5	9.2	9.8	10.6	12.3	13.0	13.6
	P90	16.0	16.0	14.7	12.9	12.3	11.5	11.1	11.7	12.9	14.4	15.4	16.0
	P95	17.2	17.3	16.0	14.2	13.6	12.7	12.3	12.9	14.1	15.9	16.6	17.4
wind direction (°)	mean	240.6	235.4	246.5	271.7	247.1	253.5	255.0	250.8	248.0	232.3	249.5	240.2

Table 3-6 Annual and overall wind statistics from corrected ERA5 at 10 m above sea level (1979 – 2024)

Year	wind speed at 10 m above sea level (m/s)										wind direction (°)
	mean	median	standard deviation	max	min	P25	P50	P75	P90	P95	mean
1979	9.1	9.0	3.9	23.9	0.1	6.2	9.0	11.7	14.2	15.8	253.0
1980	9.1	9.2	3.8	22.6	0.1	6.2	9.2	11.7	14.0	15.2	253.3
1981	8.9	8.7	3.8	25.2	0.2	6.2	8.7	11.6	13.7	15.4	250.3
1982	8.9	8.7	4.1	22.6	0.3	5.8	8.7	11.7	14.5	16.0	236.8
1983	8.9	8.7	4.1	23.6	0.0	5.6	8.7	11.7	14.4	16.0	248.2
1984	8.5	8.0	4.1	23.1	0.1	5.5	8.0	11.1	14.2	16.0	254.9
1985	9.0	9.0	3.6	21.4	0.3	6.4	9.0	11.4	13.6	15.1	236.1
1986	9.6	9.4	4.2	24.3	0.1	6.2	9.4	12.7	15.1	16.6	244.9
1987	8.5	8.6	3.7	23.1	0.0	6.0	8.6	11.1	13.4	14.8	236.9
1988	9.0	9.0	3.9	24.6	0.0	6.2	9.0	11.6	14.0	15.8	246.7
1989	9.0	8.8	4.0	23.2	0.1	6.1	8.8	11.7	14.2	15.8	238.8
1990	9.7	9.4	4.1	25.9	0.2	6.8	9.4	12.4	15.0	17.0	250.5
1991	9.0	8.6	4.1	23.8	0.3	6.0	8.6	11.7	14.8	16.5	241.5
1992	9.1	9.2	3.7	23.0	0.3	6.5	9.2	11.7	13.8	15.2	251.0
1993	9.1	8.8	3.9	24.4	0.3	6.2	8.8	11.6	14.2	16.1	246.5
1994	9.5	9.3	3.9	24.4	0.0	6.8	9.3	12.1	14.8	16.0	236.3
1995	9.0	8.6	3.9	23.9	0.0	6.2	8.6	11.6	14.2	15.9	244.9
1996	8.9	8.6	4.0	26.5	0.2	6.2	8.6	11.7	14.2	15.9	225.0
1997	8.8	8.5	4.0	25.9	0.2	6.0	8.5	11.2	14.2	16.0	216.9
1998	9.4	9.2	3.8	24.5	0.1	6.8	9.2	11.8	14.5	16.0	250.4
1999	9.3	9.3	3.9	24.3	0.4	6.6	9.3	11.9	14.6	16.0	252.6
2000	9.2	9.2	4.1	25.9	0.2	6.2	9.2	11.9	14.6	16.0	252.7
2001	8.3	8.3	3.8	20.7	0.2	5.5	8.3	11.1	13.3	14.8	255.5
2002	9.1	8.7	4.0	23.6	0.1	6.2	8.7	11.9	14.4	16.0	228.8
2003	8.7	8.6	3.7	23.0	0.1	6.2	8.6	11.3	13.5	14.8	224.6
2004	8.8	8.6	3.9	23.1	0.2	6.1	8.6	11.6	14.2	15.4	257.7
2005	8.9	8.8	3.7	23.7	0.1	6.2	8.8	11.6	13.7	15.0	257.2
2006	8.9	8.6	4.0	23.9	0.2	6.0	8.6	11.5	14.2	16.0	231.0
2007	8.7	8.6	4.0	23.8	0.3	5.7	8.6	11.3	14.1	16.0	256.1

2008	9.3	9.2	3.8	22.5	0.3	6.7	9.2	12.1	14.4	15.9	250.6
2009	9.0	8.9	3.9	24.3	0.1	6.2	8.9	11.7	14.2	15.6	236.7
2010	8.2	8.0	3.4	21.9	0.0	5.8	8.0	10.4	12.5	14.2	277.1
2011	9.0	8.9	3.9	21.3	0.2	6.2	8.9	11.7	14.2	15.4	238.7
2012	8.8	8.7	3.7	22.2	0.2	6.2	8.7	11.1	13.6	15.2	252.6
2013	9.0	8.6	3.9	23.9	0.3	6.2	8.6	11.6	14.2	16.0	243.7
2014	9.0	8.6	4.1	26.9	0.1	6.2	8.6	11.7	14.3	16.0	242.4
2015	9.4	9.2	4.0	23.1	0.3	6.7	9.2	11.9	14.9	16.6	243.7
2016	8.9	8.6	3.7	23.7	0.3	6.2	8.6	11.3	13.8	15.4	248.7
2017	8.9	8.8	3.8	24.5	0.2	6.2	8.8	11.6	13.8	15.1	253.1
2018	8.8	8.6	3.9	25.0	0.1	5.8	8.6	11.7	14.2	15.4	234.8
2019	8.9	8.6	3.9	23.1	0.1	6.1	8.6	11.7	14.2	15.4	247.2
2020	9.5	9.2	4.3	23.7	0.2	6.2	9.2	12.7	15.2	16.6	251.1
2021	8.4	8.0	4.0	26.1	0.3	5.5	8.0	11.1	13.6	15.4	249.6
2022	8.7	8.6	4.0	26.0	0.1	5.6	8.6	11.7	14.1	15.4	241.2
2023	9.0	8.9	3.8	23.0	0.3	6.2	8.9	11.5	14.1	15.6	242.9
Overall	9.0	8.8	3.9	26.9	0.0	6.2	8.8	11.7	14.2	15.7	245.3

3.3   Weibull Parameters

Weibull parameters for normal wind speeds have been calculated for the omni-directional conditions for both wind speeds at 10 m and 150 m above sea level. The Weibull scale (A) and shape (k) parameters fitted to the omni-directional wind data are given in Table 3-7, Figure 3-4 and Figure 3-5.

Table 3-7 Weibull fit parameters for wind speed 10mMSL and 150mMSL

Wind speed height above sea level (m)	Weibull parameters	
	Scale (A)	Shape (k)
10	10.58	2.58
150	15.39	2.57
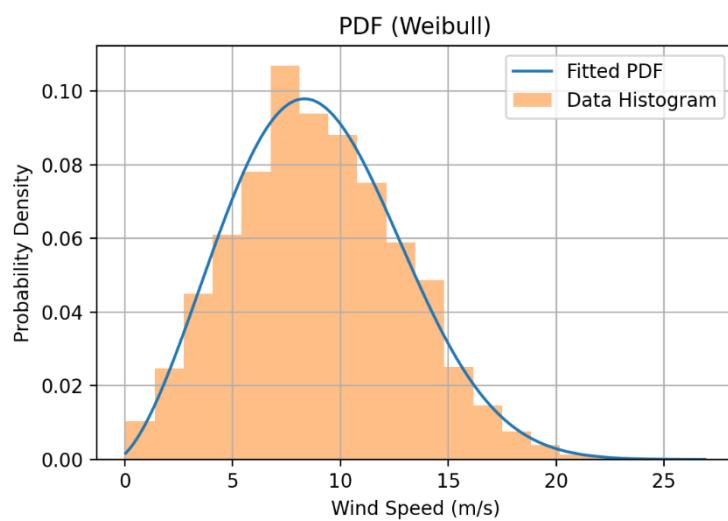
Figure 3-4 Histogram and Weibull fit parameters for wind speed 10 mMSL
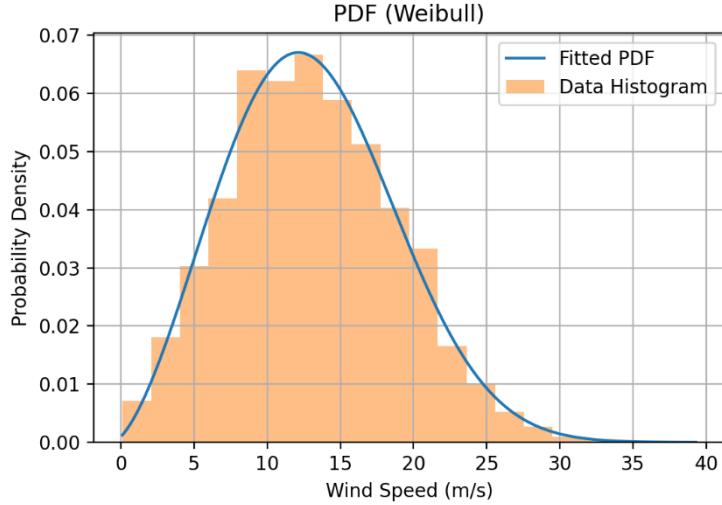
Figure 3-5 Histogram and Weibull fit parameters for wind speed 150 mMSL

3.4   Extreme Wind Conditions

The corrected ERA5 dataset was used to calculate 10-minute extreme wind speeds at hub height. A GEV methodology was chosen as the best-fitting analysis to calculate the extreme values for wind speed at this location. Due to the adequate length of the bias corrected ERA5 wind dataset, the block maxima (annual maxima) approach was chosen to extract extreme events over the 45-year time period as input into the general extreme value analysis. The 1-hour averaged wind speed dataset at 100 m above sea level, which was corrected using the M5 wind speed dataset, was used as an input to predict 1-, 50- and 100-year return values.

The predicted 1-hour extreme wind speeds at 100 m above sea level were converted to 10-minute extreme wind speeds using the Frøya wind speed profile which is documented in DNVGL-RP-C205: 2021 [10]:

$$U(T, z) = U_0 . \left\{ 1 + C . \ln \frac{z}{H} \right\} . \left\{ 1 - 0.41 . I_U(z) . \ln \frac{T}{T_0} \right\}$$

Where U_0 represents the 1-hr mean wind speed at height H above the sea level (100 m) to the mean wind speed U with averaging period T at height z above the sea level. T_0 is fixed at 3600 s. The expression for C is given as:

$$C = 5.73 x 10^{-2} \sqrt{1 + 0.148 U_0}$$

and

$$I_U = 0.06 . (1 + 0.043 U_0) . \left(\frac{z}{H} \right)^{-0.22}$$

These 10-minute extreme wind speeds at 100 m above sea level were extrapolated to hub height (150 m) using the power law (IEC 61400-3-1: 2019) with the shear exponent value 0.11 as recommended by IEC 61400-3-1: 2019 [6] for extreme conditions:

$$V_{power\ law} = V_{ref} * \left(\frac{z}{z_{ref}} \right)^{\alpha}$$

14

Where $V_{power\ law}$ and V_{ref} are the wind speeds at z and z_{ref} respectively, and α is the shear exponent.

The final 1-year, 50-year, and 100-year return values are presented in Table 3-8.

Table 3-8 Extreme wind speeds

Height above sea level (m)	Averaging period	Extreme wind speed (m/s)		
		1-Year	50-Year	100-Year
100	1-hour	23.8	36.7	37.1
100	10-min	25.9	40.8	41.3
150	10-min	27.5	43.4	43.9

Return values in the GEV model
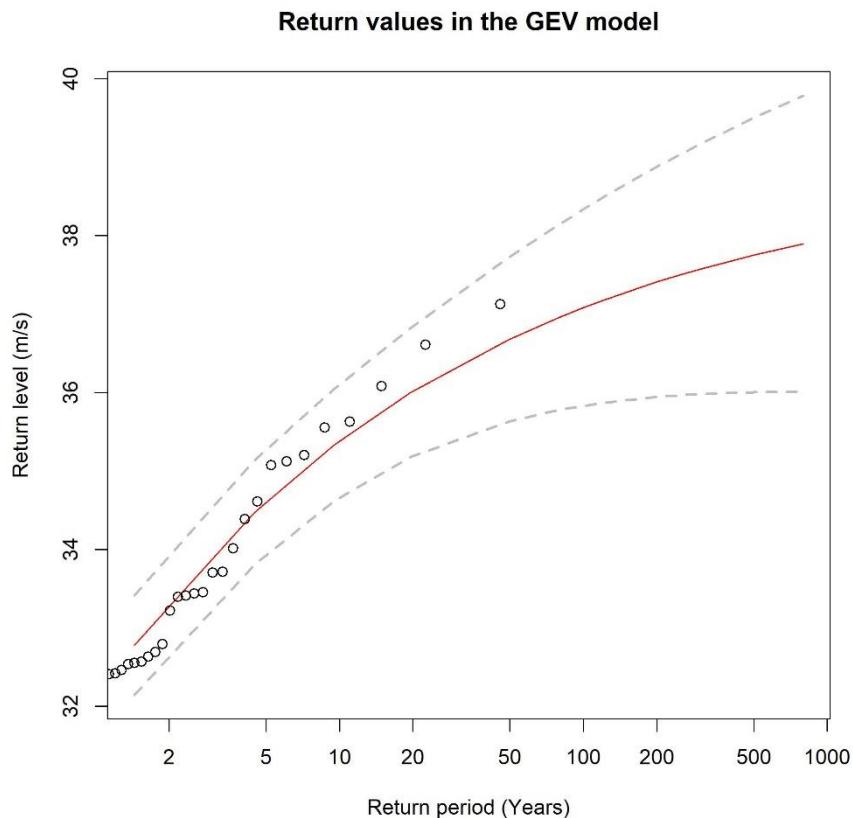
Figure 3-6 Return values of wind speed (m/s) at 100 m above sea level in the GEV model. Red curve represents the best fit with the data and aligns with the input data. Dashed lines represent the 95 % confidence intervals. Distribution parameters: location = 32.0440; scale = 1.9081; shape = -0.2349.

3.5   Normal Sea States

For normal sea states, the metocean database is analysed in order to establish the long-term joint probability distribution of the following parameters:

- Mean wind speed at hub height, V_{hub}, Significant wave height, H_s, and Peak wave period, T_p

According to IEC 61400-3-1: 2019 [6], a 1-hour averaging period is required for the establishment of the long-term joint probability distribution of V_{hub}, H_s and T_p under NSS. The wind and wave data are subsequently gathered in bins. The V_{hub} bins cover 2 m/s, the H_s bins cover 0.5 m and the T_p bins span 0.5 s (IEC 61400-3-1: 2019). The binning of the V_{hub} data is done in such a way that the wind speed bin corresponding to for example $V_{hub} = 2\ m/s$ contains all wind speed observations ranging from $\geq 1\ m/s$ to $< 3\ m/s$. The bin $H_s = 2\ m$ contains all wave height observations between $\geq 1.75\ m$ and $< 2.25\ m$, while the bin $T_p = 2\ s$ includes all wave period observations from $\geq 1.75\ s$ to $< 2.25\ s$. Subsequently, the occurrence of all combinations of V_{hub}, H_s and T_p is counted. The data is gathered per wind speed bin and entered in a scatter diagram giving the frequency of occurrences of each combination of H_s and T_p for that wind speed bin as a percentage value. The full set of scatter diagrams make up the 3-D scatter diagram. The H_s/T_p scatter diagram for all wind speeds and the full set of 3D scatter diagrams are available in the Appendix of this document.

The data is gathered per wind speed bin and entered in a scatter diagram giving the frequency of occurrences of each combination of H_s and T_p for that wind speed bin as a percentage value. The full set of scatter diagrams make up the 3-D scatter diagram. From each scatter plot, the most probable H_s/T_p bin was identified. The average H_s and T_p bin was then calculated and assigned to each V_{hub}. The reduced (lumped) scatter is shown in Table 3-9.

Table 3-9 Lumped scatter diagram of the given offshore site

Vhub (m/s)	Hs (m)	Tp (s)	Wave direction (°)	Wind direction (°)	Frequency of Occurrence (%)
2	0.57	8.94	247.50	78.75	0.02
4	0.55	8.98	247.50	33.75	0.18
6	0.55	8.97	247.50	258.75	0.26
8	0.58	8.96	247.50	247.50	0.34
10	0.97	8.97	247.50	247.50	0.53
12	0.92	4.01	247.50	258.75	0.62
14	0.99	4.01	247.50	258.75	0.86
16	1.44	5.01	247.50	247.50	0.97
18	1.49	5.01	247.50	247.50	0.94
20	2.04	6.46	247.50	247.50	0.93
22	2.52	6.96	236.25	247.50	0.59
24	3.01	7.51	236.25	247.50	0.42
26	3.46	7.56	236.25	247.50	0.20
28	4.48	8.99	225.00	247.50	0.13
30	4.57	8.94	236.25	236.25	0.03
32	5.49	9.50	225.00	247.50	0.01
34	5.97	10.02	247.50	247.50	0.01
36	8.45	12.98	247.50	236.25	0.00
38	8.87	12.73	236.25	191.25	0.00
40	9.42	13.21	236.25	225.00	0.00

A rose plot displaying wave direction and significant wave height is presented in Figure 3-7, whereby monthly, annual and overall wave summary statistics are given in Table 3-10 to Table 3-13. Kernel density and contour plots of significant wave height and peak wave period are presented in Figure 3-8 and Figure 3-9.
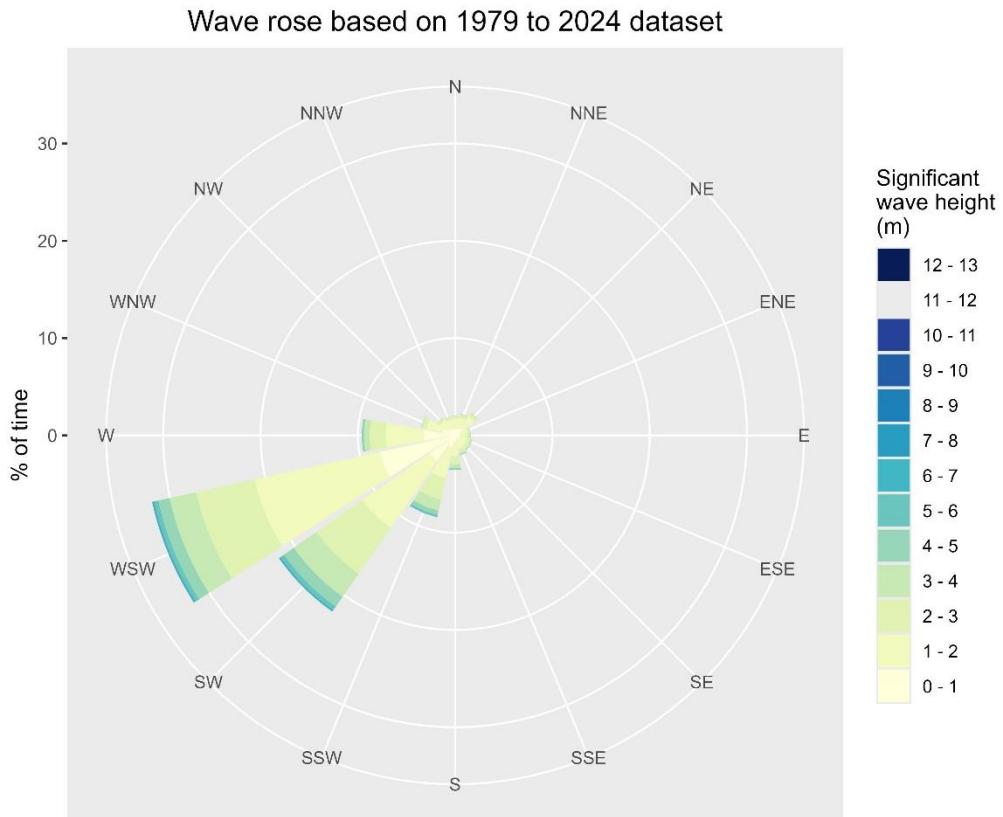
Figure 3-7 Rose plot of significant wave height and wave direction from 1979 to 2024 dataset

Table 3-10 Monthly wave statistics from corrected ERA5 dataset (1979 – 2024)

Variable	Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Hs (m)	mean	2.6	2.5	2.1	1.6	1.4	1.3	1.2	1.3	1.5	2.0	2.2	2.6
	median	2.4	2.2	1.9	1.4	1.2	1.1	1.1	1.1	1.3	1.8	2.0	2.3
	standard deviation	1.3	1.3	1.1	0.9	0.8	0.7	0.6	0.7	0.8	1.0	1.1	1.3
	max	8.8	10.1	8.4	7.3	9.7	5.5	4.6	7.6	8.2	13.0	9.2	9.4
	min	0.3	0.4	0.3	0.0	0.2	0.0	0.0	0.1	0.2	0.3	0.3	0.4
	P25	1.6	1.5	1.3	0.9	0.8	0.8	0.7	0.8	0.9	1.2	1.4	1.6
	P50	2.4	2.2	1.9	1.4	1.2	1.1	1.1	1.1	1.3	1.8	2.0	2.3
	P75	3.3	3.2	2.7	2.0	1.8	1.6	1.5	1.6	1.9	2.5	2.9	3.3
	P90	4.3	4.2	3.5	2.7	2.4	2.2	2.0	2.2	2.6	3.3	3.8	4.3
	P95	5.0	5.0	4.0	3.3	2.9	2.5	2.4	2.6	3.1	3.9	4.4	4.9
Hmax (m)	mean	3.9	3.8	3.1	2.3	2.0	1.8	1.7	1.8	2.2	3.0	3.4	3.9
	median	3.6	3.4	2.8	2.0	1.7	1.6	1.4	1.6	1.8	2.7	3.0	3.5
	standard deviation	2.0	2.1	1.7	1.4	1.2	1.1	1.0	1.2	1.3	1.7	1.8	2.0
	max	14.3	16.1	13.3	12.2	14.4	8.0	7.4	11.0	13.2	17.8	14.7	14.9
	min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

	P25	2.4	2.3	1.8	1.3	1.1	1.0	0.9	1.0	1.3	1.8	2.0	2.3
	P50	3.6	3.4	2.8	2.0	1.7	1.6	1.4	1.6	1.8	2.7	3.0	3.5
	P75	5.2	4.9	4.1	2.9	2.6	2.3	2.2	2.3	2.8	3.9	4.4	5.0
	P90	6.7	6.5	5.4	4.1	3.6	3.2	3.0	3.3	3.9	5.2	5.8	6.7
	P95	7.8	7.9	6.3	5.0	4.4	3.8	3.6	4.0	4.7	6.1	6.7	7.6
Tp (s)	mean	10.3	10.3	9.7	8.6	7.9	7.7	7.1	7.3	7.8	8.4	8.9	9.7
	median	10.3	10.2	9.7	8.8	7.9	7.7	6.9	7.0	7.5	8.4	8.8	9.6
	standard deviation	3.4	3.7	3.3	3.1	2.9	2.8	2.6	2.7	3.1	2.8	3.1	3.2
	max	26.3	26.3	26.3	26.3	26.3	21.6	26.3	26.3	26.3	26.3	26.3	26.3
	min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	P25	7.5	7.3	6.9	6.0	5.6	5.5	5.2	5.3	5.5	6.4	6.5	7.0
	P50	10.3	10.2	9.7	8.8	7.9	7.7	6.9	7.0	7.5	8.4	8.8	9.6
	P75	12.7	12.8	12.0	10.8	9.7	9.4	8.6	8.8	9.6	10.2	10.9	12.0
	P90	14.8	15.1	13.9	12.7	11.4	11.0	10.0	10.2	11.7	12.0	13.0	13.9
	P95	15.6	16.3	15.1	13.9	12.7	12.3	11.3	11.4	13.6	13.3	14.3	15.3
Wave direction (°)	mean	220.4	216.9	220.4	206.6	208.2	221.1	230.6	229.5	217.8	214.4	219.9	219.8

Table 3-11 Annual and overall significant wave height (Hs) from corrected ERA5 dataset (1979 – 2024)

Year	Hs (m)									
	mean	median	standard deviation	max	min	P25	P50	P75	P90	P95
1979	1.8	1.5	1.1	6.9	0.3	1.0	1.5	2.4	3.3	3.8
1980	1.8	1.6	1.0	7.5	0.2	1.0	1.6	2.3	3.1	3.7
1981	1.8	1.6	1.0	8.1	0.2	1.0	1.6	2.2	3.1	3.7
1982	1.9	1.6	1.1	7.7	0.3	1.0	1.6	2.5	3.5	4.1
1983	1.7	1.4	1.1	8.2	0.3	0.9	1.4	2.4	3.3	4.0
1984	1.6	1.4	1.1	7.5	0.3	0.8	1.4	2.1	3.2	4.0
1985	1.8	1.5	1.0	6.4	0.3	1.0	1.5	2.3	3.2	3.9
1986	2.0	1.7	1.2	6.8	0.3	1.1	1.7	2.8	3.7	4.3
1987	1.7	1.4	1.0	7.5	0.2	1.0	1.4	2.2	3.0	3.6
1988	1.8	1.6	1.1	9.8	0.3	1.0	1.6	2.3	3.2	3.9
1989	1.9	1.6	1.2	9.4	0.3	1.0	1.6	2.5	3.5	4.2
1990	2.0	1.7	1.3	8.8	0.3	1.0	1.7	2.6	3.8	4.7
1991	1.8	1.5	1.2	8.6	0.3	1.0	1.5	2.3	3.5	4.3
1992	1.9	1.7	0.9	6.9	0.4	1.1	1.7	2.4	3.2	3.6
1993	1.8	1.5	1.1	8.6	0.4	1.0	1.5	2.3	3.3	4.2
1994	2.0	1.8	1.2	7.8	0.3	1.2	1.8	2.6	3.6	4.2
1995	1.9	1.6	1.1	7.6	0.3	1.1	1.6	2.5	3.5	4.1
1996	1.8	1.6	1.1	10.5	0.3	1.0	1.6	2.4	3.3	4.1
1997	1.9	1.6	1.2	8.9	0.4	1.0	1.6	2.4	3.4	4.3
1998	1.9	1.7	1.2	8.2	0.3	1.1	1.7	2.5	3.6	4.3
1999	1.9	1.6	1.1	7.0	0.4	1.1	1.6	2.5	3.5	4.2
2000	1.9	1.7	1.2	9.2	0.3	1.0	1.7	2.4	3.5	4.3
2001	1.7	1.5	1.0	7.5	0.3	1.0	1.5	2.2	3.2	3.8

	mean	median	standard deviation	max	min	P25	P50	P75	P90	P95
2002	2.0	1.7	1.3	8.2	0.3	1.0	1.7	2.7	3.8	4.4
2003	1.8	1.6	1.0	7.6	0.2	1.0	1.6	2.3	3.0	3.6
2004	1.8	1.5	1.1	7.9	0.3	1.0	1.5	2.3	3.2	3.9
2005	1.6	1.4	0.9	8.0	0.3	1.0	1.4	2.1	2.9	3.4
2006	1.7	1.4	1.1	8.1	0.2	1.0	1.4	2.1	3.0	4.0
2007	1.7	1.3	1.1	8.2	0.2	0.9	1.3	2.2	3.3	4.0
2008	1.8	1.7	0.9	6.8	0.3	1.2	1.7	2.4	3.1	3.5
2009	1.9	1.7	1.1	7.0	0.2	1.2	1.7	2.5	3.5	4.0
2010	1.6	1.5	0.9	7.6	0.3	1.1	1.5	2.0	2.7	3.4
2011	1.9	1.7	1.1	6.5	0.1	1.1	1.7	2.5	3.5	4.0
2012	1.8	1.6	1.0	6.9	0.2	1.1	1.6	2.2	3.0	3.6
2013	1.9	1.6	1.2	8.6	0.3	1.0	1.6	2.4	3.5	4.3
2014	1.9	1.6	1.3	10.1	0.3	1.0	1.6	2.5	3.6	4.3
2015	2.0	1.7	1.2	7.9	0.2	1.1	1.7	2.7	3.8	4.5
2016	1.8	1.6	1.0	9.1	0.3	1.1	1.6	2.3	3.2	3.9
2017	1.8	1.6	1.0	13.0	0.2	1.0	1.6	2.3	3.1	3.7
2018	1.9	1.6	1.2	9.1	0.2	0.9	1.6	2.5	3.6	4.2
2019	1.9	1.7	1.1	7.2	0.0	1.1	1.7	2.5	3.6	4.1
2020	2.0	1.6	1.3	7.9	0.2	1.1	1.6	2.7	3.8	4.5
2021	1.7	1.4	1.1	9.7	0.2	0.9	1.4	2.1	3.1	3.9
2022	1.9	1.6	1.2	7.9	0.2	0.9	1.6	2.5	3.6	4.1
2023	2.0	1.6	1.1	8.2	0.4	1.2	1.6	2.6	3.5	4.2
Overall	1.8	1.6	1.1	13.0	0.0	1.0	1.6	2.4	3.4	4.0

Table 3-12 Annual and overall individual maximum wave height (Hmax) from corrected ERA5 dataset (1979 – 2024)

Year	Hmax (m)									
	mean	median	standard deviation	max	min	P25	P50	P75	P90	P95
1979	2.7	2.2	1.7	11.1	0.0	1.5	2.2	3.7	5.2	6.0
1980	2.6	2.3	1.6	12.5	0.0	1.5	2.3	3.5	4.8	5.6
1981	2.6	2.3	1.7	13.3	0.0	1.4	2.3	3.4	4.7	5.7
1982	2.8	2.3	1.9	12.7	0.0	1.4	2.3	3.8	5.4	6.4
1983	2.6	2.1	1.9	13.2	0.0	1.1	2.1	3.6	5.1	6.2
1984	2.4	2.0	1.9	12.7	0.0	1.1	2.0	3.2	4.9	6.3
1985	2.6	2.3	1.6	10.3	0.0	1.4	2.3	3.5	4.9	5.9
1986	3.0	2.6	1.9	11.0	0.0	1.5	2.6	4.3	5.7	6.7
1987	2.5	2.1	1.6	12.4	0.0	1.3	2.1	3.3	4.7	5.6
1988	2.7	2.3	1.8	15.3	0.0	1.4	2.3	3.5	4.9	6.0
1989	2.8	2.3	1.9	14.9	0.0	1.4	2.3	3.8	5.3	6.5
1990	2.9	2.5	2.1	14.3	0.0	1.4	2.5	3.9	5.9	7.2
1991	2.7	2.2	1.9	13.6	0.0	1.4	2.2	3.5	5.4	6.7
1992	2.7	2.5	1.5	11.8	0.0	1.6	2.5	3.6	4.8	5.6
1993	2.7	2.2	1.8	14.2	0.0	1.4	2.2	3.5	5.2	6.4
1994	3.0	2.6	1.9	13.1	0.0	1.7	2.6	4.0	5.5	6.5
1995	2.8	2.3	1.8	12.7	0.0	1.5	2.3	3.7	5.4	6.4

1996	2.7	2.3	1.8	16.9	0.0	1.4	2.3	3.6	5.2	6.4
1997	2.8	2.3	1.9	14.9	0.0	1.4	2.3	3.6	5.3	6.7
1998	2.9	2.5	1.9	13.2	0.0	1.5	2.5	3.7	5.5	6.7
1999	2.8	2.3	1.8	11.7	0.0	1.6	2.3	3.7	5.3	6.5
2000	2.8	2.4	1.9	14.7	0.0	1.4	2.4	3.7	5.4	6.7
2001	2.6	2.2	1.6	12.5	0.0	1.4	2.2	3.3	4.8	5.9
2002	3.0	2.6	2.0	13.2	0.0	1.4	2.6	4.2	5.9	6.8
2003	2.6	2.3	1.6	12.9	0.0	1.4	2.3	3.5	4.6	5.5
2004	2.6	2.2	1.7	11.5	0.0	1.4	2.2	3.4	4.9	6.0
2005	2.5	2.2	1.6	13.1	0.0	1.4	2.2	3.3	4.7	5.5
2006	2.7	2.3	1.9	13.4	0.0	1.4	2.3	3.6	5.2	6.5
2007	2.6	2.1	1.9	13.3	0.0	1.3	2.1	3.5	5.4	6.7
2008	2.8	2.5	1.6	11.0	0.0	1.6	2.5	3.7	5.2	6.0
2009	2.8	2.3	1.8	13.3	0.0	1.6	2.3	3.7	5.2	6.3
2010	2.4	2.1	1.4	11.0	0.0	1.4	2.1	3.0	4.2	5.1
2011	2.8	2.3	1.7	10.0	0.0	1.5	2.3	3.7	5.1	6.0
2012	2.6	2.3	1.5	12.3	0.0	1.5	2.3	3.3	4.6	5.6
2013	2.8	2.3	1.9	13.4	0.0	1.4	2.3	3.6	5.4	6.5
2014	2.9	2.3	2.1	16.1	0.0	1.4	2.3	3.7	5.4	6.7
2015	3.0	2.5	2.0	13.2	0.0	1.6	2.5	4.0	5.8	7.1
2016	2.7	2.3	1.6	15.0	0.0	1.6	2.3	3.5	4.9	5.8
2017	2.6	2.3	1.6	17.8	0.0	1.4	2.3	3.4	4.7	5.5
2018	2.8	2.4	1.8	13.3	0.0	1.4	2.4	3.9	5.3	6.3
2019	2.8	2.4	1.7	10.8	0.0	1.5	2.4	3.7	5.3	6.1
2020	3.0	2.3	2.1	12.2	0.0	1.4	2.3	4.2	5.9	6.9
2021	2.5	2.0	1.9	14.4	0.0	1.3	2.0	3.3	4.9	6.2
2022	2.7	2.3	1.8	12.4	0.0	1.4	2.3	3.7	5.2	6.1
2023	2.8	2.4	1.7	12.9	0.0	1.6	2.4	3.7	5.2	6.3
Overall	2.7	2.3	1.8	17.8	0.0	1.4	2.3	3.6	5.2	6.3

Table 3-13 Annual and overall peak wave period (Tp) and wave direction from corrected ERA5 dataset (1979 – 2024)

Year	Tp (s)										Wave direction (°)
	mean	median	standard deviation	max	min	P25	P50	P75	P90	P95	mean
1979	8.1	7.6	3.1	26.3	0.0	5.8	7.6	9.8	12.3	13.8	228.2
1980	8.4	7.9	3.0	26.3	0.0	6.2	7.9	10.2	12.8	14.1	221.2
1981	8.2	7.9	3.0	26.3	0.0	6.0	7.9	10.2	12.0	13.2	222.1
1982	8.9	8.6	3.2	26.3	0.0	6.6	8.6	10.6	13.2	15.1	225.2
1983	7.9	7.6	2.8	26.3	0.0	5.9	7.6	9.6	11.4	13.0	208.5
1984	8.4	8.4	3.2	26.0	0.0	5.8	8.4	10.5	12.7	13.9	219.1
1985	8.6	8.5	3.1	26.2	0.0	6.2	8.5	10.7	12.8	13.9	216.4
1986	8.6	8.3	3.1	26.3	0.0	6.4	8.3	10.6	12.6	14.5	215.7
1987	8.3	7.7	3.3	26.3	0.0	5.8	7.7	10.2	13.0	14.3	209.6
1988	8.5	8.1	3.2	26.3	0.0	5.9	8.1	10.2	12.8	14.5	216.5
1989	8.7	8.4	3.5	26.3	0.0	5.9	8.4	11.0	13.8	15.1	213.8
1990	8.2	7.7	3.2	26.3	0.0	5.7	7.7	10.2	12.6	14.1	218.7

1991	8.5	8.4	3.1	20.5	0.0	5.9	8.4	10.6	12.8	13.9	212.4
1992	9.1	8.8	3.3	20.2	0.0	6.5	8.8	11.2	13.8	15.3	217.5
1993	8.5	8.1	3.2	19.4	0.0	5.8	8.1	10.6	13.1	14.8	210.1
1994	8.8	8.4	3.1	26.3	0.0	6.5	8.4	10.8	13.1	14.3	216.1
1995	9.0	9.0	3.4	26.3	0.0	6.3	9.0	11.3	13.6	15.3	213.4
1996	8.7	8.1	3.5	26.3	0.0	6.0	8.1	10.7	13.6	15.1	204.3
1997	9.1	8.8	3.5	26.3	0.0	6.3	8.8	11.7	14.1	15.1	211.0
1998	8.8	8.4	3.3	26.3	0.0	6.3	8.4	10.9	13.3	14.8	224.1
1999	8.4	8.1	3.0	26.3	0.0	6.0	8.1	10.2	12.2	13.6	221.7
2000	8.6	8.4	3.0	26.3	0.0	6.3	8.4	10.6	13.0	14.1	222.9
2001	8.8	8.8	3.2	18.3	0.0	6.2	8.8	10.9	13.0	14.3	220.7
2002	8.9	8.8	3.4	26.3	0.0	6.4	8.8	11.2	13.8	15.4	218.4
2003	8.5	8.0	3.5	26.3	0.0	6.0	8.0	10.3	13.2	15.1	212.4
2004	8.5	8.0	3.3	26.3	0.0	5.9	8.0	10.7	12.8	14.5	225.0
2005	8.2	7.7	3.1	26.3	0.0	5.8	7.7	10.2	12.6	14.1	217.3
2006	8.6	8.4	3.3	26.3	0.0	6.2	8.4	10.3	13.0	14.5	214.9
2007	8.7	8.4	3.4	26.3	0.0	6.2	8.4	10.8	13.3	14.5	223.7
2008	8.4	8.0	3.0	26.3	0.0	6.3	8.0	10.2	12.6	14.1	222.7
2009	8.9	8.8	3.2	26.3	0.0	6.5	8.8	10.9	13.1	14.3	219.3
2010	8.7	8.5	3.4	26.3	0.0	5.9	8.5	10.7	13.3	14.8	210.8
2011	8.9	8.5	3.4	26.3	0.0	6.4	8.5	11.0	13.6	14.8	225.8
2012	8.4	8.0	2.9	26.3	0.0	6.3	8.0	10.5	12.6	13.6	224.3
2013	8.7	8.4	3.4	26.3	0.0	6.0	8.4	10.9	13.3	14.5	224.2
2014	8.8	8.7	3.4	26.3	0.0	6.2	8.7	10.9	13.3	15.4	223.7
2015	8.9	9.0	3.3	26.3	0.0	6.2	9.0	11.2	13.2	14.8	223.5
2016	8.9	8.8	3.2	26.2	0.0	6.4	8.8	10.8	13.6	15.1	220.2
2017	8.4	8.0	3.0	25.5	0.0	6.2	8.0	10.2	12.7	14.1	231.4
2018	9.0	9.0	3.4	26.3	0.0	6.5	9.0	11.0	13.3	15.1	218.2
2019	8.9	8.8	3.1	19.4	0.0	6.5	8.8	11.0	13.0	14.5	225.7
2020	8.6	8.4	3.2	26.3	0.0	6.0	8.4	10.3	12.8	14.1	219.0
2021	8.8	8.6	3.4	26.3	0.0	6.2	8.6	10.9	13.2	15.1	216.3
2022	9.0	8.9	3.5	26.3	0.0	6.4	8.9	11.0	13.4	14.8	220.8
2023	9.0	8.9	3.4	26.3	0.0	6.4	8.9	11.2	13.2	14.8	221.6
Overall	8.6	8.4	3.2	26.3	0.0	6.2	8.4	10.7	13.0	14.5	218.8
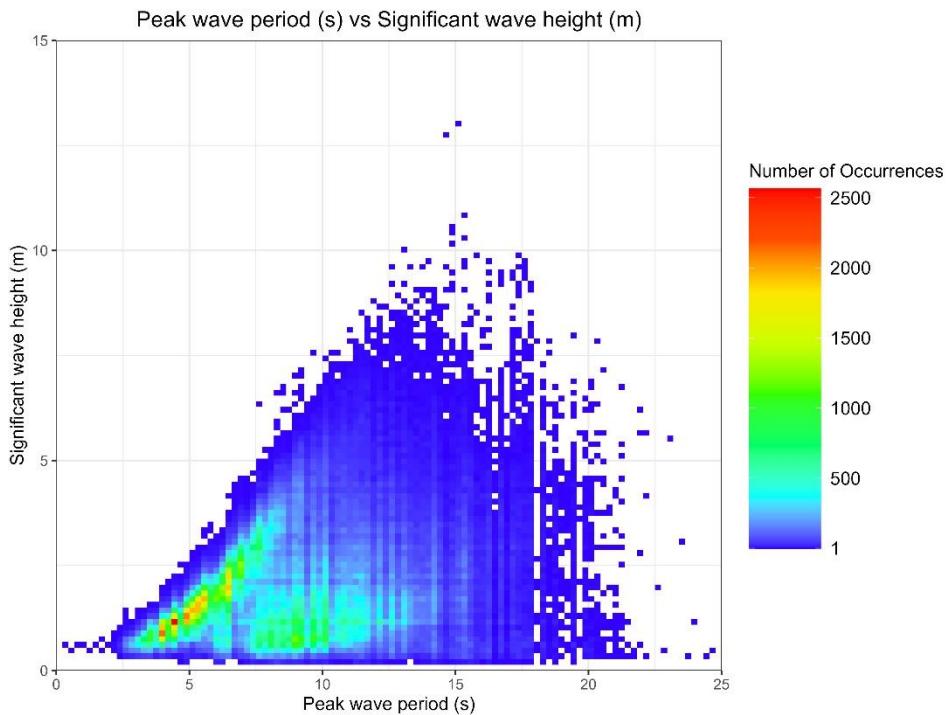
Figure 3-8 Kernel density plot of significant wave height and peak wave period
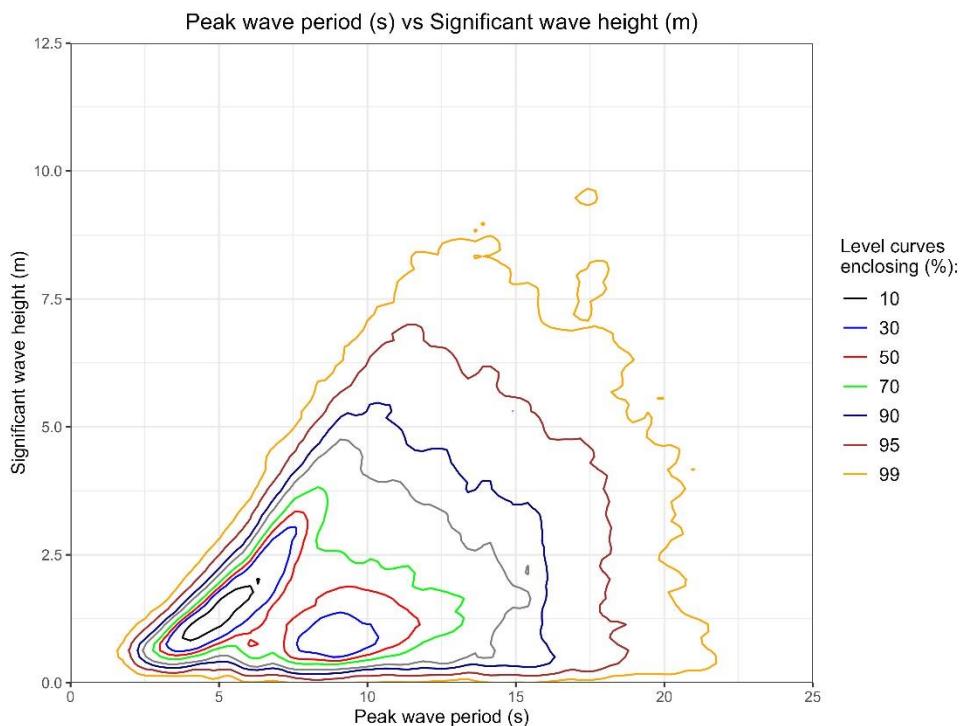
Figure 3-9 Contour plot of significant wave height and peak wave period

A weather window analysis was carried out using various limits of significant wave height and wind speed at 10 m above sea level. Table 3-14 shows the percentage of time for each month, for which weather window limits with specific Hs and wind speed specifications, along with durations ranging from 3 hours and 72 hours, occur.

Table 3-14 Wind-wave persistence – Weather Windows (10 m wind speeds)

	Time duration threshold (hours)	Month												Overall dataset
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Hs < 1.5 m, Uw < 5m/s	3	7.3	6.9	12.8	22.4	26.9	31.1	30.1	28.0	21.2	11.7	8.9	5.3	17.8
	6	6.7	6.4	11.8	21.0	25.4	29.6	28.5	26.2	19.6	10.8	8.2	4.8	16.7
	12	5.5	4.9	9.7	17.4	21.6	25.4	23.5	22.3	16.1	8.2	6.3	3.3	13.8
	24	3.5	2.3	6.8	11.2	14.2	17.6	16.4	15.6	10.5	4.3	2.8	1.5	9.1
	48	1.0	0.6	2.9	4.7	6.4	10.1	8.0	7.7	3.4	1.4	1.1	0.5	4.1
	72	NA	0.3	1.1	2.3	1.5	4.9	4.7	3.6	1.6	0.3	0.2	0.3	1.8
Hs < 2.0 m, Uw < 5m/s	3	9.3	9.0	15.3	24.8	28.3	32.4	30.4	28.8	22.4	13.1	10.7	7.0	19.3
	6	8.4	8.4	14.3	23.2	26.7	30.8	28.8	26.9	20.7	12.1	9.7	6.3	18.1
	12	6.5	6.3	11.5	19.4	22.7	26.4	23.6	22.8	16.8	9.4	7.3	4.1	14.9
	24	4.0	3.3	7.8	13.1	14.9	18.4	16.6	16.0	11.0	4.8	3.3	1.9	9.8
	48	1.3	1.1	3.3	5.4	6.6	10.2	8.0	7.8	3.5	1.4	1.2	0.5	4.3
	72	0.2	0.6	1.1	2.6	1.7	5.0	4.7	3.6	1.9	0.3	0.2	0.3	1.9
Hs < 2.5 m, Uw < 5m/s	3	10.5	10.2	16.2	25.5	28.5	32.5	30.5	28.9	22.7	13.6	11.5	7.8	19.9
	6	9.4	9.4	15.0	23.8	27.0	31.0	28.9	27.0	21.0	12.5	10.5	7.1	18.6
	12	7.0	6.9	12.0	19.8	22.9	26.5	23.7	22.9	17.0	9.5	7.8	4.7	15.2
	24	4.1	3.6	8.1	13.2	15.1	18.5	16.6	16.0	11.0	4.9	3.6	2.2	10.0
	48	1.5	1.3	3.3	5.5	6.9	10.2	8.0	7.8	3.5	1.4	1.2	0.5	4.4
	72	0.2	0.6	1.1	2.9	1.7	5.0	4.7	3.6	1.9	0.3	0.2	0.3	1.9
Hs < 3.5 m, Uw < 5m/s	3	11.5	11.3	16.7	25.8	28.7	32.6	30.6	29.0	22.9	13.9	12.0	8.8	20.3
	6	10.3	10.4	15.4	24.1	27.1	31.0	28.9	27.0	21.1	12.7	10.8	7.8	19.0
	12	7.6	7.5	12.3	19.9	23.0	26.5	23.7	22.9	17.1	9.7	7.9	5.0	15.4
	24	4.2	3.6	8.1	13.3	15.1	18.5	16.6	16.0	11.0	4.9	3.7	2.3	10.0
	48	1.5	1.3	3.3	5.5	6.9	10.2	8.0	7.8	3.5	1.4	1.4	0.5	4.4
	72	0.5	0.6	1.1	2.9	1.7	5.0	4.7	3.6	1.9	0.3	0.2	0.3	1.9
Hs < 1.5 m, Uw < 7.5 m/s	3	15.3	16.6	25.9	43.4	51.1	56.9	60.0	55.5	44.5	26.3	20.0	13.8	35.9
	6	14.8	15.8	25.0	42.2	49.9	55.7	58.8	54.3	43.4	25.4	19.2	13.1	34.9
	12	13.2	14.4	22.5	39.4	47.0	52.9	56.0	51.5	40.6	23.0	17.4	11.2	32.6
	24	10.1	11.4	18.7	34.0	41.1	47.5	49.8	43.7	34.2	17.9	13.1	7.8	27.8
	48	5.7	4.5	13.8	22.4	29.6	36.3	39.8	31.4	23.4	9.6	5.9	3.9	19.7
	72	4.0	3.1	10.1	15.6	20.4	28.9	29.7	21.8	16.4	6.1	2.9	1.6	14.3
Hs < 2.0 m, Uw < 7.5 m/s	3	21.7	23.7	33.7	51.0	55.9	61.4	62.8	59.1	49.4	31.6	25.8	19.7	41.4
	6	20.9	22.4	32.5	49.6	54.5	60.0	61.5	57.8	48.1	30.4	24.7	18.7	40.2
	12	18.2	20.1	29.2	46.0	51.4	56.8	58.6	54.6	44.9	27.3	22.1	16.4	37.3
	24	14.3	15.9	23.8	39.4	44.9	51.0	51.8	46.3	37.1	20.7	16.5	11.5	31.6
	48	7.7	7.0	16.7	27.1	32.3	38.6	41.4	34.2	25.5	11.5	7.5	6.1	22.2
	72	5.5	5.1	12.0	18.8	22.7	30.7	31.2	23.7	17.7	6.3	3.8	2.7	16.1
Hs < 2.5 m, Uw < 7.5 m/s	3	24.9	27.0	37.1	53.2	57.0	62.3	63.4	59.8	50.6	33.6	28.4	22.5	43.4
	6	23.9	25.8	35.6	51.8	55.6	60.8	62.1	58.4	49.4	32.1	27.2	21.2	42.1
	12	20.8	23.1	31.7	48.0	52.3	57.6	59.1	55.0	45.9	28.8	24.2	18.3	38.9
	24	15.5	17.8	25.7	41.1	45.6	51.5	52.1	46.8	37.8	21.4	17.7	12.8	32.6

	48	9.0	8.5	17.7	28.3	33.1	39.8	41.4	34.7	25.7	11.8	7.9	6.5	23.0
	72	5.9	5.3	12.3	19.3	23.4	31.2	31.2	24.1	17.7	6.5	4.2	2.9	16.5
Hs < 3.5 m, Uw < 7.5 m/s	3	27.6	30.0	39.2	54.1	57.4	62.4	63.6	60.0	51.2	34.8	30.4	25.3	44.7
	6	26.3	28.6	37.6	52.6	56.0	60.9	62.2	58.6	49.9	33.2	29.0	23.8	43.4
	12	22.9	25.8	33.1	48.7	52.7	57.6	59.1	55.2	46.5	29.8	25.6	20.4	40.0
	24	16.6	19.9	26.2	41.8	45.9	51.5	52.1	46.8	38.1	22.0	18.5	13.7	33.2
	48	9.7	9.4	18.1	28.7	33.1	39.9	41.5	34.8	26.0	12.0	8.6	6.7	23.3
	72	6.2	5.6	12.6	19.9	23.4	31.2	31.2	24.2	17.9	6.8	4.4	2.9	16.7
Hs < 1.5 m, Uw < 10 m/s	3	19.7	22.3	32.9	54.5	63.1	68.8	73.3	68.6	58.1	36.2	27.8	19.4	45.5
	6	19.1	21.8	32.3	53.7	62.4	68.3	72.9	68.2	57.7	35.6	27.3	19.0	45.0
	12	18.1	20.6	30.8	52.4	61.1	66.9	71.8	66.8	55.9	34.0	25.8	17.3	43.7
	24	15.4	17.6	27.6	48.4	57.9	63.6	68.0	63.8	52.3	30.6	21.9	13.4	40.5
	48	10.7	10.3	21.5	40.2	50.8	56.3	63.4	55.6	45.8	21.8	14.3	7.9	34.2
	72	7.6	8.5	16.5	33.4	42.5	49.8	54.7	46.2	36.9	15.3	8.4	5.0	28.7
Hs < 2.0 m, Uw < 10 m/s	3	33.5	37.4	49.6	70.6	76.5	82.4	84.7	81.2	71.7	50.8	42.1	33.7	59.6
	6	32.9	36.6	48.9	69.9	75.8	81.7	84.1	80.6	71.0	50.1	41.4	33.1	59.0
	12	31.0	34.7	47.0	68.6	74.1	80.2	82.9	79.5	69.7	48.0	39.6	31.3	57.5
	24	27.0	31.0	42.3	64.6	70.5	77.5	79.9	76.6	64.5	42.3	34.5	26.7	53.6
	48	20.1	23.6	33.8	55.6	64.6	69.9	75.0	69.2	57.4	33.1	23.3	18.8	46.6
	72	14.0	17.4	27.4	46.8	54.0	62.8	67.5	61.0	48.8	22.9	17.5	11.6	39.4
Hs < 2.5 m, Uw < 10 m/s	3	41.8	45.6	58.1	76.3	80.5	86.1	87.9	84.5	76.0	57.5	49.0	41.4	65.5
	6	41.0	44.5	57.4	75.5	79.8	85.4	87.2	83.9	75.1	56.4	48.0	40.5	64.7
	12	38.6	42.6	54.9	74.3	78.1	84.2	85.8	82.5	73.4	54.0	45.6	38.2	62.9
	24	32.8	37.6	49.7	70.7	74.5	81.1	83.4	79.2	68.1	46.9	40.1	32.7	58.6
	48	24.0	29.4	39.2	61.6	68.1	73.4	77.3	71.7	60.5	36.8	27.7	23.4	50.7
	72	17.4	22.4	33.4	54.1	57.8	65.9	70.3	63.7	52.1	26.0	19.8	15.8	43.5

3.6   Wind-wave misalignment

The wind-wave misalignment was defined as the wind direction minus the mean wave direction for each model time step and was analysed with respect to the wind speed at hub height (150 mMSL). A scatter diagram of the misalignment of the full datasets against wind speed at hub height is presented in Figure 3-10. Wind speed was binned into 2 m/s bins and the mean misalignment for that bin was calculated. A scatter plot displaying the results of this analysis for omni-directional and 22.5 ° sectors is given in Figure 3-11.

As expected, wind-wave misalignment values are relatively higher at lower wind speeds and reduces as wind speed increases. Misalignment is also lowest in the prevailing south-western to western directional sectors.
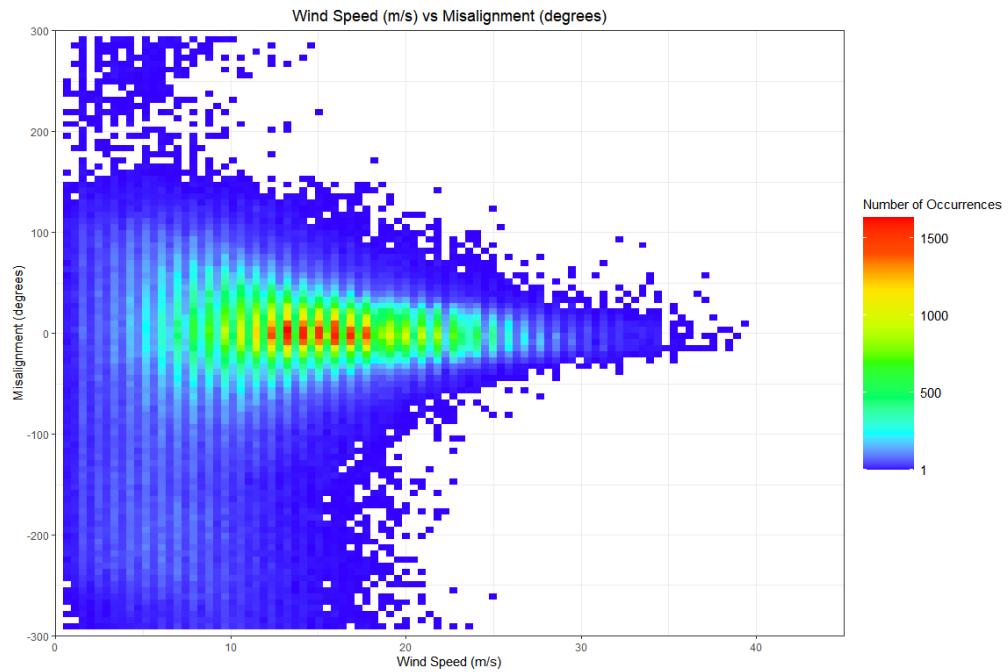
Figure 3-10 Wind-wave misalignment – full dataset (wind speed at hub height)
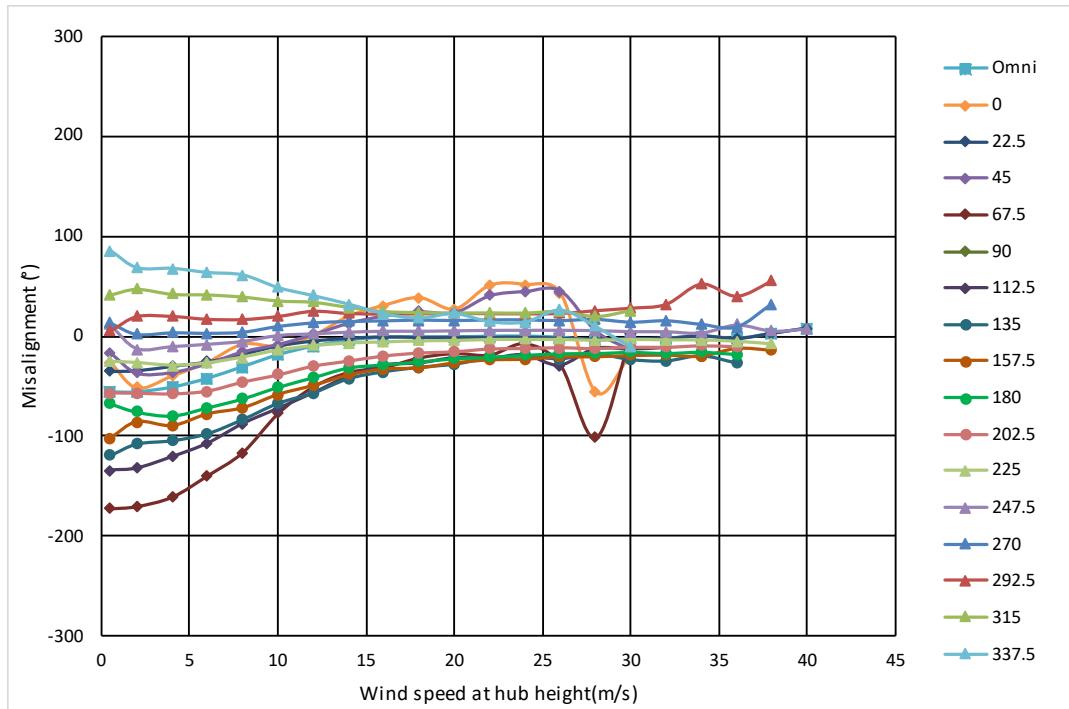
Figure 3-11 Wind-wave misalignment. Mean misalignment per 2 m/s wind speed bins are given for each wind speed directional sector

Kernel density and contour plots for significant wave height and wind speed at hub height (150 m) are presented in Figure 3-12 and Figure 3-13.

25
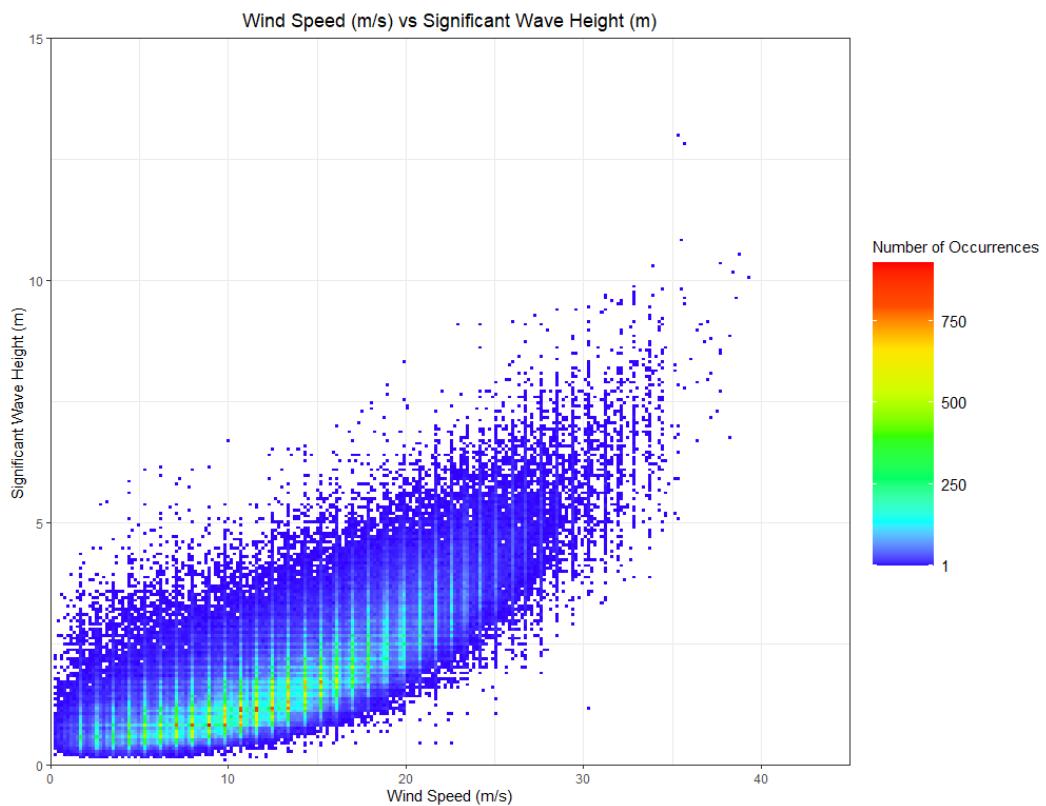
Figure 3-12 Kernel density plot of significant wave height and wind speed at 150 m above sea level
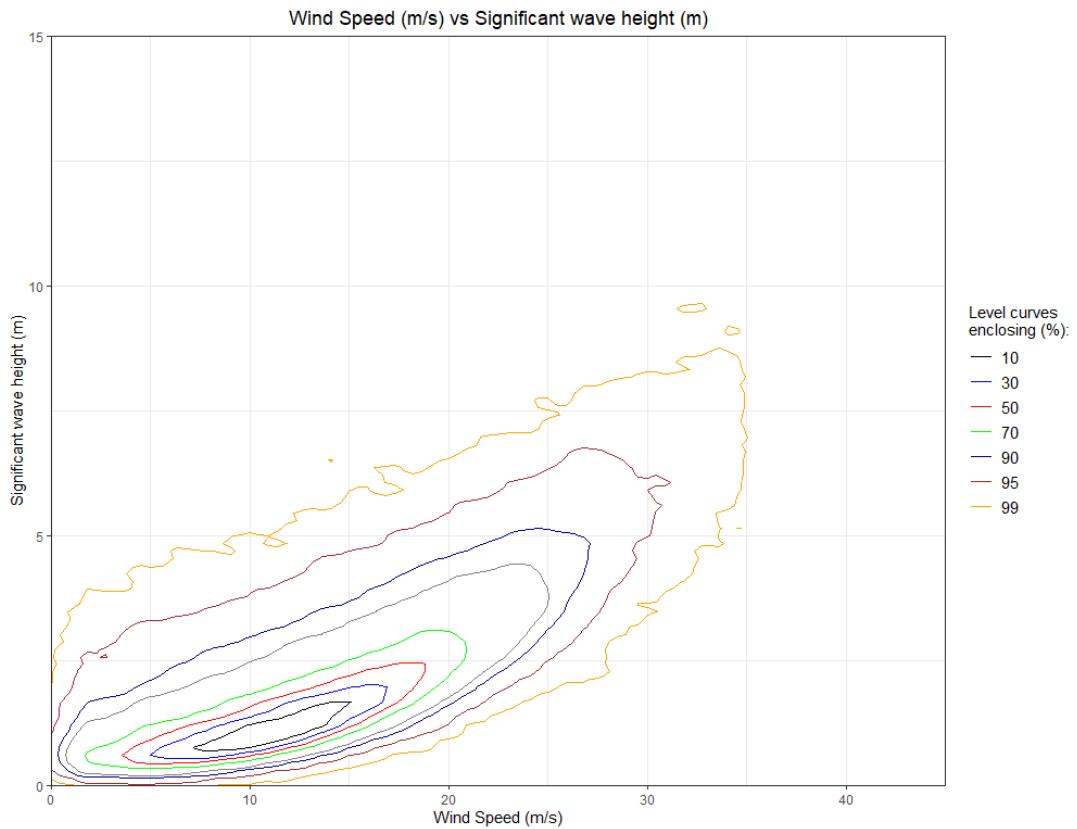
Figure 3-13 Contour plot of significant wave height and wind speed at 150 m above sea level

Wind-wave coincidence and exceedance tables for wind speeds at 10 m above sea level are provided in Figure 0-2 in the Appendix.

26

3.7   Extreme Sea States

The corrected ERA5 dataset [5] was used to calculate extreme wave variables. For this study, a generalised extreme value (GEV) methodology was chosen as the best-fitting analysis to calculate the extreme values for wave height at this location. Due to the adequate length of the wave dataset, the block maxima (annual maxima) approach was chosen to extract extreme events over the 45-year time period as input into the general extreme value analysis.

Return values in the GEV model
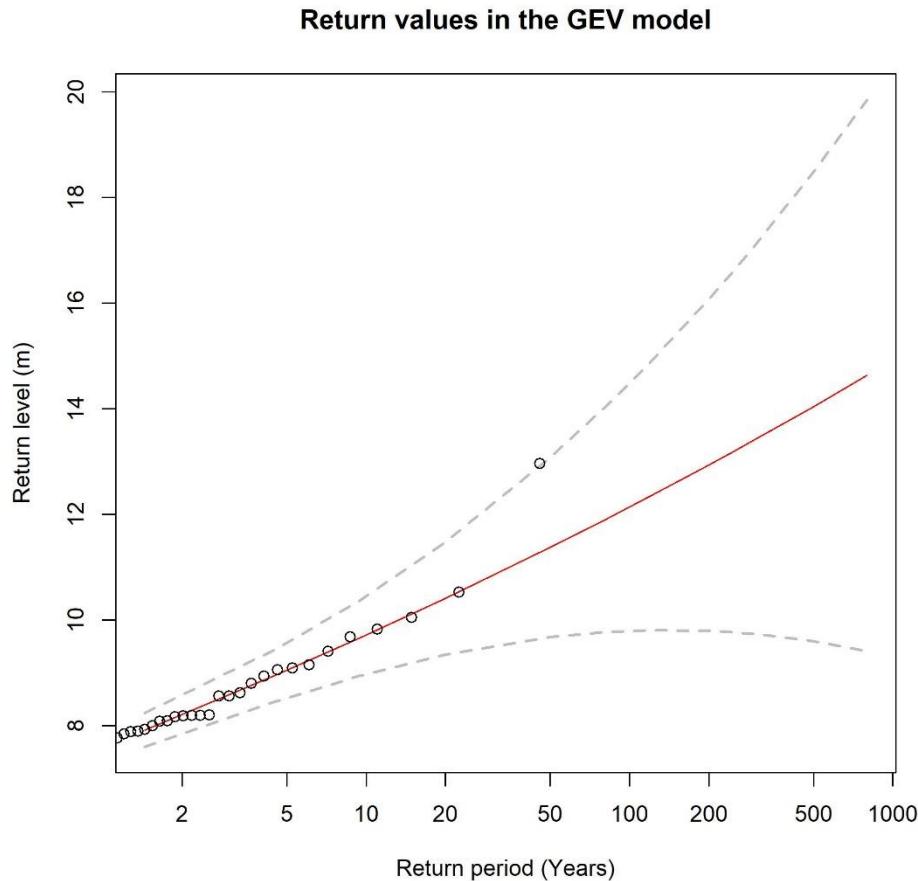
Figure 3-14 Return values of significant wave height (Hs) in the GEV model. Red curve represents the best fit with the data and aligns with the input data. Dashed lines represent the 95 % confidence intervals. Distribution parameters: location = 7.593; scale = 0.866; shape = 0.061.

The predicted 1-, 50- and 100-year return values of significant wave height H_s is presented in Table 3-5. The maximum wave height is determined according to the equation provided in IEC 61400-3-1: 2019 [6].

$$H_{max} = 1.86 H_s$$

The wave period associated with maximum wave height, T_{Hmax} or T_{ass}, is calculated based on the relationship between H_s and T_{ass} (IEC 61400-3-1: 2019)

$$11.1 \sqrt{\frac{H_s}{g}} \leq T_{ass} \leq 14.3 \sqrt{\frac{H_s}{g}}$$

Where g is the acceleration due to gravity. The following equation provided in DNV-RP-C205: 2021 [10] is used to estimate the upper and lower limits of peak wave period T_p.

27

$$T_{ass} = 0.9 T_p$$

It is noted that, IEC 61400-3-1: 2019 [6] recommend a 3-hour sea state as input into extreme value analysis. In this study, a 1-hour sea state is utilised and therefore the calculated extreme values are considered conservative.

Table 3-15 Omni-directional Extreme Wave Data

Return Period (Years)	Significant Wave Height, H_s (m)	Peak Period, T_p (s) (Lower Limit)	Peak Period, T_p (s) (Upper Limit)	Maximum Wave Height, H_{max} (m)	Period of Max Wave, T_{Hmax} (s) (Lower Limit)	Period of Max Wave, T_{Hmax} (s) (Upper Limit)
1	5.10	8.89	11.56	9.60	8.00	10.40
2	7.90	11.11	14.22	14.70	10.00	12.80
50	11.40	13.22	17.11	21.10	11.90	15.40
100	12.10	13.67	17.67	22.60	12.30	15.90

3.8   Severe Sea States

The severe sea states (SSS) conditions are found using Inverse First-Order Reliability Method (IFORM) as recommended by IEC 61400-3-1; 2019 [6]. The methodology described in Papi et al [11] was followed. The 50-year and 1-year environmental contours of V_{hub}-H_s are shown as solid lines in Figure 3-15. The SSS values, defined by the points along the 50-year contours between a range of hub-height wind speeds are provided in Table 3-16. The wind speeds at hub-height are provided for a wider range of speeds to account for variations in turbine cut-in and cut-out speeds.
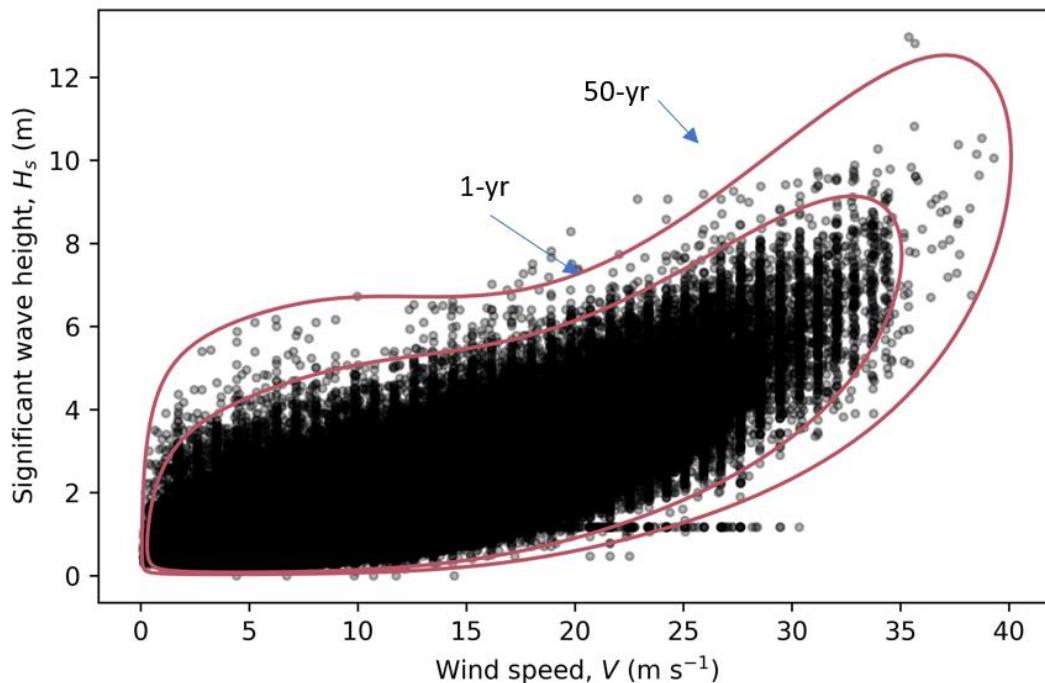
Figure 3-15 Wind speed (150 m) – significant wave height environmental contours compute with IFORM method

Table 3-16 Severe sea states for a wide range of wind speed bins, computed from IFORM Method

ID	Vhub (150 m)	Hs	Tp	Tp min	Tp max
0	1	4.64	11.26	7.20	16.82
1	2	5.37	11.64	7.78	16.78
2	3	5.76	11.84	8.08	16.79
3	4	6.02	11.97	8.27	16.80
4	5	6.22	12.07	8.40	16.81
5	6	6.38	12.14	8.51	16.82
6	7	6.50	12.20	8.60	16.83
7	8	6.59	12.24	8.66	16.84
8	9	6.66	12.27	8.70	16.85
9	10	6.69	12.29	8.73	16.85
10	11	6.71	12.30	8.74	16.85
11	12	6.71	12.30	8.74	16.85
12	13	6.70	12.30	8.74	16.85
13	14	6.71	12.30	8.74	16.85
14	15	6.72	12.31	8.75	16.85
15	16	6.76	12.33	8.77	16.86
16	17	6.83	12.36	8.82	16.86
17	18	6.93	12.41	8.89	16.88
18	19	7.07	12.47	8.98	16.89
19	20	7.25	12.55	9.09	16.92
20	21	7.46	12.65	9.22	16.95
21	22	7.70	12.76	9.37	16.99
22	23	7.98	12.88	9.53	17.04
23	24	8.29	13.01	9.71	17.10
24	25	8.62	13.16	9.89	17.17
25	26	8.98	13.31	10.08	17.25
26	27	9.36	13.46	10.28	17.34
27	28	9.75	13.62	10.47	17.44
28	29	10.14	13.78	10.66	17.55
29	30	10.54	13.94	10.84	17.66

3.9   Currents – Normal Conditions

A 12-year hourly time-series of the bottom, mid and surface current speeds and directions were extracted from the three-dimensional North East Atlantic Model, an implementation of the ROMS model for Irish Waters [7] at -6.7125°, 51.6875°. The current roses of this dataset are presented in Figure 3-16 to Figure 3-18. Monthly, annual and overall statistics are presented in Table 3-17 to Table 3-20.
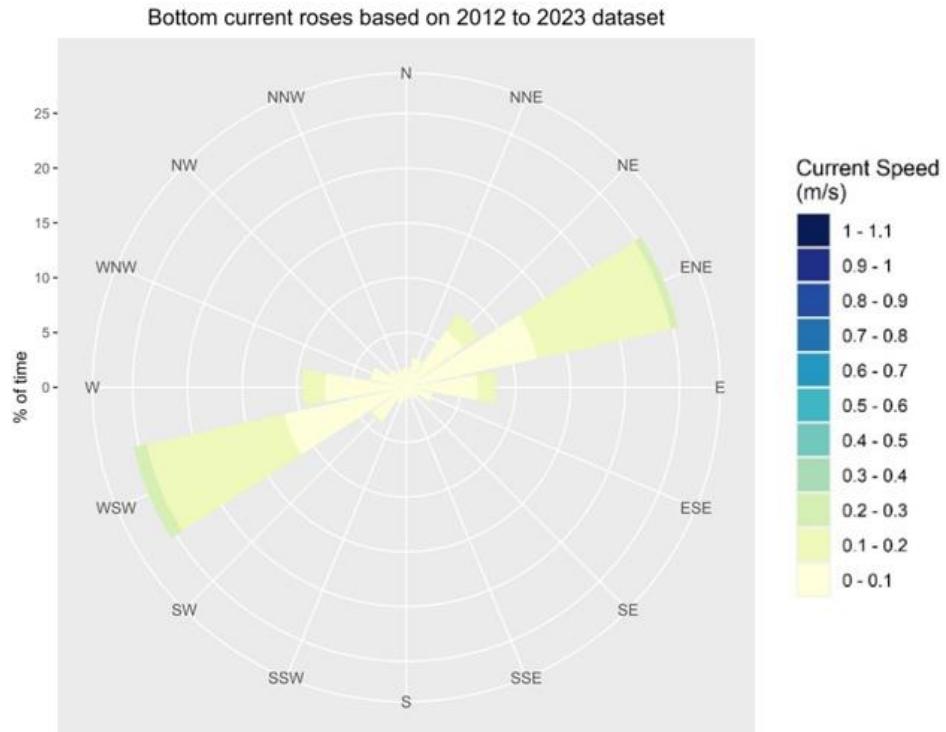
Figure 3-16 Current rose (11-year modelled bottom current)
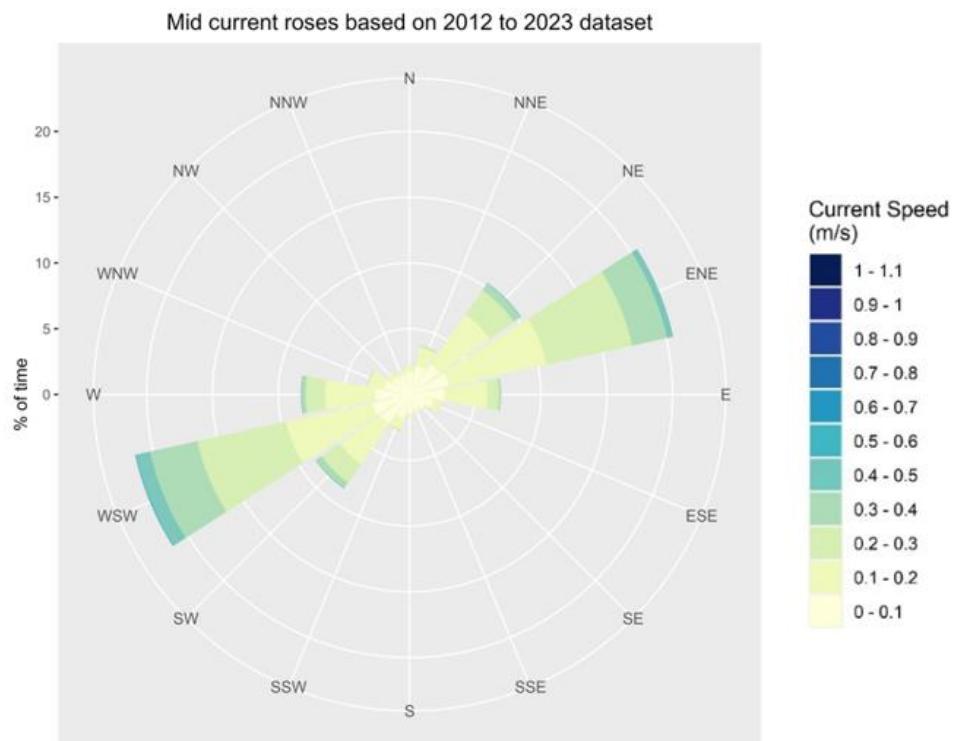
Figure 3-17 Current rose (12-year modelled mid current)
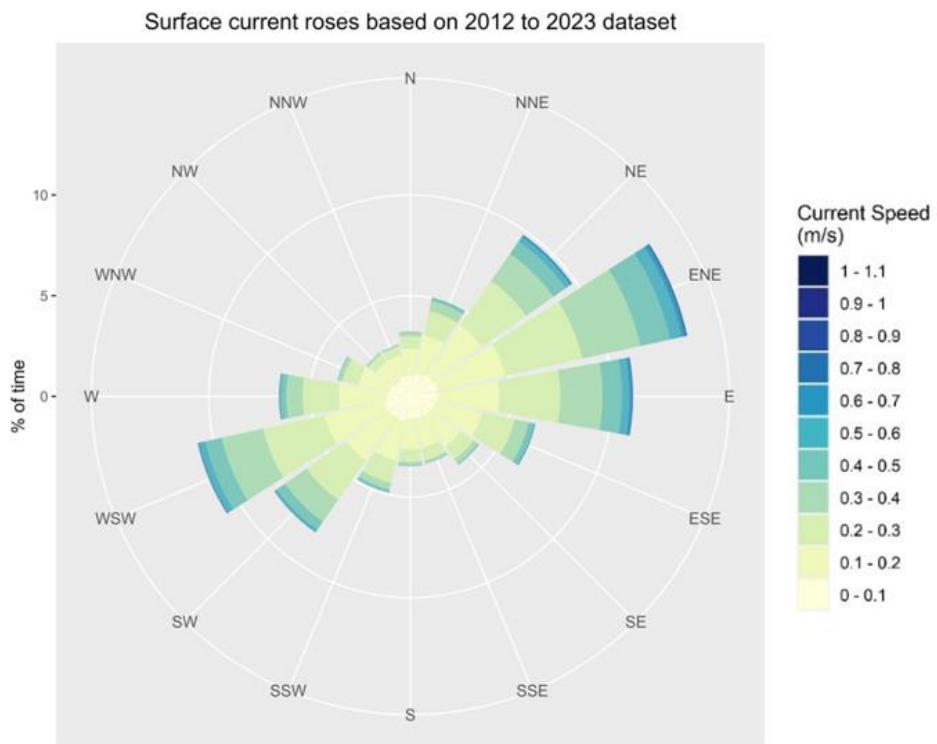
Figure 3-18 Current rose (12-year modelled surface current)

Table 3-17 Percent exceedance of bottom, mid and surface current speeds (derived from 12-year modelled dataset)

Exceedance threshold (m/s)	Bottom current speed exceedance (%)	Mid current speed exceedance (%)	Surface current speed (%)
0.1	31.45	62.72	79.92
0.2	0.36	23.15	44.02
0.3	0.00	4.20	18.10
0.4		0.27	5.73
0.5		0.01	1.58
0.6			0.36
0.7			0.07
0.8			0.01
0.9			0.01
1			0.00

Table 3-18 Monthly bottom, mid and surface current statistics (derived from a 12-year modelled dataset)

	Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
bottom current speed (m/s)	mean	0.09	0.09	0.09	0.08	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.09
	max	0.28	0.28	0.29	0.30	0.25	0.22	0.22	0.30	0.27	0.27	0.28	0.24
	min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	P25	0.05	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.05
	P50	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08	0.08
	P75	0.12	0.13	0.13	0.12	0.11	0.10	0.10	0.11	0.12	0.12	0.12	0.12
	P90	0.16	0.17	0.17	0.16	0.14	0.13	0.13	0.15	0.16	0.16	0.15	0.15
	P95	0.18	0.19	0.19	0.18	0.16	0.15	0.15	0.17	0.18	0.18	0.17	0.17
mid current speed (m/s)	mean	0.15	0.15	0.15	0.16	0.16	0.15	0.15	0.16	0.17	0.17	0.16	0.15
	max	0.55	0.52	0.54	0.51	0.51	0.52	0.57	0.60	0.61	0.58	0.59	0.46
	min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	P25	0.08	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.09	0.09	0.08
	P50	0.13	0.13	0.13	0.14	0.14	0.14	0.14	0.14	0.15	0.15	0.14	0.13
	P75	0.20	0.21	0.22	0.23	0.22	0.21	0.21	0.23	0.24	0.24	0.22	0.20
	P90	0.28	0.29	0.31	0.31	0.29	0.27	0.28	0.31	0.33	0.32	0.29	0.27
	P95	0.31	0.33	0.35	0.35	0.33	0.32	0.32	0.36	0.39	0.37	0.34	0.30
surface current speed(m/s)	mean	0.21	0.22	0.21	0.21	0.21	0.21	0.21	0.22	0.21	0.21	0.21	0.22
	max	0.96	0.91	0.81	0.72	0.78	0.86	0.73	0.88	1.00	1.06	0.87	0.83
	min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	P25	0.11	0.12	0.11	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.11	0.12
	P50	0.19	0.20	0.18	0.19	0.19	0.19	0.19	0.19	0.19	0.19	0.18	0.20
	P75	0.28	0.30	0.29	0.28	0.28	0.28	0.28	0.29	0.28	0.28	0.28	0.29
	P90	0.38	0.41	0.38	0.37	0.36	0.37	0.38	0.40	0.37	0.38	0.38	0.39
	P95	0.45	0.48	0.45	0.43	0.41	0.43	0.44	0.46	0.43	0.45	0.44	0.45

	Statistic												
bottom current direction (°)	mean	254.0	253.0	252.0	253.0	251.0	252.0	254.0	253.0	254.0	254.0	254.0	258.0
	mean	69.6	70.6	72.7	79.1	80.5	82.3	80.6	81.9	80.6	80.9	79.0	71.2
mid current direction (°)	mean	249.0	248.0	249.0	249.0	246.0	246.0	247.0	247.0	247.0	249.0	251.0	249.0
	mean	77.8	76.9	74.3	76.0	78.5	78.2	78.4	79.16	80.5	80.2	75.3	76.4
surface current direction (°)	mean	240.0	246.0	248.0	249.0	243.0	243.0	236.0	233.0	242.0	249.0	240.0	243.0
	mean	86.9	87.5	87.6	91.0	91.5	91.7	93.5	89.8	87.0	84.3	86.4	84.0

Table 3-19 Annual bottom, mid and surface current statistics (derived from a 12-year modelled dataset)

	Statistic	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
bottom current speed (m/s)	mean	0.07	0.07	0.07	0.07	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.09
	max	0.23	0.28	0.28	0.26	0.30	0.25	0.29	0.27	0.28	0.28	0.25	0.30
	min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	P25	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.04
	P50	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.08	0.08	0.08	0.08	0.08
	P75	0.10	0.10	0.10	0.10	0.10	0.13	0.13	0.13	0.12	0.12	0.12	0.12
	P90	0.14	0.14	0.14	0.14	0.14	0.17	0.17	0.16	0.16	0.16	0.16	0.16
	P95	0.16	0.16	0.16	0.16	0.16	0.19	0.19	0.18	0.18	0.18	0.18	0.18
mid current speed (m/s)	mean	0.14	0.14	0.14	0.14	0.14	0.18	0.17	0.17	0.17	0.17	0.17	0.16
	max	0.52	0.59	0.56	0.52	0.51	0.57	0.59	0.58	0.60	0.55	0.61	0.57
	min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	P25	0.07	0.07	0.07	0.07	0.07	0.09	0.09	0.09	0.09	0.09	0.09	0.08
	P50	0.12	0.12	0.12	0.13	0.13	0.16	0.15	0.15	0.15	0.15	0.15	0.14
	P75	0.20	0.19	0.19	0.20	0.20	0.25	0.24	0.24	0.24	0.23	0.23	0.22
	P90	0.26	0.26	0.26	0.27	0.27	0.33	0.33	0.32	0.31	0.31	0.31	0.29
	P95	0.30	0.30	0.30	0.31	0.31	0.38	0.37	0.36	0.36	0.36	0.35	0.33
surface current speed(m/s)	mean	0.20	0.20	0.20	0.21	0.20	0.22	0.22	0.22	0.22	0.21	0.22	0.22
	max	0.82	0.85	0.96	0.86	0.88	1.06	0.82	0.73	0.87	0.78	0.88	1.00
	min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	P25	0.11	0.11	0.11	0.12	0.11	0.12	0.12	0.12	0.12	0.12	0.12	0.12
	P50	0.17	0.18	0.18	0.19	0.18	0.20	0.20	0.20	0.20	0.19	0.19	0.20
	P75	0.26	0.27	0.27	0.28	0.26	0.29	0.29	0.30	0.30	0.29	0.29	0.30
	P90	0.35	0.35	0.37	0.37	0.35	0.39	0.39	0.39	0.41	0.38	0.40	0.39
	P95	0.42	0.41	0.44	0.43	0.41	0.45	0.46	0.45	0.48	0.44	0.46	0.46
bottom current direction (°)	mean	253.0	254.0	257.0	253.0	252.0	254.0	252.0	255.0	252.0	253.0	253.0	254.0
	mean	79.6	79.4	78.1	78.0	75.9	78.1	76.4	75.4	76.8	76.3	77.8	77.7
mid current direction (°)	mean	249.0	250.0	250.0	245.0	249.0	248.0	247.0	247.0	247.0	248.0	248.0	248.0

	mean	78.3	77.4	77.8	79.5	77.8	75.8	76.1	76.4	78.7	75.5	78.2	79.8
surface current direction (°)	mean	241.0	249.0	244.0	242.0	244.0	237.0	245.0	240.0	242.0	244.0	244.0	245.0
	mean	89.9	91.4	86.4	89.1	88.8	89.0	88.3	86.4	89.1	86.4	86.9	88.8

Table 3-20 Overall bottom, mid and surface current statistics (derived from a 12-year modelled dataset)

Current variable	Statistic	Value
bottom current speed (m/s)	mean	0.08
	max	0.30
	min	0.00
	P25	0.04
	P50	0.07
	P75	0.12
	P90	0.16
	P95	0.18
mid current speed (m/s)	mean	0.16
	max	0.62
	min	0.00
	P25	0.08
	P50	0.14
	P75	0.22
	P90	0.30
	P95	0.35
surface current speed(m/s)	mean	0.21
	max	1.06
	min	0.00
	P25	0.12
	P50	0.19
	P75	0.28
	P90	0.38
	P95	0.45
bottom current direction (°)	mean	253.86
	mean	77.51
mid current direction (°)	mean	248.59
	mean	77.59
surface current direction (°)	mean	243.37
	mean	88.66

3.10 Currents – Extreme Conditions

The 1- and 50-year extreme omnidirectional bottom, mid and surface current speeds, calculated from a 12-year hourly NEATL time-series are presented in Table 3-21 and Figure 3-19 to Figure 3-21. The GEV methodology was chosen to calculate the extreme values for current speeds and the peaks-over-threshold method was chosen to extract discrete extreme events over the 12-year time period as input into the general extreme value analysis.

Table 3-21 Omni-directional bottom, mid and surface current extreme return values statistics (derived from an 12-year modelled dataset)

	1-Year	50-Year
Bottom current speed (m/s)	0.25	0.32
Mid current speed (m/s)	0.49	0.61
Surface current speed (m/s)	0.76	1.35
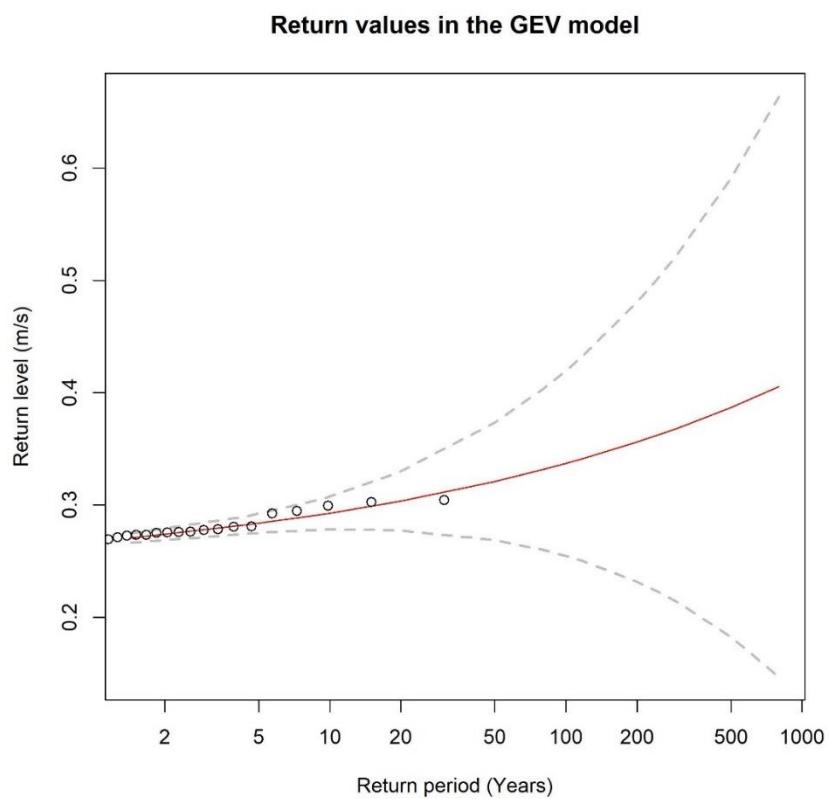
Figure 3-19 Return values of bottom current speed (m/s) in the GEV model. Red curve represents the best fit with the data and aligns with the input data. Dashed lines represent the 95 % confidence intervals. Distribution parameters: location = 0.26798; scale = 0.0093; shape = 0.1025

Return values in the GEV model
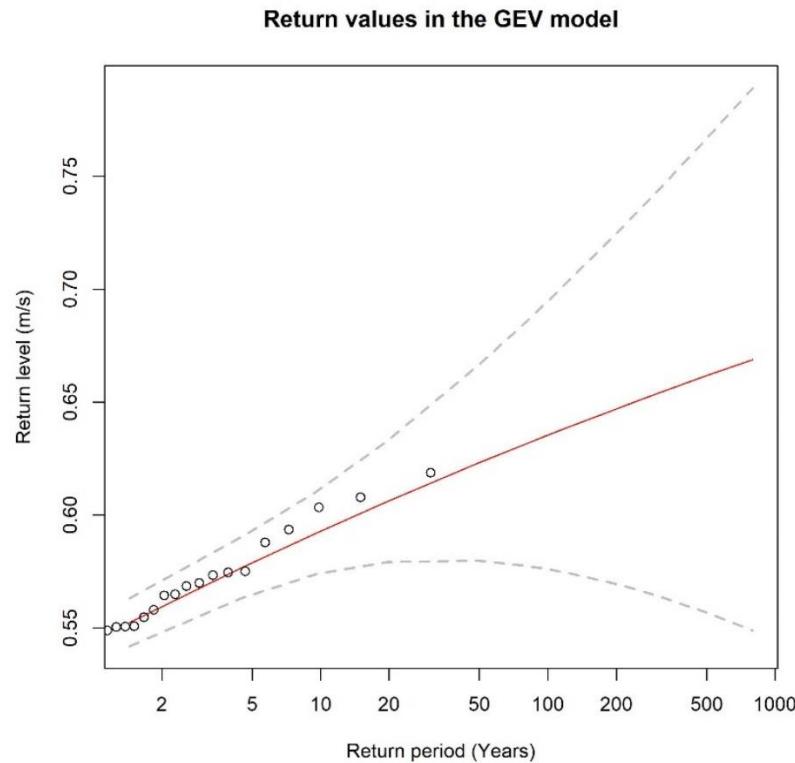
Figure 3-20 Return values of mid-current speed (m/s) in the GEV model. Red curve represents the best fit with the data and aligns with the input data. Dashed lines represent the 95 % confidence intervals. Distribution parameters: location = 0.5496; scale = 0.0216; shape = -0.0838

Return values in the GEV model
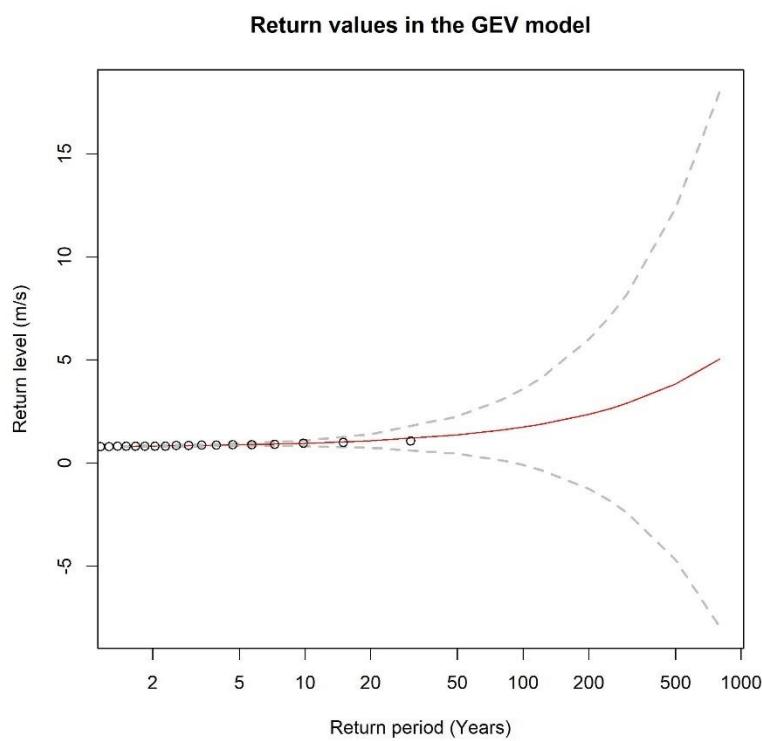
Figure 3-21 Return values of surface current speed (m/s) in the GEV model. Red curve represents the best fit with the data and aligns with the input data. Dashed lines represent the 95 % confidence intervals. Distribution parameters: location = 0.8008; scale = 0.0349; shape = 0.320.

3.11 Marine Growth

As no confirmed measurements have been carried out, marine growth thicknesses for design for both cases are based on recommended values for UK waters in DNVGL-ST-0437 [12]. These are summarised in Table 3-22. The dry density of marine growth will be taken as 1325 kg/m^3 (DNVGL-ST-0437 [12]).

Table 3-22 Marine growth thickness

Depth below MWL (m)	Marine Growth Thickness (mm)
-2 to 40	100
> 40	50

3.12 Other parameters

Other environmental parameters are defined as follows (DNVGL-ST-0437 [12]):

- Sea water density: 1025 kg/m^3 (assumed in lieu of site-specific measurement)
- Sea water salinity: 3.5 %

4 Conclusion

A preliminary Front-End Engineering Design Metocean Study has been produced for IDEA-IRL's reference site 2. This reference site represents an area around the Marine Institute of Ireland's M5 buoy located off the south-eastern coast of Ireland. A robust set of metocean parameters was produced that will be used to inform the design of the reference floating wind arrays in WP2. The results presented herein can only be considered as a pre-FEED study and are aimed to serve as input for preliminary design. This report serves as an appendix to the summary report for WP1.

5 References

[1] G. Bohan, "IDEA IRL WP1 D1: Reference Site Technical Report - Summary Report," 2024.

[2] O. Dvorak and G. Bohan, "IDEA-IRL-WP4-D1 Floating Offshore Wind Innovations Analytical Hierarchy Process Report," 2023.

[3] G. B. &. O. Dvorak, "MSP Consultation Report (Year 1)," 2024.

[4] S. Creane, "Reference site technical report A: Reference site 1 preliminary metocean site," October 2023. [Online]. Available: https://www.marei.ie/wp-content/uploads/2024/02/IDEA-IRL_WP1-D1A_Reference-Site1.pdf. [Accessed August 2024].

[5] Copernicus Climate Data Store, "ECMWF ERA5 Climate Reanalysis dataset," [Online]. Available: https://cds.climate.copernicus.eu/cdsapp#!/dataset/reanalysis-era5-single-levels?tab=doc. [Accessed April 2023].

[6] IEC, "IEC 61400-3-1: 2019 Wind Energy Generation Systems - Part 3-1: Design Requirements for Fixed Offshore Wind Turbines, April 2019," 2019.

[7] Marine Institute, "North East Atlantic Model (NEATL)," [Online]. Available: http://www.marine.ie/site-area/data-services/marine-forecasts/ocean-forecasts .

[8] IPCC, "Climate Change 2014: Synthesis Report," 2014.

[9] E. Gaertner, J. Rinker, L. Sethuraman, F. Zahle, B. Anderson, G. Barter, N. Abbas, F. Meng, P. Bortolotti, W. Skrzypinski, G. Scott, R. Feil, H. Bredmose, K. Dykes, M. Shields, C. Allen and A. Viselli, "Definition of the IEA 15-Megawatt," Golden, CO: National Renewable Energy Laboratory. NREL/TP-5000-75698., 2022.

[10] DNV, "DNV-RP-C205: 2021 Environmental Conditions and Environmental Loads, September 2021," 2021.

[11] F. Papi, Y. Perignon and A. Bianchini, "Derivation of Met-Ocean Conditions for the Simulation of Floating Wind Turbines: a European case study.," *Journal of Physics: Conference Series,* vol. 2385, no. 012117, 2022.

[12] DNV, "DNV-ST-0437 Loads and site conditions for wind turbines," 2021.

Appendix

Scatter plots (all wind speeds)

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.02	0.01	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.11
(0.25-0.75)	0.00	0.00	0.00	0.00	0.00	0.11	0.50	0.61	0.55	0.32	0.17	0.14	0.43	0.46	0.32	0.83	0.67	0.75	1.27	0.84	0.63	0.39	0.36	0.30	0.24	0.21	0.18	0.10	0.16	0.11	0.13	0.15	0.06	0.08	0.04	0.05	0.03	0.02	0.01	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01		11.30	11.41
(0.75-1.25)	0.00	0.00	0.00	0.00	0.00	0.03	0.26	0.99	2.49	2.60	2.03	0.89	0.89	0.70	0.58	1.07	1.00	1.17	1.94	1.47	1.32	0.97	0.91	0.84	0.71	0.49	0.45	0.25	0.28	0.13	0.14	0.16	0.04	0.08	0.05	0.04	0.02	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01		25.02	36.44
(1.25-1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.21	1.02	2.91	2.65	1.75	1.22	0.59	0.69	0.60	0.77	1.16	0.95	0.93	0.74	0.72	0.70	0.68	0.47	0.46	0.32	0.38	0.19	0.20	0.18	0.05	0.07	0.04	0.03	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		20.77	57.20
(1.75-2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.33	1.24	1.80	2.48	1.15	0.68	0.48	0.52	0.75	0.66	0.68	0.51	0.53	0.51	0.44	0.34	0.33	0.24	0.30	0.18	0.19	0.18	0.06	0.07	0.04	0.02	0.01	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		14.81	72.01
(2.25-2.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.10	0.26	1.48	1.82	0.97	0.42	0.44	0.56	0.42	0.46	0.35	0.37	0.37	0.35	0.22	0.22	0.15	0.22	0.13	0.15	0.19	0.05	0.07	0.04	0.03	0.01	0.01	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	0.00	0.00	0.00		9.90	81.91
(2.75-3.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.21	0.91	1.33	0.48	0.40	0.40	0.32	0.34	0.23	0.29	0.28	0.28	0.20	0.16	0.11	0.17	0.12	0.10	0.14	0.04	0.07	0.05	0.04	0.02	0.01	0.00	0.01	0.01	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		6.75	88.66
(3.25-3.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.16	0.68	0.47	0.54	0.43	0.28	0.24	0.20	0.20	0.21	0.19	0.14	0.13	0.08	0.13	0.09	0.08	0.10	0.03	0.06	0.03	0.03	0.01	0.01	0.00	0.01	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	0.00		4.57	93.23
(3.75-4.25)	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	0.01	0.14	0.20	0.35	0.36	0.24	0.17	0.14	0.15	0.14	0.13	0.10	0.09	0.05	0.08	0.05	0.05	0.06	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.01	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	0.00		2.64	95.87
(4.25-4.75)	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	0.00	0.02	0.04	0.14	0.28	0.19	0.17	0.12	0.11	0.08	0.09	0.08	0.06	0.03	0.06	0.03	0.03	0.05	0.01	0.03	0.02	0.01	0.01	0.01	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	0.00	0.00	0.00		1.68	97.56
(4.75-5.25)	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	0.00	0.00	0.00	0.04	0.12	0.12	0.13	0.09	0.08	0.06	0.07	0.04	0.03	0.02	0.03	0.02	0.02	0.03	0.01	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00		0.98	98.53
(5.25-5.75)	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	0.00	0.00	0.00	0.00	0.01	0.03	0.05	0.07	0.06	0.07	0.06	0.05	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.00	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00		0.58	99.12
(5.75-6.25)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.03	0.04	0.03	0.02	0.02	0.01	0.02	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.31	99.43
(6.25-6.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.19	99.62
(6.75-7.25)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.01	0.01	0.01	0.00	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.10	99.71
(7.25-7.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	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	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	0.00		0.05	99.77
(7.75-8.25)	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	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	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	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	0.00		0.03	99.79
(8.25-8.75)	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	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	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	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	0.00		0.01	99.81
(8.75-9.25)	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	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	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	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	0.00		0.01	99.82
(9.25-9.75)	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	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	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	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	0.00		0.01	99.82
(9.75-10.25)	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	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	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	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	0.00		0.00	99.82
(10.25-10.75)	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	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	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	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	0.00		0.00	99.82
(10.75-11.25)	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	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	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	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	0.00		0.00	99.82
(11.25-11.75)	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	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	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	0.01	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		0.00	99.82
(11.75-12.25)	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	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	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	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	0.00		0.00	99.82
(12.25-12.75)	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	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	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	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	0.00		0.00	99.82
(12.75-13.25)	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	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	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	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	0.00		0.00	99.82
sum	0.00	0.00	0.00	0.00	0.00	0.14	0.76	1.62	3.24	3.98	5.46	5.02	5.16	6.58	5.54	6.41	4.38	5.13	7.32	5.56	5.18	3.86	3.84	3.67	3.30	2.37	2.18	1.41	1.89	1.09	1.15	1.30	0.38	0.60	0.34	0.31	0.14	0.15	0.04	0.06	0.07	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.07	0.04		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.15	0.91	2.52	5.77	9.75	15.21	20.23	25.39	31.97	37.51	43.92	48.30	53.44	60.75	66.32	71.50	75.36	79.21	82.88	86.18	88.56	90.74	92.15	94.04	95.14	96.28	97.59	97.96	98.57	98.91	99.22	99.36	99.51	99.55	99.61	99.67	99.68	99.69	99.69	99.70	99.70	99.70	99.70	99.70	99.70	99.70	99.72	99.79	99.82		

Figure 0-1 Frequency of occurrence (%) scatter plot of Tp vs Hs (All wind speeds)

IDEA-IRL WP1 D1B

Occurrence Values as (%)	0-0.5	0.5-1	1-1.5	1.5-2	2-2.5	2.5-3	3-3.5	3.5-4	4-4.5	4.5-5	5-5.5	5.5-6	6-6.5	6.5-7	7-7.5	7.5-8	8-8.5	8.5-9	9-9.5	9.5-10	10-10.5	10.5-11	11-11.5	11.5-12	12-12.5	12.5-13	13-13.5	13.5-14	14-14.5	14.5-15	sum	cumulative sum
0 - 0.5	0.02	0.05	0.01	0.01	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	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	0.11	0.11
0.5 - 1	0.06	0.16	0.05	0.02	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	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	0.66	0.77
1 - 1.5	0.25	0.58	0.19	0.07	0.03	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.3	2.07
1.5 - 2	0.24	0.62	0.23	0.08	0.03	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.5	4.58
2 - 2.5	0.33	0.78	0.31	0.09	0.03	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.92	7.5
2.5 - 3	0.19	0.53	0.21	0.06	0.03	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.02	10.51
3 - 3.5	0.41	1.21	0.51	0.16	0.06	0.03	0.02	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.8	14.32
3.5 - 4	0.39	1.43	0.65	0.22	0.07	0.04	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.93	18.25
4 - 4.5	0.35	1.58	0.72	0.24	0.10	0.04	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.08	22.33
4.5 - 5	0.27	1.79	0.92	0.31	0.13	0.06	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.83	27.16
5 - 5.5	0.14	1.07	0.59	0.20	0.08	0.04	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.36	32.52
5.5 - 6	0.19	2.03	1.24	0.44	0.17	0.08	0.03	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.15	37.66
6 - 6.5	0.10	2.04	1.47	0.55	0.21	0.10	0.04	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.14	42.81
6.5 - 7	0.04	1.78	1.70	0.65	0.22	0.11	0.04	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.83	48.64
7 - 7.5	0.02	1.64	2.14	0.87	0.30	0.15	0.05	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.05	53.69
7.5 - 8	0.00	0.77	1.31	0.56	0.21	0.10	0.03	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.19	58.88
8 - 8.5	0.00	1.03	2.40	1.23	0.43	0.19	0.07	0.03	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.93	63.81
8.5 - 9	0.00	0.58	2.50	1.45	0.54	0.25	0.09	0.04	0.02	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.47	68.28
9 - 9.5	0.00	0.27	2.14	1.67	0.65	0.29	0.12	0.05	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.38	72.66
9.5 - 10	0.00	0.11	1.77	1.83	0.79	0.35	0.14	0.05	0.03	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.7	76.36
10 - 10.5	0.00	0.04	1.15	1.89	0.94	0.40	0.18	0.07	0.03	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.49	79.85
10.5 - 11	0.00	0.01	0.42	1.09	0.60	0.28	0.11	0.05	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.12	82.97
11 - 11.5	0.00	0.01	0.47	1.83	1.29	0.58	0.27	0.12	0.04	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	2.69	85.66
11.5 - 12	0.00	0.00	0.19	1.27	1.22	0.68	0.29	0.15	0.05	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	2.61	88.28
12 - 12.5	0.00	0.00	0.08	0.83	1.29	0.78	0.39	0.17	0.08	0.03	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	1.96	90.23
12.5 - 13	0.00	0.00	0.03	0.44	1.16	0.91	0.50	0.23	0.11	0.04	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	1.78	92.01
13 - 13.5	0.00	0.00	0.01	0.10	0.43	0.45	0.25	0.12	0.05	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	1.51	93.52
13.5 - 14	0.00	0.00	0.01	0.12	0.64	0.84	0.56	0.28	0.13	0.05	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	1.39	94.91
14 - 14.5	0.00	0.00	0.01	0.05	0.32	0.72	0.57	0.34	0.15	0.06	0.03	0.01	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	0.00	0.00	0.00	0.00	0.00	0.94	95.85
14.5 - 15	0.00	0.00	0.01	0.02	0.12	0.50	0.55	0.37	0.18	0.07	0.03	0.01	0.01	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	0.00	0.00	0.00	0.00	0.86	96.71
15 - 15.5	0.00	0.00	0.01	0.01	0.05	0.28	0.44	0.36	0.22	0.10	0.04	0.01	0.01	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	0.00	0.00	0.00	0.00	0.76	97.46
15.5 - 16	0.00	0.00	0.00	0.00	0.02	0.08	0.19	0.20	0.13	0.06	0.03	0.01	0.01	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	0.00	0.00	0.00	0.00	0.57	98.04
16 - 16.5	0.00	0.00	0.00	0.00	0.02	0.09	0.21	0.30	0.22	0.13	0.05	0.03	0.01	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	0.00	0.00	0.00	0.00	0.45	98.48
16.5 - 17	0.00	0.00	0.00	0.00	0.01	0.04	0.15	0.23	0.20	0.14	0.08	0.03	0.01	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	0.00	0.00	0.00	0.00	0.38	98.87
17 - 17.5	0.00	0.00	0.00	0.00	0.00	0.02	0.06	0.16	0.18	0.16	0.09	0.04	0.01	0.01	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	0.00	0.00	0.00	0.28	99.15
17.5 - 18	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.07	0.12	0.13	0.09	0.05	0.02	0.01	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	0.00	0.00	0.00	0.21	99.36
18 - 18.5	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.07	0.09	0.08	0.05	0.03	0.01	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	0.00	0.00	0.00	0.14	99.51
18.5 - 19	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.04	0.06	0.07	0.04	0.03	0.02	0.01	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	0.00	0.00	0.13	99.64
19 - 19.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.01	0.01	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	0.00	0.00	0.00	0.09	99.73
19.5 - 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.03	0.02	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	0.00	0.00	0.00	0.08	99.81
20 - 20.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.01	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	0.00	0.00	0.05	99.86
20.5 - 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.04	99.9
21 - 21.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.03	99.93
21.5 - 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	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	0.00	0.02	99.95
22 - 22.5	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	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	0.00	0.00	0.00	0.00	0.01	99.96
22.5 - 23	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	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	0.00	0.00	0.00	0.00	0.01	99.97
23 - 23.5	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	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	0.00	0.00	0.00	0.00	0.01	99.98
23.5 - 24	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	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	0.00	0.00	0.00	0.00	0.01	99.99
24 - 24.5	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	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	0.00	0.00	0.00	0.00	0	99.99
24.5 - 25	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	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	0.00	0.00	0.00	0.00	0	99.99
25 - 25.5	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	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	0.00	0.00	0.00	0.00	0	100
25.5 - 26	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	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	0.00	0.00	0.00	0.00	0	100
26 - 26.5	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	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	0.00	0.00	0.00	0.00	0	100
26.5 - 27	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	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	0.00	0.00	0.00	0.00	0	100
27 - 27.5	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	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	0.00	0.00	0.00	0.00	0	100
27.5 - 28	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	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	0.00	0.00	0.00	0.00	0	100
28 - 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	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	0.00	0.00	0.00	0.00	0	100
28.5 - 29	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	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	0.00	0.00	0.00	0.00	0	100
29 - 29.5	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	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	0.00	0.00	0.00	0.00	0	100
29.5 - 30	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	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	0.00	0.00	0.00	0.00	0	100
30 - 30.5	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	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	0.00	0.00	0.00	0.00	0	100
sum	1.38	17.55	23.84	18.55	12.96	8.76	6.07	3.99	2.56	1.73	1.10	0.64	0.34	0.20	0.12	0.07	0.05	0.03	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
cumulative sum	1.38	18.93	42.78	61.33	74.29	83.06	89.13	93.12	95.68	97.41	98.51	99.14	99.49	99.69	99.81	99.88	99.94	99.96	99.98	99.98	99.99	99.99	100	100	100	100	100	100	100	100		

Wind Speed (m/s) label applies to the row categories (left column). The top header spans "Significant Wave Height (m)".

Figure 0-2 Wind-wave coincidence (frequency of occurrence). Wind speeds are 10 m above sea level

3D Scatter plots (Vs-Hs-Tp)

Vhub 0 -1 m/s — Tp (s) vs Hs (m)

The table is a wind-speed-binned joint distribution (Vhub 0–1 m/s) with Tp (s) columns ranging from (0–0.25) to (26.25–26.75) in 0.5 s bins, and Hs (m) rows. Almost all cell values are 0.00. The legible summary columns and rows are given below.

Hs (m)	sum	cumulative sum
(0 - 0.25)	0.00	0.00
(0.25 - 0.75)	0.10	0.10
(0.75 - 1.25)	0.07	0.17
(1.25 - 1.75)	0.02	0.19
(1.75 - 2.25)	0.00	0.19
(2.25 - 2.75)	0.00	0.19
(2.75 - 3.25)	0.00	0.19
(3.25 - 3.75)	0.00	0.19
(3.75 - 4.25)	0.00	0.19
(4.25 - 4.75)	0.00	0.19
(4.75 - 5.25)	0.00	0.19
(5.25 - 5.75)	0.00	0.19
(5.75 - 6.25)	0.00	0.19
(6.25 - 6.75)	0.00	0.19
(6.75 - 7.25)	0.00	0.19
(7.25 - 7.75)	0.00	0.19
(7.75 - 8.25)	0.00	0.19
(8.25 - 8.75)	0.00	0.19
(8.75 - 9.25)	0.00	0.19
(9.25 - 9.75)	0.00	0.19
(9.75 - 10.25)	0.00	0.19
(10.25 - 10.75)	0.00	0.19
(10.75 - 11.25)	0.00	0.19
(11.25 - 11.75)	0.00	0.19
(11.75 - 12.25)	0.00	0.19
(12.25 - 12.75)	0.00	0.19
(12.75 - 13.25)	0.00	0.19

Column sum (across Tp bins, left to right): 0.00 ×13, then 0.01, 0.01, 0.01, 0.01, 0.01, 0.03, 0.02, 0.01, 0.01, 0.02, 0.01, 0.01, 0.01, 0.01, 0.01, 0.00 … 0.00

Cumulative sum (across Tp bins): 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00, 0.01, 0.01, 0.01, 0.02, 0.02, 0.04, 0.05, 0.06, 0.09, 0.11, 0.12, 0.12, 0.14, 0.15, 0.16, 0.17, 0.17, 0.18, 0.18, 0.18, 0.19

Vhub 1 - 3 m/s

Tp (s)

Hs (m)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0 - 0.25)	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	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	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	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	0.00	0.00	0.03	0.03
(0.25 - 0.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.01	0.01	0.05	0.07	0.06	0.12	0.09	0.10	0.18	0.10	0.07	0.04	0.05	0.04	0.04	0.04	0.03	0.01	0.02	0.02	0.02	0.03	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	1.34	1.37
(0.75 - 1.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.04	0.06	0.06	0.06	0.11	0.08	0.08	0.07	0.06	0.05	0.04	0.03	0.03	0.01	0.02	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	2.25
(1.25 - 1.75)	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	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.01	0.01	0.00	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	2.51
(1.75 - 2.25)	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	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	2.60
(2.25 - 2.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	2.64
(2.75 - 3.25)	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	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	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	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	0.00	0.00	0.02	2.66
(3.25 - 3.75)	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	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	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	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	0.00	0.00	0.01	2.67
(3.75 - 4.25)	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	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	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	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	0.00	0.00	0.00	2.67
(4.25 - 4.75)	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	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	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	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	0.00	0.00	0.00	2.67
(4.75 - 5.25)	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	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	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	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	0.00	0.00	0.00	2.67
(5.25 - 5.75)	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	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	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	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	0.00	0.00	0.00	2.67
(5.75 - 6.25)	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	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	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	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	0.00	0.00	0.00	2.67
(6.25 - 6.75)	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	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	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	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	0.00	0.00	0.00	2.67
(6.75 - 7.25)	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	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	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	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	0.00	0.00	0.00	2.67
(7.25 - 7.75)	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	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	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	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	0.00	0.00	0.00	2.67
(7.75 - 8.25)	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	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	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	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	0.00	0.00	0.00	2.67
(8.25 - 8.75)	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	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	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	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	0.00	0.00	0.00	2.67
(8.75 - 9.25)	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	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	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	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	0.00	0.00	0.00	2.67
(9.25 - 9.75)	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	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	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	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	0.00	0.00	0.00	2.67
(9.75 - 10.25)	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	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	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	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	0.00	0.00	0.00	2.67
(10.25 - 10.75)	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	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	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	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	0.00	0.00	0.00	2.67
(10.75 - 11.25)	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	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	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	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	0.00	0.00	0.00	2.67
(11.25 - 11.75)	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	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	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	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	0.00	0.00	0.00	2.67
(11.75 - 12.25)	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	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	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	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	0.00	0.00	0.00	2.67
(12.25 - 12.75)	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	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	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	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	0.00	0.00	0.00	2.67
(12.75 - 13.25)	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	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	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	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	0.00	0.00	0.00	2.67
sum	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.03	0.02	0.02	0.07	0.10	0.10	0.19	0.16	0.19	0.33	0.21	0.19	0.14	0.14	0.12	0.11	0.10	0.09	0.03	0.05	0.04	0.04	0.05	0.01	0.02	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.06	0.09	0.11	0.13	0.20	0.30	0.40	0.59	0.76	0.94	1.27	1.49	1.67	1.81	1.95	2.07	2.18	2.28	2.37	2.41	2.46	2.49	2.54	2.59	2.60	2.62	2.64	2.65	2.65	2.65	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.66	2.67	2.67			

IDEA-IRL WP1 D1B

Vhub 3 - 5 m/s

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	0.00	0.00	0.00	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04
(0.25-0.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.05	0.05	0.04	0.03	0.08	0.11	0.06	0.19	0.15	0.16	0.26	0.19	0.14	0.08	0.08	0.08	0.04	0.04	0.02	0.04	0.03	0.03	0.03	0.01	0.02	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	2.17	2.21
(0.75-1.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.03	0.02	0.06	0.04	0.05	0.11	0.09	0.11	0.18	0.14	0.14	0.11	0.11	0.09	0.08	0.06	0.06	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	1.65	3.86
(1.25-1.75)	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	0.01	0.01	0.01	0.02	0.03	0.05	0.05	0.04	0.03	0.03	0.05	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.00	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.52	4.38
(1.75-2.25)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	4.53
(2.25-2.75)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.01	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	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	0.00	0.00	0.00	0.08	4.62
(2.75-3.25)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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	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	0.00	0.00	0.00	0.00	0.04	4.66
(3.25-3.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.02	4.68
(3.75-4.25)	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	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	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	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	0.00	0.00	0.00	4.68
(4.25-4.75)	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	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	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	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	0.00	0.00	0.00	4.68
(4.75-5.25)	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	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	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	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	0.00	0.00	0.00	4.69
(5.25-5.75)	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	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	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	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	0.00	0.00	0.00	4.69
(5.75-6.25)	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	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	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	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	0.00	0.00	0.00	4.69
(6.25-6.75)	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	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	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	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	0.00	0.00	0.00	4.69
(6.75-7.25)	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	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	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	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	0.00	0.00	0.00	4.69
(7.25-7.75)	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	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	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	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	0.00	0.00	0.00	4.69
(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	4.69
(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	4.69
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	4.69
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	4.69
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	4.69
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	4.69
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	4.69
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	4.69
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	4.69
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	4.69
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	4.69
sum	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.03	0.06	0.07	0.06	0.05	0.15	0.16	0.12	0.31	0.27	0.32	0.51	0.40	0.35	0.24	0.24	0.23	0.22	0.15	0.15	0.09	0.12	0.06	0.07	0.08	0.03	0.04	0.02	0.02	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.06	0.12	0.19	0.25	0.31	0.45	0.62	0.73	1.05	1.32	1.64	2.15	2.55	2.90	3.14	3.38	3.61	3.83	3.98	4.12	4.21	4.33	4.39	4.46	4.54	4.57	4.61	4.63	4.65	4.66	4.66	4.67	4.67	4.67	4.67	4.67	4.67	4.67	4.67	4.67	4.67	4.67	4.67	4.67	4.68	4.68	4.69		

IDEA-IRL WP1 D1B

Vhub 5 - 7 m/s

Tp (s)

Hs (m)	(0 - 0.25)	(0.25 - 0.75)	(0.75 - 1.25)	(1.25 - 1.75)	(1.75 - 2.25)	(2.25 - 2.75)	(2.75 - 3.25)	(3.25 - 3.75)	(3.75 - 4.25)	(4.25 - 4.75)	(4.75 - 5.25)	(5.25 - 5.75)	(5.75 - 6.25)	(6.25 - 6.75)	(6.75 - 7.25)	(7.25 - 7.75)	(7.75 - 8.25)	(8.25 - 8.75)	(8.75 - 9.25)	(9.25 - 9.75)	(9.75 - 10.25)	(10.25 - 10.75)	(10.75 - 11.25)	(11.25 - 11.75)	(11.75 - 12.25)	(12.25 - 12.75)	(12.75 - 13.25)	(13.25 - 13.75)	(13.75 - 14.25)	(14.25 - 14.75)	(14.75 - 15.25)	(15.25 - 15.75)	(15.75 - 16.25)	(16.25 - 16.75)	(16.75 - 17.25)	(17.25 - 17.75)	(17.75 - 18.25)	(18.25 - 18.75)	(18.75 - 19.25)	(19.25 - 19.75)	(19.75 - 20.25)	(20.25 - 20.75)	(20.75 - 21.25)	(21.25 - 21.75)	(21.75 - 22.25)	(22.25 - 22.75)	(22.75 - 23.25)	(23.25 - 23.75)	(23.75 - 24.25)	(24.25 - 24.75)	(24.75 - 5.25)	(25.25 - 25.75)	(25.75 - 26.25)	(26.25 - 26.75)	sum	cumulative sum
(0 - 0.25)	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	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	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	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	0.00	0.00	0.03	0.03
(0.25 - 0.75)	0.00	0.00	0.00	0.00	0.01	0.05	0.10	0.11	0.08	0.04	0.04	0.12	0.11	0.08	0.22	0.17	0.21	0.34	0.23	0.17	0.11	0.10	0.08	0.07	0.06	0.05	0.03	0.05	0.02	0.04	0.04	0.02	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00		2.82	2.86
(0.75 - 1.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.07	0.07	0.06	0.10	0.10	0.10	0.19	0.15	0.17	0.33	0.24	0.24	0.17	0.16	0.16	0.13	0.09	0.09	0.05	0.06	0.03	0.03	0.02	0.01	0.02	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00		2.91	5.76
(1.25 - 1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.04	0.04	0.05	0.10	0.08	0.08	0.07	0.05	0.06	0.07	0.05	0.05	0.03	0.05	0.02	0.02	0.03	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00		0.96	6.72
(1.75 - 2.25)	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	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.32	7.04
(2.25 - 2.75)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.15	7.19
(2.75 - 3.25)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.07	7.26
(3.25 - 3.75)	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	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	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	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	0.00		0.03	7.29
(3.75 - 4.25)	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	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	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	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	0.00		0.01	7.30
(4.25 - 4.75)	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	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	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	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	0.00		0.00	7.30
(4.75 - 5.25)	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	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	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	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	0.00		0.00	7.30
(5.25 - 5.75)	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	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	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	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	0.00		0.00	7.30
(5.75 - 6.25)	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	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	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	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	0.00		0.00	7.31
(6.25 - 6.75)	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	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	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	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	0.00		0.00	7.31
(6.75 - 7.25)	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	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	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	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	0.00		0.00	7.31
(7.25 - 7.75)	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	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	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	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	0.00		0.00	7.31
(7.75 - 8.25)	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	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	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	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	0.00		0.00	7.31
(8.25 - 8.75)	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	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	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	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	0.00		0.00	7.31
(8.75 - 9.25)	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	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	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	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	0.00		0.00	7.31
(9.25 - 9.75)	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	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	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	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	0.00		0.00	7.31
(9.75 - 10.25)	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	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	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	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	0.00		0.00	7.31
(10.25 - 10.75)	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	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	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	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	0.00		0.00	7.31
(10.75 - 11.25)	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	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	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	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	0.00		0.00	7.31
(11.25 - 11.75)	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	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	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	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	0.00		0.00	7.31
(11.75 - 12.25)	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	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	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	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	0.00		0.00	7.31
(12.25 - 12.75)	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	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	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	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	0.00		0.00	7.31
(12.75 - 13.25)	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	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	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	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	0.00		0.00	7.31
sum	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.10	0.15	0.14	0.12	0.11	0.24	0.23	0.20	0.45	0.37	0.45	0.80	0.60	0.54	0.39	0.35	0.35	0.31	0.23	0.22	0.13	0.19	0.10	0.12	0.12	0.05	0.06	0.03	0.03	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00			
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.17	0.31	0.46	0.58	0.68	0.92	1.15	1.35	1.80	2.17	2.62	3.42	4.02	4.56	4.95	5.30	5.65	5.96	6.19	6.42	6.55	6.74	6.83	6.95	7.08	7.12	7.19	7.22	7.24	7.26	7.27	7.27	7.28	7.29	7.29	7.29	7.29	7.29	7.29	7.29	7.29	7.29	7.29	7.29	7.30	7.31			

44

IDEA-IRL WP1 D1B

Vhub 7 - 9 m/s — Hs (m) vs Tp (s) scatter (occurrence probability, %)

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0 - 0.25)	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	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	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	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	0.00	0.00	0.01	0.01
(0.25 - 0.75)	0.00	0.00	0.00	0.00	0.00	0.03	0.14	0.23	0.18	0.09	0.05	0.04	0.12	0.12	0.09	0.20	0.17	0.18	0.32	0.21	0.17	0.11	0.08	0.06	0.05	0.05	0.05	0.03	0.04	0.03	0.03	0.03	0.01	0.02	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	2.98	3.00
(0.75 - 1.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.08	0.23	0.25	0.26	0.16	0.20	0.19	0.15	0.28	0.28	0.32	0.53	0.39	0.34	0.26	0.27	0.25	0.20	0.11	0.11	0.06	0.08	0.03	0.03	0.05	0.01	0.02	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	5.20	8.20
(1.25 - 1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.04	0.05	0.07	0.09	0.08	0.11	0.17	0.15	0.15	0.12	0.11	0.12	0.11	0.09	0.08	0.07	0.08	0.04	0.06	0.04	0.01	0.02	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	1.92	10.12
(1.75 - 2.25)	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	0.01	0.01	0.02	0.02	0.03	0.06	0.05	0.07	0.05	0.05	0.05	0.04	0.05	0.04	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.74	10.86
(2.25 - 2.75)	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	0.00	0.00	0.00	0.00	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.30	11.15
(2.75 - 3.25)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	11.29
(3.25 - 3.75)	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	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	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	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	0.00	0.00	0.05	11.34
(3.75 - 4.25)	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	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	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	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	0.00	0.00	0.02	11.36
(4.25 - 4.75)	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	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	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	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	0.00	0.00	0.01	11.36
(4.75 - 5.25)	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	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	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	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	0.00	0.00	0.00	11.37
(5.25 - 5.75)	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	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	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	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	0.00	0.00	0.00	11.37
(5.75 - 6.25)	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	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	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	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	0.00	0.00	0.00	11.37
(6.25 - 6.75)	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	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	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	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	0.00	0.00	0.00	11.37
(6.75 - 7.25)	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	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	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	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	0.00	0.00	0.00	11.37
(7.25 - 7.75)	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	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	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	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	0.00	0.00	0.00	11.37
(7.75 - 8.25)	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	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	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	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	0.00	0.00	0.00	11.37
(8.25 - 8.75)	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	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	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	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	0.00	0.00	0.00	11.37
(8.75 - 9.25)	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	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	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	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	0.00	0.00	0.00	11.37
(9.25 - 9.75)	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	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	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	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	0.00	0.00	0.00	11.37
(9.75 - 10.25)	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	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	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	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	0.00	0.00	0.00	11.37
(10.25 - 10.75)	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	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	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	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	0.00	0.00	0.00	11.37
(10.75 - 11.25)	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	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	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	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	0.00	0.00	0.00	11.37
(11.25 - 11.75)	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	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	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	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	0.00	0.00	0.00	11.37
(11.75 - 12.25)	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	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	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	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	0.00	0.00	0.00	11.37
(12.25 - 12.75)	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	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	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	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	0.00	0.00	0.00	11.37
(12.75 - 13.25)	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	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	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	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	0.00	0.00	0.00	11.37
sum	0.00	0.00	0.00	0.00	0.00	0.04	0.16	0.31	0.41	0.35	0.32	0.22	0.36	0.37	0.32	0.59	0.55	0.66	1.10	0.82	0.76	0.58	0.55	0.52	0.44	0.34	0.31	0.22	0.28	0.14	0.17	0.17	0.06	0.09	0.05	0.04	0.02	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.04	0.20	0.51	0.92	1.26	1.58	1.80	2.16	2.53	2.85	3.44	3.99	4.65	5.75	6.57	7.33	7.91	8.45	8.97	9.41	9.75	10.06	10.28	10.56	10.71	10.87	11.05	11.10	11.19	11.24	11.28	11.30	11.32	11.32	11.33	11.34	11.34	11.34	11.35	11.35	11.35	11.35	11.35	11.35	11.35	11.35	11.36	11.37			

IDEA-IRL WP1 D1B

Vhub 9 - 11 m/s — Tp (s) / Hs (m)

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25-0.75)	0.00	0.00	0.00	0.00	0.00	0.04	0.17	0.16	0.12	0.05	0.02	0.01	0.04	0.03	0.03	0.08	0.06	0.07	0.13	0.08	0.06	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	1.39	1.39
(0.75-1.25)	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.28	0.62	0.58	0.48	0.24	0.24	0.19	0.13	0.25	0.23	0.28	0.43	0.32	0.28	0.20	0.18	0.17	0.15	0.11	0.09	0.06	0.05	0.02	0.04	0.04	0.01	0.02	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	5.83	7.22
(1.25-1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.11	0.12	0.13	0.15	0.10	0.13	0.12	0.16	0.27	0.19	0.19	0.16	0.16	0.16	0.15	0.10	0.10	0.08	0.09	0.05	0.05	0.04	0.01	0.02	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	2.89	10.10
(1.75-2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.04	0.04	0.07	0.09	0.09	0.09	0.07	0.07	0.07	0.06	0.06	0.04	0.03	0.05	0.03	0.03	0.03	0.01	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	1.05	11.15
(2.25-2.75)	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	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.42	11.57
(2.75-3.25)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	11.76
(3.25-3.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	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	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	0.00	0.00	0.07	11.83
(3.75-4.25)	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	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	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	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	0.00	0.00	0.03	11.86
(4.25-4.75)	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	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	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	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	0.00	0.00	0.01	11.87
(4.75-5.25)	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	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	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	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	0.00	0.00	0.00	11.87
(5.25-5.75)	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	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	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	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	0.00	0.00	0.00	11.87
(5.75-6.25)	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	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	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	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	0.00	0.00	0.00	11.87
(6.25-6.75)	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	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	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	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	0.00	0.00	0.00	11.87
(6.75-7.25)	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	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	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	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	0.00	0.00	0.00	11.87
(7.25-7.75)	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	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	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	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	0.00	0.00	0.00	11.87
(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	11.87
(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	11.87
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	11.87
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	11.87
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	11.87
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	11.87
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	11.87
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	11.87
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	11.87
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	11.87
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	11.87
sum	0.00	0.00	0.00	0.00	0.00	0.05	0.25	0.44	0.74	0.65	0.61	0.38	0.43	0.39	0.29	0.50	0.46	0.60	0.96	0.72	0.67	0.50	0.49	0.49	0.44	0.32	0.30	0.21	0.24	0.14	0.15	0.16	0.04	0.08	0.05	0.04	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.05	0.30	0.74	1.48	2.14	2.75	3.13	3.56	3.94	4.23	4.73	5.20	5.80	6.76	7.48	8.16	8.65	9.14	9.63	10.07	10.39	10.69	10.90	11.14	11.28	11.43	11.59	11.63	11.71	11.76	11.80	11.81	11.83	11.83	11.84	11.85	11.85	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.86	11.87	11.87			

IDEA-IRL WP1 D1B

Vhub 11 - 13 m/s

Tp (s) scatter table (Hs (m) rows × Tp (s) columns):

Hs (m)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25-0.75)	0.00	0.00	0.00	0.00	0.00	0.02	0.09	0.06	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.03	0.02	0.02	0.01	0.01	0.01	0.00	0.01	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	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	0.00	0.00	0.42	0.42
(0.75-1.25)	0.00	0.00	0.00	0.00	0.00	0.01	0.11	0.39	0.86	0.79	0.60	0.22	0.16	0.10	0.08	0.14	0.15	0.16	0.26	0.21	0.17	0.10	0.09	0.09	0.08	0.06	0.04	0.03	0.03	0.01	0.02	0.02	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	5.02	5.44
(1.25-1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.16	0.47	0.41	0.34	0.28	0.16	0.21	0.16	0.22	0.28	0.23	0.22	0.18	0.17	0.17	0.15	0.10	0.10	0.07	0.08	0.04	0.04	0.03	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	4.38	9.82
(1.75-2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.05	0.09	0.08	0.09	0.09	0.13	0.15	0.14	0.13	0.11	0.11	0.11	0.10	0.06	0.06	0.05	0.05	0.03	0.04	0.04	0.01	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	1.80	11.62
(2.25-2.75)	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	0.00	0.01	0.02	0.02	0.03	0.05	0.06	0.08	0.04	0.05	0.06	0.05	0.04	0.03	0.02	0.03	0.02	0.02	0.03	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.70	12.32
(2.75-3.25)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.32	12.64
(3.25-3.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	12.76
(3.75-4.25)	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	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	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	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	0.00	0.00	0.04	12.80
(4.25-4.75)	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	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	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	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	0.00	0.00	0.02	12.81
(4.75-5.25)	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	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	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	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	0.00	0.00	0.01	12.82
(5.25-5.75)	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	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	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	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	0.00	0.00	0.00	12.82
(5.75-6.25)	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	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	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	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	0.00	0.00	0.00	12.82
(6.25-6.75)	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	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	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	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	0.00	0.00	0.00	12.82
(6.75-7.25)	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	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	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	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	0.00	0.00	0.00	12.82
(7.25-7.75)	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	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	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	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	0.00	0.00	0.00	12.82
(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	12.82
(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	12.82
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	12.82
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	12.82
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	12.82
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	12.82
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	12.82
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	12.82
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	12.82
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	12.82
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	12.82
sum	0.00	0.00	0.00	0.00	0.00	0.03	0.19	0.45	0.94	0.96	1.09	0.67	0.56	0.49	0.33	0.47	0.44	0.57	0.78	0.67	0.65	0.48	0.47	0.48	0.42	0.29	0.26	0.18	0.23	0.13	0.14	0.16	0.04	0.08	0.05	0.03	0.01	0.02	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.03	0.23	0.68	1.61	2.58	3.66	4.33	4.89	5.39	5.72	6.19	6.63	7.20	7.98	8.65	9.30	9.79	10.25	10.73	11.15	11.43	11.70	11.87	12.10	12.23	12.37	12.54	12.58	12.67	12.72	12.75	12.76	12.78	12.79	12.80	12.81	12.81	12.81	12.81	12.81	12.81	12.81	12.81	12.81	12.81	12.81	12.82	12.82		

IDEA-IRL WP1 D1B

Vhub 13 - 15 m/s

Tp (s)

Hs (m)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25-0.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.01	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	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.07
(0.75-1.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.20	0.58	0.63	0.41	0.12	0.07	0.03	0.03	0.04	0.04	0.04	0.08	0.06	0.05	0.04	0.03	0.02	0.03	0.01	0.01	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.60	2.67
(1.25-1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.38	0.97	0.79	0.54	0.36	0.14	0.15	0.12	0.13	0.19	0.17	0.14	0.12	0.12	0.09	0.09	0.06	0.06	0.03	0.04	0.02	0.02	0.02	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.86	7.53
(1.75-2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.14	0.22	0.35	0.21	0.17	0.14	0.15	0.20	0.16	0.17	0.12	0.13	0.11	0.10	0.07	0.08	0.06	0.06	0.03	0.04	0.03	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	2.84	10.37
(2.25-2.75)	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	0.03	0.05	0.05	0.05	0.06	0.09	0.08	0.09	0.07	0.08	0.08	0.08	0.04	0.04	0.03	0.05	0.03	0.03	0.04	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	1.10	11.47
(2.75-3.25)	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	0.00	0.00	0.01	0.01	0.01	0.03	0.03	0.05	0.03	0.04	0.05	0.04	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.49	11.96
(3.25-3.75)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.22	12.19
(3.75-4.25)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.08	12.27
(4.25-4.75)	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	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	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	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	0.00	0.00	0.04	12.31
(4.75-5.25)	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	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	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	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	0.00	0.00	0.01	12.32
(5.25-5.75)	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	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	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	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	0.00	0.00	0.00	12.32
(5.75-6.25)	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	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	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	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	0.00	0.00	0.00	12.33
(6.25-6.75)	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	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	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	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	0.00	0.00	0.00	12.33
(6.75-7.25)	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	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	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	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	0.00	0.00	0.00	12.33
(7.25-7.75)	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	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	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	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	0.00	0.00	0.00	12.33
(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	12.33
(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	12.33
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	12.33
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	12.33
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	12.33
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	12.33
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	12.33
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	12.33
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	12.33
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	12.33
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	12.33
sum	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.22	0.67	1.02	1.43	1.05	0.84	0.77	0.42	0.41	0.35	0.39	0.61	0.50	0.53	0.40	0.42	0.40	0.36	0.24	0.24	0.16	0.19	0.13	0.13	0.14	0.04	0.06	0.04	0.03	0.02	0.02	0.00	0.01	0.01	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		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.29	0.96	1.99	3.41	4.46	5.30	6.07	6.49	6.91	7.26	7.65	8.26	8.76	9.29	9.69	10.11	10.51	10.87	11.11	11.35	11.51	11.70	11.83	11.95	12.09	12.13	12.19	12.23	12.26	12.28	12.30	12.30	12.31	12.32	12.32	12.32	12.32	12.32	12.32	12.32	12.32	12.32	12.32	12.32	12.32	12.33	12.33		

IDEA-IRL WP1 D1B

Vhub 15-17 m/s — Tp (s) scatter table (Hs (m) rows)

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0 - 0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25 - 0.75)	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	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	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	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	0.00	0.00	0.01	0.01
(0.75 - 1.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.15	0.22	0.13	0.04	0.02	0.01	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.69	0.69
(1.25 - 1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.07	0.33	0.94	0.85	0.46	0.24	0.06	0.06	0.04	0.04	0.07	0.06	0.06	0.04	0.05	0.04	0.03	0.02	0.02	0.01	0.01	0.00	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.53	4.22
(1.75 - 2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.11	0.37	0.52	0.72	0.36	0.20	0.12	0.09	0.15	0.13	0.12	0.08	0.09	0.08	0.07	0.05	0.06	0.04	0.04	0.02	0.02	0.02	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.51	7.73
(2.25 - 2.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.16	0.22	0.17	0.11	0.12	0.15	0.10	0.11	0.09	0.08	0.09	0.08	0.04	0.05	0.03	0.05	0.03	0.03	0.04	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83	9.56
(2.75 - 3.25)	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	0.00	0.03	0.04	0.03	0.05	0.07	0.07	0.08	0.04	0.08	0.07	0.06	0.05	0.03	0.02	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.84	10.40
(3.25 - 3.75)	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	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.40	10.80
(3.75 - 4.25)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	10.94
(4.25 - 4.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	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	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	0.06	11.01
(4.75 - 5.25)	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	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	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	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	0.00	0.00	0.02	11.03
(5.25 - 5.75)	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	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	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	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	0.00	0.00	0.01	11.04
(5.75 - 6.25)	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	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	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	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	0.00	0.00	0.00	11.04
(6.25 - 6.75)	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	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	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	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	0.00	0.00	0.00	11.04
(6.75 - 7.25)	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	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	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	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	0.00	0.00	0.00	11.04
(7.25 - 7.75)	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	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	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	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	0.00	0.00	0.00	11.04
(7.75 - 8.25)	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	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	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	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	0.00	0.00	0.00	11.04
(8.25 - 8.75)	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	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	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	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	0.00	0.00	0.00	11.04
(8.75 - 9.25)	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	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	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	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	0.00	0.00	0.00	11.04
(9.25 - 9.75)	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	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	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	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	0.00	0.00	0.00	11.04
(9.75 - 10.25)	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	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	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	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	0.00	0.00	0.00	11.04
(10.25 - 10.75)	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	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	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	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	0.00	0.00	0.00	11.04
(10.75 - 11.25)	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	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	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	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	0.00	0.00	0.00	11.04
(11.25 - 11.75)	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	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	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	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	0.00	0.00	0.00	11.04
(11.75 - 12.25)	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	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	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	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	0.00	0.00	0.00	11.04
(12.25 - 12.75)	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	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	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	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	0.00	0.00	0.00	11.04
(12.75 - 13.25)	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	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	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	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	0.00	0.00	0.00	11.04
sum	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.22	0.57	1.18	1.28	1.03	1.12	0.67	0.47	0.30	0.32	0.46	0.39	0.42	0.31	0.35	0.33	0.29	0.21	0.19	0.12	0.18	0.11	0.11	0.13	0.04	0.06	0.03	0.03	0.01	0.02	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.27	0.84	2.02	3.30	4.33	5.45	6.12	6.60	6.90	7.22	7.68	8.07	8.49	8.81	9.16	9.49	9.78	9.99	10.18	10.31	10.48	10.59	10.70	10.83	10.87	10.92	10.95	10.98	11.00	11.02	11.02	11.02	11.03	11.03	11.03	11.03	11.03	11.03	11.03	11.03	11.03	11.03	11.04	11.04		

49

Vhub 17 - 19 m/s

Tp (s)

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25-0.75)	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	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	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	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	0.00	0.00	0.00	0.00
(0.75-1.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04	0.03	0.01	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	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	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	0.00	0.00	0.00	0.12	0.12
(1.25-1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.11	0.37	0.41	0.21	0.10	0.02	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	1.31	1.44
(1.75-2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.12	0.51	0.74	0.93	0.35	0.12	0.06	0.04	0.05	0.04	0.04	0.03	0.03	0.04	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.24	4.67
(2.25-2.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.09	0.53	0.65	0.37	0.15	0.14	0.14	0.09	0.08	0.07	0.07	0.06	0.06	0.03	0.04	0.03	0.03	0.02	0.02	0.03	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.76	7.43
(2.75-3.25)	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	0.04	0.16	0.28	0.12	0.13	0.13	0.10	0.10	0.08	0.08	0.07	0.07	0.04	0.04	0.03	0.04	0.03	0.02	0.03	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64	9.07
(3.25-3.75)	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	0.00	0.01	0.05	0.03	0.04	0.07	0.07	0.06	0.05	0.06	0.07	0.06	0.04	0.03	0.03	0.04	0.02	0.02	0.03	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.83	9.89
(3.75-4.25)	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	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.02	0.03	0.02	0.01	0.03	0.01	0.01	0.02	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.35	10.25
(4.25-4.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.00	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.15	10.40
(4.75-5.25)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	10.46
(5.25-5.75)	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	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	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	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	0.00	0.00	0.02	10.47
(5.75-6.25)	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	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	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	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	0.00	0.00	0.01	10.48
(6.25-6.75)	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	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	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	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	0.00	0.00	0.00	10.48
(6.75-7.25)	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	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	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	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	0.00	0.00	0.00	10.48
(7.25-7.75)	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	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	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	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	0.00	0.00	0.00	10.48
(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	10.49
(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	10.49
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	10.49
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	10.49
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	10.49
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	10.49
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	10.49
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	10.49
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	10.49
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	10.49
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	10.49
sum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.16	0.53	0.98	1.05	1.60	1.20	0.83	0.37	0.36	0.41	0.35	0.32	0.27	0.29	0.29	0.27	0.18	0.17	0.13	0.18	0.10	0.10	0.14	0.03	0.05	0.03	0.03	0.02	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.19	0.73	1.71	2.76	4.35	5.55	6.38	6.75	7.11	7.52	7.87	8.18	8.45	8.73	9.02	9.29	9.47	9.65	9.77	9.95	10.05	10.15	10.29	10.32	10.37	10.40	10.43	10.45	10.46	10.46	10.47	10.47	10.47	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.48	10.49			

IDEA-IRL WP1 D1B

Vhub 19 - 21 m/s		Tp (s)																																																					sum	cumulative sum
		(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
Hs (m)	(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
	(0.25-0.75)	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	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	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	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	0.00	0.00	0.00	0.00
	(0.75-1.25)	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	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	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	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	0.00	0.00	0.02	0.02
	(1.25-1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.03	0.02	0.02	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	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	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	0.00	0.11	0.13
	(1.75-2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.16	0.23	0.32	0.09	0.03	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.92	1.04
	(2.25-2.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.08	0.49	0.59	0.26	0.06	0.03	0.04	0.02	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72	2.77
	(2.75-3.25)	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	0.06	0.27	0.40	0.17	0.12	0.10	0.06	0.05	0.03	0.03	0.03	0.03	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.46	4.23
	(3.25-3.75)	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	0.01	0.03	0.13	0.08	0.11	0.12	0.09	0.07	0.05	0.05	0.04	0.04	0.02	0.03	0.01	0.03	0.02	0.01	0.02	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	5.22
	(3.75-4.25)	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	0.00	0.01	0.01	0.02	0.04	0.05	0.05	0.04	0.05	0.04	0.04	0.03	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49	5.70
	(4.25-4.75)	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	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	5.93
	(4.75-5.25)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	6.03
	(5.25-5.75)	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	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	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	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	0.00	0.00	0.03	6.06
	(5.75-6.25)	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	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	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	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	0.00	0.00	0.01	6.07
	(6.25-6.75)	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	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	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	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	0.00	0.00	0.00	6.08
	(6.75-7.25)	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	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	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	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	0.00	0.00	0.00	6.08
	(7.25-7.75)	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	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	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	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	0.00	0.00	0.00	6.08
	(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	6.08
	(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	6.08
	(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	6.08
	(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	6.08
	(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	6.08
	(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	6.08
	(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	6.08
	(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	6.08
	(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	6.08
	(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	6.08
	(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	6.08
	sum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.08	0.22	0.34	0.90	0.99	0.83	0.34	0.30	0.31	0.24	0.21	0.15	0.19	0.15	0.16	0.11	0.09	0.06	0.11	0.06	0.05	0.07	0.02	0.03	0.02	0.02	0.00	0.01	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	0.00	0.00	0.00		
	cumulative sum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.09	0.31	0.65	1.55	2.54	3.37	3.72	4.02	4.33	4.57	4.77	4.93	5.11	5.26	5.42	5.53	5.62	5.67	5.78	5.84	5.90	5.96	5.99	6.02	6.03	6.05	6.06	6.06	6.07	6.07	6.07	6.07	6.07	6.07	6.07	6.07	6.07	6.07	6.07	6.07	6.07	6.08	6.08		

Vhub 21 - 23 m/s

Tp (s)

Hs (m)	(0 - 0.25)	(0.25 - 0.75)	(0.75 - 1.25)	(1.25 - 1.75)	(1.75 - 2.25)	(2.25 - 2.75)	(2.75 - 3.25)	(3.25 - 3.75)	(3.75 - 4.25)	(4.25 - 4.75)	(4.75 - 5.25)	(5.25 - 5.75)	(5.75 - 6.25)	(6.25 - 6.75)	(6.75 - 7.25)	(7.25 - 7.75)	(7.75 - 8.25)	(8.25 - 8.75)	(8.75 - 9.25)	(9.25 - 9.75)	(9.75 - 10.25)	(10.25 - 10.75)	(10.75 - 11.25)	(11.25 - 11.75)	(11.75 - 12.25)	(12.25 - 12.75)	(12.75 - 13.25)	(13.25 - 13.75)	(13.75 - 14.25)	(14.25 - 14.75)	(14.75 - 15.25)	(15.25 - 15.75)	(15.75 - 16.25)	(16.25 - 16.75)	(16.75 - 17.25)	(17.25 - 17.75)	(17.75 - 18.25)	(18.25 - 18.75)	(18.75 - 19.25)	(19.25 - 19.75)	(19.75 - 20.25)	(20.25 - 20.75)	(20.75 - 21.25)	(21.25 - 21.75)	(21.75 - 22.25)	(22.25 - 22.75)	(22.75 - 23.25)	(23.25 - 23.75)	(23.75 - 24.25)	(24.25 - 24.75)	(24.75 - 25.25)	(25.25 - 25.75)	(25.75 - 26.25)	(26.25 - 26.75)	sum	cumulative sum
(0 - 0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25 - 0.75)	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	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	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	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	0.00	0.00	0.00	0.00
(0.75 - 1.25)	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	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	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	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	0.00	0.00	0.02	0.02
(1.25 - 1.75)	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	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	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	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	0.00	0.00	0.01	0.03
(1.75 - 2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.02	0.04	0.02	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.16
(2.25 - 2.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.23	0.25	0.08	0.01	0.00	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.83
(2.75 - 3.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.06	0.29	0.42	0.12	0.05	0.03	0.02	0.01	0.01	0.01	0.01	0.01	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	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	0.00	0.00	0.00	1.06	1.89
(3.25 - 3.75)	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	0.05	0.19	0.15	0.19	0.14	0.06	0.03	0.02	0.02	0.02	0.02	0.01	0.01	0.00	0.01	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	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	0.93	2.82
(3.75 - 4.25)	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	0.00	0.03	0.04	0.08	0.10	0.07	0.06	0.04	0.04	0.03	0.03	0.02	0.02	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	3.40
(4.25 - 4.75)	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	0.00	0.00	0.00	0.02	0.03	0.04	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	3.74
(4.75 - 5.25)	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	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16	3.90
(5.25 - 5.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.00	0.01	0.00	0.01	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	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	0.07	3.97
(5.75 - 6.25)	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	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	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	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	0.00	0.00	0.03	3.99
(6.25 - 6.75)	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	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	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	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	0.00	0.00	0.01	4.00
(6.75 - 7.25)	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	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	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	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	0.00	0.00	0.00	4.00
(7.25 - 7.75)	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	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	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	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	0.00	0.00	0.00	4.00
(7.75 - 8.25)	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	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	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	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	0.00	0.00	0.00	4.00
(8.25 - 8.75)	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	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	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	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	0.00	0.00	0.00	4.00
(8.75 - 9.25)	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	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	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	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	0.00	0.00	0.00	4.00
(9.25 - 9.75)	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	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	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	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	0.00	0.00	0.00	4.00
(9.75 - 10.25)	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	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	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	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	0.00	0.00	0.00	4.00
(10.25 - 10.75)	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	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	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	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	0.00	0.00	0.00	4.00
(10.75 - 11.25)	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	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	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	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	0.00	0.00	0.00	4.00
(11.25 - 11.75)	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	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	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	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	0.00	0.00	0.00	4.00
(11.75 - 12.25)	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	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	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	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	0.00	0.00	0.00	4.00
(12.25 - 12.75)	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	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	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	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	0.00	0.00	0.00	4.00
(12.75 - 13.25)	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	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	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	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	0.00	0.00	0.00	4.00
sum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.08	0.35	0.61	0.73	0.33	0.35	0.32	0.19	0.16	0.12	0.12	0.10	0.11	0.08	0.07	0.04	0.05	0.03	0.02	0.04	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00		
cumulative sum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.05	0.13	0.48	1.09	1.81	2.14	2.49	2.81	3.01	3.17	3.29	3.42	3.52	3.63	3.70	3.77	3.81	3.86	3.90	3.92	3.96	3.96	3.98	3.98	3.99	3.99	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00		

IDEA-IRL WP1 D1B

Vhub 23 - 25 m/s — Tp (s) scatter table, Hs (m) rows

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25-0.75)	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	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	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	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	0.00	0.00	0.00	0.00
(0.75-1.25)	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	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	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	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	0.00	0.00	0.01	0.01
(1.25-1.75)	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	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	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	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	0.00	0.00	0.00	0.01
(1.75-2.25)	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	0.00	0.01	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	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	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	0.02	0.03
(2.25-2.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.03	0.02	0.00	0.00	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.15
(2.75-3.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.13	0.14	0.03	0.02	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38	0.53
(3.25-3.75)	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	0.04	0.20	0.15	0.15	0.05	0.02	0.01	0.00	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.65	1.18
(3.75-4.25)	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	0.00	0.04	0.06	0.12	0.13	0.07	0.03	0.02	0.01	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.51	1.69
(4.25-4.75)	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	0.00	0.00	0.01	0.03	0.08	0.07	0.06	0.04	0.02	0.01	0.01	0.01	0.00	0.00	0.01	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	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	0.36	2.06
(4.75-5.25)	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	0.00	0.00	0.00	0.01	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.01	0.00	0.01	0.00	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	2.28
(5.25-5.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	2.41
(5.75-6.25)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.01	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	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	0.05	2.45
(6.25-6.75)	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	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	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	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	0.00	0.00	0.02	2.47
(6.75-7.25)	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	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	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	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	0.00	0.00	0.00	2.47
(7.25-7.75)	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	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	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	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	0.00	0.00	0.00	2.48
(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	2.48
(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	2.48
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	2.48
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	2.48
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	2.48
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	2.48
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	2.48
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	2.48
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	2.48
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	2.48
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	2.48
sum	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	0.01	0.08	0.22	0.41	0.25	0.32	0.29	0.19	0.14	0.10	0.08	0.07	0.07	0.05	0.03	0.02	0.03	0.02	0.02	0.02	0.00	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00		
cumulative sum	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	0.01	0.02	0.10	0.32	0.73	0.98	1.30	1.60	1.79	1.92	2.02	2.10	2.18	2.25	2.30	2.33	2.35	2.38	2.40	2.42	2.44	2.45	2.45	2.46	2.46	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.47	2.48		

53

Vhub 25 - 27 m/s

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0 - 0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25 - 0.75)	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	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	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	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	0.00	0.00	0.00	0.00
(0.75 - 1.25)	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	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	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	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	0.00	0.00	0.01	0.01
(1.25 - 1.75)	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	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	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	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	0.00	0.00	0.00	0.01
(1.75 - 2.25)	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	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	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	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	0.00	0.00	0.00	0.01
(2.25 - 2.75)	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	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	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	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	0.00	0.00	0.02	0.03
(2.75 - 3.25)	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	0.01	0.03	0.02	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.11
(3.25 - 3.75)	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	0.00	0.02	0.09	0.05	0.03	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.33
(3.75 - 4.25)	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	0.00	0.00	0.04	0.06	0.11	0.07	0.02	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.64
(4.25 - 4.75)	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	0.00	0.01	0.01	0.05	0.13	0.06	0.04	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.98
(4.75 - 5.25)	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	0.00	0.00	0.01	0.05	0.06	0.05	0.04	0.02	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.25	1.23
(5.25 - 5.75)	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	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.03	0.02	0.01	0.01	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	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	0.00	0.00	0.16	1.39
(5.75 - 6.25)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.02	0.01	0.01	0.00	0.01	0.00	0.00	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	1.49
(6.25 - 6.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01	0.01	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	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	0.00	0.00	0.05	1.54
(6.75 - 7.25)	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	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	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	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	0.00	0.00	0.02	1.55
(7.25 - 7.75)	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	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	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	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	0.00	0.00	0.01	1.56
(7.75 - 8.25)	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	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	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	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	0.00	0.00	0.00	1.56
(8.25 - 8.75)	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	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	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	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	0.00	0.00	0.00	1.56
(8.75 - 9.25)	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	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	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	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	0.00	0.00	0.00	1.56
(9.25 - 9.75)	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	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	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	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	0.00	0.00	0.00	1.56
(9.75 - 10.25)	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	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	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	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	0.00	0.00	0.00	1.56
(10.25 - 10.75)	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	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	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	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	0.00	0.00	0.00	1.56
(10.75 - 11.25)	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	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	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	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	0.00	0.00	0.00	1.56
(11.25 - 11.75)	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	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	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	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	0.00	0.00	0.00	1.56
(11.75 - 12.25)	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	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	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	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	0.00	0.00	0.00	1.56
(12.25 - 12.75)	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	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	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	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	0.00	0.00	0.00	1.56
(12.75 - 13.25)	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	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	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	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	0.00	0.00	0.00	1.56
sum	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	0.01	0.06	0.16	0.13	0.21	0.27	0.15	0.12	0.09	0.07	0.07	0.06	0.03	0.02	0.01	0.03	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
cumulative sum	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	0.01	0.07	0.24	0.37	0.57	0.85	1.00	1.12	1.21	1.28	1.35	1.41	1.44	1.47	1.48	1.50	1.52	1.53	1.54	1.54	1.55	1.55	1.55	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56		

IDEA-IRL WP1 D1B

Vhub 27 - 29 m/s

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25-0.75)	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	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	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	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	0.00	0.00	0.00	0.00
(0.75-1.25)	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	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	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	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	0.00	0.00	0.00	0.00
(1.25-1.75)	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	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	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	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	0.00	0.00	0.00	0.00
(1.75-2.25)	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	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	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	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	0.00	0.00	0.00	0.00
(2.25-2.75)	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	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	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	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	0.00	0.00	0.00	0.01
(2.75-3.25)	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	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	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	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	0.00	0.00	0.01	0.01
(3.25-3.75)	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	0.00	0.01	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	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	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	0.02	0.04
(3.75-4.25)	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	0.00	0.01	0.01	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.09
(4.25-4.75)	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	0.00	0.00	0.01	0.03	0.03	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.19
(4.75-5.25)	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	0.00	0.00	0.01	0.03	0.03	0.02	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.30
(5.25-5.75)	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	0.00	0.00	0.00	0.01	0.02	0.02	0.02	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.39
(5.75-6.25)	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	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.44
(6.25-6.75)	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	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	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	0.00	0.00	0.00	0.00	0.00	0.05	0.49
(6.75-7.25)	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	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	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	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	0.00	0.00	0.02	0.51
(7.25-7.75)	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	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	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	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	0.00	0.00	0.01	0.52
(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	0.53
(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	0.53
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	0.53
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	0.53
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	0.53
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	0.53
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	0.53
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	0.53
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	0.53
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	0.53
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	0.53
sum	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	0.00	0.01	0.02	0.03	0.06	0.09	0.06	0.06	0.04	0.04	0.03	0.02	0.01	0.01	0.01	0.01	0.01	0.00	0.01	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
cumulative sum	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	0.00	0.01	0.03	0.06	0.12	0.21	0.27	0.33	0.37	0.41	0.44	0.47	0.48	0.49	0.49	0.50	0.51	0.51	0.52	0.52	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53		

55

IDEA-IRL WP1 D1B

Scatter table: Vhub 29 - 31 m/s, Hs (m) vs Tp (s)

Hs (m) \ Tp (s)	sum	cumulative sum
(0 - 0.25)	0.00	0.00
(0.25 - 0.75)	0.00	0.00
(0.75 - 1.25)	0.00	0.00
(1.25 - 1.75)	0.00	0.00
(1.75 - 2.25)	0.00	0.00
(2.25 - 2.75)	0.00	0.00
(2.75 - 3.25)	0.00	0.00
(3.25 - 3.75)	0.00	0.00
(3.75 - 4.25)	0.01	0.02
(4.25 - 4.75)	0.02	0.03
(4.75 - 5.25)	0.03	0.07
(5.25 - 5.75)	0.04	0.11
(5.75 - 6.25)	0.03	0.14
(6.25 - 6.75)	0.03	0.17
(6.75 - 7.25)	0.02	0.19
(7.25 - 7.75)	0.01	0.20
(7.75 - 8.25)	0.01	0.21
(8.25 - 8.75)	0.00	0.21
(8.75 - 9.25)	0.00	0.21
(9.25 - 9.75)	0.00	0.21
(9.75 - 10.25)	0.00	0.21
(10.25 - 10.75)	0.00	0.21
(10.75 - 11.25)	0.00	0.21
(11.25 - 11.75)	0.00	0.21
(11.75 - 12.25)	0.00	0.21
(12.25 - 12.75)	0.00	0.21
(12.75 - 13.25)	0.00	0.21

Column headers (Tp, s): (0 - 0.25), (0.25 - 0.75), (0.75 - 1.25), (1.25 - 1.75), (1.75 - 2.25), (2.25 - 2.75), (2.75 - 3.25), (3.25 - 3.75), (3.75 - 4.25), (4.25 - 4.75), (4.75 - 5.25), (5.25 - 5.75), (5.75 - 6.25), (6.25 - 6.75), (6.75 - 7.25), (7.25 - 7.75), (7.75 - 8.25), (8.25 - 8.75), (8.75 - 9.25), (9.25 - 9.75), (9.75 - 10.25), (10.25 - 10.75), (10.75 - 11.25), (11.25 - 11.75), (11.75 - 12.25), (12.25 - 12.75), (12.75 - 13.25), (13.25 - 13.75), (13.75 - 14.25), (14.25 - 14.75), (14.75 - 15.25), (15.25 - 15.75), (15.75 - 16.25), (16.25 - 16.75), (16.75 - 17.25), (17.25 - 17.75), (17.75 - 18.25), (18.25 - 18.75), (18.75 - 19.25), (19.25 - 19.75), (19.75 - 20.25), (20.25 - 20.75), (20.75 - 21.25), (21.25 - 21.75), (21.75 - 22.25), (22.25 - 22.75), (22.75 - 23.25), (23.25 - 23.75), (23.75 - 24.25), (24.25 - 24.75), (24.75 - 25.25), (25.25 - 25.75), (25.75 - 26.25), (26.25 - 26.75)

Column sums (Tp): 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, 0.00, 0.00, 0.00, 0.00, 0.01, 0.01, 0.03, 0.03, 0.03, 0.02, 0.02, 0.02, 0.01, 0.01, 0.01, 0.00

Column cumulative sums (Tp): 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, 0.00, 0.00, 0.00, 0.00, 0.01, 0.02, 0.05, 0.08, 0.11, 0.13, 0.15, 0.17, 0.18, 0.19, 0.19, 0.20, 0.20, 0.20, 0.21

IDEA-IRL WP1 D1B

Scatter table — Vhub 31 - 33 m/s, Hs (m) vs Tp (s)

Hs (m) \ Tp (s)	(0-0.25) … (8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25) … (26.25-26.75)	sum	cumulative sum
(0 - 0.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(0.25 - 0.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(0.75 - 1.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(1.25 - 1.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(1.75 - 2.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(2.25 - 2.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(2.75 - 3.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(3.25 - 3.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(3.75 - 4.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(4.25 - 4.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01
(4.75 - 5.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02
(5.25 - 5.75)	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.04
(5.75 - 6.25)	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.03	0.07
(6.25 - 6.75)	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.02	0.09
(6.75 - 7.25)	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	0.11
(7.25 - 7.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.12
(7.75 - 8.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.13
(8.25 - 8.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
(8.75 - 9.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13
(9.25 - 9.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
(9.75 - 10.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
(10.25 - 10.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
(11.25 - 11.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
(11.75 - 12.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
(12.25 - 12.75)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
(12.75 - 13.25)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14
sum	0.00	0.01	0.01	0.01	0.02	0.02	0.01	0.02	0.01	0.00		
cumulative sum	0.00	0.01	0.01	0.02	0.04	0.06	0.08	0.09	0.10	0.11 … 0.14		

Note: All Tp columns not listed above (from (0-0.25) through (8.25-8.75) and from (12.75-13.25) through (26.25-26.75)) contain 0.00 values.

Vhub 33 - 35 m/s — Tp (s)

Hs (m)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-5.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25-0.75)	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	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	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	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	0.00	0.00	0.00	0.00
(0.75-1.25)	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	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	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	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	0.00	0.00	0.00	0.00
(1.25-1.75)	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	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	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	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	0.00	0.00	0.00	0.00
(1.75-2.25)	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	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	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	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	0.00	0.00	0.00	0.00
(2.25-2.75)	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	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	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	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	0.00	0.00	0.00	0.00
(2.75-3.25)	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	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	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	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	0.00	0.00	0.00	0.00
(3.25-3.75)	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	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	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	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	0.00	0.00	0.00	0.00
(3.75-4.25)	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	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	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	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	0.00	0.00	0.00	0.00
(4.25-4.75)	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	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	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	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	0.00	0.00	0.00	0.00
(4.75-5.25)	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	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	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	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	0.00	0.00	0.00	0.00
(5.25-5.75)	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	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	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	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	0.00	0.00	0.00	0.01
(5.75-6.25)	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	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	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	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	0.00	0.00	0.00	0.01
(6.25-6.75)	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	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	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	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	0.00	0.00	0.01	0.02
(6.75-7.25)	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	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	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	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	0.00	0.00	0.01	0.02
(7.25-7.75)	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	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	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	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	0.00	0.00	0.01	0.03
(7.75-8.25)	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	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	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	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	0.00	0.00	0.01	0.04
(8.25-8.75)	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	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	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	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	0.00	0.00	0.01	0.04
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	0.04
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	0.04
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	0.04
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	0.04
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	0.04
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	0.04
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	0.04
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	0.04
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	0.04
sum	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	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	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	0.00	0.00	0.00	0.00		
cumulative sum	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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04		

IDEA-IRL WP1 D1B

Vhub 35 - 37 m/s — Tp (s)

The following is a scatter table of Hs (m) versus Tp (s). All interior data cells are 0.00. The column headers (Tp bins, s) are:

(0-0.25), (0.25-0.75), (0.75-1.25), (1.25-1.75), (1.75-2.25), (2.25-2.75), (2.75-3.25), (3.25-3.75), (3.75-4.25), (4.25-4.75), (4.75-5.25), (5.25-5.75), (5.75-6.25), (6.25-6.75), (6.75-7.25), (7.25-7.75), (7.75-8.25), (8.25-8.75), (8.75-9.25), (9.25-9.75), (9.75-10.25), (10.25-10.75), (10.75-11.25), (11.25-11.75), (11.75-12.25), (12.25-12.75), (12.75-13.25), (13.25-13.75), (13.75-14.25), (14.25-14.75), (14.75-15.25), (15.25-15.75), (15.75-16.25), (16.25-16.75), (16.75-17.25), (17.25-17.75), (17.75-18.25), (18.25-18.75), (18.75-19.25), (19.25-19.75), (19.75-20.25), (20.25-20.75), (20.75-21.25), (21.25-21.75), (21.75-22.25), (22.25-22.75), (22.75-23.25), (23.25-23.75), (23.75-24.25), (24.25-24.75), (24.75-5.25), (25.25-25.75), (25.75-26.25), (26.25-26.75), sum, cumulative sum

Hs (m)	... data (all 0.00) ...	sum	cumulative sum
(0-0.25)	0.00 (all cells)	0.00	0.00
(0.25-0.75)	0.00 (all cells)	0.00	0.00
(0.75-1.25)	0.00 (all cells)	0.00	0.00
(1.25-1.75)	0.00 (all cells)	0.00	0.00
(1.75-2.25)	0.00 (all cells)	0.00	0.00
(2.25-2.75)	0.00 (all cells)	0.00	0.00
(2.75-3.25)	0.00 (all cells)	0.00	0.00
(3.25-3.75)	0.00 (all cells)	0.00	0.00
(3.75-4.25)	0.00 (all cells)	0.00	0.00
(4.25-4.75)	0.00 (all cells)	0.00	0.00
(4.75-5.25)	0.00 (all cells)	0.00	0.00
(5.25-5.75)	0.00 (all cells)	0.00	0.00
(5.75-6.25)	0.00 (all cells)	0.00	0.00
(6.25-6.75)	0.00 (all cells)	0.00	0.00
(6.75-7.25)	0.00 (all cells)	0.00	0.00
(7.25-7.75)	0.00 (all cells)	0.00	0.00
(7.75-8.25)	0.00 (all cells)	0.00	0.00
(8.25-8.75)	0.00 (all cells)	0.00	0.00
(8.75-9.25)	0.00 (all cells)	0.00	0.01
(9.25-9.75)	0.00 (all cells)	0.00	0.01
(9.75-10.25)	0.00 (all cells)	0.00	0.01
(10.25-10.75)	0.00 (all cells)	0.00	0.01
(10.75-11.25)	0.00 (all cells)	0.00	0.01
(11.25-11.75)	0.00 (all cells)	0.00	0.01
(11.75-12.25)	0.00 (all cells)	0.00	0.01
(12.25-12.75)	0.00 (all cells)	0.00	0.01
(12.75-13.25)	0.00 (all cells)	0.00	0.01
sum	0.00 (all cells)	0.00	
cumulative sum	0.00 ... 0.00, then 0.01 repeating across the higher Tp columns		

Vhub 37 - 39 m/s

Hs (m) \ Tp (s)	(0-0.25)	(0.25-0.75)	(0.75-1.25)	(1.25-1.75)	(1.75-2.25)	(2.25-2.75)	(2.75-3.25)	(3.25-3.75)	(3.75-4.25)	(4.25-4.75)	(4.75-5.25)	(5.25-5.75)	(5.75-6.25)	(6.25-6.75)	(6.75-7.25)	(7.25-7.75)	(7.75-8.25)	(8.25-8.75)	(8.75-9.25)	(9.25-9.75)	(9.75-10.25)	(10.25-10.75)	(10.75-11.25)	(11.25-11.75)	(11.75-12.25)	(12.25-12.75)	(12.75-13.25)	(13.25-13.75)	(13.75-14.25)	(14.25-14.75)	(14.75-15.25)	(15.25-15.75)	(15.75-16.25)	(16.25-16.75)	(16.75-17.25)	(17.25-17.75)	(17.75-18.25)	(18.25-18.75)	(18.75-19.25)	(19.25-19.75)	(19.75-20.25)	(20.25-20.75)	(20.75-21.25)	(21.25-21.75)	(21.75-22.25)	(22.25-22.75)	(22.75-23.25)	(23.25-23.75)	(23.75-24.25)	(24.25-24.75)	(24.75-25.25)	(25.25-25.75)	(25.75-26.25)	(26.25-26.75)	sum	cumulative sum
(0-0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25-0.75)	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	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	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	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	0.00	0.00	0.00	0.00
(0.75-1.25)	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	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	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	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	0.00	0.00	0.00	0.00
(1.25-1.75)	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	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	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	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	0.00	0.00	0.00	0.00
(1.75-2.25)	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	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	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	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	0.00	0.00	0.00	0.00
(2.25-2.75)	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	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	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	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	0.00	0.00	0.00	0.00
(2.75-3.25)	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	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	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	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	0.00	0.00	0.00	0.00
(3.25-3.75)	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	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	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	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	0.00	0.00	0.00	0.00
(3.75-4.25)	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	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	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	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	0.00	0.00	0.00	0.00
(4.25-4.75)	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	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	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	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	0.00	0.00	0.00	0.00
(4.75-5.25)	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	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	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	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	0.00	0.00	0.00	0.00
(5.25-5.75)	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	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	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	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	0.00	0.00	0.00	0.00
(5.75-6.25)	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	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	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	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	0.00	0.00	0.00	0.00
(6.25-6.75)	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	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	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	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	0.00	0.00	0.00	0.00
(6.75-7.25)	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	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	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	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	0.00	0.00	0.00	0.00
(7.25-7.75)	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	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	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	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	0.00	0.00	0.00	0.00
(7.75-8.25)	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	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	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	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	0.00	0.00	0.00	0.00
(8.25-8.75)	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	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	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	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	0.00	0.00	0.00	0.00
(8.75-9.25)	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	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	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	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	0.00	0.00	0.00	0.00
(9.25-9.75)	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	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	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	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	0.00	0.00	0.00	0.00
(9.75-10.25)	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	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	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	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	0.00	0.00	0.00	0.00
(10.25-10.75)	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	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	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	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	0.00	0.00	0.00	0.00
(10.75-11.25)	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	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	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	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	0.00	0.00	0.00	0.00
(11.25-11.75)	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	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	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	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	0.00	0.00	0.00	0.00
(11.75-12.25)	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	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	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	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	0.00	0.00	0.00	0.00
(12.25-12.75)	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	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	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	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	0.00	0.00	0.00	0.00
(12.75-13.25)	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	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	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	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	0.00	0.00	0.00	0.00
sum	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	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	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	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	0.00	0.00		
cumulative sum	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	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	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	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	0.00	0.00		

All data cells in the following scatter table (Hs (m) vs Tp (s), for Vhub 39 – 41 m/s) are 0.00. One cell, at Hs row (9.75 – 10.25) and Tp column (12.75 – 13.25), is highlighted in red but also reads 0.00.

Vhub 39 - 41 m/s / Hs (m) \ Tp (s)	(0 - 0.25)	(0.25 - 0.75)	(0.75 - 1.25)	(1.25 - 1.75)	(1.75 - 2.25)	(2.25 - 2.75)	(2.75 - 3.25)	(3.25 - 3.75)	(3.75 - 4.25)	(4.25 - 4.75)	(4.75 - 5.25)	(5.25 - 5.75)	(5.75 - 6.25)	(6.25 - 6.75)	(6.75 - 7.25)	(7.25 - 7.75)	(7.75 - 8.25)	(8.25 - 8.75)	(8.75 - 9.25)	(9.25 - 9.75)	(9.75 - 10.25)	(10.25 - 10.75)	(10.75 - 11.25)	(11.25 - 11.75)	(11.75 - 12.25)	(12.25 - 12.75)	(12.75 - 13.25)	(13.25 - 13.75)	(13.75 - 14.25)	(14.25 - 14.75)	(14.75 - 15.25)	(15.25 - 15.75)	(15.75 - 16.25)	(16.25 - 16.75)	(16.75 - 17.25)	(17.25 - 17.75)	(17.75 - 18.25)	(18.25 - 18.75)	(18.75 - 19.25)	(19.25 - 19.75)	(19.75 - 20.25)	(20.25 - 20.75)	(20.75 - 21.25)	(21.25 - 21.75)	(21.75 - 22.25)	(22.25 - 22.75)	(22.75 - 23.25)	(23.25 - 23.75)	(23.75 - 24.25)	(24.25 - 24.75)	(24.75 - 25.25)	(25.25 - 25.75)	(25.75 - 26.25)	(26.25 - 26.75)	sum	cumulative sum
(0 - 0.25)	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	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	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	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	0.00	0.00	0.00	0.00
(0.25 - 0.75)	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	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	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	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	0.00	0.00	0.00	0.00
(0.75 - 1.25)	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	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	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	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	0.00	0.00	0.00	0.00
(1.25 - 1.75)	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	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	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	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	0.00	0.00	0.00	0.00
(1.75 - 2.25)	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	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	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	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	0.00	0.00	0.00	0.00
(2.25 - 2.75)	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	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	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	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	0.00	0.00	0.00	0.00
(2.75 - 3.25)	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	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	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	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	0.00	0.00	0.00	0.00
(3.25 - 3.75)	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	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	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	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	0.00	0.00	0.00	0.00
(3.75 - 4.25)	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	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	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	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	0.00	0.00	0.00	0.00
(4.25 - 4.75)	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	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	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	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	0.00	0.00	0.00	0.00
(4.75 - 5.25)	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	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	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	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	0.00	0.00	0.00	0.00
(5.25 - 5.75)	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	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	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	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	0.00	0.00	0.00	0.00
(5.75 - 6.25)	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	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	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	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	0.00	0.00	0.00	0.00
(6.25 - 6.75)	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	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	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	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	0.00	0.00	0.00	0.00
(6.75 - 7.25)	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	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	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	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	0.00	0.00	0.00	0.00
(7.25 - 7.75)	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	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	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	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	0.00	0.00	0.00	0.00
(7.75 - 8.25)	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	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	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	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	0.00	0.00	0.00	0.00
(8.25 - 8.75)	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	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	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	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	0.00	0.00	0.00	0.00
(8.75 - 9.25)	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	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	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	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	0.00	0.00	0.00	0.00
(9.25 - 9.75)	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	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	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	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	0.00	0.00	0.00	0.00
(9.75 - 10.25)	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	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	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	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	0.00	0.00	0.00	0.00
(10.25 - 10.75)	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	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	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	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	0.00	0.00	0.00	0.00
(10.75 - 11.25)	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	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	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	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	0.00	0.00	0.00	0.00
(11.25 - 11.75)	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	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	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	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	0.00	0.00	0.00	0.00
(11.75 - 12.25)	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	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	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	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	0.00	0.00	0.00	0.00
(12.25 - 12.75)	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	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	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	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	0.00	0.00	0.00	0.00
(12.75 - 13.25)	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	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	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	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	0.00	0.00	0.00	0.00
sum	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	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	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	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	0.00	0.00		
cumulative sum	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	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	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	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	0.00	0.00		